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

-Assistance for Stable Power in the Southern Indian State of Tamil Nadu-

Today, the Japan International Cooperation Agency (JICA) signed Japanese ODA loan agreements with the Government of India to provide loans of up to a total of 98.338 billion ven for two projects.

Since economic reform began in 1991, India has achieved rapid economic growth, particularly from 2003. The first quarter of 2012 (January to March) saw a real GDP increase of only 5.3 percent compared with the previous year, and the Second quarter (April to June) saw 5.5 percent over the previous year.

On July 31 and August 1, massive blackout happened in Northern India includes the capital of Delhi, and affected 600 million people. This incident shows Urgent needs to improve infrastructure for sustained economic growth.

In its Eleventh Five Year Plan (fiscal years 2007 to 2011) for national development, the Government of India set an objective of "faster and inclusive growth," aiming to expand the economy through faster growth and ensure all citizens reap the benefits of that growth. In the subsequent Twelfth Five Year Plan (fiscal years 2012 to 2016), the government has set a course of stronger policies in a similar vein with the objective of "faster, sustainable and more inclusive growth."

Based on this course of action for the Government of India, the signed Japanese ODA loans have the following characteristics:

(1) Provide assistance using Japanese technology to solve urbanization problems in India

With rapid population growth accompanying economic development, the major urban areas in India face a number of problems. The Tamil Nadu Transmission System Improvement Project will provide assistance for power transmission network improvements to increase the power transmission capacity in State of Tamil Nadu, including Chennai where many Japanese companies have operations. The project will install transmission lines with low transmission loss and underground transmission lines that can be brought into dense urban areas, both excellent Japanese technologies, to develop a power transmission network that is more efficient and reduces carbon dioxide emissions.

(2) Improve access to safe water for inclusive growth

Located in Northwestern India, State of Rajasthan has an annual rainfall of 531 millimeters, less than half the national average in India (1,200 millimeters), and there is a chronic water shortage. One of the districts in State of Rajasthan with the most severe water shortages is Nagaur, where the underground water contains excess of fluoride, causing health problems such as dental and skeletal fluorosis among residents. The Rajasthan Rural Water Supply and Fluorosis Mitigation Project (Nagaur) will construct water supply facilities for safe water.

The year 2012 is the 60th anniversary of the establishment of diplomatic relations between Japan and India. More than 800 Japanese companies currently have business operations in India, about twice the number four years ago, showing how the relationship between Japan and India has dramatically strengthened in recent years. For its overseas development assistance to India, JICA, in providing assistance along with the Twelfth Five Year Plan, is coordinating its three schemes of Yen Ioan, Technical Cooperation and Grant Aid to continue to work dynamically for economic growth and inclusively for poverty reduction in India.

### Reference

### 1. Terms and Amounts of Loan

Project title	Amount (million yen)	Annual interest rate (%)		Demonstrat	Orrest Devied	
		Project	Consulting services	(years)	(years)	Procurement
Tamil Nadu Transmission System Improvement Project	60,740	0.55*	0.01	30	10	General Untied
Rajasthan Rural Water Supply and Fluorosis Mitigation Project (Nagaur)	37,598	1.40	0.01	30	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% per year with a repayment period of 40 years and a deferment period of 10 years

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

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

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

# 2. Project Summaries

# (1) Tamil Nadu Transmission System Improvement Project

(a) Background and Necessity

Because of the rapid economic growth of recent years, India has become the fifth largest consumer of energy in the world, and the capacity to supply electric power has not kept up with the expanding demand. The country also has supply problems such as a high rate of power transmission and distribution loss (the national average was 25.5 percent in fiscal year 2010) and frequent power outages.

The State of Tamil Nadu is a part of "the Chennai-Bengaluru Industrial Corridor (CBIC)" initiative by the governments of Japan and India. 286 Japanese companies have offices in the state, particularly in the state capital of Chennai, as of October 2011, and are expected to increase. Power infrastructure including transmission system is still not enough to meet emerging needs of power, and cause power outages frequently. To improve this situation, the Japan Chamber of Commerce and Industry in Chennai submitted a suggestion to the State Government of Tamil Nadu toward establishing a stable power supply in October 2011. The state is planning to increase generation capacity by 16,000 MW by 2017 to meet future increases in power demand and to improve the power supply, currently lagging behind demand by more than 8 percent per year. Improvements of transmission system are urgently needed to ensure stable system operation and power supply in the southern region.

### (b) Objective and Summary

Under the Tamil Nadu Transmission System Improvement Project, transmission lines and sub stations will be constructed throughout the State of Tamil Nadu in Southern India, including Chennai area, to stabilize the power system, reduce transmission loss, and ensure a stable supply of power, thereby contributing to stable power supply which promotes economic growth in the State. The loan funds will be allocated to constructing and reinforcing transmission system.



Signing ceremony

### (c) Executing agency Tamil Nadu Transmission Corporation Limited Address: 10th Floor, NPKRR Maaligai, 144, Anna Salai, Chennai-600 002, India Phone: +91 (44) 2852-1378, fax: +91 (44) 2855-5539

(d) Planned implementation schedule

(i) Completion of project: October 2016 – when the facilities are put into service
(ii) Issuing of letters of invitation for consulting services (including construction monitoring): October 2012
(iii) Tender announcement of initial procurement package for international competitive bidding on project construction: Procurement package titles: Construction of Substations and Transmission Lines
Release date: October 2012

# (2) Rajasthan Rural Water Supply and Fluorosis Mitigation Project (Nagaur)

### (a) Background and Necessity

In India, the ratio of people who have access to safe water has improved from 72 percent in 1990 to 88 percent in 2008. Steady progress has been made toward the objective of providing sustainable access to drinking water throughout India. However, development of water source and water supply facilities has not kept up with the rise in water demand associated with the population growth and economic development. This results in excess dependency on groundwater, and discontinuous and unstable water supply is a constant challenge. Furthermore, in some areas, the groundwater contains substances harmful to the human body such as fluoride and arsenic, greatly exceeding the standard provided by the World Health Organization (WHO) Guidelines for drinking water quality.

Located in Northwestern India, State of Rajasthan has an annual rainfall of 531 millimeters, less the national average in India (1,200 millimeters). The groundwater has been over exploited due to the limited availability of surface water, resulting in a chronic ground water shortage. In Nagaur District (population: approximately 3.31 million) of State of Rajasthan, the main source of water supply is groundwater which invariably does not conform to WHO standards as it contains excess of fluoride. Despite its unsuitability, residents are force to use the groundwater for drinking due to a lack of other water resources, resulting in problems such as dental and skeletal fluorosis among them. A survey in 2010 found that approximately 34 percent of children in the district between the ages of six and fourteen had fluorosis. About 80 percent of the population in the district does not have access to safe water, placing the district as having one of the most dire water shortages in the state.

#### (b) Objective and Summary

Under Rajasthan Rural Water Supply and Fluorosis Mitigation Project (Nagaur), water supply facilities will be constructed that use water drawn from the Indira Gandhi Canal and fluorosis mitigation measures will be implemented to people in Nagaur District. The project will provide safe and adequate drinking water supply to people suffering from acute scarcity of potable water and ground water which is heavily contaminated by fluoride, thereby reducing hardship and improving the health and guality of life.

Loan funds will be allocated to constructing water supply facilities, implementing awareness campaign and strengthening the diagnosis capacity of medical personnel, as well as being allocated to consulting services.

(c) Executing agency Public Health Engineering Department (PHED), Government of Rajasthan Address: Jal Bhawan, 2, Civil Lines, Jaipur, Rajasthan, 302006, India Phone: +91 (141) 222-2337, fax: +91 (141) 222-2585

(d) Planned implementation schedule

(i) Completion of project: May 2017 – when the facilities are put into service

(ii) Issuing of letters of invitation for consulting services (including construction monitoring): November 2012

(iii) Tender announcement of initial procurement package for international competitive bidding on project construction:

Procurement package titles: Construction of Water Treatment Plant, Transmission Main and Introduction of SCADA System

Release date: November 2013