

JICA signs Japanese ODA Loan Agreements with India in First Half of Fiscal 2008 Promoting Indian Efforts to Fight Climate Change

JICA President Sadako Ogata signed Japanese ODA loan agreements on November 21 2008, with the Indian government to finance four projects providing totaling up to 99,019 million yen as of the first half batch of fiscal 2008.[1]

When India began implementing economic reforms in 1991, it began achieving annual economic growth rates between 5 and 8%, which subsequently leapt to 9% after 2005, bringing much attention to India as a member of the BRIC countries—which also include Brazil, Russia and China—for its remarkable growth. Meanwhile, population increases and advancing industrialization have aggravated such problems as growing energy consumption, shrinking forests, and urban air pollution. In light of these circumstances, the Government of India has prioritized improving energy efficiency and environmental preservation as one of its pivotal development themes in its 11th five-year plan (April 2007 to March 2012) in order to sustain poverty reduction and economic growth efforts. With a huge India's population of 1.1 billion people, these issues will likely have a global impact, and they must be addressed on a global level.

Given these circumstances, these four yen loans, in light of the consensus on climate issues which were agreed on in July at this year's Toyako Summit, are focused on supporting efforts to fight climate fluctuation in India including improving energy efficiency and preserving forests. The characteristics of the four projects targeted in the loans are outlined below.

1. Promoting Energy Savings with Japan's Top Runner Method[2] Accompanying the rapid economic growth, energy consumption continues to increase in India; however, for the 90% of the factories that are micro, small, or medium in scale, the use of aging equipment translates to less efficient energy use than at larger companies, so that there is much room for improvement. **Micro, Small and Medium Enterprises Energy Saving Project** will adopt Japan's Top Runner Method, provide medium- and long-term investment capital needed for India's micro, small, and medium companies to implement energy-saving measures such as installing cutting-edge energy-saving equipments, and assist the development of energy-saving financial programs.
2. Supporting Frontline Staff in Forest Preservation Efforts
India's forest coverage sits at 23%, lower than the worldwide average of 30%. On top of that, the growing population and rapid increase in demand for lumber is leading to deforestation, unhealthy forests, and a diminished capacity of soil to retain water. This brings pressure on the daily lives of the poor whose livelihoods depend on the forest for obtaining products such as feed for livestock, firewood for fuel, and fruit for cash income. This in turn places a greater burden on the forest, resulting in a vicious circle. The **Capacity Development for Forest Management and Personnel Training Project** will provide support by improving the income of residents and stepping up effective forest preservation by increasing the capacity of the frontline staff of state forestry departments to manage forests as well as strengthening the management system to advance the participation of local residents who depend on the forest in their daily lives. It is hoped that by preserving forests, which serve as a carbon dioxide absorbing resource, this project will also play a part in fighting climate change. Further, technical assistance is being considered as a complementary project to boost the capacity of the central Indian government as well as state forestry management personnel.
3. Alleviating Congestion for Economic Development and Urban Improvement

In India's major cities, the use of automobiles, motorcycles, and scooters has grown quickly with rapid urbanization due to economic growth, worsening environmental problems caused by traffic congestion and exhaust gas. The following two projects will provide relief.

- **Chennai Metro Project**

Chennai (formerly known as Madras) is the economic and political center of southwest India. This project will provide convenient transportation for the area with a subway and elevated rail network to improve traffic congestion while reducing air pollution and the emission of greenhouse gases. Included in the project are accessibility concerns for senior citizens and the disabled: a universal design approach is planned to be incorporated into the design including accessible elevators, Braille-embossed surfaces, and adequate space to accommodate wheelchairs.

- **Hyderabad Outer Ring Road Project (Phase 2)**

Hyderabad is a major city of southern India. In the second phase of this project, a ring road will be constructed at the periphery of the urban area to stimulate the regional economy and alleviate congestion in the city core. Decreasing the congestion will decrease the greenhouse gases emitted by motor vehicles because of reduced idling time. Moreover, an intelligent traffic system (ITS)[3] will be installed, which is expected to add to the effectiveness of this project by raising the traffic network efficiency across the entire metropolitan area.

To ensure the outcomes of the investments can be sustained, the projects supported by these Japanese ODA loans are planned to promote intellectual cooperation in a variety of forms, examples of which are as follow:

- **Micro, Small and Medium Enterprises Energy Saving Project** This project will put to use the expertise of the financial programs that provide backing for energy saving efforts, supporting the creation of a list of energy-saving equipments that are eligible for financial assistance while strengthening the capability of financial institutions to evaluate loan applications for energy-saving projects. A further matter under consideration is support for financed projects to file a clean development mechanism (CDM) application.
- **Chennai Metro Project and Hyderabad Outer Ring Road Project (Phase 2) HIV/AIDS prevention program** will be implemented including an educational campaign targeting the large number of lone itinerant laborers who will be employed by the projects to control the risk of HIV/AIDS infection.

This Japanese ODA loan program is the first to be approved since the new JICA was launched on October 1. Going forward, the new JICA will endeavor to provide assistance through three forms of assistance under a unified administration: technical assistance, Japanese ODA loans, and grant aid. In addition, JICA will implement its policy in India to expand support for important themes such as "Sustainable Growth through Economic Infrastructure," "Economic Growth accompanied with Employment generation," "Poverty Reduction," and "Environment and Climate Change Measures" as well as developing prompt and effective projects that will bring results and impacts to India's development.

(Click here for details.)

[1] In June 2007, the Japanese government announced less stringent policies on Japanese ODA loan reviews. Beginning last year, India followed suit, implementing as a general rule review procedures twice per year instead of once.

[2] A system in which the performance of the top performing product currently being developed in a given product category is used as the energy consumption standard. Examples where the Top Runner Method is applied include automobile fuel economy and electronic product energy consumption. This program was introduced in Japan in the revised Energy Conservation Act of 1999.

[3] The ITS refers to two systems: one that employs cutting-edge data communication technology to monitor traffic conditions including congestion and accidents as well as appropriately managing traffic flow, and the other that is an electronic toll collection system for expressway toll booths.

Reference

1. Loan Amount and Terms

Project Name	Loan amount (million yen)	Annual interest rate (%)		Repayment/deferment period (years)	Terms of procurement
		Project Work	Consulting Services		
Micro, Small and Medium Enterprises Energy Saving Project	30,000	0.30*	-	15/5*	General untied
Capacity Development for Forest Management and Personnel Training Project	5,241	0.55*	-	40/10*	
Chennai Metro Project	21,751	1.20	0.01	30/10	
Hyderabad Outer Ring Road Project (Phase 2)	42,027	1.20	0.01	30/10	
Total	99,019				

* Preferential terms are applied when environmental issues are involved in order to actively support developing countries tackling environmental problems.

(1) Micro, Small and Medium Enterprises Energy Saving Project

(a) Background and Necessity

Accompanying the rapid economic growth in India, energy consumption continues to rise, with India's primary energy consumption in 2005 being the fifth largest in the world after the US, China, Russia, and Japan. Improving the efficiency of energy use is urgently required in order to maintain a steady supply of energy while preserving the environment. An issue of particular concern in India is that 90% of the factories belong to micro, small, or medium enterprises, whose energy efficiency is poor due to aging equipment, so there is much room for improvement.

With regards to this problem, the Indian government is taking action, promoting the efficient use of energy by enacting the Energy Conservation Act and a general energy policy as well as facilitating preferential financing for micro, small, and medium companies through the enactment of the Micro, Small and Medium Enterprises Development Act. Among such smaller companies, however, not only is the ability to procure capital for energy-saving equipment limited, so are the technology and expertise for doing so, and general awareness of the importance of energy saving is not generally high, so that efforts to implement energy-saving measures have never proven adequate. For these reasons, supporting micro, small, and medium enterprises to implement energy-saving measures is a critical issue.

(b) Purpose and Description

One of the purposes of this project is to promote energy-saving measures among the end beneficiaries—micro, small, and medium enterprises—by providing them with the mid- and long-term financing necessary for energy-saving measures as well as supporting Small Industries Development Bank of India and other intermediary financial institutions in India—the organizations who will carry out the plan—by strengthening their capabilities to evaluate the loans for energy saving. Through this promotion of efficient energy use, the project will work toward its other goals of environmental improvement, sustainable economic development, and contributing to measures against climate changes affecting the globe. Small Industries Development Bank of India and other intermediary financial institutions will utilize their branch networks to support energy-saving measures on a nationwide scale. In Japan, there is a history of promoting energy-saving policies, which has resulted in a financial system keyed toward energy (including support for Top Runner device certification) that is promoted by policy-guided financial agencies. For that reason, this project will provide support to Small Industries Development Bank of India and other intermediary financial institutions in India to build on the Japanese experience in strengthening their ability to evaluate loans to micro, small and medium enterprises for energy-saving financing and to create and maintain a database of energy-saving equipments. In addition, a review is underway of a plan to file group CDM applications for projects receiving this financing and to provide support to enterprises to acquire the right to emit greenhouse gases.

Appropriation of this loan will be made to micro, small, and medium enterprises through Small Industries Development Bank of India.

Executing Agency

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(2) Capacity Development for Forest Management and Personnel Training Project

(a) Background and Necessity

With forests covering 23% of the country compared to the world average of 30%, India's coverage is scant, and moreover, deforestation is advancing due to the rapid growth in population and lumber demand, degrading the forests and lowering the capacity of soil to retain water. This brings pressure on the daily lives of the poor whose livelihoods depend on the forest as a source to obtain products such as feed for animals, firewood for fuel, and fruit for cash income. This in turn places a greater burden on the forest, resulting in a vicious circle.

Recognizing this, the Indian government adopted its Joint Forest Management (JFM) program in the 1990s with the object of more efficient forest management whereby residents who live near a forest work together to manage the forest. Forestry department employees are therefore called on to play a role in urging local residents to actively participate in forest preservation as well as spreading the technology necessary for forest preservation, but have not been able to do so because of insufficient training. In order to further promote this policy, human resources must be trained in sustainable forest management which requires the training programs for frontline staff of the state forest department to be improved as well as repairing and maintaining the aging training infrastructure required for necessary training.

(b) Purpose and Description

This purpose of this project is to provide a complete training program and educate human resources to provide sustainable forest management. This will be done by improving the training programs for frontline staff working in the forestry departments in 10 states as well as repairing aging training infrastructure and building new equipment to improve the abilities of frontline staff. The training program is planned to include the acquisition of practical techniques for developing participatory-type local development focusing on residents living near the forests. It is hoped that activities to create income for local residents and the formation of self-reliant groups carried out by local forestry personnel will improve the lives of the residents and preserve the forests. To complement this project, technical assistance is also being considered to boost the capacity of the central Indian government as well as state forestry management personnel.

This loan will be appropriated to the repair of training facilities as well as building new ones.

Executing Agency

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(3) Chennai Metro Project

(a) Background and Necessity

Chennai is the capital city of the State of Tamil Nadu and the focus of this project. It is the economic and political center of the southwest region of India as well as the gateway to the region, serving as the transportation and logistics base. Due to a rapid population increase in recent years, Chennai has become overpopulated, numbering among the densest cities in the world at 24,000 people/km². Along with the sudden urbanization has come a rapid increase in automobiles, motorcycles, and scooters. The chronic traffic congestion in the Chennai metropolis area is causing economic losses not only from the traffic problems themselves but worsening environmental conditions due to exhaust gas emitted by the vehicles. In order to alleviate the traffic congestion and at the same time decrease the air pollution caused by exhaust gas, a mass rapid transit system is necessary.

(b) Purpose and Description

This project will stimulate the regional economy and provide improvements to the urban environment by supporting the construction of approximately 45 km of subway and elevated trains in the Chennai metropolitan area. This will alleviate traffic congestion and decrease exhaust gas by creating a modal shift. Also expected is that the decrease in vehicular traffic will reduce the emissions of greenhouse gases.

For technical assistance, the Delhi Metro Rail Corporation (DMRC) is planned to be hired as a project consultant. As the agency implementing the "Delhi Mass Rapid Transport System Project," which is supported by Japanese ODA loans, the DMRC is well known for their expertise in India accumulated through their continued work on the Japanese ODA loan project. Based on their experience with that project, they will improve the safety and efficiency of the worksite through safety helmets and safety shoes as well as by implementing the principles of organization and control. They will also implement an HIV/AIDS prevention program in partnership with the Tamil Nadu State AIDS Control Society to control the risk of HIV/AIDS infection among the large number of itinerant workers on the project. Also planned is an approach incorporating universal design principles such as accessible elevators and Braille-embossed surfaces, adequate space to accommodate wheelchairs and other considerations for the elderly and disabled. This loan will be appropriated to items including civil work of subway, procurement of rolling stock, and consulting services.

Executing Agency

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(4) Hyderabad Outer Ring Road Project (Phase 2)

(a) Background and Necessity

The city of Hyderabad is the capital of the State of Andhra Pradesh in the south of India, located somewhat centrally with respect to the other major southern cities of India: Mumbai, Bangalore and Chennai. In recent years, Hyderabad has developed as a base for the IT and biotechnology industries, leading to a rapid increase in the human and vehicle population in the metropolitan area. The main trunk roads connecting the city to other major cities intersect radially at the city center, resulting in severe congestion where interurban traffic competes with cars and buses using the roads for destinations within the city. Given these circumstances, there is a pressing need to construct an outer ring road to promote the development of regions peripheral to the city and to decrease the number of vehicles passing through the city center, which will alleviate congestion and improve the city environment.

(b) Purpose and Description

This project will construct a 33-km ring road section and ancillary roads in the northeast section of the Hyderabad metropolitan area, responding to increasing road traffic demand while alleviating traffic congestion in the city core as well as helping to reduce greenhouse gas emissions due to reduced idling times.[1] In order to increase the development efficiency of this project, not only will the outer ring road be constructed, but major radial roads connected to the ring road will be widened, providing better access to the development areas planned along the ring road and its environs. Furthermore, an ITS will be installed on the major roads in the Hyderabad metropolitan area including the outer ring road to improve the efficiency of the road network overall.

However, because construction of the outer ring road will involve major construction using high numbers of lone itinerant laborers, consultants hired with this loan will work in partnership with local non-governmental organizations and health authorities to carry out labor hygiene and safety campaigns including HIV/AIDS prevention efforts with the object of controlling the risk of HIV/AIDS infection among workers.

This loan will be appropriated to the civil work of road construction and consulting services.

Executing Agency

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[1] For phase 1 of this project, funded by the Japanese ODA loan signed on March 2008, a 38-km outer ring road and ancillary roads will be constructed in the northwest section.