# Operations



Transport



Education & Healthcare



Transport photo courtesy: Shinichi Kuno Energy photo courtesy: Osamu Funao

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Photo courtesy: Mika Tanimoto

## Foreword

## Strengthening the cooperation between the two countries

I consider myself fortunate to have been serving as the Chief Representative of the Japan International Cooperation Agency (JICA) India Office when the partnership between India and Japan is strengthening further rapidly. India has achieved substantial economic growth over the last two decades, and holds the promise to be one of the fastest growing countries in the world, similar to Japan's experience in the 1960's and 70's.

JICA has been supporting economic growth, poverty reduction and environment conservation in India since 1958, with multi-faceted assistance that has included development of transport networks, water supply and sewerage systems, forest resources, power supply, agriculture productivity, universal healthcare and education, among others. Japan has recently announced its effort to realize 3.5 trillion yen (approximately Rs 2,10,000 crore) in public and private investment and financing, including Official Development Assistance, to India, over the next five years to support development of next-generation infrastructure, connectivity, transport systems, smart cities, rejuvenation of Ganga and other rivers, manufacturing, clean energy skill development, water security, food processing and agro industry, agricultural cold chain and rural development in India. JICA will contribute to this effort as much as possible.

JICA's policy is to align its projects and programs with the national development plan,

and within that framework contribute in areas where better results can be had by leveraging local knowledge, experience and technologies with that of Japan. The objective is to promote self-reliant, sustainable development through collaboration between government, academia and industry, and have the benefits of economic development spread widely among the population. Also, in the process of development, social considerations and environment conservation have to be given careful and due importance.

I believe India has been exemplary in showcasing to the world the path of 'development of a large population through a democratic system'. As a Japanese national, who has been a witness to a similar experience back in Japan, I sincerely expect that India would continue to move on the path of development to emerge as a strong economic system in the world and JICA would continue to work with the people of India in their quest for sustainable development.

Shinya Ejima Chief Representative JICA India Office

## JICA & ODA

## A bridge linking Japan with developing countries

#### **About JICA**

JICA is Japan's sole development assistance agency and, in accordance with its vision of "inclusive and dynamic development", supports the resolution of issues of developing countries by using the most suitable tools of various assistance methods such as Official Development Assistance (ODA) loans, technical cooperation and grant aid in an integrated manner.



Delhi Mass Rapid Transport System Project Photo courtesy: Shinichi Kuno



Orissa Forestry Sector Development Project



Bakreshwar Thermal Power Plant Project Photo courtesy: Osamu Funao

#### JICA's vision: Inclusive & dynamic development

"Inclusive development" represents an approach to development that encourages all people to recognize the development issues they themselves face, participate in addressing them, and enjoy the fruits of such endeavors. The role of JICA is to effectively provide backing for this process. "Dynamic development" refers to the creation of self-reinforcing virtuous cycles of mid-to long-term economic growth and poverty reduction in a constantly changing environment of developing countries where a variety of issues arise simultaneously and get entangled with each other. JICA will provide creative, highly effective support toward this end, at times moving swiftly and at times acting with the longer-term perspective as the situation calls for.

#### What is ODA?

Since 1954, Japan has been providing financial and technical assistance to developing countries through ODA, aiming to contribute to the peace and development of the international community.



Uttar Pradesh Participatory Forest Management and Poverty Alleviation Project



#### JICA is 'one stop shop' of Japan's bilateral ODA



Hyderabad Outer Ring Road Project



Enhancement of Open & Distance Learning at Indira Gandhi National Open University (IGNOU)

#### **ODA Loan**

ODA loans support developing countries above a certain income level by providing low-interest, long-term and concessional funds to finance their development efforts. ODA loans are used for large-scale infrastructure and other forms of development that require substantial funds.

#### **Grant Aid**

Grant aid is the provision of funds to developing countries without the obligation for repayment. Grant aid is used for development of social and economic infrastructure for basic human needs, such as construction of schools or hospitals, as well as education, children's health, the environment and other areas.

#### **Technical Cooperation**

For human resources development and formulation of administrative systems of developing countries, technical cooperation involves dispatch of experts, provision of necessary equipment and training of personnel from developing countries in Japan and other countries. Cooperation plans can be tailored to address a broad range of issues.

## JICA & India

#### JICA's presence in India for more than 50 years

Japan's ODA to India started in 1958, when a concessionary Japanese ODA loan of JPY 18 billion was extended to supplement the effort of implementing the Second Five Year Plan at the request of the then Prime Minister, Jawaharlal Nehru. India was then the first recipient of Japanese ODA loan in the world. In the last 50 years, more than JPY 4,000 billion ODA loans have been allocated for various sectors.

Technical cooperation with India started in 1966. One of the early instances was establishment of Indo-Japanese Agricultural Extension Centres across the country, in which the Japanese method of paddy cultivation was introduced and model farms were set up to contribute towards achieving food self-sufficiency in India. During the past 40 years, more than 6,800 Indian personnel have participated in training courses in Japan and more than 5,500 Japanese experts have come to India to offer their expertise.

Grant aid has also covered various areas in India, including construction of hospitals & health facilities, and providing equipment for educational institutions. Today, JICA is the world's largest bilateral aid agency and India is its largest development partner.

#### **Operations in India: FY 2013-14**

#### **ODA Loan**

Commitment: JPY 312 billion

(approx Rs 16,400 crore, largest among recipient countries)

Disbursement: JPY 145 billion (approx Rs 7,700 crore) No. of ongoing projects: **66** 

#### **Grant Aid**

JPY 1.49 billion (approx Rs 78 crore)

No of ongoing projects: 1

(approx Rs 7,700 crore

#### Technical Cooperation

JPY 348 billion (approx Rs 18,300 crore)

234 Indians visited Japan 659 Japanese experts dispatched to India (9th among recipient countries)

#### Citizen Participation

Japanese Volunteers: 8 ex Japanese Language

Japanese NGO activities: Working with Indian Partner: **3** 

#### JICA's assistance

Trends in ODA loan commitment for the past 10 years (FY 2004/05-2013/14)



\*The Great East Japan Earthquake occurred in FY2010 \*Currency rate JPY1.9/INR is applied for the sake of explanation

Trends in ODA loan commitment by sector (FY 2004/05-2013/14)



### Ongoing JICA projects in India: FY 2013-14

#### HIMACHAL PRADESH

- (L) Swan River Integrated Watershed Management Project
- (L) Himachal Pradesh Crop Diversification Promotion Project(T) Technical Cooperation Project for Crop Diversification in
- Himachal Pradesh

PUNJAB (L) Amritsar Sewerage Project

#### RAJASTHAN

- (L) Rajasthan Minor Irrigation Improvement Project
- (L) Rajasthan Forestry and Biodiversity Project
- (L) Rajasthan Rural Water Supply and Fluorosis Mitigation Project (Nagaur)
- (T) Capacity Development Project for Non Revenue Water Reduction
- in Jaipur

#### **GUJARAT**

(L) Gujarat Forestry Development Project

#### MAHARASHTRA

- (L) Ajanta Ellora Conservation and Tourism Development Project
- (L) Maharashtra Transmission System Project(L) Mumbai Metro Line 3

Project

- GOA
- (L) Goa Water Supply and Sewerage Project
- (T) Project for Capacity Development on Nom-revenue Water(NRW) reduction in Goa

#### KARNATAKA

- (L) Karnataka Sustainable Forest Management and Biodiversity Conservation Project
- (L) Bangalore water Supply and Sewerage Project
- (L) Bangalore Metro Rail Project
- (L) Bangalore Distribution Upgradation Project(T) Master Plan Study on Intelligent Transport
- System (ITS) in Bangaluru & Mysore

#### HARYANA

- (L) Haryana Transmission System
- Project (L) Haryana Distribution System
- Upgradation Project
- (L) Integrated Natural Resource
- Management and Poverty Reduction Project in Haryana

#### DELHI

- (L) Delhi Mass Rapid Transport System Project
- (L) Delhi Water Supply Improvement Project
- (T) The Assistance related to Delhi Water
  - Supply Improvement Project

#### MADHYA PRADESH

- ) Madhya Pradesh Transmission System Modernisation Project
- (T) Technical Cooperation Project on Maximizing Soybean products in Madhya Pradesh

#### TAMIL NADU

- (L) Tamil Nadu Investment Promotion Program
- (L) Tamil Nadu Afforestation Project
- (L) Hogenakkal Water Supply and Fuluorosis Mitigation Project
- (L) Tamil Nadu Urban Infrastructure Project
- (L) Chennai Metro Project
- (L) Tamil Nadu Biodiversity Conservation and Greening Project
   (L) Tamil Nadu Transmission System Improvement Project
- (G) The Project for Improvement of the Institute of Child Health and Hospital for Children, Chennai
- (T) JICA Experts on the Improvement of Chennai Port Operation Project

#### KERALA (L) Kerala Water Supply Project

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#### ANDHRA PRADESH / TELANGANA

- (L) Hussain Sagar Lake and Catchment Area Improvement Project
- (L) Transmission System Modernization and Strengthening Project in Hyderabad Metropolitan Area
- (L) Visakhapatnam Port Expansion Project
- (L) Andhra Pradesh & Telangana Irrigation and Livelihood Improvement Project
- (L) Hyderabad Outer Ring Road Project
- (L) Andhra Pradesh & Telangana Rural High Voltage Distribution System Project
- (L) Campus Development Project of Indian Institute of Technology, Hyderabad
- (T) Campus Design Project for Indian Institute of Technology, Hyderabad through Academic Exchange and Interdisciplinary Collaboration
- Project for Future Researchers at IIT Hyderabad to Enhance Network (T) Development with Scholarship of Japan (FRIENDSHIP)

#### Across various parts of India

- (L) Capacity Development for Forest Management and Personnel Training Project
- Micro, Small and Medium Enterprises Energy Saving Project (L)
- (L) New and Renewable Energy Development Project
- (L) Yamuna Action Plan Project
- (L) Dedicated Freight Corridor Project
- (T) Project for Information Network for Natural Disaster Mitigation and Recovery (DISANET)
- (T) Technical Advisor in the Sewerage Sector
- (T) Advisor on Infrastructure Development and Investment Promotion
- (T) Institutional development project on the Supervision for Highway and
- Expressway Operation, Maintenance and Management (T) Project on Champions for Societal Manufacturing (CSM)
- (T) Joint Feasibility Study for Mumbai Ahmedabad High Speed Railway Corridor
- (T) Comprehensive Integrated Master Plan Study for Chennai Bangaluru
- Industrial Corridor
- (T) Energy Conservation Techniques for India



- (T) Technical Cooperation Projects
- (L) Loan
- (G) Grant Aid



## Case Study Transport

#### Delhi Metro

India has been one of the fastest growing economies in the world. This economic growth has acted as a stimulus in migration of people to metros like Delhi, in search of better opportunities. In turn Delhi has been facing a vigorous increase in population over the years. The statistics reflect that from 16.8 million in 2011 the population is estimated to reach 23 million in 2021. This has the consequence of increased traffic congestion and a decrease in the average vehicle speed, contributing to vehicular pollution.

It is estimated that traffic congestion reduces local economic output by about 2%. An efficient public infrastructure provides foundation for social and economic development by facilitating flow of commerce, and is essential to increasing human productivity and sustaining growth. To address this need, the Delhi Development Authority and the Delhi Urban Art Commission proposed in 1984 development of a multi-modal transport system for the city. The proposal became the genesis for the Delhi Metro Rail Corporation (DMRC) set up in 1995 jointly by the Government of India and the Government of Delhi. Promotion of economic growth is one of the priorities for Japan as a means to promoting international cooperation, and the Japan International Cooperation Agency, JICA, lays emphasis on "promotion of sustainable growth through assistance for development of infrastructure", to energize socio economic activities and to ultimately improve income levels and enrich people's lives. Accordingly, JICA has extended "soft Ioan" for development of the Delhi Metro, to the tune of JPY 642.64 billion, approximately Rs 37,803 crore (as of September, 2014). The Ioan carries a concessional rate of interest of 1.2 to 2.3 per cent per annum, and repayment period of 30 years.

The Delhi Metro is being developed in phases: under the first and the second phases developed by 2011, 190 km serving 142 destinations in the city and its suburbs of Gurgaon, Noida, Ghaziabad and Faridabad were built. In the third phase to be developed by 2016, additional 116 km serving 76 destinations in the city and its suburbs would be added majorly under JICA assistance. Developing transport infrastructure goes beyond mere construction of roads, bridges and rail networks. It entails putting in place a plan for optimum and efficient utilization of the infrastructure system. For instance Metro works on the "Energy Saving Brake System", which saves the energy that's wasted by frequent stopping and starting of Metro. This energy can either be utilized immediately or stored until needed. Delhi Metro also has been recognized as the First Metro Project in the World registered with the "Prestigious Gold Standard Foundation for Its Energy Efficiency Measures". The energy efficiency measures have been undertaken primarily in the heating, venting and air conditioning (HVAC) systems, lighting system and other energy efficient measures of station buildings. In addition to energy conservation, water conservation with zero discharge concept, development and promotion of non-conventional energy, environment conservation measures are a few exceptional features, which are keeping Delhi Metro unique.

Additionally, a train control system featuring wireless communication technology is planned for installation by a Japanese company during the third phase of development of the Delhi Metro.

Delhi Metro has since earned a reputation for punctual service and is widely accepted as reliable form of public transportation. In Aug 2014 the number of people commuting daily on the Delhi Metro reached more than 2,700,000. The benefit of the Metro is exemplified by a commuter who lives in Ghaziabad and works in Gurgaon, about 40 km away, who said, "I wanted to take the opportunity of working in Gurgaon without upsetting my daughter's school environment in Ghaziabad. And commuting by car would have easily taken two hours one way, shortening productive labour time. Thanks to the metro my commuting time is much less, and I have been able to continue my



Photo courtesy: Mika Tanimoto

community life in Ghaziabad and avail of the opportunity of working in Gurgaon."

It is estimated that phase two alone of the Delhi Metro has made about 610 public transport buses redundant, resulting in a saving of Rs 89 crore towards capital and operating costs. Additionally under phase two alone of the Delhi Metro, a saving of about Rs 324 crore accrues from a reduction of private vehicles, a saving of about Rs 366 crore accrues from a reduction in fuel consumption, and a saving of Rs 165 crore accrues from reduction in investment in road infrastructure.

The success of the Delhi Metro is now being replicated in several cities including Mumbai, Bangalore, Chennai, Hyderabad and Kochi, among others for creation of urban centres that can generate a positive cycle of economic growth and enhanced standard of living, also underscoring utilization of the knowledge and experiences of Japanese society for the benefit of the international community.



Photo courtesy: Shinichi Kuno



Photo courtesy: Shinichi Kuno



## Case Study Forestry

#### OFSDP: Orissa Forestry Sector Development Project

A large population in India depends on forest timber for fuel and income. This results in unbridled cutting of forest trees, which in-turn causes degradation of soil and water conservation capacities of the ecosystem. Decrease in water tables leads to shortage of water for irrigation, which further increases the dependence of local communities on the forest timber, creating a vicious cycle.

#### Project concept

The Government of India has called for regeneration of degraded forests, through Joint Forest Management (JFM) in which local communities dependent on forest products for livelihood participate in forest conservation and develop alternative sources of income that are more remunerative.

#### The initiative in Odisha

In Odisha, forests cover about 31% of the state area. However, nearly half of the forest area has crown density of under 40% as a high proportion of local communities rely on forest products for livelihood. Odisha has therefore laid emphasis on the Joint Forest Management (JFM) mechanism to regenerate degraded forests and alleviate subsistence living. Government of Odisha's Department of Forest and Environment and JICA have partnered to start Orissa Forestry Sector Development Project (OFSDP) to meet this objective.

"We aimed to improve living conditions by providing people with alternative livelihoods consistent with the conservation of forests and their sustainable management," said Mr A K Bansal, formely Additional Director General of Forests, Ministry of Environment and Forests, Government of India. Mr Bansal was Project Director, OFSDP, from June 2006 to December 2010, responsible for the execution of the project.

OFSDP has promoted empowerment of the village community through peoples' participation in decision-making, and generation of non-timber forest produce. Under the project, detailed action-plans were prepared by the communities, with assistance from non-governmental organisations (NGOs) and Odisha Forest and Environment Department officials, for treatment of forests, long-term development based on forest produce and other renewable natural resources and utilization of community skills like weaving.

Self help groups, christened Van Surakya Samitis (VSS) or forest protection groups, have been constituted to farm non-timber forest produce like tamarind, ginger, cashew, amla and sal leaf which have a high demand across India for household consumption. Income from this forest produce is higher than that from timber, which serves as an incentive for the local communities to maintain the forests.

The Odisha Forest and Environment Department's function was to deliver improved execution process with long term perspective and without concerns about immediate results. JICA facilitated and supported this by building processes based on their expertise.

## Capacity building & behavioural change

At the project's beginning, a training need assessment for the local communities, NGO personnel and the Odisha Forest and Environment Department officials was conducted, which brought out different view-points, helping the stakeholders arrive at a common action plan. It also facilitated setting-up of institutional mechanisms and processes for forest officials, NGO team and the local communities. "Instituting decision making processes entailed an attitudinal change among forest officials as well as among the local communities," further said Mr Bansal. "JICA's interventions and mid-course suggestions were invaluable in creating self-sustaining processes and systems."

For the project objectives to be sustainably met, "Concerted effort are being made, both by JICA and the Odisha Forest and Environment Department, through a post-project continuity strategy and commitments for effective follow-ups. JICA's efforts in this direction through brain-storming workshops and studies are appreciable, and reflect its long-term commitment to India's forest sector," observed Mr Bansal.

#### Outcome

By March 2013, over 481 VSS had farmed over 26,000 quintals of non timber forest produce and generated an income of over Rs 1 crore for the community. The project aims to afforest 224 million hectares by 2015 with commensurable increase in production of non timber forest produce from Rs 85 lakh in 2012-13 to Rs 43 crore by 2014-15.

Concluded Mr Bansal: "An important change observed was a sense of ownership of the project among both the forest officials and the local communities, which motivates them. The communities benefited from enhanced capacities and the living environment improved greatly, resulting in greater trust between communities and forest officials. Importantly, all stakeholders came to appreciate that afforestation can lead to economic development."





### Water & Sanitation Sector in India

#### **CURRENT SITUATION**



#### Intermittent water supply (Daily water supply in major cities ranges from 1 hour to 6 hours)



69% of sewerage is discharged to rivers and lakes without any treatment



66 million people are at health risk due to fluoride-affected water



More than 40% of non-revenue water loss exist in major cities



million



A mere 30 - 40% of operation and maintenance cost are recovered by utility bills.





#### Approved 29 projects amounting to ₹30,000 Crore

#### JICA projects are focusing on

- 1. Infrastructure development
- 2. Capacity development of water utilities
- 3. Access of water & sanitation by urban poor
- 4. Public awareness



1. Japanese advanced knowledge and experience are being utilized

2. Major concentration remains on water loss reduction and promotion of advanced sewerage treatment technologies



Fluorosis mitigation activities are carried out such as training to doctors and teachers, raising awareness among rural communities.



Enhancing operation and maintenance capacity and financial sustainability

EXPECTED RESULTS BY JICA PROJECTS

People will receive water supply by JICA Projects



People will be benefitted by JICA sewerage Projects



Water supply is expected in parts of Delhi, Goa and Jaipur



Sector-wise Overview

## Transport

### Sector background & challenges

Transport system in India is one of the largest in the world. The system comprising roads, railways, ports and air services is an important part of the national economy. Over the last decade or so, development of transport infrastructure has progressed at a rapid pace. However, despite the ongoing efforts, the Indian transport sector faces problems associated with demand-supply gap, mainly due to rising population, old and outdated infrastructure and lack of investment.



Bangalore Metro Rail Project

## Government of India's sector strategy

The 12th Five-Year Plan (2012-2017) looks at reversing the deceleration in growth by reviving investments as quickly as possible. To address this, the Plan calls for urgent action to tackle implementation constraints that are delaying the large infrastructure projects, including Metro in urban areas, Western and Eastern Freight Corridors and High Speed Corridor projects.



Delhi Mass Rapid Transport System Project

#### Figures at a glance







National Arterial Transport Network & Urban Mass Transit System: Engine for economic development

JICA's assistance in the transport sector stands on two pillars, (1) Strengthening of national arterial transport networks and (2) Development of appropriate urban transport systems.

#### JICA's assistance Start Year: FY1982/83

Cumulative Financial Assistance: JPY 1,374 billion

#### **Achievements**

Delhi Metro (190 kms in route length) carries over 2 million passengers a day. It reduces greenhouse gas emissions by 6.3 lakh tons annually.



Delhi Mass Rapid Transport System Project

#### Strategy

Strengthening of arterial transport networks along Delhi Mumbai Industrial Corridor (DMIC) / Chennai Bangalore Industrial Corridor (CBIC) for industrial development:

With focus on industrial centers, especially along DMIC and CBIC area, JICA will continue to assist in the development of arterial railways, roads, airports and ports, which contributes to the promotion of regional economic development, efficient logistics and the expansion/attraction of foreign capital investment.

Improvement of urban transport system focusing on major metropolitan areas and DMIC/CBIC: Focusing on the six largest metropolitan cities in India (populations of more than 6 million: Delhi, Mumbai, Kolkata, Chennai, Bangalore and Hyderabad) and the prioritized target cities, JICA will continue to promote the development of urban transportation infrastructure. This would comprise high-speed mass transportation systems and feeder lines connecting them (monorails, LRT, etc.), ring & radial roads and intelligent transport systems (ITS), which contribute to the improvement of urban environment and development of regional economy.



Delhi Mass Rapid Transport System Project

#### Improvement of transport infrastructure in North-East parts of India:

For balanced development, North-eastern region and connectivity with other countries is important. JICA will consider expanding the assistance in this area. The main sub-sector of the assistance in this area is road development (including bridges and tunnels).

#### Key initiatives

- Chennai Metro Project (Loan)
- Mumbai Metro Line Project (Loan)
- Bangalore Metro Rail Project (Loan)
- Delhi Mass Rapid Transport System Project (Loan)
- Vishakhapatnam Port Expansion Project (Loan)
- Dedicated Freight Corridor Project (Loan)
- Bihar National Highway Improvement Project (Loan)
- Hyderabad Outer Ring Road Project (Loan)
- Institutional development project on the Supervision for Highway and Expressway Operation, Maintenance and Management (Technical Cooperation)
- Joint Feasibility Study for Mumbai-Ahmedabad High Speed Railway Corridor (Study)
- Introduction of Intelligent Transport System (ITS) in Hyderabad, Bangaluru and Mysore (Study)

Photo courtesy: Osamu Funao

Hyderabad Outer Ring Road Project



## Water & Sanitation

#### Sector background & challenges

Regarding water supply, as per 2011 census, 70.6 percent of urban population is covered by individual connections. However, this figure does not mean per capita water supply is adequate, supplied constantly or equally to all, and there is also a huge disparity in the service level among the cities. Duration of water supply in Indian cities ranges from 1 hour to 6 hours, per capita supply of water in Indian cities ranges from 37 litre per capita per day (lpcpd) to 298 lpcpd for a limited duration, most Indian cities do not have metering for residential water connections, 70 percent of water leakages occur from consumer connections and due to malfunctioning of water meters, and non-revenue water (NRW) accounts for more than 40 percent of water production.

In case of sewerage, even a partial sewerage network is absent in 4,861 cities and towns in India. Almost 50 percent of households in cities like Bangalore and Hyderabad do not have sewerage connections. As per 2011 census, about 13 percent of urban households do not have access to any form of latrine facility and defecate in the open. About 37 percent of urban households are connected with open drainage and another 18 percent are not connected at all. As per the report of the Central Pollution Control Board (CPCB) 2009, only about 20 percent sewage generated was treated before disposal in Class I and Class II cities.

## Government of India's sector strategy

The 12th Five-year Plan indicates that investment requirement for urban water supply and sanitation is over Rs 20,00,000 crore as per their targets. The Plan aims at achieving 100 % water supply and sanitation in all urban areas of the country and eliminate open defecation. It also aims to increase provision of public toilets for floating populations, improved sewage collection, conveyance and treatment services.

#### Figures at a glance



**1 to 6 hours a day:** water supplied by local municipal corporations in major cities



72%: sewage discharge not connected to any sewer network in India



**69%:** sewage discharged directly into neighbouring rivers & lakes without any treatment



**60 to 70%:** Operation & Maintenance costs not recovered from utility bills



over 40%: non-revenue water in major cities



**66 million:** people at health risk due to fluoride affected water

#### **Overview of JICA's assistance**

#### Access to Safe Drinking Water and Sanitation: Meeting basic human needs

#### JICA is focusing on

1) water supply and sewerage infrastructure and management improvement in the major metropolitan areas, large cities and industrial areas such as state capitals, those in CBIC and DMIC, and tourism destination

2) water supply and sewerage infrastructure improvement in the area facing serious health issues such as fluorosis and arsenic.

#### JICA's assistance Start Year: FY1991/92

Cumulative Financial Assistance: JPY 512 billion



Capacity Development Project for Non-Revenue Water Reduction in Goa



Capacity Development Project for Non-Revenue Water Reduction in Jaipur

#### Strategy

For service improvement in providing basic amenities, JICA is supporting the development of water supply and sewerage treatment infrastructure together with introduction of volumetric based tariff system, metering system, improved billing, efficient tariff collection, NRW reduction activities, promotion of water saving practices and promotion of private sector participation in service delivery and recycling water. Due consideration is given for the underprivileged, particularly in the urban areas.

#### **Achievements**

- 30 million people will receive water supply by JICA Projects
- 15 million people will be benefited by JICA Sewerage Projects

- 24X7 water supply is expected in parts of Delhi, Goa and Jaipur
- After completion of water supply project in Delhi, 2 million people will get ontinuous and safe water

#### Key initiatives

- Bangalore Water Supply and Sewerage Project (Loan)
- Ganga Action Plan Project (Varanasi) (Loan)
- West Bengal Piped Water Supply Project (Loan)
- Rajasthan Rural Water Supply and Fluorosis Mitigation Project (Loan)
- Hogenakkal Water Supply and Fluorosis Mitigation Project (Loan)
- Delhi Water Supply Improvement Project (Loan and Technical Cooperation)
- Goa Water Supply and Sewerage Project (Loan and Technical Cooperation)

Okhla Sewage Treatment Plant under Yamuna Action Plan



## Energy

### Sector background & challenges

Resulting from its rapid economic growth, electricity consumption in India has increased by 7% per year in past 10 years. Even though the installed capacity is fourth largest in the world, the total electricity deficit is 4.2% as of FY 2014/15. India's three main challanges in the energy sector include enhancing energy efficiency, increasing energy supply and diversifying energy resource, and mitigating regional difference in energy availability.



New & Renewable Energy Development Project

#### Figures at a glance

Installed capacity: 245,394 MW (as of April 2014)



Coal: **59%**; hydro: **17%**; renewable energy: **12%**; natural gas: **9%**; nuclear: **2%**; oil: **1%** (in FY 2013)

#### Demand-supply gap\* (in FY 2013-14)

4.2%: supply 959,829 GWh demand 1,002,257 GWh

4.5% in peak demand: supply 129,815 MW demand 135,918 MW



23%: transmission & distribution losses (in FY 2011-12)



648 kWh: electricity consumption per capita (in FY 2011-12)



96.4%: rural areas electrified (as of Mar 2014)

\*Source: Ministry of Power, Government of India

### Government of India's sector strategy

The Government of India plans on increasing the current power generation by 118,537MW in its 12th Five-Year Plan (2012 to 17) to meet the projected demands of the country. In addition, the Government's Restructured Accelerated Power Development and Reform Programme (R-APDRP), introduced in 2008, aims to reduce transmission and distribution losses (including commercial loss).



Simhadri Thermal Power Station Project

#### **Overview of JICA's assistance**

#### Strengthening of electricity supply, energy efficiency and conservation

To strengthen the capacity of supply, transmission and distribution, JICA extensivety supports construction of high efficiency power plants, transmission lines, distribution networks and substations to enhance current facilities. From the perspective of climate change, JICA also supports energy efficiency and conservation, and renewable energy.



Haryana Distribution System Upgradation Project



Transmission System Modernisation & Strengthening Project in Hyderabad

#### JICA's assistance Start Year: FY1958/59

Cumulative Financial Assistance: JPY 1,474 billion

#### Strategy

A large portion of JICA assistance in the energy sector is dedicated to the strengthening of power supply, by using upgraded and more efficient technology power plants, transmission systems and distribution networks.

In order to improve energy efficiency, JICA has been supporting Small Industries Development Bank of India (SIDBI) for its Micro, Small and Medium Enterprises Energy Saving Project through ODA Loans and Technical Cooperation.

In addition to that, JICA is providing training programmes in Japan exclusively for Indian energy auditors. At present, about 77% of the electricity consumed in India is generated by thermal power plants. In order to achieve a better energy mix and lower greenhouse gas emissions, India expects to increase renewable energy generation capacity and usage through JICA assistance.

JICA has supported several states for small hydro projects and Indian Renewable Energy Development Agency (IREDA) for renewable energy development.

#### **Achievements**

JICA projects have contributed about 9.3 GW to India's total installed capacity of about 245.4 GW

#### Key initiatives

- Madhya Pradesh Transmission System Modernization Project (Loan)
- Tamil Nadu Transmission System Improvement Project (Loan)
- Maharashtra Transmission System Project (Loan)
- Rural Electrification Project (Loan)
- New and Renewable Energy Support Project (Loan)
- Micro, Small & Medium Enterprises Energy Saving Project (Loan)
- Andhra Pradesh & Telangana Rural High Voltage Distribution System Project (Loan)
- Bangalore Distribution Upgradation
   Project (Loan)
- Umiam Stage II Hydro Power Station Renovation & Modernization Project (Meghalaya) (Loan)
- Dhauliganga Hydroelectric Power Plant Construction Project (Uttarakhand) (Loan)
- Purulia Pumped Storage Project (West Bengal) (Loan)
- Bakreswar Thermal Power Station Project (West Bengal) (Loan)
- Training on Energy Conservation Technique (Technical Cooperation)
- Enhancing Efficiency of Operating Thermal Power Plants of NTPC India (Study)

## Forestry

### Sector background & challenges

Most of the poor in India are confined to rural or tribal areas and the livelihood of the majority of these people depends directly or indirectly upon forest resources. They largely live off the land by putting immense pressure on the natural forests around them. This has resulted in extensive degradation of forests and depletion of forest resources across the country.



Integrated Natural Resource Management & Poverty Reduction Project in Haryana

## Government of India's sector strategy

The vision of 12th Five Year Plan (2012-2017) on the sector is to 'manage environment, forests, wildlife and challenges due to climate change for faster and equitable growth, where ecological security for sustainability and inclusiveness is restored, equity in access to all environmental goods and eco-system service is assured through institutionalization of people's participation'.



Orissa Forestry Sector Development Project

#### Figures at a glance



**24.01%:** forest & tree cover in India (State of Forest Report 2013)



**31%:** forest cover globally (FAO 2010 fact sheet)



**12%:** increase in rural population between 2001 & 2011 (2011 Census)



**36%:** cattle depend partially or completely on forest for sustenance (State of Forest Report 2011)



**200 million:** 15% of India's population uses India as fuel (State of Forest Report 2011)



**58 million tonnes:** 27% of wood used as fuel in India comes from forests (State of Forest Report 2011)

#### **Overview of JICA's assistance**

Restoring the Ecology and Alleviating Poverty: Conservation of forests and securing livelihoods

JICA has been supporting projects aimed at striking equilibrium between afforestation and sustained livelihood improvement of the local communities through JFM (Joint Forest Management) mode. The projects give adequate attention to biodiversity conservation, institutional capacity building of forest departments, soil and water conservation measures, research and extension, and involvement of NGOs.

#### JICA's assistance Start Year: FY1991/92

Cumulative Financial Assistance: JPY 211 billion

#### Strategy

Plantation/ regeneration activities have covered more than 2 million hectares, and another 0.5 million hectares are expected to be covered in next 5 years across 12 states (Rajasthan, Gujarat, Tamil Nadu, Karnataka, Punjab, Haryana, Orissa, Himachal Pradesh, Tripura, Uttar Pradesh, Sikkim and West Bengal), which has made Japan the largest donor in the sector. One technical cooperation project to improve in-service training programmes for the frontline staff at DFE (Directorate of Forest Education) & CASFOS (Central Academy for State Forest Service), Dehradun, has been implemented in collaboration with the loan project for capacity development for the frontline staff at the national level through MoEF (Ministry of Environment & Forests).

When JICA's assistance to the forestry sector started in 1991, Joint Forest Management (JFM) was in the stage of evolution. Projects which were supported by JICA during the 90's were primarily focused on afforestation and included components such as soil and water conservation, training, extension, and procurement of equipment.

In the year 2000, a study was instituted by JICA to review the "Forestry Sector Policy Issues" wherein all the ongoing projects at that time were examined in terms of design, implementation, effectiveness and sustainability. The findings and recommendations were discussed with each concerned agency and the Ministry of Environment and Forests, Government of India and were later incorporated in the future projects.

Projects that began after 2002 have aimed at striking an equilibrium between afforestation and sustainable livelihood improvement of the local communities through JFM mode. Through community development works and income generation activities, sustainable poverty alleviation and socio economic development activities have been undertaken. The projects also give adequate attention to biodiversity conservation, institutional capacity building of forest departments, soil and water conservation measures, improvement of infrastructure, research and extension, and involvement of NGOs/community development officers for the implementation of Community Development Activities.

#### Achievements

Treated area under JICA initiative will be 26,300 sq km which is equivalent to half the size of area of Punjab (50,362 sq km) In total 15,500 JFM committees and 26,000 SHGs (Self Help Groups) have been formed under JICA projects.

#### **Key initiatives**

- Tamil Nadu Afforestation Project (Loan)
- Orissa Forestry Sector Development Project (Loan)
- Tripura Forest Environmental Improvement Project (Loan)
- Gujarat Forestry Development Project (Loan)
- Uttar Pradesh Participatory Forest Management Project (Loan)
- Sikkim Biodiversity Conservation and Forest Management Project (Loan)
- Tamil Nadu Biodiversity Conservation and Greening Project (Loan)
- Rajasthan Forestry and Biodiversity Project (Loan)
- West Bengal Forest and Biodiversity Conservation Project (Loan)
- Project for Capacity Building of State Forest Training Institutions and State Forest Service Colleges (Technical Cooperation)

Tamil Nadu Afforestation Project



## Agriculture

#### Sector background & challenges

In India, about 70% of the population lives in rural areas and 58% of the work force is employed in the agriculture sector, whose GDP share is a mere 13% and annual employment growth rate is less than 1%. Today, there is an urgent need for improvement of livelihoods for the poorer sections of the society, especially in rural areas.



Project for Maximization of Soybean Production in Madhya Pradesh

#### Government of India's sector strategy

The Government policy lays emphasis on improving the economic viability of farming as well as protection and improvement of land, water, biodiversity and genetic resources. A wide array of schemes and programs have been sponsored by various ministries covering all the facets of agriculture including agriculture production, farm inputs and management, agriculture credit, post-harvest and value addition, watershed development, agriculture research and extension. National Food Security Mission (NFSM) is a major program of Ministry of Agriculture to enhance the production of rice, wheat and pulses. The Planning Commission of India has identified 25 core indicators as 'monitorable targets' to be achieved during the 12th Five Year Plan period (2012-17).

#### Figures at a glance

Targets related to agriculture, water resource development & rural development:



4%: agricultural growth rate



increase gross irrigated area from 90 million hectares to 103 million hectares



connect all villages with all-weather roads

provide electricity to all villages; reduce AT&C losses to under 20%

50 million: new work-opportunities to be generated in the non-farm sector



**50 million:** to be provided with skills training



Reduce head-count ratio of consumption poverty by **10%**, over preceding estimates

#### **Overview of JICA's assistance**

#### Powering a Greener Tomorrow: Strengthening Indian Agriculture and Rural Development

JICA focusses on rehabilitating the Indian agriculture system and also generating rural employment. Crop diversification and strengthening market linkages are essential in improving the rural livelihoods and generating rural employment.

#### JICA's assistance Start Year: FY1981/82

**Cumulative Financial Assistance:** JPY 219 billion

#### Strategy

Accelerating the growth of the agriculture sector and promoting small and medium businesses, including those in non-farm sectors, will create employment opportunities, thereby uplifting the agriculture sector as a whole. JICA's assistance in this area focuses on income generation in rural areas through improving rural environment and infrastructure, enhancing agricultural productivity and generating employment in rural areas.

Improvement of rural livelihood depends critically on the development of appropriate infrastructure and an environment that enhances productivity. To this end, JICA has long been extending assistance to irrigation projects across India and capacity development of Water Users Association (WUA) as part of the assistance further ensures the sustainability of irrigation facilities. Agricultural productivity in rain-fed area has been enhanced through developing improved cultivation technologies. Madhya Pradesh government along with its state agriculture universities and JICA experts have joined together to improve soybean cultivation technologies that can be easily adopted by small farmers in the state.

Crop diversification and strengthening market linkages are essential for sustaining the economic growth and contributing towards self-sufficiency and generating rural employment. The state government of Himachal Pradesh and JICA have been working together to promote crop diversification among the small and marginal farmers in the state to improve their livelihood.

Promotion of agro processing and rural enterprises is vital for creating employment opportunities and boosting the rural economy. JICA has a long association with the sericulture farmers of Karnataka, Tamil Nadu and Andhra Pradesh to improve their skills in production of bivoltine cocoons. Due to its quality, the demand for the bivoltine cocoon is on the increase and as it can be produced locally, employment in this sector is also expected to rise.

#### **Achievements**

- Irrigated Command Area: 668,624 ha
- Formation of Water User Association: 997 (9 Loan and 1 Technical Cooperation projects among 24 and 14, respectively, in both completed and on-going projects)

#### **Key initiatives**

- Andhra Pradesh Irrigation and Livelihood
   Improvement Project (Loan)
- Rajasthan Minor Irrigation Improvement Project (Loan)
- Rengali Irrigation Project, Orissa (Loan)
- Swan River Integrated Watershed Management Project (Loan)
- Himachal Pradesh Crop Diversification Promotion Project (Technical Coorperation & Loan)
- Project for Maximization of Soybean Production in Madhya Pradesh (Technical Cooperation)
- Study on Development and Management of Land and Water Resources for Sustainable Agriculture in Mizoram (Development Study)
- Project for Bivoltine Sericulture Technology Development (Technical Cooperation)

Swan River Integrated Watershed Management Project



## Human Resource Development

## Sector background & challenges

Development of human resource should be nurtured to the speed and absolute scale of population increase in India, maintaining and accelerating its economic growth in industry and commercial fields. In addition to providing better education and skill development for the youth seeking for better job opportunities, there is an increasing need of developing higher education institutions in the area of science and technology to nurture those who can lead research and development for technical innovation in response to the needs from the industrial sector. Capacity development of senior and middle managers is also



Project for the Visionary Leaders for Manufacturing Program Photo courtesy: Osamu Funao

crucial for accelerating the growth of India's manufacturing sector which has stagnated at around 15% for the last several decades in terms of the GDP share.

### Government of India's sector strategy

Despite significant progress made during 11th Five-Year Plan period, the enrolment in higher educational institutes remains 18.8% of potential students (Gross Enrolment Ratio (GER)), which is below the world average of 26%. The Government of India intends to improve the ratio up to 25.2% by 2017, by achieving additional enrolment of 10 million students.



Campus Design Project of IITH

#### **Overview of JICA's assistance**

Enhancing human resources though strengthening higher education, and management improvement and skill development in manufacturing.

JICA has been supporting distance education which enables people in the country to access good quality higher education through a series of grant aids to Indira Gandhi National Open University (IGNOU) and has been extending integral programme for developing Indian Institutes of Technology, Hyderabad (IIT-H) as a hub for strengthening academic and industrial collaboration. One of JICA's flagship programs in India is "Visionary Leaders For Manufacturing (VLFM)" program implemented from 2007 to 2013 and successive "Champions for Societal Manufacturing (CSM)" program started in 2013, aiming to create leaders in manufacturing in India based on Japanese management knowhow.

#### JICA's assistance Start Year: FY1988/89

Cumulative Financial Assistance: JPY 31 billion (Grant Aid: JPY 7.8 billion and ODA Loan: JPY 23 billion).

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#### Strategy

Keeping consistent focus and pursuing larger impact as well as efficiency and effectiveness, JICA's engagement in the human resource development sector has been focusing on higher education and human resource development in manufacturing sector.

Japan has been a significant and key partner of IGNOU since its inception in 1985. IGNOU has played a vital role in setting standards for distance education in India, and has enabled people all over the country to access good quality higher education through distance learning. JICA, through its grant assistance in three phases, has provided state-of-the-art facilities and equipment to enhance the quality and effectiveness of program production through high definition technology.

Under the initiative as per the Joint Statement between Indian and Japanese Prime Ministers in 2008, JICA has been extending integrated support to newly established IIT in Hyderabad. The scope of the support includes campus development through ODA loan, design support for six buildings by Japanese architect as technical assistance (TA) to symbolize partnership between India and Japan, and collaborative research, academic exchanges, and scholarship programme through technical cooperation projects. IITH is being developed for a hub for strengthening academic and industrial collaboration in India with special reference to the Japanese strength.

Based on the Joint Statement between Prime Minister of India and Japan in December 2006, the Technical Cooperation Project "VLFM" was launched by JICA on August 26, 2007 for 3 years of cooperation term until August 25 2010, aiming to create leaders skilled to transform Indian manufacturing by conveying the management concept of the Japanese manufacturing to the senior and middle managers. Due to the excellent results and cooperation, this term has been further extended till March 2013 and the succeeding "CSM" project for three years was launched in April 2013. Professor Shoji Shiba, a world-renowned authority in breakthrough management and professor emeritus, Tsukuba University is responsible for the formulation of the structure and implementation of VLFM/CSM Program as the chief advisor of the program, and the Government of India conferred Padma Shri Award on him in 2012.



**DISANET Research Project** 

#### **Achievements**

The grants provided by JICA aimed at upgrading equipment being used at the electronic media production centre (EMPC) from standard definition to high definition. The state of the art equipment has been sourced from top manufacturers from Japan and has strengthened the production capacity and quality at EMPC. The upgrading benefitted several thousand students spreading across different streams especially since satellite broadcasting forms integral part of IGNOU coaching.

VLFM/CSM program has so far trained over 1,000 managers engaged in manufacturing.

#### **Key initiatives**

- Campus Development Project of Indian Institute of Technology, Hyderabad (Loan)
- Information Network for Natural Disaster Mitigation and Recovery (DISANET) (Technical Cooperation)
- Campus Design Project for Indian Institute of Technology, Hyderabad through Academic Exchange and Interdisciplinary Collaboration (Technical Cooperation)
- The Project for Future Researchers at IITH to Enhance Network Development with Scholarship of Japan (IITH-FRIENDSHIP) (Technical Cooperation)
- The Project for the Visionary Leaders for Manufacturing (VLFM) Program (Technical Cooperation)
- The Project on Champions for Societal Manufacturing (CSM) (Technical Cooperation)
- Project for Enhancement of International Collaboration in Open and Distance Learning through ICT at Electronic and Media Production Centre of India Gandhi National Open University (IGNOU) (Grant Aid)

## Health

## Sector background & challenges

Development assistance in the health sector is of paramount importance because it serves a humanitarian purpose and it ensures good health for citizens which is the base for economic and social development. Among the eight Millennium Development Goals (MDGs) set in 2000, three goals put the health sector front and centre and achieving the health MDGs is recognized to be important in order to attain all the eight MDGs.



Grant Agreement for the Project for the Eradication of Poliomyelitis in India (through UNICEF)

### Government of India's sector strategy

Since the 10th Five Year Plan, India has identified the health sector as one of the priority areas to be addressed in order to achieve the MDGs. In the 12th Five Year Plan (2012/13- 2016/17), it is emphasized to reinforce public health service provision and to achieve Universal Health Coverage in order to ensure that all people can use promotional, preventive, curative and rehabilitative health service as needed and at affordable cost.



Follow-up Cooperation for Improvement of Medical Equipment at Karawati Saran Children's Hospital

#### Figures at a glance



Maternal Mortality Ratio, per **100,000** live births: **139** (India); **109** (Millennium Development Goals)

Infant Mortality Rate, per **1,000** live births: **36** (India); **27** (Millennium Development Goals)

Fertility Rate: 2.1\*

**29%** children under **3** years in age are malnourished;

57 physians for 1,00,000 people



61 nurses & mid-wives for 1,00,000 people

**1.04%** public expenditure on health as a percentage of GDP

Projection for 2015 considering the rate of decline \*Projection for 2017 Source: 12th Five Year Plan document

#### **Overview of JICA's assistance**

#### Strengthening health systems: Enhancing access to quality health services

JICA intensively supports to improve access to health services to socially disadvantaged. Japanese technical cooperation has been focusing on enhancement of skills, knowledge and technical expertise of health sector personnel in various segments from grass-roots health workers to researchers.

#### JICA's assistance Start Year: FY1995/96

Cumulative Financial Assistance: JPY 17 billion

#### Strategy

Given that India has a vast geographical area with a large population below the poverty line, JICA sees the following three areas as priorities: 1) Decrease infant mortality rate and maternal mortality rate, 2) Strengthen strategy for controlling infectious diseases, and 3) Improve access to health services for the socially disadvantaged.

JICA's support for healthcare portfolio in India includes projects on maternal and child health, infectious disease prevention, capacity building and skills training for healthcare personnel. The major forms of JICA's assistance in health sector have been technical cooperation and grant aid, and JICA has been providing assistance in the form that meets the specific needs and circumstances in India.

For instance, JICA has supported capacity building of Auxiliary Nurse Midwives (ANMs) in remote areas under the National Rural Health Mission (NRHM) and the Indian Government's initiative through UNICEF, to eradicate Polio. In addition, JICA has assisted in the improvement of medical facilities at key tertiary care hospitals in major centres like Delhi, Mumbai, Chennai, Kolkata and Cuttack, through grant aid.



Follow-up Cooperation for Improvement of Medical Equipment at Karawati Saran Children's Hospital



Grant Agreement for the Project for the Eradication of Poliomyelitis in India (through UNICEF)

#### **Achievements**

JICA's financial support to UNICEF for Polio Eradication Program in high risk states started in 1996 and has succeeded in making India Polio free. In March 2014, the World Health Organisation certified India polio-free after three years of no new case being reported. Infrastructure support to hospitals has significantly enhanced access to health services especially among the lower income group and improved quality of health care.



#### **Key initiatives**

- The Project for the Eradication of Poliomyelitis in high risk areas (through UNICEF) (Grant Aid)
- Reproductive Health Project in the State of Madhya Pradesh (phase 2) (Technical Cooperation)
- The Project for Improvement of the Institute of Child Health and Hospital for Children in Chennai (Grant Aid)
- Project for Prevention of Diarrhoeal Diseases in West Bengal (Technical Cooperation)
- Reproductive Health and Women's Empowerment in Madhya Pradesh (Technical Cooperation)

## **Training Programs**

**Multifaceted Growth and Development** 

Training cooperation contributes to human resource development utilizing Japan's technology, skills & knowledge.



JICA uses various forms of development assistance schemes to meet diverse needs of developing countries around the world. As one of the schemes, technical cooperation contributes to human resource development through utilizing Japan's technology, skills and knowledge. JICA's Training and Dialogue Programs are a form of technical cooperation that JICA carries out in Japan. Much of the knowledge accumulated in Japanese society can be understood only by actually visiting Japan. An example of this is the unique way of forming social systems and organizational structures, the so-called "Japanese model". If "seeing is believing", then experiencing is understanding. By actually visiting Japan, people from developing countries come to a setting surrounded by Japanese society and its organizations, where they can discuss the circumstances in their home countries and develop an understanding of a social conditions and values very different from their own.





#### This experience imparts valuable knowledge that could be obtained in no other way.

In addition to providing unique knowledge to personnel, this sort of technical cooperation stimulates people to make their own decisions, which is a crucial element for human resource development along with other assistance schemes. JICA's Training and Dialogue Programs are therefore a major component of Japan's international cooperation programs, receiving nearly 10 thousand participants each year from all



over the world. The majority of the participants are from governmental or public organizations. However, there have also been participants from non-governmental organizations (NGOs) and private companies.

In terms of scale and available resources, there is no other program in the world that can compare to JICA's Training and Dialogue Programs, which have become one of the cornerstones of Japan's international cooperation.



JICA's training & dialogue programs is a form of Technical Cooperation which entails visit to Japan.

# Japan Overseas Cooperation Volunteers

**Creating Lasting Values** 

JICA's volunteer program is designed to optimize volunteer's knowledge, technical know-how and valuable experience while they live with locals.



Japan Overseas Cooperation Volunteers (JOCV) program promotes the activities of young Japanese people aspiring to be a part of the economic and social development of developing countries. JOCVs are young professionals trained in a variety of technical fields. They are recruited through a selection process and undergo pre-dispatch training like language, cross-cultural understanding and safety management. Once dispatched, they generally stay in developing countries for a period of two years, living and working with local people while taking part in development activities.

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India is one of the first countries where JOCV program started. From the commencement of the program in 1966 until it was discontinued in 1978, more than 130 JOCVs were dispatched across India, mainly in the basic areas like agriculture and health. The JOCV program was resumed in 2006 and the first JOCV to India after resumption was appointed to Delhi Public School Society as a Japanese Language Instructor. As of March 2013, there are 12 JOCVs in India, working in the field of Education. The JOCV program is now expected to expand into other activities like livelihood improvement in rural areas as well.





The program promotes the activities of young Japanese people aspiring to be a part of the economic & social development of developing countries.

#### JICA Partnership Program Partners in Growth and Success

Partnership program was introduced in 2002 to support and cooperate with the implementation of projects formulated by Japanese NGOs, Japanese local governments, and Japanese universities.



Maternal and Child Health Project in Allahabad, Uttar Pradesh "Improvement of Integrated Mother and Child Health by Collaboration between Government Health Staff and Rural Health Volunteers (VHV)"/ ASHA

Recognizing the growing importance of NGOs in international cooperation, the JICA Partnership Program (JPP) was introduced in 2002 to support and cooperate with the implementation of projects formulated by Japanese NGOs, Japanese local governments and Japanese universities to utilize their accumulated knowledge and experience in assistance activities for developing countries. JPP projects aim to be directly useful to the people in developing countries. In India, JPP was started in 2004 and various projects have been implemented in the field of Agriculture, Rural development, Health and Women's empowerment to contribute towards social and economic development at the grassroots level.





Micro Watershed Management Project in Srikakulam, Andhra Pradesh "Optimal Utilization of Command Area through Diversified Integrated Farming System(DIFS) – Advanced Micro Watershed Management with Local Initiatives" / Mura no Mirai

#### Vocational Education Support Project for the visually impaired

(2013.1 - 2016.1)

Since 2013, Special Needs Education School for the Visually Impaired, University of Tsukuba has been working on introducing JMMT, which is the Japanese traditional medical massage therapy in order to support visually impaired students for their vocational independence and for their social participations in Dehradun, Uttarakhand and Ahmedabad, Gujarat.





Vocational education support Project for the visually impaired in Dehradun, Uttarakhand and Ahmedabad, Gujarat "Project for Vocational education support for the visually impaired" / Special Needs Education School for the Visually Impaired, University of Tsukuba

Japanese NGOs, Japanese local governments and Japanese universities utilize their accumulated knowledge and experience in assistance activities for developing countries.



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