

ROLE OF JICA IN INDIA'S DEVELOPMENT

OPPORTUNITIES AND CHALLENGES

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1. India - Japan Relations

● Traditionally amicable & strong - Interdependency -

- **Introduction of Buddhism** to Japan from India.

In 752, an Indian monk **Bodhisena (बोधिसेन)** performed eye-opening of the Great Buddha built in Tōdai-ji Temple, Nara Prefecture, Japan.

- In Meiji Era, **India's cotton** stimulated the textile industry development in Japan. (Up to 10% of import amount from India at the end of Meiji Era.)
- In 1948, at **the International Military Tribunal for the Far East** in Tokyo after WWII, Indian Justice **Radhabinod Pal** became famous for his fair judgement.
- In 1951, then Prime Minister **Jawaharlal Nehru** refused to attend the San Francisco Peace Conference from a broader perspective, and at the time of establishing official diplomatic relations in 1952, India **waived all reparation claims** against Japan tolerantly.
- **Indian iron ore** supported the steel industry development in Japan (Up to 30% of import amount from India in 1960.)
- In 2011, 46-member team of **NDRF (the Indian National Disaster Response Force)** operated search and rescue operations in Onagawa Town, Miyagi Prefecture, just after **the Great East Japan Earthquake.**

- Both established Special Strategic and Global Partnership.
- For India, Japan is the largest donor of official assistance.
- For Japan, India is the largest recipient of ODA Loan support.

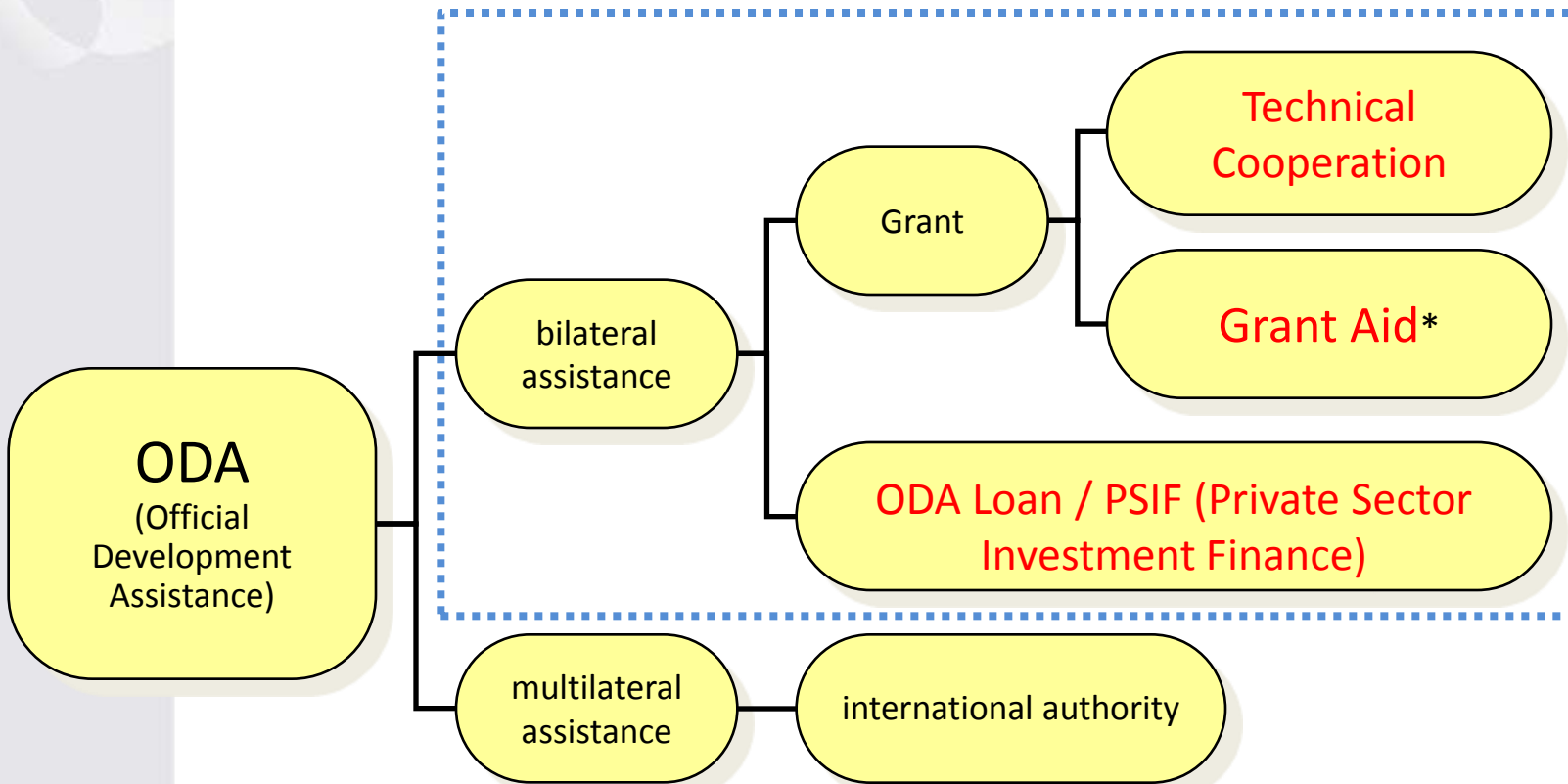
- 1952.4 Established official diplomatic relations
- 1958 Japan's first ODA Loan in the world extended to India.
- 2000.8 **"Japan-India Global Partnership in the 21st Century"**
- 2005.4 Japanese PM Koizumi visited India. Annual based PMs mutual visits started.
- 2006.12 **"Joint Statement Towards Japan-India Strategic and Global Partnership"**
- 2014.9 Indian PM Modi visited Japan. **"Tokyo Declaration for Japan-India Special Strategic and Global Partnership"**
 - a) Doubling Japan's foreign direct investment in India within five years.
 - b) Doubling the number of Japanese companies in India within five years.
 - c) JPY 3.5 trillion (Rs. 2 trillion) of public and private investment and financing to India from Japan, including ODA, within five years.
- 2015.12 Japanese PM Abe visited India (Delhi and Varanasi).

2. Activities of JICA

What is “JICA”?

- ✓ JICA is the world’s largest bilateral development agency
- ✓ India is the largest and the oldest partner of JICA

Japan’s Official Development Assistance (ODA)



* Part of grant aid is provided by the Ministry of Foreign Affairs.



India is JICA's Largest Partner in the World

Soft Loan

Operational Results in FY2015/16:

Commitment: JPY 377.3 billion
 (equivalent to about Rs. 20,000 crore)
 Disbursement: JPY 185.8 billion
 (equivalent to about Rs. 10,000 crore)

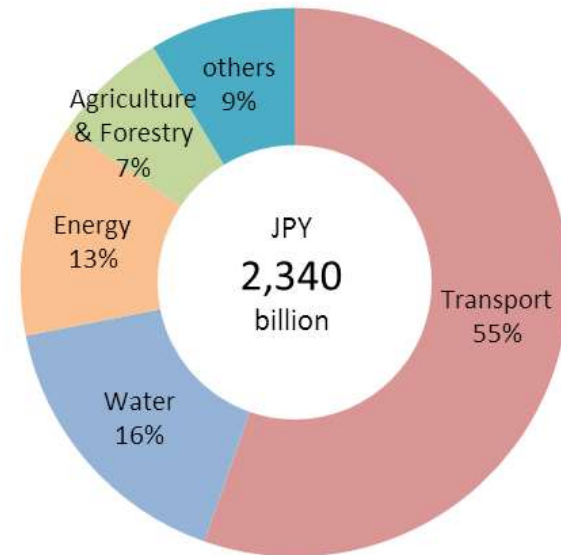
Accumulated Commitment by FY2015/16:

- JPY 4.6 trillion in total
 (equivalent to over Rs. 2 lakh crore)

Terms and conditions:

- General terms: Interest rate 1.4%, repayment period 30 years (including 10 years grace period)
- STEP: Interest rate 0.1%, repayment period 40 years (including 10 years grace period)

Major Sector (FY2006/07-2015/16)



Grant Aid

One on-going project
 in health sector in
 Chennai

Technical Cooperation

- Results in FY 2014/15
 JPY 3.8 billion (about Rs. 200 crore)
- About 800 Japanese experts to India
- About 300 Trainee from India to Japan

Citizen Partnership / Public-Private Partnership

- Japanese Volunteers
- Japanese NGO activities
- Partnerships with
 Private-Sector Activities

3. Gender Sector

Addressing women empowerment through gender mainstreaming approach in various projects for Inclusive Development

Sector	Projects (Examples)	Gender component
Forestry	Biodiversity Conservation and Greening Project in Tamil Nadu(ODA Loan), Swan River Integrated Watershed Management Project in Himachal Pradesh (ODA Loan), etc.	Supporting Self Help Group activities (micro-credit, vocational training, etc.) Main actors are women
Health	The Project for Improvement of the Institute of Child Health and Hospital for Children, Chennai (Grant), etc.	Improvement of maternal health
Water and Sanitation	Sanitation Facilities (Public Toilet) Study in India, etc. Supporting for about 1,500 public toilets.	Analyze negative impact of open defecation towards women's life
Transport (Metro)	Delhi Mass Rapid Transport System Project (ODA Loan), etc.	Introduction of "Women-only Coach" Considerations for female passengers



Dispatch Volunteer

(Nurse,
Midwife, Youth
Activities)

JICA-NGO Partnership Program

(Empowerment
of rural women)

**Technical
Training in
Japan**
(Reproductive
Health,
Maternal
Health, etc)

**Promoting BOP
Business**
(Supplementary
food for
children and
women,
Sanitary
products for
women in rural
area)

Women Empowerment – way forward

Tokyo Declaration for Japan-India Special Strategic and Global Partnership
(September 2014)

Recognized necessity of women empowerment by both PMs

Gender Profile Survey conducted by JICA

(September 2014-March 2015)

Data Collection Survey on Women Empowerment conducted by JICA

(August 2015- July 2016)



Promoting Gender Equality

through

Skill Development, Job Creation, Social Inclusion

4. Water Sector

Our Works

Non-revenue water (NRW) reduction

To reduce non-revenue water, through trial renewal of water pipes and meters in pilot areas in technical cooperation (TC) projects, and through spreading out / scaling up in ODA loan projects. Capacity development is also addressed.

Projects throughout the country

In major cities, such as Agra, Varanasi, Bengaluru, Hyderabad, Jaipur and Delhi

Total number of beneficiaries :

Water Supply: approx. 30 million people

Sanitation : approx. 15 million people

Rejuvenation of rivers

Assistance for rejuvenation of the Ganga River and Yamna river over the last 20 years toward hygienic environment.

Goa's case of NRW Reduction

	Before (%)	After (%)
Curtorim	45.1	18.0
Khadpaband	58.7	34.4
Moirá	53.0	36.1

Assistance Policies

① Improving water and sewerage infrastructure in major cities and industrial areas

② Utilizing Japanese knowledge, experience, and advanced technology

- Introduction of SCADA · GIS system
- Advanced wastewater treatment
- Cooperation with municipalities of Japan, with Tokyo City in Delhi and with Yokohama City in Jaipur

③ Enhancing Sustainability

- Enhancing O/M capacity
- Securing financial stability by ensuring the collection of water tariff
- Enhancing of public awareness for safety water and sanitation

Issues

① Demand/ supply gap

- Only a few hours of water supply can be provided per day, even in urban areas
- Further increase in demand is inevitable due to the growth of population and economic development

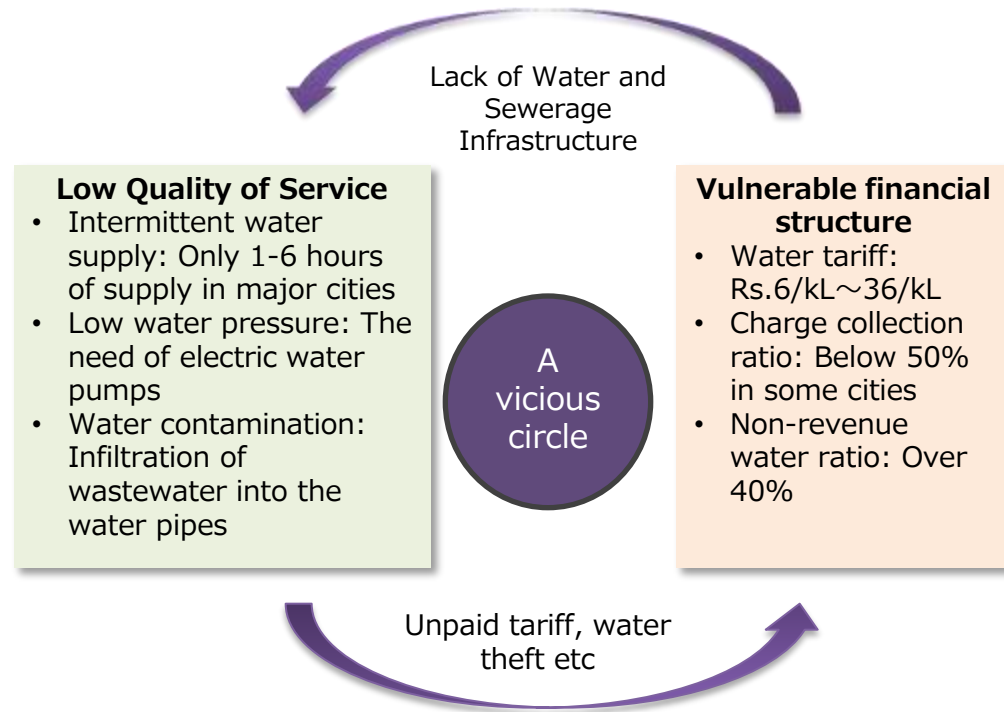
② Financial vulnerability in water-supply corporations

NRW* ratio is 52% in Delhi and 51% in Bengaluru, compared to 4.4% in Tokyo and 8.9% in Fukuoka.

*the difference between the water distribution volume and the billed volume

③ Environmental, sanitary and health issues

- Decrease of groundwater levels and contamination of water by toxins such as arsenic and fluorine
- Contamination of rivers due to lack of sewerage system, leading to health hazards such as diarrhea and hepatitis



A countermeasure for non-revenue water: water leakage detection

Consideration of further assistance based on data collection survey on toilet facilities in India

Outline of the Survey

Survey period : Sep. 2014 – Mar. 2015

Survey target : All of India

Objective : Updating information about gender and sanitation in India needed for deriving suggestions for further efforts.

Current Situation of Toilets in India

1) India as the biggest open defecation country in the world

- India accounts for 60% of the world population practicing open defecation .
Open defecation population worldwide: 104crore, India: 62crore

2) Infectious diseases due to open defecation, especially in children

- Diarrheal diseases and its complications account for 17% of cause of death of children under five, most caused by oral infection of bacteria in excretion.
- India has largest number of deaths (5.4 lakh) caused by diarrhea in the world.

3) Serious security and health issues for women, due to lack of toilets

- Due to open defecation in hidden places or night times, many women face serious security issues such as sexual offence.
- Lack of clean and safe toilets lead to refraining from defecation for a long period of time, resulting in health problems of the digestive system.

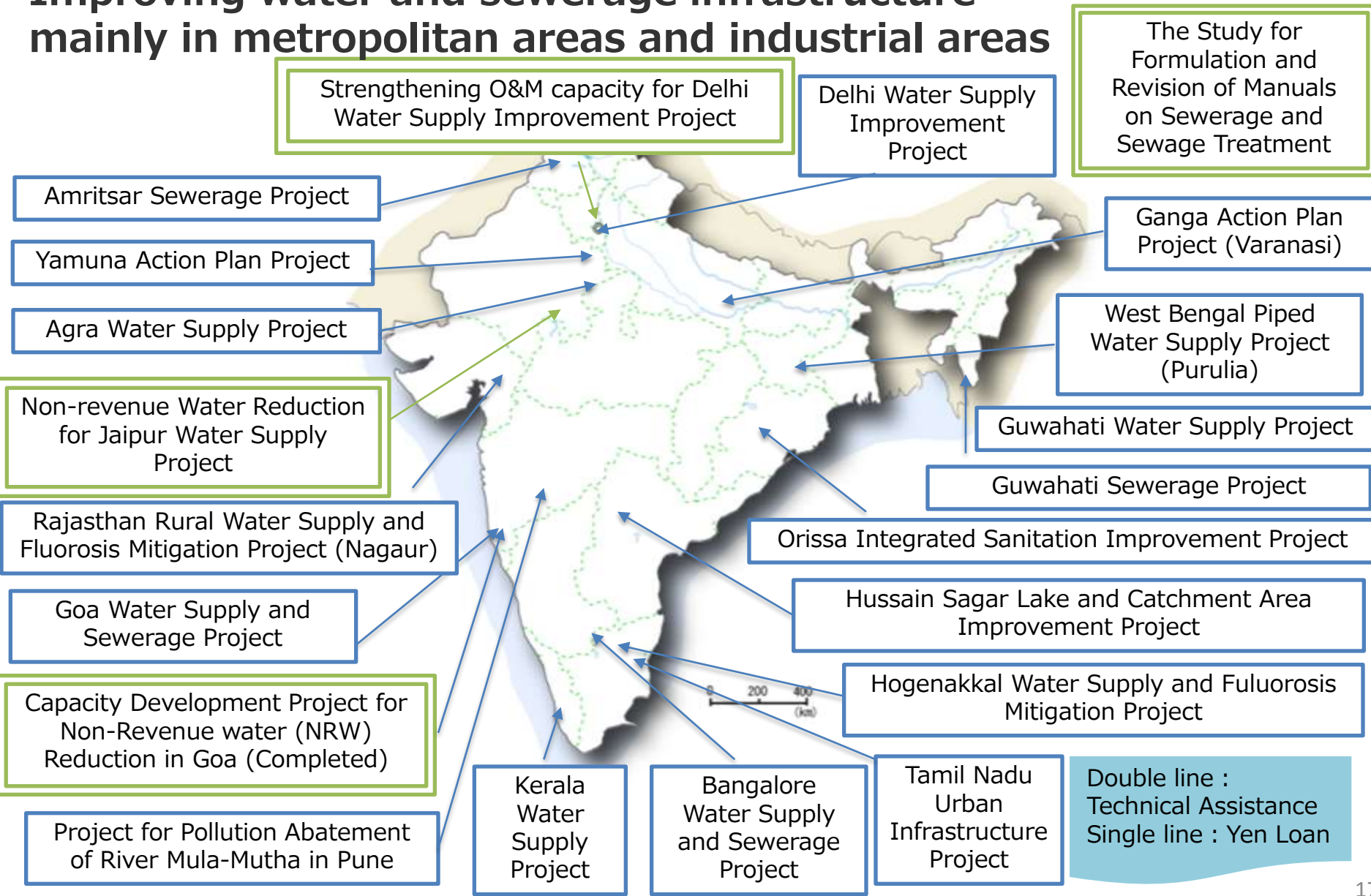
4) Indian Government's intensify efforts for improvement of sanitation

- Government of India aim to achieve an Open-Defecation Free (ODF) India by 2019.



A community toilet installed under JICA ODA loan project

Improving water and sewerage infrastructure mainly in metropolitan areas and industrial areas



5. Forestry Sector

Issues

1. Forestry Management

- Forestry coverage in India is 24% (2015), which is lower than national target (33%) and world average (31%) .
- Increasing demand on woods and population increase, and increasing wood supply and demand gap.
- The population depending on forest is 275 million and most of them are under poverty line. (2005)
→Income Generation Activities.

2. Biodiversity

- There are four biodiversity hotspots in India among world 35 hotspots.
(East Himalaya, West Ghats, India-Burma, Nicobar)
- There are many protection areas in India.
(102 National Parks, 515 Wildlife Sanctuaries)
- Capacity development of Forest Department in order to preserve sustainable biodiversity and harmonious environment.



Progress

JICA is the biggest donor in the forestry sector in India.

■ ODA loan

- Cumulative commitment since 1990 stands at JPY 225.8 billion (approx. Rs. 11,000 crore or about USD 2 billion) to Ministry of Environment, Forestry and Climate Change (MoEF). (as of Mar 2016)
- Plantation area is about 3 million ha in total
- Supporting India government policy of Joint Forest Management: participatory forest management targeting sustainability, the following three points are core areas of cooperation according to different features of each state
 - ① Preventing forest degradation and conservation activities (afforestation)
 - ② Training of forest officers and community people
 - ③ Community development (micro infrastructure development, income generation, etc.)
- Disaster prevention and preparedness components are included in Uttarakhand Forestry Resources Management Project in addition to forestry related components (L/A: April 2014)



■ Technical cooperation

- Capacity Development for Forest Management and Personnel Training Project (2009.3-2014.3)



pond for preventing soil erosion



Regular meeting of community people



Income Generation activity



Nursery for plantation

Major Impacts

JICA is the biggest donor in forestry sector in India.

(JPY 150 billion (equivalent to about Rs. 8,000 crore) since 2000,
while the second donor invested JPY 10 billion (equivalent to about Rs. 500 crore))

1. Environment, climate change, biodiversity

-Afforestation and Reforestation in nearly 3 million ha, improved forestry function, diversified biodiversity activities and accelerated research activities

2. Poverty alleviation

-Community development and IG activities uplifted people's life

3. Utilizing Japanese knowledge

-Implemented technical cooperation on capacity development

-Promoted collaboration with local governments (Akita, Oita, Okinawa, etc.)

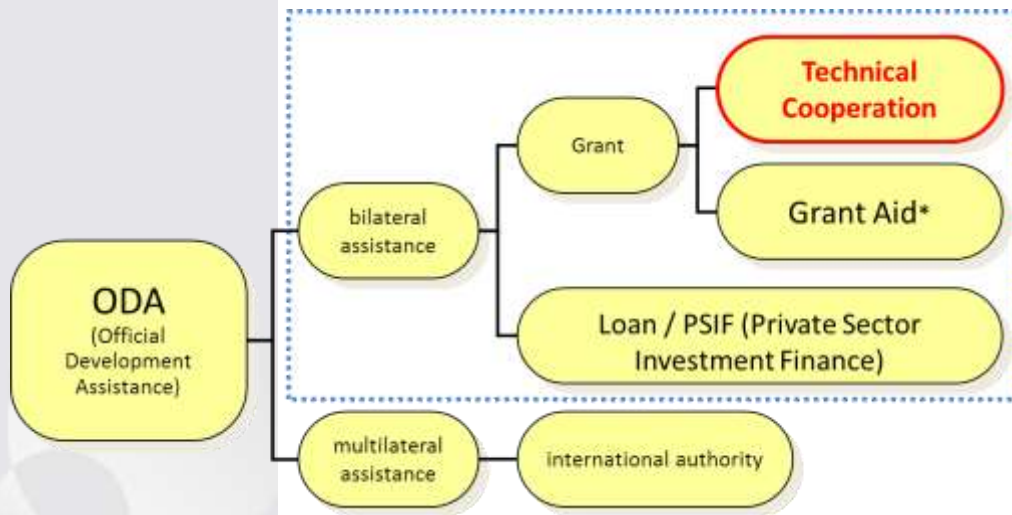
4. Disaster prevention / Water resource conservation

-Ground water level was improved.

5. Women empowerment

-Self Help Group (SHG) activities were implemented in all projects and IG program and micro finance are incorporated.

6. Human Resource Development



Technical cooperation includes the dispatch of JICA experts and the training of Indian officials for **“capacity development”**.

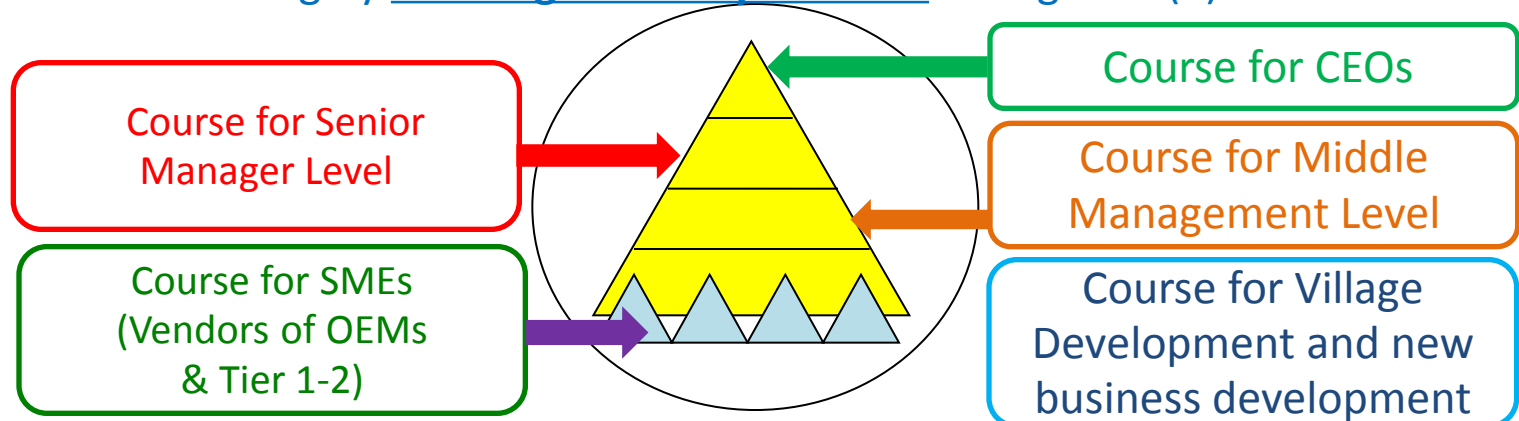
Total Amount of (until FY 2014)	Amount
Technical Cooperation	about JPY 43 billion
Total Number of (until FY 2014)	Number
Trainee from India	7,112 persons
Japanese Experts / Survey team	6,299 persons
Japan Oversea Cooperation Volunteer	193 persons

Champions for Societal Manufacturing (CSM) Project

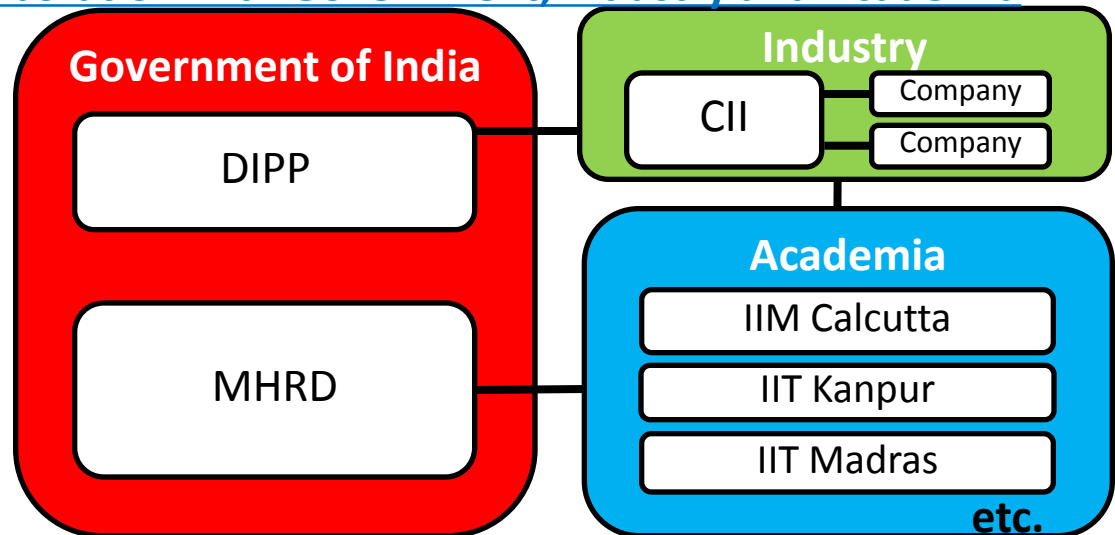
[Technical cooperation/Ongoing]

◆ Project Duration : April 2013 – September 2018 (5.5 years)

1. National Integrated Human Resource Development Program in Manufacturing by **Creating Visionary Leaders** through five(5) courses



2. Implementation **in collaboration with Government, Industry and Academia**



Prof. Shiba, the JICA expert, was conferred decorations both in India and Japan. Over 1800 CEOs and senior/middle-level managers have participated the programme.

“Godrej Edge Digi, Direct Cool Refrigerator Range”
won India Design Mark(2014) and
Good Design Award (Japan)(2015)

 | APPLIANCES



**GOOD DESIGN
AWARD 2015**

- localized to the Indian market (Larger Vegetable Space, Larger Shelf Space, Larger Freezer Space, Larger Space for big water bottles)
- the graphic on its exterior shows a strong awareness for the Indian cultural sphere.
- the lowest energy consumption in India
- 24 hour cooling retention despite power cut with StayCool Technology
- the anti-bacterial property of Silver ions

The members of its design and production team are the training module director and demonstrators of JICA CSM Training course.

7. Metro Projects

Cooperation on Metro Projects

JICA is supporting metro projects in 6 major cities in India

Ahmedabad Metro

- Total Length: 38 km
- Project Cost: JPY 246 Billion (about Rs. 12,000 crore)
- Completion Year: 2020

Delhi Metro

- Total Length: 329km
- Project Cost: JPY 1,274 Billion (about Rs. 60,000 crore)
- Completion Year: 2016



Mumbai Metro

- Total Length: 33 km
- Project Cost: JPY 347 Billion (about Rs. 17,000 crore)
- Completion Year: 2020

Kolkata Metro

- Total Length: 14 km
- Project Cost: JPY 140 Billion (about Rs. 7,000 crore)
- Completion Year: 2020

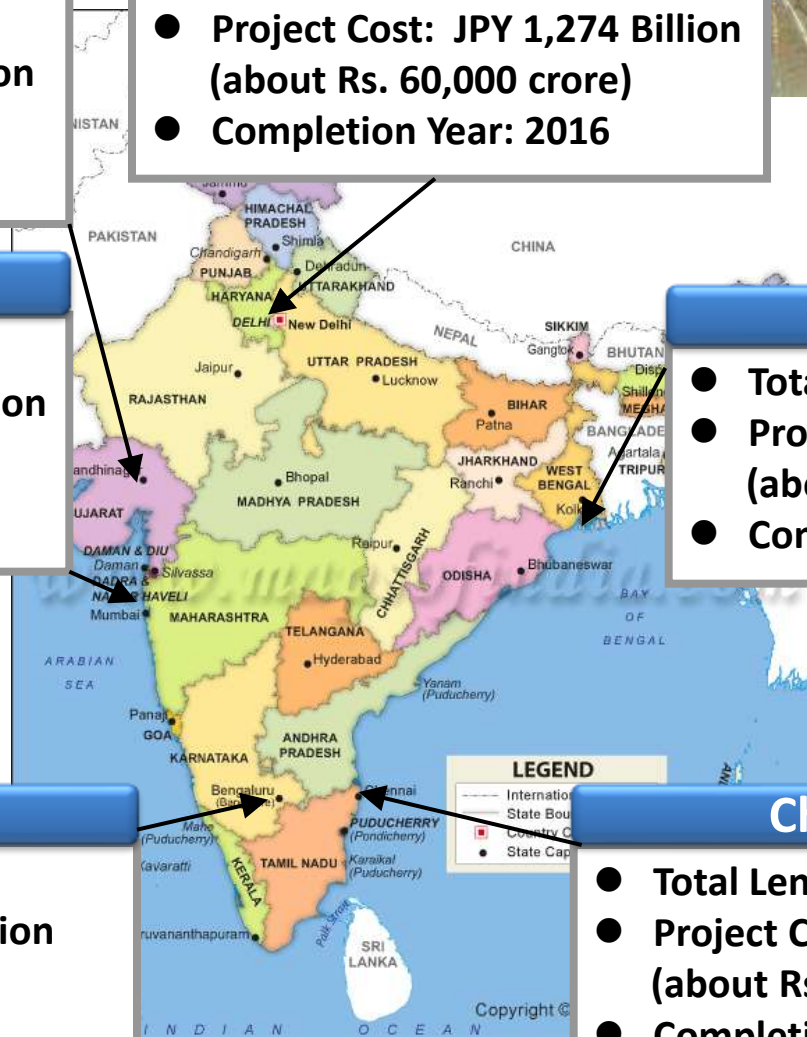


Bangalore Metro

- Total Length: 42 km
- Project Cost: JPY 307 Billion (about Rs. 15,000 crore)
- Completion Year: 2017

Chennai Metro

- Total Length: 45 km
- Project Cost: JPY 331 Billion (about Rs. 17,000 crore)
- Completion Year: 2017





Delhi Metro ~ most successful & well-known project funded by JICA

● Improvement of traffic congestion

- About 3 Million passengers per day (cf. 2.3 Mil in Osaka)
- Contributing to the reduction of congestion and the reduction of 120 thousands vehicles in New Delhi.

Then PM Mr. Manmohan Singh (Joint Statement 2006)

“Delhi Metro is a shining example of Japan-India partnership”

● Work Culture Innovation

The important concept and principle of “Safety” and “Timeliness” have been rooted into.

● First Railway Project under CDM (Clean Development Mechanism)

Registered as the 1st CDM project in UN railway sector by installing the Japanese energy efficiency technology called as “regenerative brake” contributing CO2 emission reduction by 0.73 million ton per year (0.1% of the total emission amount in India).

Safe, Timely, Comfortable Move for Better Life

- **Safe** ~ Considerations for safe operation.
- **Timely** ~ Satisfaction of development needs with high reliability of services
- **Comfortable** ~ Considerations for culture and life style, system management using ICT, vulnerable-users-friendly universal designs.
- "Human-centered investment" ~ Based on stakeholders coordination and public involvement
- Considerations for environmental harmonization, operation and maintenance, managerial/financial sustainability



"Quality Infrastructure"

Not only for the tangible asset development,
but for **"Safe, Timely, Comfortable" Service Delivery.**

8. Energy Sector

Operation result

- **9.3GW** of generation capacity
(4% of total generation Capacity in India)
- **840MW** of Renewable Energy
- **85 Projects** (As of March 2016)
- **1.3 Trillion Japanese Yen**
(equivalent to about Rs. 1 lakh crore, US\$ 1.3 Billion) (30% of total cooperation in India)

- ODA Loan

New Power Plant, Transmission & Distribution Lines, Energy Efficiency & Conservation, New and Renewable Energy, Grid Stabilization

- Technical Cooperation

Technical Assistance for Energy Efficiency & Conservation, New and Renewable Energy Study for Updating Exhausted Coal Thermal Power Plant

Good Practice

SIMHADRI THERMAL POWER STATION PROJECT(I)~(IV)

- Project Description
 - Loan Period: 1997 - 2003
 - Executing Agency: NTPC Ltd,
 - 97% of Capacity Factor
 - 11.9% of total power supply in Andhra Pradesh in 2009
 - IPMA (international project management award) in 2005

Training for Energy Conservation Techniques



Simhadri TPP



Transformer finance by JICA



Global Trend

- Discussion in International Arena (UNFCCC COP21, WEO etc)
 - Improving Energy Efficiency (Including to shut down low efficient TPPs)
 - Further utilization of Renewable Energy (RE)

India's Trend

- Electricity demand with rapid economic growth
 - No subcritical TPPs from 2017
 - 175 GW of RE by 2022
 - Pumped Storage for grid stabilization

JICA's Thought

- High Efficient TPPs with Environmental Facilities (USC)
- T&D Loss Reduction (Low Loss)
- Renewable Energy (Through IREDA)
- Grid Stabilization Technologies (Pumped Storage, Integrated System)

- Recent ODA Loan Projects -

- Haryana Transmission System Project (2007)
- Haryana Distribution Upgradation Project (2013)

- Madhya Pradesh Transmission System Modernisation Project (2010)
- Madhya Pradesh Transmission System Strengthening Project (2015)

- Maharashtra Transmission System Project (2007)

- Bangalore Distribution Upgradation Project (2006)

- Tamil Nadu Transmission System Improvement Project (2012)

- Dhauliganga Hydroelectric Power Plant Construction Project (1996~2004) (Uttarakhand)

- (West Bengal)
- Bakreswar Thermal Power Station Project (2002)
 - Purulia Pumped Storage Project (1994, 2005)

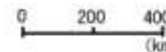
- Odisha Transmission System Improvement Project (2015)

- Transmission System Modernization Project in Hyderabad (2006)
- AP Rural High Voltage Distribution System Project (2010)
- Simhadri Thermal Power Station Project (1997, 2001, 2002, 2003)

- (More than two States)
- Rural Electrification Project (2005)
 - New and Renewable Energy Development Project (2011, 2014)
 - Micro, Small and Medium Enterprises Energy Saving Project (2008, 2011, 2014)

Legend

- Generation
- Transmission and Distribution



9. Business Environment Improvement

Tamil Nadu Investment Promotion Program [*Loan/Ongoing*]

◆ Program Description :

- To further improve the investment climate through strengthening the policy framework and developing urban infrastructure such as roads, power, water and sanitation, thereby **attempting to increase foreign direct investments** in the state for sustainable growth.
- Government of Tamil Nadu and JICA jointly monitor progress of action plans in the agreed policy matrix. Based on achievement, JICA disburses the loan amount by dividing into three tranches (corresponding to each fiscal year action plan).

◆ Loan Amount and Disbursement :

- JPY 13 billion (equivalent to about Rs. 650 crore)
(7 billion for 1st tranche and 3 billion for 2nd & 3rd tranche)

◆ Program Duration :

- 3 years (FY2012/13 - 2014/15)

◆ Achievement :

- A comprehensive action plan for ease of doing business has been elaborated.
- Global Investors Meet was held in September 2015.
- Development of industry related infrastructure (e.g. sub-station, road, water supply) has been accelerated.

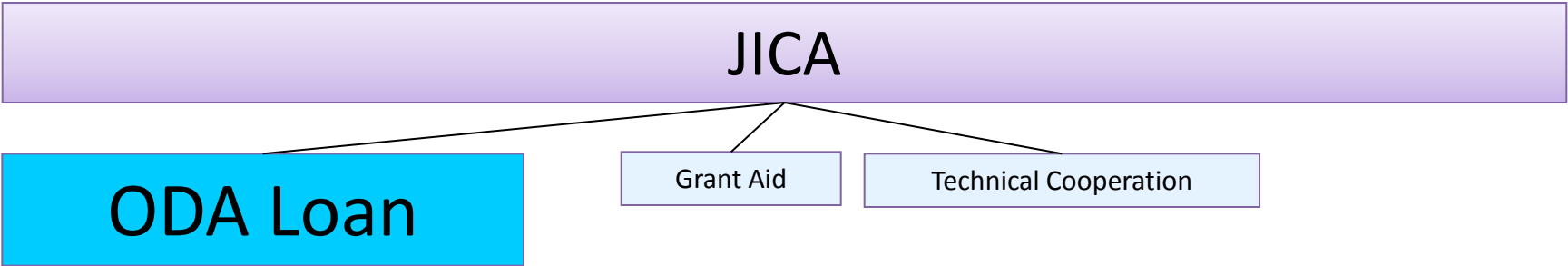


110kV Substation at OneHub Chennai Industrial Park



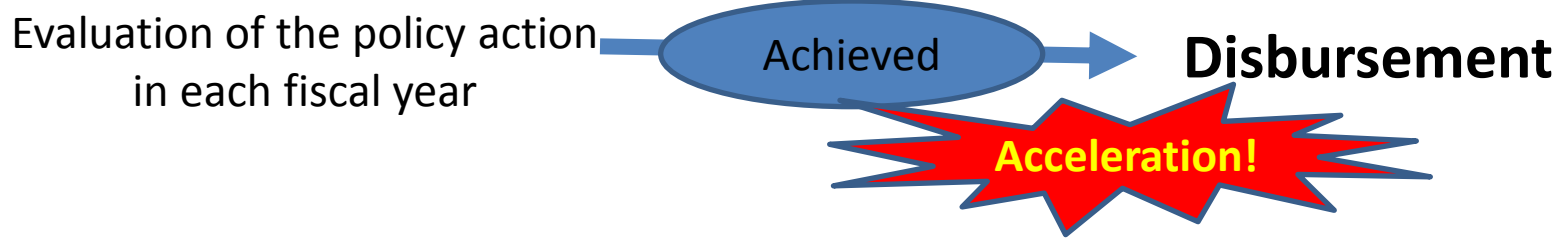
Access Road to Kamarajar Port (Ennore Port)

JICA Cooperation Framework and Investment Promotion Program Loan



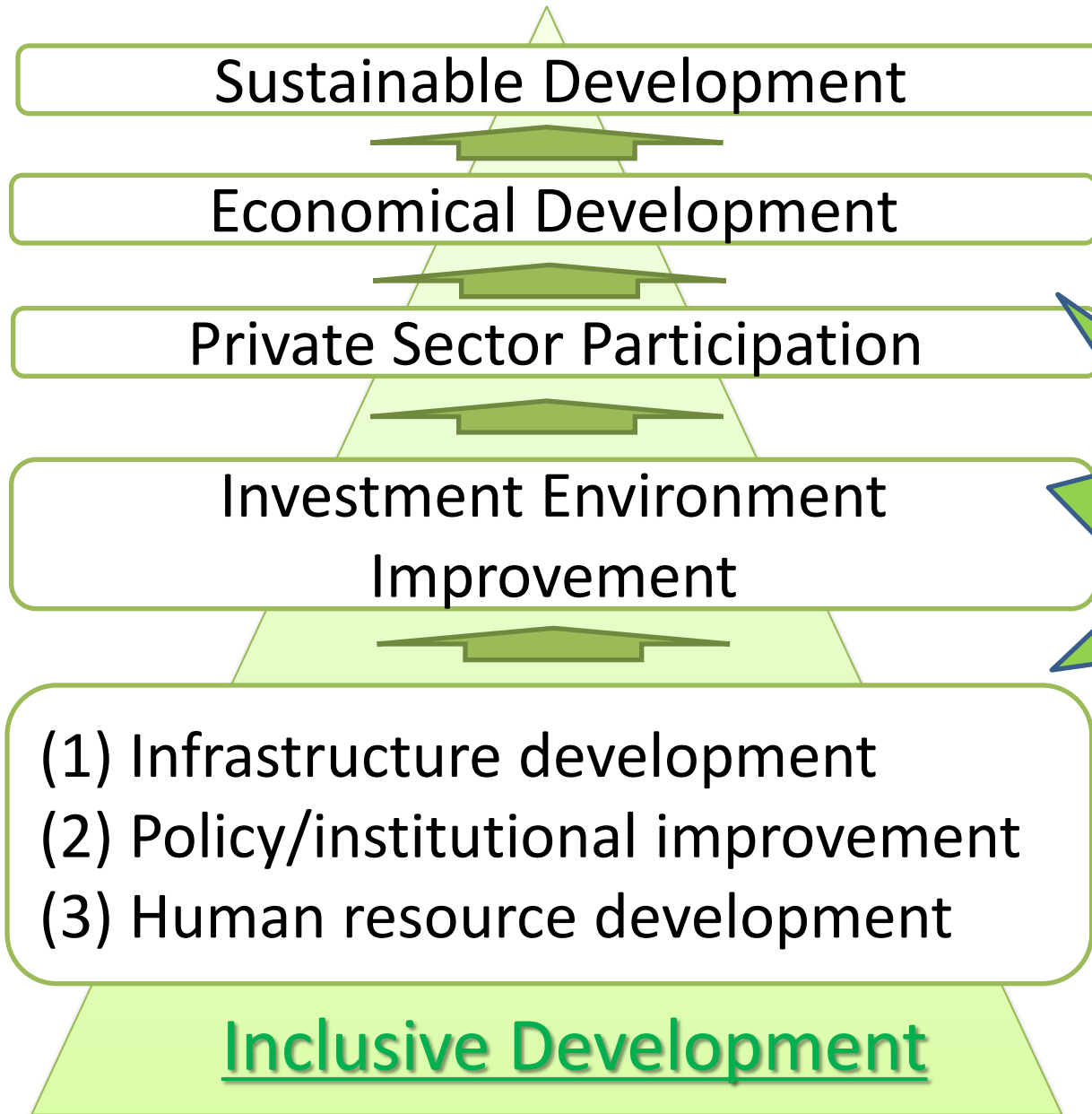
Concept of Investment Promotion Program Loan

Policy Area	1st Fiscal Year	2nd Fiscal Year	3rd Fiscal Year
Policy A (Ex. Business procedure)	•Action A	•Action A'	•Action A''
Policy B (Ex. Human resource)	•Action B	•Action B'	•Action B''
Policy C (Ex. Small scale infrastructure)	•Action C	•Action C'	•Action C''



10. Key Message towards “Sustainable Development”

Towards sustainable development



World Bank
"Doing
Business 2016"
130 rank /189
countries



JICA can facilitate Private sector participation for Sustainable Development

Fastest growing large economy in the world

"In this cloudy global horizon, India is a bright spot."

(IMF 2015.3)

Largest population in the world (in 2022)

More than 60% of population is at working-age (15-59 years) and more than 50% are less than 25 years old

Growing Indian market

"Tokyo Declaration for Japan-India

Special Strategic and Global Partnership"

Over Rs. 2 lakh crore of public and private investment and financing to India from Japan in five years.

Special Bilateral relationship

Japanese companies are now targeting India as the promising business destination

>No.1 promising business destination of Japan's overseas business (JBIC 2014 & 2015)

>Nearly 80% of the Japanese companies in India planning business expansion (JETRO 2015)

Positive Attitude of Private Sector

JICA's function for business environment improvement

- >Infrastructure development,
- >Support for legal system development and internationally standardized contract management
- >Human Resource Development
- >Support to Develop PPP (Public Private Partnership) Projects, etc.

Various Schemes of JICA

Risk factors still exist.

The challenges remain to reduce the business risks.

infrastructure, laws & regulations, etc

Risks still exist

Thank you!

धन्यवाद



c.f. <http://www.jica.go.jp/india/english/office/about/message.html>
<http://www.jica.go.jp/india/english/office/others/brochures.html>

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