ROLE OF JICA IN INDIA'S DEVELOPMENT OPPORTUNITIES AND CHALLENGES

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1. India - Japan Relations
History of 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**.
India - Japan Political Relations

- 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**"

- Doubling Japan’s foreign direct investment in India within five years.
- Doubling the number of Japanese companies in India within five years.
- 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) 

- ODA (Official Development Assistance) 
  - bilateral assistance 
  - multilateral assistance 
  - international authority 
  - ODA Loan / PSIF (Private Sector Investment Finance) 
  - Technical Cooperation 
  - Grant Aid*

* 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)

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

Major Sector (FY2006/07-2015/16)
- Transport 55%
- Water 16%
- Energy 13%
- Agriculture & Forestry 7%
- Others 9%

Japan is JICA’s Largest Partner in the World

Citizen Partnership / Public-Private Partnership
- Japanese Volunteers
- Japanese NGO activities
- Partnerships with Private-Sector Activities
3. Gender Sector
JICA’s Support to Gender Sector in India

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

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

- **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 cites, 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

<table>
<thead>
<tr>
<th></th>
<th>Before (%)</th>
<th>After (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curtorim</td>
<td>45.1</td>
<td>18.0</td>
</tr>
<tr>
<td>Khadpaband</td>
<td>58.7</td>
<td>34.4</td>
</tr>
<tr>
<td>Moira</td>
<td>53.0</td>
<td>36.1</td>
</tr>
</tbody>
</table>

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
**Water Sector** Comprehensive assistance in major cities by utilizing Japanese knowledge

**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

**Low Quality of Service**

- Intermittent water supply: Only 1-6 hours of supply in major cities
- Low water pressure: The need of electric water pumps
- Water contamination: Infiltration of wastewater into the water pipes

**Vulnerable financial structure**

- Water tariff: Rs.6/kL~36/kL
- Charge collection ratio: Below 50% in some cities
- Non-revenue water ratio: Over 40%

**Unpaid tariff, water theft etc**

**A vicious circle**

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 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: 104 crore, India: 62 crore

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

- Amritsar Sewerage Project
- Yamuna Action Plan Project
- Agra Water Supply Project
- Non-revenue Water Reduction for Jaipur Water Supply Project
- Rajasthan Rural Water Supply and Fluorosis Mitigation Project (Nagaur)
- Goa Water Supply and Sewerage Project
- Capacity Development Project for Non-Revenue water (NRW) Reduction in Goa (Completed)
- Project for Pollution Abatement of River Mula-Mutha in Pune
- Delhi Water Supply Improvement Project
- Ganga Action Plan Project (Varanasi)
- West Bengal Piped Water Supply Project (Purulia)
- Guwahati Water Supply Project
- Guwahati Sewerage Project
- Orissa Integrated Sanitation Improvement Project
- Hussain Sagar Lake and Catchment Area Improvement Project
- Hogenakkal Water Supply and Fluorosis Mitigation Project
- Kerala Water Supply Project
- Bangalore Water Supply and Sewerage Project
- Tamil Nadu Urban Infrastructure Project
- The Study for Formulation and Revision of Manuals on Sewerage and Sewage Treatment
- Improving water and sewerage infrastructure mainly in metropolitan areas and industrial areas

Comprehensive assistance in major cities by utilizing Japanese knowledge
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)
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
Human Resource Development under the Technical Cooperation

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

<table>
<thead>
<tr>
<th>Total Amount of (until FY 2014)</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Cooperation</td>
<td>about JPY 43 billion</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total Number of (until FY 2014)</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trainee from India</td>
<td>7,112 persons</td>
</tr>
<tr>
<td>Japanese Experts / Survey team</td>
<td>6,299 persons</td>
</tr>
<tr>
<td>Japan Oversea Cooperation Volunteer</td>
<td>193 persons</td>
</tr>
</tbody>
</table>
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

   - Course for Senior Manager Level
   - Course for SMEs (Vendors of OEMs & Tier 1-2)
   - Course for CEOs
   - Course for Middle Management Level
   - Course for Village Development and new business development

2. Implementation in collaboration with Government, Industry and Academia

   - Government of India
     - MHRD
     - DIPP
     - Industry
       - CII
     - Academia
       - IIM Calcutta
       - IIT Kanpur
       - IIT Madras
       - etc.

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)**

- 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
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: 329 km
- 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
Cooperation on Metro Projects

● 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.

● 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 lifestyle, 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
Energy Sector  Core for Economic Growth & Livelihood

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,
- Technical Cooperation
  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 -

- Odisha Transmission System Improvement Project (2015)
- Transmission System Modernization Project in Hyderabad (2006)
- AP Rural High Voltage Distribution System Project (2010)
- Odisha Transmission System Modernisation Project (2010)
- Haryana Transmission System Project (2007)
- Haryana Distribution Upgradation Project (2013)
- Bangalore Distribution Upgradation Project (2006)
- Tamil Nadu Transmission System Improvement Project (2012)
- Bakreswar Thermal Power Station Project (2002)
- Purulia Pumped Storage Project (1994, 2005)
- Maharashtra Transmission System Project (2007)
- Odisha Transmission System Improvement Project (2015)

(More than two States)
- Rural Electrification Project (2005)

Legend
- Generation
- Transmission and Distribution

Energy Sector Core for Economic Growth & Livelihood
9. Business Environment Improvement
Tamil Nadu Investment Promotion Program \( [\text{Loan/Ongoing}] \)

◆ **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. substation, road, water supply) has been accelerated.
JICA Cooperation Framework and Investment Promotion Program Loan

<table>
<thead>
<tr>
<th>Policy Area</th>
<th>1st Fiscal Year</th>
<th>2nd Fiscal Year</th>
<th>3rd Fiscal Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy A (Ex. Business procedure)</td>
<td>•Action A</td>
<td>•Action A’</td>
<td>•Action A’’</td>
</tr>
<tr>
<td>Policy B (Ex. Human resource)</td>
<td>•Action B</td>
<td>•Action B’</td>
<td>•Action B’’</td>
</tr>
<tr>
<td>Policy C (Ex. Small scale infrastructure)</td>
<td>•Action C</td>
<td>•Action C’</td>
<td>•Action C’’</td>
</tr>
</tbody>
</table>

Evaluation of the policy action in each fiscal year

Disbursement

Achieved

Acceleration!
10. Key Message towards “Sustainable Development”
Towards sustainable development

- Sustainable Development
- Economical Development
- Private Sector Participation
- Investment Environment Improvement

(1) Infrastructure development
(2) Policy/institutional improvement
(3) Human resource development

World Bank “Doing Business 2016”
130 rank /189 countries
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.

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

Japanese companies are now targeting India as the promising business destination
> No.1 promising business destination of Japan’s oversea business (JBIC 2014 & 2015)
> Nearly 80% of the Japanese companies in India planning business expansion (JETRO 2015)

Risk factors still exist.
The challenges remain to reduce the business risks.
infrastructure, laws & regulations, etc

Positive Attitude of Private Sector

Risks still exist
Thank you!

धन्यवाद


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