Japan-India Cooperation on Railway Sector

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IREE 2015

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1. Overview and Strategy of JICA’s Cooperation to India
1-1 What is “JICA”?

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

Japan’s Official Development Assistance (ODA)

ODA (Official Development Assistance)

- bilateral assistance
- multilateral assistance
- international authority

Grant

Grant Aid*

Technical Cooperation

Loan / PSIF (Private Sector Investment Finance)

* A part of grant aids are provided by Ministry of Foreign Affairs.
Japan International Cooperation Agency
1-2 India is JICA’s Largest Partner in the World

Operational Results in FY2013/14:
Commitment: 311.5 billion JPY (equivalent to Rs. 16,000 crore)
Disbursement: 145.4 billion JPY (equivalent to Rs. 7,500 crore)

Total Commitment:
- 4,164 billion JPY in total (equivalent to Rs. 2.2 trillion)
- 952 billion JPY for railway sector (equivalent to Rs. 503 billion)

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 2013/14
  3.5 billion JPY (Rs 200 Crore)
- Over 200 Japanese experts to India
- Over 650 government officials in Japan

Major Sector (FY2003/04-2013/14)
- Agriculture & Forestry 7%
- Energy 16%
- Other sectors 8%

Citizen Partnership / Public-Private Partnership
- Japanese Volunteers
- Japanese NGO activities
- Partnerships with Private-Sector Activities
1-3 Towards sustainable development

- Sustainable Development
- Economical Development
- Private Sector Participation
- Investment Environment Improvement
  - (1) Infrastructure development
  - (2) Policy/institutional improvement
  - (3) Human resource development

Inclusive Development
1-4 If you look at Railways....

- Essential Fundamental of the Industrial Development
- Key for the Quality of Life
- Environmentally Friendly Mass Transportation
2. Western Dedicated Freight Corridor Project
Western Dedicated Freight Corridor (DFC) Project

- The backbone of DMIC (Delhi-Mumbai Industrial Corridor)
- The Western DFC project (Delhi–Mumbai: 1,500 km) will focus on:
  1. construction of new dedicated freight lines
  2. installation of automated signal & telecommunication
  3. introduction of electric locomotives with high-speed & high-capacity transportation
- Total project cost estimated as 900 billion Japanese yen (majority is funded by JICA)
- Commissioning: 2017 (partially), 2019 (entire corridor)
- Tendering and construction is underway
### Western Dedicated Freight Corridor (DFC) Project

#### Electric Traction System

#### Double Stack Container Wagon

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<th>DFC</th>
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<td><strong>Maximum speed</strong></td>
<td>100 km/h</td>
<td>30 - 40 km/h (approximately)</td>
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<td><strong>Transport time</strong> (Delhi – Mumbai)</td>
<td>20 hours (approximately)</td>
<td>48 - 72 hours</td>
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Contract packages of civil works and bridges
3. Metro Projects
Cooperation on Metro Projects

Japan is supporting metro projects in 5 major cities in India

Delhi Metro
- Total Length: 329km
- Project Cost: 1,274 Billion JPY
- Loan Amount: 652 Billion JPY
- Completion Year: 2016 (Full)

Mumbai Metro
- Total Length: 33 km
- Project Cost: 347 Billion JPY
- Loan Amount: 71 Billion JPY
- Completion Year: 2019 (Full)

Kolkata Metro
- Total Length: 14 km
- Project Cost: 140 Billion JPY
- Loan Amount: 30 Billion JPY
- Completion Year: 2017 (Partial)

Bangalore Metro
- Total Length: 42 km
- Project Cost: 307 Billion JPY
- Loan Amount: 65 Billion JPY
- Completion Year: 2017 (Full)

Chennai Metro
- Total Length: 45 km
- Project Cost: 331 Billion JPY
- Loan Amount: 130 Billion JPY
- Completion Year: 2016
Cooperation on Metro Projects

● Improvement of traffic congestion
- 2 Million passengers per day (6 Mil in Tokyo, 2.3 Mil in Osaka)
- contributing to the reduction of congestion, reduction of 120 thousands vehicles in New Delhi.

● Work Culture
The important concept and principle of “Safety” and “Deadline” have been rooted into.

● First Railway Project under CDM (Clean Development Mechanism)
Registered as CDM project in UN for the first case of railway sector by installing the Japanese Energy Efficiency Technology called “regenerative brake” contributing CO2 emission reduction by 0.73 Million ton per year (0.1% of the total emission amount in India).
4. Mumbai-Ahmedabad High Speed Railway Projects
# Background of the Joint Feasibility Study for Mumbai-Ahmedabad High Speed Railway Corridor

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- **Pre-F/S of Mumbai-Ahmedabad High Speed Rail (MAHSR)**

- **Dec, 2013 – July, 2015**

- **Japan-India Joint Feasibility Study**

- **29th, May, 2013**
  - Decision to conduct Joint Study of Mumbai-Ahmedabad section announced in Japan-India PM's Meeting Joint Statement

- **7th, Oct, 2013**
  - The Ministry of Railways, Govt. of India and JICA signed a memorandum of understanding (MOU) concerning the Joint Feasibility Study

- **20th, Jul, 2015**
  - Final Report of the Study was submitted to Minister of Railway from Japanese Ambassador
Station Location between Mumbai and Ahmedabad

12 stations between Mumbai and Sabarmati.

Source: Study Team
5. Key Message
“Quality Infrastructure”
“Safe, Timely and Comfortable Move for Better Life”

Advanced technology and system in the railway sector promote the quality of cooperation focused on development of human resources in developing countries.
 **Safe**—Considerations for safe operation.
 **Timely**—Support to satisfy development needs, 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
Thank you!