Safe, Timely & Comfortable Move for Better Future

~Japan-India Cooperation on Railway Sector ~

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Justification of Railway Sector Development

Railways

Essential Fundamental of the Industrial Development

Key for the Quality of Life

Environmentally Friendly Mass Transportation
### Key Message

- **Safe** operation
- **Timely & Stable** (with reliability, efficiency and comfort)
- Considerations for *environmental harmonization, operation and maintenance*, managerial/financial *sustainability*
- Coordination with various stakeholders for better operation /service

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#### “Quality Infrastructure”

- Not for the tangible asset development, but for **“Safe, Timely & Stable” Operation**.
- Value for money with reliable technology for minimum Life Cycle Cost (**LCC**) and maximum Economic & Social impact (**Social Innovation**)

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*toward Inclusive, Sustainable and Resilient growth!*
1. Western Dedicated Freight Corridor Project (WDFC)

2. **Metro** Projects

3. Mumbai-Ahmedabad High Speed Railway Project (MAHSR)

4. **Overview** of JICA’s Cooperation in India
1. Western Dedicated Freight Corridor Project (WDFC)
The backbone of DMIC (Delhi-Mumbai Industrial Corridor)

WDFC (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

Construction is underway (Almost all tendering are completed)
Western Dedicated Freight Corridor (DFC) Project

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<thead>
<tr>
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<th>DFC</th>
<th>NOW</th>
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<tr>
<td>Maximum speed</td>
<td>100 km / h</td>
<td>30 - 40 km / h (approximately)</td>
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<td>Transport time</td>
<td>20 hours (approximately)</td>
<td>48 - 72 hours</td>
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<td>(Delhi – Mumbai)</td>
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2. Metro Projects
JICA is supporting metro projects in 6 major cities in India.

**Delhi Metro**
- Total Length: 349 km
- Project Cost: JPY 1,274 Billion (about Rs. 60,000 crore)
- Completion Year: 2017

**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: 43 km
- Project Cost: JPY 378 Billion (about Rs. 17,000 crore)
- Completion Year: 2020
Cooperation on Metro Projects

● Improvement of traffic congestion
- About 3 Million passengers/day (cf. 2.3 Mil in Osaka)
- Modal shift from private to mass transportation contributing to ease the traffic congestion;
  → Reduction of vehicles (No.) : about 4 Lakh /day
  → Reduction of accidents (No.) : about 1000 /year
  → Reduction of pollutants (ton) : about 6 Lakh /year

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

● Other Social Innovation (behavior change)
- Waiting in orderly lines for a train and maintaining good manners
- Consideration for women, etc.

Then PM Mr. Manmohan Singh (Joint Statement 2006)
“Delhi Metro is a shining example of Japan-India partnership”
3. Mumbai-Ahmedabad High Speed Railway Projects (MAHSR)
Joint Feasibility Study (F/S) conducted by JICA and Ministry of Railway from Dec. 2013 to July. 2015.

Both sides confirmed the use of Japanese high speed rail technologies (i.e. the SHINKANSEN system) and experiences, in line with the result of the joint F/S at the Japan-India Summit Meeting (December 2015).

In the latest Japan-India Summit Meeting (September 2017), the two Prime Minister welcomed:

1. Steady progress, including the project commencement at the Sabarmati Station, witnessing the construction commencement of training institute in Vadodara

2. Provision for a soft ODA loan amounting to JPY 100 billion

3. Business matching efforts to establish Japan-India cooperation for advancing “Make in India” and technology transfer HSR projects

JICA has been providing with utmost technical support (for CD);
✓ Formulation of technical standards,
✓ Safety certification measures,
✓ Strengthening the institutional capacity of NHSRCL
✓ Urban development planning of stations and surrounding areas for enhancement of the connectivity and non-fare revenue, etc.
4. Overview of JICA’s Cooperation in India
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

Grant

Grant Aid*

ODA Loan / PSIF (Private Sector Investment Finance)

Technical Cooperation

* Part of grant aid is provided by the Ministry of Foreign Affairs.
**India is JICA’s Largest Partner in the World**

**Soft Loan**

Accumulated Commitment by FY2016/17:
- JPY 4.9 trillion in total
  (equivalent to about Rs. 3 lakh crore)

Operational Results in FY2016/17:
Commitment: JPY 308.8 billion
  (equivalent to about Rs. 16,000 crore)
Disbursement: JPY 206.1 billion
  (equivalent to over Rs. 10,000 crore)

Terms and conditions: (as of 11th Oct, 2017)
- General terms: Interest rate 1.2%, repayment period 30 years (including 10 years grace period)
- STEP: Interest rate 0.1%, repayment period 40 years (including 12 years grace period)

**Citizen Partnership / Public-Private Partnership**

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

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**Grant Aid**

One on-going project in health sector in Chennai

**Technical Cooperation**

- Results in FY 2016/17
  JPY 16.0 billion (about Rs. 850 crore)

  About 1100 Japanese experts to India
  About 250 Trainee from India to Japan
Toward sustainable development

Sustainable Development

Economic Development

Private Sector Participation

Investment Environment Improvement
(Not “command-economy” countries)

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

Inclusive Development

World Bank “Doing Business 2017” 130 rank /190 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 2024)
Over 60% are at working-age (15-59 years) and over 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 5 years.

Special Bilateral relationship

Japanese companies are now targeting India as the promising business destination
> No.1 promising business destination of Japan’s oversea business (JBIC 2014, 2015, 2016)
> Over 70% of the Japanese companies in India planning business expansion (JETRO 2016)

JICA can facilitate Private sector participation for Sustainable Development

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

Positive Attitude of Private Sector

Risks still exist

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Thank you!
धन्यवाद