

Safe, Timely & Comfortable Move for Better Future

~Japan-India Cooperation on Railway Sector ~

IRC (Int'l Rail Conference) **2017**

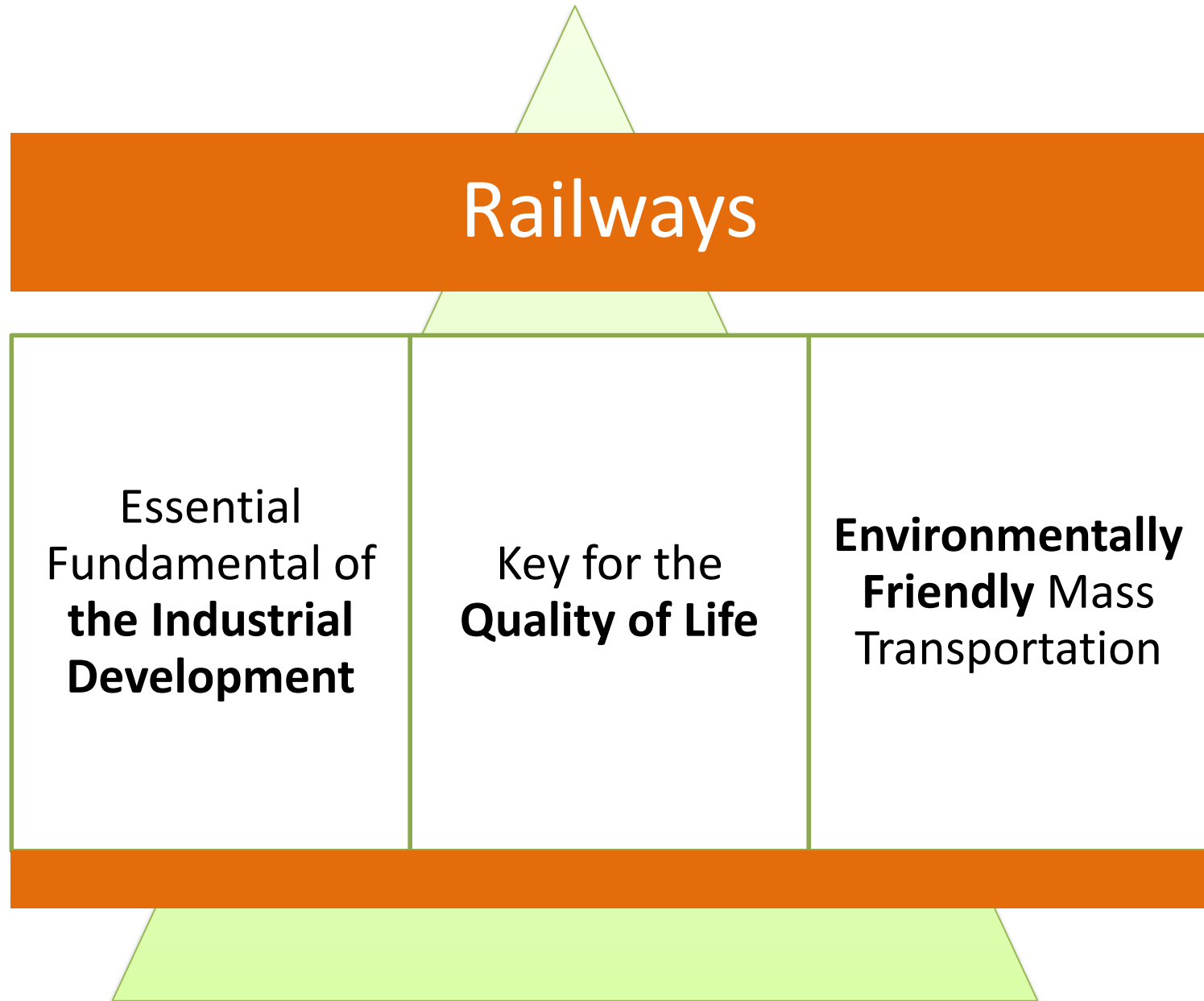
@Pragati Maidan, Oct. 11th, 2017

Takema SAKAMOTO

Chief Representative

Japan International Cooperation Agency (**JICA**) India

Justification of Railway Sector Development



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



“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**)

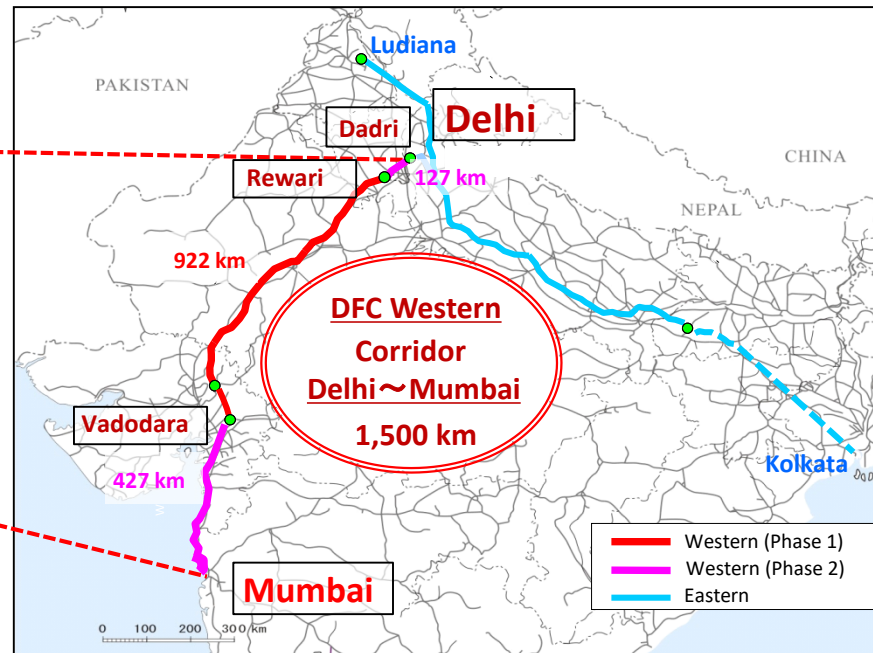
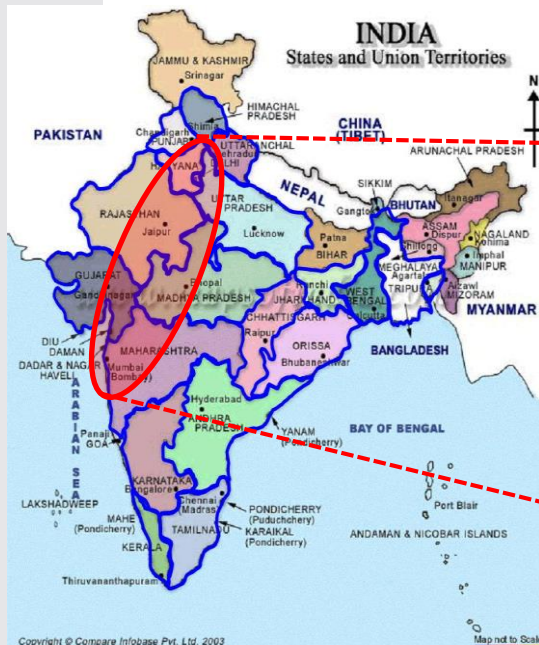
***toward Inclusive,
Sustainable and
Resilient growth!***

<Reference>

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

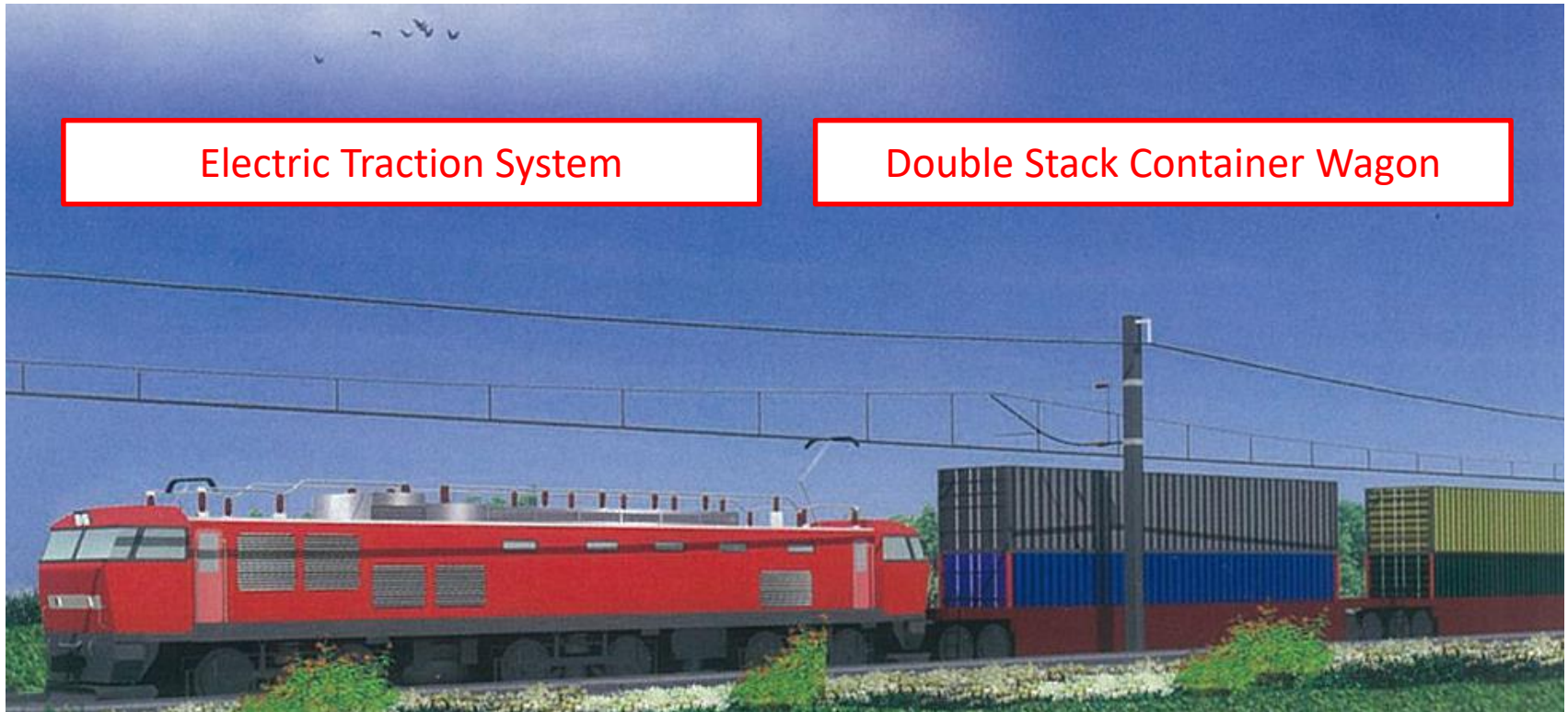
1. Western Dedicated Freight Corridor Project (WDFC)

- 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

<Completion image>



	DFC		NOW
Maximum speed	100 km / h	←	30 - 40 km / h (approximately)
Transport time (Delhi – Mumbai)	20 hours (approximately)	←	48 - 72 hours

2. 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: 349km
- 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

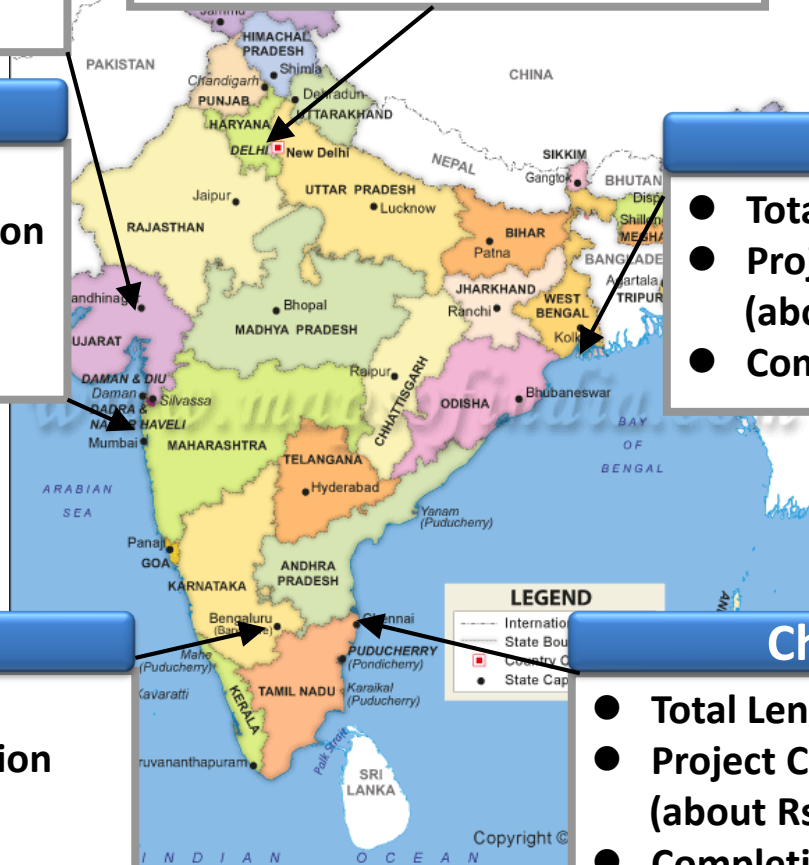


Bangalore Metro

- 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





Delhi Metro ~ most successful & well-known project with JICA

● 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**

*Then PM Mr.
Manmohan Singh (Joint
Statement 2006)*

*"Delhi Metro is a
shining example of
Japan-India
partnership"*

● Work Culture Innovation

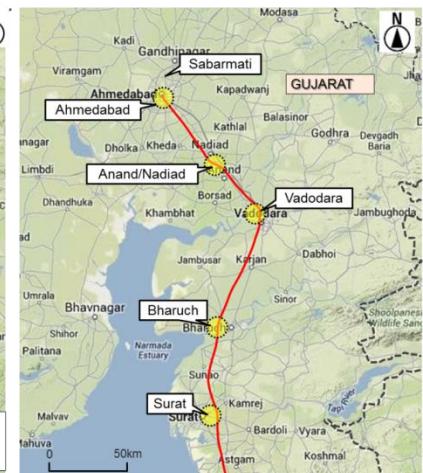
The important concept and principle of
“Safety” and “Timeliness” have been rooted into

● Other Social Innovation (behavior change)

- waiting in orderly lines for a train and maintaining good manners
- consideration for women, etc.

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 Vadodra
 - (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.

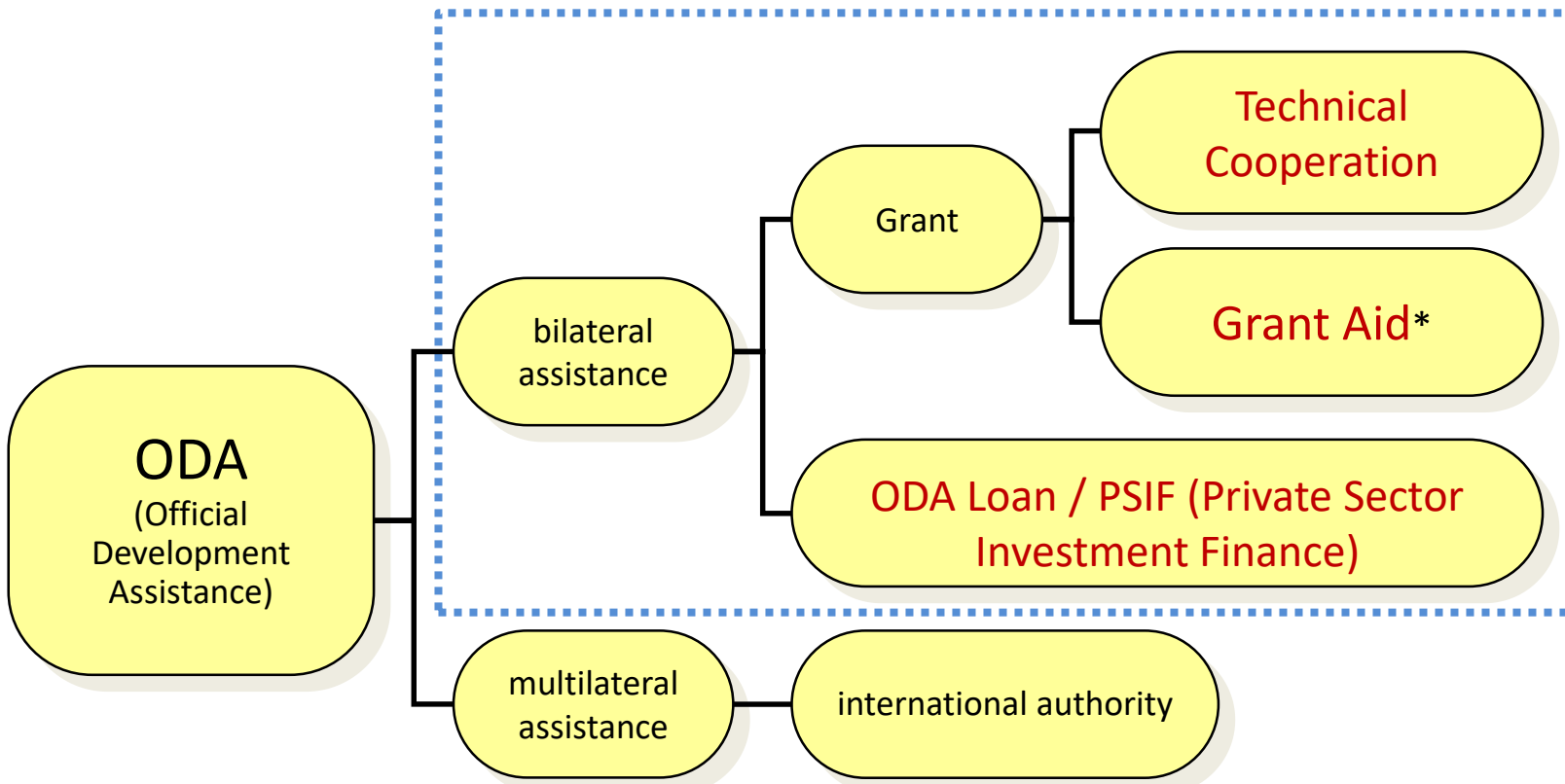


4. Overview of JICA's Cooperation in India

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)

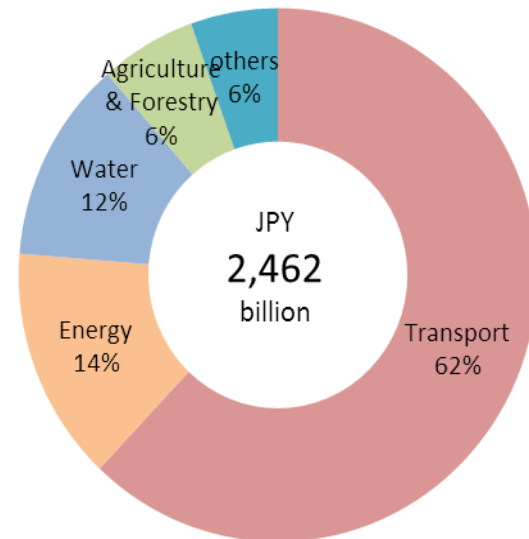


* Part of grant aid is provided by the Ministry of Foreign Affairs.

India is JICA's Largest Partner in the World

Soft Loan

Major Sector (FY2007/08-2016/17)



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)

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

Citizen Partnership / Public-Private Partnership

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

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



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 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 overseas
business (JBIC 2014, 2015, 2016)
- >Over 70% of the Japanese companies in India planning
business expansion (JETRO 2016)

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>
<https://www.jica.go.jp/india/english/office/others/presentations.html>

