

# Japan-India Cooperation on Railway Sector

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IREE 2015

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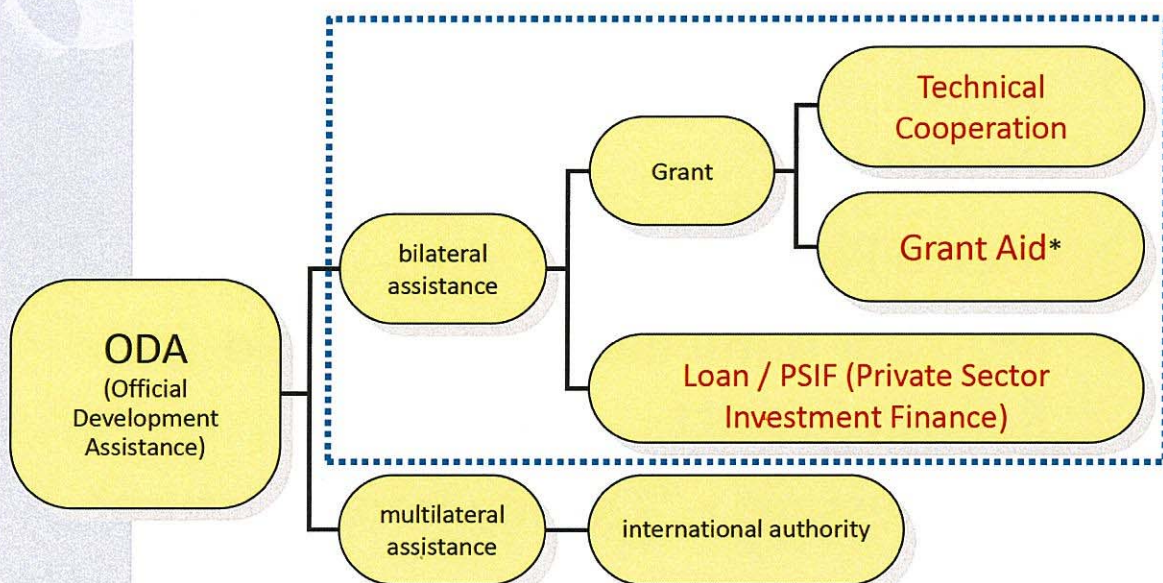
# 1. Overview and Strategy of JICA's Cooperation to India

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## 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)



\* A part of grant aids are provided by Ministry of Foreign Affairs.

# 1-2 India is JICA's Largest Partner in the World

## Loan

### 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)

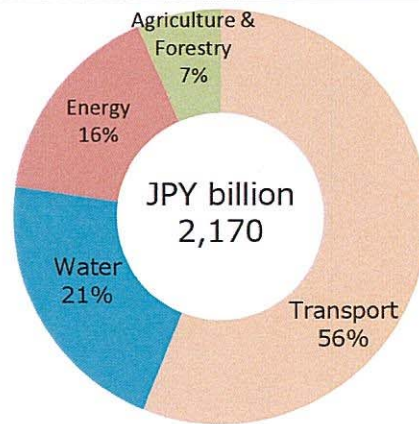
### Total Commitment:

- 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)

### Major Sector (FY2003/04-2013/14)



### 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

### Citizen Partnership / Public-Private Partnership

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

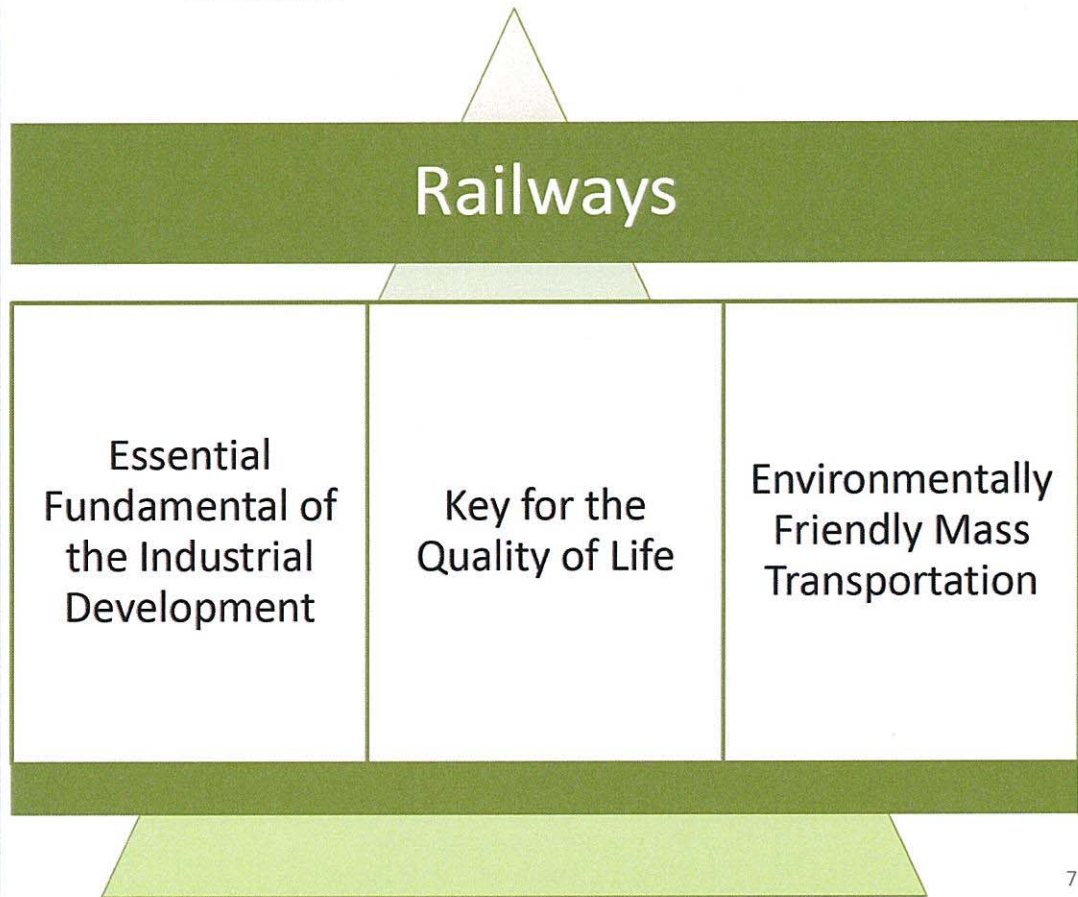
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# 1-3 Towards sustainable development



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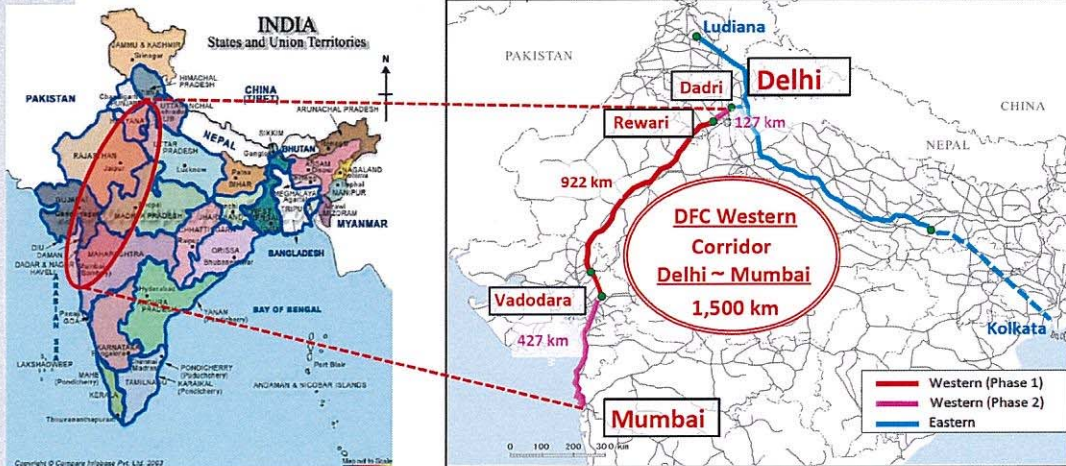
## 1-4 If you look at Railways....



## 2. Western Dedicated Freight Corridor Project

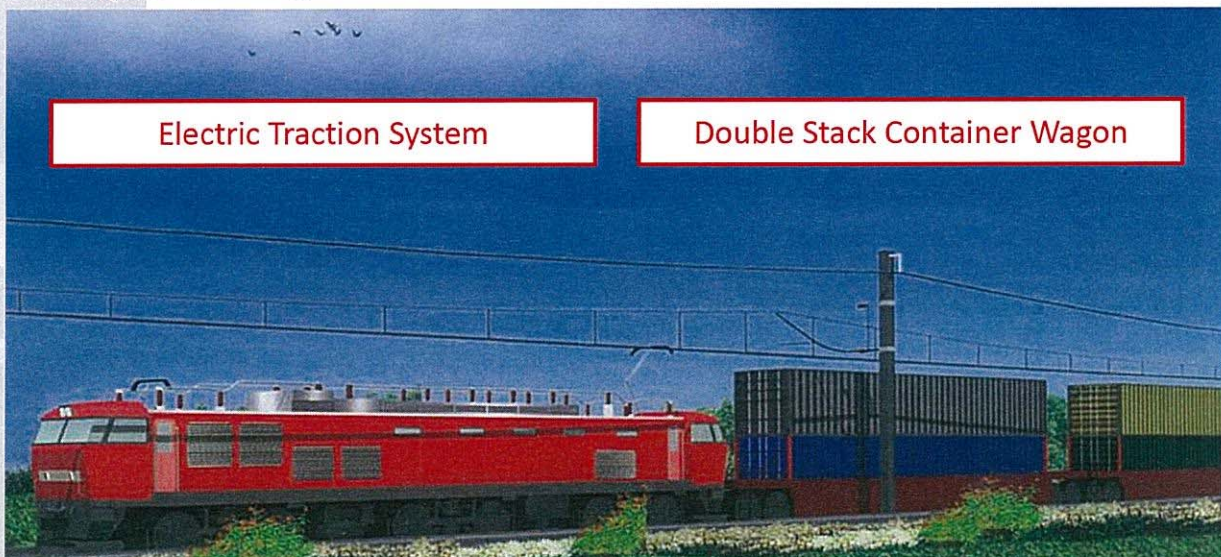
# Western Dedicated Freight Corridor (DFC) Project

- 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

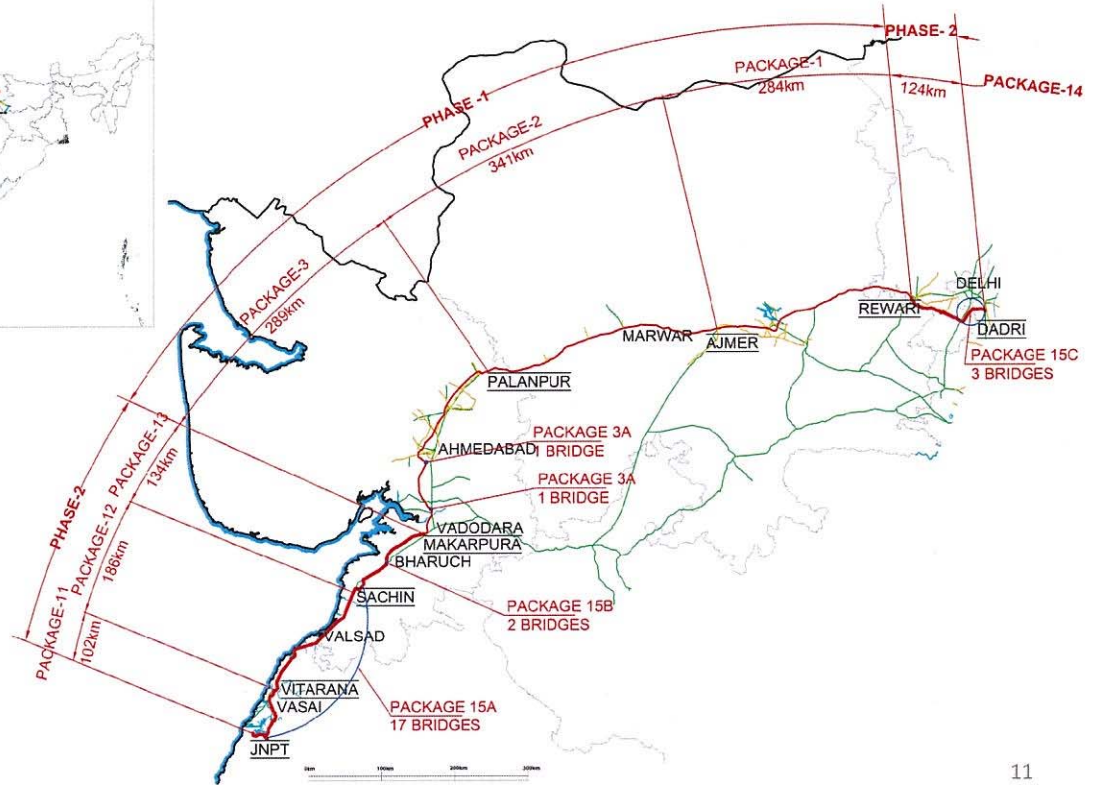
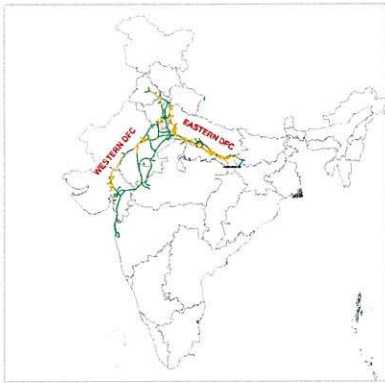


# Western Dedicated Freight Corridor (DFC) Project

<Completion image>



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



## 3. Metro Projects

# Cooperation on Metro Projects

Japan is supporting metro projects in 5 major cities in India



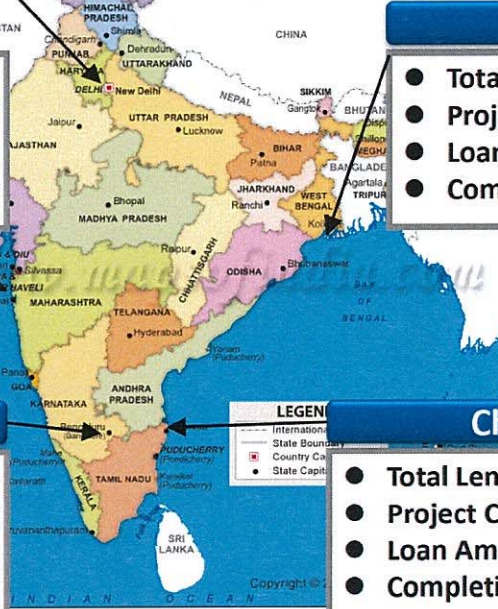
### Delhi Metro

- 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: 150 Billion JPY
- Completion Year: 2016 (Full)

# Cooperation on Metro Projects

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



- **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.

*Then PM Mr. Manmohan Singh (Joint Statement 2006)*  
*"Delhi Metro is a shining example of Japan-India partnership"*

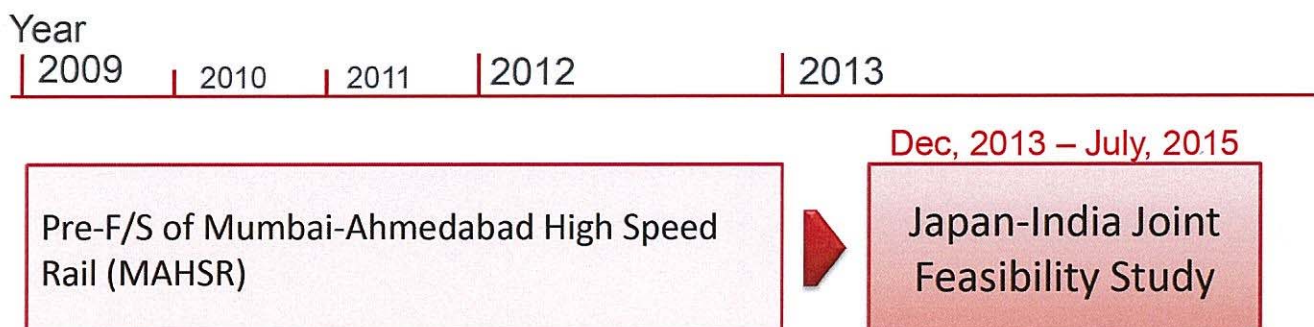
- **Work Culture**  
 The important concept and principle of "Safety" and "Deadline" have been rooted into.

- **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

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### Background of the Joint Feasibility Study for Mumbai-Ahmedabad High Speed Railway Corridor



29<sup>th</sup>, May, 2013

Decision to conduct Joint Study of Mumbai-Ahmedabad section announced in Japan-India PM's Meeting Joint Statement

7<sup>th</sup>, Oct, 2013

The Ministry of Railways, Govt. of India and JICA signed a memorandum of understanding (MOU) concerning the Joint Feasibility Study

20<sup>th</sup>, Jul, 2015

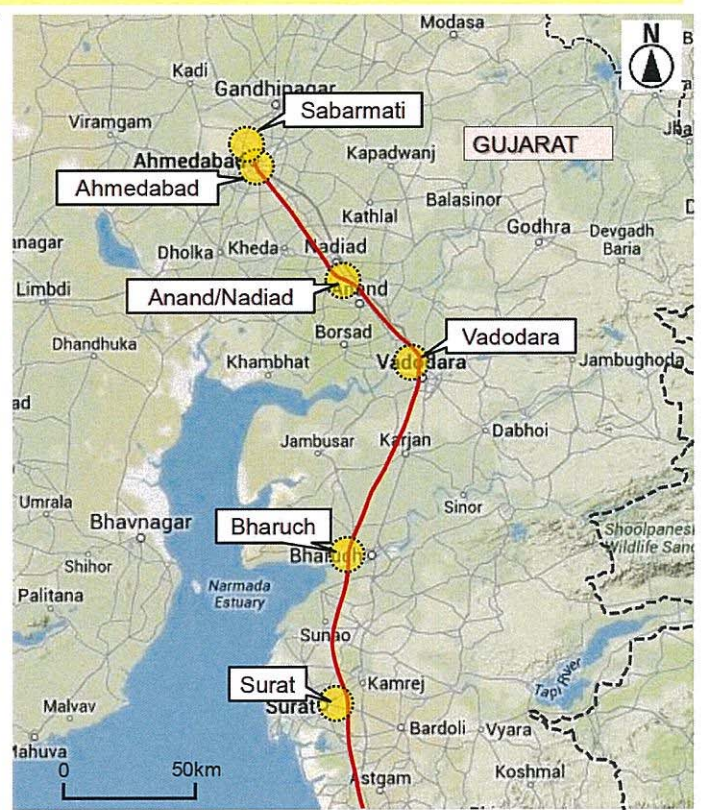
Final Report of the Study was submitted to Minister of Railway from Japanese Ambassador

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# Station Location between Mumbai and Ahmedabad

## 12 stations between Mumbai and Sabarmati.



Source : Study Team

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## 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.

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- **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



### ***“Quality Infrastructure”***

Not for the tangible asset development.  
but for **“Safe, Timely, Stable” Service Delivery.**

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**Thank you!**

