

The role of JICA in India's economic developments

April 16th, 2019
JICA India

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 - Connectivity

1. India - Japan Relations

India - Japan Relations

- Both established **Special Strategic and Global Partnership**.
- For India, Japan is the **largest bilateral development partner**.
- For Japan, India is the **oldest** recipient of ODA.

- Apr. 1952 Established official diplomatic relations
- 1958 Japan's first ODA Loan in the world extended to India.
- Aug. 2000 "**Japan-India Global Partnership in the 21st Century**"
- Apr. 2005 Japanese PM Koizumi visited India. Annual based PMs



- Dec. 2006 "**Joint Statement Towards Japan-India Strategic and Global Partnership**"
- Sept. 2014 Indian PM Modi visited Japan. "**Tokyo Declaration for Japan-India Special**

Strategic and Global Partnership"

- a) *Doubling Japan's foreign direct investment in India within five years.*
- b) *Doubling the number of Japanese companies in India within five years.*
- c) *JPY 3.5 trillion (Rs. 2 trillion) of public and private investment and financing to India from Japan, including ODA, within five years.*
- Sept. 2017 Japanese PM Abe visited India (Commencement ceremony of HSR in Ahmedabad)
- Oct. 2018 Indian PM Modi visited Japan (Tokyo and Yamanashi).

Act East Forum

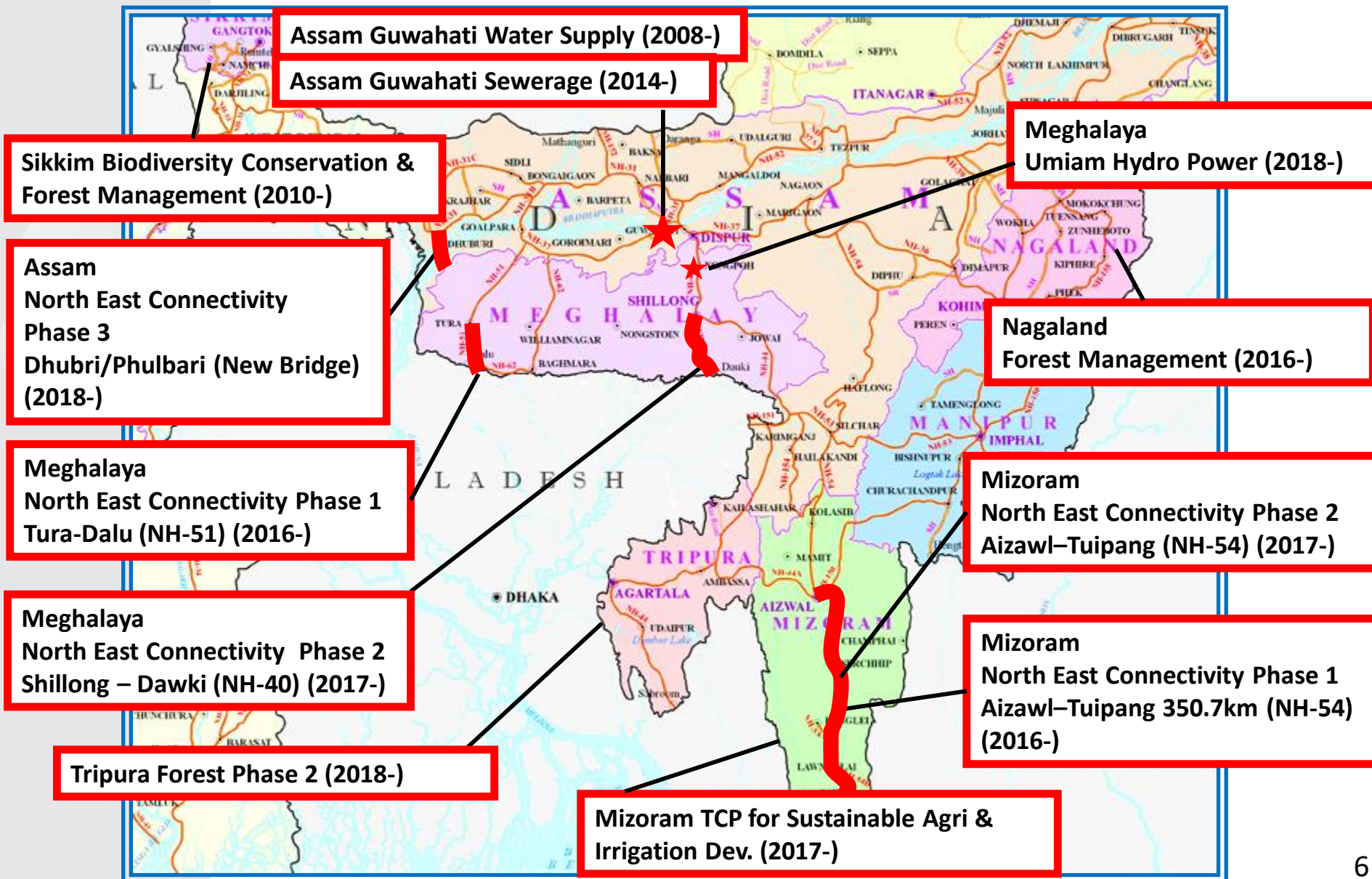
The Forum aims to further expand the cooperation between Japan and India in North East and to strengthen the relationship between Japan and North East, as well as that between Japan and India. In this regard, the Forum discusses cooperation in various fields and promotes Japan's cooperation in the region.

- 1. Enhancing Connectivity**
- 2. Forest Management**
- 3. Bamboo**
- 4. Disaster management**
- 5. People-to-people exchanges**



JICA's Cooperation for NER

Continuous Cooperation for Sustainable Development including Connectivity Enhancement



Free and Open Indo-Pacific

- The Free and Open Indo-Pacific (FOIP) concept, originally advocated by the Japanese government, is based on the recognition that a maritime order that is free and open under the rule of law represents a foundation for the stability and prosperity of the international community. To ensure the stability and prosperity of the Indo-Pacific region, it is vital to maintain or bolster its free and open maritime order by eliminating various kinds of threats such as those from piracy, natural disasters, terrorism, the proliferation of weapons of mass destruction and illegal operations.
- The entire Indo-Pacific region's economic activities will be stimulated by connecting Asian economies that have grown significantly through attaining a certain degree of political stability, with Middle Eastern and African countries that are expected to grow in the coming years and by boosting the regional connectivity.

Cooperation in the third countries

India and Japan welcomed progress in identification of specific cooperation, including but not limited to the following:

2.1 Cooperation in Sri Lanka, such as the development of LNG-related infrastructure;

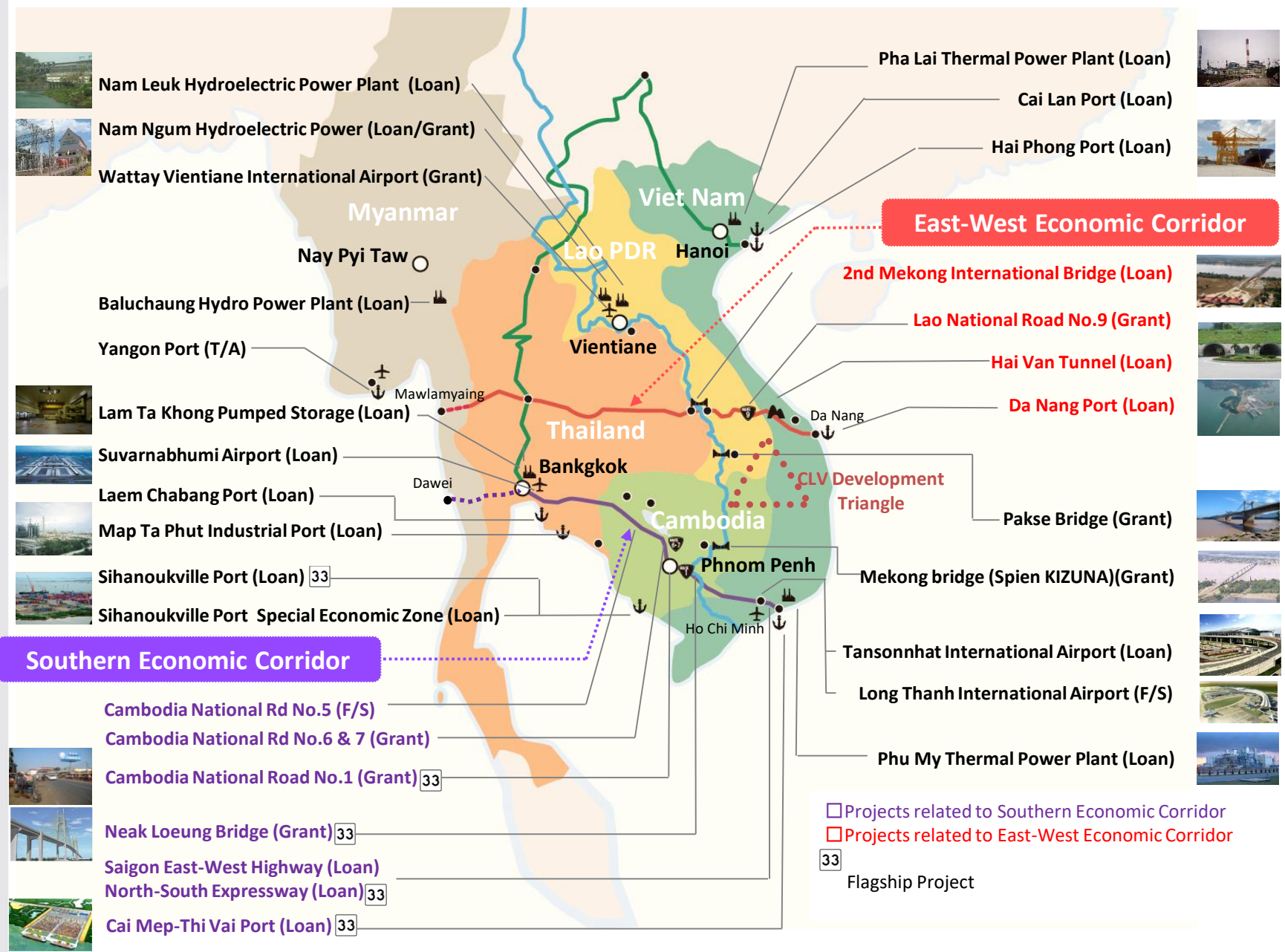
2.2 Cooperation in Myanmar, synergizing development efforts in the Rakhine State

by collaborating in housing, education and electrification projects;

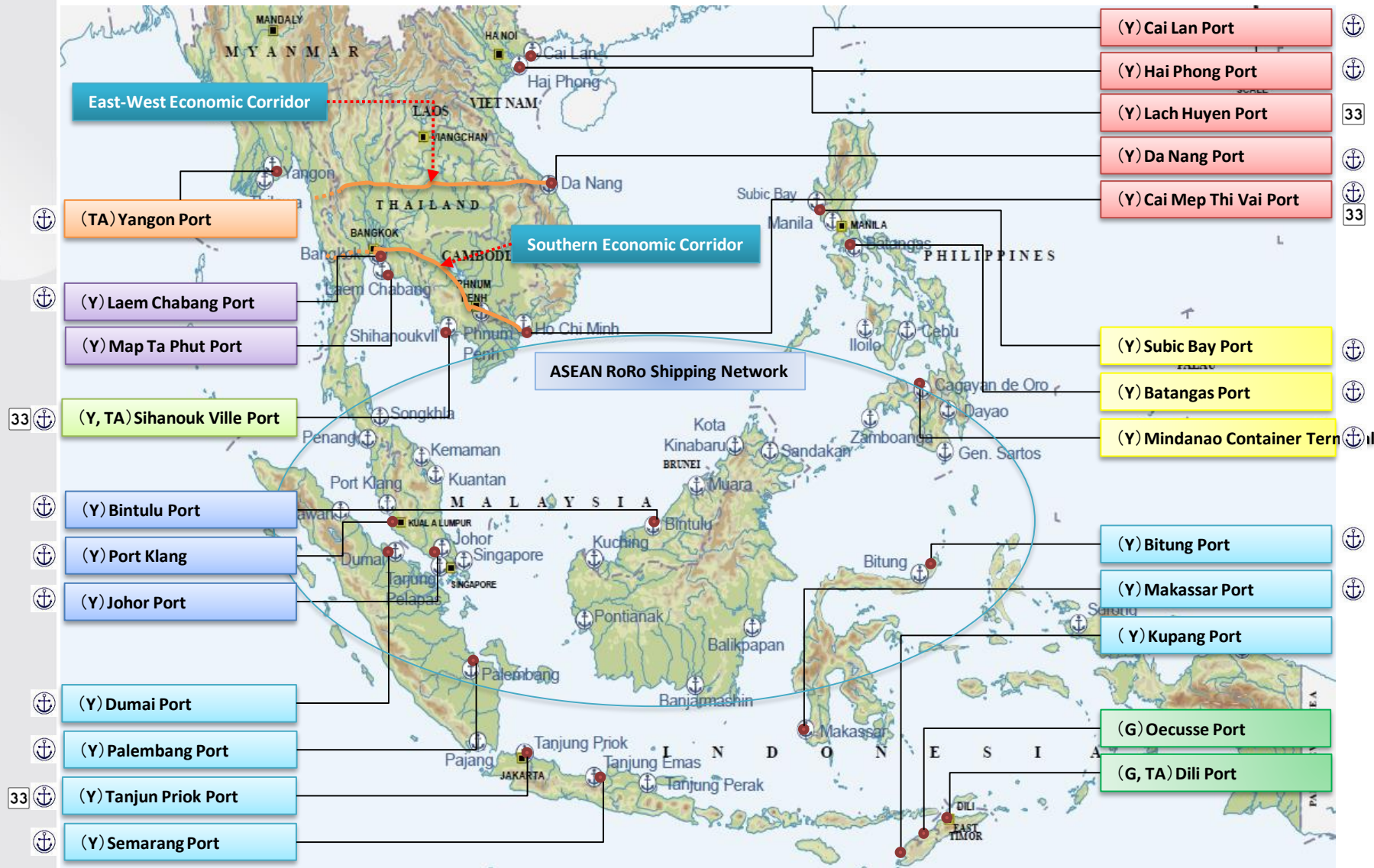
2.3 Cooperation in Bangladesh, for enhancing connectivity by way of four-laning of road and reconstruction of bridges on the Ramgarh to Baraiyarhat stretch, and providing rolling stock and constructing the Jamuna Railway Bridge over the Januma River; and

2.4 Cooperation in Africa, such as organising an SME development seminar in Kenya and seeking a possibility of a collaborative project in the area of health service such as developing a cancer hospital in Kenya.

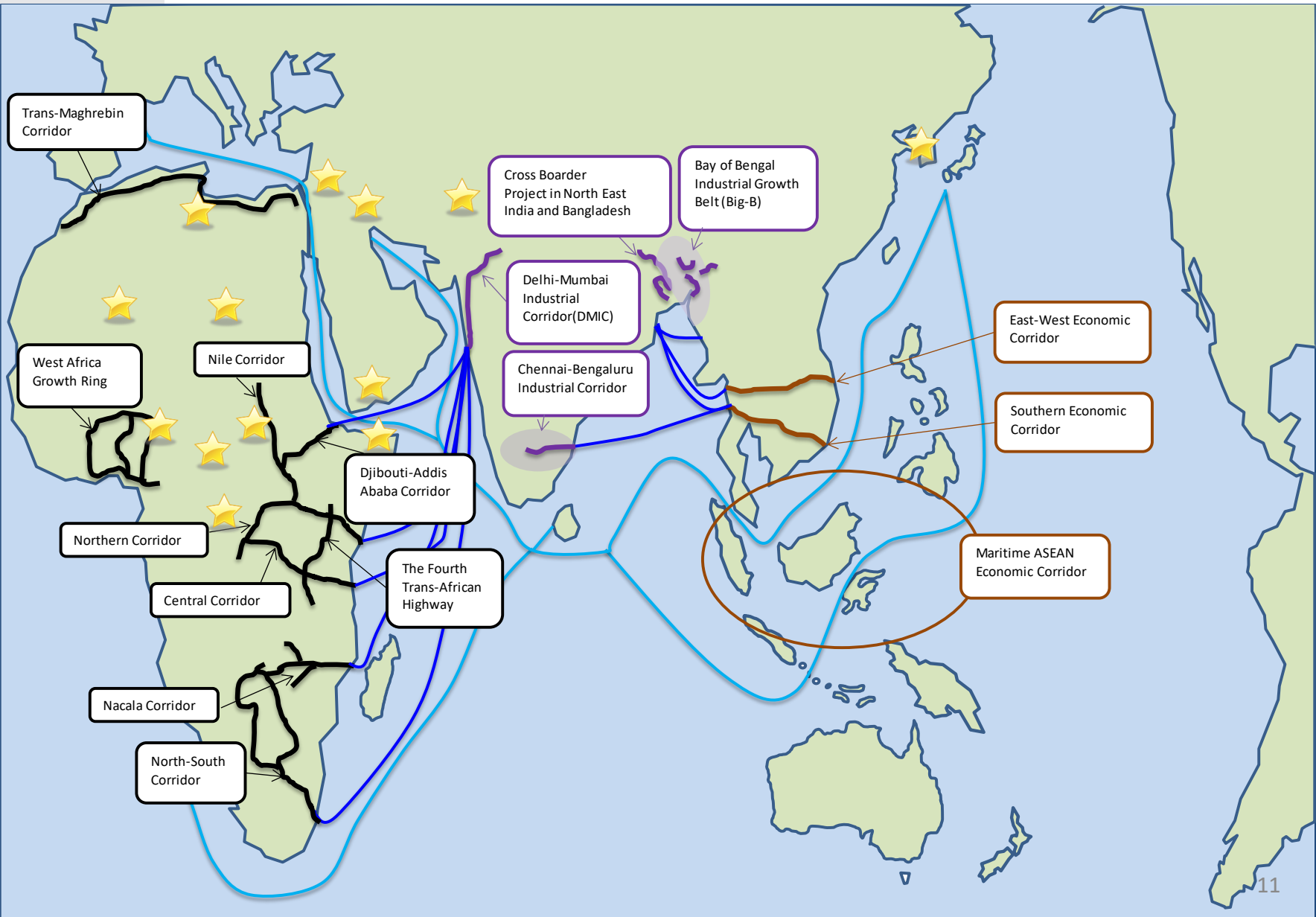
JICA's contribution to Economic Corridors and Mekong Area



JICA's contribution to Maritime ASEAN Economic Corridor



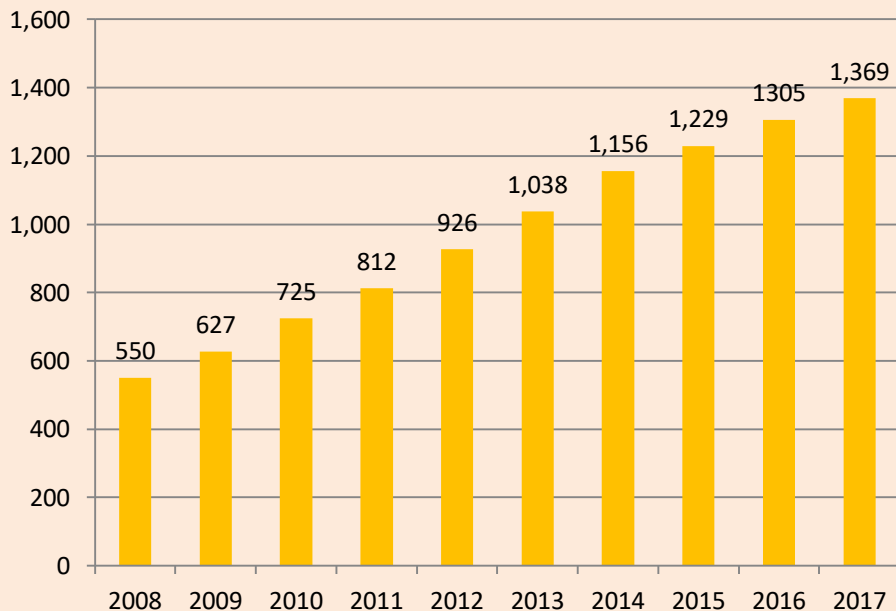
JICA's activities for prosperity of the Indo-Pacific



- More than 1,300 Japanese companies have started business in India. (approx. 2.5 times more than 10 years ago)
- Japanese citizens living in India have doubled in 10 years

Japanese companies in India

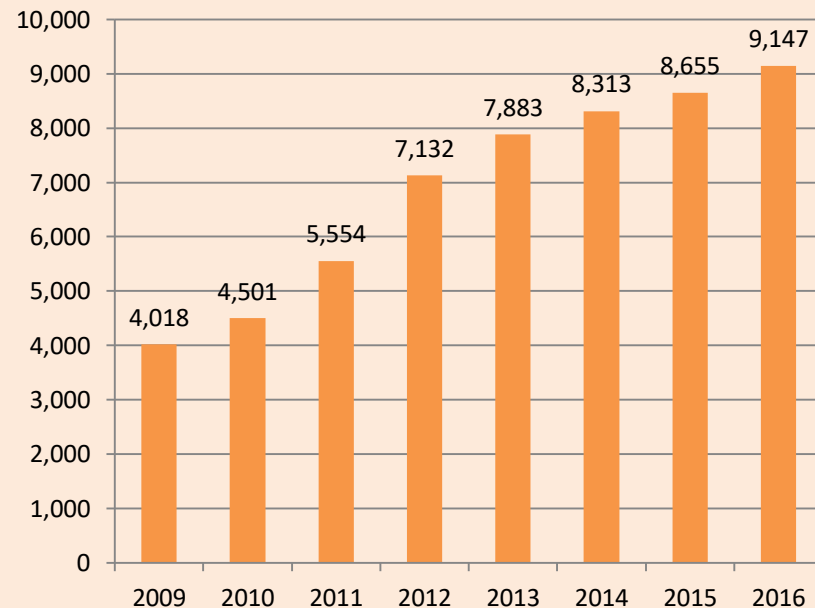
As of Dec. 2017



http://www.in.emb-japan.go.jp/Japanese/2017_co_list_jp.pdf

Japanese living in India

As of Oct. 2017

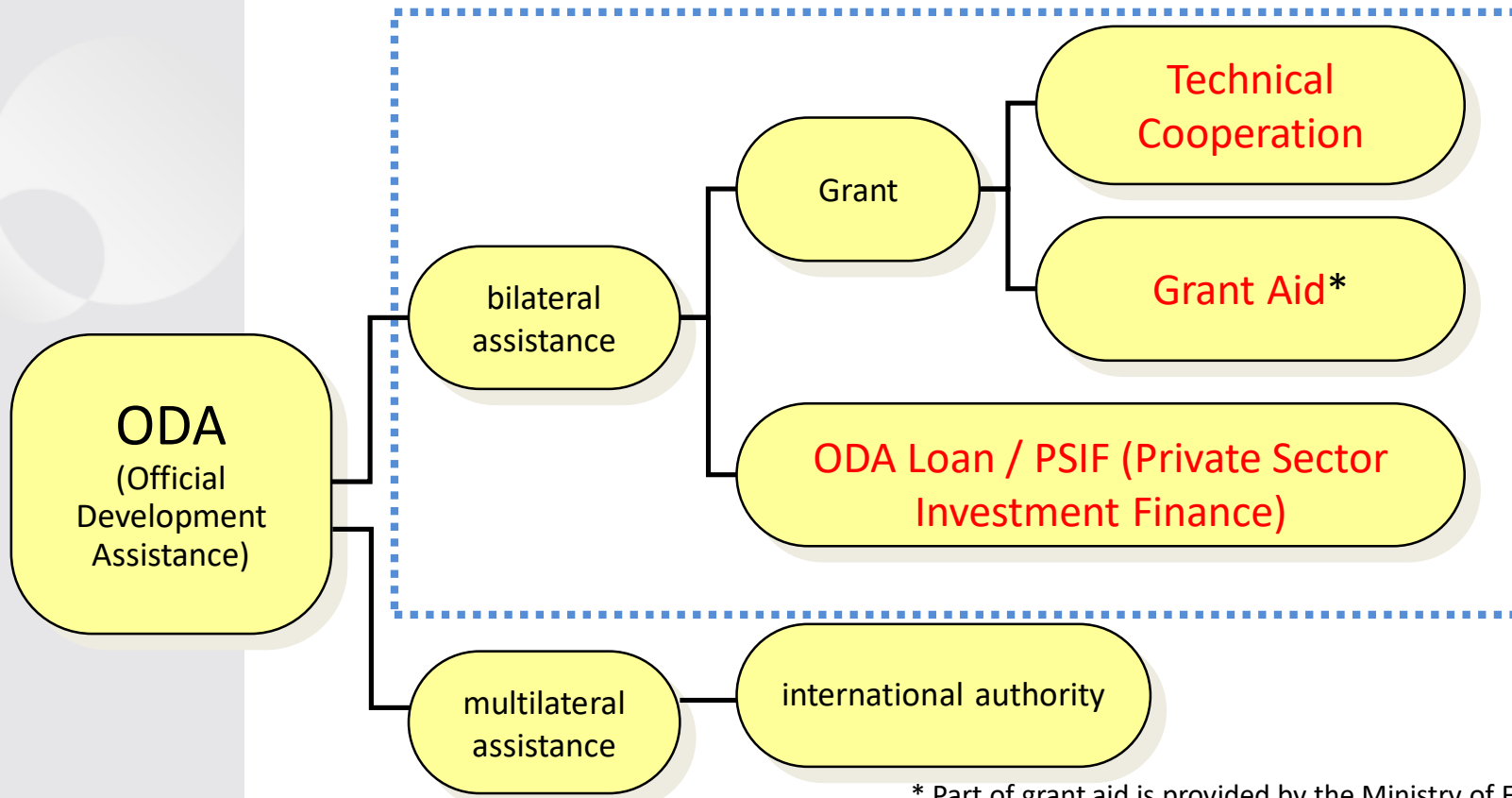


<https://www.mofa.go.jp/mofaj/files/000368753.pdf>

2. JICA's Policy and Activities

What is “JICA”?

- ✓ JICA is a **governmental agency** of Japan that coordinates official development assistance (ODA).
- ✓ JICA, the world’s largest bilateral aid agency, works in over 150 countries and regions and has some 100 overseas offices.



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

Japan International Cooperation Agency

- **President:** Shinichi Kitaoka
- **Establishment:** August 1974 Reorganized 2008
- **Staff:** 1,827 (Full time)
- **Recipient Countries:** 150
- **Overseas Offices:** 92
- **Offices in Japan:** HQ (Tokyo) and 17 sites

JICA's Vision

Inclusive and Dynamic Development

Mission 1

Addressing Global Agenda

Mission 3

Improving Governance

Mission 2

Reducing Poverty
through Equitable Growth

Mission 4

Achieving Human Security

What is happening in developing countries?

Can not go to school



No water



Hungry



No hospital



Malaria

Photo :Brent Stirton

▼ CURRENT ASSESSMENT – SDG DASHBOARD



▼ SDG TRENDS



Notes: The full title of Goal 2 "Zero Hunger" is "End hunger, achieve food security and improved nutrition and promote sustainable agriculture".
 The full title of each SDG is available here: <https://sustainabledevelopment.un.org/topics/sustainabledevelopmentgoals>

▼ OVERALL PERFORMANCE

Index score

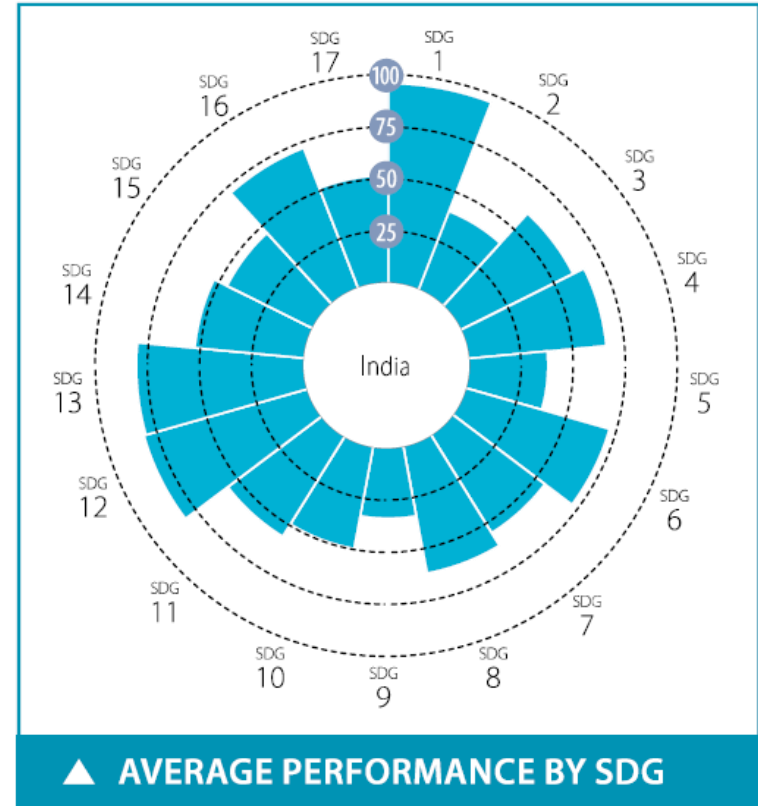


Regional average score

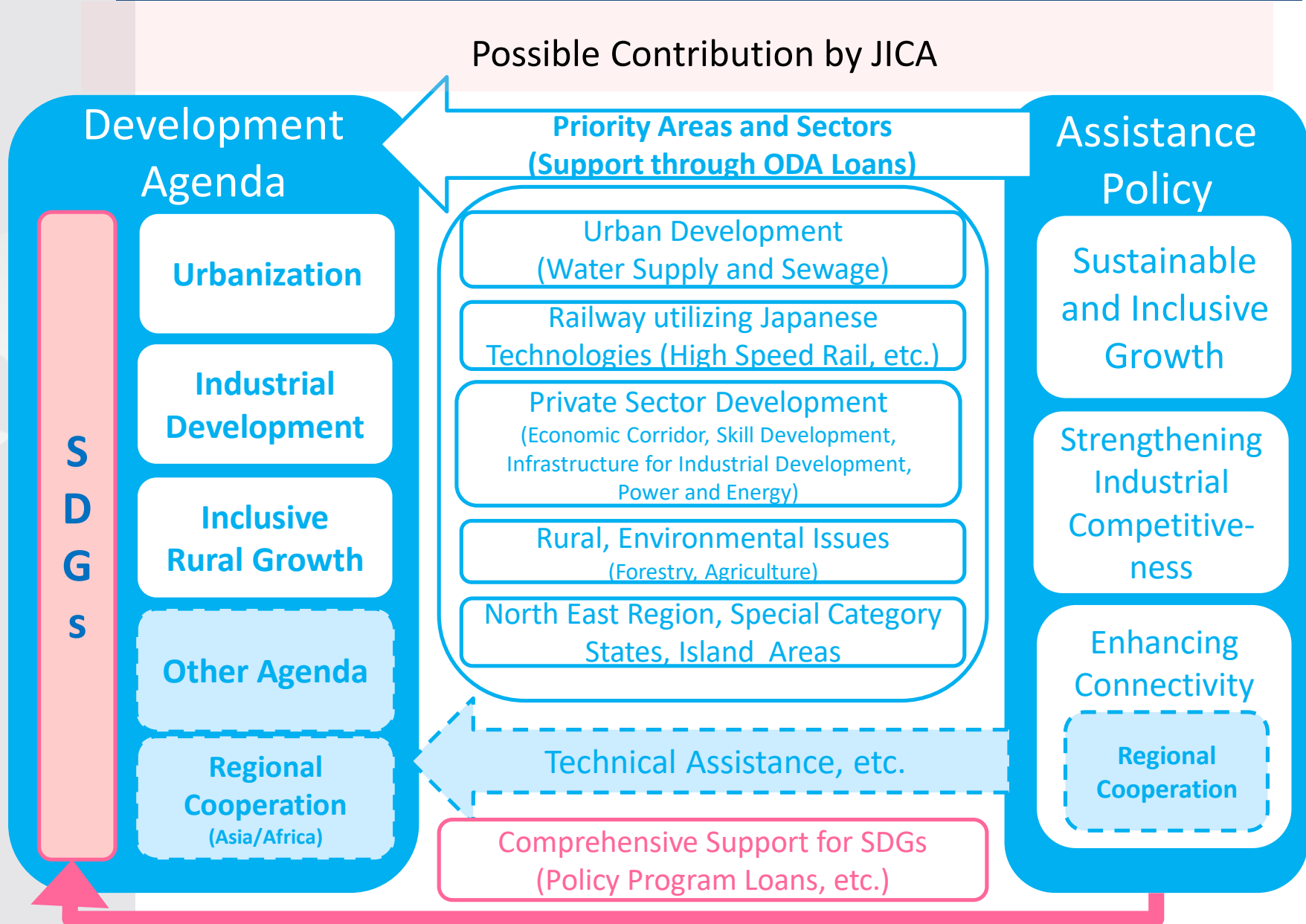


SDG Global rank

112 (OF 156)







India is JICA's Largest Development Partner in the World

Soft Loan

Accumulated Commitment by FY2017/18:

- JPY 5.3 trillion in total
(equivalent to over Rs. 3 lakh crore)

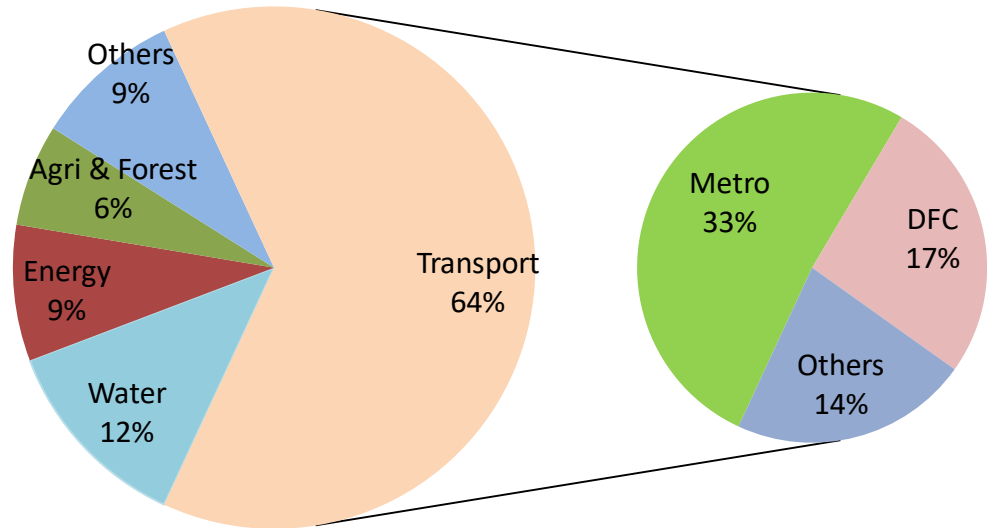
Operational Results in FY2017/18:

Commitment: JPY 398.4 billion
(equivalent to about Rs. 25,000 crore)
Disbursement: JPY 264.3 billion
(equivalent to over Rs. 16,000 crore)

Terms and conditions: (as of Jan. 2018)

- General terms: Interest rate 1.5%, repayment period 30 years (including 10 years grace period)
- STEP: Interest rate 0.1%, repayment period 40 years (including 12 years grace period)

Major Sector (FY2008/09-2017/18)



Grant Aid

Two on-going projects
in
Varanasi & Bengaluru

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

Japan- India Vision Statement

“Prime Minister Modi expressed his appreciation for the significant contribution of Japan’s ODA to the socio-economic development of India. Prime Minister Abe expressed Japan’s intention to continue to support India’s efforts for social and industrial development, including through key quality infrastructure projects and capacity building. The two leaders reviewed with satisfaction the progress made, including the signing of the Exchange of Notes for yen loan, on the Mumbai-Ahmedabad High Speed Rail project, which is an important symbol of Japan-India collaboration marked by the 75th anniversary of India’s independence. They also welcomed the continued cooperation on Metro Projects which support smarter development of Indian cities. India further appreciated Japan’s role in promoting connectivity through quality infrastructure projects such as the Western Dedicated Freight Corridor and the Delhi-Mumbai Industrial Corridor.”

3. Projects in India

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. 15,000 crore)
- Completion Year: 2020
- Under Construction

Delhi Metro

- Total Length: 351km
- Project Cost: JPY 1,274 Billion (about Rs. 80,000 crore: Phase 1-3)
- Completion Year: 2020 (Phase-3)
- Phase 4 plan is coming up



Mumbai Metro

- Total Length: 34 km
- Project Cost: JPY 621 Billion (about Rs. 39,000 crore)
- Completion Year: 2021
- Under Construction. New plan for Line 2 and 4 is coming up.

Kolkata Metro

- Total Length: 16 km
- Project Cost: JPY 140 Billion (about Rs. 9,000 crore)
- Completion Year: 2021
- Under construction

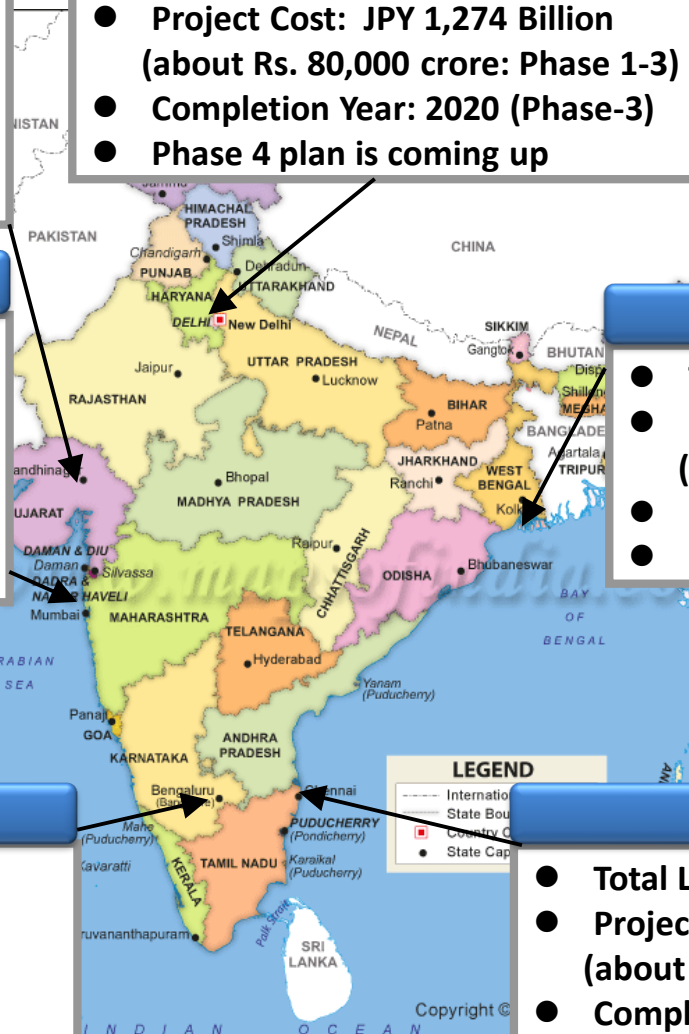


Bangalore Metro

- Total Length: 42 km
- Project Cost: JPY 307 Billion (about Rs. 19,000 crore)
- Completion Year: 2017
- Phase-2 is under construction

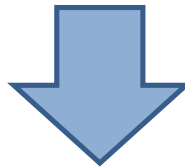
Chennai Metro

- Total Length: 53 km
- Project Cost: JPY 386 Billion (about Rs. 24,000 crore)
- Completion Year: 2020 (Phase-1)
- Phase-1 under construction



Safe, Timely, Comfortable Move for Better Life

- **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”

Industrial Corridors under Development (DMIC & CBIC)

Delhi-Mumbai Industrial Corridor

Amritsar Kolkata Industrial Corridor

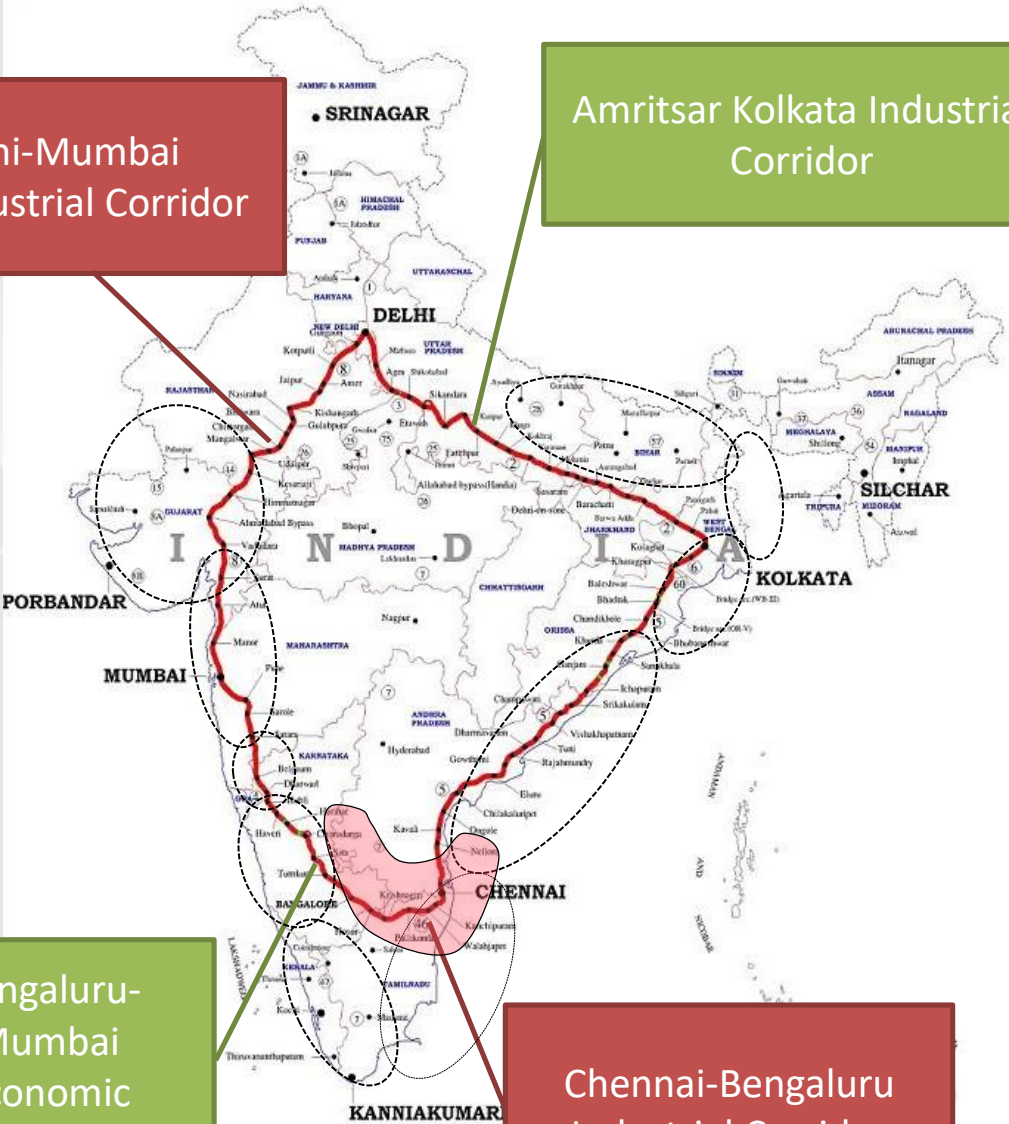
DMIC and CBIC are being supported by GoI and GoJ.

National Manufacturing Plan Targets

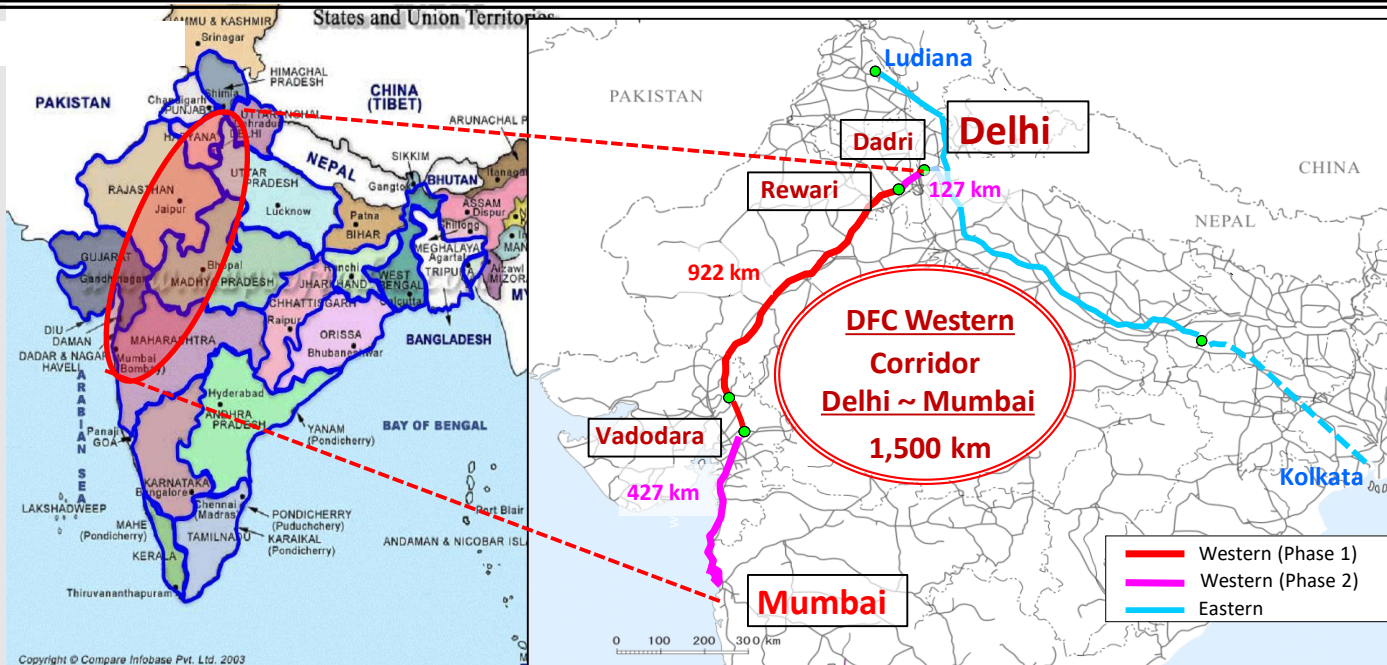
- ~15% y-o-y growth in manufacturing sector to achieve 25% contribution to GDP by 2022
- 100 million jobs by 2022
- Skill development for inclusive growth
- Improved *technology* orientation & *value addition*
- Global Competitiveness
- Environmental sustainability

Bengaluru-Mumbai Economic Corridor

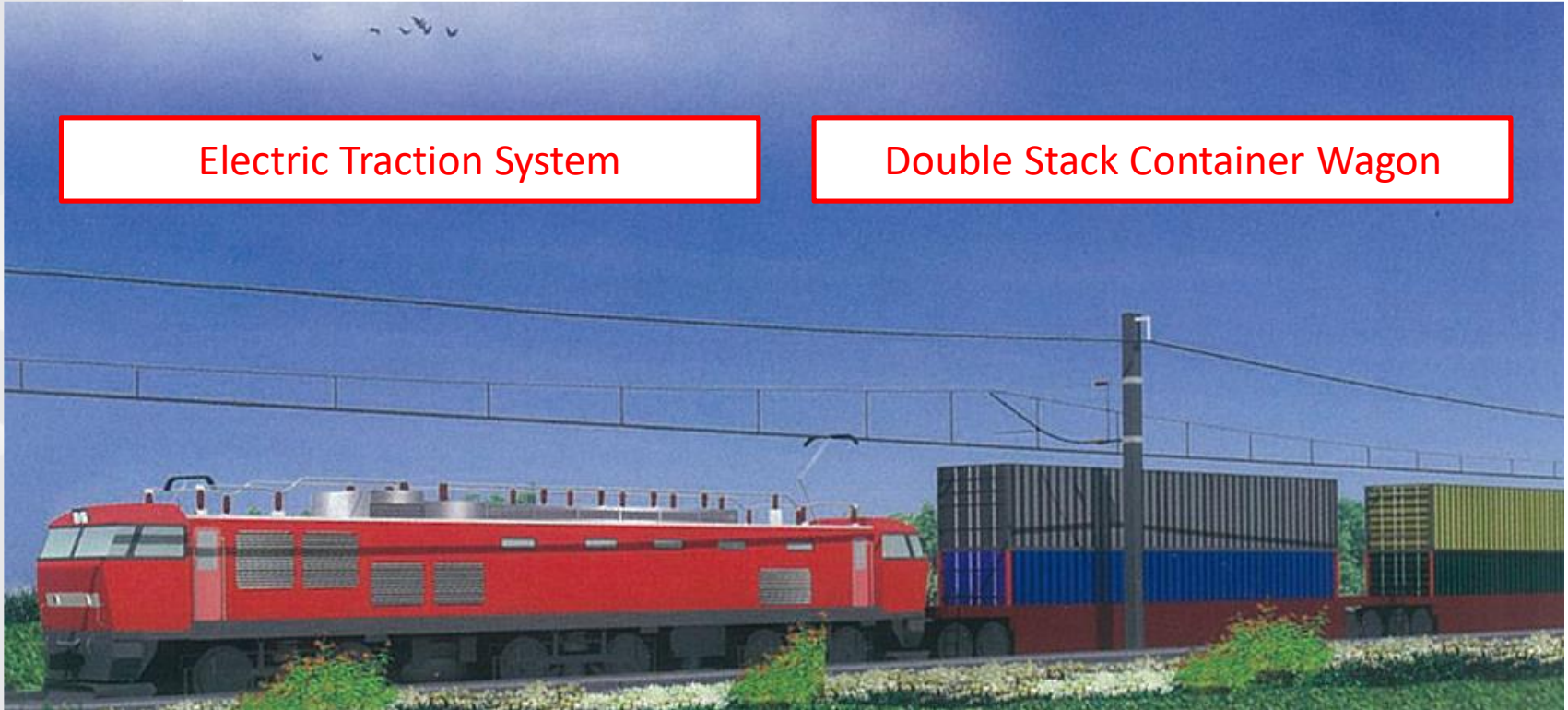
Chennai-Bengaluru Industrial Corridor



- 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)

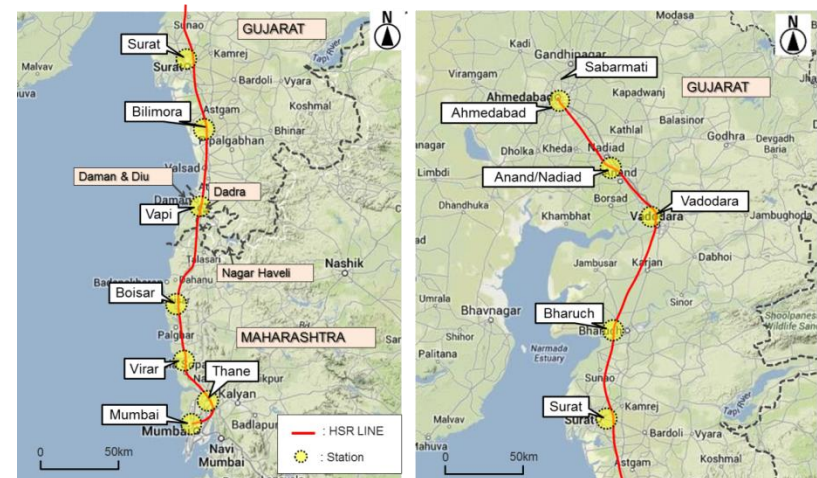


<Completion image>



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

- **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).
- **Follow-Up Study** conducted by JICA from Mar. 2016 to Feb.2018
- 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.



■ The impact of HSR on development of India

Safe, comfortable and punctual HSR



- Boost economic development
- Stimulate regional development
 - ✓ mitigate excessive concentration on large cities
 - ✓ lead to balanced economy
- Promote “social innovation” by introducing Japan’s;
 - ✓ Technology
 - ✓ Discipline
 - ✓ Perfection
 - ✓ Teamwork Concept

Operation result

- **9.3GW** of generation capacity
(3% of Indian total Capacity)
- **1.0GW** of Renewable Energy
- **85 Projects**
- **JPY 1.3 Trillion (≒ Rs. 80,000 crore, US\$ 1.2 bil.)**
(roughly **25%** of JICA's total cooperation in India)

- ODA Loan

New Power Plant, Transmission & Distribution Lines, Energy Efficiency & Conservation, New and Renewable Energy, Grid Stabilization

- Technical Cooperation

Technical Assistance for Energy Efficiency & Conservation, New and Renewable Energy
Study for Updating Exhausted Coal Thermal Power Plant



Purulia Pumped Storage Project (I), (II), (III)

- 1995 – 2008, West Bengal
- 900MW : 12% of the peak demand of West Bengal

Umiam Hydro Power Station Renovation Project

- 2004 – 2012, Meghalaya
- Capacity was improved from 18MW to 20MW
- 530 hours unplanned non-operation time due to malfunction (2002 before the project) → 0 hour for three years after the project completion

Major issues in energy sector in India

- (1) More involvement of private sector in RE
- (2) Ancillary service to take care of fluctuation caused by large scale RE
- (3) Better energy efficiency such as T/D loss reduction



JICA's Activities

- **New and Renewable Energy Development Project with IREDA**
- **Pumped Storage Project with Soft Loan**
- **Transmission/Distribution Project with Soft Loan**
- **Training Programs**

Other issues

- Increasing demand for electricity
- Infrastructure/electricity demand for EVs
- Environmental issues from existing coal power plant
- Frail financials of DISCOMs
- Energy saving
- New technologies such as advanced battery



- **Energy Saving Project with SIDBI**

- Recent ODA Loan Projects -

- Haryana Transmission System Project (FY2007)
- Haryana Distribution Upgradation Project (FY2013)

- Madhya Pradesh Transmission System Modernisation Project (FY2011)
- Madhya Pradesh Transmission System Strengthening Project (FY2015)

- Maharashtra Transmission System Project (FY2007)

- Bangalore Distribution Upgradation Project (FY2006)

- Tamil Nadu Transmission System Improvement Project (FY2012)

- Dhauliganga Hydroelectric Power Plant Construction Project (FY1996~FY2004) (Uttarakhand)

- (West Bengal)
- Bakreswar Thermal Power Station Project (FY2002)
 - Purulia Pumped Storage Project (FY1994, FY2004, FY2005)

- Odisha Transmission System Improvement Project (FY2015)

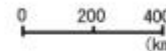
- Transmission System Modernization Project in Hyderabad (FY2006)
- AP Rural High Voltage Distribution System Project (2010)
- Simhadri Thermal Power Station Project (FY1997, FY2001, FY2002, FY2003)

(More than two States)

- Rural Electrification Project (FY2005)
- New and Renewable Energy Development Project (FY2011, FY2014)
- Micro, Small and Medium Enterprises Energy Saving Project (FY2008, FY2011, FY2014)

Legend

- Generation
- Transmission and Distribution



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

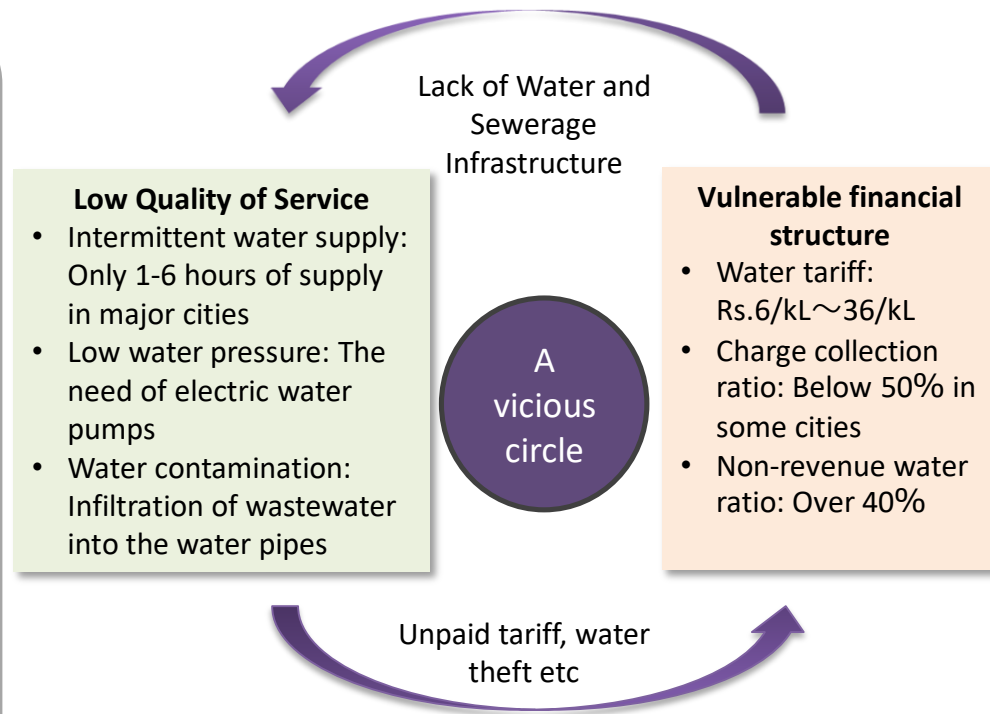
- NRW* ratio is 52% in Delhi and 51% in Bengaluru, compared to 4% in Tokyo**

*the difference between the water distribution volume and the billed volume

** Japan Water Research Center Dec 2017

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



A countermeasure for non-revenue water: water leakage detection

Our Works

Non-revenue water (NRW) reduction

To reduce non-revenue water, renewal of water pipes and meters and installment of SCADA / GIS system are implemented. Capacity development is also addressed.

Projects throughout the country

In major cities, 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

	Before (%)	After (%)
Curtorim	45.1	18.0
Khadpaband	58.7	34.4
Moira	53.0	36.1

Assistance Policies

① Improving water and sewerage infrastructure in major cities and industrial areas

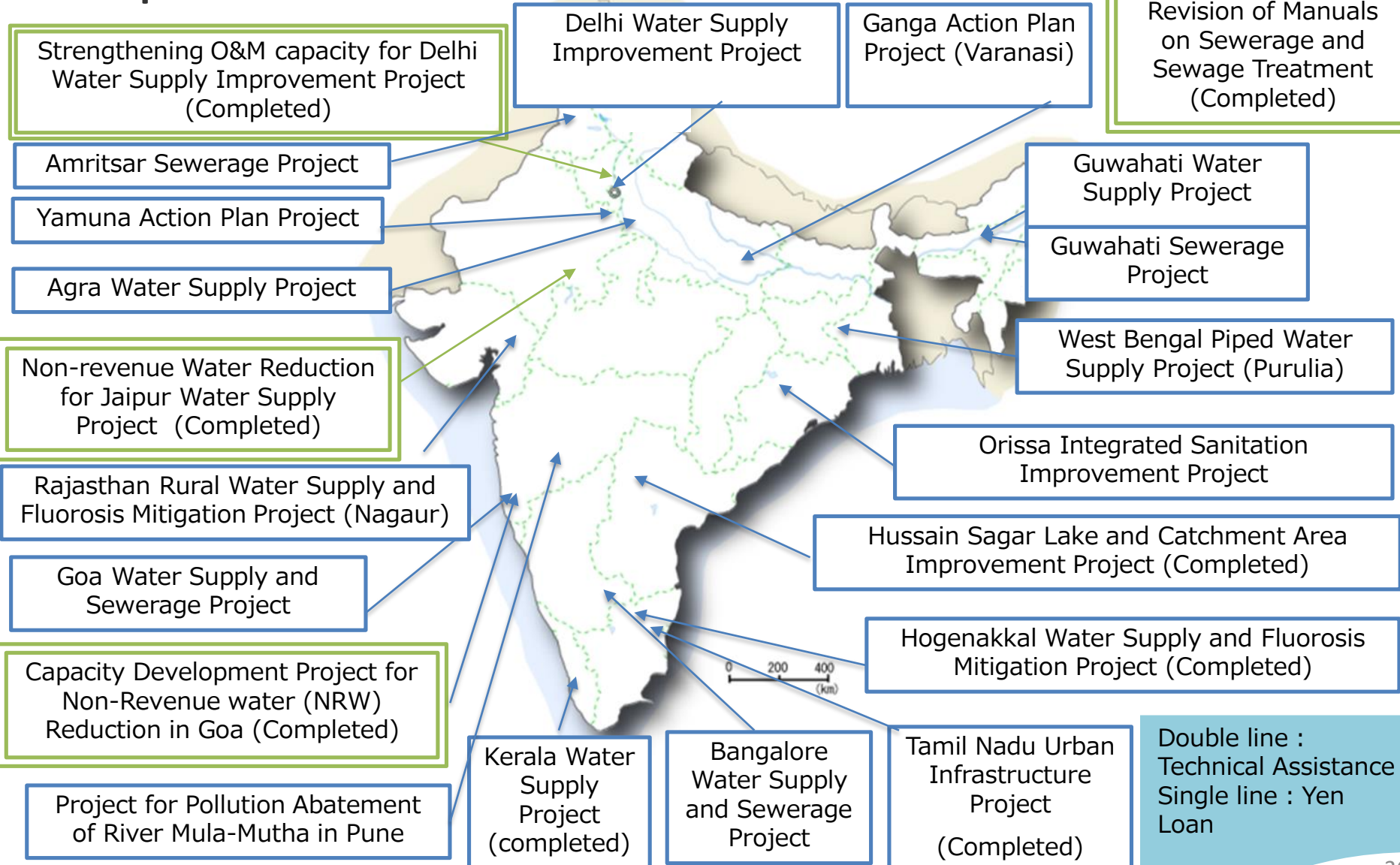
② Utilizing Japanese knowledge, experience, and advanced technology

- 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

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



Issues

1. Forestry Management

- Forestry coverage in India is 21.5% (2017), which is lower than the national target (33%) and world average (31%).
- The population depending on forest is approx. 200 million, and most of them are below poverty line. (2011)
 - Supported by JICA assisted project's IG Activities

2. Biodiversity

- There are four biodiversity hotspots in India among world's 35 hotspots (East Himalaya, West Ghats, India-Burma, Nicobar). The number of endangered species is increasing due to environmental pressure and human's intervention.
- There are many protection areas in India (102 National Parks, 515 Wildlife Sanctuaries) and these areas need to be conserved with associated ecosystem services.
- Capacity development of Forest Department needs to be strengthened essentially in order to preserve sustainable biodiversity and harmonious environment.

3. Disaster Management

- Flooding and landslide disaster in mountainous region occur frequently and need to be mitigated by improving the quality of forest.



Progress

JICA is the largest donor in the forestry sector in India.

■ ODA Loan

- Cumulative commitment since 1991 stands at JPY 257.7 billion (approx. Rs. 16,000 crore or USD 2.3 billion) in the forestry sector. (as of Mar. 2018)
- Supporting the policy of the Government of India on Joint Forest Management: participatory forest management targets sustainability and the following four major points are the core areas of JICA's cooperation according to different features of each state:
 - ① Sustainable Forest Management
 - ② Livelihood Security
 - ③ Institutional Strengthening and Capacity Building
 - ④ Technology -based Management and Monitoring
- 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)
- Project for Natural Disaster Management in Forest Areas in Uttarakhand (2017.3-2022.3)



Water Conservation Structure



Micro planning



Income Generation(IG) activity



Nursery for plantation

Major Impacts

1. Environment, climate change, biodiversity

- Afforestation and reforestation in nearly 3 million ha, improved forestry function, diversified biodiversity activities and accelerated research activities
- Integrated Eco/Environment awareness activities through Children's Forest Program

2. Poverty alleviation

- Community development and IG activities uplifted people's socio-economic life

3. Women empowerment

- Self Help Group (SHG) activities were implemented in all projects and IG activities and micro credit/finance are incorporated

4. Disaster prevention/water resource conservation

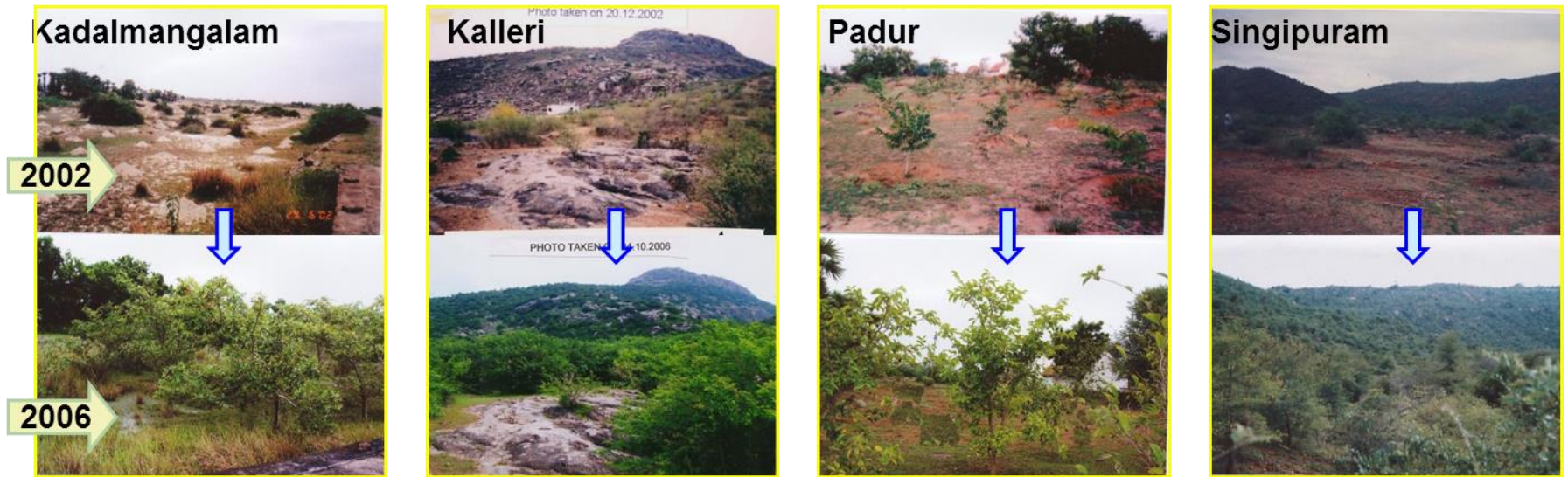
- Ground water level and agriculture production were improved.

5. Utilizing Japanese knowledge

- Implemented technical cooperation on capacity development
- Promoted collaboration with local governments (Akita, Oita and Okinawa)

Example of Visible Impacts in Afforestation :

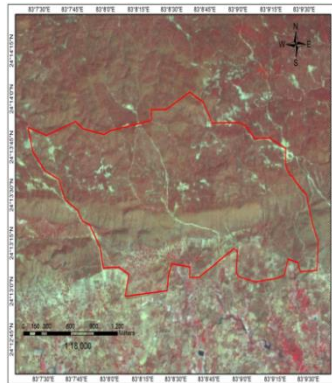
Tamil Nadu Afforestation Project



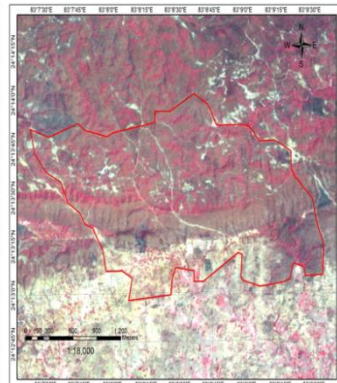
Uttar Pradesh Participatory Forest Management and Poverty Alleviation Project

Satellite picture (Majholi)

2012



2016

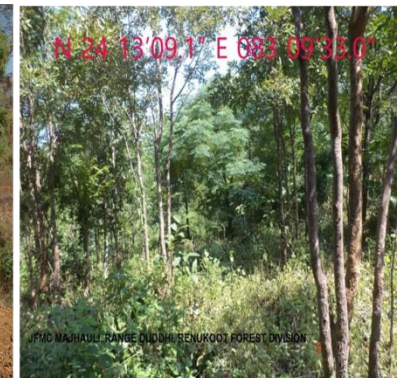


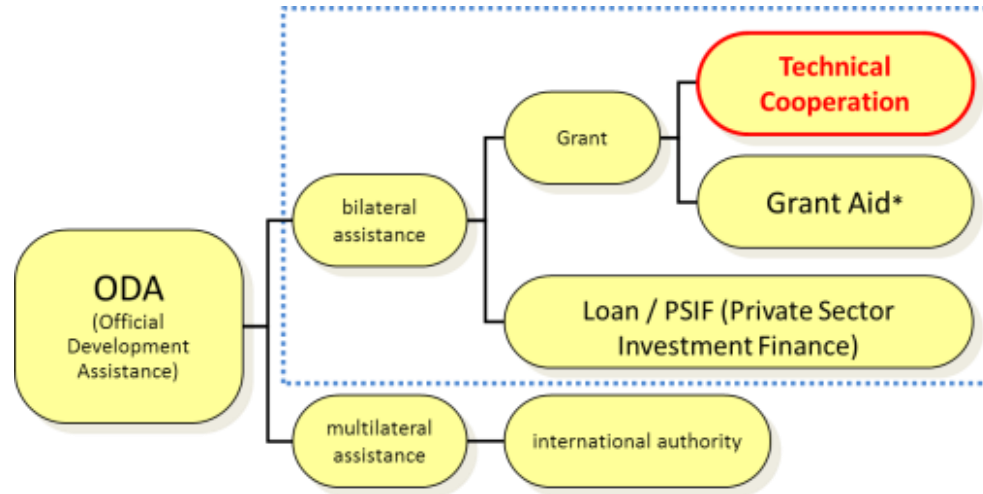
Actual picture(Majholi)

2012



2016

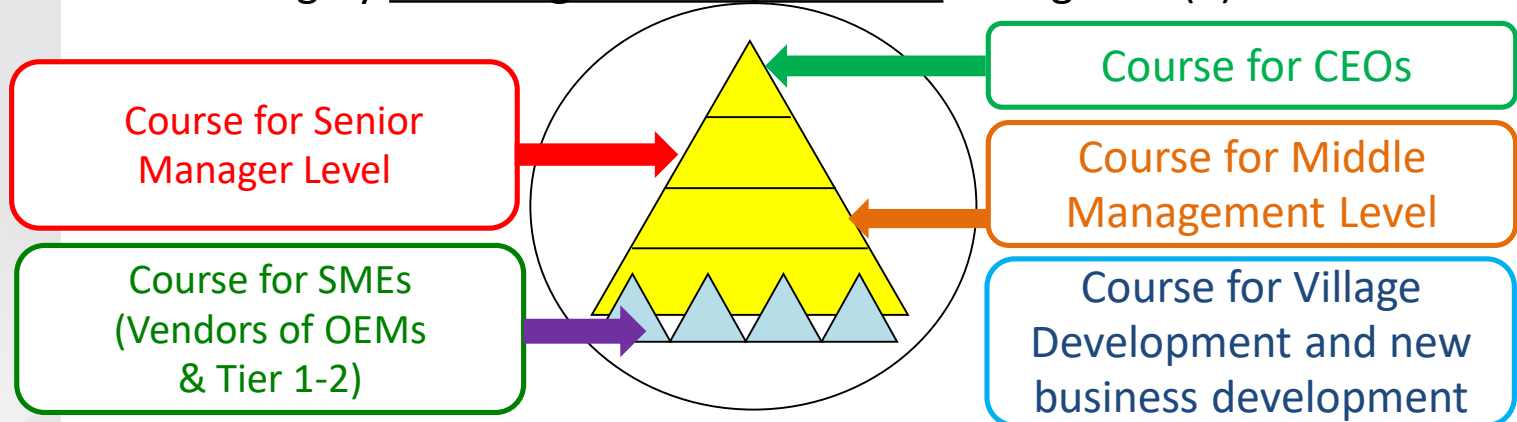




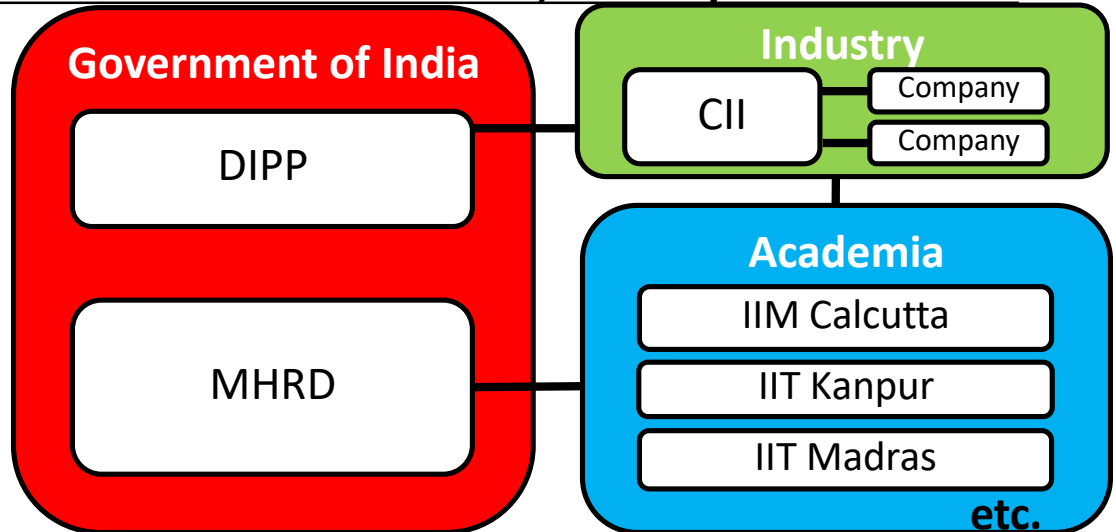
Technical cooperation for **“capacity development”** includes the training of Indian officials and the dispatch of JICA experts.

Total Number of (until FY 2016)	Number
Trainees from India	7,587 persons
Japanese Experts / Survey teams	8,218 persons
Japan Oversea Cooperation Volunteers	203 persons

1. National Integrated Human Resource Development Program in Manufacturing by **Fostering Visionary Leaders** through five(5) courses



2. Implementation **in collaboration with Government, Industry and Academia**



Prof. Shiba, the JICA expert, was conferred decorations both in India and Japan.
Over 5000 CEOs and senior/middle-level managers have participated the programme.

“Godrej Edge Digi, Direct Cool Refrigerator Range”
won India Design Mark(2014) and
Japan Good Design Award(2015)

 | APPLIANCES



**INDIA
DESIGN
MARK**



**GOOD DESIGN
AWARD 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.**

Japanese Language Educators to the Universities and Schools



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

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