

Railway Overview

DP PANDE

MEMBER TRAFFIC RAILWAY BOARD

(RETIRED)

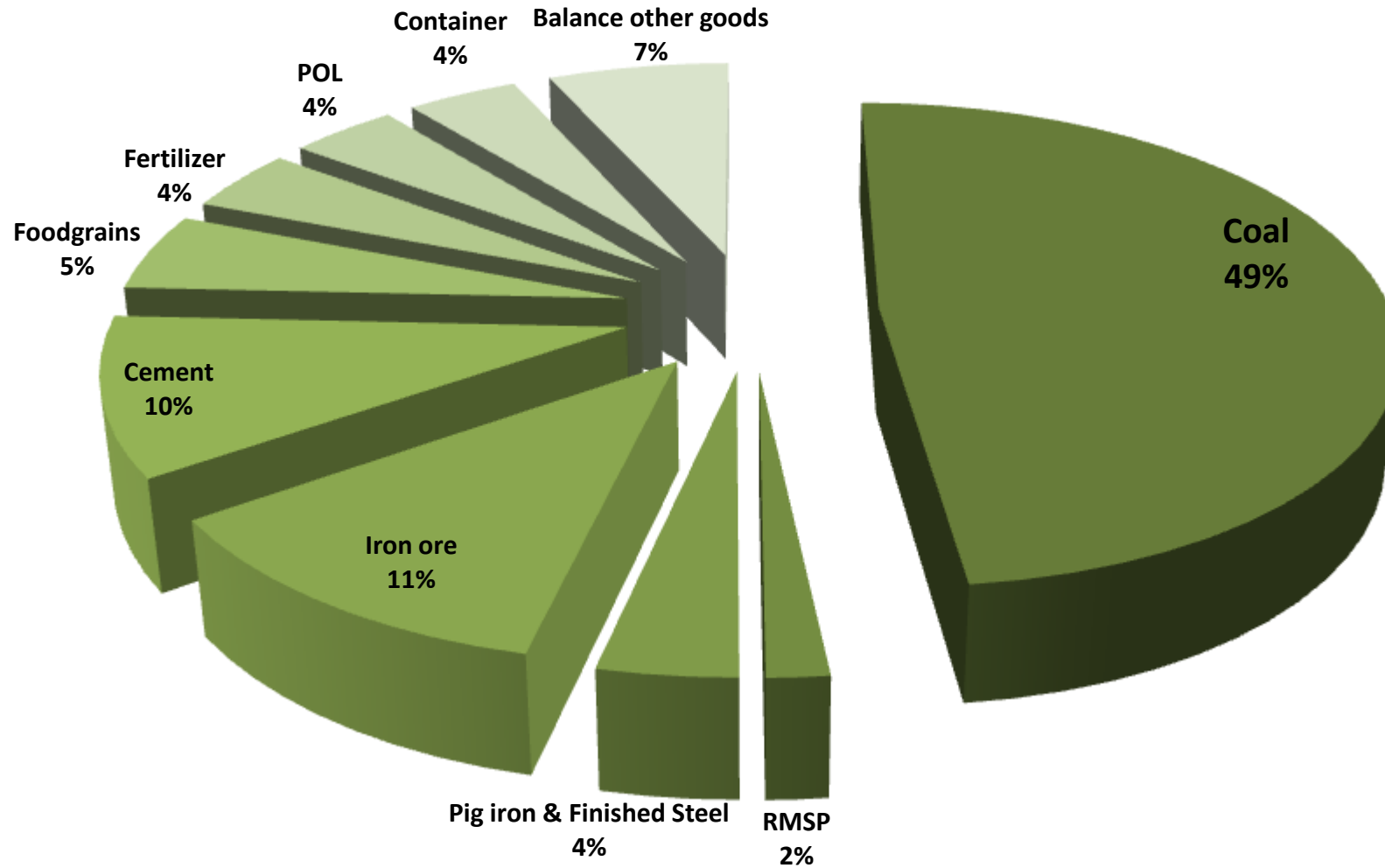
Growth of Railways

- Started in 1853
- Meant for Raw Material
- Private Railways
- All India
- Major Issues

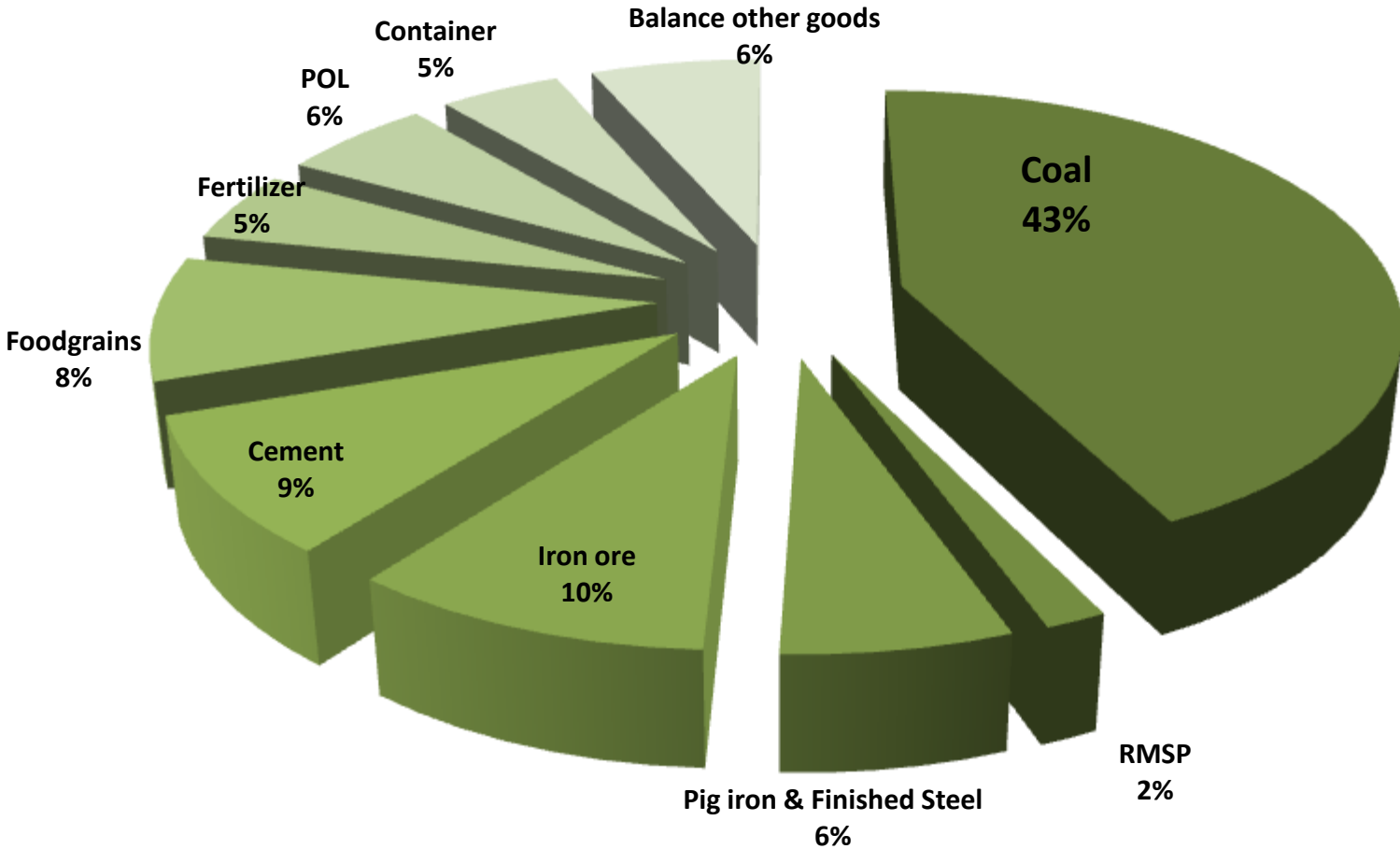
HISTORICAL GROWTH

YEAR	LOADING IN MT	%AGE GROWTH	GDP GROWTH (%)/ CORE SECTOR (%)
1950-51	73.2	3.8	2.0%
2001-02	492.5		
X TH PLAN			
02-03	518.74	5.33	4.3
03-04	557.39	7.45	8.5
04-05	602.78	8.14	7.5
05-06	667.20	10.69	9.0
06-07	728.77	9.23	9.6
XI TH PLAN			
07-08	794.21	8.98	9.0/5.2
08-09	833.31	4.92	6.8/ 2.8
09-10	887.99	6.56	8.0/ 6.6
10-11	921.51	3.77	8.4/ 6.6
11-12	969.78	5.24	6.5/ 4.4
XII TH PLAN			
12-13	1009.83	4.27	5.0/2.6
13-14	1053.5	4.32	4.7/3
14-15	1097.6	4.18	7.3/3.8
15-16	1104.5	0.6	7.6/2.8

COMMODITY – LOADING SHARE



COMMODITY-EARNING SHARE



How Does Railway Work

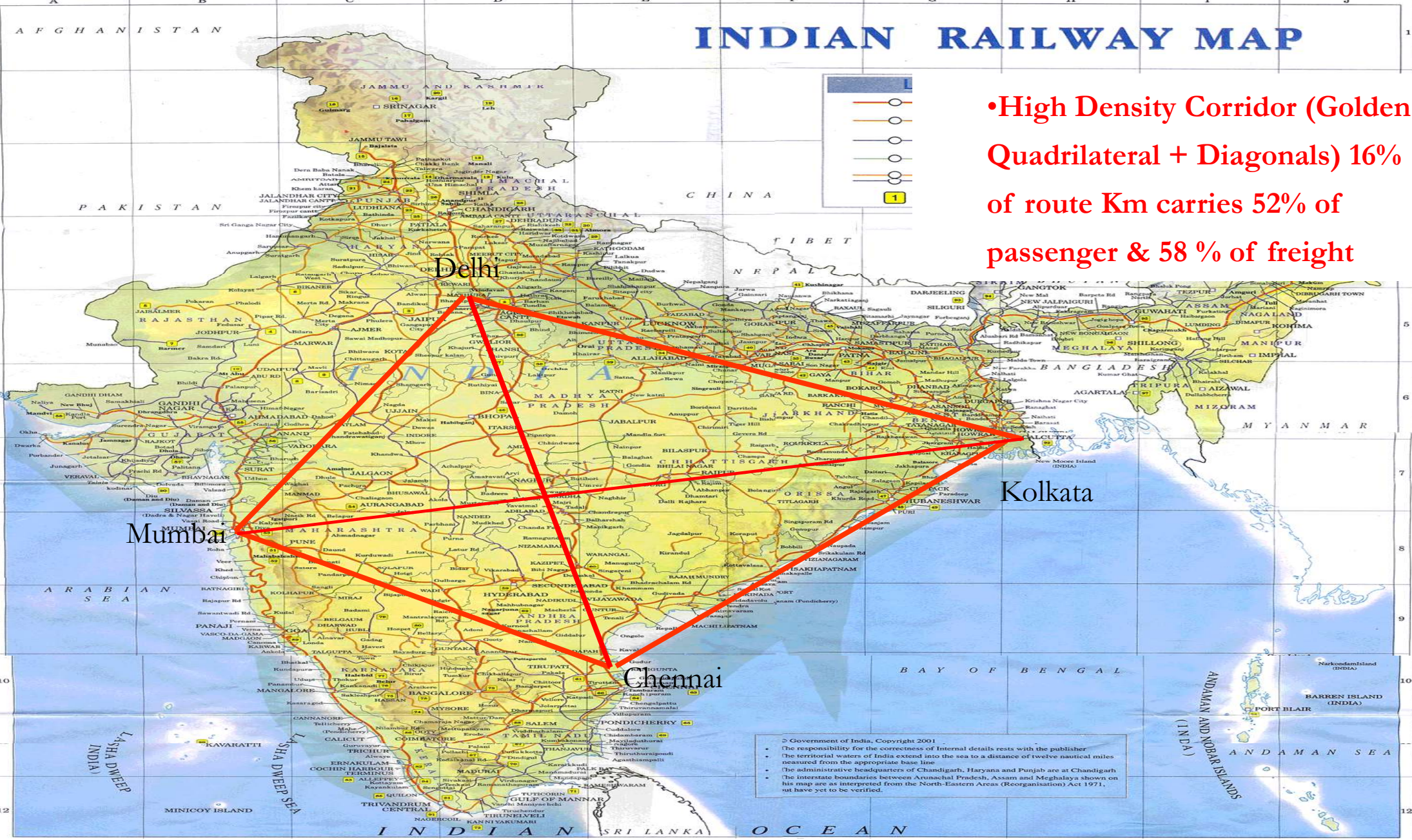
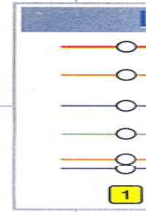
- Capacity
- Controlling
- Stations
- Rating
- Mix traffic
- Speed differential

Capacity Enhancement

- Additional creations
- Dedicated freight corridors
- Long trains
 - Coaching
 - Freight { Loco TROLL
 { Heavy Haul

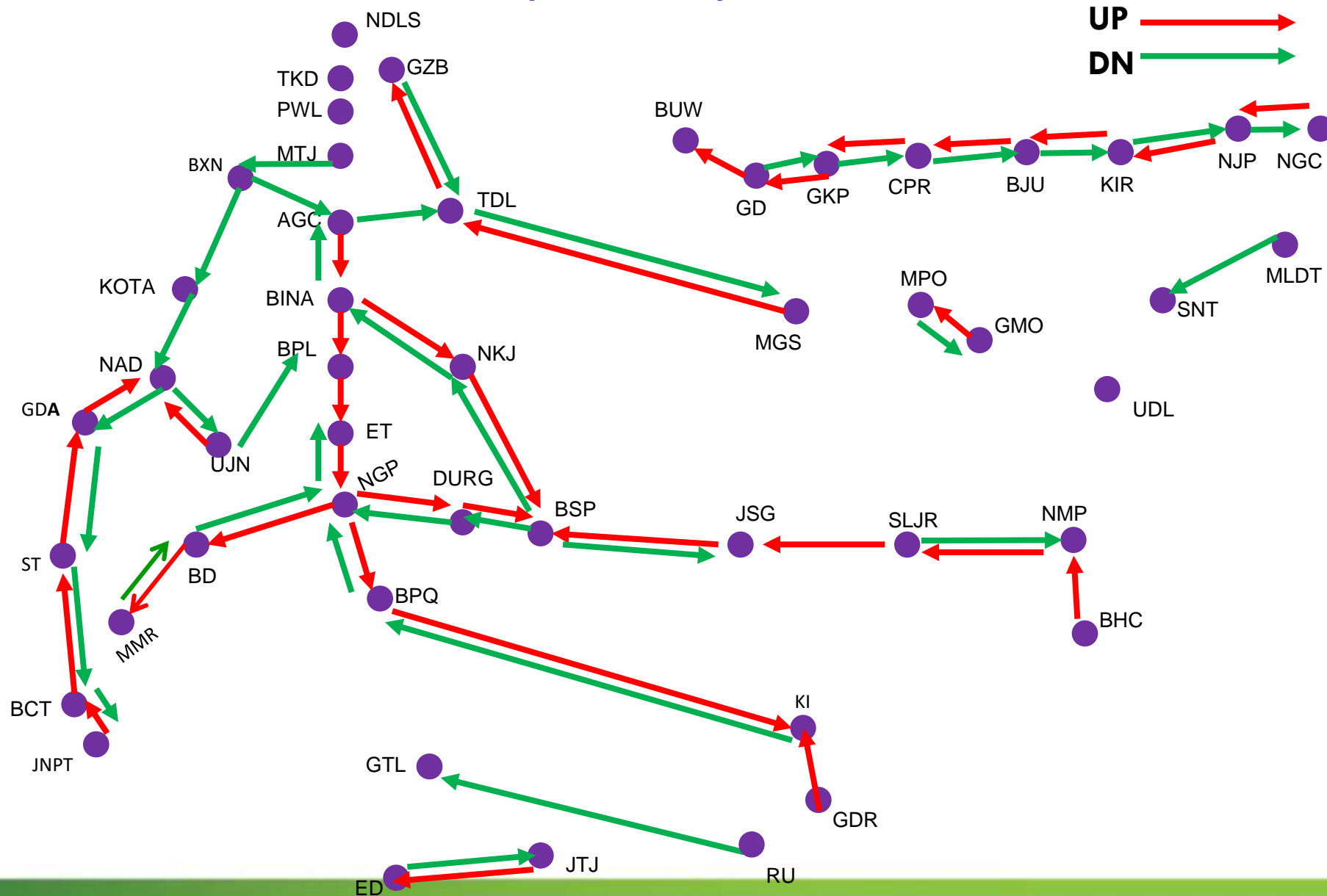
INDIAN RAILWAY MAP

• High Density Corridor (Golden Quadrilateral + Diagonals) 16% of route Km carries 52% of passenger & 58 % of freight

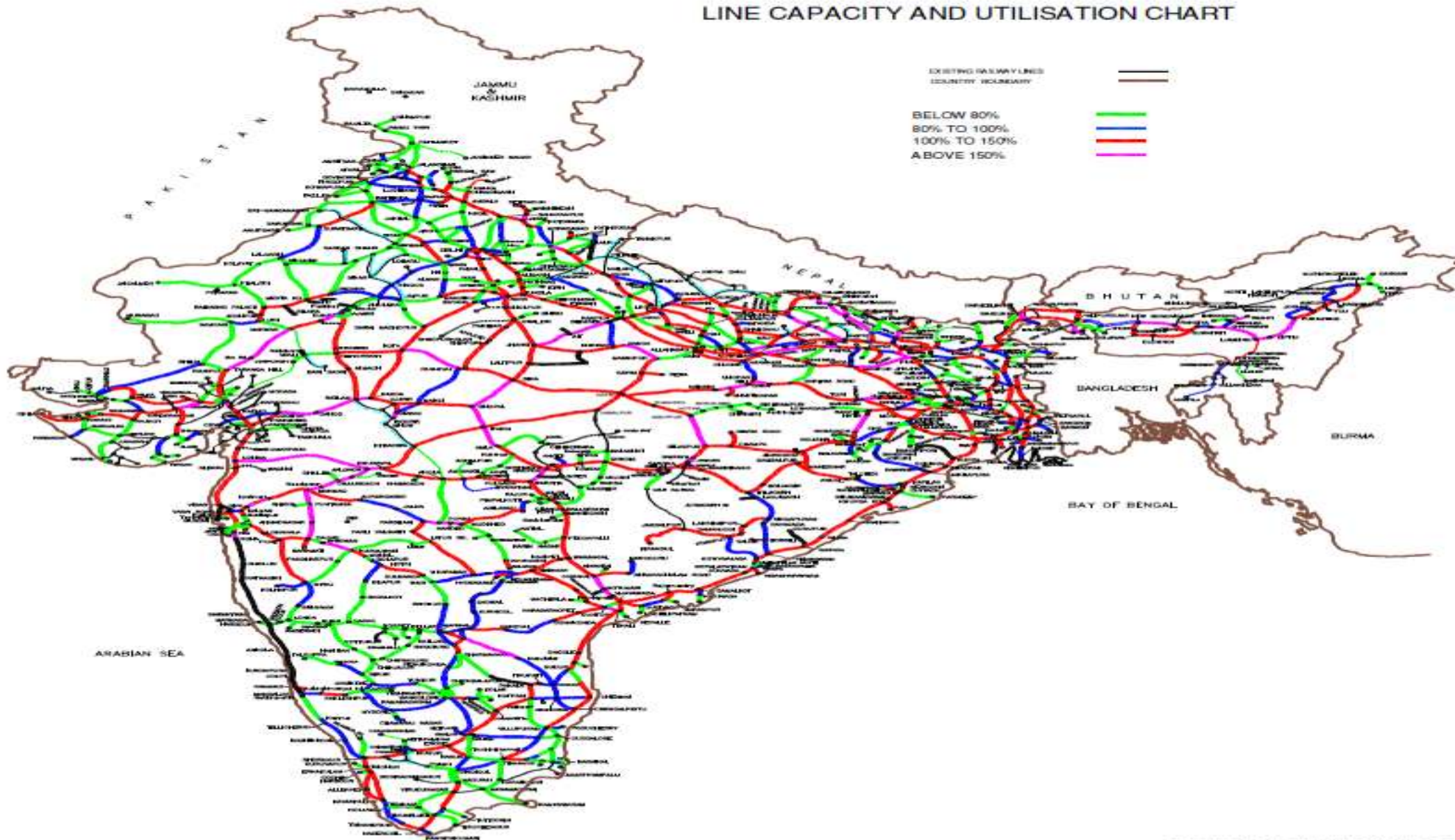


© Government of India, Copyright 2001
 • The responsibility for the correctness of Internal details rests with the publisher
 • The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line
 • The administrative headquarters of Chandigarh, Haryana and Punjab are at Chandigarh
 • The interstate boundaries between Arunachal Pradesh, Assam and Meghalaya shown on this map are as interpreted from the North-Eastern Areas (Reorganisation) Act 1971, but have yet to be verified.

DETERIORATION IN SPEEDS ON VARIOUS SECTIONS ON IR (Apr.'2014 – Sep.' 2014)

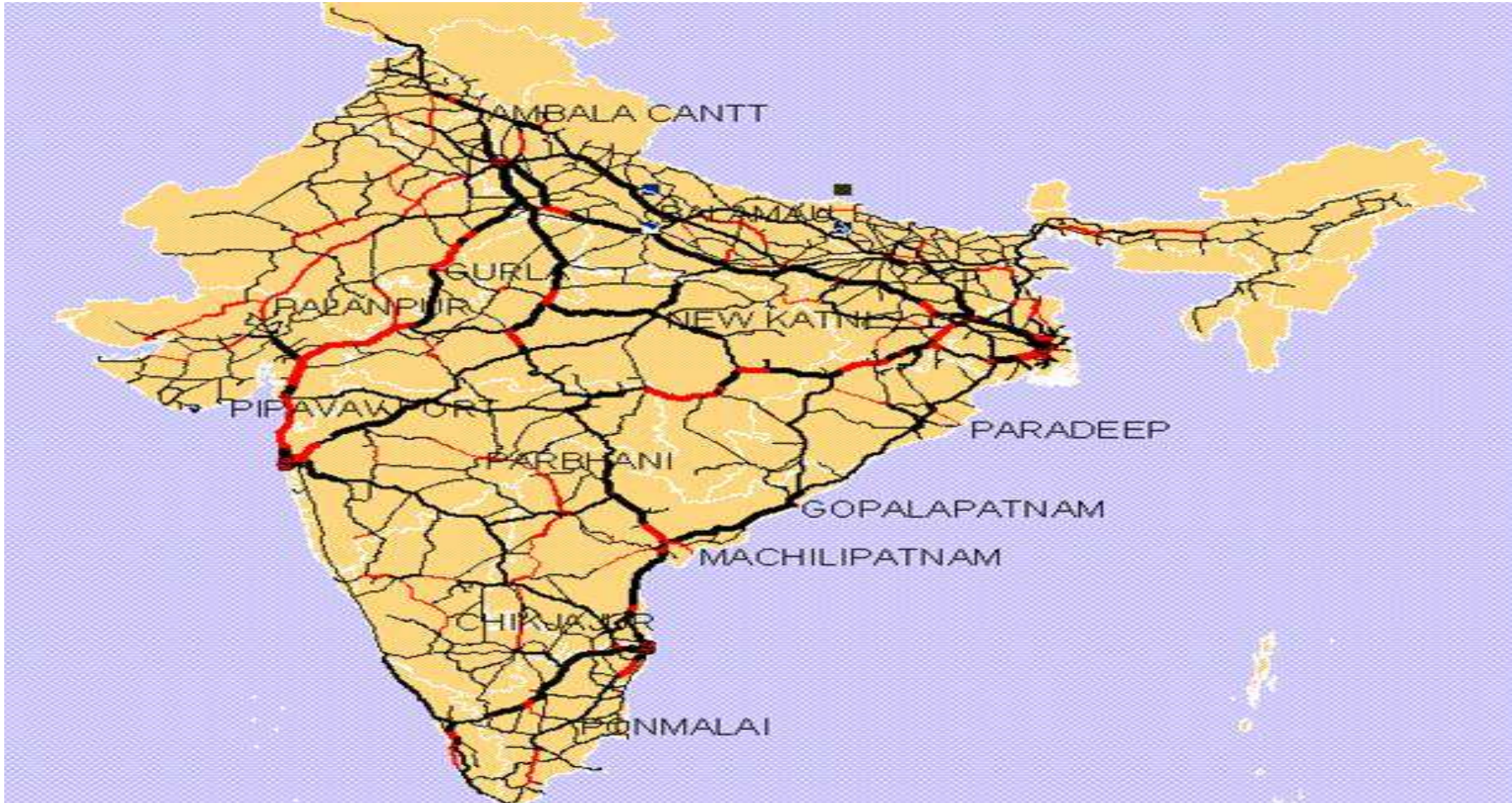


LINE CAPACITY AND UTILISATION CHART

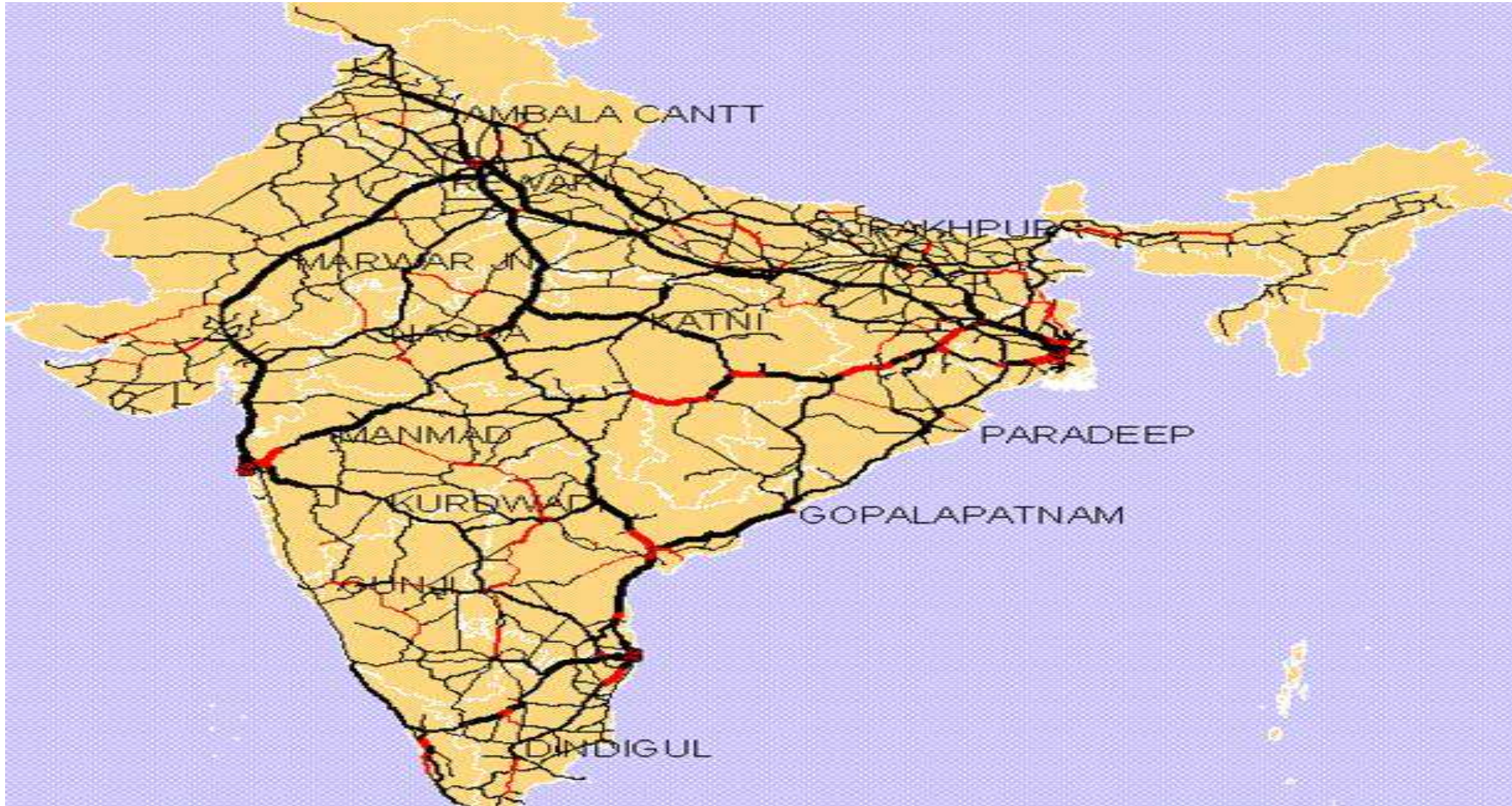


DRAWING OFFICE/PLANNING DIRECTORATE
2012-13

Envisaged Critical links in assignment of 2016-17 flows on 2016-17 network (Without DFC)



Envisaged Critical links in assignment of 2016-17 flows with DFC & single stk Container trains



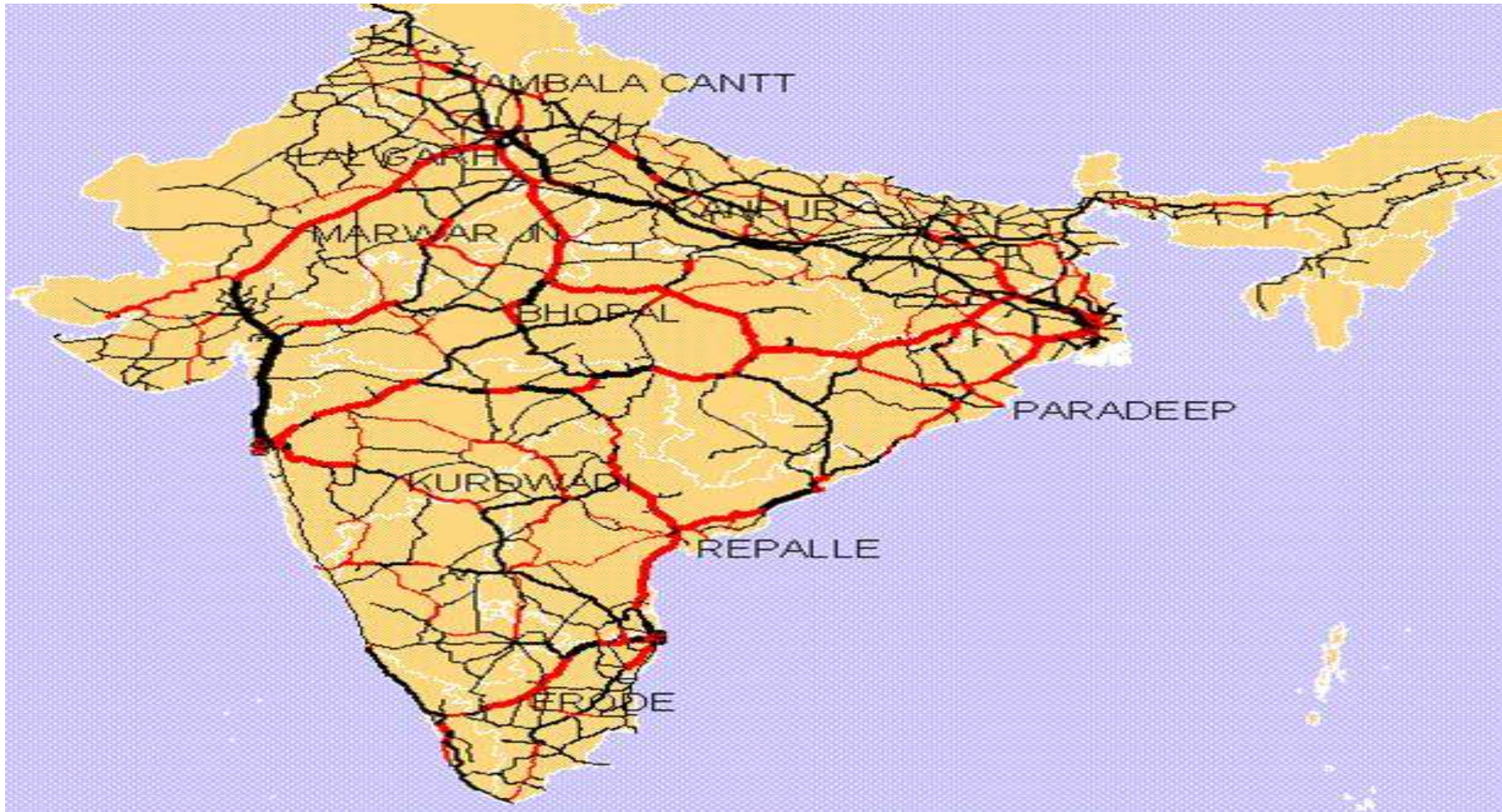
Envisaged Critical links in assignment of 2021-22 flows on 2021-22 network (Without DFC)



Envisaged critical links on 2021-22 network with DFC and double stack containers



Envisaged Critical Links in 2021-22 with DFC & single Stk operations



CAPACITY CREATION

At present, the shelf of projects is as under:

S.No.	Plan Head	No. of Works	Length (Km)	Latest Cost (Rs. Cr.)	Outlay 16-17	Bal. to Complete
1	New Line	166	18592	247840	14166	194282
2	Gauge Conversion	39	8470	48582	4343	28512
3	Doubling	253	21337	187089	25329	163807
	Total	458	48399	483511	43838	386601
4	Traffic Facility	544	--	11129	1830	5601
5	Railway Electrification	76	18303	20726	3296	13047
	Grand Total	1119	66702	515366	48964	405249

The growth story of the last 64 years

Items	1950-51			2013-14			%Variation		
	BG	MG	NG	BG	MG	NG	BG (+)	MG (-)	NG (-)
Route Kms (All Gauges)	53,596			65,806			23%		
Running Track Kms (All Gauges) Total Track (Kms)	25258	24185	4153	58175	5334	2297	(+)	(-)	(-)
Double & Multiple Route Length (Kms)	59,315			89,987			52%		
Freight Carried (Million Tonnes)	90,500 (1964-65)			1,14,907			27%		
Wagon Turn Round (Days)	5,127			19,887			289%		
Wagon Capacity (Million Tonnes)	73			1,054			1344%		
Passenger Originating (In Millions)	11			5.13			(-) 54%		
Passenger Kms (In Millions)	4.14			13.65			230%		
No. of Passenger Trains Run Daily (Base Year 1982-83)	1,284			8,420			556%		
Seat/Berth Capacity (Suburban)	68,517			11,58,742			1642%		
Seat/Berth Capacity (Non- Suburban)	6,392			12,874			102%		
	87,986			15,28,124			1637%		
	8,54,678			38,43,423			327%		

Rail and road traffic flow

- Data not available
- Last data of Planning Commission
- B.D Pande Committee
- Level Crossings
- Track Crossings

Level Crossing Data

- 28,607 as on 01/04/2016
 - 19,267 Manned
 - 9340 Unmanned
 - 1500 ROB Sanctioned
 - To be completed in 3-4 years
 - 6388 Unmanned B.G.
 - Breaking distance
 - Ircep.gov.in RORACS

Cost

- New Line 1 Km – Rs 15-20 cr .
- OHE 1 Km – Rs 1 cr.
- Auto- signalling 1 Km – Rs 50-70 lakhs

Modernisation

- Better LOCO
- Coaches
- Wagon
- Signalling
- Track
- High speed Rail

Multi- Modal

- Container
- Road Railer
- RO – RO

Passenger Fare Behaviour (1/2)

CLASS-WISE INCREASE/REDUCTION IN PASSENGER FARES									
Years	Second (Ordinary)	Second (Mail/Express)	Sleeper Class	AC Chair Car	AC 3-Tier	AC 2-Tier	First AC	Rajdhani Express	Shatabdi Express
1	2	3	4	5	6	7	8	9	10
2002-03	Minimum fare increased from Rs.3.00 to Rs.4.00 Relativity fixed at 55% of 2nd (M/Exp) beyond 100 km	Minimum fare increased from Rs.15 to Rs.16 Fare structure rationalised	Rationalised at 1.60 times of Second Class fares	3.50 times of Second (M/Exp)	4.50 times of Second (M/Exp)	7.20 times of Second (M/Exp)	14.00 times of Second (M/Exp)	No Increase	No Increase
2003-04	No Increase	No Increase	No Increase	No Increase	No Increase	No Increase	No Increase	Fares reduced & Fixed uniformly @ +15% over Superfast M/Exp fares	
2004-05	No Increase	No Increase	No Increase	No Increase	No Increase	No Increase	No Increase	No Increase	No Increase
2005-06	Sub.& Non-sub. Fare reduced by Re.1.00	Fare reduced by Re.1.00	No Increase	No Increase	No Increase	No Increase	No Increase	No Increase	No Increase
2006-07	No Increase	No Increase	No Increase	No Increase	No Increase	6.50 times of Second (M/Exp)	11.50 times of Second (M/Exp)	Fares for AC First and AC 2-Tier were reduced in Rajdhani trains.	No Increase
2007-08	Non-sub. Fare reduced by Re.1.00	other than superfast Fare reduced by Re.1.00	No Increase	No Increase	No Increase	No Increase	No Increase	No Increase	No Increase
2008-09	Non-sub. Fare upto Rs.50/- reduced by Re.1.00 & beyond reduced by 5%.	other than superfast Fare upto Rs.50/- reduced by Re.1.00 & beyond reduced by 5%.	No Increase	No Increase	No Increase	6 times of Second (M/Exp)	10 times of Second (M/Exp)	Fares for AC First and AC 2-Tier were reduced in Rajdhani trains.	No Increase
2009-10	Non-sub. Fare upto Rs.50/- reduced by Re.1.00 & beyond reduced by 2%.	Superfast&other than superfast Fare upto Rs.50/- reduced by Re.1.00 & beyond reduced by 2%.	Fare reduced by 2%	Fare reduced by 2%	Fare reduced by 2%	Fare reduced by 2%	Fare reduced by 2%	No Increase	No Increase

Passenger Fare Behaviour (2/2)

CLASS-WISE INCREASE/REDUCTION IN PASSENGER FARES									
Years	Second (Ordinary)	Second (Mail/Express)	Sleeper Class	AC Chair Car	AC 3-Tier	AC 2-Tier	First AC	Rajdhani Express	Shatabdi Express
1	2	3	4	5	6	7	8	9	10
2010-11	No Increase	No Increase	No Increase	No Increase	No Increase	No Increase	No Increase	No Increase	No Increase
2011-12	No Increase	No Increase	No Increase	No Increase	No Increase	No Increase	No Increase	No Increase	No Increase
2012-13	No Increase	No Increase	No Increase	No Increase	No Increase	15 paise per km	30 paise per km	30 & 15 paise per km in AC1 & AC2 respectively	30 paise/Km in Exe. Class only
22.01.2013*	2 paise per km	4 paise per km	6 paise per km	10 paise per km	10 paise per km	6 paise per km	10 paise per km	10 , 6 & 10 paise per km in AC1, AC2 & AC 3 respectively	10 paise/Km in AC CC & Exe. Class
07.10.2013	Fuel Adjustment Component (FAC)-Linked revision, bi-annually in sync with movement in fule costs. Increase by about 2% only.								
25.06.2014	No increase upto 80 kms. Beynd 80 kms 14.2% increase	Inclusive of Fuel Adjustment Component (FAC) 14.2% increase in all classes.							
2015-16	No Increase	No Increase	No Increase	No Increase	No Increase	No Increase	No Increase	No Increase	No Increase

Note:- * Chargeable fares will be rounded off to multiple of Rs.5.00

THANK YOU