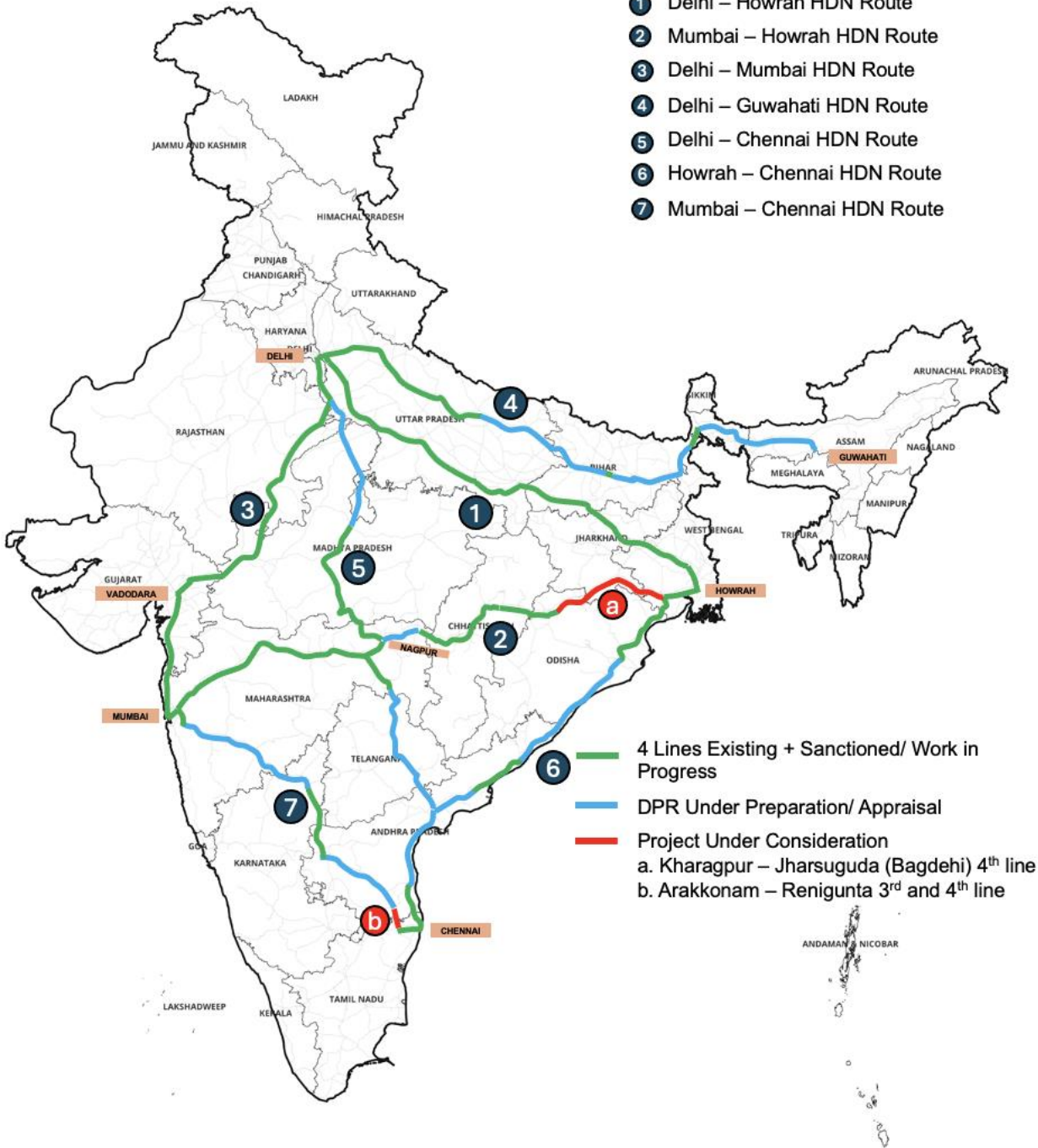


High Density Networks

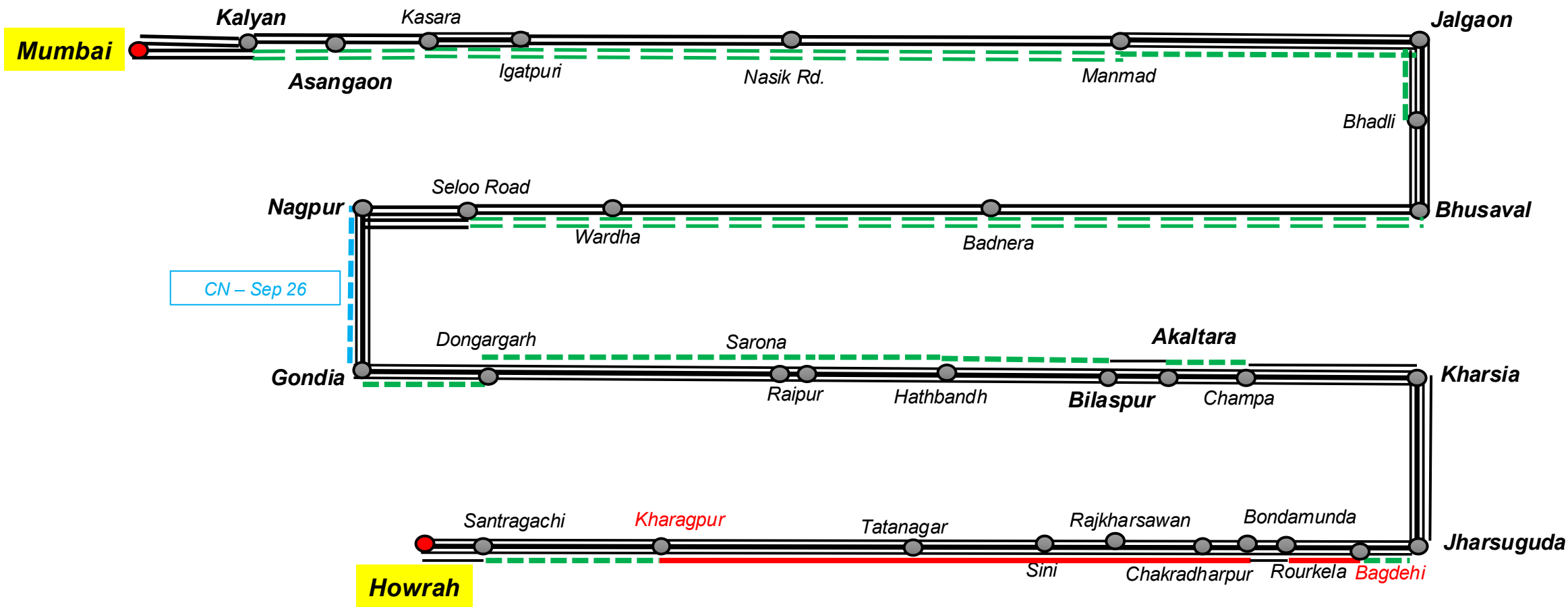
- ① Delhi – Howrah HDN Route
- ② Mumbai – Howrah HDN Route
- ③ Delhi – Mumbai HDN Route
- ④ Delhi – Guwahati HDN Route
- ⑤ Delhi – Chennai HDN Route
- ⑥ Howrah – Chennai HDN Route
- ⑦ Mumbai – Chennai HDN Route



Route ID	Starting Point	Destination	Key Intermediate Stations / Regions Covered
HDN-1	Delhi	Howrah (Kolkata)	Kanpur, Prayagraj, Pt. Deen Dayal Upadhyaya, Patna, Asansol
HDN-2	Howrah (Kolkata)	Mumbai	Kharagpur, Tatanagar, Bilaspur, Raipur, Nagpur, Bhusaval, Kalyan
HDN-3	Delhi	Mumbai	Mathura, Kota, Ratlam, Vadodara, Surat
HDN-4	Delhi	Guwahati	Moradabad, Bareilly, Lucknow, Gorakhpur, Chhapra, Katihar, New Jalpaiguri
HDN-5	Delhi	Chennai	Agra, Gwalior, Jhansi, Bhopal, Nagpur, Balharshah, Vijayawada
HDN-6	Howrah (Kolkata)	Chennai	Bhubaneswar, Khurda Road, Brahmapur, Visakhapatnam, Vijayawada
HDN-7	Mumbai	Chennai	Pune, Solapur, Wadi, Guntakal, Renigunta



Mumbai – Howrah HDN Route

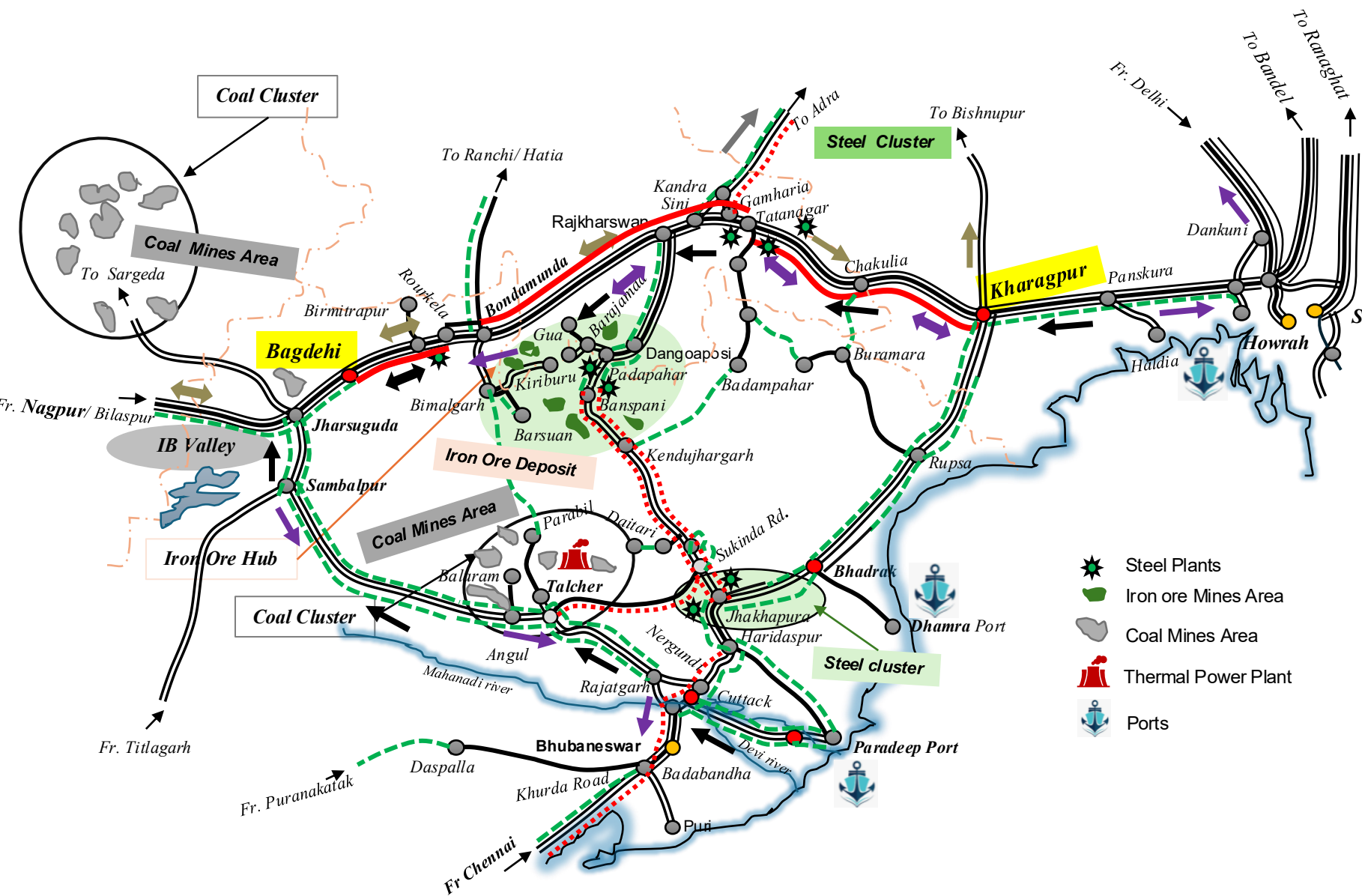


(Not To Scale)

Kharagpur – Jharsuguda (Bagdehi) 4th line

Additional Traffic – 13.19 MTPA

- ➡ Iron or Steel (6.15 MTPA)
- ➡ Coal and Coke (3.41 MTPA)
- ➡ Cement (2.87 MTPA)
- ➡ Others (0.76 MTPA)



- ★ Steel Plants
- Iron ore Mines Area
- Coal Mines Area
- Thermal Power Plant
- Ports

- Existing lines
- On-going projects
- FLS in progress
- Project under considerations

How this project will add more services?



Kharagpur – Bagdehi Section is part of the Howrah–Mumbai High Density Network (HDN) route



Line capacity utilisation has already touched **118%**, and will rise to **133%** if the project is not taken up



It is a **key corridor** linking **Eastern India to Western India**



What are the details of this project?



Cabinet approved the 4th line between **Kharagpur – Jharsuguda (Bagdehi)**



Route Length is **367 Km**



Outlay is **₹6,528 Crore through Gross Budgetary Support**



Covers 8 districts across West Bengal, Jharkhand & Odisha, including **aspirational districts West & East Singhbhum**



Project duration is **4 years**



What are the benefits from this project?



Will act as the **backbone of the energy and steel sector**, carrying coal, iron ore and steel



Will improve access to **religious and tourist destinations** Taratarini Temple, Shri Khetra Jagannath Temple (near Jharsuguda)



Will save **43.31 Cr Kg CO₂ every year**, equal to planting **1.73 crore trees**



Will save **₹967.91 Cr every year** in logistics cost



Will ease cargo movement from the **ports of Haldia and Paradip** and other eastern ports

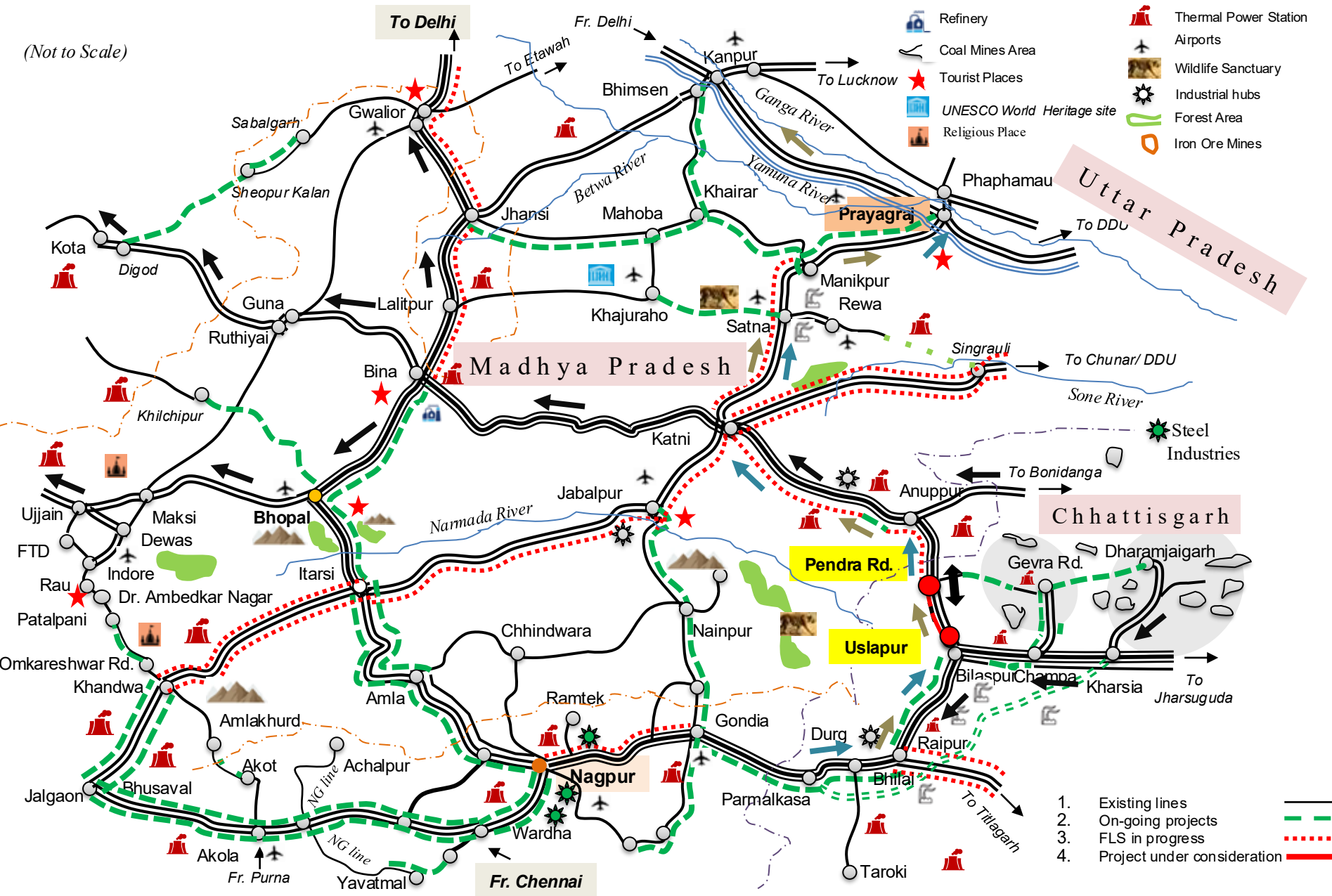


Will generate employment of **125 lakh human-days**



Bilaspur (Uslapur) - Pendra Road 3rd Line

(Not to Scale)



Additional Traffic – 5.50 MTPA

➡ **Cement (0.15 MTPA)**

➡ **Coal (5.20 MTPA)**

➡ **Iron or Steel (0.15 MTPA)**

- 1. Existing lines
- 2. On-going projects
- 3. FLS in progress
- 4. Project under consideration

What is the importance of this project?



Forms part of the Bilaspur–Anuppur section of HUN 7, a vital freight and passenger corridor



Existing line capacity utilization is up to **111%**, projected to reach **126%** without the project



Bilaspur (Uslapur) – Pendra Road is a double-line section, except Kargi Road – Salka Road (8.06 km), where 3rd line work is under way



What are the details of this project?



Cabinet approved **3rd line between Bilaspur (Uslapur) – Pendra Road**



Route Length is **87 Km**



Expected annual loading is **5.5 MTPA**



Outlay is **₹ 1,279 Cr through Gross Budgetary Support**



Districts covered are **Bilaspur and Gaurela-Pendra-Marwahi (Chhattisgarh)**



Project duration is **4 years**

What are the benefits of this project?



Will **support transportation of steel and cement** from the Raipur/Bhilai industrial belt to northern India



Will **facilitate coal movement to major thermal power plants** in Northern/Western India



Saves **4.3 Cr Kg of CO2 annually** (equivalent to planting **~17 lakh trees**)



Will improve **access to tourist destinations** such as Achanakmar Tiger Reserve, Amarkantak, Khutaghat Dam, Malhar Archaeological Site and Ratanpur Mahamaya Temple



Will provide logistic Cost Saving of **₹96.2 Cr every year**

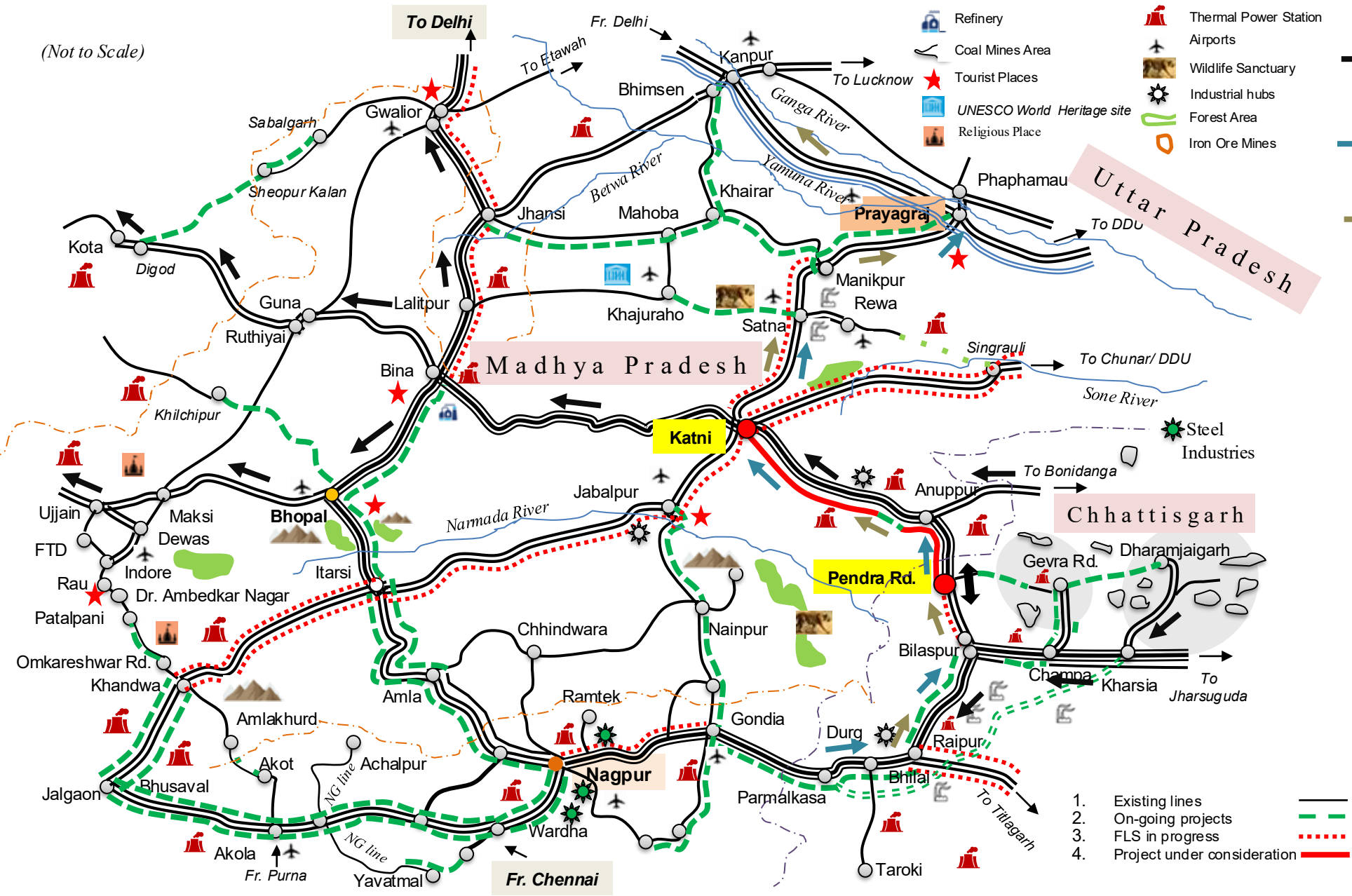


Will provide employment generation of **30 lakh human-days**



Katni – Pendra Road 4th Line

(Not to Scale)



Additional Traffic – 8.00 MTPA

→ **Coal (7.70 MTPA)**

→ **Cement (0.15 MTPA)**

➔ **Iron & Steel (0.15 MTPA)**

1. Existing lines —————
2. On-going projects ————
3. FLS in progress
4. Project under consideration —————

What are the details of this project?



Katni – Pendra Road section is triple line section excluding Shahdol – Singhpur section (6.62 Km) where work of 4th line is in progress



Existing line capacity utilization is up to **95%, projected to reach 107% without the project**



Part of the Kota–Paradeep section, a vital freight and passenger corridor



What are the details of this project?



Cabinet approved **4th line between Katni – Pendra Road**



Route Length is **201 Km**



Expected annual loading is **8 MTPA**



Outlay is **₹ 2,975 Cr through Gross Budgetary Support**



Districts covered are **Anuppur, Shahdol, Umaria & Katni (Madhya Pradesh) and Gaurela-Pendra-Marwahi (Chhattisgarh)**



Project duration is **4 years**

What are the benefits of this project?



Will serve as a **vital link between central India and the mineral-rich eastern region**, covering major SECL coalfields including Korba, Gevra, Dipka, Kusmunda and Chirimiri



Will **facilitate coal movement to major thermal power plants** in Northern/Western India



Saves **14.42 Cr Kg of CO2 annually** (equivalent to planting **~58 lakh trees**)



Will improve **access to tourist destinations** such as Amarkantak, Bandhavgarh Tiger Reserve, Virateshwar Temple and Jwaleshwar Dham



Will provide logistic Cost Saving of **₹322 Cr every year**

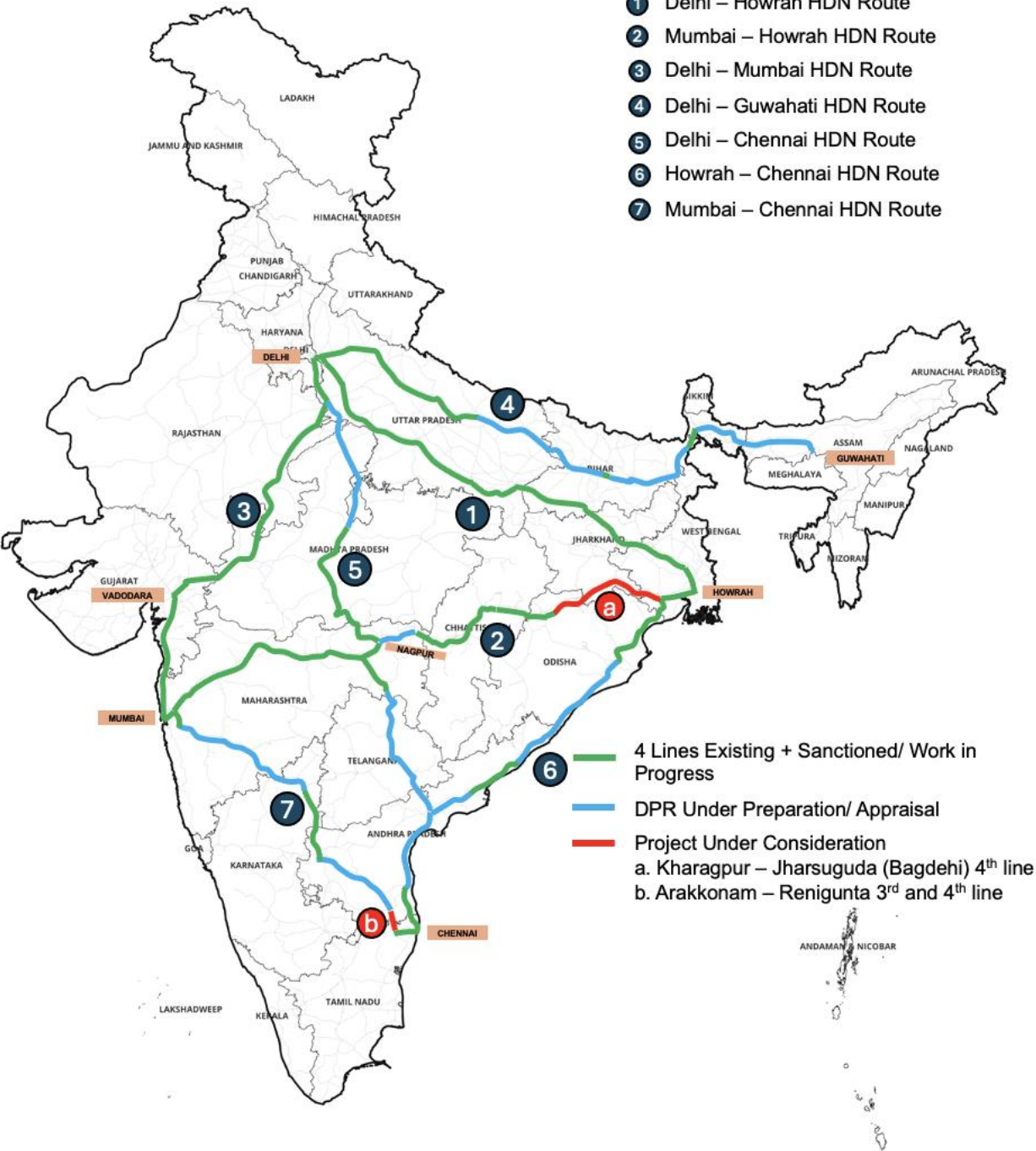


Will provide employment generation of **68 lakh human-days**



High Density Networks

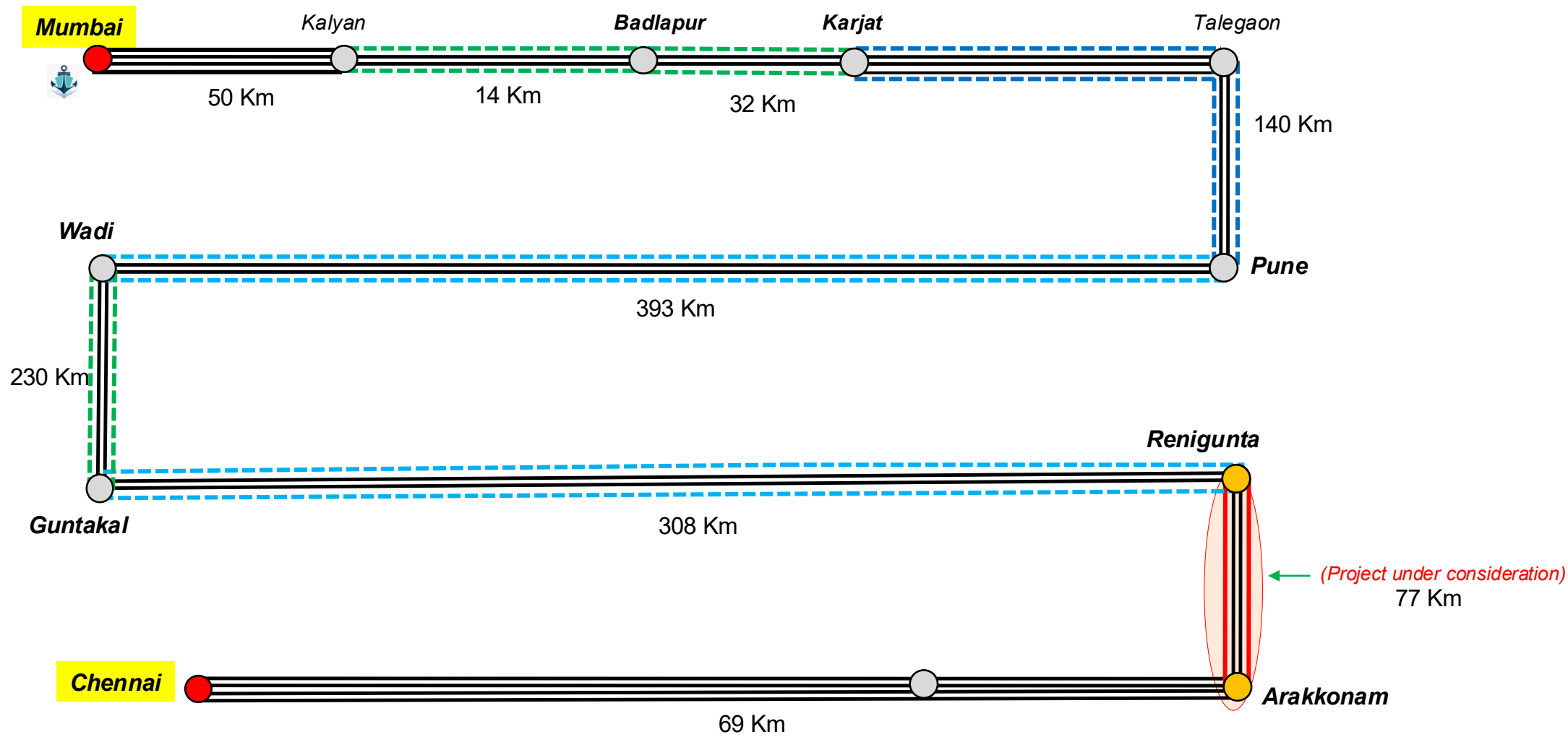
- ① Delhi – Howrah HDN Route
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Route ID	Starting Point	Destination	Key Intermediate Stations / Regions Covered
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HDN-2	Howrah (Kolkata)	Mumbai	Kharagpur, Tatanagar, Bilaspur, Raipur, Nagpur, Bhusaval, Kalyan
HDN-3	Delhi	Mumbai	Mathura, Kota, Ratlam, Vadodara, Surat
HDN-4	Delhi	Guwahati	Moradabad, Bareilly, Lucknow, Gorakhpur, Chhapra, Katihar, New Jalpaiguri
HDN-5	Delhi	Chennai	Agra, Gwalior, Jhansi, Bhopal, Nagpur, Balharshah, Vijayawada
HDN-6	Howrah (Kolkata)	Chennai	Bhubaneswar, Khurda Road, Brahmapur, Visakhapatnam, Vijayawada
HDN-7	Mumbai	Chennai	Pune, Solapur, Wadi, Guntakal, Renigunta



Mumbai – Chennai HDN Route



(Not To Scale)

Arakkonam – Renigunta 3rd and 4th line

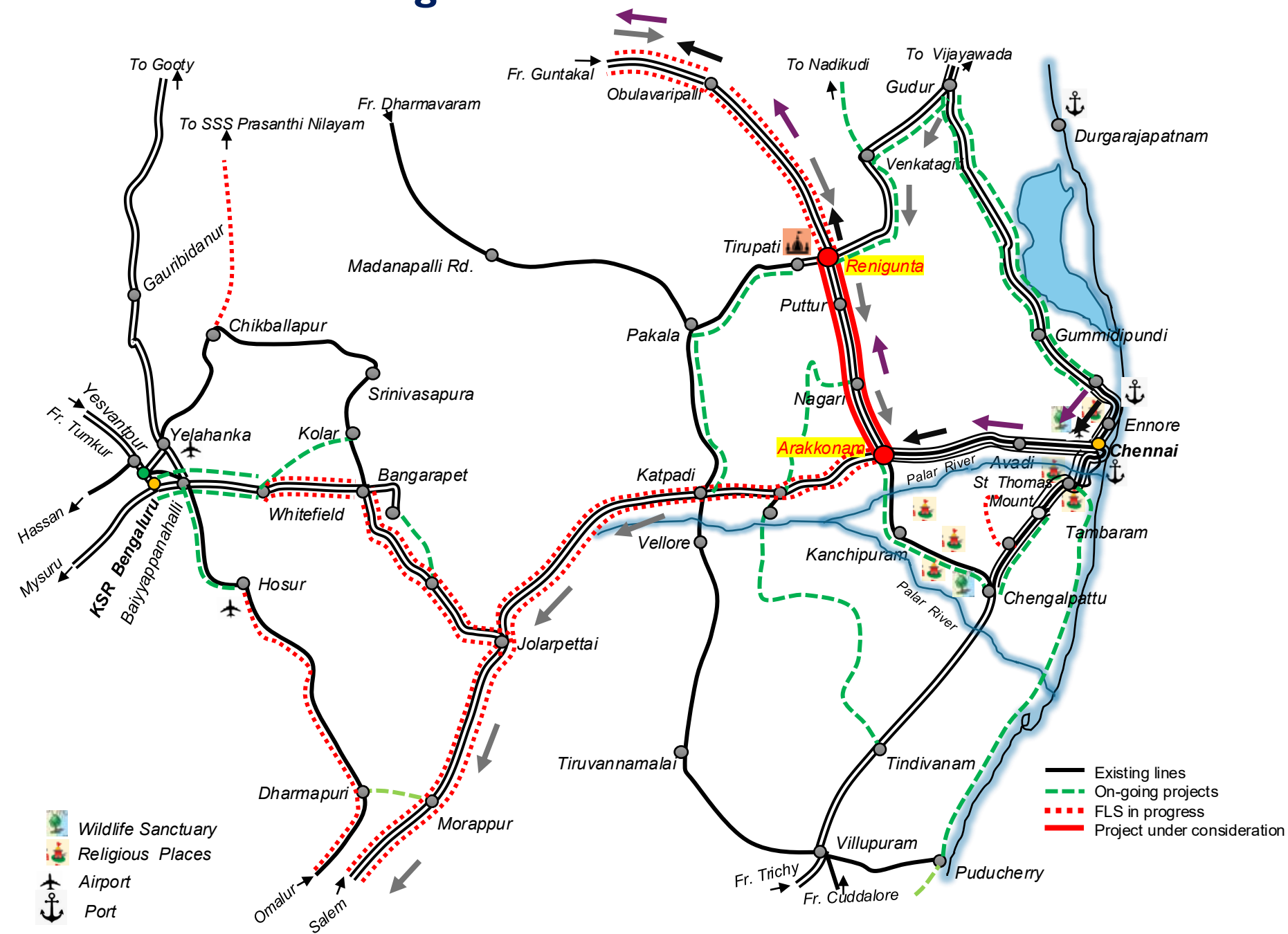
Additional Traffic – 7.21 MTPA

→ Cement & Clinkers
(4.16 MTPA)

→ Coal (1.24 MTPA)

→ Food Grains (0.89
MTPA)

Other Commodities –
Containers, Automobiles,
Iron or Steel
(0.92 MTPA)



What is the importance of this project?



Arakkonam – Renigunta (Tirupati) section is part of **Mumbai – Chennai High Density Network Route** (HDN)



The existing line section is **saturated (120%)** and is expected to be further saturated due to anticipated expansion of economic nodes



Tirupati Balaji Temple's proximity to Renigunta makes this route one of **India's busiest passenger corridors**



What are the details of this project?



Cabinet approved **3rd and 4th Line in Arakkonam – Renigunta Section**



Route Length is **77 Km** with **12 major bridges** and **221 minor bridges**



Connects and streamline **Kudgi and Rayalaseema power plants to Ennore Port**



Outlay is **₹ 1,936 Cr** through **Gross Budgetary Support**



Districts covered are **Ranipet and Tiruvallur in TN**, and **Tirupati and Chittoor in AP**



Project duration is **3 years**

What are the benefits from this project?



Will be critical for **transportation of automobiles** from the region to various parts of the country



Will connect economic nodes like **Small Industries Development Corporation (SIDCO) (Tiruvallur), State Industries Promotion Corporation of Tamil Nadu (SIPCOT) of Ranipet** and **cement plants near Arakkonam**



Saves **4.94 Cr Kg of CO2 annually** (equivalent to planting ~20 lakh trees)



Will provide additional freight traffic of **7.21 million ton per annum**



Will provide logistic Cost Saving of **₹110 Cr every year**



Will provide employment generation of **52 lakh human-days**



4 lining of Secunderabad (Ghatkesar) – Kazipet (110 Km, ₹ 2,419 Cr)



What is the importance of this project?



Secunderabad – Kazipet is an existing double line section and **part of Wadi – Secunderabad – Kazipet Highly Utilized Network (HUN-8) route**



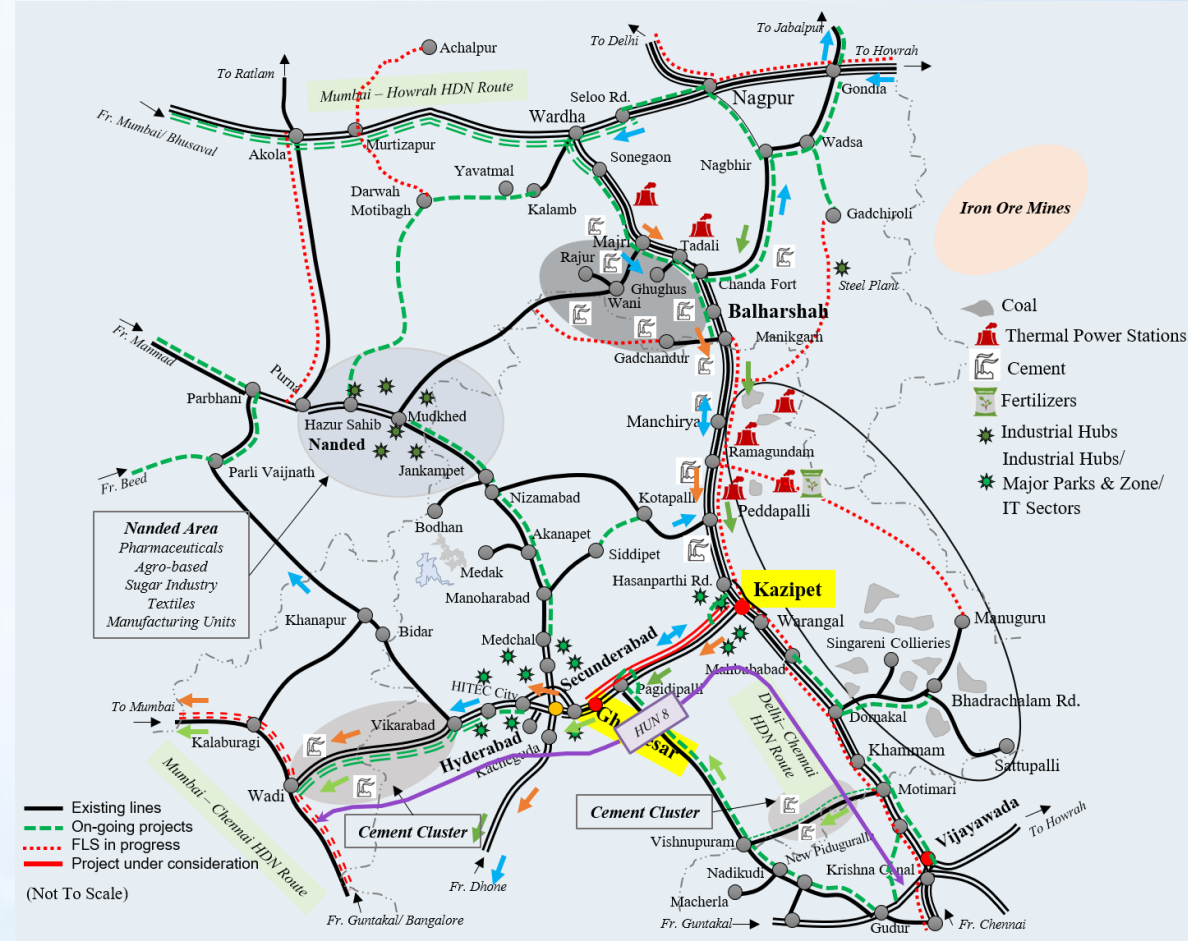
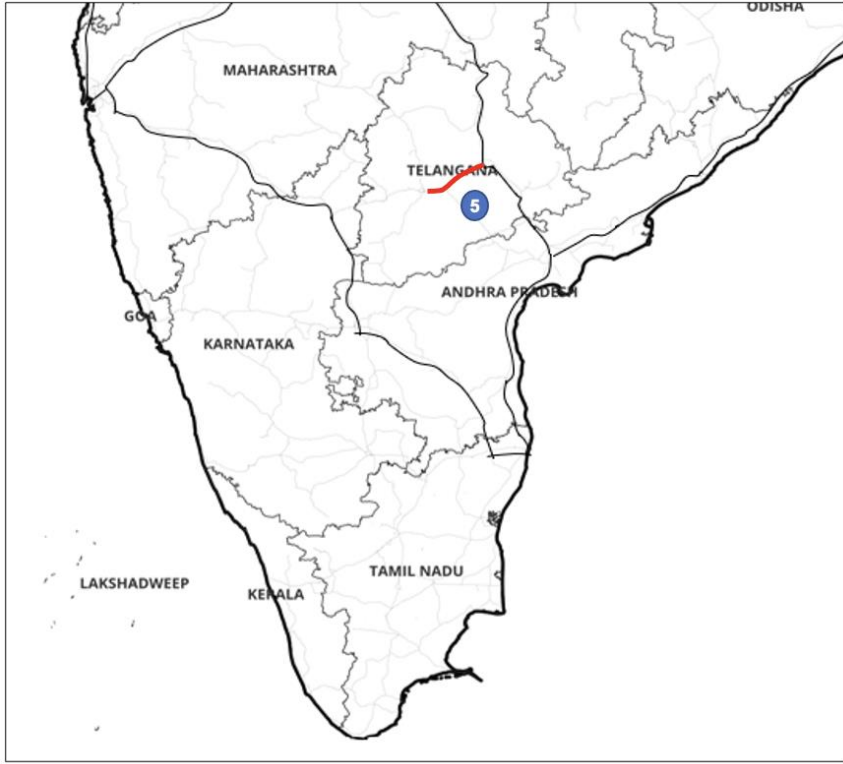
Existing line section is **already saturated (120%)** and is **projected to increase further to 151%**, in case the proposed project is not taken up



Critical route for **daily commuters between Secunderabad and Kazipet/Warangal**



Which area does it cover?



Additional Traffic – 9.83 MTPA

→ **Coal (7.06 MTPA)**

Destination	Capacity (MW)	Remarks
Kudgi STPP	2400	Improvement in PLF
Bellary TPS	1700	Improvement in PLF
Yadlapur (Raichur) TPS	1720	Improvement in PLF
Yermarus TPS	1600	Improvement in PLF
New Parli TPS	750	Improvement in PLF
Hotgi TPS	1320	Improvement in PLF

→ **Iron Ore (0.73 MTPA)**

→ **Foodgrains (0.65 MTPA)**

→ **Cement (0.13 MTPA)**

Other Commodities – Steel, Container, etc. (1.26 MTPA)

What does this project involve ?



Cabinet approved **Four lining of Secunderabad (Ghatkesar) – Kazipet Section**



Route Length is 110 Km with 17 major bridges and 151 minor bridges



Connects **Kudgi and Rayalaseema power plants to Ennore Port**, streamlining transit



Outlay is **₹2,419 Cr** through Gross Budgetary Support



Districts covered are **Medchal Malkajgiri, Yadadri Bhuvanagiri, Jangaon, Warangal Urban** (Telangana)



Project duration is **4 Years**

What are the benefits?



Supports cement clusters at Motumari–Vishnupuram and Wadi–Tandur, and **iron ore movement from Balharshah, Manikgarh and Gadchiroli to Karnataka's steel industries**



Lies in vicinity of **Singareni Coal Mines and Western Coalfields Limited (WCL)** and critical link for transporting coal to **thermal power plants located at Hotgi, Kudgi, Yadlapur, Bellary and Yermaras**



Saves **9.71 Cr Kg every year of CO2** (equivalent to planting ~ **39 lakh trees**)



Will provide additional freight traffic of **9.83 million ton per annum**



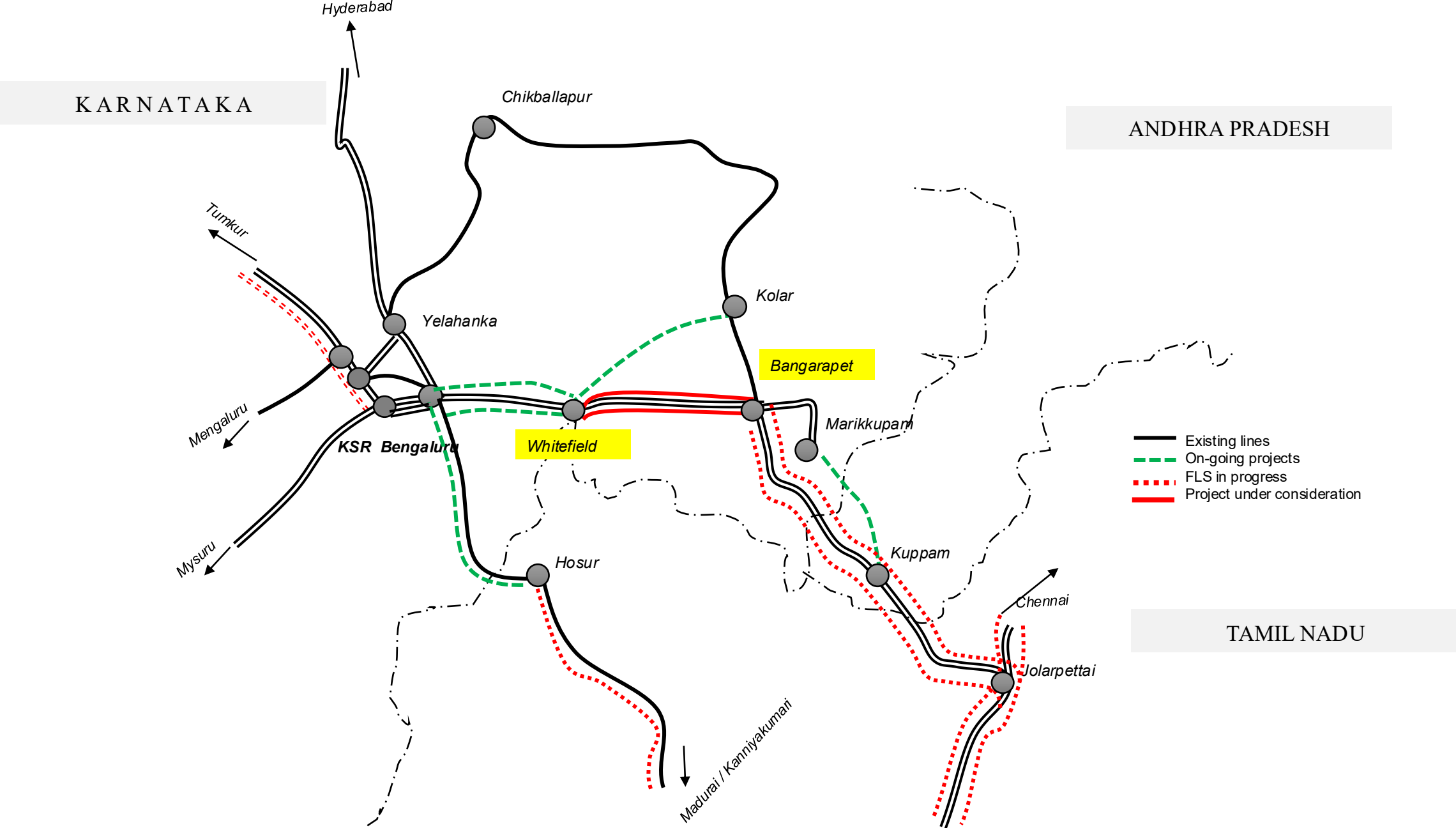
Will provide logistic Cost Saving of **₹ 217 Cr every year**



Will provide employment generation of **75 lakh human-days**

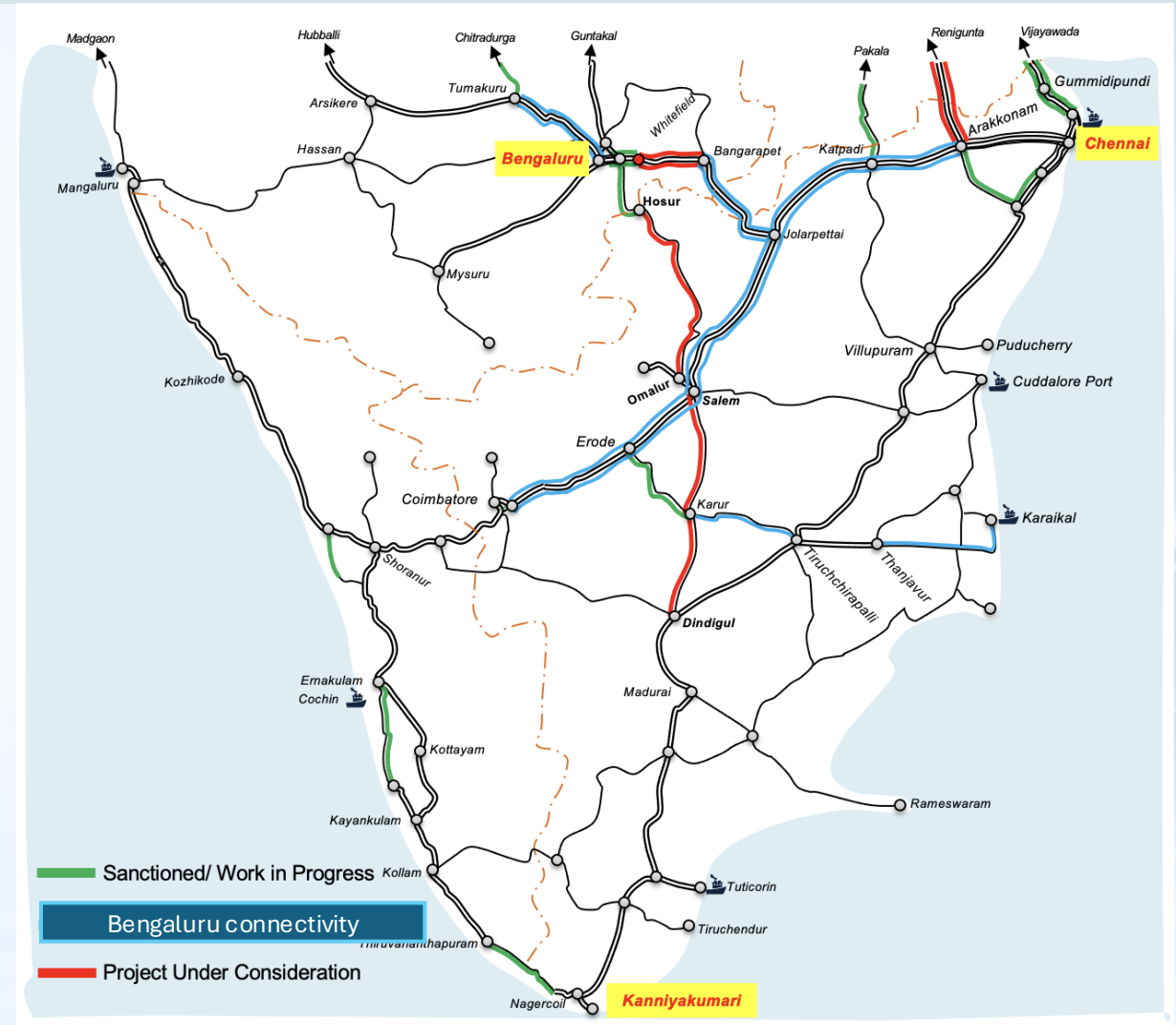


Bengaluru Region



Multitracking Projects around Bengaluru

1	Arakkonam – Renigunta 3 rd and 4 th line
2	Whitefield – Bangarapet 3 rd and 4 th Line
3	Hosur – Omalur Doubling
4	Salem – Karur – Dindigul Doubling



Whitefield – Bangarapet 3rd and 4th Line (47 Km)



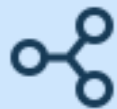
What are the benefits of this project?



Whitefield – Bangarapet section is part of **Manmad – Hubballi – Bengaluru – Jolarpettai Highly Utilized Network (HUN 10)**



The existing line section is **saturated (105%)** and is expected to be further saturated due to anticipated expansion of economic nodes



Whitefield – Bangarapet section forms part of Bangalore – Chennai Main Route, **connecting two major metropolitan cities of the country**



What are the details of this project?



Cabinet approved **3rd and 4th Line in Whitefield – Bangarapet Section**



Route Length is **47 Km with 5 major bridges and 58 minor bridges**



Key to **Chennai-Bengaluru rail quadrupling** and crucial for Chennai-Tirupati transit.



Outlay is **₹1,476 Cr through Gross Budgetary Support**



Districts covered are **Bangalore Urban, Bangalore Rural and Kolar in Karnataka**



Project duration is **4 years**

What are the benefits of this project?



Handles traffic from **Chennai Port, New Mangalore Port, Ennore (Kamarajar) Port and Tuticorin Port**



Supports key nodes like **Whitefield ICD, various oil terminals (IOCL, BPCL, HPCL) at Devangonthi, Malur Logistics Park, upcoming MMLP at Muddelinganahalli (30 MMPTA).**



Saves **6.11 Cr Kg of CO2 annually** (equivalent to planting ~ **24 lakh trees**)



Will provide additional freight traffic of **14.53 million ton per annum**



Will provide logistic Cost Saving of **₹ 137 Cr every year**

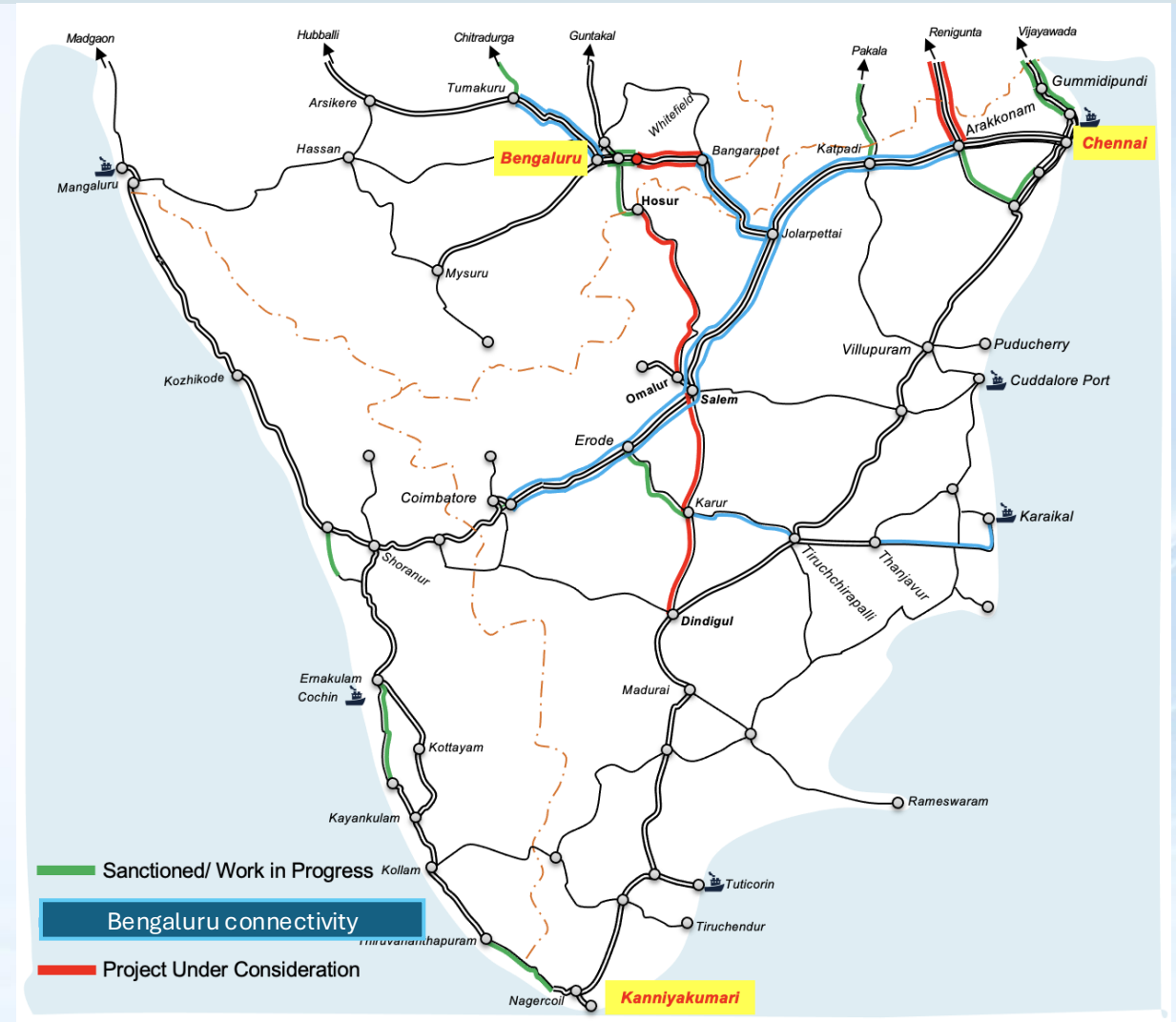


Will provide employment generation of **32 lakh human-days**



Multitracking Projects around Bengaluru

1	Arakkonam – Renigunta 3 rd and 4 th line
2	Whitefield – Bangarapet 3 rd and 4 th Line
3	Hosur – Omalur Doubling
4	Salem – Karur – Dindigul Doubling



Hosur – Omalur Doubling(147 Km, ₹ 1,948 Cr)



What does this project involve ?



Cabinet approved **Doubling of Hosur – Omalur Section**



Route Length is **147 Km** with **20 major bridges** and **359 minor bridges**



Serves pilgrims **travelling to Kanniyakumari and Rameswaram**



Outlay is **₹1,948 Cr** through **Gross Budgetary Support**



Districts covered are **Krishnagiri, Dharmapuri and Salem** in Tamil Nadu



Project duration is **4 years**

What are the benefits?



Project route acts as **feeder/supply route** to **Bangalore region**



Provides **connectivity to Dharmapuri industrial node** (Agro produce, textiles, electronic and EV manufacturing hub).



Saves **11.78 Cr Kg of CO2 every year** (equivalent to planting ~ **47 lakh trees**)



Will provide additional freight traffic of **8.95 million ton per annum**



Will provide logistic Cost Saving of **₹263.13 Cr every year**



Will provide employment generation of **50 lakh human-days**



Salem – Karur – Dindigul Doubling (159 Km, ₹ 2,242 Cr)



What does this project involve ?



Cabinet approved **doubling of Salem – Karur – Dindigul Section**



Route Length is **159 Km** with **18 major bridges** and **241 minor bridges (River Kaveri & Amaravathi)** (Longest Bridge Length – 1,125m)



Provides connectivity across **3 capitals**; Bengaluru, Chennai and Thiruvananthapuram



Outlay is **₹2,242 Cr** through **Gross Budgetary Support**



Districts covered are **Salem, Namakkal, Karur and Dindigul (Tamil Nadu)**



Project duration is **3 years**



What are the benefits?



Will improve access to **MSME clusters, Salem steel and UltraTech Cements hubs in Karur and Salem**



Enhances connectivity to Northwest hinterland of Tamil Nadu and Bengaluru region with the **ports of Karaikal and Tuticorin**



Saves **9.79 Cr Kg every year** (equivalent to planting ~ **39 lakh trees**)



Will provide additional freight traffic of **6.87 million ton per annum**



Will provide logistic Cost Saving of **₹ 219 Cr every year**



Will provide employment generation of **54 lakh human-days**



Infrastructure decisions in NDA 3.0

[Railways, Highways, Metro]

67 Railway Projects

₹ 2,94,979 Cr



38 Highway Projects

₹ 3,82,119 Cr



13 Metro Projects

₹ 1,65,341 Cr

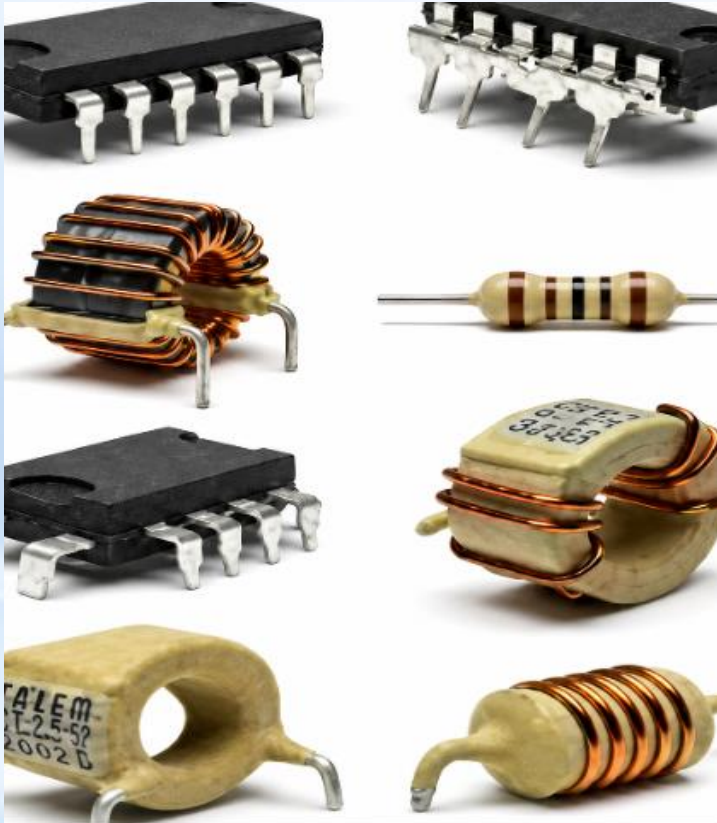


Infrastructure decisions in NDA 3.0

[High tech manufacturing]

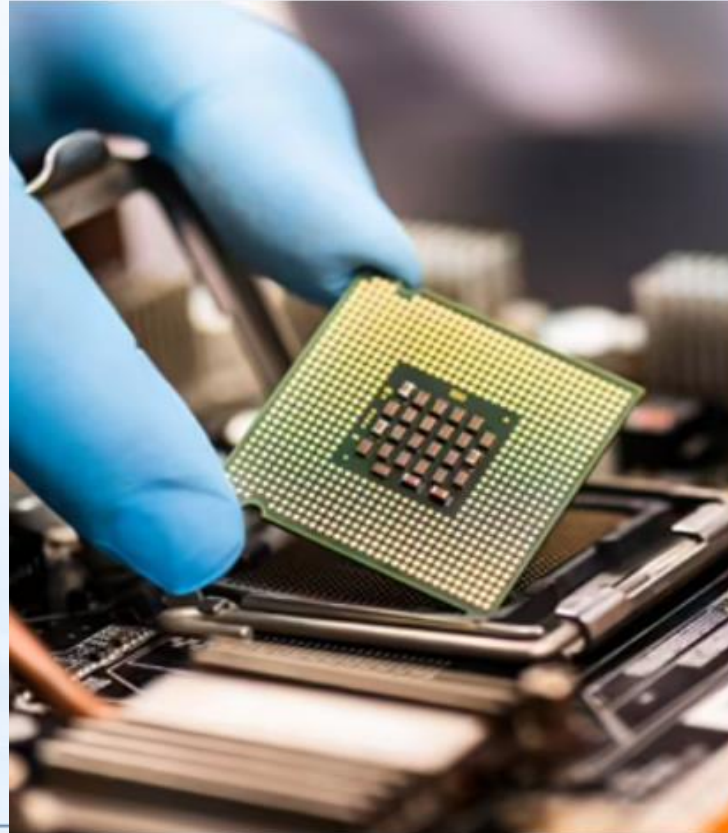
ECMS

₹ 22,919 Cr



Semicon 2.0

₹ 1,27,500 Cr



MPMS

₹ 62,500 Cr



Infrastructure decisions in NDA 3.0

[Airports, Ports, Ropeways]

5 new Airports + Modified UDAN

₹ 37,846 Cr



1 major port + 1 ship repair facility +
Shipping reforms

₹ 1,60,495 Cr



2 new ropeways

₹ 6,811 Cr



Infrastructure decisions in NDA 3.0

[Power, Smart City, Housing]

Hydro projects + budgetary Support
₹ 71,193 Cr



12 Industrial smart cities + Industrial parks
₹ 65,292 Cr



PM Awaas Yojana
₹ 5,36,137 Cr



Infrastructure decisions in NDA 3.0

[Water and energy security]

Jal Jeevan Mission

₹ 8.7 Lakh Cr



Coal Gasification Scheme

₹ 37,500 Cr



PM Surya Sarovar Yojna

₹ 5,070 Cr

