

PM Gati Shakti
National Master Plan in Coal Sector



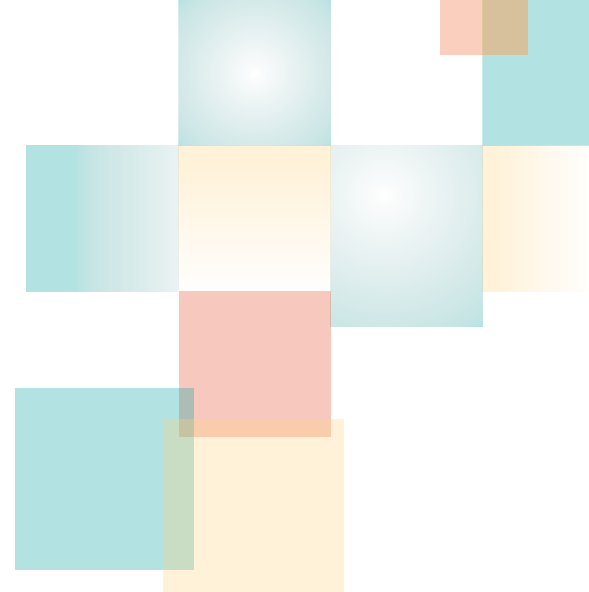

**“प्रगति की गति
कोयले की शक्ति”**



“The Gati Shakti platform uses technology and spatial planning to map infrastructure and logistics. It is assisting in planning, reducing cost and increasing speed of delivery”

Honorable PM Shri Narendra Modi *during his address at the inauguration of G20 summit, September, 2023, New Delhi*

“प्रगति की गति
कोयले की शक्ति”



The objective of this booklet is to provide comprehensive information on the coal sector through geospatial layers that have been uploaded on the Ministry of Coal portal of PM Gati Shakti National Master Plan with a vision to develop a smart, integrated, optimised, resilient, sustainable and trusted coal logistics ecosystem for accelerated and inclusive growth.

It may also help in ensuring availability of adequate coal evacuation infrastructure, optimisation of total logistics cost of coal, promote integration of multimodal network of transport infrastructure, modernisation, greater adaption of information communication technology, promote inclusivity by addressing needs of logistics supply and user side.

Moreover, it will be of immense help to all stakeholders to plan any activity on the basis of information available on this portal and it will be helpful in coordinated planning and timely execution of the projects as well as enhancing the “ease of doing business” in coal sector.



**“प्रगति की गति
कोयले की शक्ति”**

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CHAPTER-I

INTRODUCTION

COAL

INDIAN ENERGY CHOICE

Coal is the most important and abundant fossil fuel in India. It amounts for 55% of country's energy needs. The country's industrial heritage was built upon indigenous coal.

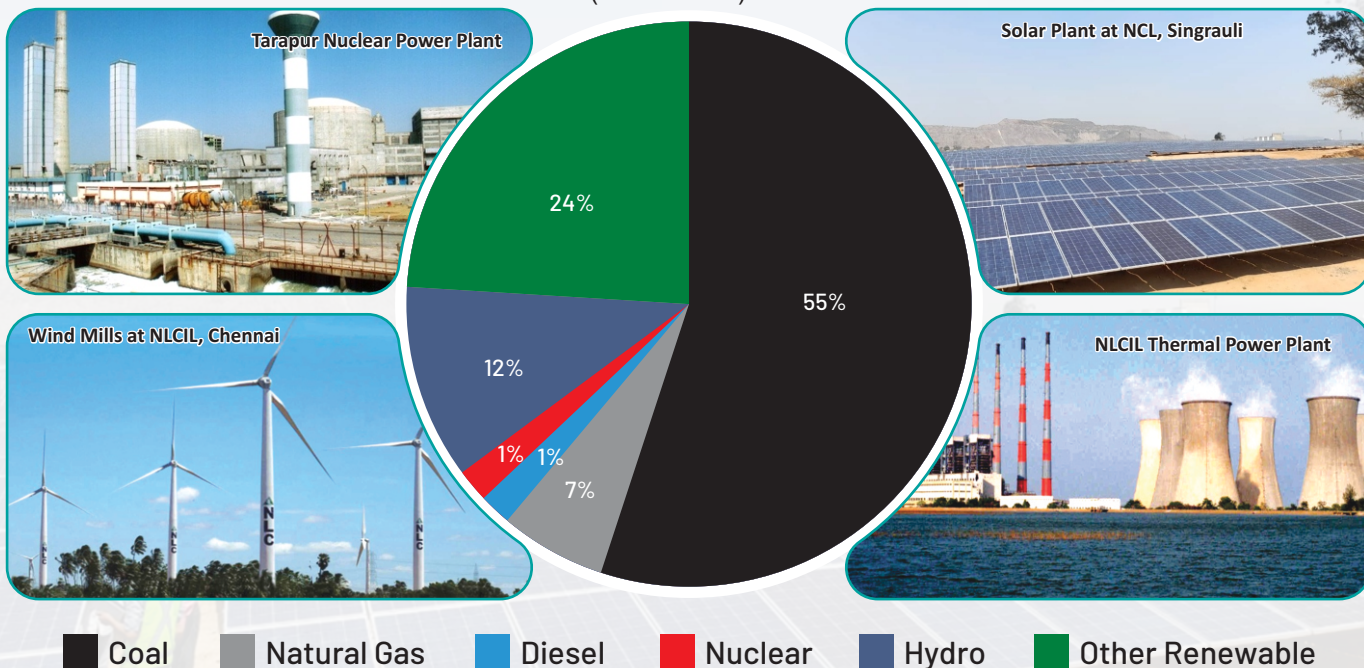
Commercial-primary energy consumption in India has grown by about 700% in the last 4 decades. The current per capita commercial-primary energy consumption in India is about 350 kgoe/year which is well below that of developed countries. Driven by rising population, expanding economy and quest for improved quality of life, energy usage in India is expected to rise. Considering the limited reserve potentiality of petroleum and natural gas, eco-conservation, restriction on hydel-projects and geo-political perception of nuclear power, coal will continue to occupy the center-stage for India's energy scenario.

Indian coal offers a unique eco-friendly fuel source to domestic energy market for the next century and beyond. Hard coal deposit spread over 27 major coalfields, are mainly confined to eastern and south-central parts of the country. The lignite reserves stand at a level around 36 billion tonnes, of which 90% occur in the southern state of Tamil Nadu.

[Source: Ministry of Coal Website]

Share of Coal in India's Energy Sector

(FY 2022-23)



ECONOMIC IMPORTANCE OF COAL

In India, coal mining started around 1774 during British rule, when coal deposits were discovered around Damodar River in the erstwhile Bengal State. During that time outputs were affected by limited supply and transportation issues which continued for subsequent decades. With the development of rail infrastructure, some of these problems were solved. During the two world wars, coal output increased as Britain exported significant amount of coal for its troops. As a result, coal production was pushed through and subsequently after independence, coal production was part of subsequent Five Year Plans. Coal mines were operated by private companies and subsequently by National Coal Development Corporation (NCDC).

In the year 1975, Government constituted Public Sector Company, Coal India Limited for management and production of coal from mines in India. Coal India Limited (CIL) continued to mine coal from mines of the country till 2015. After 2015, the new government began allowing private companies to mine commercially in India. In India, coal is divided in two categories, i.e., non-coking coal and coking coal.

USES OF COAL

Since industrial revolution, coal has been the key source of thermal energy, majority of the machinery at the time was powered by coal. Coal was the only source of energy for rail & road, engines including marine engines.



NLCIL Thermal Power Plant
 Birds eye view

COAL FOR COKE IN METALLURGY

In iron and steel industries, coke is essential as it is used as reducing agent in the process of melting iron ore. Coking coal is used for making coke in the iron and steel industry.

COAL AS THERMAL ENERGY SOLUTION

Coal generates thermal power in developing countries. In addition, coal gas is commonly utilized to create energy. Thermal energy production is the most significant of coal applications accounting for roughly 65% of global coal usage. Low quality coal and lignite are utilized for electricity production. In India, coal and lignite contributes about 55% of its production for thermal energy generation.

FUEL FOR CEMENT, FERTILIZER AND OTHER INDUSTRIES

Coal is used for cement and fertilizer industry.

Chemical industry relies on coal for variety of essential ingredients like benzole, coal gas, creosote, ammonia sulphate, coal tar, etc.

[Source: U.N. Academy Website]



Steel Making





Cement Plant

INDIA'S COAL DEMAND & PRODUCTION

India is fastest growing major economy and is expected to become world's third largest economy in the coming years. With the rapid industrial growth, the demand for energy has increased over the last decade and will continue to increase in the near future.

In order to meet the energy requirements of our nation, the government has undertaken several initiatives to scale-up domestic coal production. Therefore, as against the increased coal demand, domestic coal production has also increased. In 2022-23, the domestic coal production increased by 14.77% to reach 893.19 MT from 778.21 MT in 2021-22. The cumulative coal production for the fiscal year 2023-24 surged to 880.72 MT (provisional), a remarkable increase from the 785.39 MT during the same period in FY 2022-23. It is expected that the coal production in India during 2023-24 will be around 1012 MT with a growth of about 13%. **[Source: pib.gov.in]**

As a result of increase in domestic production, coal import has declined by 5% during April-September 2023 in the current financial year as compared to the corresponding period of previous financial year. This shows reduction in import dependency of coal in the country.

The total coal consumption in the coal based power plants in the country has increased from about 608 MT during 2017-18 to about 777 MT during 2022-23. With a Combined Annual Growth Rate (CAGR) of about 5%.

Keeping in view the similar trend of annual growth, the coal requirement for power generation for the year 2031-32 has been estimated to be 1025.8 MT and the estimated requirement of imported coal from the plants designed to run on imported coal may be 28.9 MT.

Domestic coal production is expected to grow-up 6-7% annually in the next few years to reach about 1.5 billion tonnes in 2029-30. For a smooth transit of coal to the end users, steps are also being taken to improve evacuation infrastructure through new rail projects and to mechanise the loading of coal through First Mile Connectivity (FMC) projects.

While prioritizing growth in coal production, the government is also aware of its responsibility towards sustainability and is taking rapid strides towards sustainable harnessing and conservation of energy.

[Source: PIB Note, Ministry of Coal dated 18.12.2023]

There are plans to enhance production of coal to meet growing demand which is estimated to 1.5 BT by 2029-30.

Operating a coal mine also requires compliance of environmental norms in the following ways:

- i) Before opening of the new mine/project, prior environmental clearance (EC)/Forestry Clearance (FC)/CTE/CTO are required from various regulatory agencies.
- ii) All mines require NOC from Central Ground Water Authority for extraction of ground water before commencement of mining operations.
- iii) In compliance of the EC/ CTE/ CTO conditions, regular environmental monitoring with respect to Ambient Air Quality, Effluent Quality, Noise Level Monitoring and Ground Water are monitored and report submitted to MOEF&CC, State Pollution Control Boards (SPCBs)/Central Ground Water Board (CGWB).
- iv) In compliance of consent conditions of MoEF&CC, various Carbon Emission reduction measures are undertaken which are regularly augmented such as:
 - Air pollution control measures
 - Water pollution control measures
 - Noise pollution control measures
 - Land reclamation
 - MoU with expert agencies
 - Third party evaluation of compliance of EC conditions
 - Environmental performance indexing

The government has initiated several steps to ramp-up domestic production in the country in order to achieve self-reliance. Some of the major initiatives taken by the government includes single window clearance, Amendment of Mines & Minerals (Development & Regulation) Act, 1957, in order to allow captive mines to sell upto 50% of their annual production after meeting the requirement of the end use plants, production through MDO mode, increasing use of mass production technologies, new projects and expansion of existing projects and auction of coal blocks to private companies/PSUs for commercial mining. 100% Foreign Direct Investment (FDI) has also been allowed for commercial mining. Coal India Limited has planned to enhance its coal production through expansion of mines, opening of new mines and mechanizing and modernizing of its mines both Underground and Opencast.

[Source: Press Release, Ministry of Coal dated 11.12.2023]

CHAPTER-II

P.M. GATI SHAKTI-NATIONAL MASTER PLAN

GROWTH DRIVER FOR COAL SECTOR

Coal mining is done by two methods i.e. Open Cast and Underground. In the OC mining method mining is done by removing the top soil upto the coal seam and then extracting the coal through various technologies. In the underground mining coal seam is reached through shafts or incline and then coal is extracted using various technological methods. In both the cases, land is required. In Opencast Mining, surface rights of the land is required for mining operations and creating of infrastructural facilities like handling plants, evacuation systems, workshops, residential colonies etc. In the Underground Mining, surface rights of land is required for limited amount where only support systems like handling plants, evacuation system, residential colonies are required.

This land is essentially located where coal has been proved to be exist through exploration methods. Apart from the land involved directly above coal seams many infrastructure facilities are required to be created for the huge mining operations. Therefore, land is the basic input for coal mining. The infrastructure includes workshops, coal evacuation systems, coal washries, service buildings and residential colonies.

Since coal is a major source of energy in the country presently and therefore the growth of coal mining industry is vital for meeting the country's energy demand. The domestic coal production is expected to grow by 6-7% annually and will reach 1.5 billion tonnes in 2029-30. Keeping this in view, new coal mines have to be developed so that this target of coal production is achieved by indigenous production of coal.

Rapid Railway Loading System, NCL



WHY GATI SHAKTI ?

P.M. Gati Shakti-NMP for multi-modal connectivity is a digital platform which has brought multiple ministries like railways, road-ways, shipping, coal, power, petroleum and natural gas together on one single platform for uniform planning and systematic execution of infrastructure and connectivity projects. The multi-modal connectivity offers integrated and smooth connectivity for movement of goods and services from origin to destination. Coal production is directly linked with the matching evacuation system.

ADVANTAGES OF GATI SHAKTI

P.M. Gati Shakti-NMP is a Web GIS platform which is having the information, which is very much needed for integrated development of any infrastructure project such as:

- Location of all infrastructure and installations of all ministries.
- Location of proposed infrastructure of all ministries
- Road network
- Railway network
- Information of land available with the government ministries and agencies
- Analytical tools for various kinds of geo-spatial analysis
- Single window system for applying and obtaining various kinds of clearances

P.M. Gati Shakti-NMP now has a huge database of the information, as above, which is very much needed for planning, development and fast-track execution of the coal mining projects.

There is also a linkage between P.M. Gati Shakti-NMP and ULIP (Unified Logistic Integrated Platform). This platform will integrate systems like FOIS, FASTAG, VAHAN, SARATHI, TOS and ICEGATE.

The total land acquired by the government for various usage have also been mapped and integrated on P.M. Gati Shakti-NMP platform. P.M. Gati Shakti-NMP can also be used for comprehensive regional development of any area which is beneficial to all stakeholders, investors and would promote 'ease of doing business'. In the subsequent sections, the usability of the P.M. Gati Shakti-NMP would be described with focus on coal sector.



CHAPTER-III

GIS LAYERS ON PM GATI SHAKTI PORTAL-MoC

The uploaded GIS layers on MoC –PMGS portal are categorised in different sections according to their type and applicability. Presently 74 layers have been uploaded. Details are available later in this section. The major layers categories and their sub layers are as shown below:

1. COAL & LIGNITE BLOCKS

An area which is demarcated on the surface considering the location of coal or lignite seams which has been identified through detailed drilling and other exploration techniques.

Sublayers

- A. **CIL Blocks** (Blocks under CIL Possession): Blocks allotted to Coal India limited for coal mining.
- B. **CMSP Blocks** (Blocks under CMSP Act): Blocks allocated under the provisions of Coal Mines Special Provision Act 2015 through open auctions.
- C. **MMDR Blocks** (Blocks under MMDR Act) : Coal Blocks allotted under Mines and Minerals Development & Regulation Act .

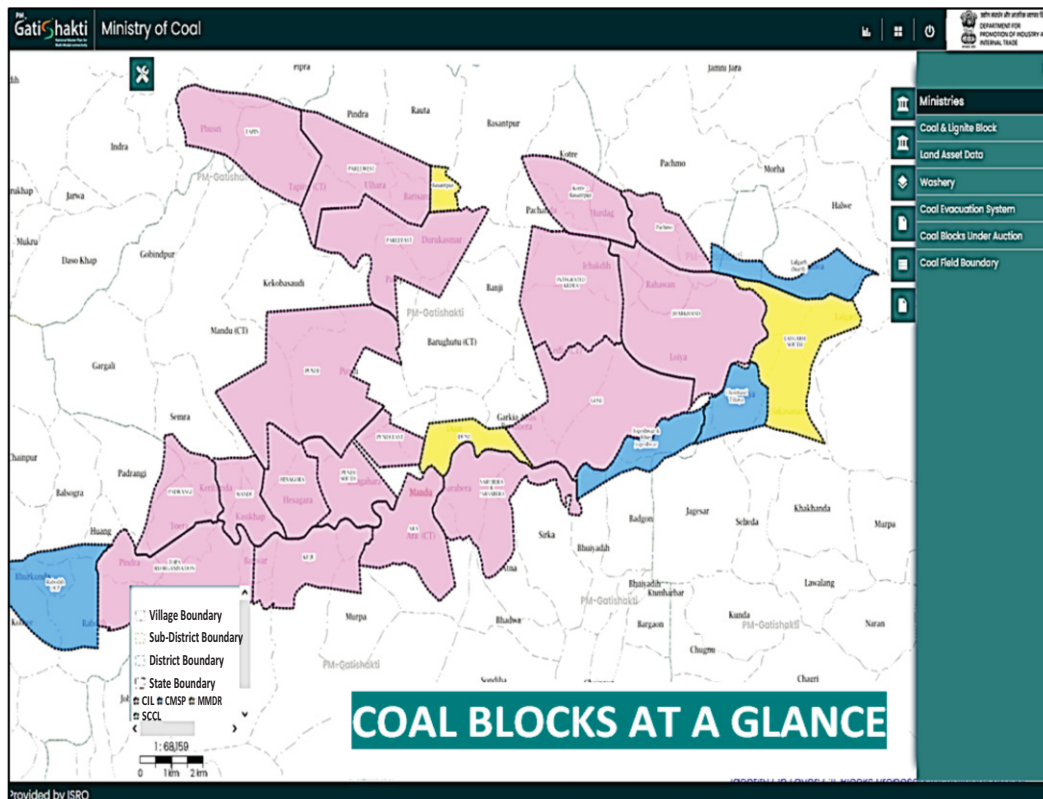


Figure : Shows coal blocks located in East Bokaro coalfield (CCL)

- D. **SCCL Blocks** (Blocks Under SCCL Possession): Coal Blocks allocated to Singreni Colliery Companies Limited for the purpose of coal mining.
- E. **Lignite Blocks** (Lignite block under NLCIL): Blocks allotted to NLCIL for lignite mining.
- F. **CIL Relinquished Blocks** (CIL blocks under relinquishment Process): The blocks which have been relinquished from CIL and are available for auction.

2. LAND ASSET DATA

The data in geospatial format of the land parcel acquired or under possession of coal subsidiaries. These land acquired by coal companies through various instruments of acquisition like CBA Act, LA Act etc.

Sublayers

- A. **Acquired land Boundary:** These are lands which has been acquired by coal subsidiaries. This includes both land under possession and land where possession is yet to be taken.
- B. **Khasra/ Revenue Plots:** Cadastral maps within acquired land obtained from revenue departments.
- C. **Plantation:** Identified lands where plantation have been done. This includes plantation on overburden sites, backfilling sites etc.
- D. **Forest:** The land which is owned by state forest department may or may not content forest cover.
- E. **Non forest:** Land other than forest land like government land or tenancy land.
- F. **Technical Reclamation:** Land where technical reclamation have done in the decoaled area.
- G. **Mining right:** Lands where rights have been given for carrying out mining activity.
- H. **ACA land:** Land Identified for Accredited Compulsory afforestation.

3. WASHERY

Coal Washeries are plants where coal beneficiation is done. Various technologies are used for separation of shales from carbonaceous content and thus reducing ash and undesirable mineral and improving the quality/grade of saleable coal. Coal washeries have been depicted in three categories as follows:

Sublayers

- A. **Existing Washeries:** Which are operational and the layers show the infrastructure like coal washing and handling plants, tailing ponds etc.

- B. Under-Construction/ Upcoming Washeries: Coal washeries which are under construction.
- C. Proposed Washeries: The demarcated area for proposed coal washeries.

4. COAL EVACUATION SYSTEM

The entire connectivity of road and rail network to mine location is commonly known as Coal evacuation system. It includes loading points i.e. silos, bunkers or coal stocks, conveyor belt system and railway sidings. Railway mode is preferred for coal transportation in large capacity mines while road transport is also used in smaller mines.

The coal evacuation system is categorized in following subtypes;

- A. FMC Projects (First Mile Connectivity): Systemic connectivity from the mining to the first operation to be carried out on the mined out coal like crushing, sizing loading etc is known as FMC.
- B. Railway Siding: The branch line which is used for loading of coal is called railway siding.
- C. Railway Projects: The projects which have been identified for connectivity to the mine from major routes or for bridging the gaps in connectivity for coal evacuation.

5. COAL BLOCKS UNDER AUCTION

Coal blocks which have been identified for auction in an open bidding process.

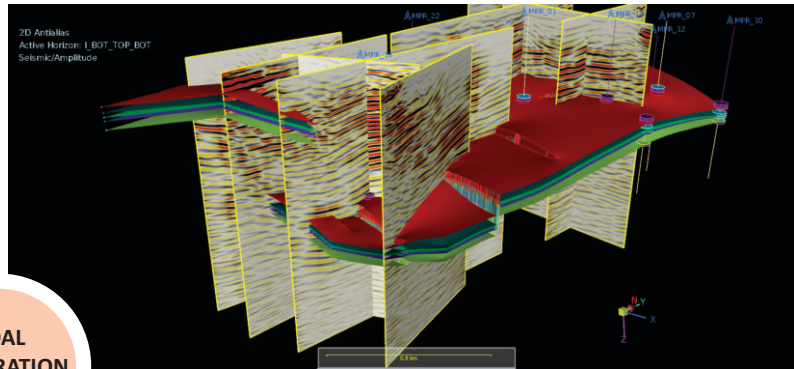
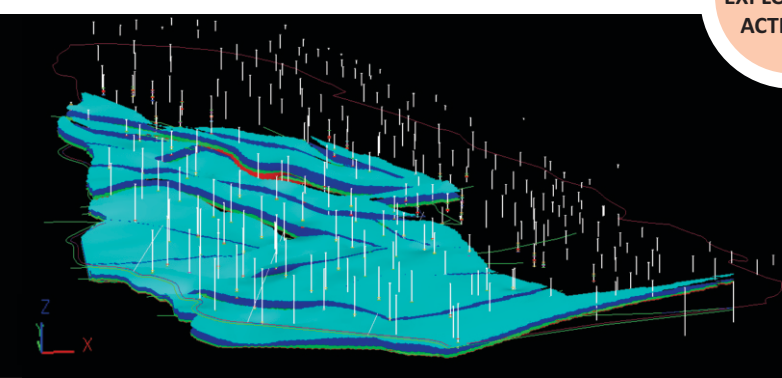
6. COALFIELD BOUNDARY

The imaginary boundary depicted on the map of the area identified as coal bearing is called coalfield boundary.

Individual major categories are further divided in sublayers in some sections. The color codes of Coal blocks are kept same as from OCBIS portal developed by CMPDI.

The layers incorporated in the portal presently are as above. Layers may be added depending on the emerging requirements. Each layers as seen on the portal is shown hereafter.

Description of each layer along with their attribute information is shown in following pages:

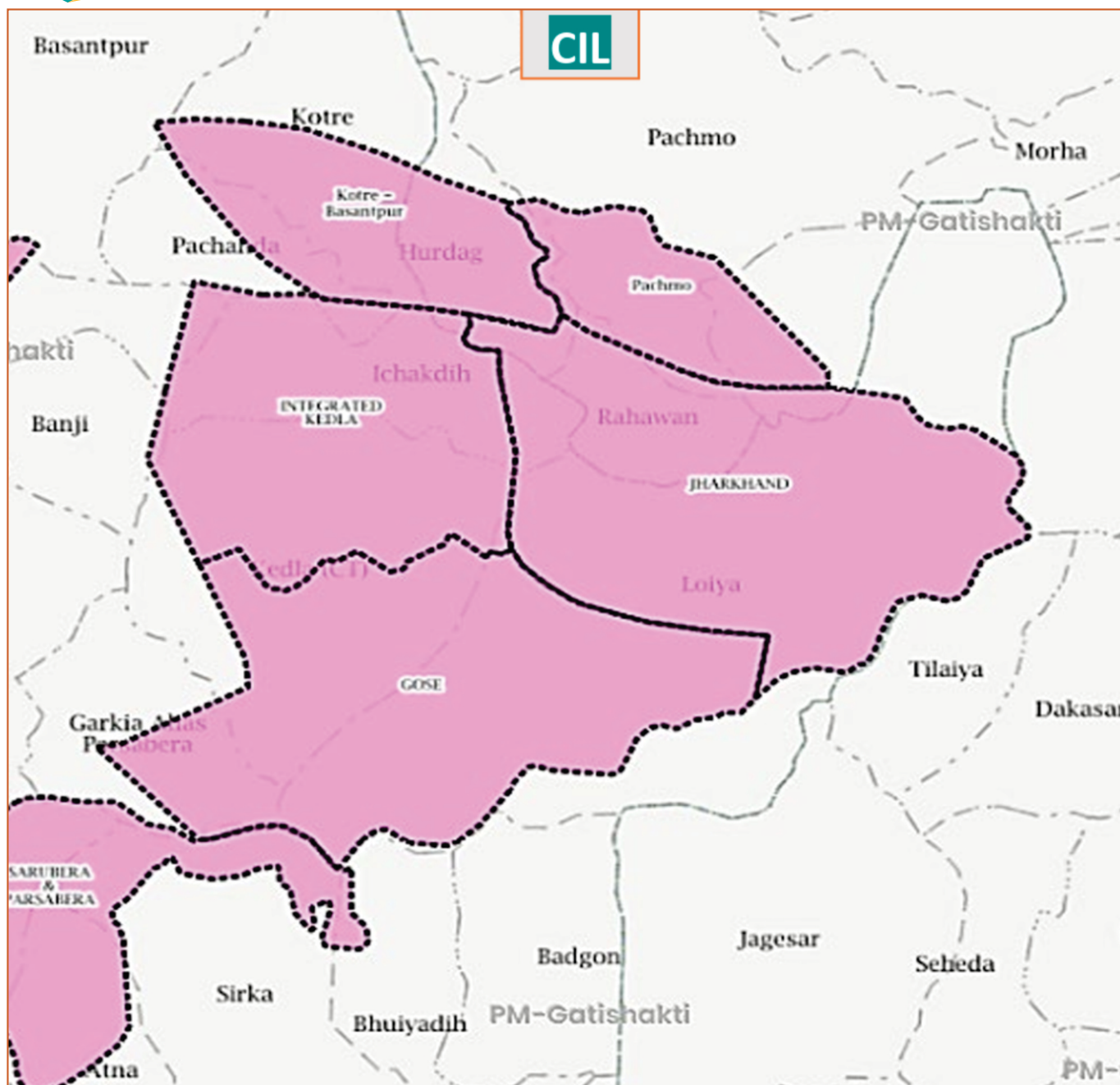

 COAL
 EXPLORATION
 ACTIVITIES


COAL BLOCKS

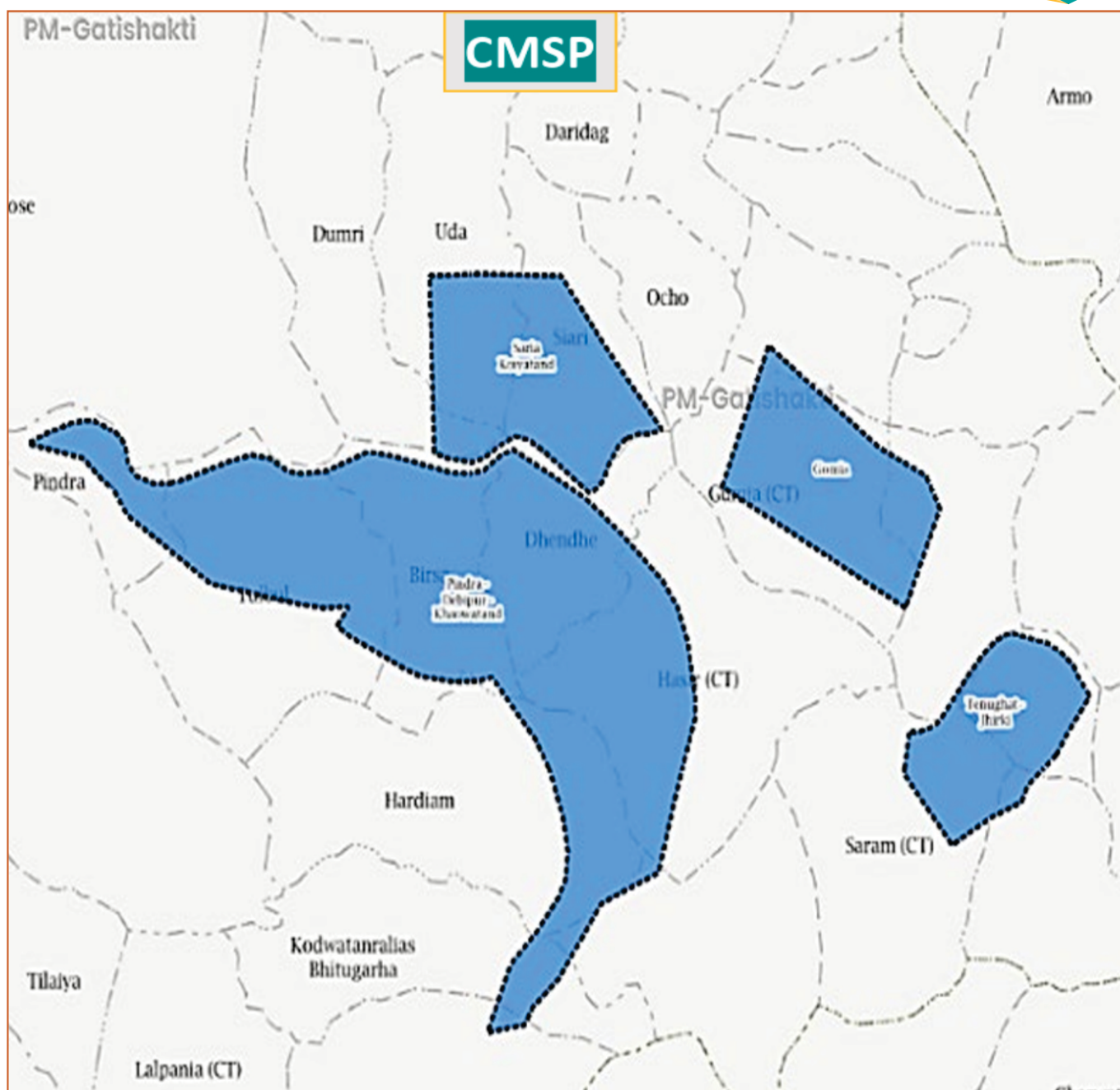
Coal blocks are mapped based on detailed drilling of boreholes in potential coal bearing basins/areas. CMPDI plays key role in mapping and demarcating coal blocks. Detailed Reports i.e. Geological Reports are prepared for each block. These blocks are irregular polygons which are derived from coal seams structure and occurrence, ease of topographical area and sustainable environmental considerations.

The Coal & Lignite blocks are divided mainly in 6 categories;

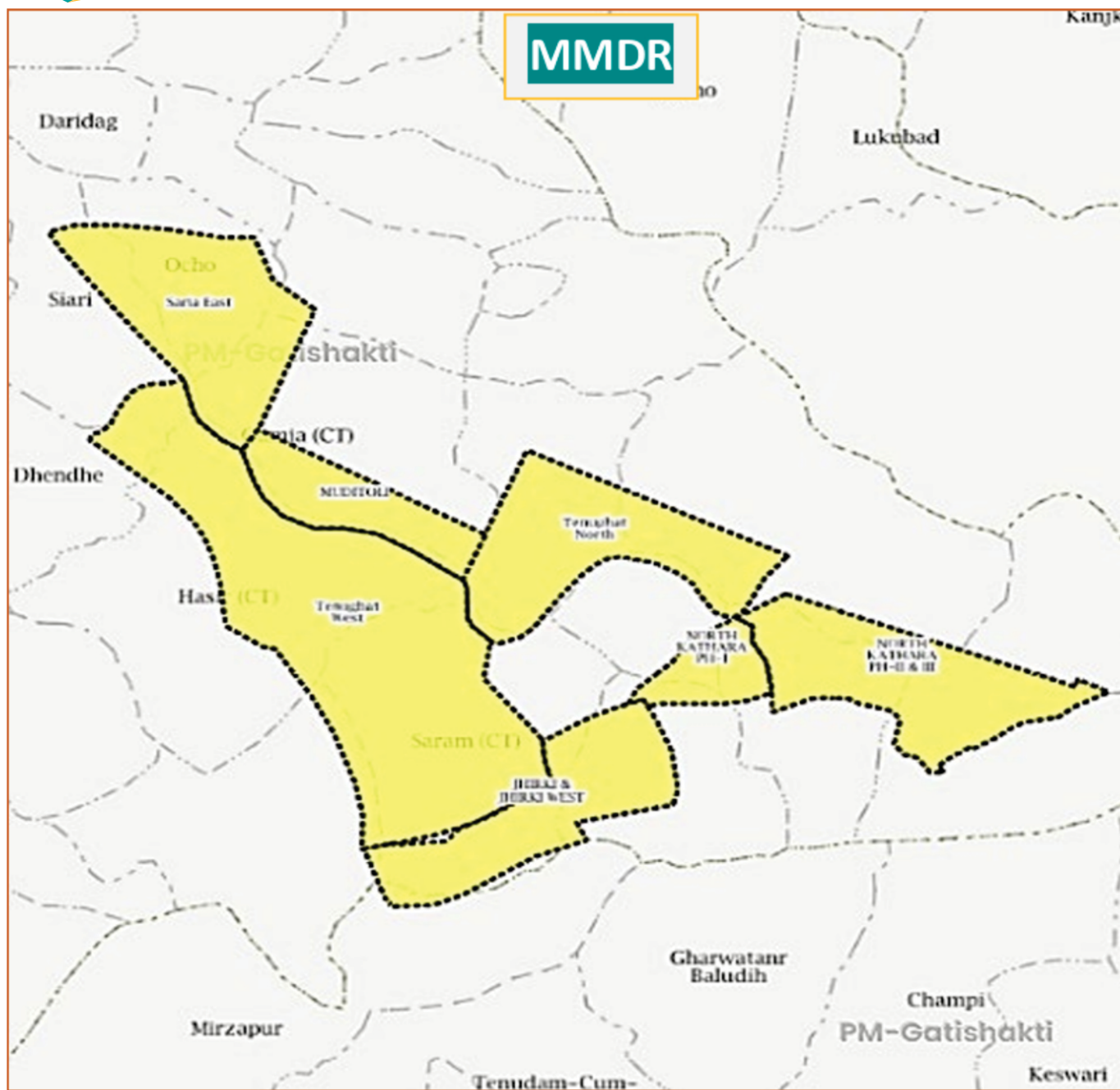
1. CIL Blocks
2. CMSP Blocks
3. MMDR Blocks
4. SCCL Blocks
5. Lignite Blocks



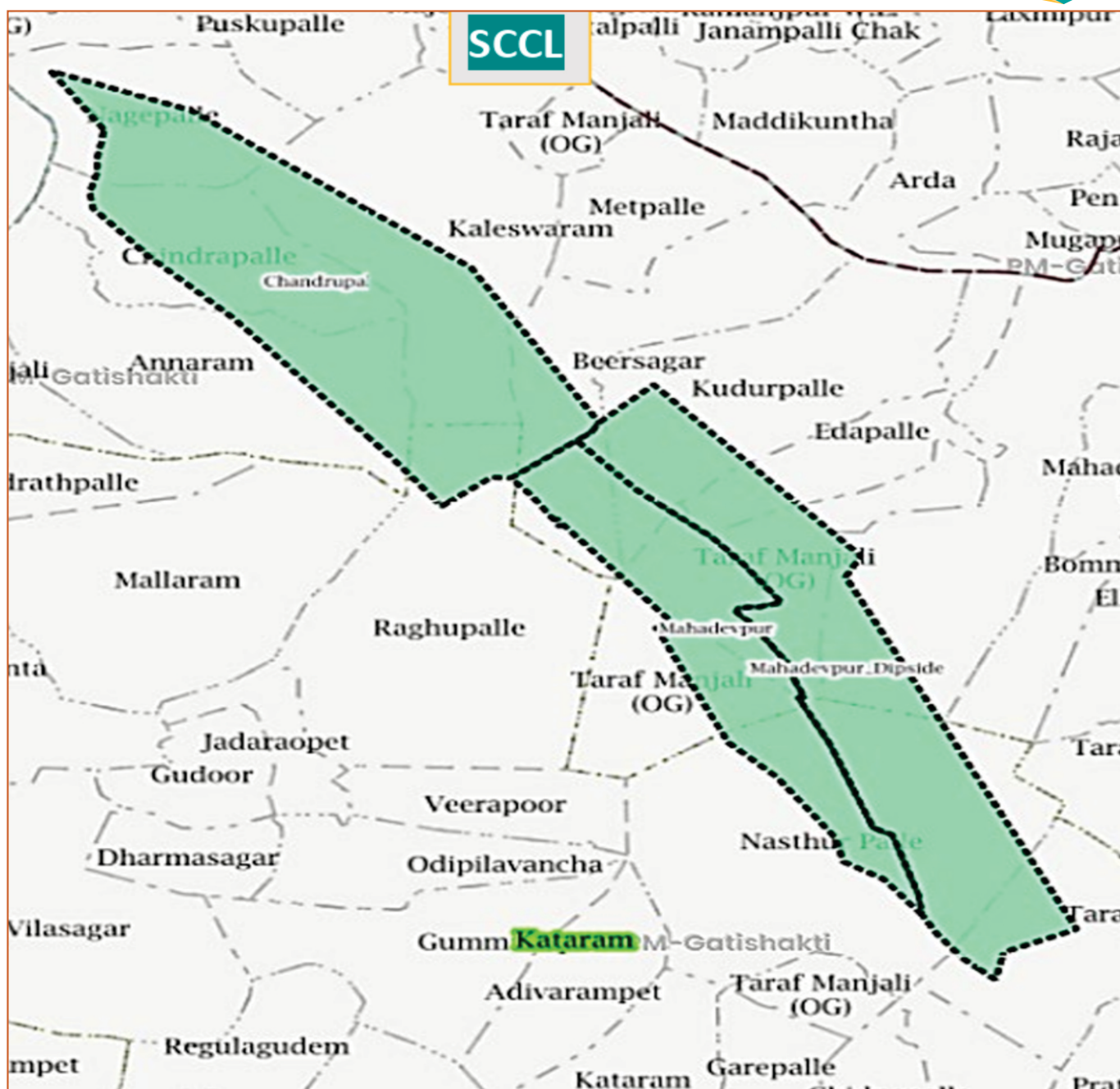
SUB LAYER NAME	SUB LAYER COUNT	ATTRIBUTE NAME	ALIAS
Coal blocks	Coal_Blocks-1	block_name	block_name
		cf_name	cf_name
		area	area
		company	company
		status	status
		resources	resources
		state	state
		hidesql	hidesql
		category	category
		validation	validation



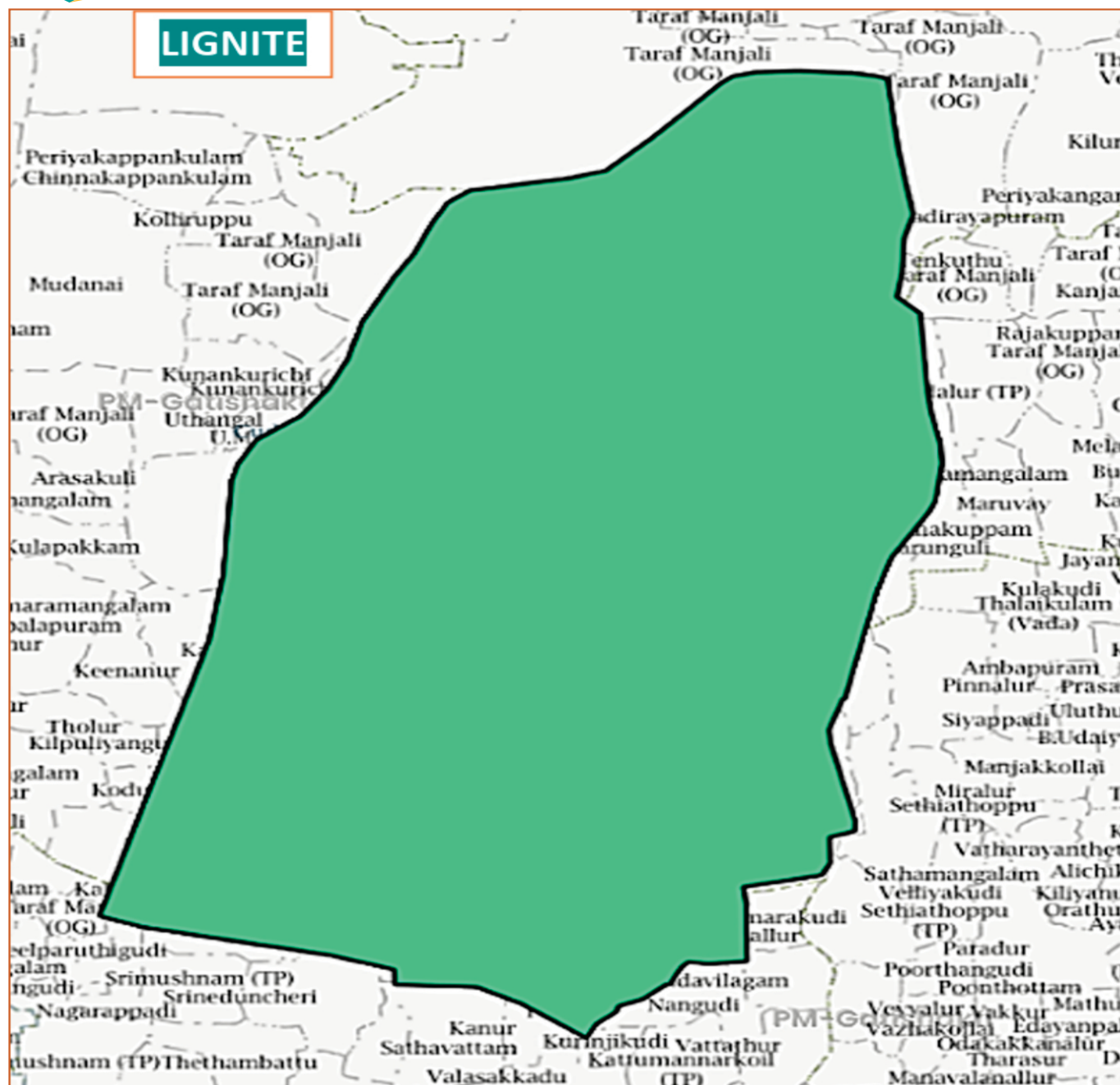
SUB LAYER NAME	SUB LAYER COUNT	ATTRIBUTE NAME	ALIAS
Coal blocks	Coal_Blocks-1	block_name	block_name
		cf_name	cf_name
		area	area
		company	company
		status	status
		resources	resources
		state	state
		hidesql	hidesql
		category	category
		validation	validation



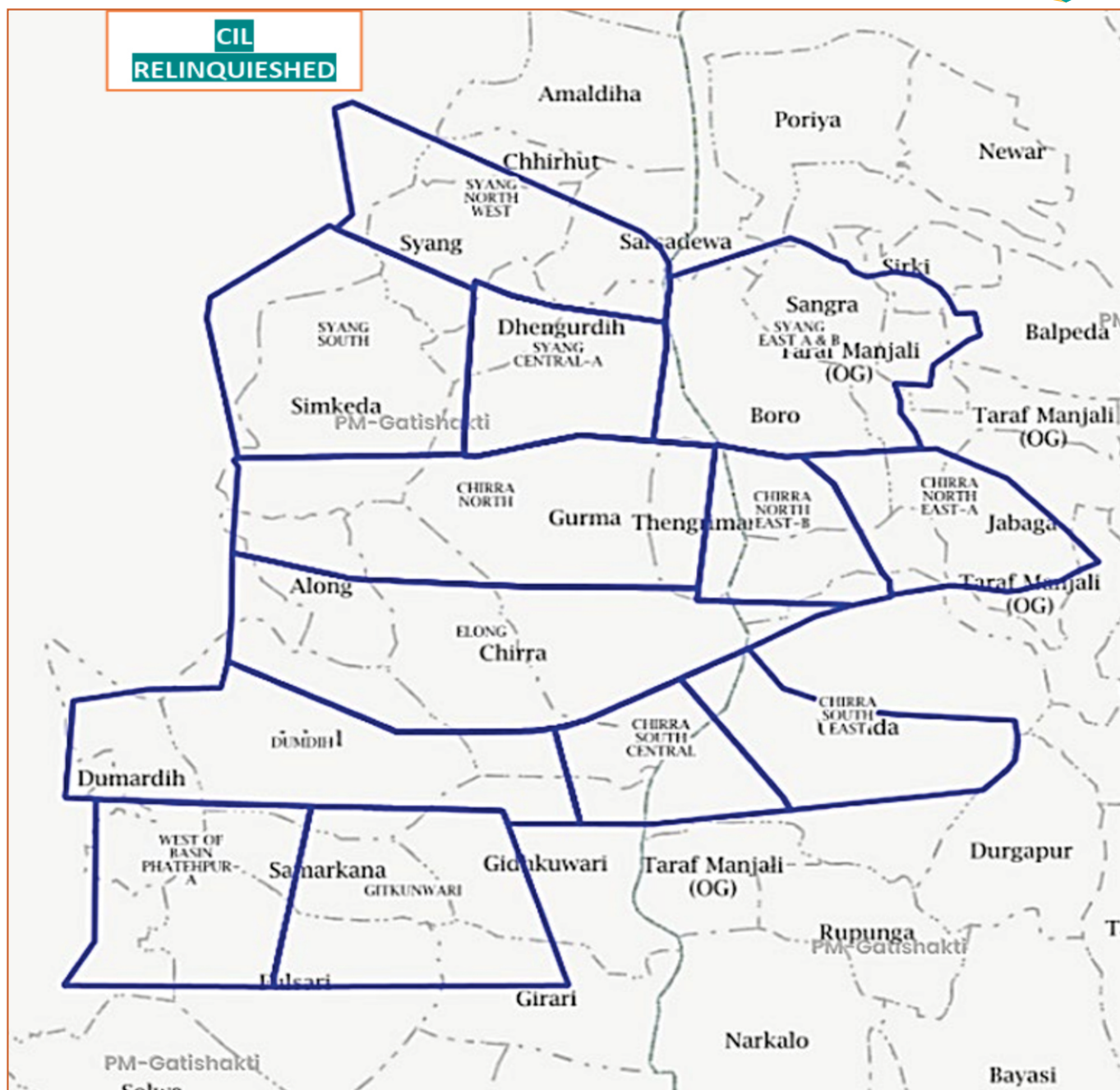
SUB LAYER NAME	SUB LAYER COUNT	ATTRIBUTE NAME	ALIAS
Coal blocks	Coal_Blocks-1	block_name	block_name
		cf_name	cf_name
		area	area
		company	company
		status	status
		resources	resources
		state	state
		hidesql	hidesql
		category	category
		validation	validation



SUB LAYER NAME	SUB LAYER COUNT	ATTRIBUTE NAME	ALIAS
Coal blocks	Coal_Blocks-1	block_name	block_name
		cf_name	cf_name
		area	area
		company	company
		status	status
		resources	resources
		state	state
		hidesql	hidesql
		category	category
		validation	validation



SUB LAYER NAME	SUB LAYER COUNT	ATTRIBUTE NAME	ALIAS
Coal blocks	Coal_Blocks-1	block_name	block_name
		cf_name	cf_name
		area	area
		company	company
		status	status
		resources	resources
		state	state
		hidesql	hidesql
		category	category
		validation	validation



SUB LAYER NAME	SUB LAYER COUNT	ATTRIBUTE NAME	ALIAS
Coal blocks	Coal_Blocks-1	block_name	block_name
		cf_name	cf_name
		area	area
		company	company
		status	status
		resources	resources
		state	state
		hidesql	hidesql
		category	category
		validation	validation



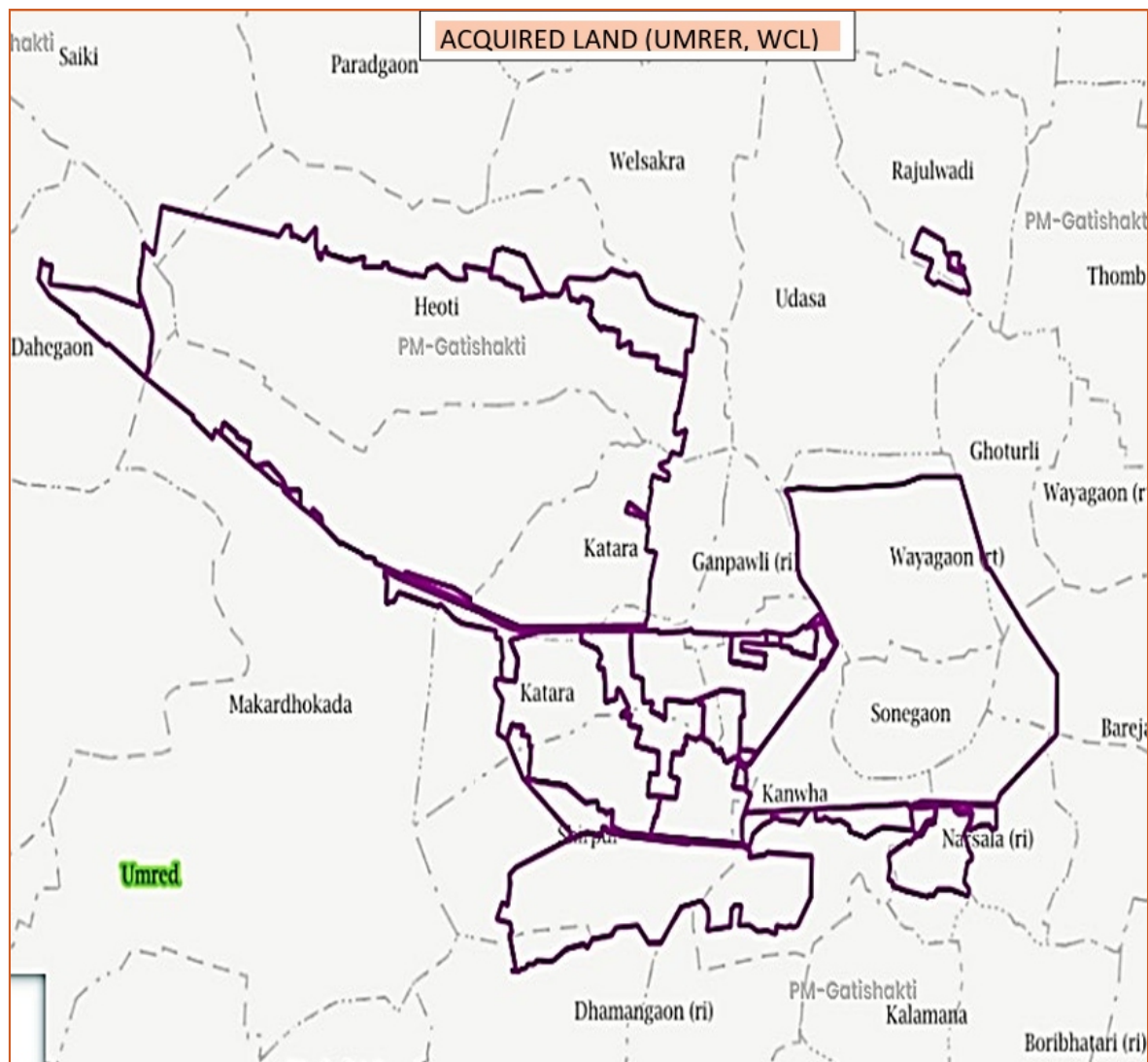
LAND ASSET DATA

Land is important asset for opening a mine or project. Land is not only used for mining but also for establishment of others infrastructure and support facilities like offices, residential colonies, Resettlement & Rehabilitation sites, workshops and many more.

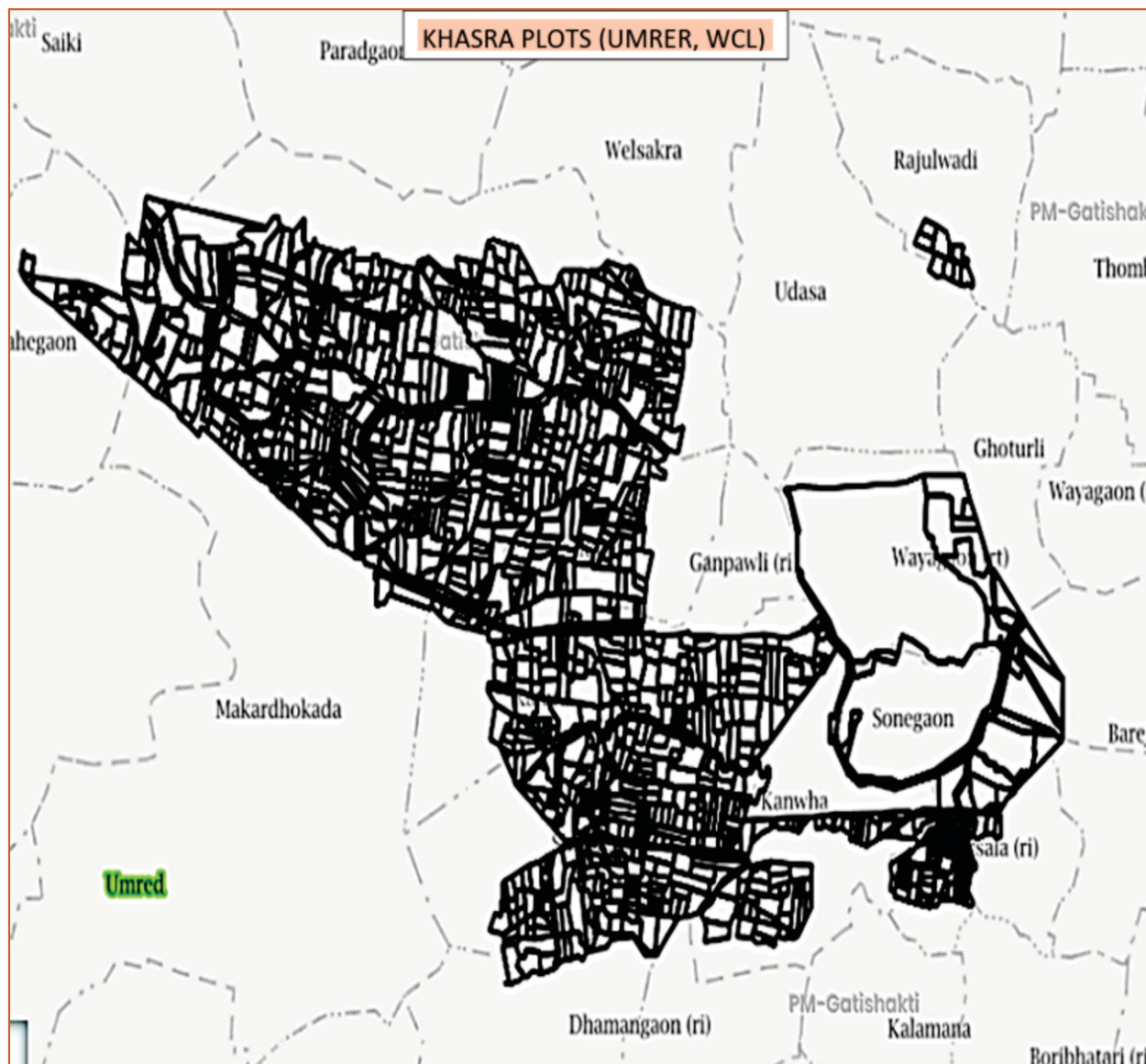
Lands are acquired through different instruments of acquisition as per various acts under the law like Coal Bearing (Acquisition and development) Act, 1957, Land Acquisition (LA) Act 1894/LAAR Act 2013. Coal Subsidiaries have acquired their lands for coal mining through these instruments and the data has been uploaded in various layers described below;

1. Acquired land Boundary
2. Khasra/ Revenue Plots
3. Plantation
4. Forest
5. Non forest
6. Technical Reclamation
7. Mining right
8. ACA land

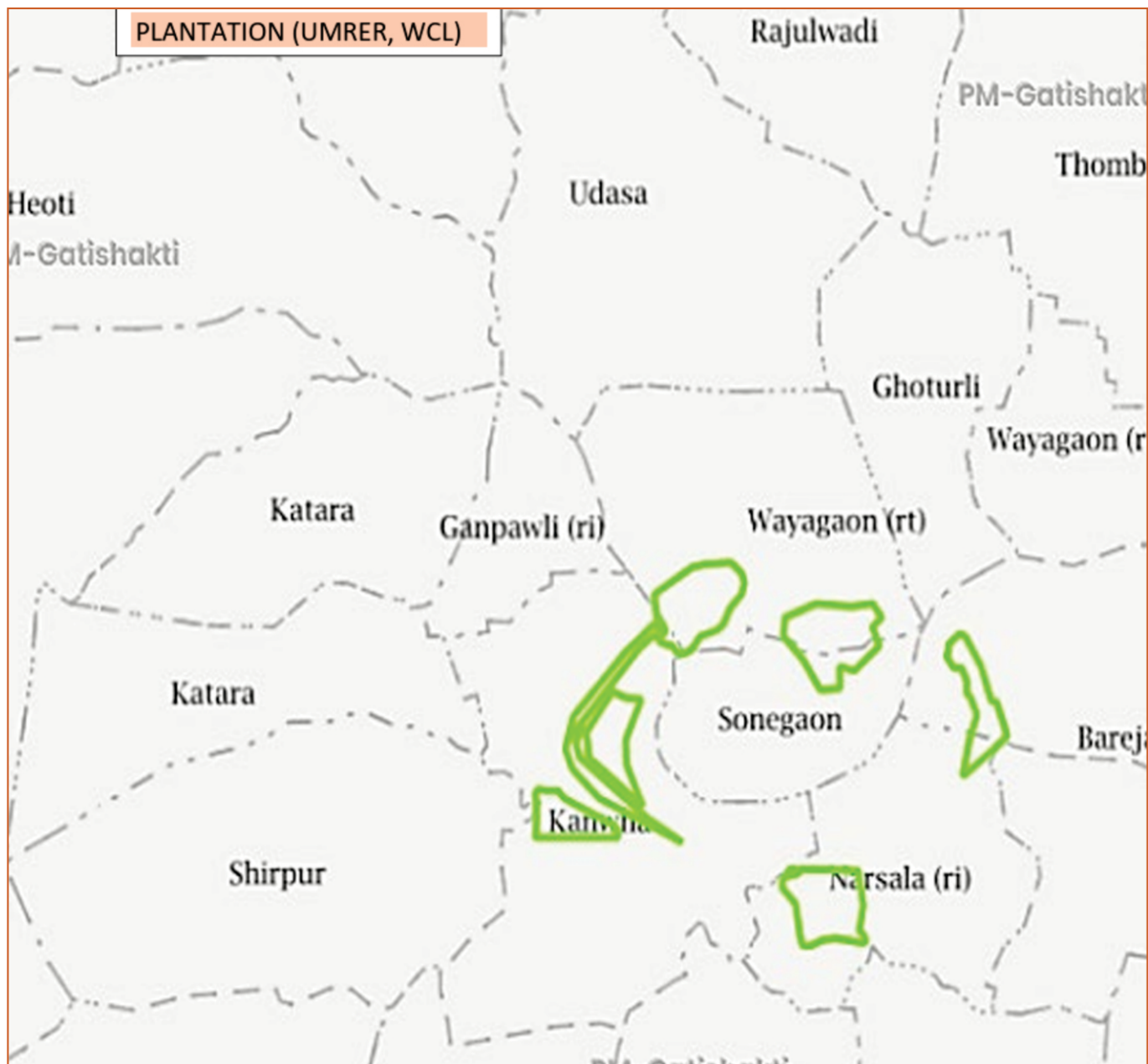
The guidelines for creating and uploading the layers on the portal were provided through a Standard Operating Procedure (SOP) to all land and revenue department of the PSUs under the control of MoC. The objective of uploading these layers was to have a comprehensive database of land information under control of units/ PSUs under MoC.



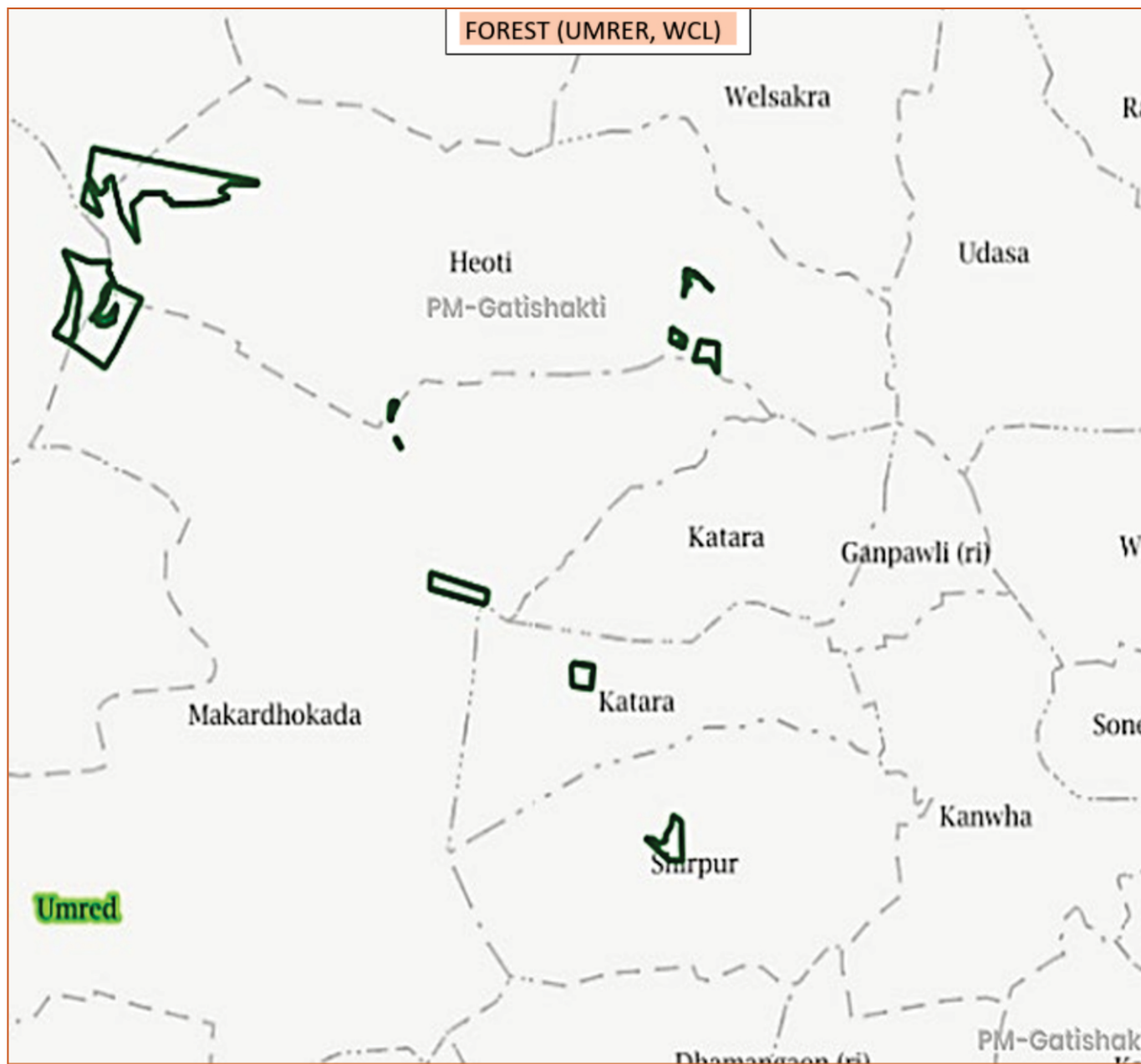
SUB LAYER NAME	SUB LAYER COUNT	ATTRIBUTE NAME	ALIAS
COAL_AQR_LAND		OBJECTID	
		State	
		subsidiary	
		Name	
		acq_mode	Mode of Acquisition
		notific_no	Notification No.
		notific_dt	Date of Notification
		district	
		tehs_block	Tehsil/Block
		vill_name	Revenue Village
		village_ID	Village Local Government ID
		natureland	Nature of Land
		govt_area	Area of Government Land (Ha)
		tenan_area	Area of Tenancy land (Ha)
		forst_area	Area of Forest Land (Ha)
		total_area	Total Area (Ha)
		hnd_fsl_cm	Handing over of Forest Land completed
		under_poss	Under Possession
		pr_of_poss	Percentage of Possession
		Test_Area	
	8	SHAPE_Length	
		SHAPE_Area	



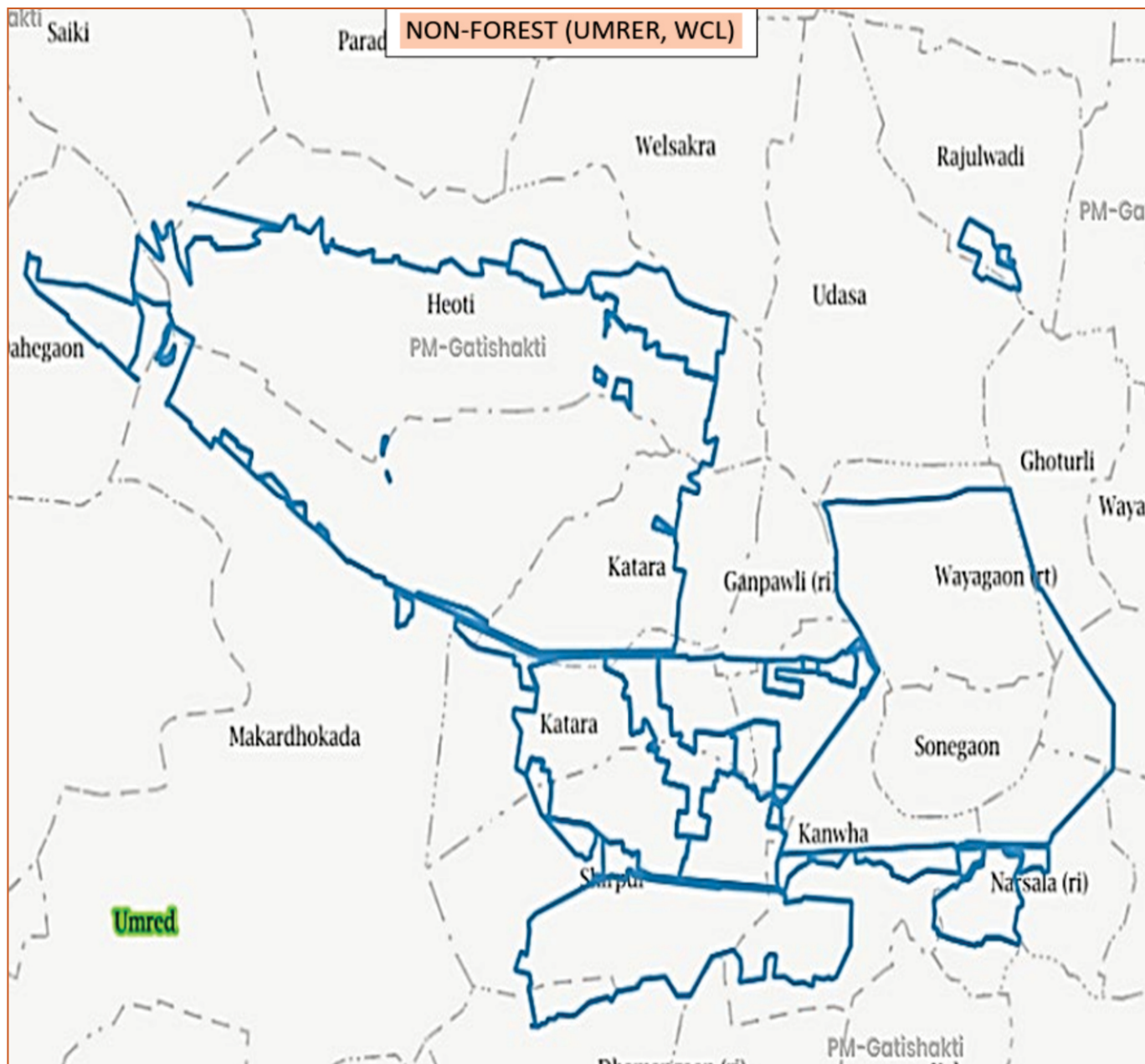
SUB LAYER NAME	SUB LAYER COUNT	ATTRIBUTE NAME	ALIAS
COAL_KHASRA_LAND	8	OBJECTID	
		state	
		subsidiary	
		khasra_no	
		acq_mode	Mode of Acquisition
		notific_no	Notification No.
		notific_dt	Date of Notification
		district	
		tehsil_block	Tehsil/Block
		vill_name	Revenue Village
		muta_statu	Mutation Status
		name_owner	Name of Owner as per State records
		poss_stats	Possession status
		pr_of_oss	Percentage of land under Possession
		comp_paid	Compensation Paid
		area_ha	Total Area (ha)
		litigation	Litigation status
		Test_Area	
		SHAPE_Length	
		SHAPE_Area	



SUB LAYER NAME	SUB LAYER COUNT	ATTRIBUTE NAME	ALIAS
Coal_plantation_land		OBJECTID	
		state	
		subsidiary	
		proj_name	Project/ Area Name
		plant_type	Type of Plantation
		district	
		theh_block	Tehsil/Block
		vill_name	Village name
		area_ha	Area (Ha)
		Test_Area	Test_Area
		SHAPE_Length	
	8	SHAPE_Area	



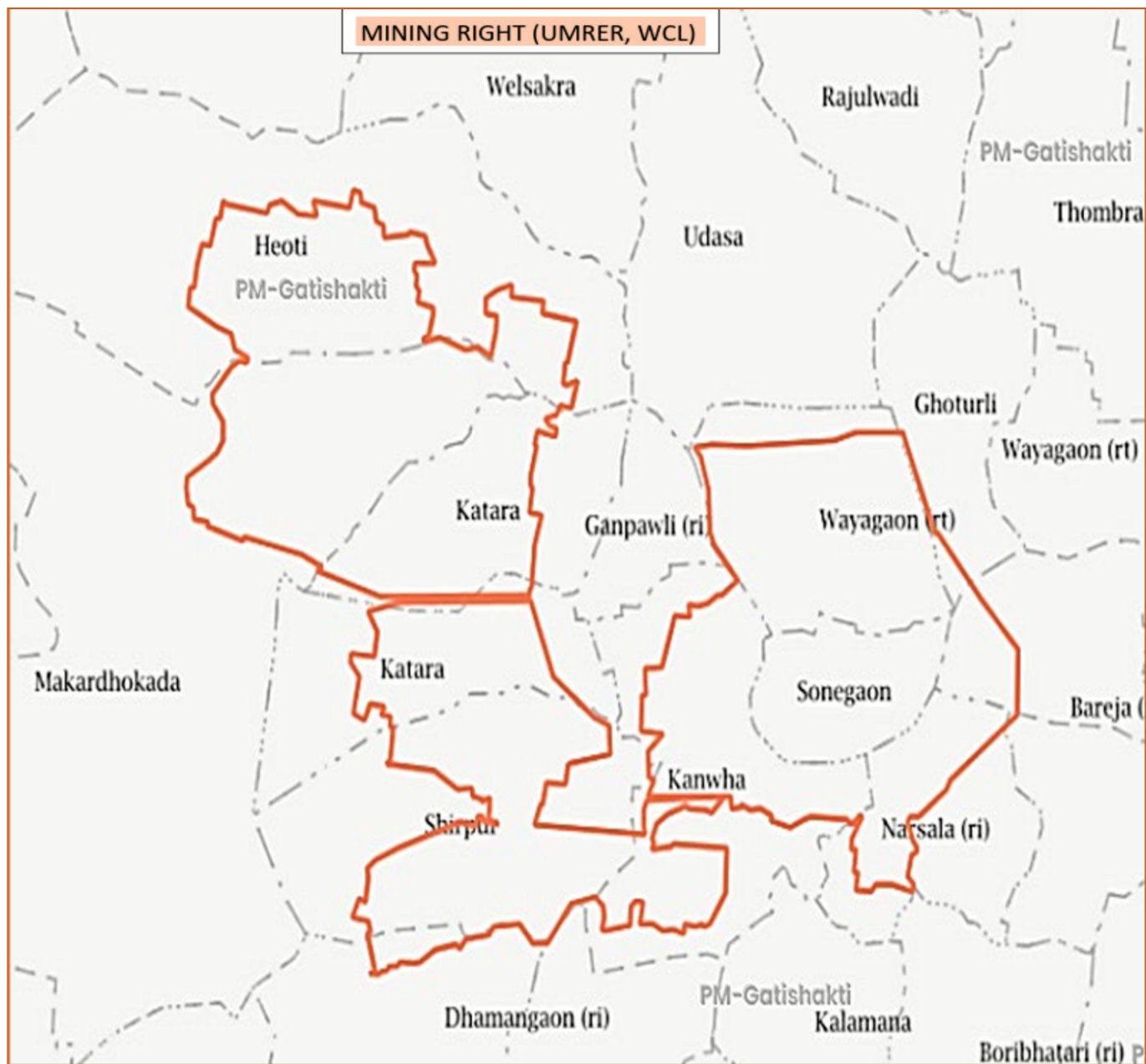
SUB LAYER NAME	SUB LAYER COUNT	ATTRIBUTE NAME	ALIAS
COAL_FOREST_LAND		OBJECTID	
		state	
		subsidiary	
		proj_name	Project/ Area Name
		forest_typ	Type of Forest
		district	
		tehs_block	Tehsil/Block
		vill_name	Village name
		area_ha	Area (Ha)
		Test_Area	
		SHAPE_Length	
	8	SHAPE_Area	



SUB LAYER NAME	SUB LAYER COUNT	ATTRIBUTE NAME	ALIAS
Coal_non_forest	8	OBJECTID	OBJECTID
		state	state
		subsidiary	subsidiary
		proj_name	Project/ Area Name
		forest_typ	Type of Forest
		district	district
		theh_block	Tehsil/Block
		vill_name	Village name
		area_ha	Area (Ha)
		Test_Area	Test_Area
		SHAPE_Length	SHAPE_Length
		SHAPE_Area	SHAPE_Area



SUB LAYER NAME	SUB LAYER COUNT	ATTRIBUTE NAME	ALIAS
Coal_technical_reclamation	8	OBJECTID	
		state	
		subsidiary	
		proj_name	Project/ Area Name
		reclam_typ	Type of Reclamation
		district	
		theh_block	Tehsil/Block
		vill_name	Village name
		area_ha	Area (Ha)
		Test_Area	Test_Area
		SHAPE_Length	
		SHAPE_Area	



SUB LAYER NAME	SUB LAYER COUNT	ATTRIBUTE NAME	ALIAS
COAL_MINING RIGHT	8	OBJECTID	
		state	
		subsidiary	
		proj_name	Project/ Area Name
		acq_mode	Mode of acquired
		district	
		theh_block	Tehsil/Block
		vill_name	Village name
		area_ha	Area (Ha)
		Test_Area	
		SHAPE_Length	
		SHAPE_Area	



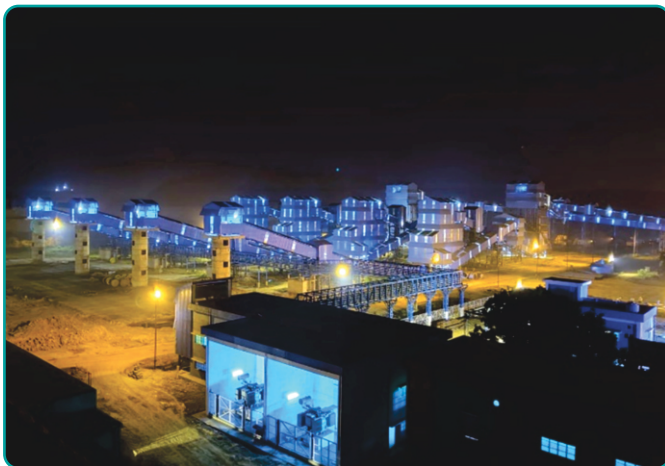
SUB LAYER NAME	SUB LAYER COUNT	ATTRIBUTE NAME	ALIAS
ACA LAND	compensatory _ afforestation _ land_coal-1	Mine_Name	Mine_Name
		Site_Name	Site_Name
		Area_HA	Area_HA
		Subsidiary	Subsidiary
		Coalfield	Coalfield
		State	State

COAL WASHERY

Coal Washeries are needed to beneficiate high ash coal to obtain better quality low ash coal. Coal washeries are generally located near to the mine area. Coal Washing is a process of enrichment of combustibles in coal by removal of non-combustible impurities utilizing industrial separators mainly based on the principle of Specific Gravity of Coal and associated impurities like Shale, Sand & Stones etc. so that so that marketable coal suitable for the target consumers is obtained. The Washed Coking Coal is meant for Steel Plants. The Washed Power Coal/Washed Non- Coking Coal/Middlings is dispatched to various Power Houses.

BCCL and CCL areas are prominent locations of coal washeries. This is because coal seams deposited in these areas are of coking or semi coking nature. These washeries are shown under different categories as follows:

1. Existing Washery
2. Under-Construction/Upcoming Washery
3. Proposed Washery



Bird's eye view of IB-Valley Lakhanpur Washery 10.0 Mty, MCL



Raw Coal stack tube at IB-Valley Lakhanpur Washery 10.0 Mty, MCL

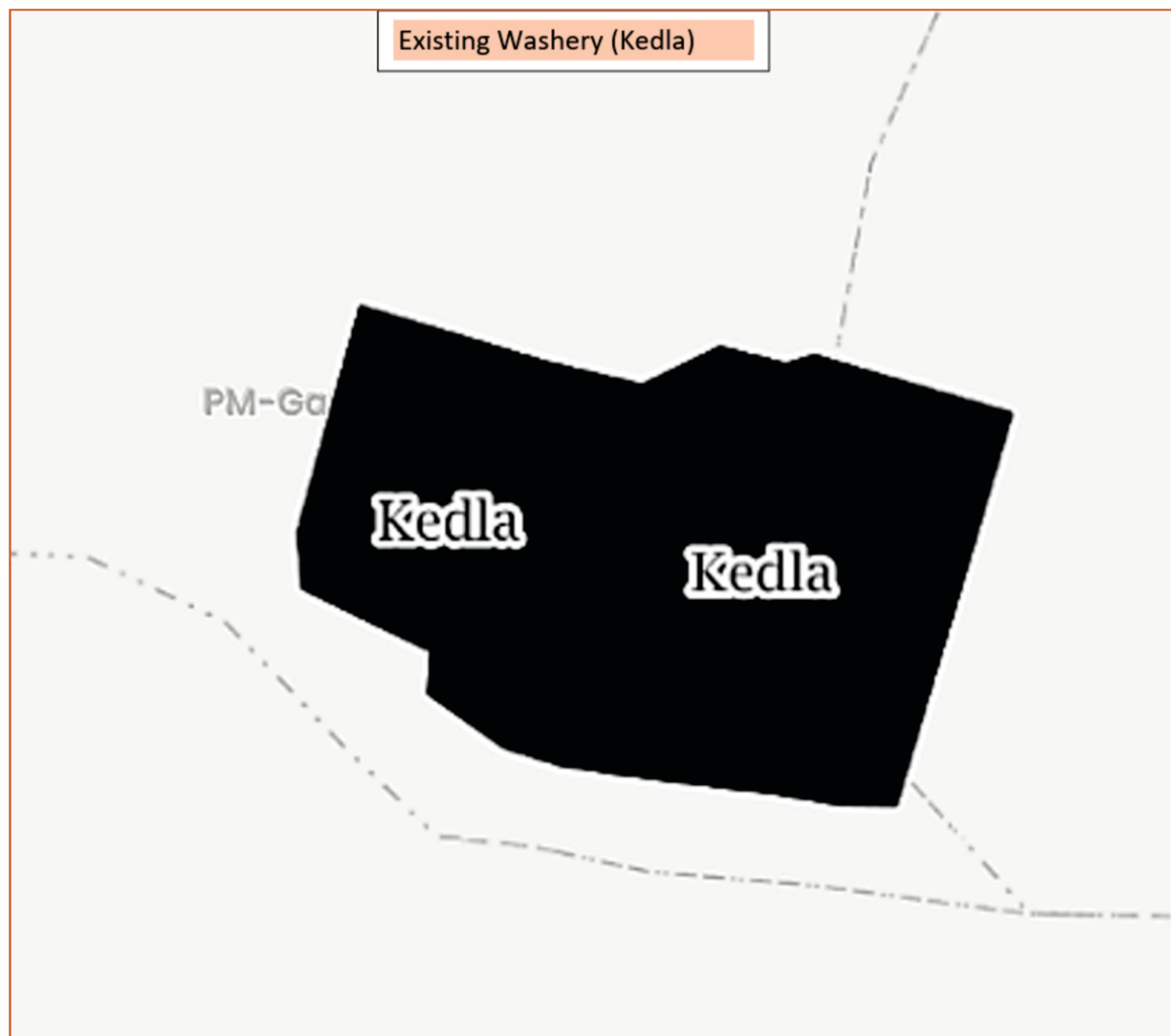


Workshop on Coking Coal strategy for Indian Steel Sector

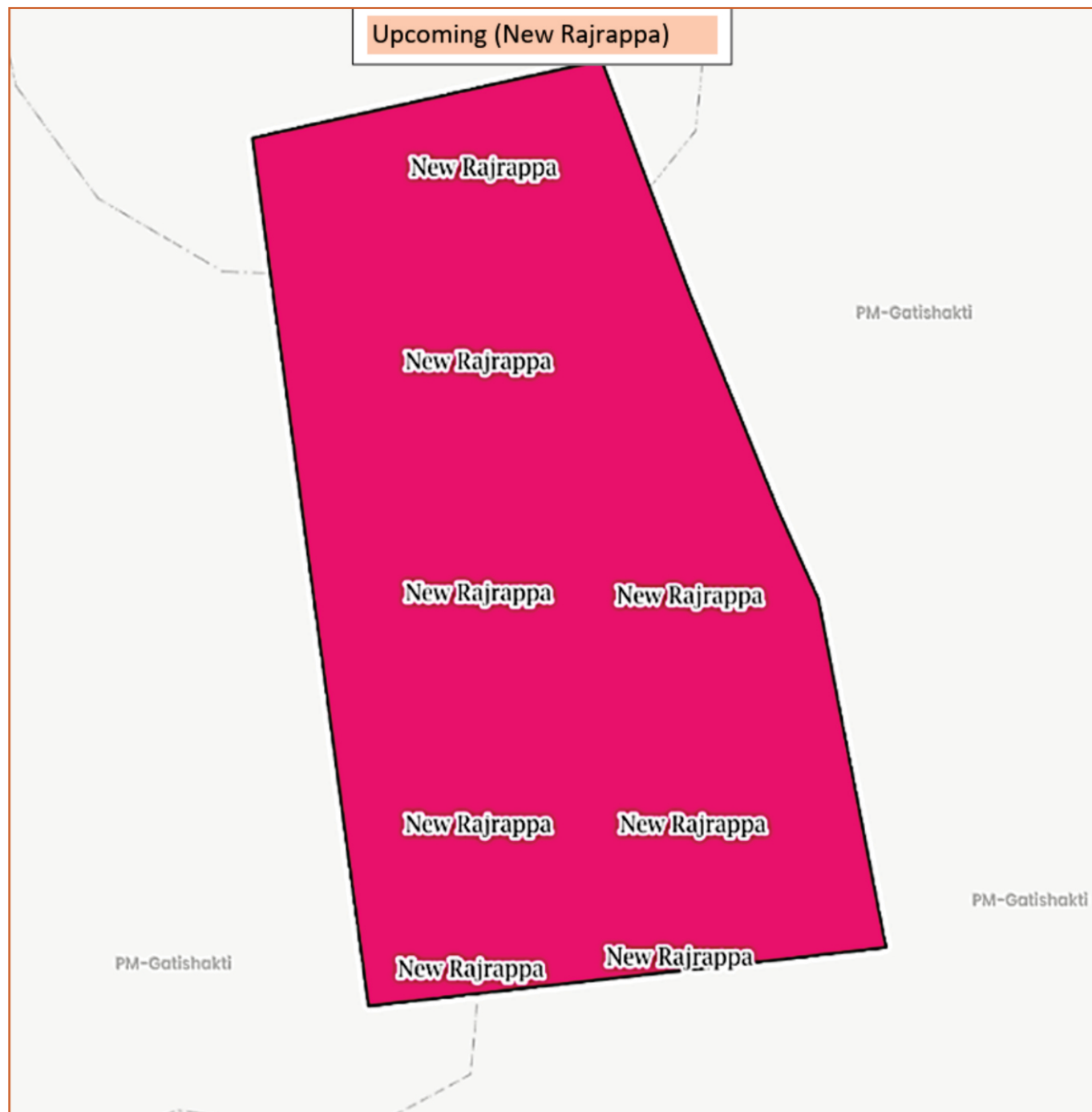


Inauguration of New Madhuband Coal Washery 5.0 Mty, BCCL on 24.03.2022 by Shri. Prahlad Joshi, Hon'ble Minister of Coal, Mines & Parliamentary Affairs on 18th Aug 2022

The existing washeries are the ones which are in existence and operational presently. While under construction washeries are yet to be commissioned and will be operational soon. Some washeries are proposed to build in upcoming years.



SUB LAYER NAME	SUB LAYER COUNT	ATTRIBUTE NAME	ALIAS
washery		Name	Name
		subsidiary	subsidiary
		Capacity_M	Capacity_M
		Opr_Status	Opr_Status
		Cap_MTPA	Cap_MTPA
		ownership	ownership
		Type	Type
		status	status
	3	State	State



SUB LAYER NAME	SUB LAYER COUNT	ATTRIBUTE NAME	ALIAS
washery		Name	Name
		subsidiary	subsidiary
		Capacity_M	Capacity_M
		Opr_Status	Opr_Status
		Cap_MTPA	Cap_MTPA
		ownership	ownership
		Type	Type
		status	status
	3	State	State

COAL EVACUATION SYSTEM

Coal is mined in large volumes therefore evacuation from the mine site is very important for any coal producer. In India coal is being transported through road and rail network to its end users. The entire connectivity of road and rail network to mine location is commonly known as Coal evacuation system. It includes loading points i.e. silos, bunkers or coal stocks, conveyor belt system and railway sidings. Railway mode is preferred for coal transportation in large capacity mines while road transport is also used in smaller mines.

The coal evacuation system is categorized in following subtypes;

1. First Mile Connectivity (FMC Projects)
2. Railway Sidings
3. Railway Projects

FIRST MILE CONNECTIVITY (FMC)

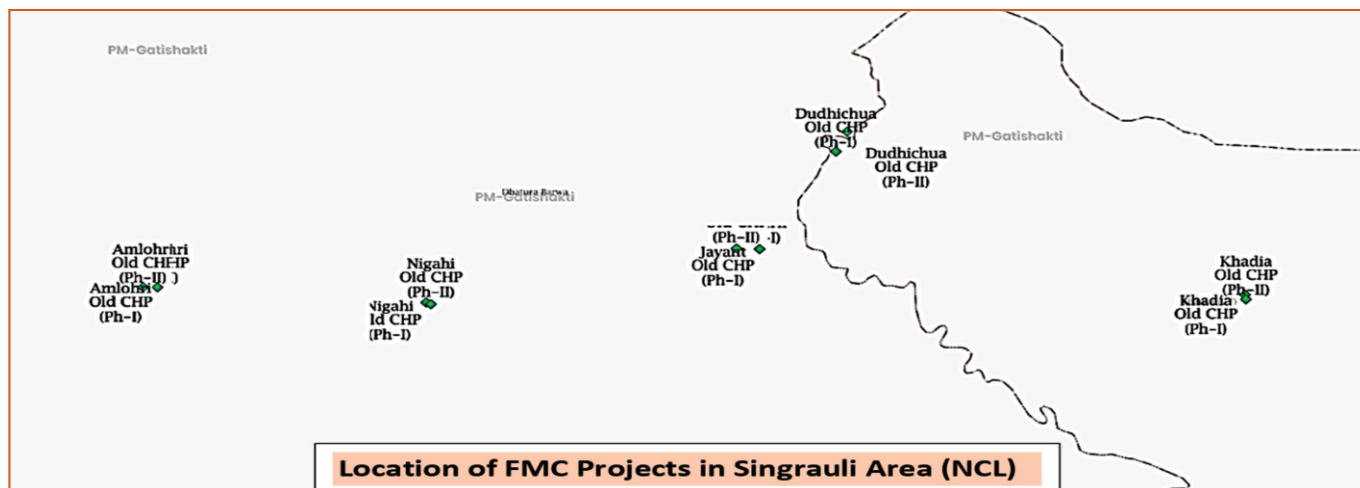
In order to eliminate road transportation of coal in mines, the Ministry has developed a plan to improve the mechanized coal transportation and loading system under First Mile Connectivity (FMC) Projects. Crushing, coal sizing and quick computer-assisted rapid loading Systems are advantages of Coal Handling Plants (CHPs) and Silos (Vertical Storage and loading Systems). FMC contributes to the preservation of natural resources and green cover, therefore it is very important for sustainable coal mining.

In the Ministry of Coal page of the PMGS-NMP portal, FMC projects are categorised into sub layers as Existing, Phase-I and Phase-II depending on their timeline of operationalisation. The location of FMC projects are shown as point feature on the portal. Phase - I and Phase - II are group of FMC projects which are separate establishment to be deployed in particular phase according to the capacity of mines and nature of locations.

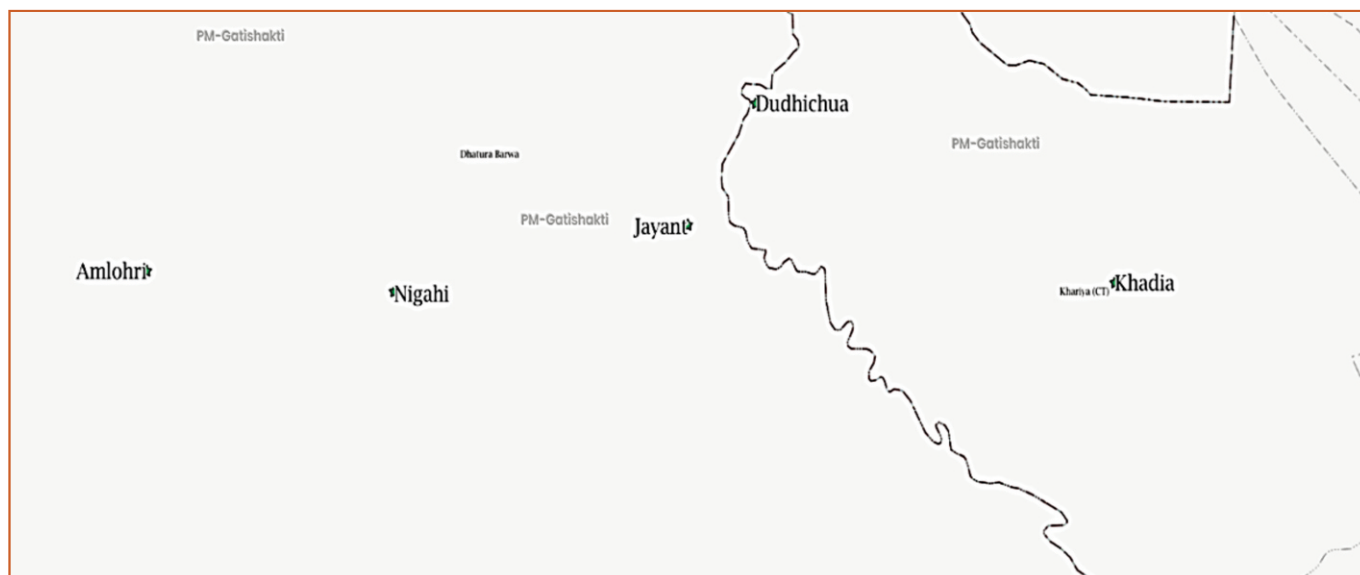
RAILWAY SIDINGS

Railway sidings are loading points near Silos from where coal is loaded in railway wagons. The railway sidings are categorised as Existing, Under Construction and Proposed/Upcoming. This is also a point feature data in the portal.

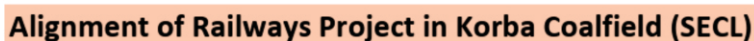
Railway projects are also categorised into three types i.e. Completed, Under Construction and Proposed. These railways projects are funded by CIL and planned as doubling or tripling of existing rail network or new rail line in those mines which are not facilitated with rail network. On portal these are lines are shown as polyline feature.



SUB LAYER NAME	SUB LAYER COUNT	ATTRIBUTE NAME	ALIAS
chp_fmc_coal	1	Name	Name
		Subsidiary	Subsidiary
		old_Status	old_Status
		State	State
		Cap_MTPA	Cap_MTPA



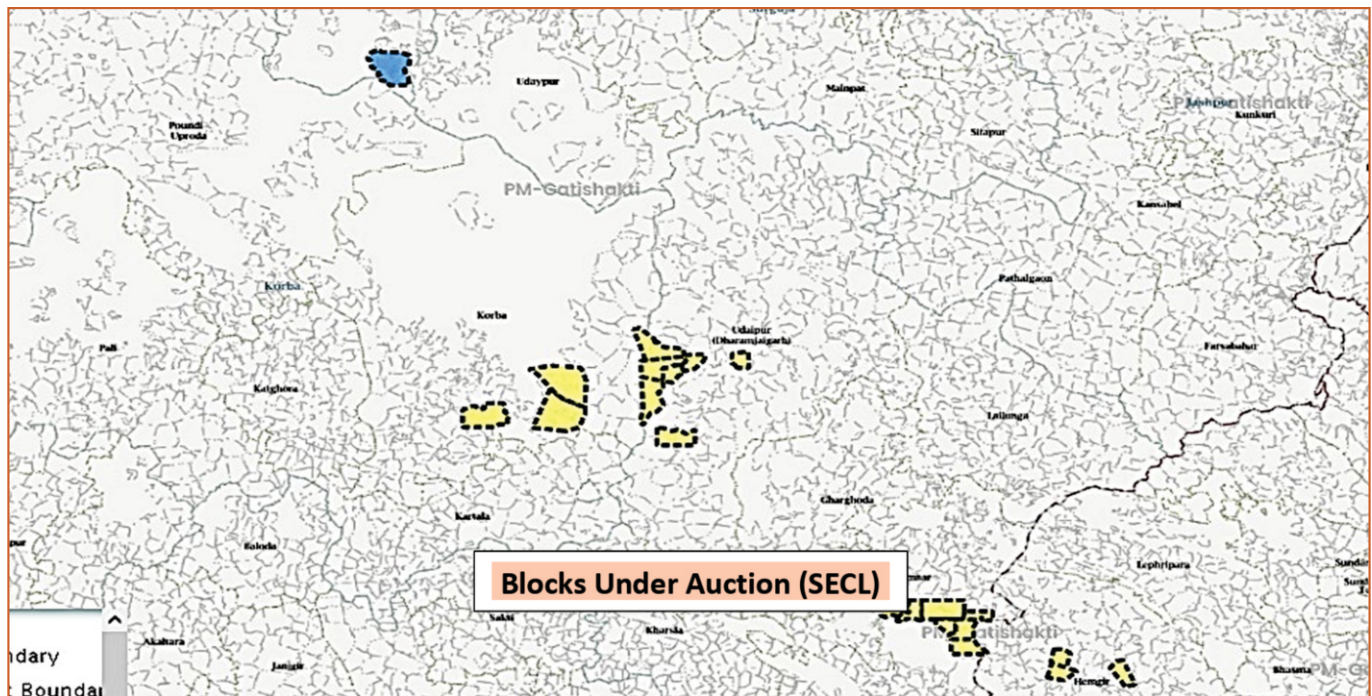
SUB LAYER NAME	SUB LAYER COUNT	ATTRIBUTE NAME	ALIAS
railway_siding_coal	3	CF	CF
		NAME	NAME
		COMPANY	COMPANY
		Status	Status
		State	State
		Siding_Typ	Siding_Typ
		Load_Syste	Load_Syste
		Siding_L_M	Siding_L_M
		Conc_Track	Conc_Track
		Cap_MTPA	Cap_MTPA



SUB LAYER NAME		SUB LAYER COUNT	ATTRIBUTE NAME	ALIAS
Railways	railway_line_coal		OBJECTID	OBJECTID
			Name	Name
			Subsidiary	Subsidiary
			Coalfield	Coalfield
			Comp_date	Comp_date
			Lenght_km	Lenght_km
		1	Status	Status

COAL BLOCKS UNDER AUCTION

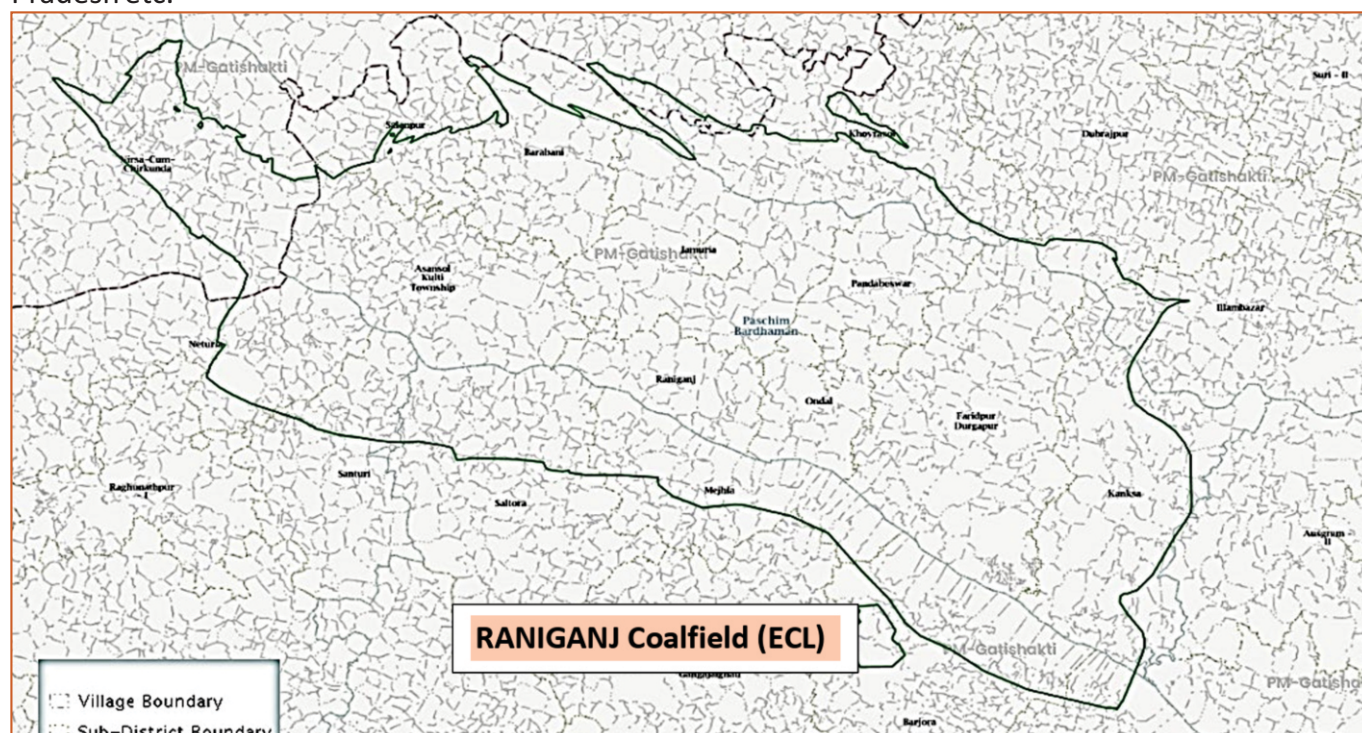
To boost coal production and fulfill nation's energy demand, coal blocks are being auctioned to private and Industrial establishments apart from CIL and its subsidiaries. In view of this, coal blocks are categorised in 3 types i.e. MMDR, CMSP and Lignite blocks which were previously allotted to private sectors and further re-allotted via auction process after termination of previous allocation schemes by Govt. of India.



SUB LAYER NAME	SUB LAYER COUNT	ATTRIBUTE NAME	ALIAS
Coal_Block_Under_Auction	1	block_name	block_name
		cf_name	cf_name
		category	category
		area	area
		company	company
		coal_type	coal_type
		status	status
		resources	resources
		mining_pla	mining_pla
		field_path	field_path
		mine_cap_m	mine_cap_m
		tehsil_nam	tehsil_nam
		state_name	state_name
		district_n	district_n
		village_na	village_na
		state_code	state_code
		village_co	village_co
		district_c	district_c
		tehsil_cod	tehsil_cod

COALFIELD BOUNDARY

Coalfield boundary provided by GSI (Geological Survey of India) through their regional exploration activities. These are basinal areas where coal deposits are likely to be found on major or minor scales. The major coalfields are long extended river basins located in Jharkhand, Chhattisgarh and other central India parts, while minor coalfield are located in North east regions like Meghalaya and Arunachal Pradesh etc.



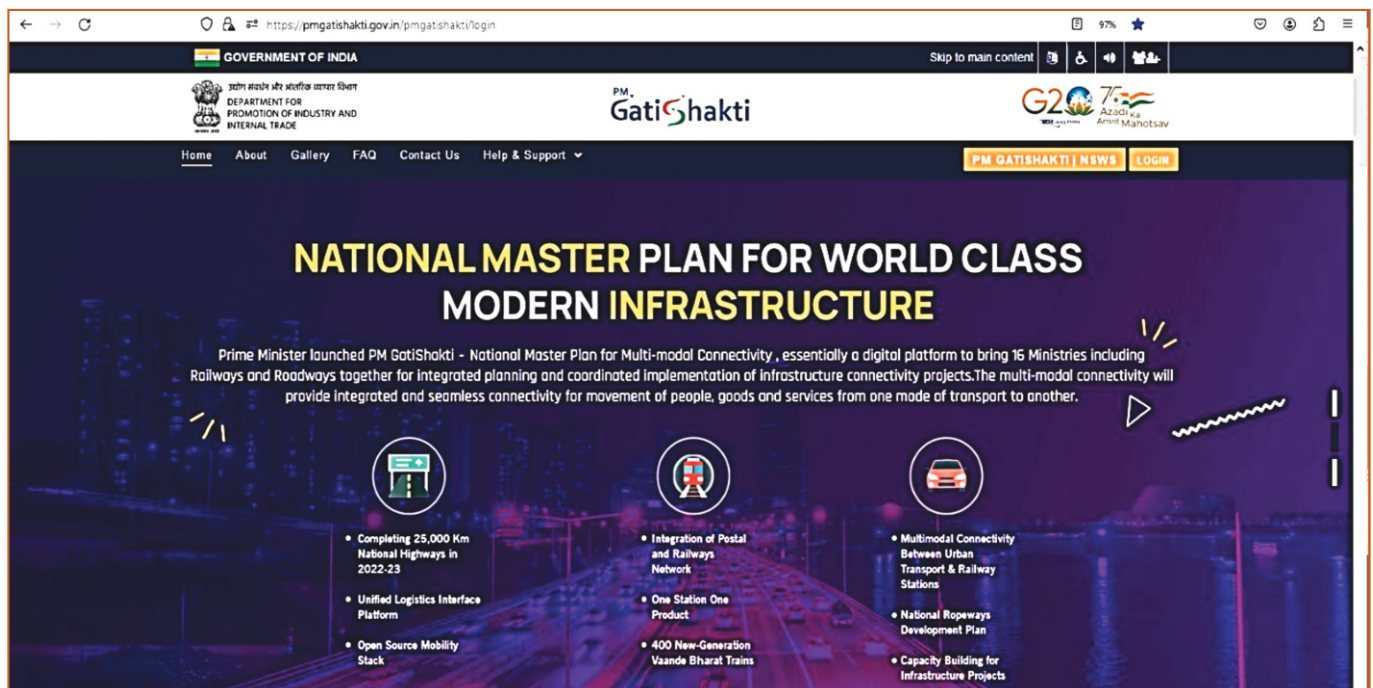
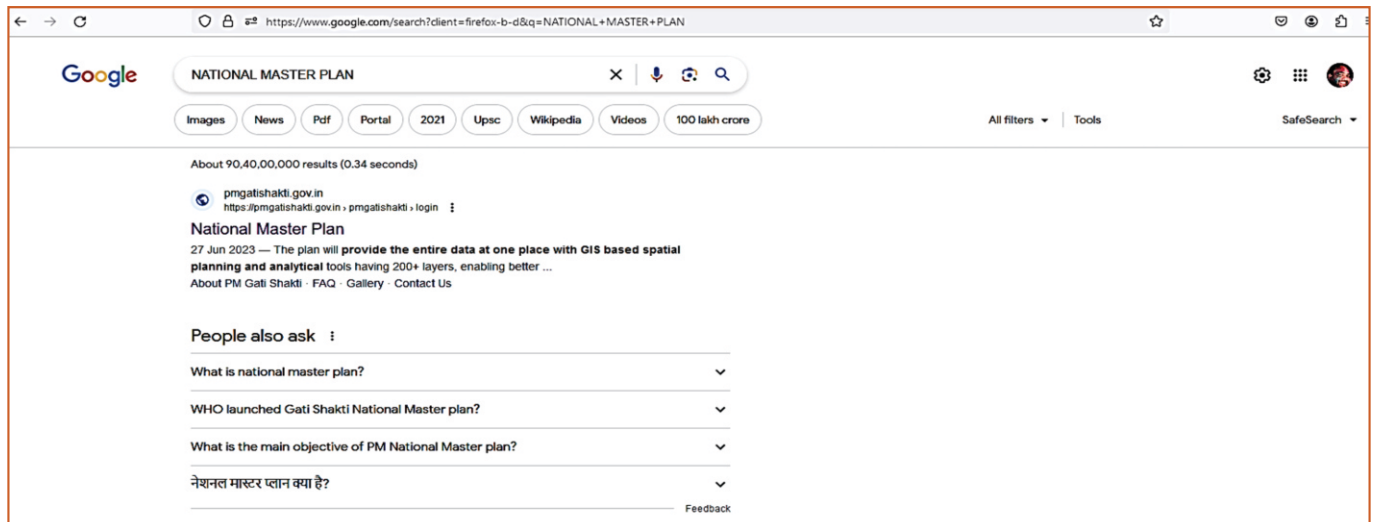
SUB LAYER NAME	SUB LAYER COUNT	ATTRIBUTE NAME	ALIAS
Coal_field_boundary	1	DESCRIPTN	DESCRIPTN
		Area	Area
		Coalfield	Coalfield
		SI_No_	SI_No_
		Origin	Origin
		Zone	Zone
		x	x
		y	y
		No_Coal_B	No_Coal_B

These coalfields are mostly located in river basins where coal deposits are found. The major coal basins are along river channel and of fluvial origin while some deposits are of drifted coal nature meaning organic material have been transported from its origin and deposited in another basin. **Drifted coal** seams are of High Ash content while **In-situ** deposits have less ash content.

CHAPTER-IV

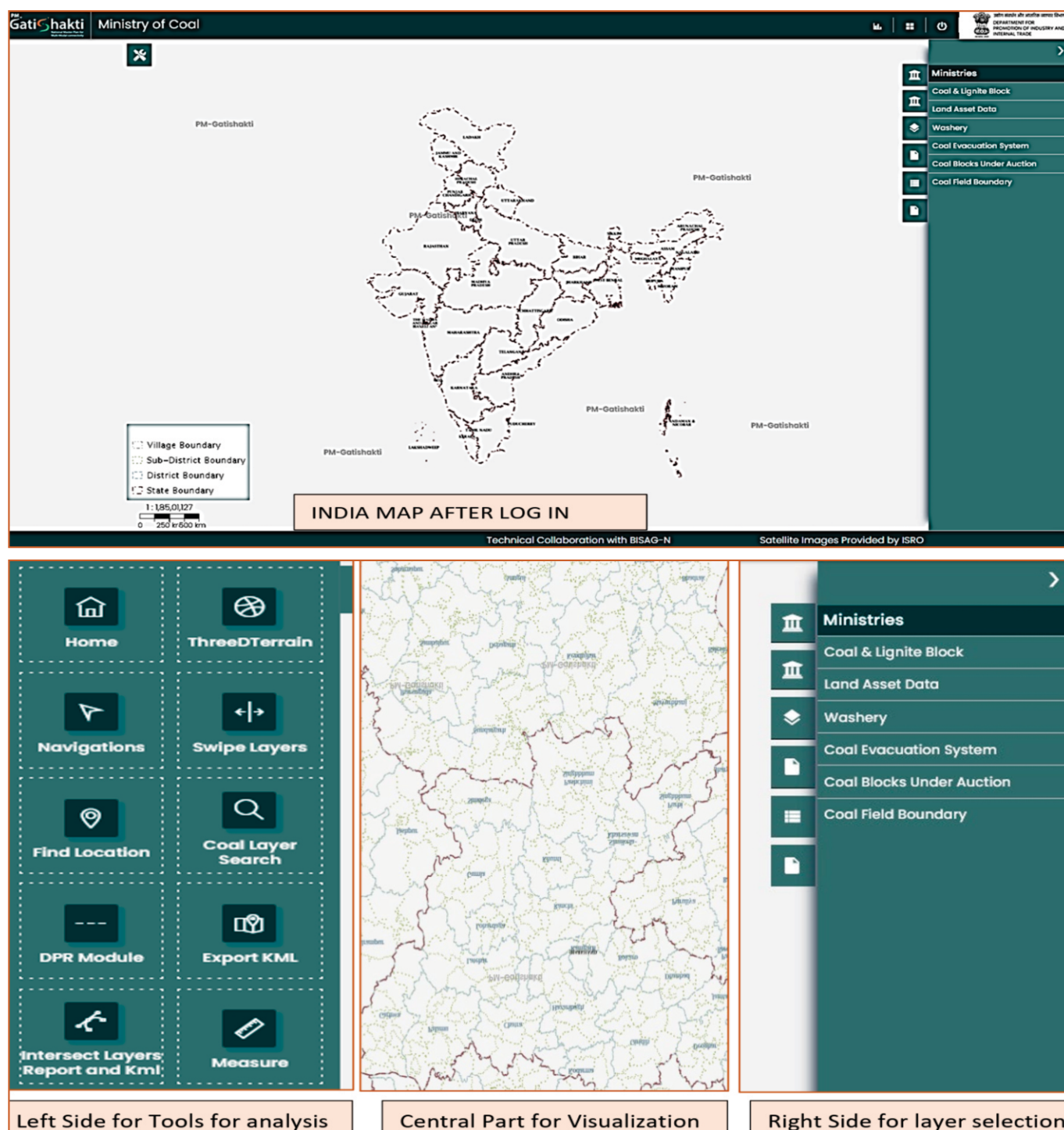
USER GUIDE AND SCOPE

The National Master Plan, in short NMP, can be widely searched through keyword for PM Gati Shakti Portal. Initial search results on search sites like Google will display first National Master Plan web Page which is <https://pmgatishakti.gov.in/pmgatishakti/login>. The registration on portal for MoC-PMGS portal is provided by BISAG-N on request. After receiving credential from BISAG-N, user can access portal through 2-fold security process i.e. OTP and Captcha inputs. The web page has been designed under DPIIT (Department for Promotion of Industry and Internal Trade) with technical support of BISAG-N. Web page describes all the latest updates on this project and there is a FAQ section for new users to explore all the aspects of this project.



SITE STRUCTURE AND LAYOUT

After being logged on portal, user can access Web GIS Portal of PMGS. The Pan India GIS layer will display in reference to the project area. The portal has been designed to explore all layers at right side in drop down wise menu tray. Left side is designed for analytical tools. The dashboard is located at top right corner.



OTHER LAYERS

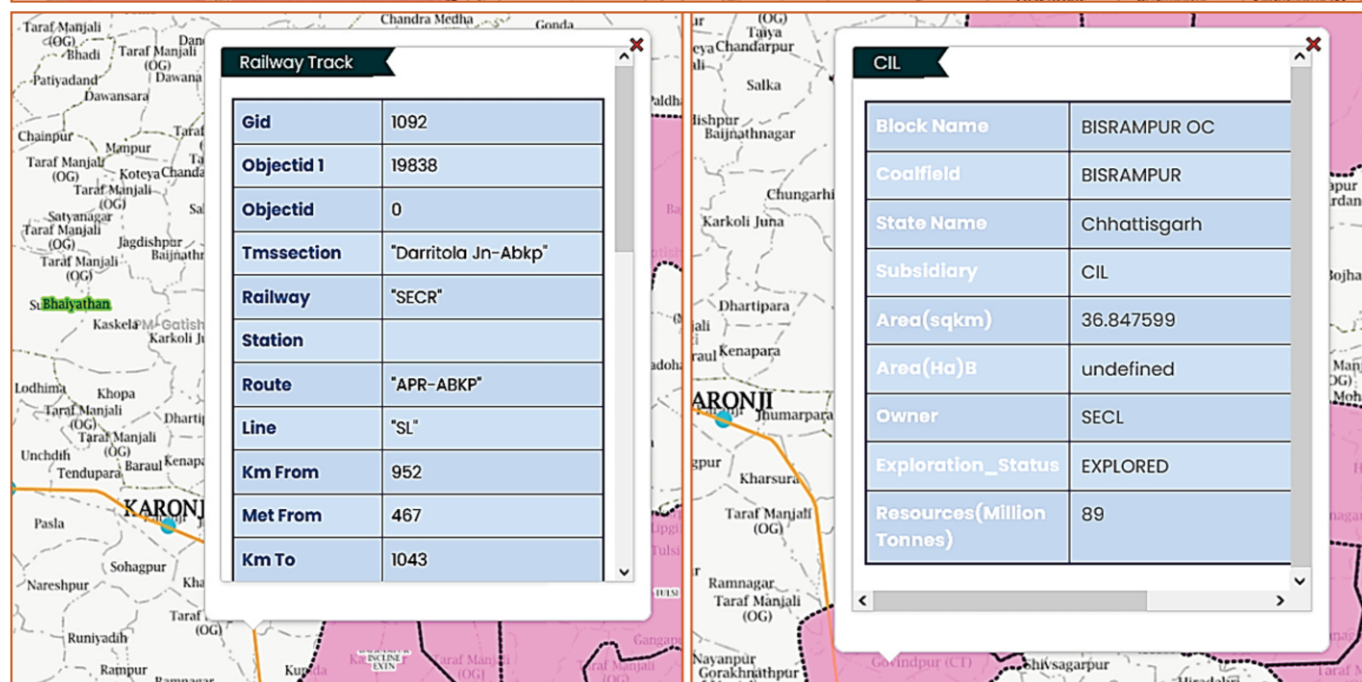
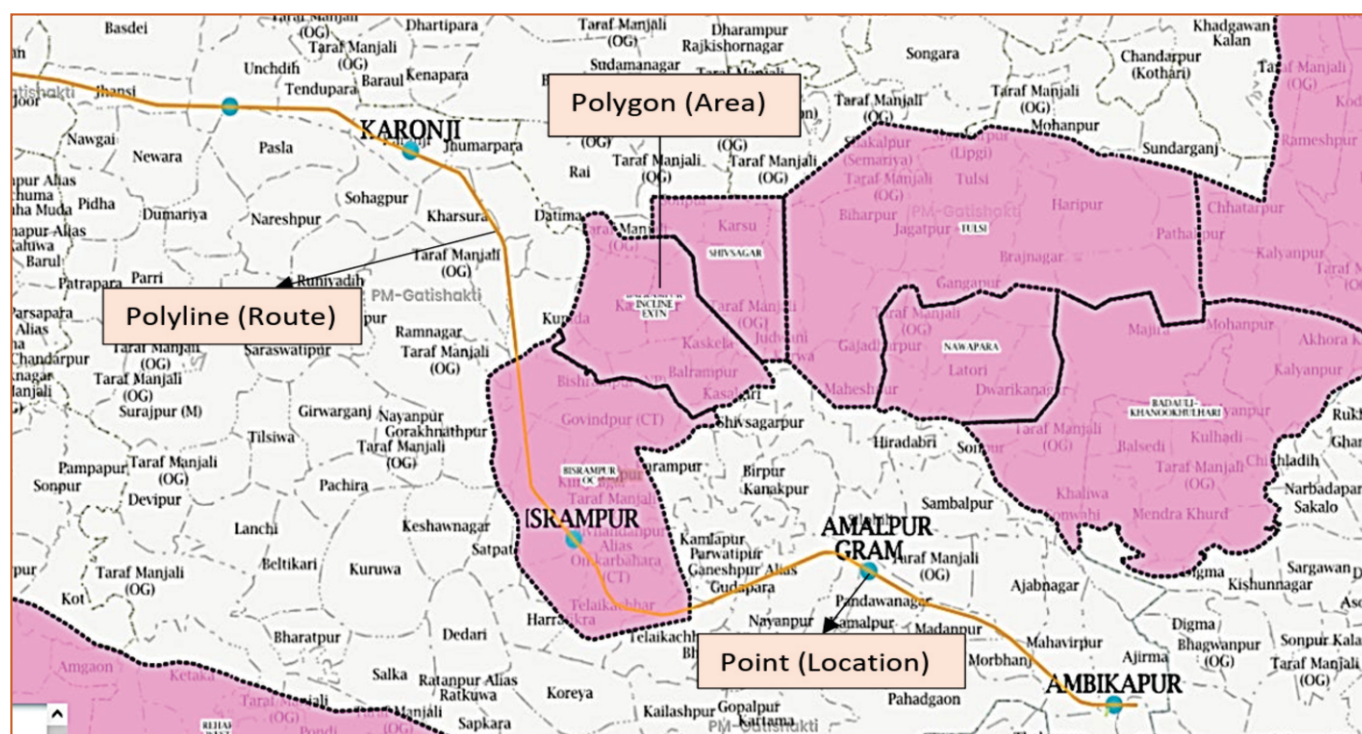
The layers of MoC are already discussed in Chapter-III. The other ministerial layers are located in the concerned ministry layer. All the uploaded layers can be explored in this part. Apart from these base layers, High resolution satellite images are also integrated. The layers of administrative boundaries like state, district, taluka (block) and villages are default layers displayed at the portal and can be visualised on scale.

Infrastructure - (8) ▾	Ministries - (43) ▾	Economic / User (15 Ministries) ▾
Civil Aviation(MoCA)	Social - (16) ▾	Agriculture And Farmers Welfare
New and Renewable Energy(MNRE)	AYUSH	Chemical & Fertilizers
Petroleum and Natural Gas(MoPNG)	Commerce & Industries	Consumer Affairs, Food and Public Distribution
Port, Shipping & Waterways(MoPSW)	Culture	Coal
Power(MoP)	Education(MoE)	Earth Science
Railways(MoR)	Health and Family Welfare(MoHFW)	Electronic and Information Technology
Road Transport & Highways(MoRTH)	Jal Shakti	Environment, Forest and Climate Change
Communications	Labour and Employment	Fisheries, Animal Husbandry And Dairying
Other - (4) ▾	Housing and Urban Affairs(MoHUA)	Food Processing Industries
Defence	Minority Affairs(MoMA)	Home Affairs
Co-operation	Panchayati Raj(MoPR)	Heavy Industries
Ministry of Development of North Eastern Region	Skill Development and Entrepreneurship(MSDE)	Mining
MSME	Social Justice and Empowerment(MoJSE)	Rural Development(MoRD)
	Sports and Youth Affairs(MoYAS)	Steel
	Tribal Affairs(MoTA)	Textile
	Tourism	
	Women and Child Development(MoWCD)	

Ministries are grouped according to their nature of business

DATA LAYERS

The GIS layers contain 3 types of feature types i.e. Polygon, Polyline and Point format. At the portal those layers which are depicting any area have been displayed in polygon format. Layers which show any alignment or track are of polyline feature. Other location are displayed in point feature. All data layers are attached with information related to feature which is called attributes. Attribute tables can be displayed on clicking the concerned layers.



MoC layers and their attribute information are as follows:

S. N O.	LAYER NAME	SUB LAYER NAME	SUB LAYER COUNT	ATTRIBUTE NAME	ALIAS	ATTRIBUTE TYPE	ALLOW ED VALUE S	MAND ATORY	REST RICT ED
1	Land Asset Data	COAL_ AQR_ LAND		OBJECTID		Integer (64 bit)	0	No	No
2				state		Text (string)	50	yes	No
3				subsidiary		Text (string)	50	yes	No
4				name		Text (string)	500	yes	No
5				acq_mode	Mode of Acquisition	Text (string)	300	yes	No
6				notific_no	Notification No.	Text (string)	500	yes	No
7				notific_dt	Date of Notification	Text (string)	500	yes	No
8				district		Text (string)	100	yes	No
9				theh_block	Tehsil/Block	Text (string)	150	yes	No
10				vill_name	Revenue Village	Text (string)	1000	yes	No
11				village_ID	Village Local Government ID	Text (string)	1000	yes	No
12				natureland	Nature of Land	Text (string)	100	yes	No
13				govt_area	Area of Government Land (Ha)	Text (string)	50	yes	No
14				tenan_area	Area of Tenancy land (Ha)	Text (string)	50	yes	No
15				forst_area	Area of Forest Land (Ha)	Text (string)	50	yes	No
16				total_area	Total Area (Ha)	Text (string)	50	yes	No
17				hnd_fsl_cm	Handing over of Forest Land completed	Text (string)	50	yes	No
18				under_poss	Under Possession	Text (string)	50	yes	No
19				pr_of_poss	Percentage of Possession	Text (string)	50	yes	No
20				Test_Area		Decimal (double)	0	yes	No
21				SHAPE_Length		Decimal (double)	0	No	No
22			8	SHAPE_Area		Decimal (double)	0	No	No
1	Land Asset Data	COAL_ FORES T _LAND		OBJECTID		Integer (64 bit)	0	No	No
2				state		Text (string)	50	yes	No
3				subsidiary		Text (string)	50	yes	No
4				proj_name	Project/ Area Name	Text (string)	100	yes	No
5				forest_typ	Type of Forest	Text (string)	100	yes	No
6				district		Text (string)	100	yes	No
7				theh_block	Tehsil/Block	Text (string)	100	yes	No
8				vill_name	Village name	Text (string)	500	yes	No
9				area_ha	Area (Ha)	Text (string)	50	yes	No
10				Test_Area		Decimal (double)	0	yes	No
11				SHAPE_Length		Decimal (double)	0	No	No
12			8	SHAPE_Area		Decimal (double)	0	No	No
1	Land Asset Data	COAL_ KHASR A_ LAND		OBJECTID		Integer (64 bit)	0	No	No
2				state		Text (string)	50	yes	No
3				subsidiary		Text (string)	50	yes	No
4				khasra_no		Text (string)	100	yes	No
5				acq_mode	Mode of Acquisition	Text (string)	500	yes	No
6				notific_no	Notification No.	Text (string)	500	yes	No
7				notific_dt	Date of Notification	Text (string)	500	yes	No
8				district		Text (string)	100	yes	No
9				theh_block	Tehsil/Block	Text (string)	100	yes	No
10				vill_name	Revenue Village	Text (string)	500	yes	No
11				muta_statu	Mutation Status	Text (string)	50	yes	No
12				name_owner	Name of Owner as per State records	Text (string)	1000	yes	No
13				poss_stats	Possession status	Text (string)	50	yes	No
14				pr_of_poss	Percentage of land under Possession	Text (string)	254	yes	No
15				comp_paid	Compensation Paid	Text (string)	50	yes	No
16				area_ha	Total Area (ha)	Text (string)	50	yes	No
17				litigation	Litigation status	Text (string)	50	yes	No
18				Test_Area		Decimal (double)	0	yes	No
19				SHAPE_Length		Decimal (double)	0	No	No
20			8	SHAPE_Area		Decimal (double)	0	No	No
1	Land Asset Data	COAL_ MININ G RIGHT		OBJECTID		Integer (64 bit)	0	No	No
2				state		Text (string)	50	yes	No
2				subsidiary		Text (string)	50	yes	No
3				proj_name	Project/ Area Name	Text (string)	1000	yes	No

4			acq_mode	Mode of acquired	Text (string)	100	yes	No
5			district		Text (string)	100	yes	No
6			theh_block	Tehsil/Block	Text (string)	100	yes	No
7			vill_name	Village name	Text (string)	5000	yes	No
8			area_ha	Area (Ha)	Text (string)	50	yes	No
9			Test_Area		Decimal (double)	0	yes	No
10			SHAPE_Length		Decimal (double)	0	No	No
11		8	SHAPE_Area		Decimal (double)	0	No	No
1			OBJECTID	OBJECTID	Integer (64 bit)	0	No	No
2			state	state	Text (string)	50	yes	No
3			subsidiary	subsidiary	Text (string)	50	yes	No
4			proj_name	Project/ Area Name	Text (string)	100	yes	No
5			forest_typ	Type of Forest	Text (string)	100	yes	No
6			district	district	Text (string)	254	yes	No
7			theh_block	Tehsil/Block	Text (string)	100	yes	No
8			vill_name	Village name	Text (string)	1000	yes	No
9			area_ha	Area (Ha)	Text (string)	50	yes	No
10			Test_Area	Test_Area	Decimal (double)	0	yes	No
11			SHAPE_Length	SHAPE_Length	Decimal (double)	0	No	No
12		8	SHAPE_Area	SHAPE_Area	Decimal (double)	0	No	No
1			OBJECTID		Integer (64 bit)	0	No	No
2			state		Text (string)	50	yes	No
3			subsidiary		Text (string)	50	yes	No
4			proj_name	Project/ Area Name	Text (string)	100	yes	No
5			plant_type	Type of Plantation	Text (string)	100	yes	No
6			district		Text (string)	100	yes	No
7			theh_block	Tehsil/Block	Text (string)	100	yes	No
8			vill_name	Village name	Text (string)	500	yes	No
9			area_ha	Area (Ha)	Text (string)	50	yes	No
10			Test_Area	Test_Area	Decimal (double)	0	yes	No
11			SHAPE_Length		Decimal (double)	0	No	No
12		8	SHAPE_Area		Decimal (double)	0	No	No
1			OBJECTID		Integer (64 bit)	0	No	No
2			state		Text (string)	50	yes	No
3			subsidiary		Text (string)	50	yes	No
4			proj_name	Project/ Area Name	Text (string)	100	yes	No
5			reclam_typ	Type of Reclamation	Text (string)	100	yes	No
6			district		Text (string)	100	yes	No
7			theh_block	Tehsil/Block	Text (string)	100	yes	No
8			vill_name	Village name	Text (string)	500	yes	No
9			area_ha	Area (Ha)	Text (string)	50	yes	No
10			Test_Area	Test_Area	Decimal (double)	0	yes	No
11			SHAPE_Length		Decimal (double)	0	No	No
12		8	SHAPE_Area		Decimal (double)	0	No	No
1			Mine_Name		Text (string)	50	yes	No
2			Site_Name		Text (string)	50	yes	No
3			Area_HA		Decimal (double)	18	yes	No
4			Subsidiary		Text (string)	15	yes	No
5			Coalfield		Text (string)	100	yes	No
6		1	State		Text (string)	50	yes	No
1			OBJECTID		Decimal (double)	20	yes	No
2			Name		Text (string)	254	yes	No
3			Subsidiary		Text (string)	15	yes	No
4			Coalfield		Text (string)	20	yes	No
5			Comp_date		Text (string)	10	yes	No
6			Lenght_km		Decimal (double)	10	yes	No
7		1	Status		Text (string)	20	yes	No
1			Entity		Text (string)	16	yes	No
2			Layer		Text (string)	254	yes	No
3			Color		Integer (32 bit)	5	yes	No
4			Linetype		Text (string)	254	yes	No
5			Elevation		Decimal (double)	18	yes	No

6				LineWt		Integer (32 bit)	5	yes	No
7			1	RefName		Text (string)	254	yes	No
1	Coalfield	coal_filed_boundary		DESCRIPTN		Text (string)	50	yes	No
2				Area		Decimal (double)	18	yes	No
3				Coalfield		Text (string)	200	yes	No
4				SI_No		Integer (32 bit)	5	yes	No
5				Origin		Text (string)	50	yes	No
6				Zone		Text (string)	10	yes	No
7				x		Text (string)	50	yes	No
8				y		Text (string)	50	yes	No
9			1	No_Coal_B		Integer (64 bit)	10	yes	No
1	Coal blocks	Coal_Blocks		block_name		Text (string)	100	yes	No
2				cf_name		Text (string)	50	yes	No
3				area		Decimal (double)	18	yes	No
4				company		Text (string)	254	yes	No
5				status		Text (string)	50	yes	No
6				resources		Text (string)	100	yes	No
7				state		Text (string)	100	yes	No
8				hidesql		Text (string)	100	yes	No
9				category		Text (string)	100	yes	No
10			4	validation		Text (string)	100	yes	No
1	Coal block under auction	Coal_Block_Under_Auction		block_name		Text (string)	100	yes	No
2				cf_name		Text (string)	50	yes	No
3				category		Text (string)	25	yes	No
4				area		Decimal (double)	118	yes	No
5				company		Text (string)	254	yes	No
6				coal_type		Text (string)	50	yes	No
7				status		Text (string)	50	yes	No
8				resources		Text (string)	100	yes	No
9				mining_pla		Text (string)	254	yes	No
10				field_path		Text (string)	100	yes	No
11				mine_cap_m		Integer (64 bit)	10	yes	No
12				tehsil_nam		Text (string)	50	yes	No
13				state_name		Text (string)	50	yes	No
14				district_n		Text (string)	50	yes	No
15				village_na		Text (string)	50	yes	No
16				state_code		Text (string)	2	yes	No
17				village_co		Text (string)	20	yes	No
18				district_c		Text (string)	5	yes	No
19			1	tehsil_cod		Integer (64 bit)	10	yes	No
1	Coal evacuation	washer		Name		Text (string)	254	yes	No
2				subsidiary		Text (string)	10	yes	No
3				Capacity_M		Decimal (double)	18	yes	No
4				Opr_Status		Decimal (double)	18	yes	No
5				Cap_MTPA		Decimal (double)	12	yes	No
6				ownership		Text (string)	50	yes	No
7				Type		Text (string)	50	yes	No
8				status		Text (string)	50	yes	No
9			3	State		Text (string)	100	yes	No
1		railway_siding_coal		CF		Text (string)	254	yes	No
2				NAME		Text (string)	254	yes	No
3				COMPANY		Text (string)	50	yes	No
4				Status		Text (string)	254	yes	No
5				State		Text (string)	100	yes	No
6				Siding_Typ		Text (string)	100	yes	No
7				Load_Syste		Text (string)	100	yes	No
8				Siding_L_M		Text (string)	100	yes	No
9				Conc_Track		Text (string)	254	yes	No
10			3	Cap_MTPA		Text (string)	100	yes	No
1		chp_fm_c_coal		Name		Text (string)	254	yes	No
2				Subsidiary		Text (string)	8	yes	No
3				old_Status		Text (string)	254	yes	No
4				State		Text (string)	100	yes	No
5				Cap_MTPA		Text (string)	100	yes	No
6			3	status		Text (string)	100	yes	No

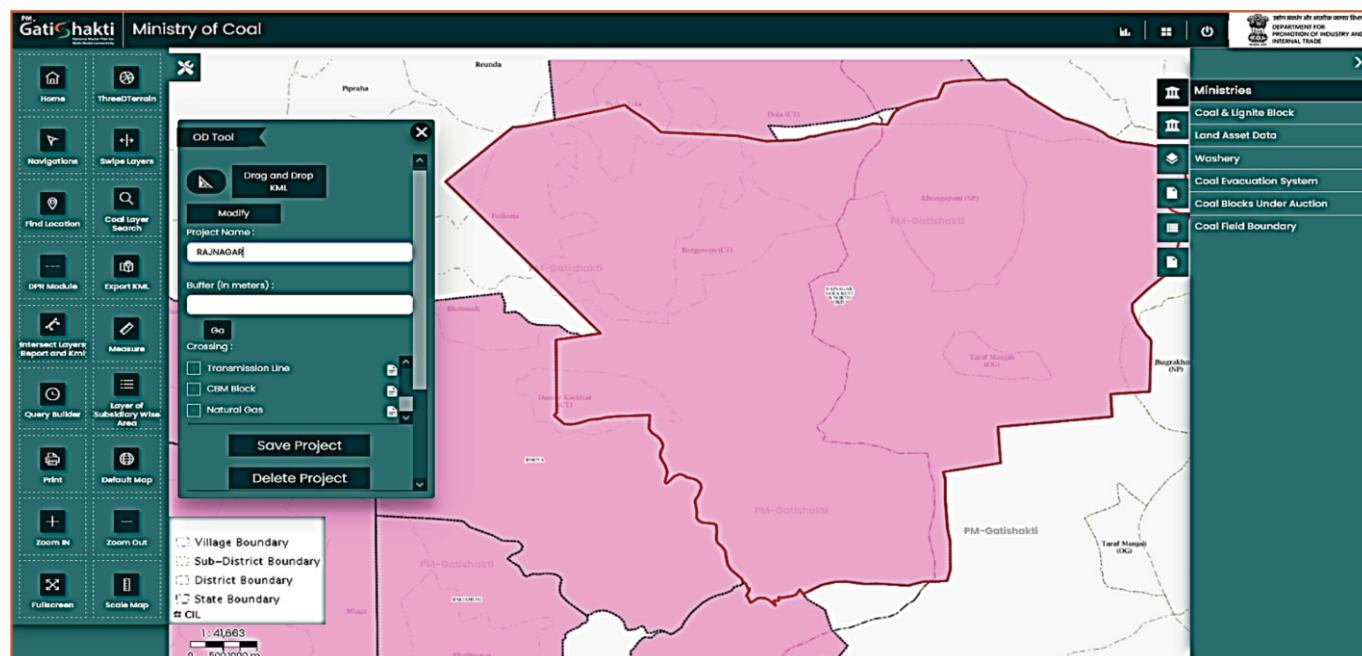
ANALYTICAL TOOLS

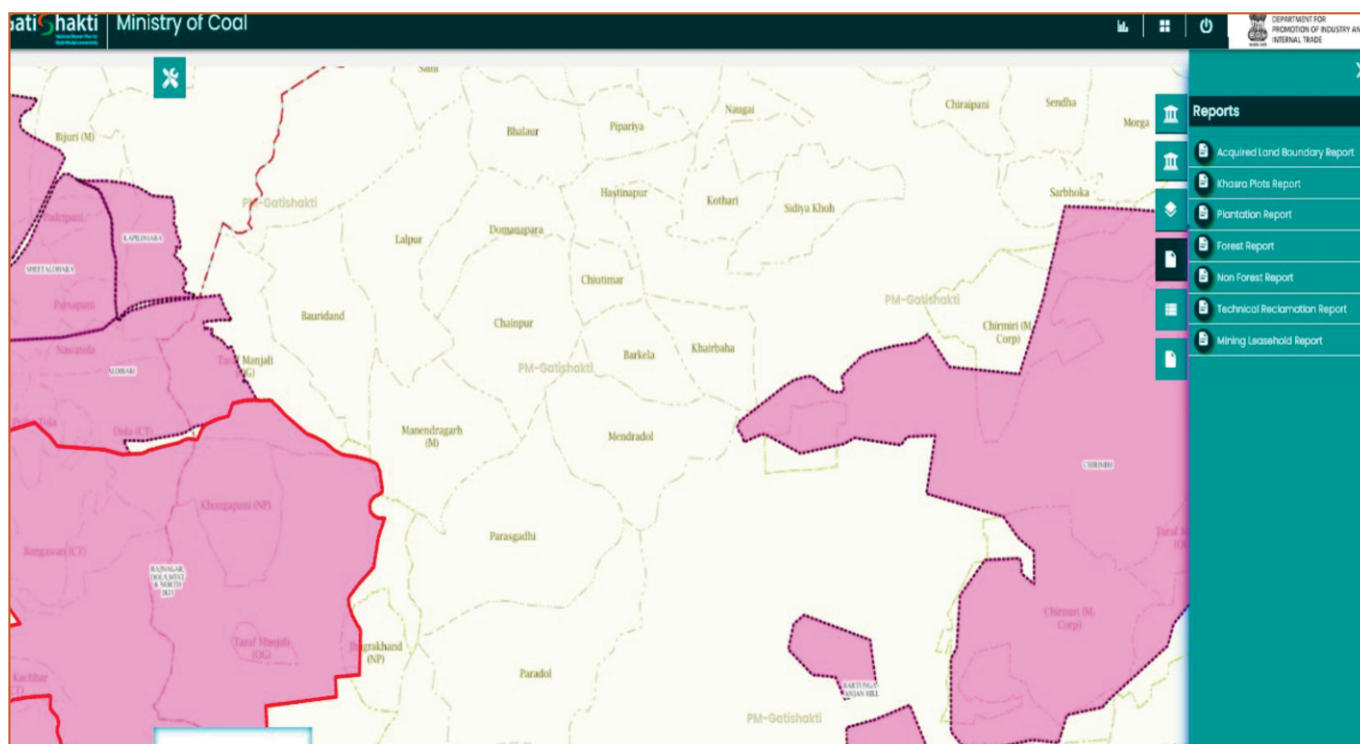
Apart from layers of various ministries, the portal is facilitated with some basic and advance level analytical tools developed according to user specific requirements. It is a dynamic process and development of tools will continue for more specific analysis.

Tools are designed for specific purposes. It can be broadly categorized in following terms:

1. Basic tools for navigation, scale, zoom, coal layer search and Find location.
2. Map view tools for swiping layers, scale, home, default Map, Full screen and Three-D Terrain etc.
3. Utility tools for exporting kml, measuring and Print.
4. Analytical tools for DPR module, Intersect layer report, kml, and query builder.

Tools are user specific. The advance level user can perform analytics through DPR module. In this module a selected polygon can be uploaded or drawn as a feature on the portal, or can extract the major overlying layers from other ministerial layers of road, forest, railways, transmission lines and MoPNG (CBM, Gas) layers etc. The output result will pop-up as a report to show intersection results for each category. For updating layers' attribute information, a Report category is located below layers' column on right side. The Land Asset data are of dynamic in nature and information of some columns are periodically updated through this process.





Snapshot showing report section below other ministry layer tab

ACQUIRED LAND BOUNDARY REPORT									
PDF CSV									
Search:									
ID	State	Subsidiary	Name	Mode of Acquisition	Notification No.	Date of Notification	District	Tehsil/Block	Revenue Village
1	West Bengal	ECL	JHANIHARA	CBA, LA	390E, 349E, 144B, 456E, 127B	15.05.85, 24.11.94, 07.07.90, 22.02.13, 30.08.18	PRASHIM BARDHAMAN	Durgapur	SRIKRISHNAPUR, MADHAIGANJ, JAMGARA, NAKRAGONDA, SHYAMSUNDARPUR, NAKRAGONDA, LAUDOHA, CHAKLOUC
2	West Bengal	ECL	SALANPUR	CBA, LA, DP	2267, MULTIPLE DEEDS, NOTIFICATIONS	29.06.2012, MULTIPLE DATES	PRASHIM BARDHAMAN	Asansol	BARPUKHURIA, CHICHURIA, SALANPUR, NAKRAJURI, BANSAKDI, MANOHARBAHAL, PANCHGACHHIA, NUNI, BOLKUNDA,
3	West Bengal	ECL	KAJORA	2276.621	MULTIPLE DEEDS, NOTIFICATIONS	MULTIPLE DATES	PRASHIM BARDHAMAN	Asansol, Durgapur	NOPUR, MAHIRA, DHAKHINOHANDA, KHANDRA, MUKUNDAPUR, SIDUL, BAHULA, PRASHKOL, MANGALPUR, DHANDADI
4	West Bengal	ECL	SODEPUR	DP, LA	MULTIPLE DEEDS, NOTIFICATIONS	MULTIPLE DATES	DHANBAD, PURULI, PASCHIM BARDHAMAN	CHIRKUNDA-NIRSA, Asansol, Raghunathpur	ALKUSHA, BAURA ALIAS KHAIKIRI, SANTA, GANGUTIA, BENIPUR, BHAMURIA, CHHOT ODHEMO, MONOHARCHAK, SODE PURULI, KUCHARHELA, BARUIPARA, NAWADA, RANIPUR, NARWANPUR, DEOLI, SARBARI, RITHARDIHA, HULU, NITURIA, DH JAGATI, KAMALPUR, ALDIH, HENRELGARIA, BEIDIH, BAMANDEHA, BHALI, NAMABAR, ALUTHIA, JAMDIHA, CHAI SHANMARA, BHARAT CHAK, OLGARA, KHAMAR, LAKSHUDI, SHANKA, KHORAR, JANARDANDI, RAGHUDI, NUTANDI, INTANAF
5	West Bengal	ECL	SRIPUR	DP, LA	MULTIPLE DEEDS, NOTIFICATIONS	MULTIPLE DATES	BANKURA, PRASHIM BARDHAMAN	Asansol, BANKURA	MANDALPUR, SEKUPUR, NANOI, KALIPHARI, SHEPUR, JAMURIA, DAMODARPUR, CHARANPUR, BASKAJURI, BHANOWARA, I MOUZA, DOMAHANI, ASANSOL, SHYAMSUNDARPUR
6	West Bengal	ECL	SOPPUR - BAZARI	CBA, LA, DP	3216, 2794, MULTIPLE DEEDS, NOTIFICATIONS	19.11.2009, 16.09.1996, MULTIPLE DATES	PRASHIM BARDHAMAN	Asansol, Durgapur	KENDRAKHOTDIH, CHAKKRALA, BELPHARI, DALURBAND, BHATMURA, NABAGRAM, KONARDI, SHANKARPUR, JOLBAP
7	West Bengal	ECL	RANDESHWAR	DP, LA	NOTIFICATIONS	DATES	PRASHIM BARDHAMAN	Asansol, Durgapur	KENDRAKHOTDIH, CHHARTISGANDA, RAMNAGAR, CHAKKRALA, BOWANATHPUR, GOBINDPUR, NUTANDANGA, MADHAR
8	West Bengal	ECL	BANKOLA	DP, LA	MULTIPLE DEEDS, NOTIFICATIONS	MULTIPLE DATES	PRASHIM BARDHAMAN	Durgapur	CHAKKRALA, NAKRAGONDA, MAHAL, BONGRAM, SHYAMSUNDARPUR, NAKRAGONDA, BHATMURA, CHAK BANKOLA, NABA
9	Jharkhand	ECL	SP MINES	CBA (A&D) Act, FC Act 1980, LA Act 1994, Lease of Govt. Land by State Government	CBA S.O.-844, LA Act No: 2021/DEO/1112/ BK/1019, Fore GoH: Vanbhumi-85/2009-98	10-12-21, 02-11-21, 17-01-22	DEOGHAR	PAJOJORI, SARATH	NAWADIH, BANKANALI, CHITRA, BHAWANIPUR, TULSI, DABAR, DAMGARA, KATAHARA, BARMARVA, PALMA, KHIN, TARASAC
10	Jharkhand	ECL	SIMLONG-CHUPERBITA	CBA (A&D) Act, FC Act 1980, LA Act 1994	Simlong: 1775, 396 E; Chuparbita: 3849	Simlong: 26.05.12, 06.02.15; Chuparbita: 10.10.05	GODDA, JHARKHAND	LITIPARA, SUNDARPHARI	MADGI, MAQO, LADARHAR, DHANUPHARI, JHARORI, SENAKATANI, KAIRASUL, ULADONI, POKHARIA, MARCHAITARI, PIRAF

Snapshot showing records attached with Acquired Land Data in report section

Coal Layer Search

Search from Coal Layer

Clear search

nam

Column	Name
Block_name	Ramagundam Block
Block_name	Ramagundam_Dipside
Block_name	RAMAKRISHNA
Block_name	Ramakrishnapur Block
Block_name	Ramchandi Promotion Block

Navigation

--Select State--

Query Builder

select table* :
--Select--

select field* :
--Select--

select operator* :
= != < > '<=' '>='

Select value* :
--Select--

SUBMIT
RESET

Swipe Layers

Left:
Right:

Find Location

Search by Location

Longitude:
Latitude:

Search

Search by Grid

Grid
Grid

Go

Search by DMS

Enter Degrees Minutes Seconds latitude:
Degree Minute Second N

Enter Degrees Minutes Seconds longitude:
Degree Minute Second N

Search Clear Values

PRINT MAP

Page Size
A3 Landscape

Ministry
Ministry of Coal

Enter Map Title

Data Source
Enter Data Source

Disclaimer
Enter Disclaimer

Submit

Export KML

KML Name :
Export KML
Clear

Measure

Scale Map

Fix Scale
Default Map

Enter Scale :
t:
Scale Map
select

OD Tool

Drag and Drop KML

Modify

Project Name :
Buffer (in meters) :
Go

Crossing :
☐ Road
☐ Forest
☐ Railway Line

Save Project
Delete Project

PRINT MAP

Page Size
A3 Landscape

Ministry
Ministry of Coal

Enter Map Title

Data Source
Enter Data Source

Disclaimer
Enter Disclaimer

Submit

Snapshots showing Popup Tools layouts developed on MoC Portal

CHAPTER-V

STANDARD OPERATING PROCEDURE (SOP) FOR COMMUNICATION WITH MINISTRY OF COAL REGARDING RESOLUTION OF ISSUES.

Objective

This standard operating Procedure (SOP) is intended for the issues arising out of the information available on PM Gati Shakti NMP which requires examination, resolution and decision at Ministry of Coal (MoC) and other Ministries.

Scope

The entire land area under acquisition as shown under Land Asset data and Coal blocks under the command of various units of MoC at NMP portal.

Introduction

1. The issues may be identified and raised by any ministry under Govt. of India or state Govt. or Union Territory.
2. All the layers pertaining to establishment/installations/operations/logistics system (henceforth these will refer to as **entities** in this document) under the jurisdiction of Ministry of Coal, which are existing, planned or proposed and are available on PM Gati Shakti NMP in the form of GIS layers.
3. Any Department or Ministry can view the location of all entities in the layers as described under Point no 2.
4. The concerned department/Ministry can also view the layers related to their department which are existing, planned or proposed together with the layers of MoC.

Possible issues/ conflicts

After viewing the layers as described above the following types of issues/conflicts may be observed:

1. Superimposition of any entity of MoC on other ministries entity. These entities may be of visible nature above ground or under-ground.
2. Conservation of national resources.
3. Conservation of forest related.
4. Requirement of diversion of populated areas.
5. Requirement of diversion due to social and cultural issues.
6. Requirement of diversion due to heritage historical cultural sites.
7. Requirement of diversion of Waterbodies, national drainage etc.
8. Identified connectivity system gaps, congestions, route optimization etc. (Like railways, roads, transmission lines, etc.)

Procedure

1. The nodal officer for resolution of all issues arising out of information from PMGSP NMP shall be **Nominated Authority (NA) of MoC**.
2. The concerned department or ministry shall raise the issue as observed in the PMGSP NMP through email/letter to the Nominated Authority at *nomauthority.moc@nic* of MoC.
3. The NA shall refer the issue to the duly constituted committee for examination/comments/recommendations.
4. The committee shall be as follow:

Permanent Members

- a. DT(CIL)
- b. DT(CRD), CMPDI
- c. Director Technical (NA), MoC
- d. Director (BISAG-N)

Optional Members depending on the nature of issue

- a. Concerned Director of the Subsidiary under whose issues/coalfield is located.
- b. Concerned Director of SCCL or NLCIL if issue pertaining to their Subsidiary

Role of the Committee

The committee shall examine the issue considering all stakeholders in the best interest of all and also considering conservation of resources, optimization of involved expenditure in project development and also current rules, statutes, acts, regulations etc. and accordingly after due diligence will give recommendation on the possible solution or alternatives.

The recommendation/examination report shall be put to NA for considering further related actions.

Communication of the report

1. The possible solutions/alternative as agreed shall be forwarded by NA to concerned ministries for the action related to implementation.

CHAPTER-VI

UTILITY OF PMGS-NMP & ILLUSTRATION OF USE CASES

PM Gati Shakti National Master Plan Portal has proved to be very useful in many applications due to which decision making becomes very objective and logical. This not only saves time but also saves large amount of funds as optimum solutions are found considering the stakes of various ministries.

Important use cases are being illustrated to show the utility of the portal in the national interest.

CASE-1

Use of PMGS-NMP in Coal Block Mapping

PM Gati Shakti - National Master Plan portal provides data in one place with GIS based spatial planning and analytical tools. In the process of coal block demarcation, the main considerations are as follows:

1. Geological data of the coal seam structure obtained from exploration methods like drilling and or 2D/3D seismic technology.
2. Use of information from the layers available on PM Gati Shakti - National Master Plan.

The prominent GIS layers available at PM Gati Shakti - National Master Plan portal of Ministry of Coal are as following:

- Administrative Boundaries up to Village Level
- Cadastral Maps
- Forest Layer
- Eco-Sensitive Zone
- Sanctuary and National Park
- Power Transmission Lines
- Road Transport & Highways
- Rail Line & Rail Infrastructure
- CBM Block Boundaries
- Monuments
- Satellite Imagery

Potential Coal block boundary can be demarcated and/or revised based on surface features such as village boundaries, River, Nala, Road, Railway Line etc.

During the blocking process the following considerations are also taken into account.

- Population density & built-up structures.
- Location and alignment of Gas Pipelines, HT Power Lines etc.
- Water bodies, rivers, drainage-systems, dams etc.
- Existing, under construction & proposed Road, Railway Lines, Gas pipeline, HT Power Lines etc.

Therefore, National Master Plan Portal is also helping in carving out potential Coal Mining Blocks with higher feasibility.

CASE-2

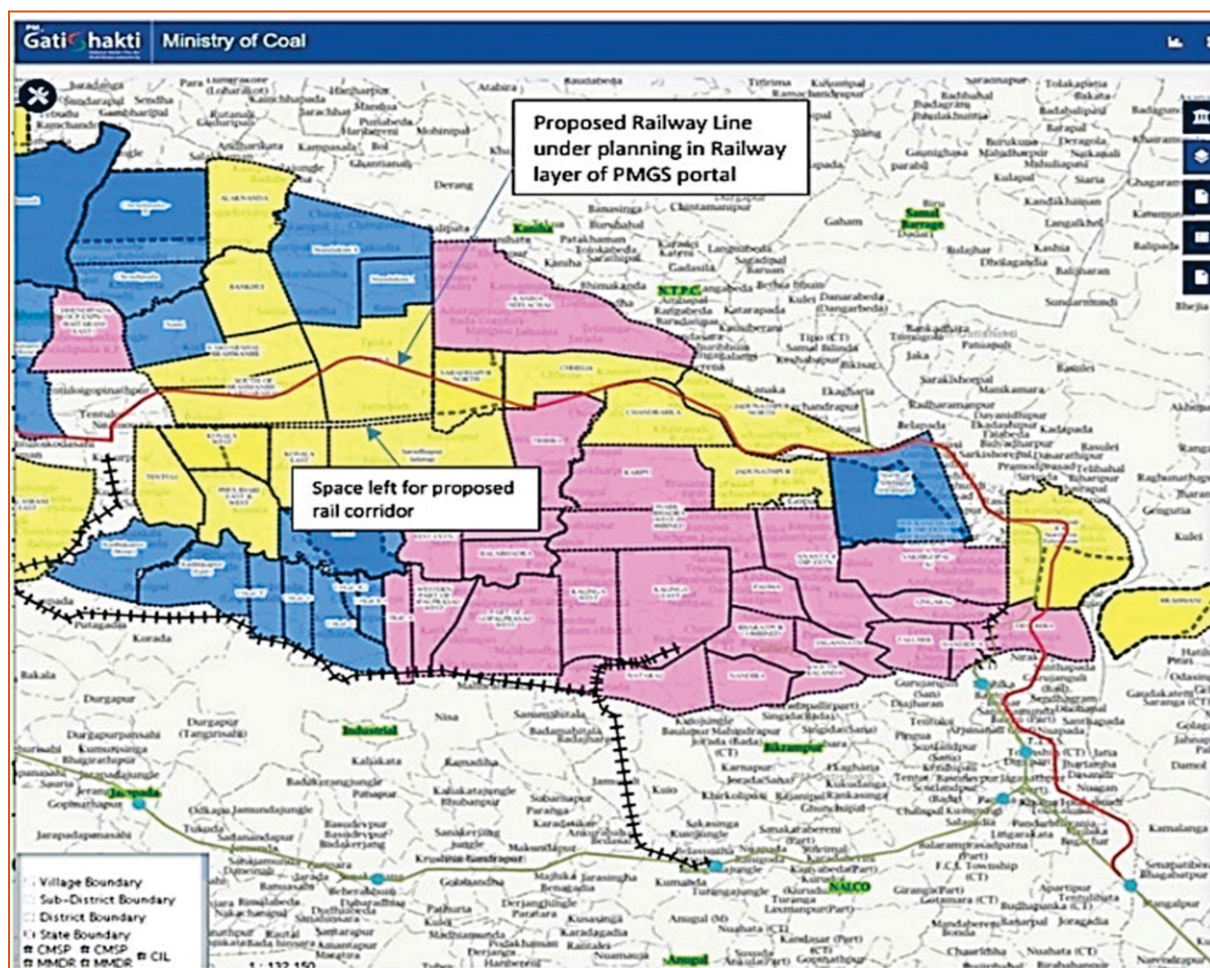
Identification of Infrastructural Overlaps

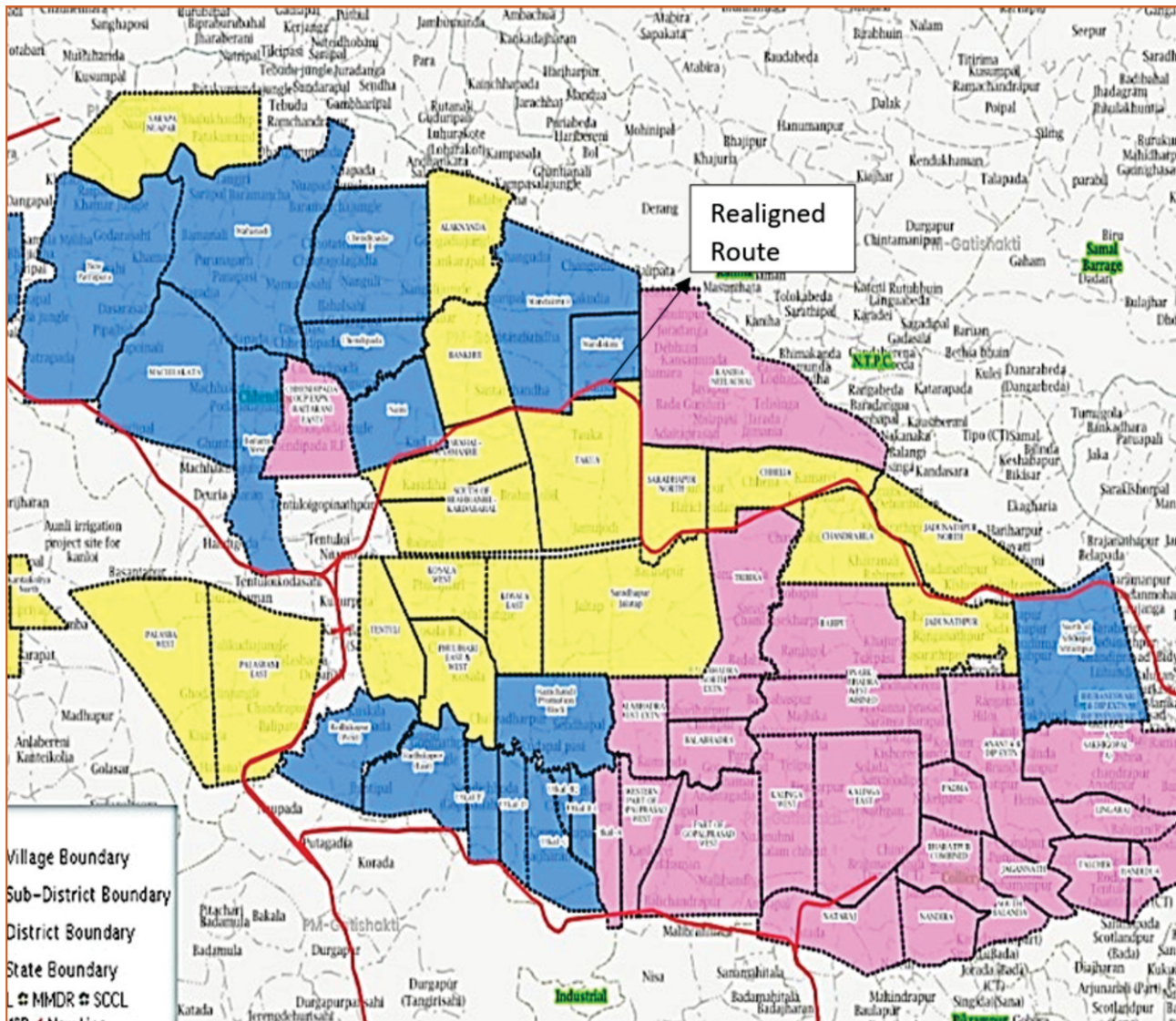
Layers pertaining to various ministries are available on GIS platform which provide the location and area of the various infrastructures, installations, projects, etc. either present or proposed. While planning any new project or expansion of a project these layers are very helpful so that during planning stage all important locations within the area under consideration is known well in advance. The planning is, therefore, done keeping in view all the considerations as per norms and guidelines and also considering environmental, social and technological factors. This not only reduces the project cost, but also ensures execution of the projects within the stipulated timeframe.

PROJECT-1 – MAHANADI COAL RAILWAY LIMITED (MCRL) RAIL ALIGNMENT

Diversion of the rail route from Badapanka to Tentuloi to avoid coal bearing area of the blocks.

The route of the proposed railway line through Talcher Coalfield connecting Badapanka to Tentuloi under the Railways layer (sublayer “Works under planning new lines”) is passing through Sardhapur North, Takua and South of Brahmanbil & Kardabahal coal blocks instead of the provision made for the rail corridor between coal blocks.





Various factors were considered for deciding the best option of realignment. The information available on PM Gati-Shakti portal was also analysed and a realignment was worked out along the block boundaries. This saved lot of coal from being sterilized as the railway line was passing through the middle of the block. The above figures shows the previous and the realigned route.

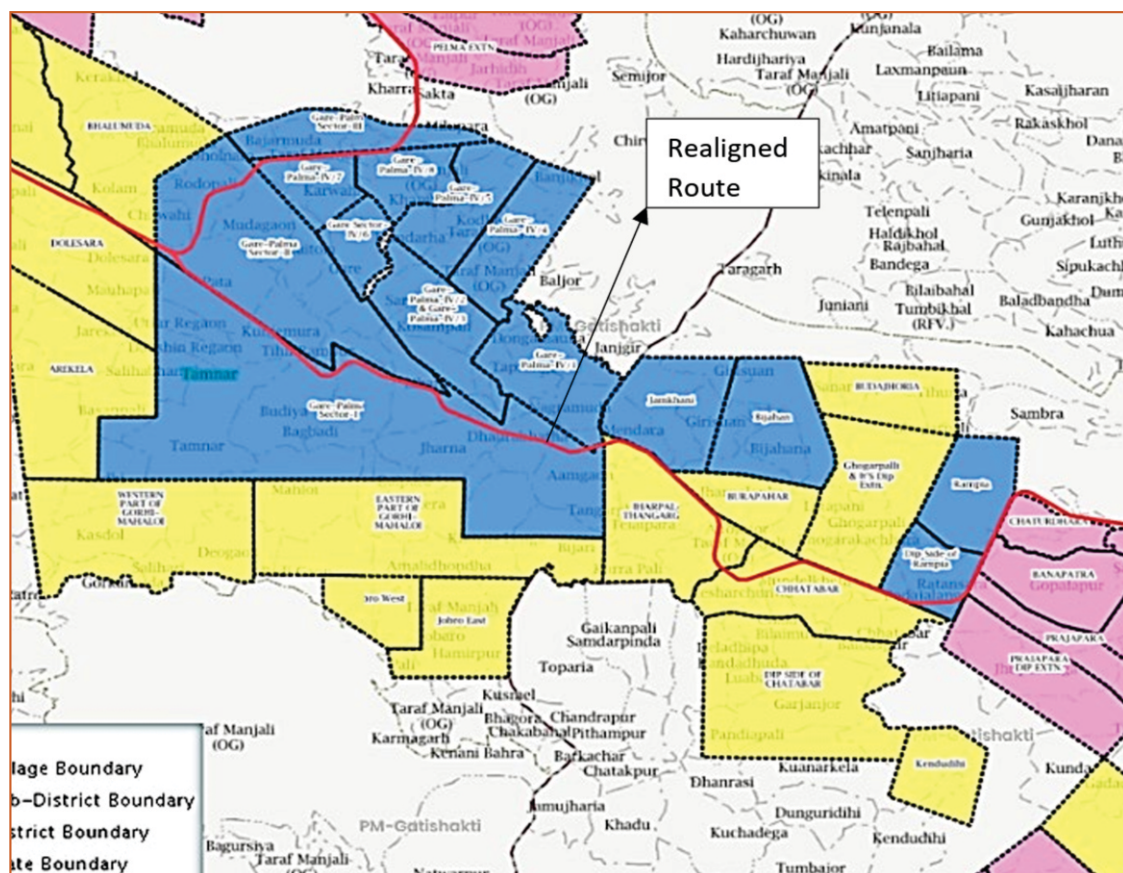
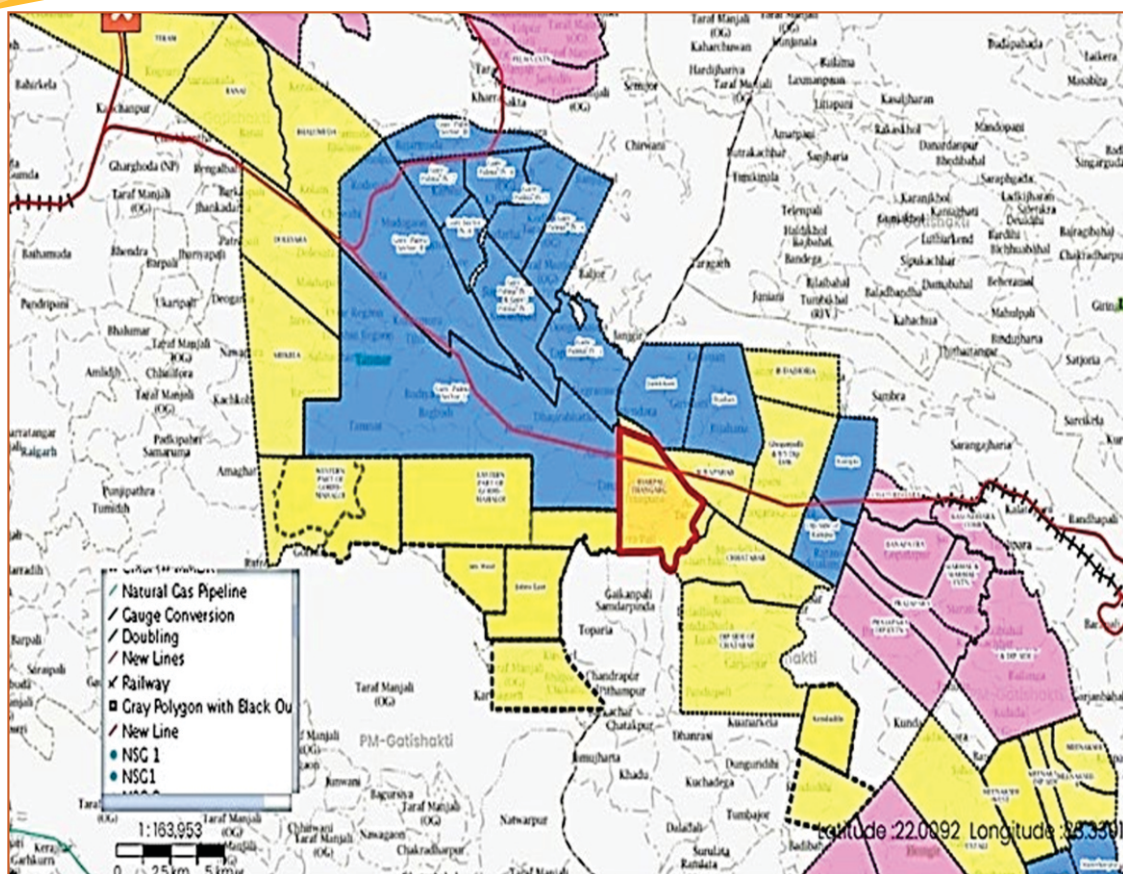
PROJECT-2 – SARDEGA-GHARGHODA PROPOSED RAILWAY LINE

Diversion of the rail route from Sardega-Gharghoda to avoid coal bearing area of the blocks.

Rail route is proposed from Sardega to Gharghoda. The proposed rail route is passing through Ib Valley to Mand Raigarh Coalfields and passes through Gare Pelma Sector I, Jamkhani, Gare Pelma IV/I, Tangarghat, Burapahar, Chhatabar and Dolesara coal blocks.

The realignment was done where the route was planned on the boundaries of the coal blocks so that minimum coal reserves was sterilised.

The originally planned and realigned routes are shown in the figures below:

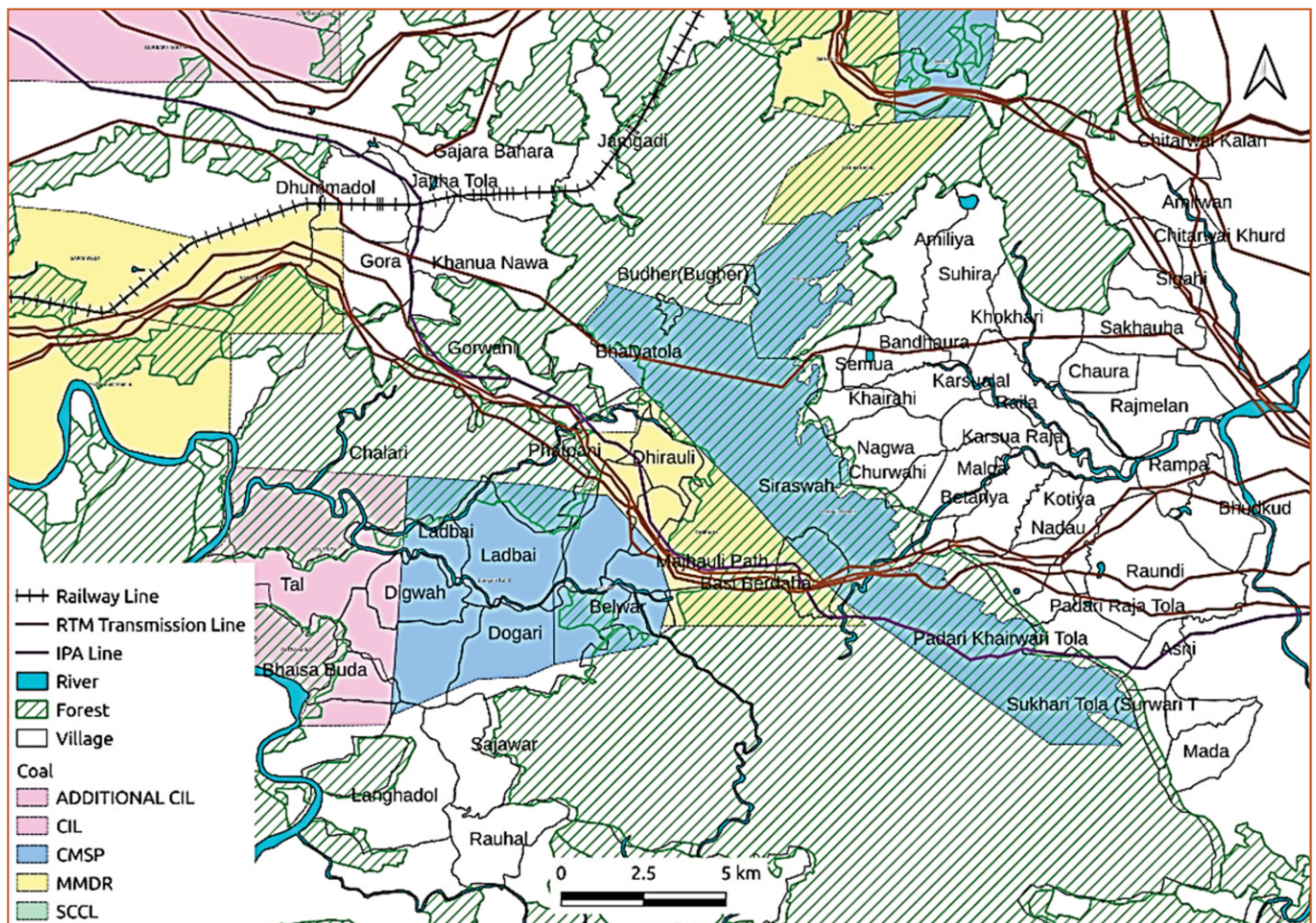


CASE-3

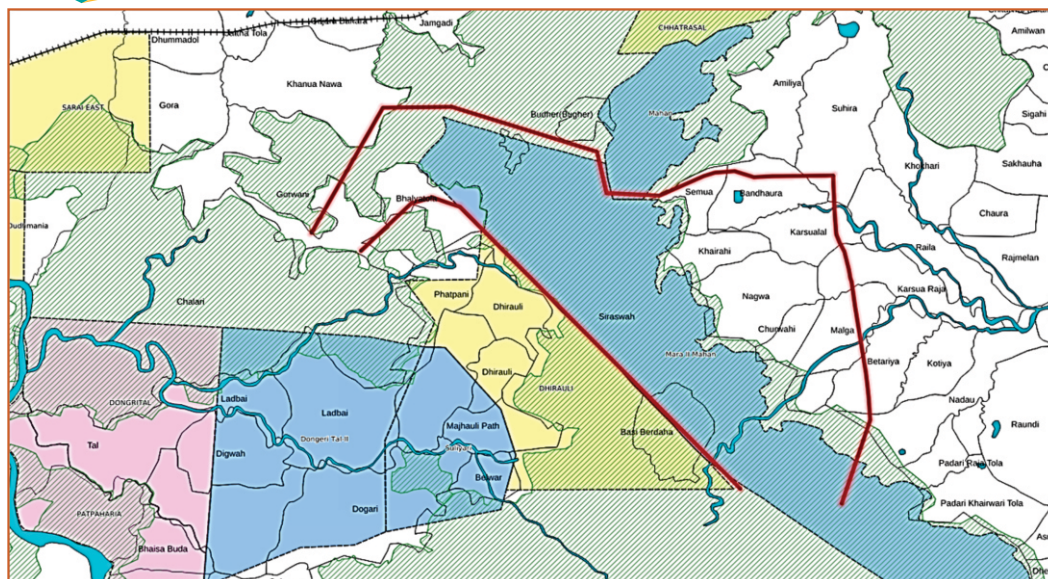
High Tension Transmission Lines Route Alignment Dhirauli Coal Block, Singrauli

Dhirauli Coal Block located in Singrauli Coalfield had been overpassed by multiple proposed high tension power lines of Power Grid Corporation of India Limited (PGCIL). The case was analysed on PMGS portal and these lines were seen clearly passing over Dhirauli Block. This would lead to sterilize considerable part of coal reserve in Coal block. The matter was investigated jointly by MoC, MoP and BISAG and the best possible route was worked out using the information available on PM Gati-Shakti NMP.

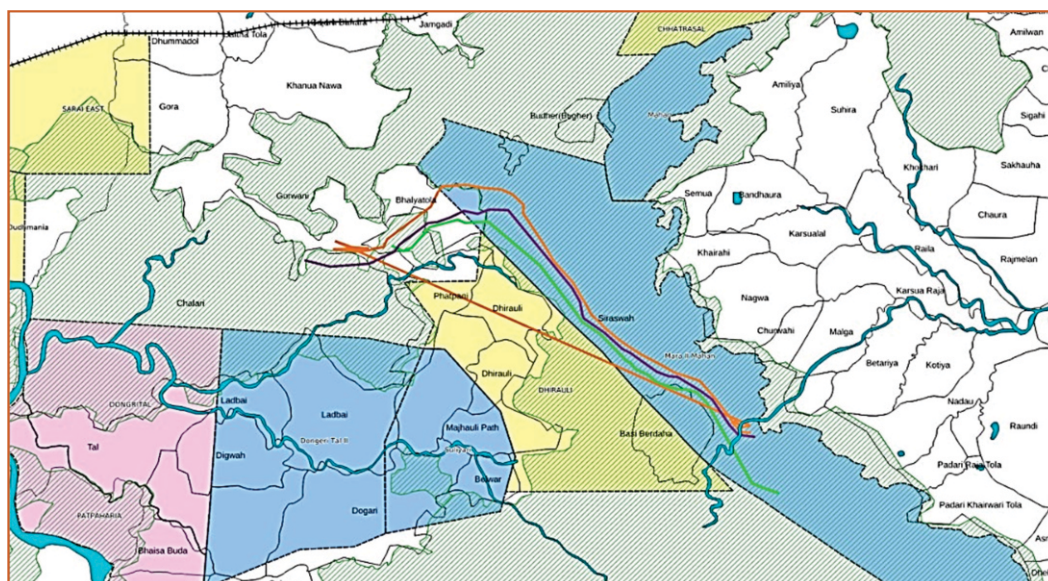
While planning the realignment, various parameters such as forest cover, river crossing, road crossings, terrain profile, settlement area etc. were considered. The lines were modified because multiple high tension power lines were passing through coal block. The modified lines were planned in such a way that it avoids forest, coal block, river crossings & settlement area while maintaining an optimum elevation profile.



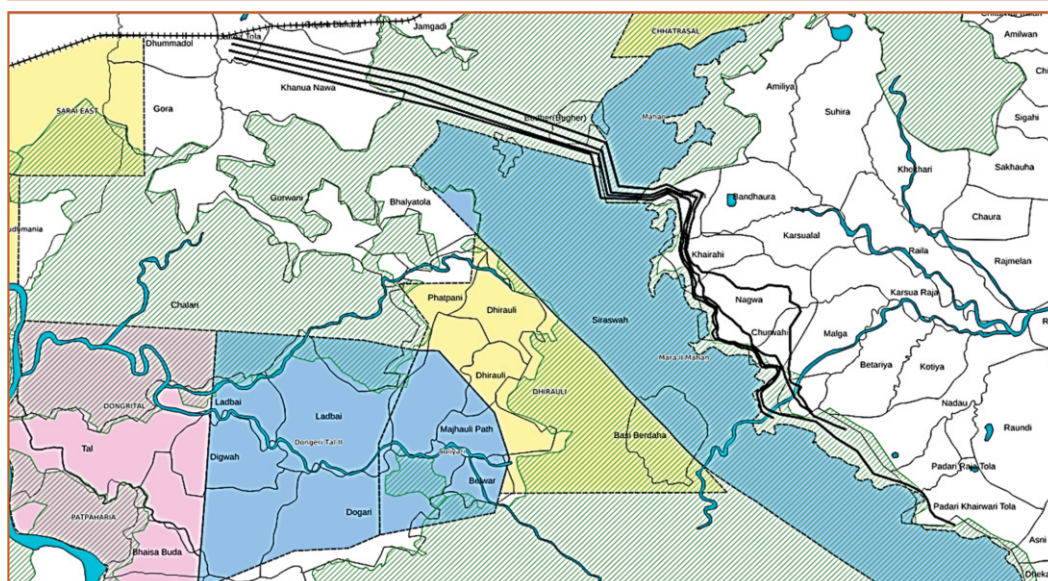
Case of Alternate route of transmission line derived through
Gati Shakti portal for Dhirauli Coal Block



**Surveyed by
Ministry of Power/
PGCIL**



**Suggested by
Ministry of Coal**



**Jointly Suggested by
Ministry of Power
&
Ministry of Coal using
PM GatiShakti Portal**

CASE-4

Transmission and Natural Gas Pipeline in Subhadra OCP

Project Name: Subhadra OCP

Coal Blocks involved: Utkal-A and western Part of Gopal Prasad west

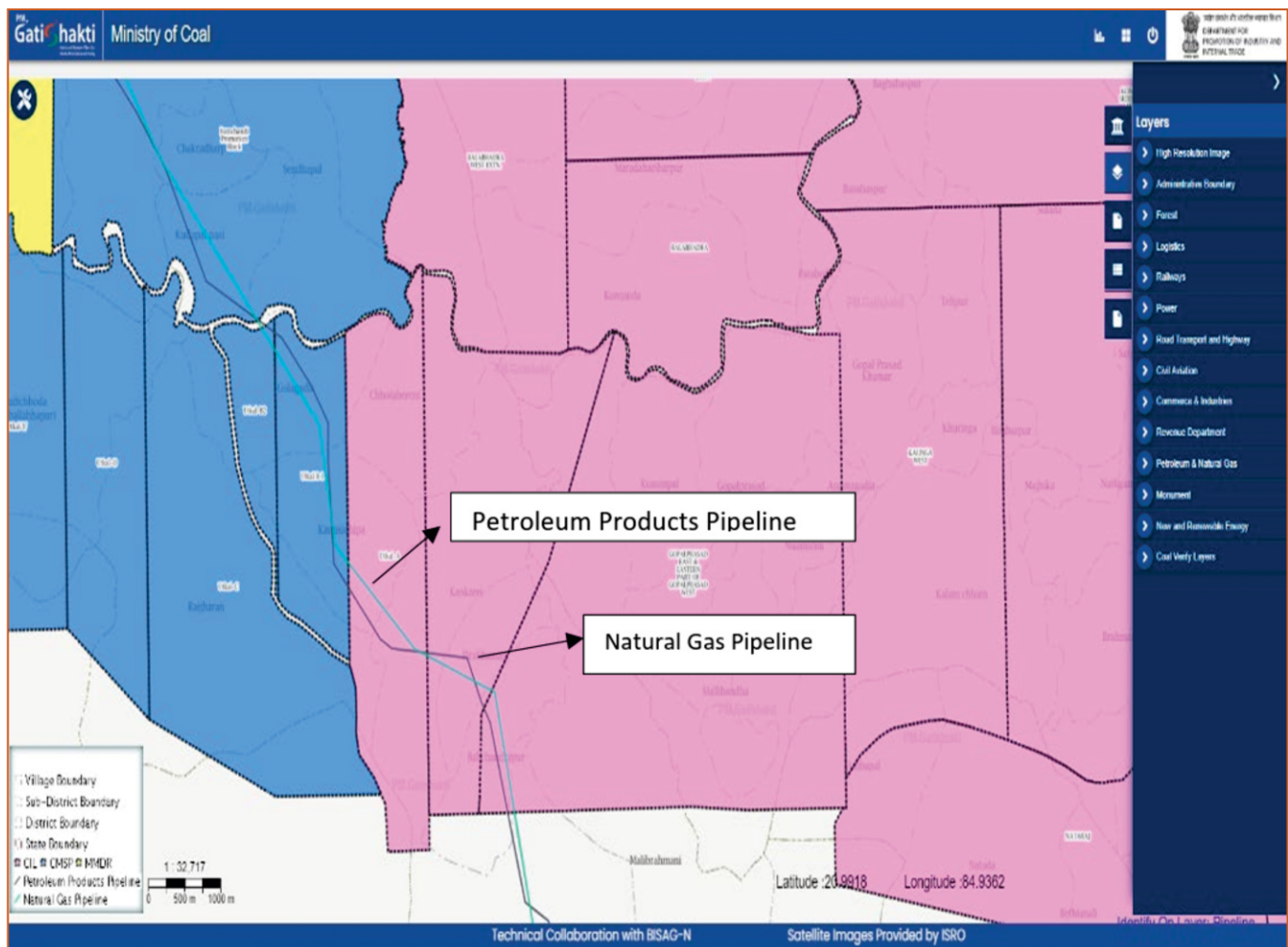
Capacity: 25 MTY

Subhadra OCP is an MDO Project for which different activities are under execution by MDO. The site of Subhadra OCP was investigated on PM Gati-Shakti portal and it was observed that:

- A 500 KV DC Transmission line belonging to NTPC from Kaniha STPS to the southern India, which forms the eastern boundary of the project is passing through leasehold area.
- Natural Gas pipeline is seen passing through the leasehold area.

Physically, there are no Natural Gas pipeline and Petroleum products pipeline passing through the leasehold area. Hence, it is understood that they are proposed projects.

The matter requires further investigation with the concerned Ministry. A possible realignment can then be worked out after taking consent from the respective ministries.



CASE-5

Identification of multi-modal connectivity gaps

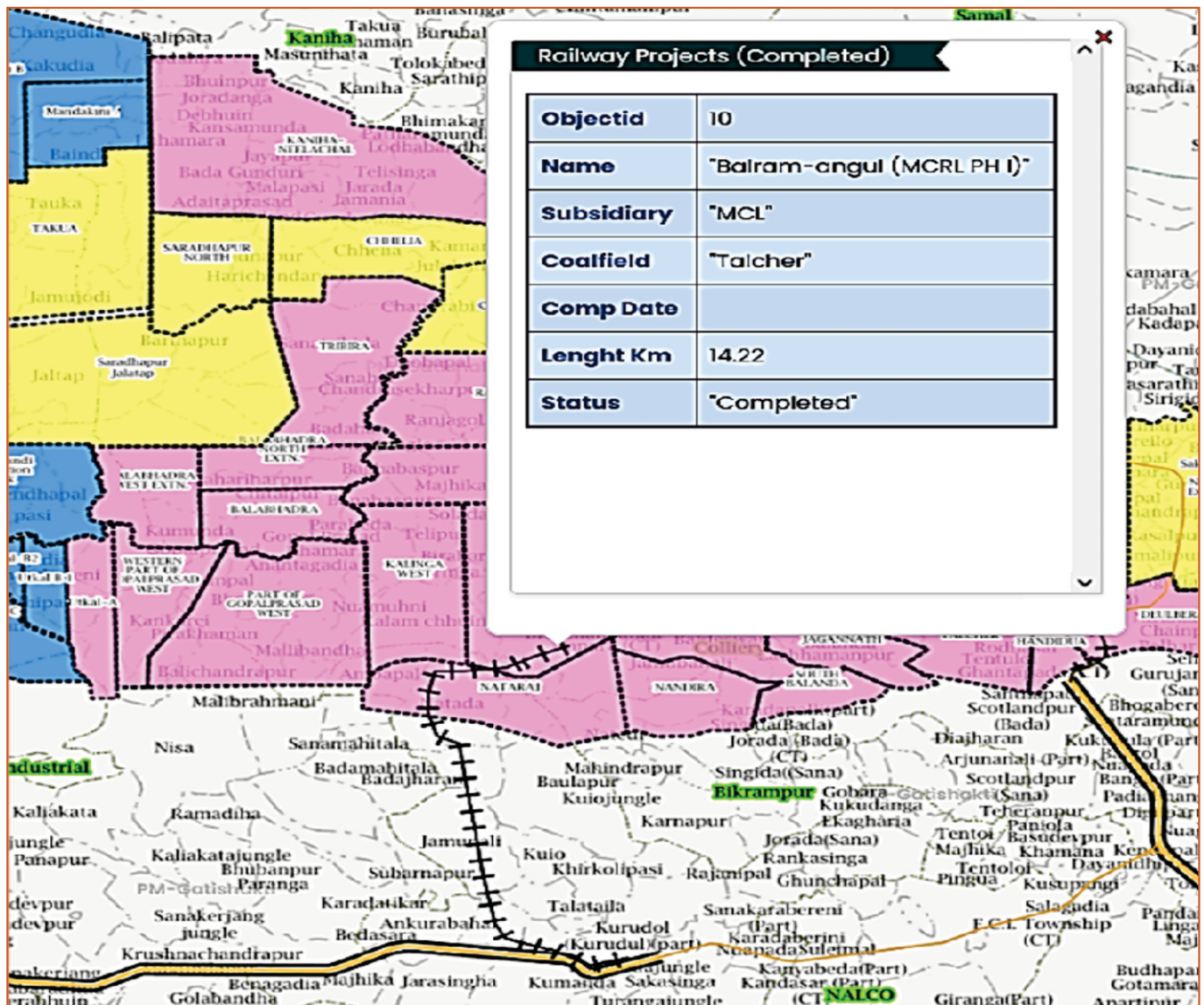
One of the major purpose of PM Gati-Shakti is to ensure multi-modal connectivity of various modes of transportation so that goods and services can reach the end users in optimum time for fast-track overall development of the nation.

Ministry of railways proposed energy corridor for coal, cement, fertilizers, Iron ore etc. for transportation from origin to end users. New port line connectivity, doubling of tracks and bottleneck projects are identified by Ministry of railways to resolve issues of transportation of major minerals and materials in the interest of energy security of the country.

The MoC-PMGS has identified eight CIL funded Railway Projects in different subsidiaries as Gap projects and integrated these layers accordingly. Some projects are completed while others are under construction mode.

The list of railway route is as follows

S.N.	Name	Subsidiary	Coalfield	Comp_date	Lenght_km	Status
1	Balram-angul (MCRL_PH_I)	MCL	Talcher		14.22	Completed
2	Lingaraj Silo to existing Deulbeda Siding Rail Line	MCL	Talcher		4.80	Completed
3	Balram-Jharpada- Putagodia-Tentuloi link (MCRL_PH_II)	MCL	Talcher		54	Under Construction
4	Doubling of the Jharsuguda- Barpali- Sardega Rail Line	MCL	IB Valley	31-12-2023	127	Under Construction
5	Kharsia-Korichapar- Dharamjaigarh(CERL PH-I)+ Dharamjaigarh- Urga Rail Line (CERL Phase-II)	SECL	Mand- Raigarh	31-12-2023	132	Under Construction
6	Gevra Rd. to Pendra Rd. Rail Line (CEWRL)	SECL	Korba	31-12-2024	135	Under Construction
7	Tripling of Tori Shivpur Rail Line	CCL	North Karanpura	31-12-2023	44.37	Under Construction
8	Shivpur- Kathautia Rail Line (JCRL)	CCL	North Karanpura	31-03-2025	49.09	Under Construction

Project 1: Balram-Angul (MCRL_PH_I)

COAL INDIA HELPS BUILD RAILWAY LINES FOR FASTER COAL TRANSPORTATION FROM ODISHA PART – II
ANGUL-BALRAM RAIL LINK

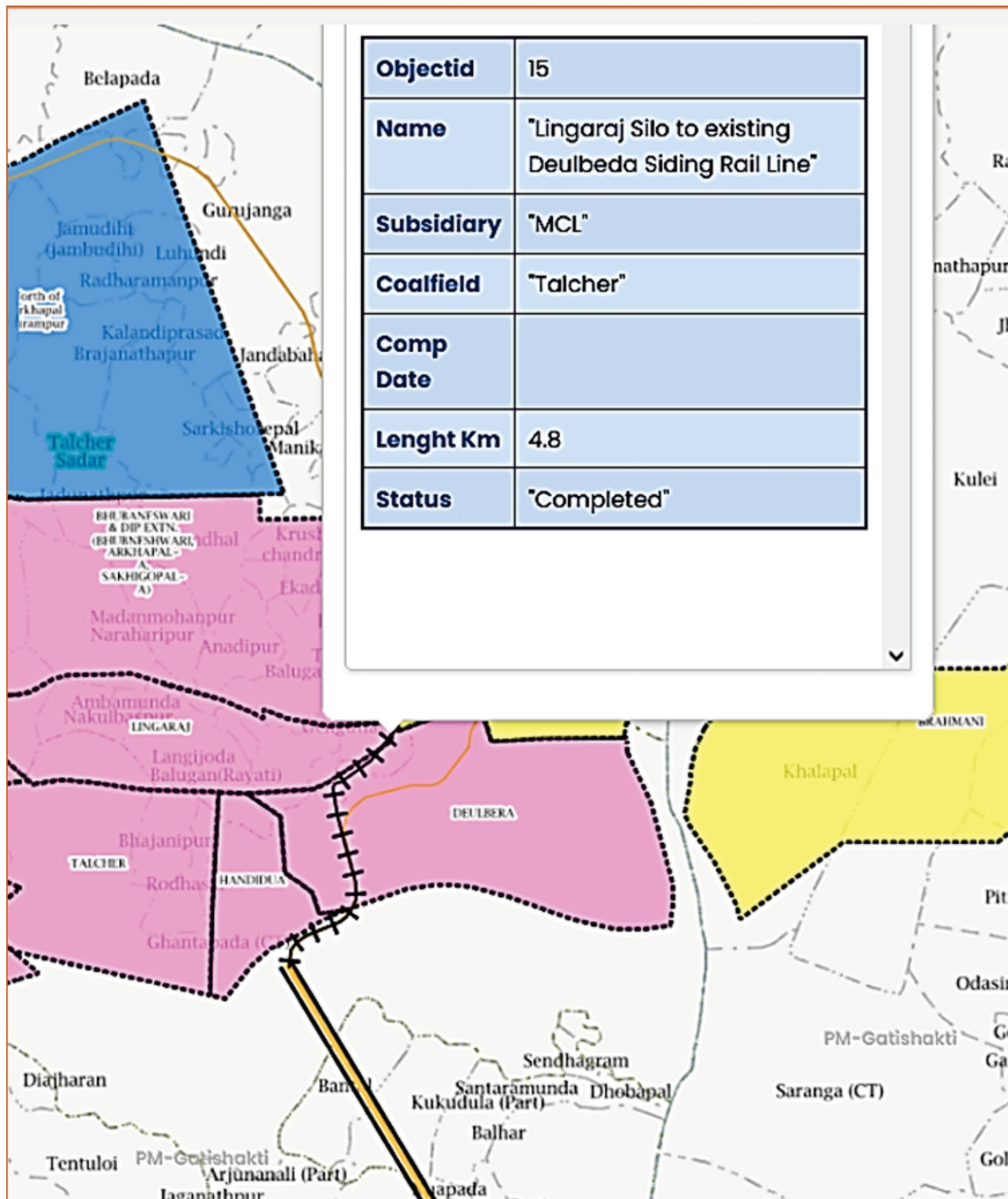

- » 14.5 km long Angul-Balram rail link commissioned
- » Coal transportation capacity: About 15 million tonnes per annum (MTPA) from Talcher Coalfields of CIL subsidiary MCL
- » Constructed by Mahanadi Coal Railway Limited (MCRL), a joint venture (JV) of MCL, IRCON and Odisha Industrial Infrastructure Development Corporation (IDCO)

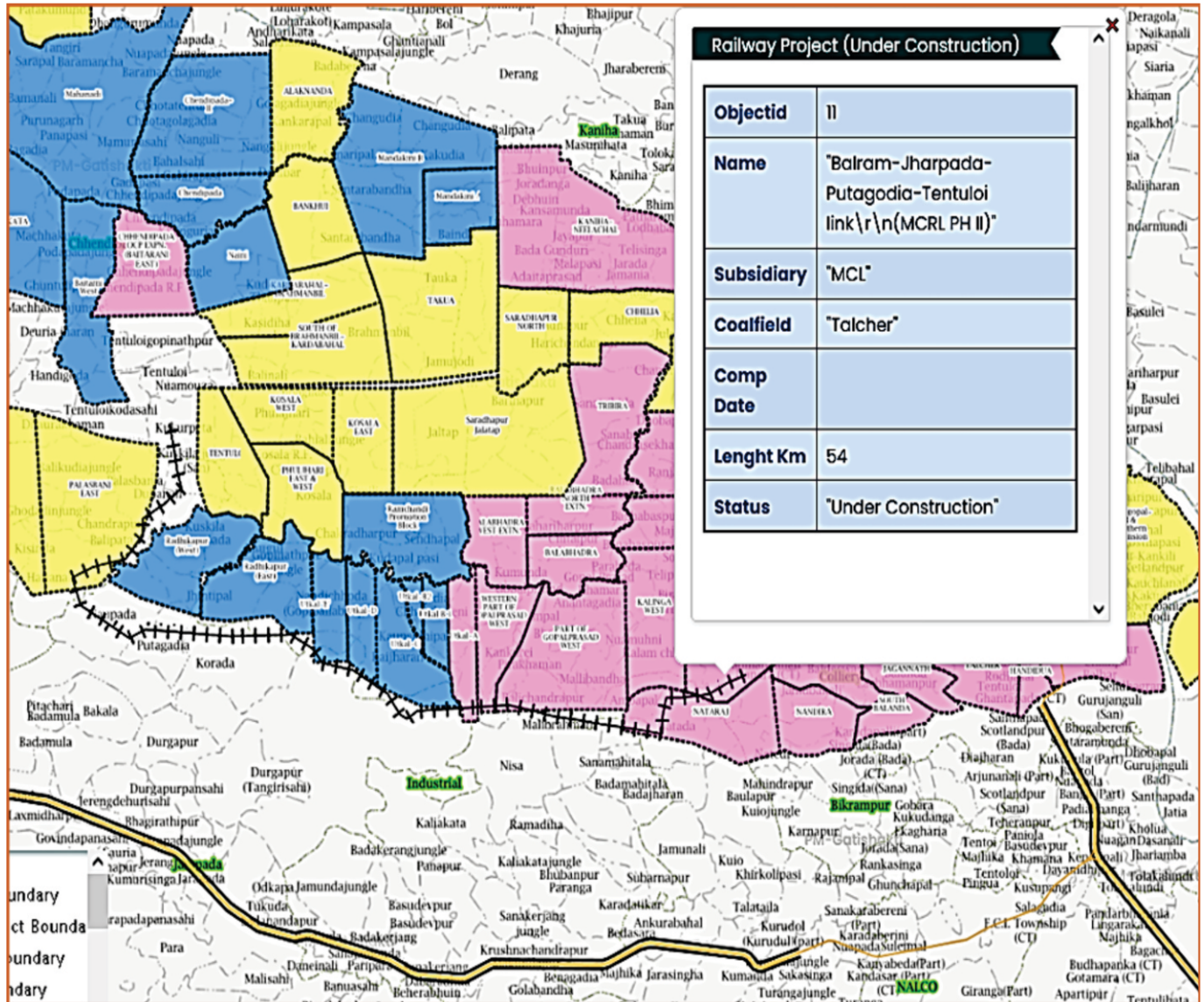
COAL INDIA HELPS BUILD RAILWAY LINES FOR FASTER COAL TRANSPORTATION FROM ODISHA PART – III



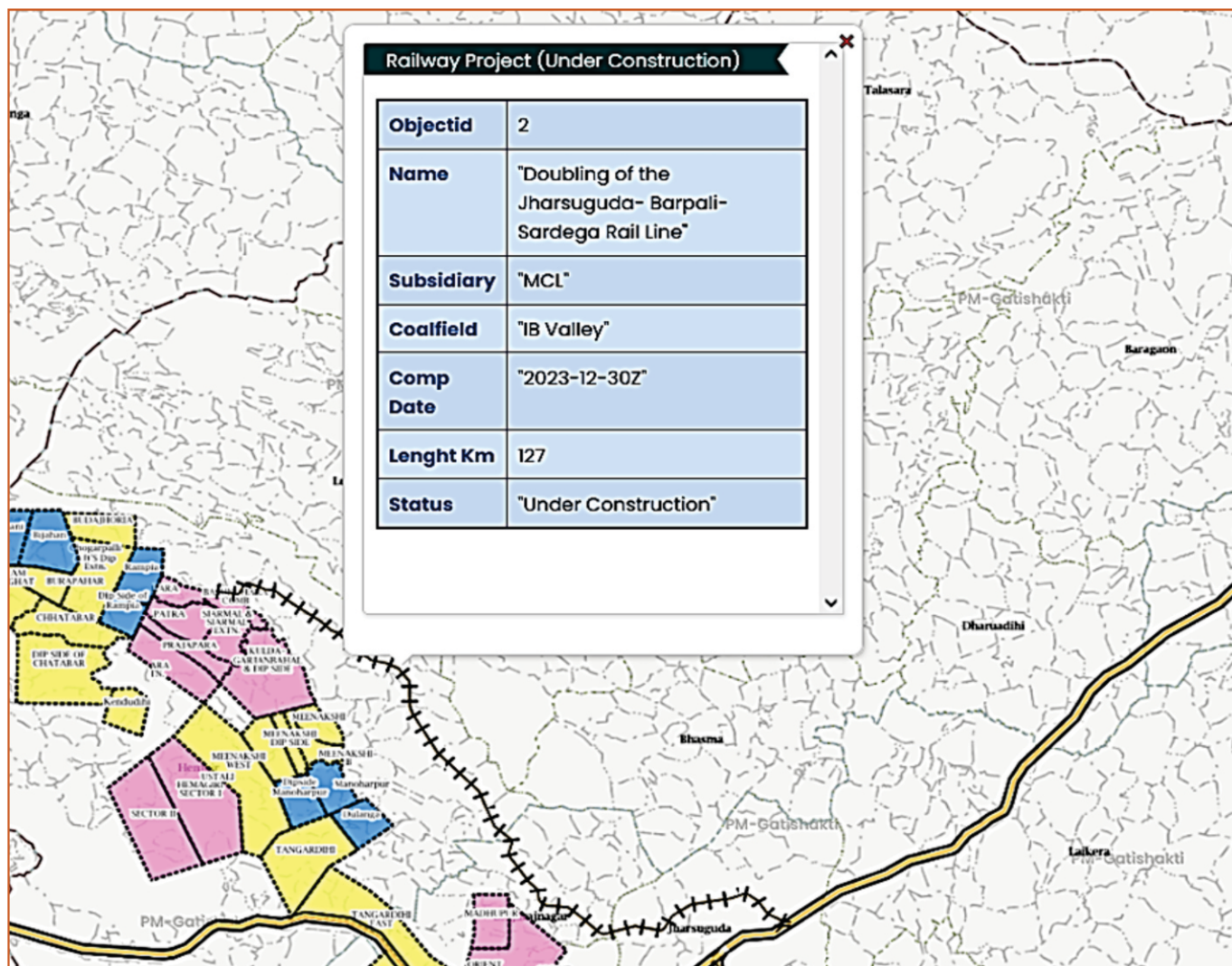
Minister of Coal Sri Pralhad Joshi, Minister of Railway Shri Ashwini Vaishnav, Minister of petroleum and Natural Gas Shri Dharmendra Pradhan during inauguration of Angul-Balram Link

Project 2: Lingaraj Silo to existing Deulbeda Siding Rail



Project 3: Balram-Jharpada-Putagodia-Tentuloi link


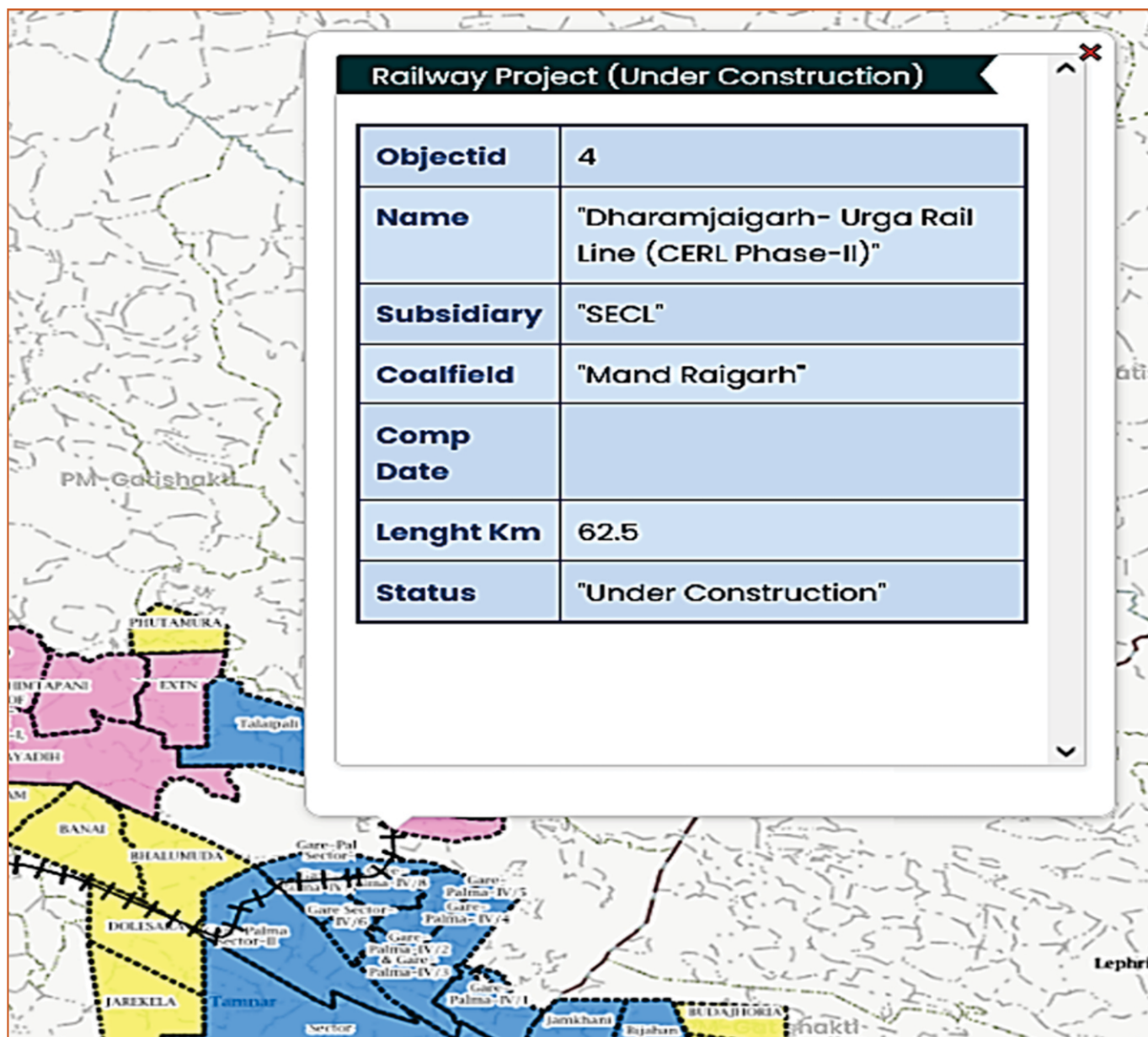
Project 4: Doubling of the Jharsuguda- Barpali- Sardega Rail Line



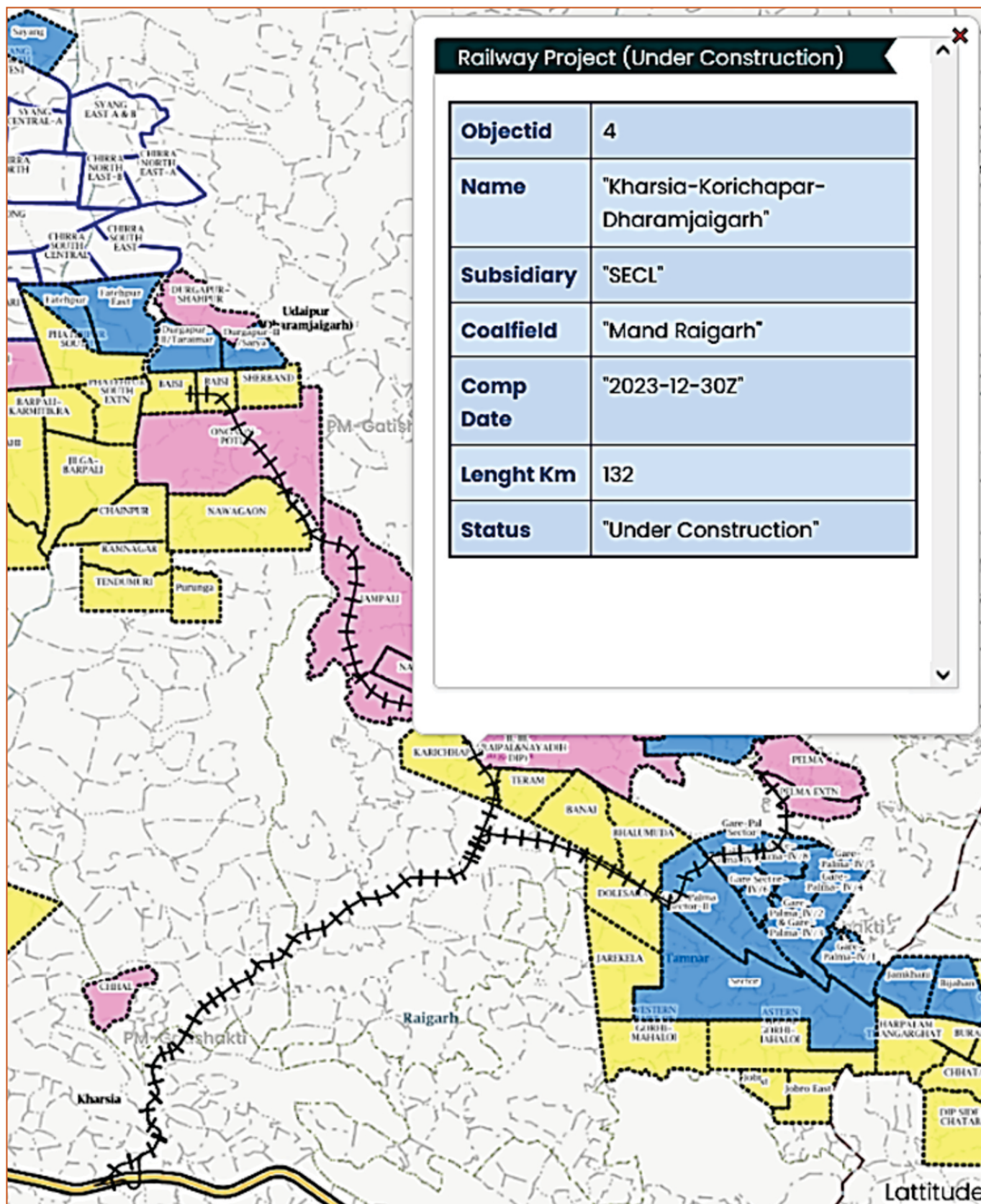
COAL INDIA HELPS BUILD RAILWAY LINES FOR FASTER COAL TRANSPORTATION FROM ODISHA PART - I JHARSUGUDA-BARPALI-SARDEGA LINE

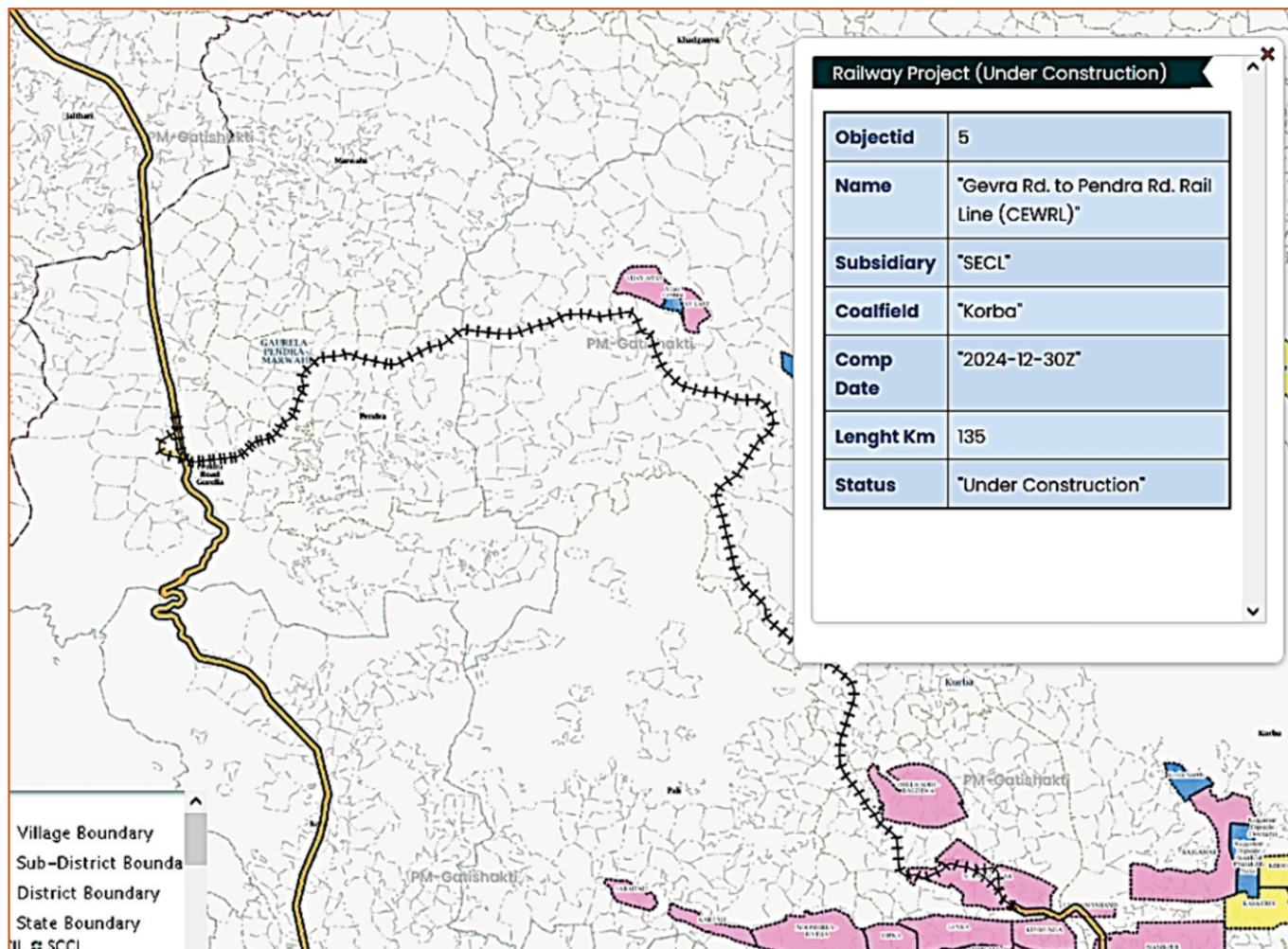


- » **52.41 km** long Jharsuguda-Barpali-Sardega single line commissioned
- » Coal transportation capacity: About **34 million tonnes** per annum (MTPA)
- » This rail line helps transport coal from of Basundhara and Ib Valley Coalfields of Coal India subsidiary MCL

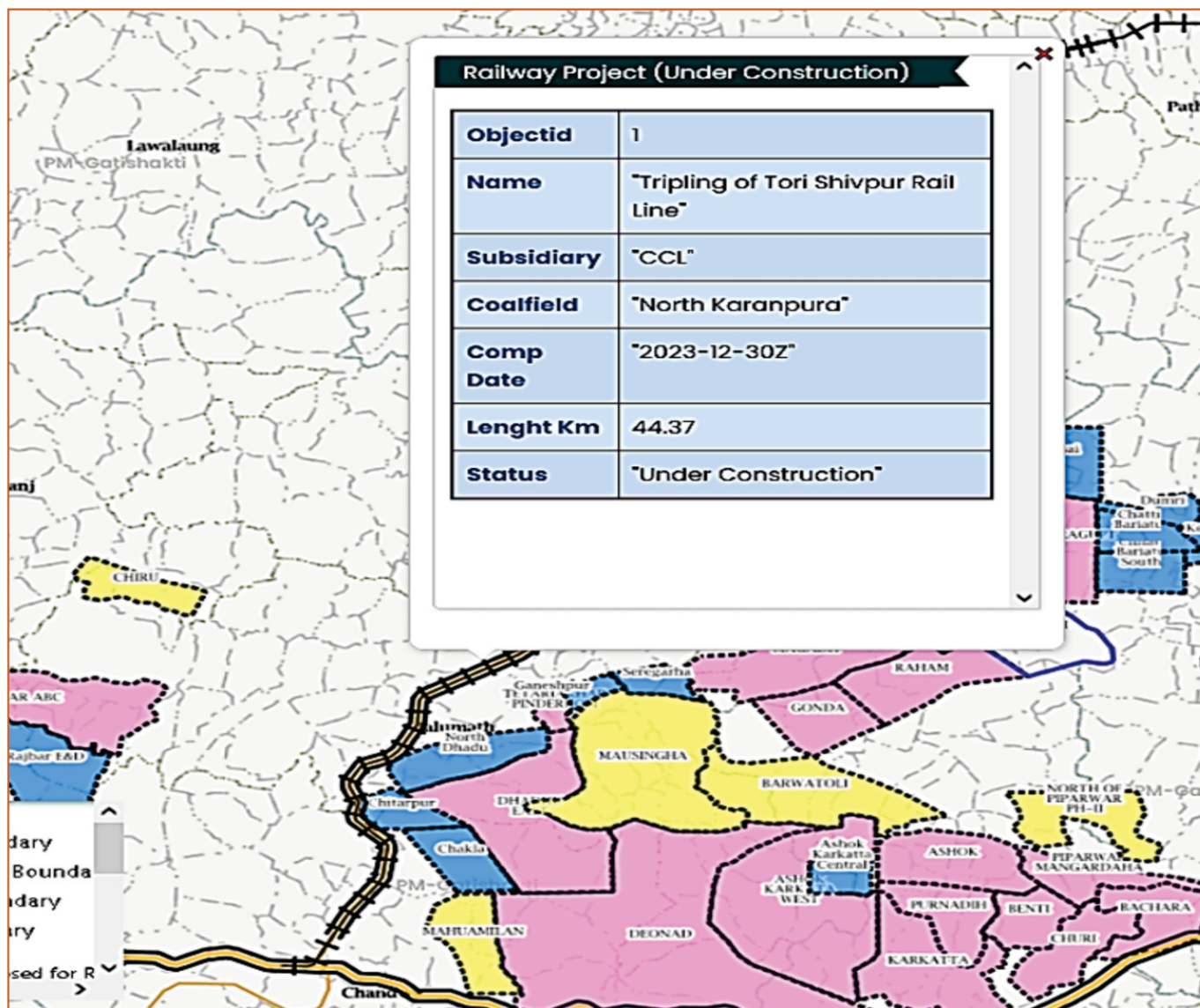
Project 5: Dharamjaigarh- Urga Rail Line (CERL Phase-II)


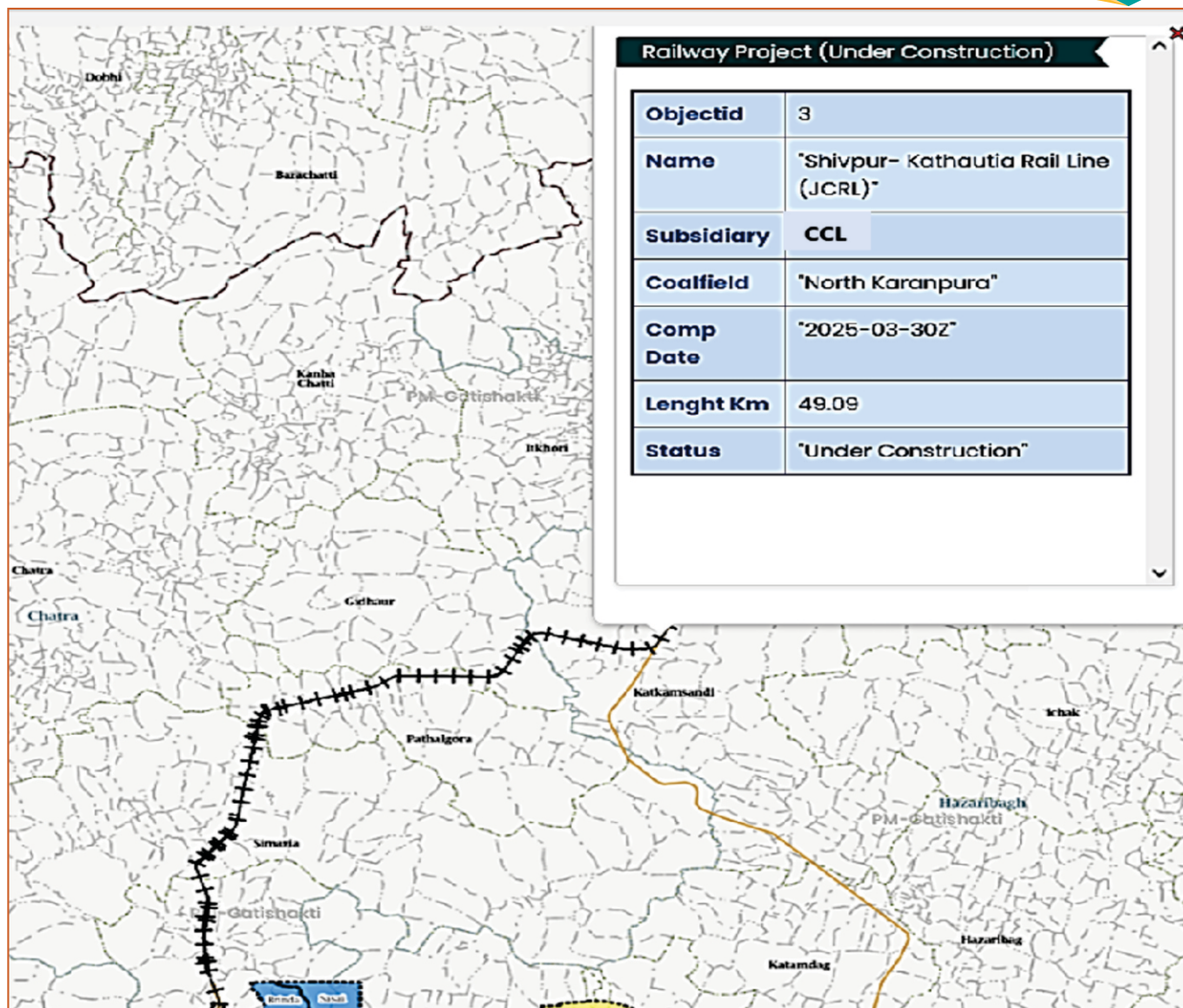
Project 5A: Kharsia-Korichapar-Dharamjaigarh (CERL PH-I)



Project 6: Gevra Rd. to Pendra Rd. Rail Line (CEWRL)


Project 7: Tripling of Tori Shivpur Rail Line



Project 8: Shivpur- Kathautia Rail Line (JCRL)


COAL INDIA HELPS BUILD RAILWAY LINES FOR FASTER COAL TRANSPORTATION FROM JHARKHAND PART - II

SHIVPUR-KATHAUTIA RAIL LINE



» JCRL is a joint venture company of CCL, Govt. of Jharkhand and Indian Railways

» The project is planned to be commissioned by **March 2025**

COAL INDIA HELPS BUILD RAILWAY LINES FOR FASTER COAL TRANSPORTATION FROM ODISHA PART - I
COMING SOON

Further to above mentioned railway projects, Ministry of Coal and Ministry of Railways jointly worked 37 additional critical railways projects to cater future evacuation of Coal transport Pan India. These projects are currently in planning mode and routes are under designing. The list of these projects are given below in zone wise, Type of line and falling state name.

The Additional 37 critical Railway lines for future Coal Evacuation Project are as follows:

S.No	Rail Zone	Name of Project	Line	State	Status
1	ECR	Dhanbad- Chandrapura alternate route via Tundu-Nichitpur	3rd Line	Jharkhand	Project sanctioned on 28.08.2023. LA required-25.33 acre (under acquisition) Tender being called on 07.02.24
2	ECR	ROR at Gomoh	Doubling	Jharkhand	Out of 221 acre, 48 acre has been handed over to Railways. Disbursement to land losers is in progress.
3	SECR	Garepelma - Sardega	(New Double)	Odisha	DPR under preparation
4*	ECOR	Cuttack ROR		Odisha	DPR under preparation
5	ECOR	Talcher-Sukinda	Doubling	Odisha	DPR under preparation.
6	ECOR	Inner Corridor Phase-I of Talcher coal field - Angul Balaram Doubling	Doubling	Odisha	DPR submitted to Railway Board & is under examination.
7	NCR	Chopan- Chunar	Doubling	UP	Project sanctioned on 25.08.2023.
8	ECOR	Jharsuguda to Sambalpur Jn	3rd & 4th line	Odisha	DPR under preparation.
9	ECOR	Flyover at Titlagarh	Flyover	Odisha	DPR under preparation.
10	ECOR	Paradeep – Badabandha	3&4 line	Odisha	Project sanctioned on 31.08.2023. Tenders being invited.

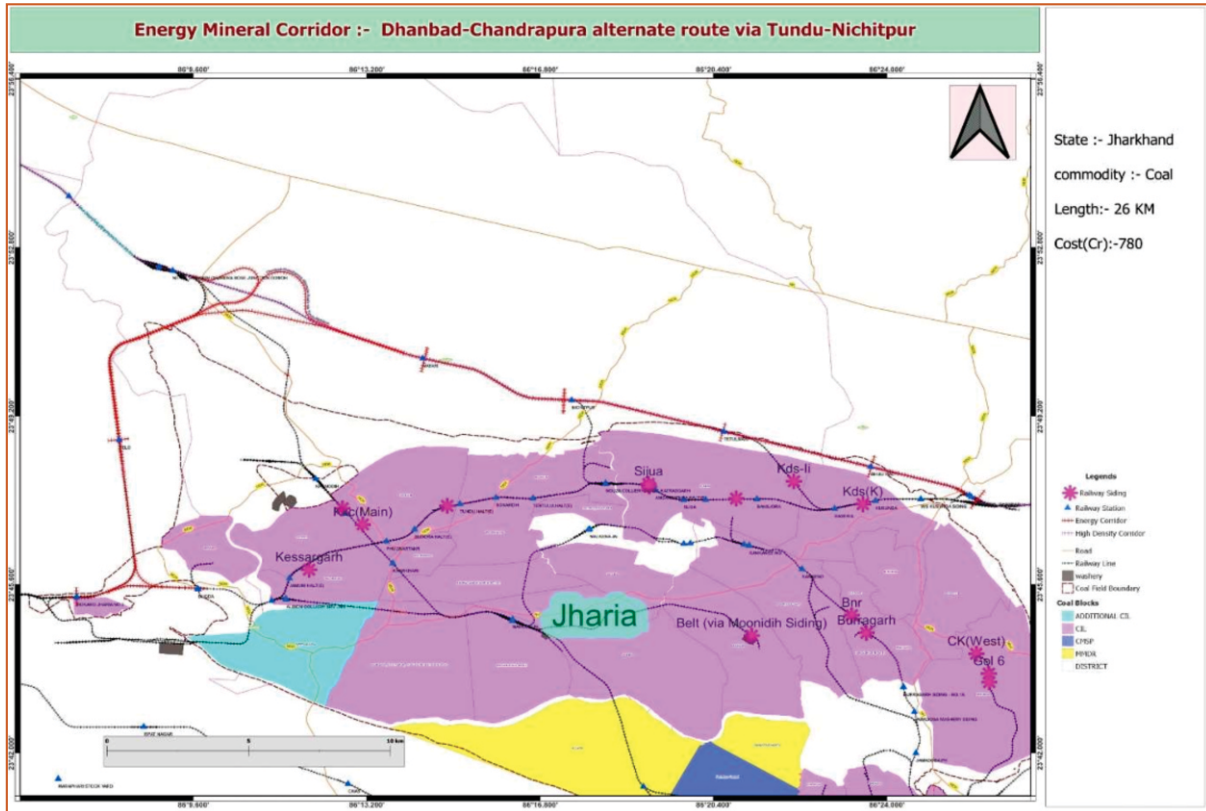
11	ECOR	Cuttack – Badabandha (Paradeep)	3rd & 4th line	Odisha, AP	FLS sanctioned on 19.12.2023. Agency fixed for preparing DPR.
12	ECOR	Outer Corridor of Talcher coal Field from Tentulai to Budhapank	-	Odisha	DPR examined by Project Evaluation committee, Rly Board on 09.11.2023. Zonal Rly advised to submit updated DPR after rectification of discrepancies and compliance of observations. New survey has been done due to change in scope as advised by Railway Board. L-section being revised. Revised DPR to be submitted by 28.02.2024.
13	ECOR	Provision of flyover at Sarla from Sambalpur City end to connect the DN grid of Sarla to avoid surface crossing.	Flyover	Odisha	Work sanctioned on 07.02.2024. Process initiated for land acquisition.
14	ECR	Koderma-Hazariabagh and Y connection at Koderma and Hazaribagh	Doubling	Jharkhand	DPR being submitted in Feb'24.
15	ER	Godda -pakur	-	Jharkhand	DPR prepared
16*	SECR	Lajkura ROR			
17*	ECOR	Jharsuguda-Sardega	3rd line	Odisha	Survey for Sardega-Lajkura sanctioned and DPR under preparation
18	ECR	Y connection connecting Kujju station to Ranchi Road	Misc	JH	Project sanctioned on 06.10.23 LA required- 6.558 acre (under acquisition) Tender opened on 25.01.24

19	ECR	Shivpur-Kathautia	Doubling	JH	DPR being submitted in Feb'24
20	SECR	Bilaspur-Nagpur 4th line	4th line	CH MH	EPC tender for 88.10 Km under finalization. balance FLS is in progress..
21	CR	Itarsi-Nagpur	4 line	MH	Survey sanctioned for DPR preparation
22	SER	Muri-Barkakhana	Doubling	JH	Survey sanctioned for DPR preparation
23	ECOR	Sambalpur city - Jarapada	3&4 line	Odisha	DPR under preparation.
24	ER	Murarai-Barharwa	3 line	JH & WB	
25	SCR	Manuguru - Ramagundam	-	Telangana, TN	DPR under preparation
26	ER	Sainthia-Pakur	4 line	JH	Survey sanctioned for DPR preparation
27	ECR	New rail line between Chetar and Banhardih captive mine	New line	JH	Consent received from NTPC on 02.09.23, land acquisition by NTPC is in progress.
28	SECR	Gurda to Robertson Chord Line		CH	DPR under preparation
29	ER	New line from Deocha -Pachami coal mine in Birbhum district of West Bengal to Mallarpur station	-	WB	Survey sanctioned for DPR preparation
30	SECR	Parsakante - Katghora	(New Double line)	CH	Survey is in progress
31	SECR	Lajkura - Sardega	(New Double line)	Odisha	DPR under preparation

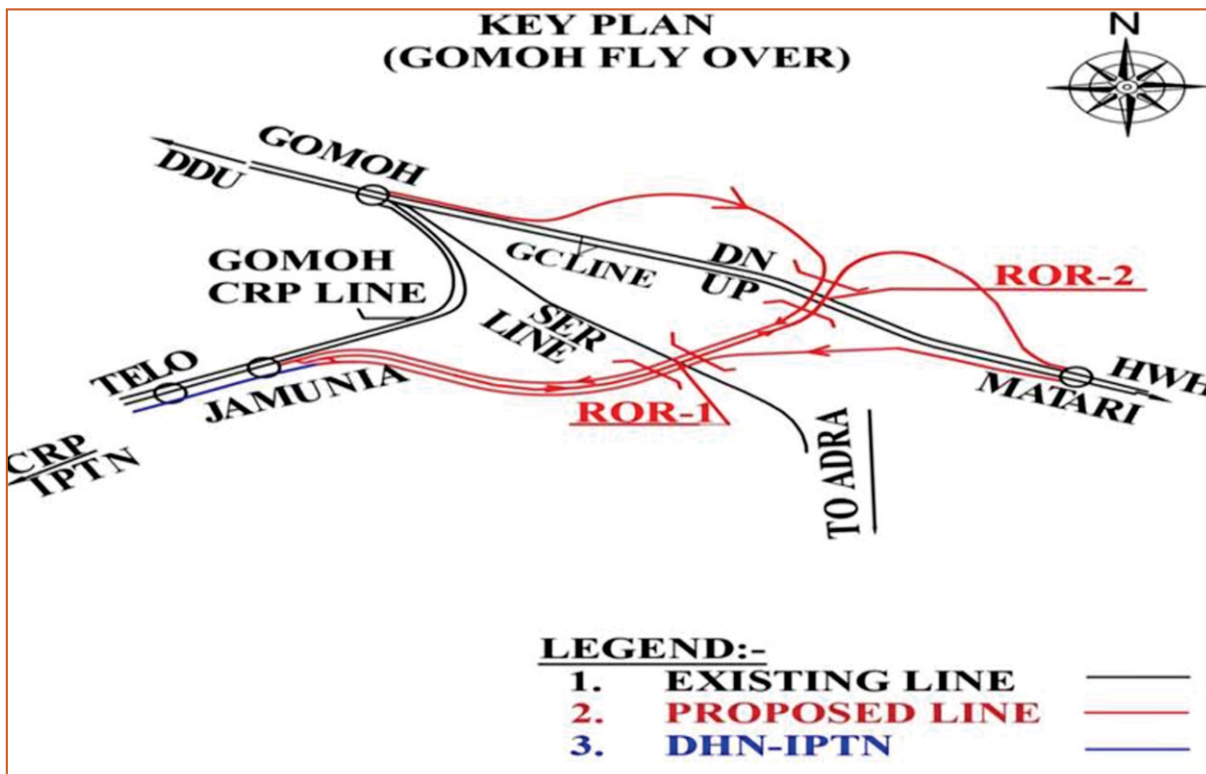
32	ECOR	Bargarh Road- Nawapara via Padampur	New Line	Odisha, CH	DPR has been prepared and under examination
33	ECR	Tori-Chatra- Kastha/Paraiya (near Gaya)	(New line)	Jharkhand, Bihar	DPR will be submitted to Rly Bd in Feb'24
34	WCR	From Gajarabahara station connecting coal mining area (Katni-Singrauli Section)	-	MP	Survey is in progress
35	SECR	Dharamjaigarh- Pathalgaon- Lohardaga	(New Double line)	CH & JH	DPR under preparation
36	SECR	Sardega Pathalgaon	(New Double line)	Odisha	DPR under preparation
37	WCR	New crossing station between Gondawali - Mahdiya in Katni - Singrauli section and new line up to Gorbi coal block	Misc	MP	Survey sanctioned for DPR preparation

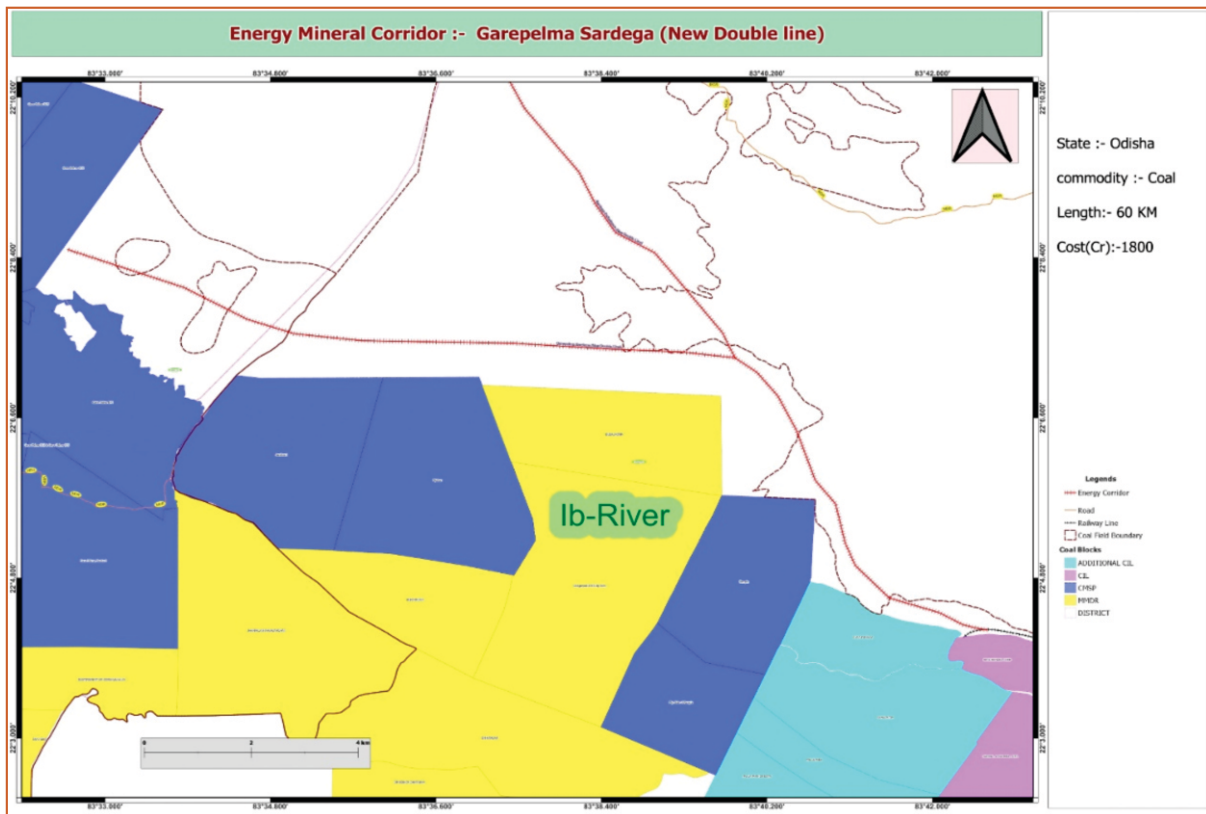
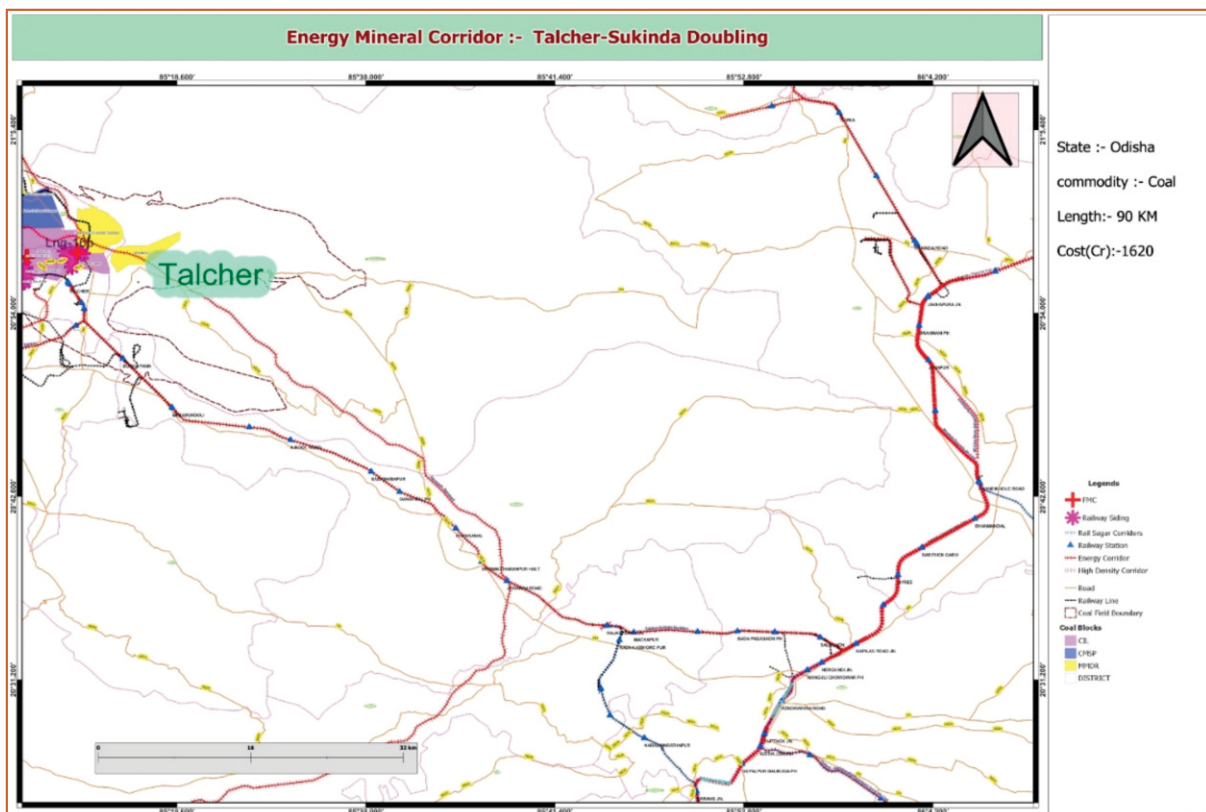
The schematic maps of only these projects are shown here under (Except S No.4*,16* and 17*)

Dhanbad-Chandrapura alternative route via Tundu-Nichitpur - New Line Track Length 28 Km, costing: 533 Crores (Sl.No. 1)

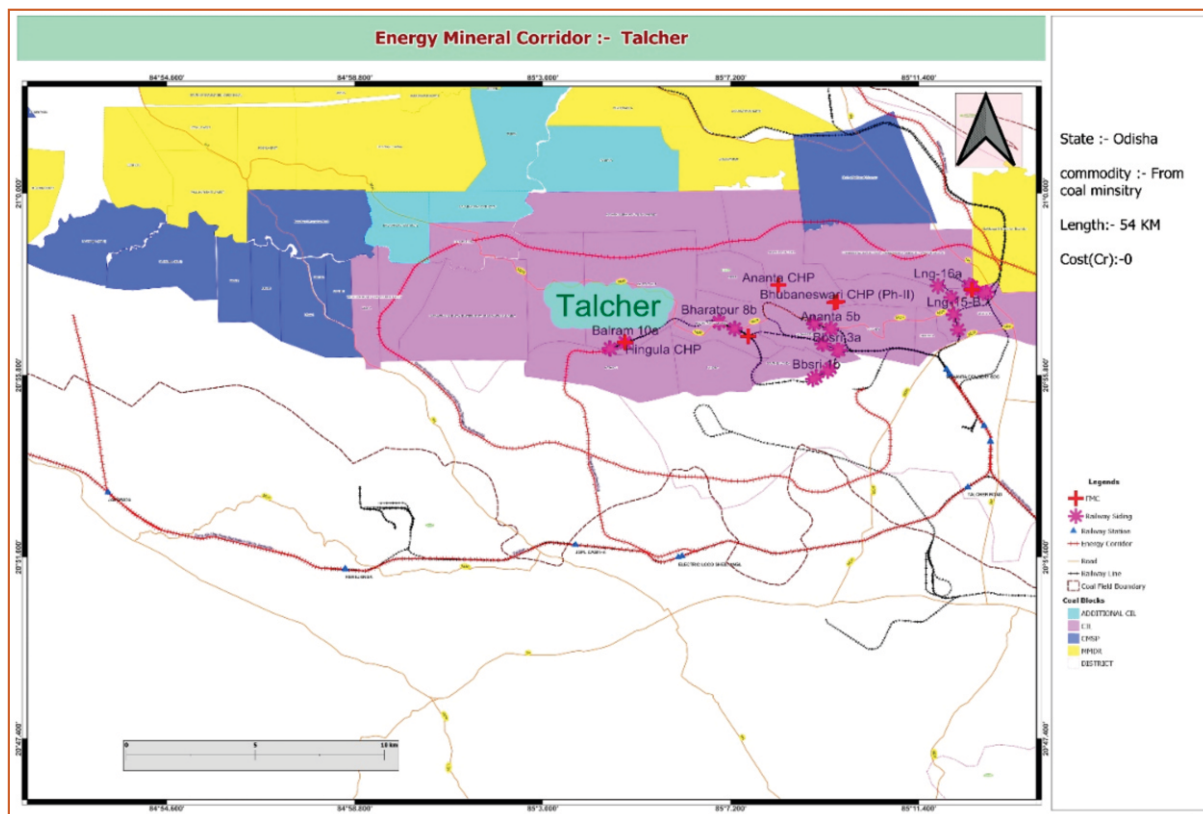


Gomoh Flyover: Track Length 22 Km, costing: 488 crores (Sl.No. 2)

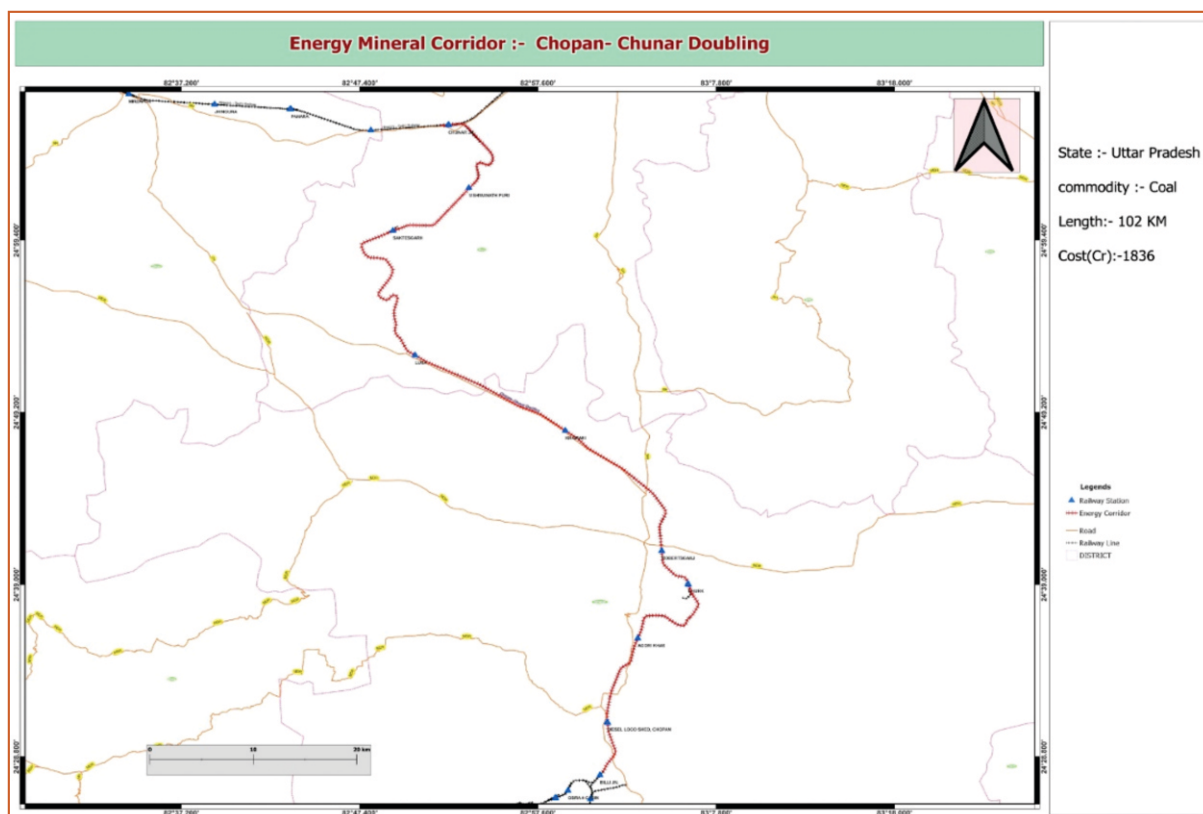


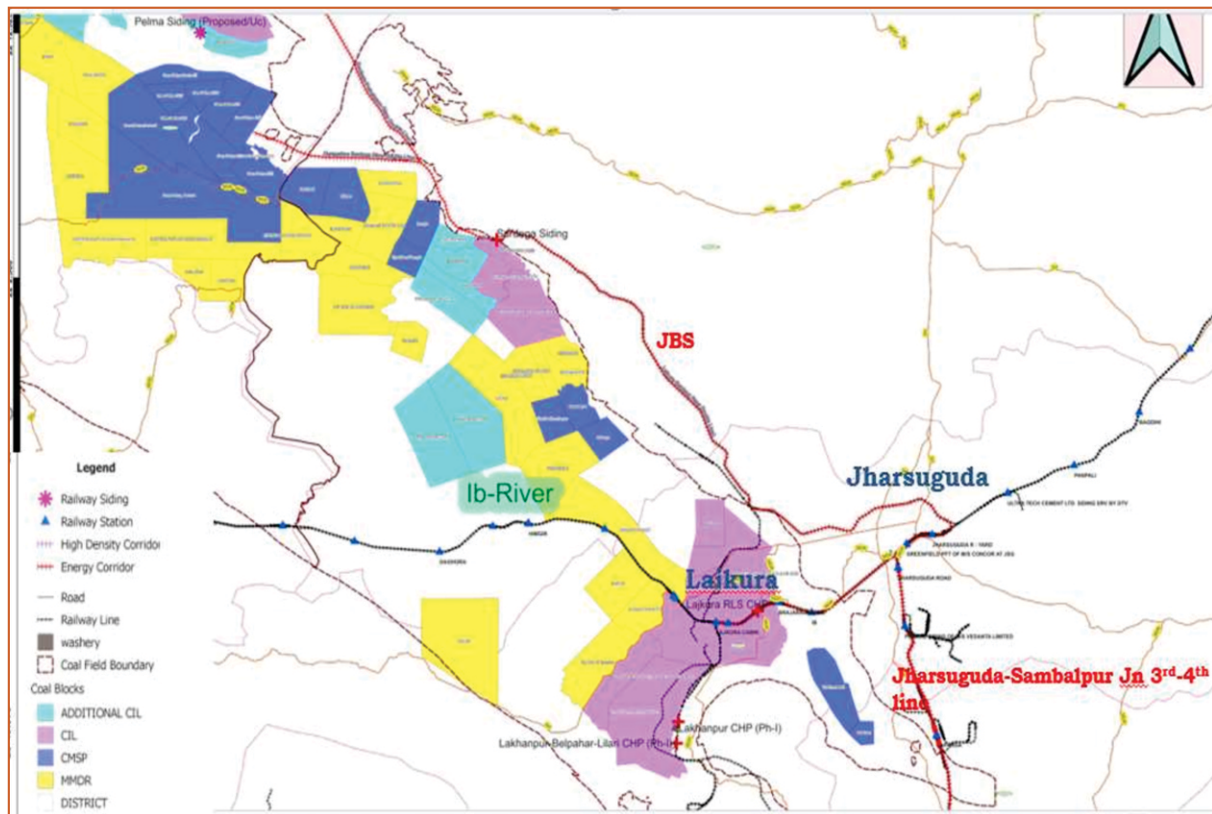
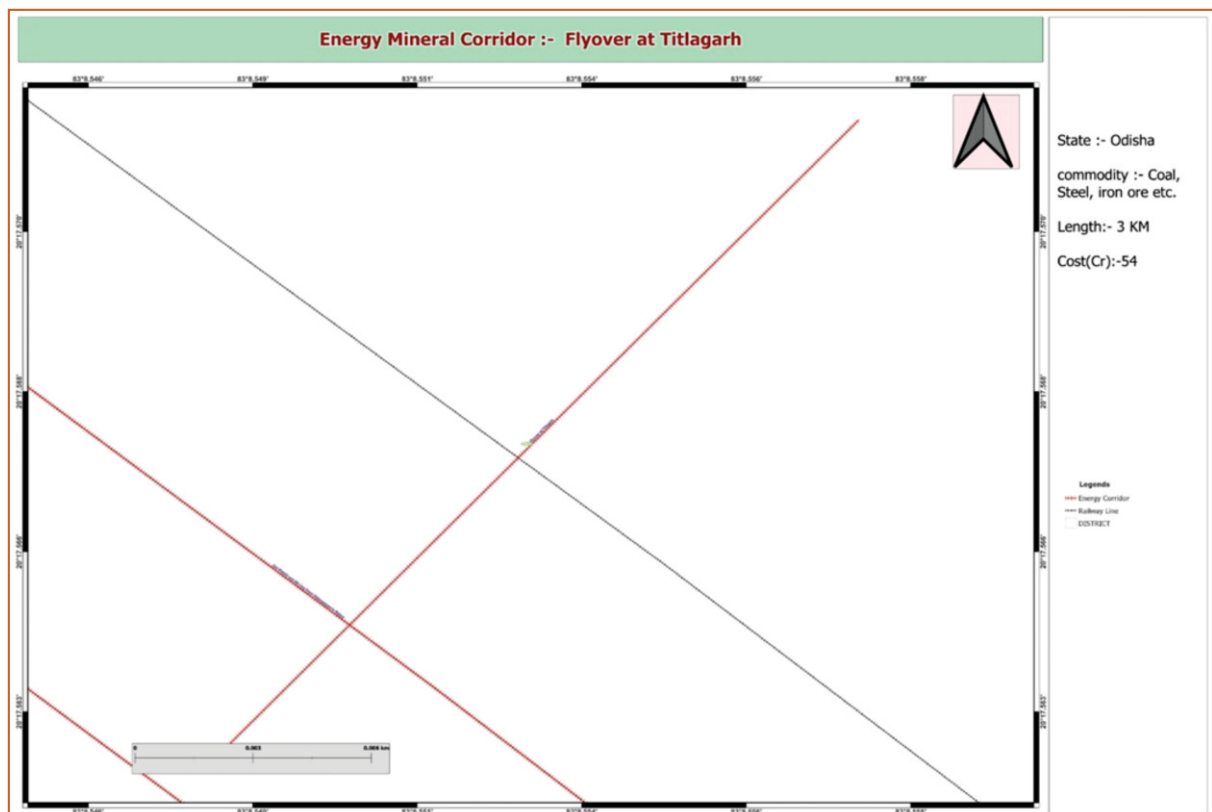
Gare Pelma- Sardega- New Line Track Length 60 Km, costing: 1800 crores (Sl.No. 3)

Talcher-Sukinda Doubling Track Length 90 Km, costing: 1620 crores (Sl.No. 5)


Inner Corridor Phase-I of Talcher coalfield-Angul Balram Doubling (Sl.No. 6)

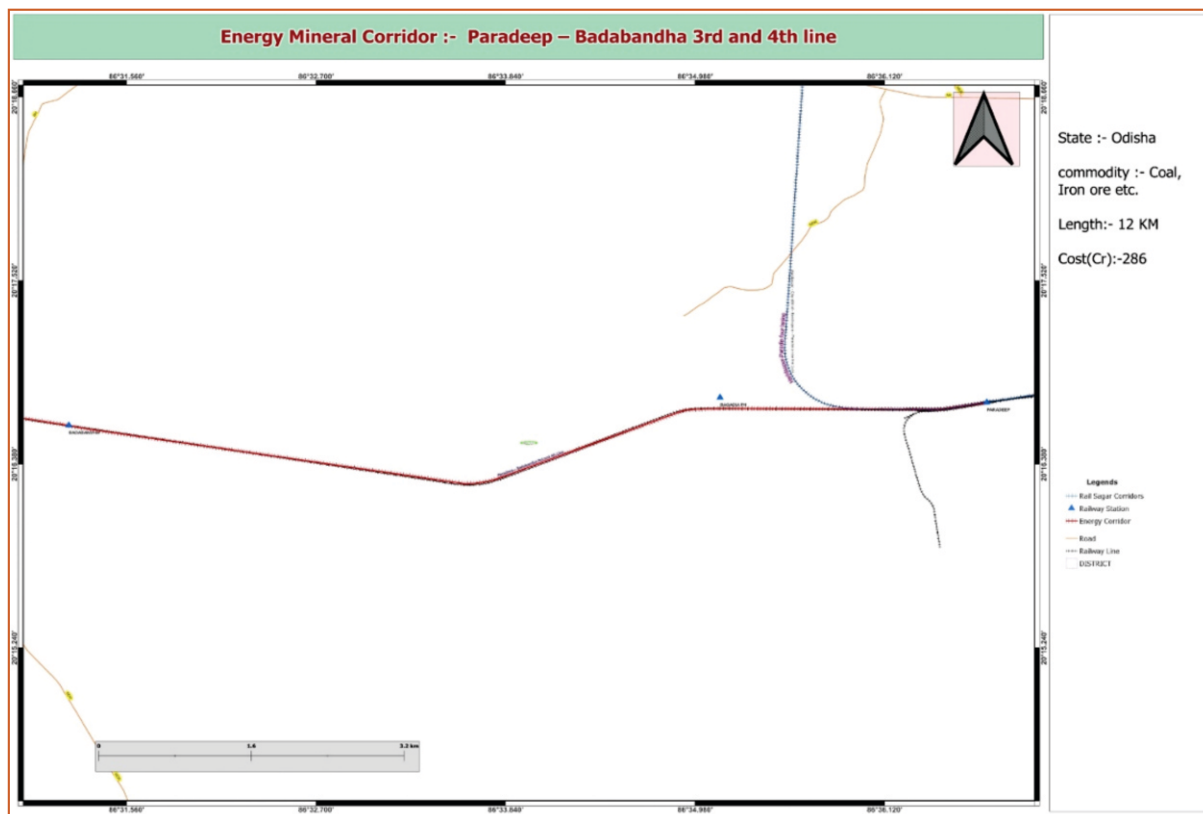


Chopan-Chunar Doubling (Sl.No. 7)

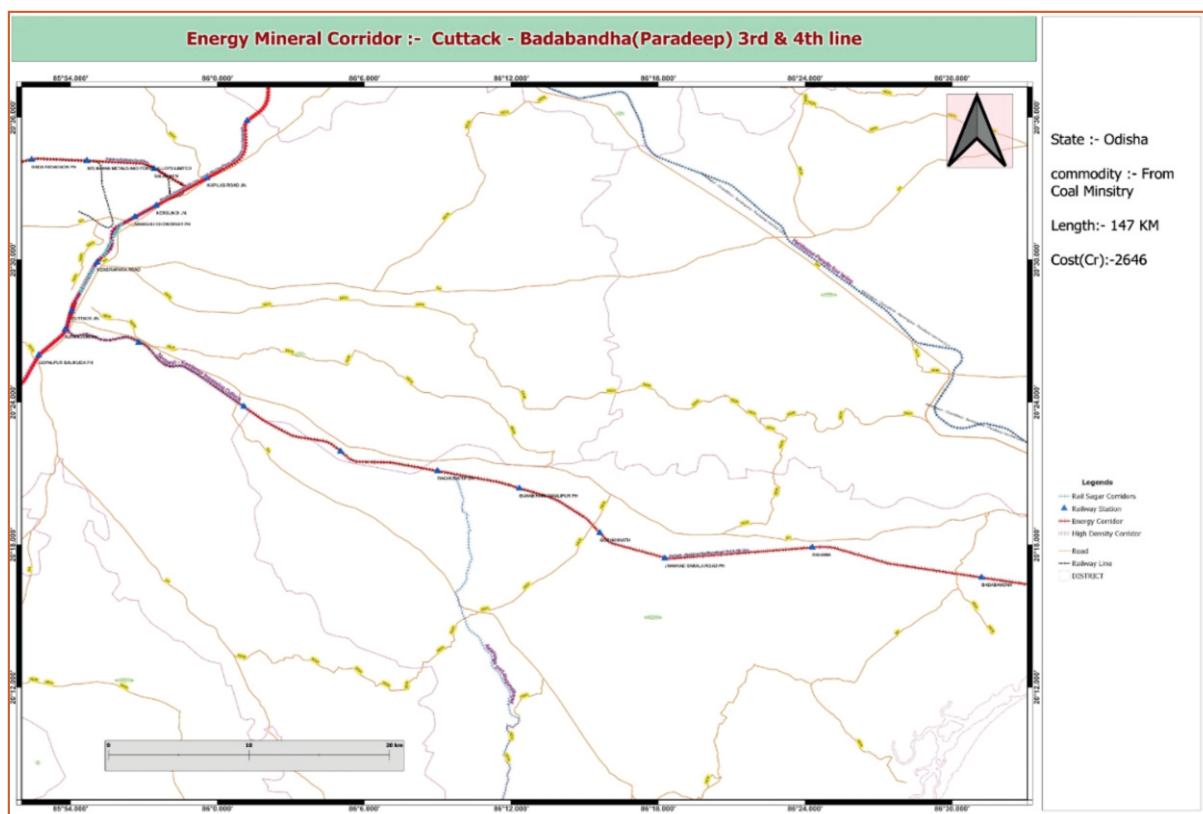


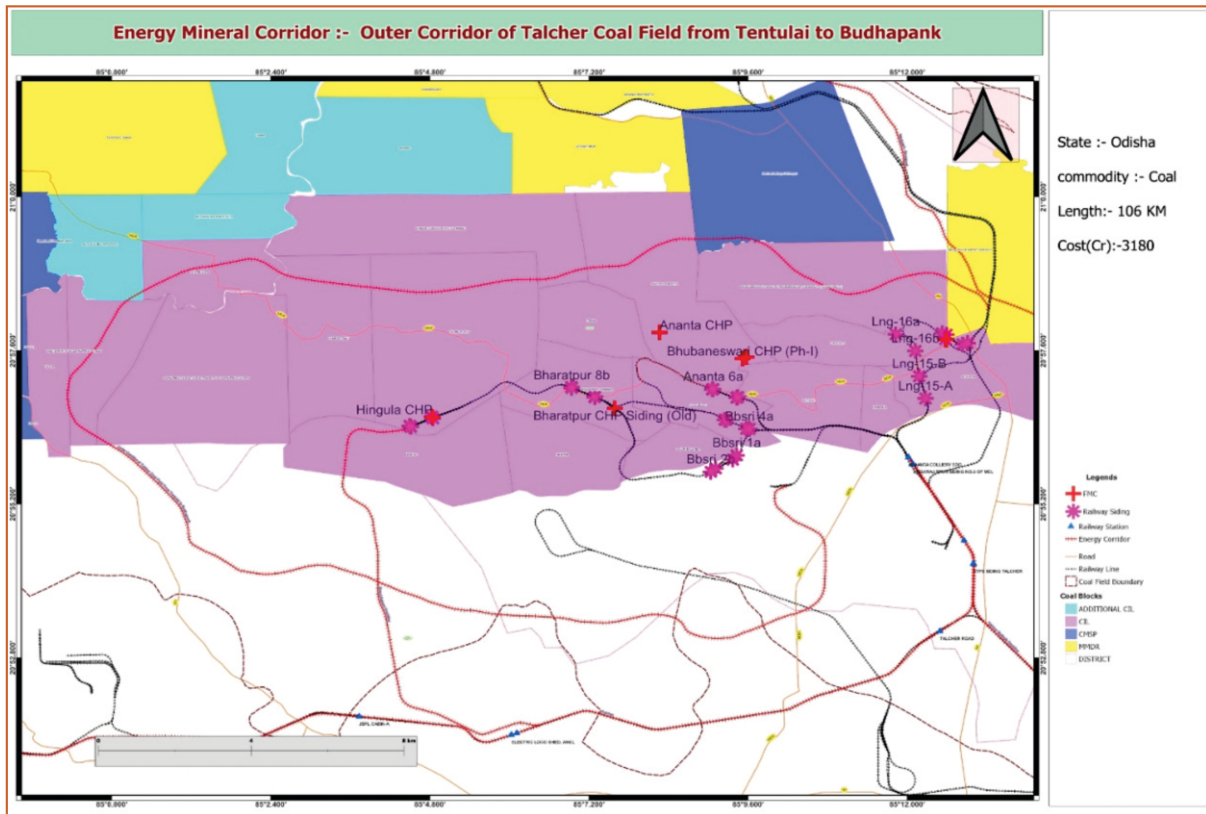
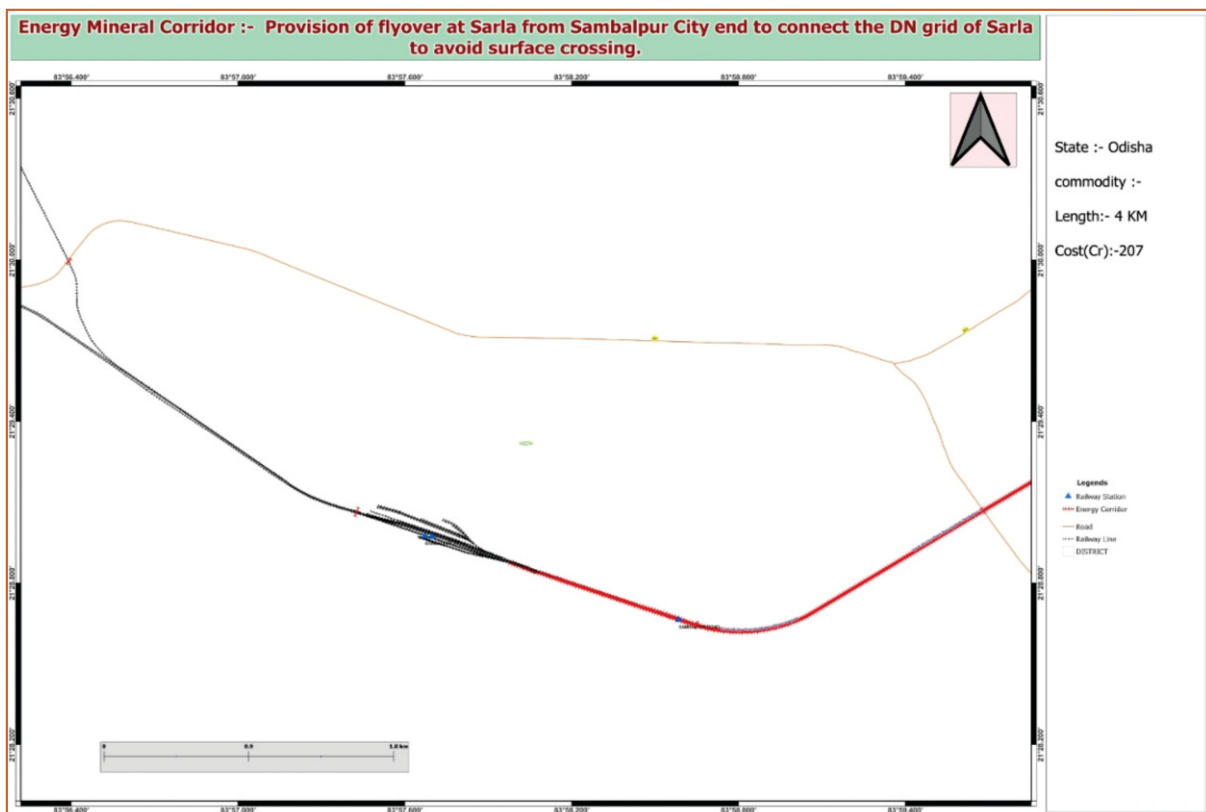
Jharsuguda to Sambalpur Jn (Sl.No. 8)

Flyover at Titlagarh Track length: 3 km, Costing: 54 Crores (Sl.No. 9)


Paradeep – Badabandha (Sl.No. 10)

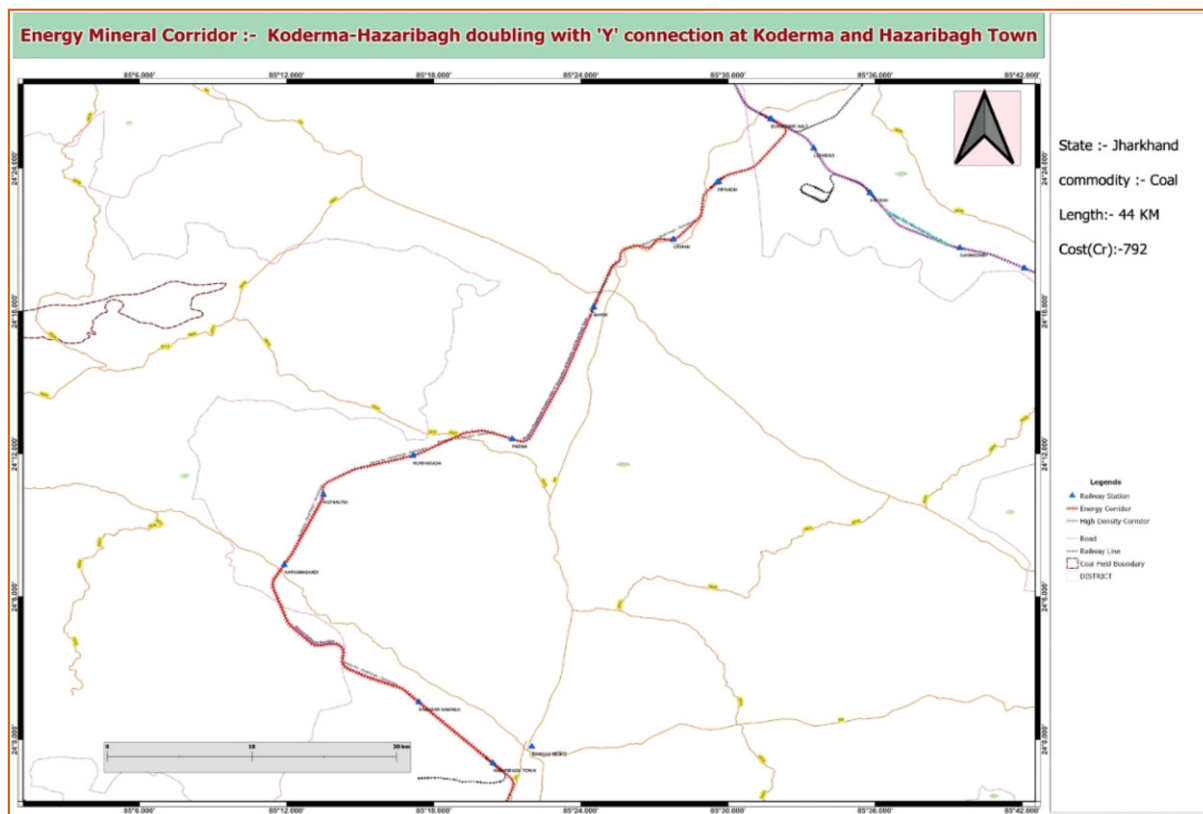


Cuttack – Badabandha (Paradeep) (Sl.No. 11)

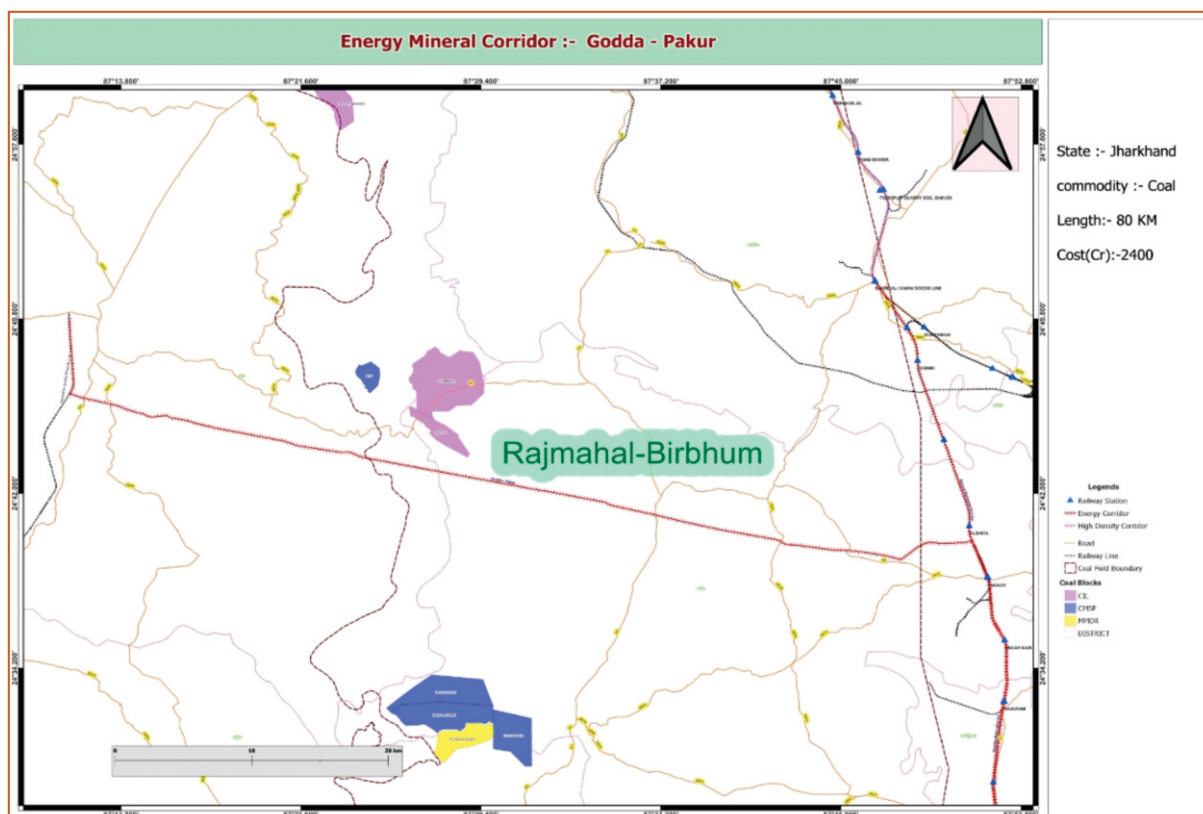


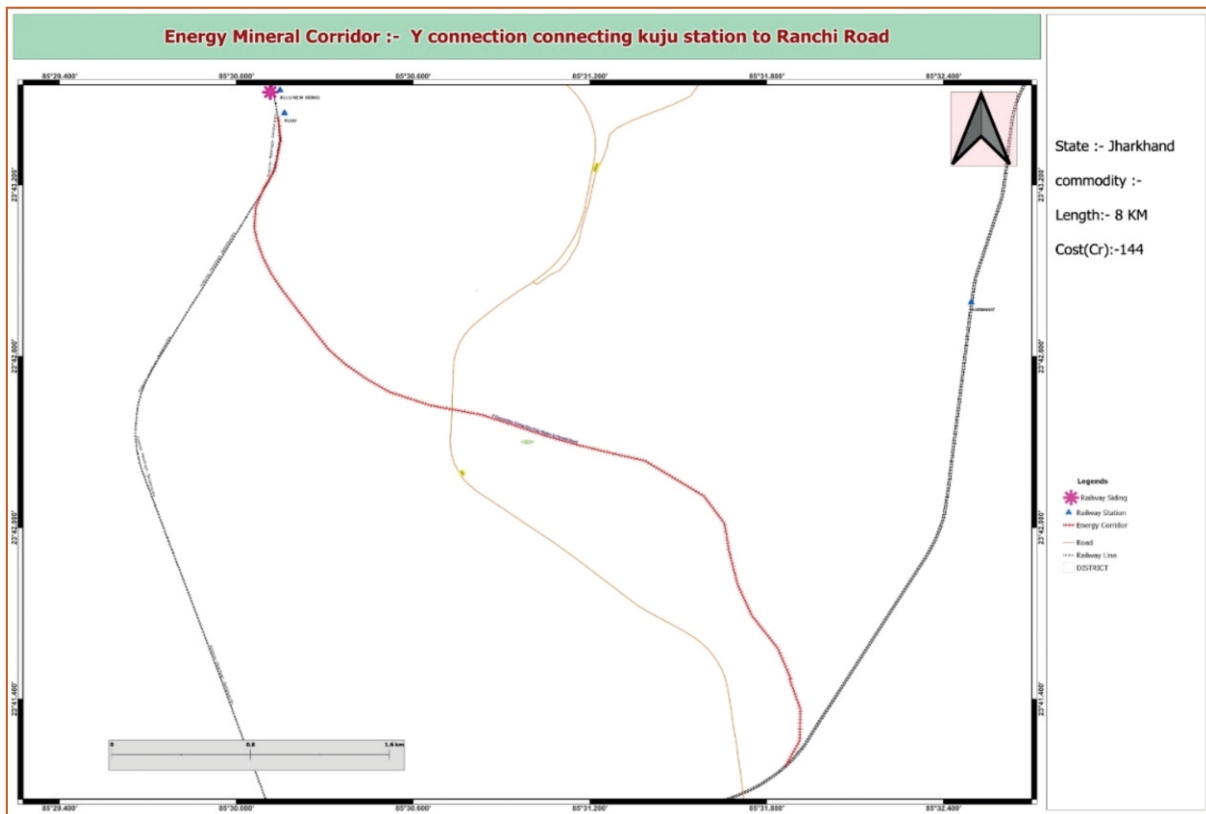
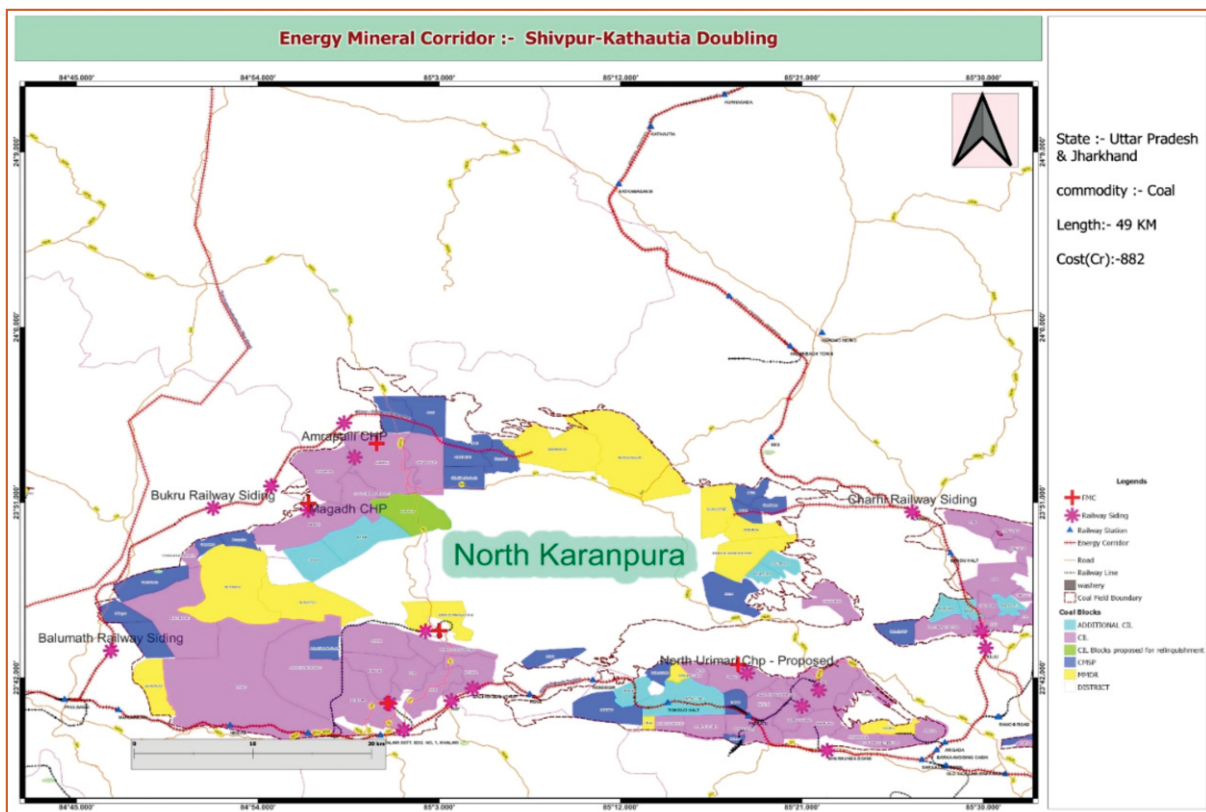
Outer Corridor of Talcher coal Field from Tentulai to Budhapank (Sl.No. 12)

Provision of flyover at Sarla from Sambalpur City end to connect the DN grid of Sarla to avoid surface crossing (Sl.No. 13)


Koderma-Hazariabagh and Y connection at Koderma and Hazaribagh (Sl.No. 14)

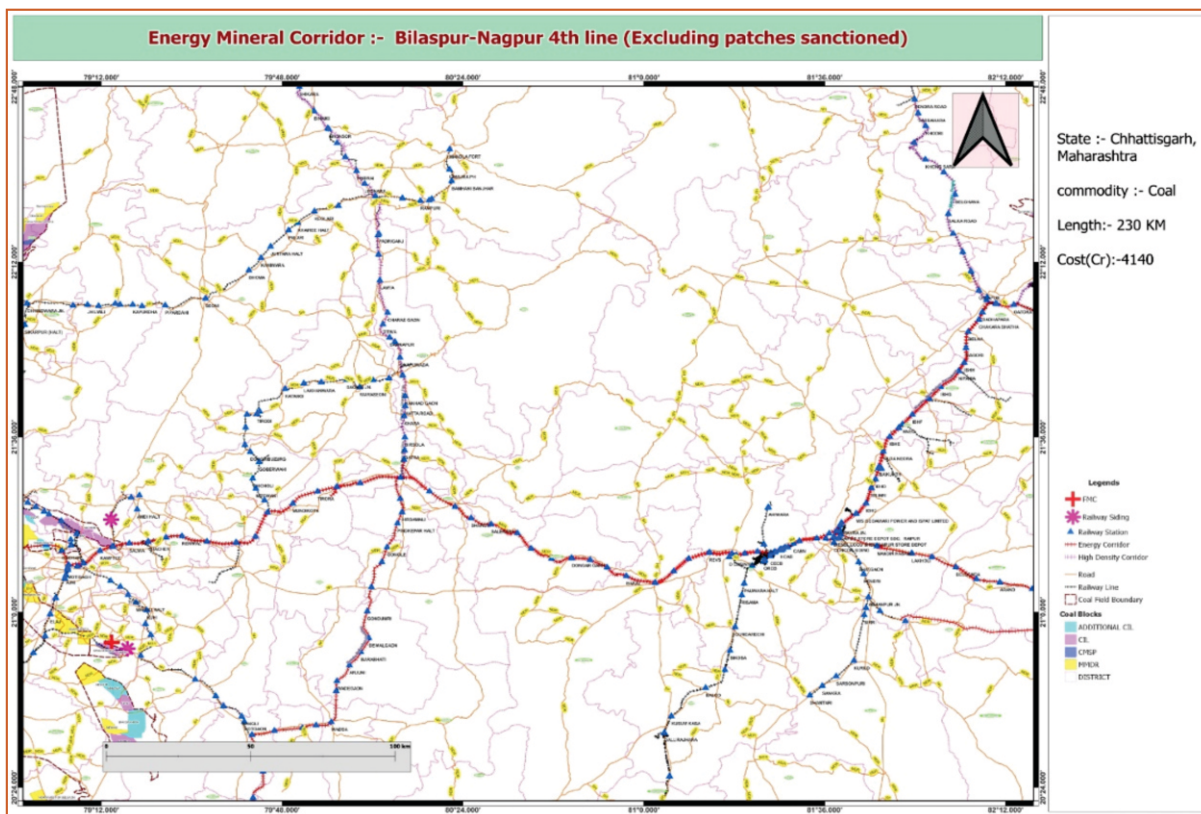


Godda - Pakur (Sl.No. 15)

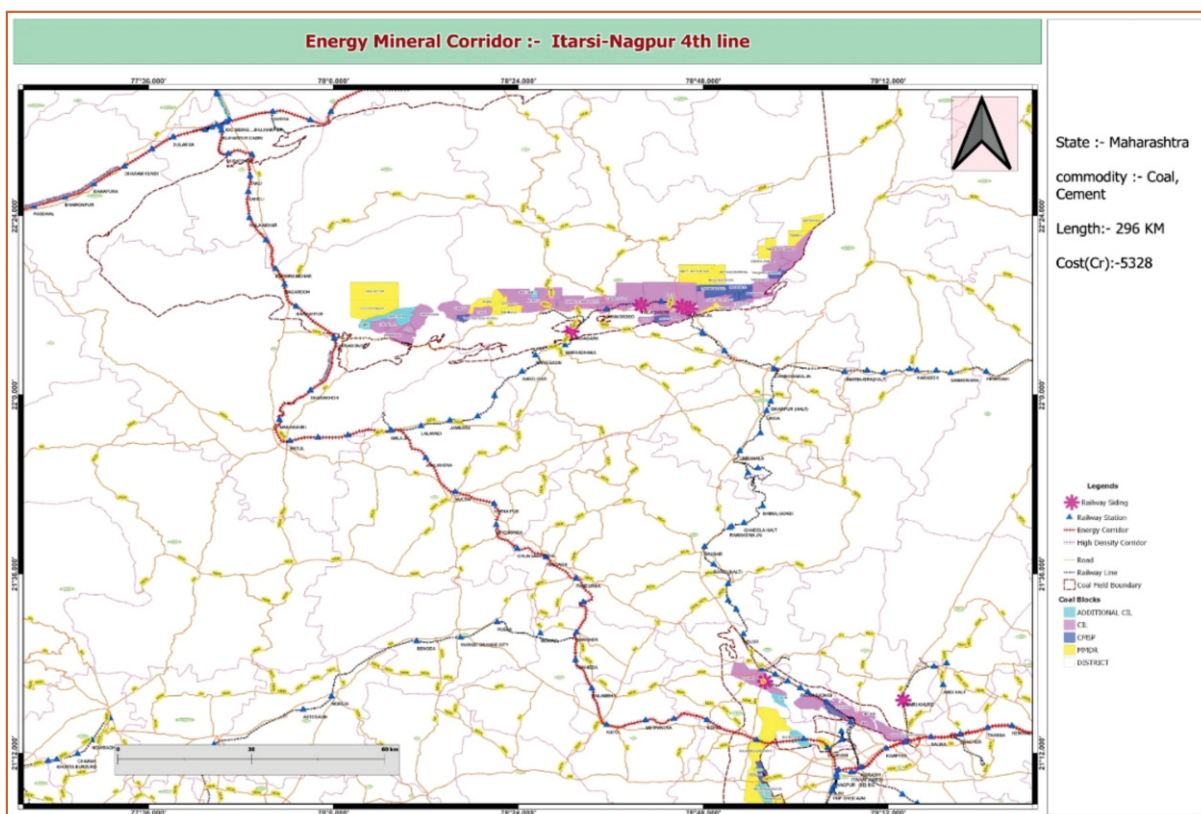


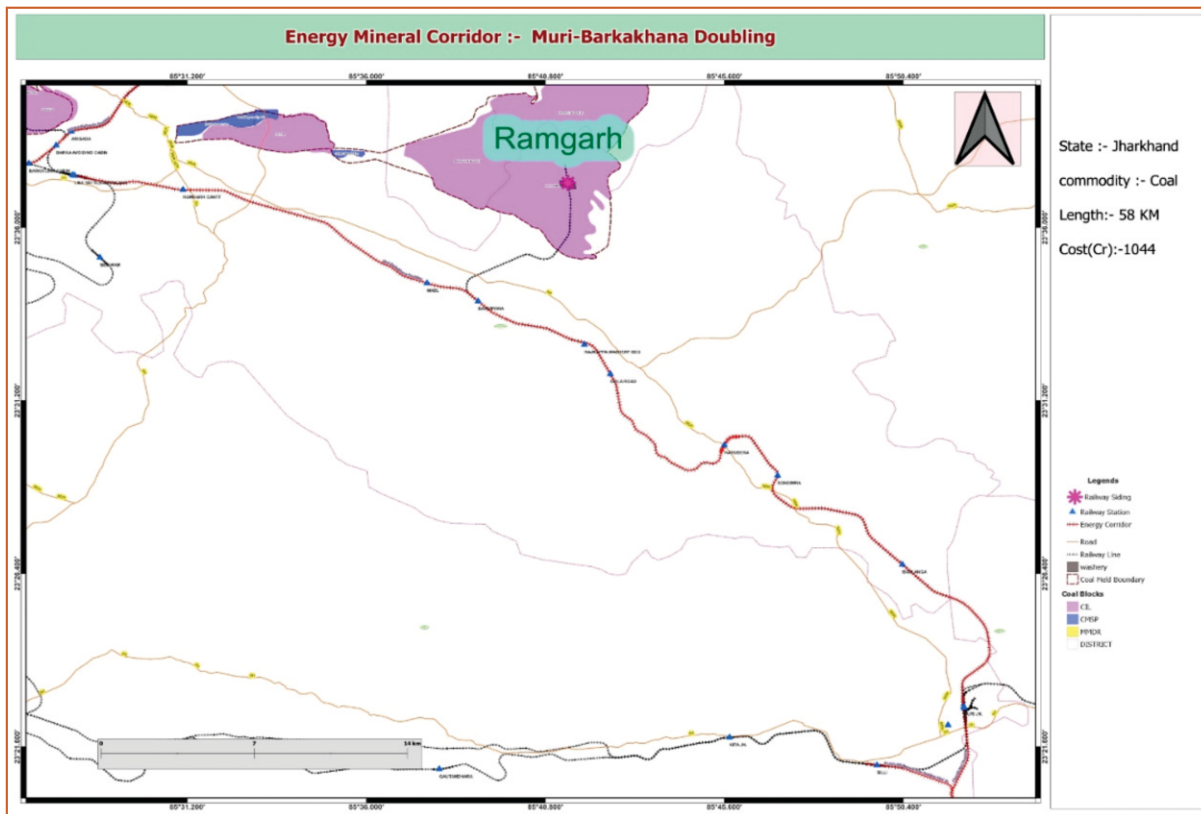
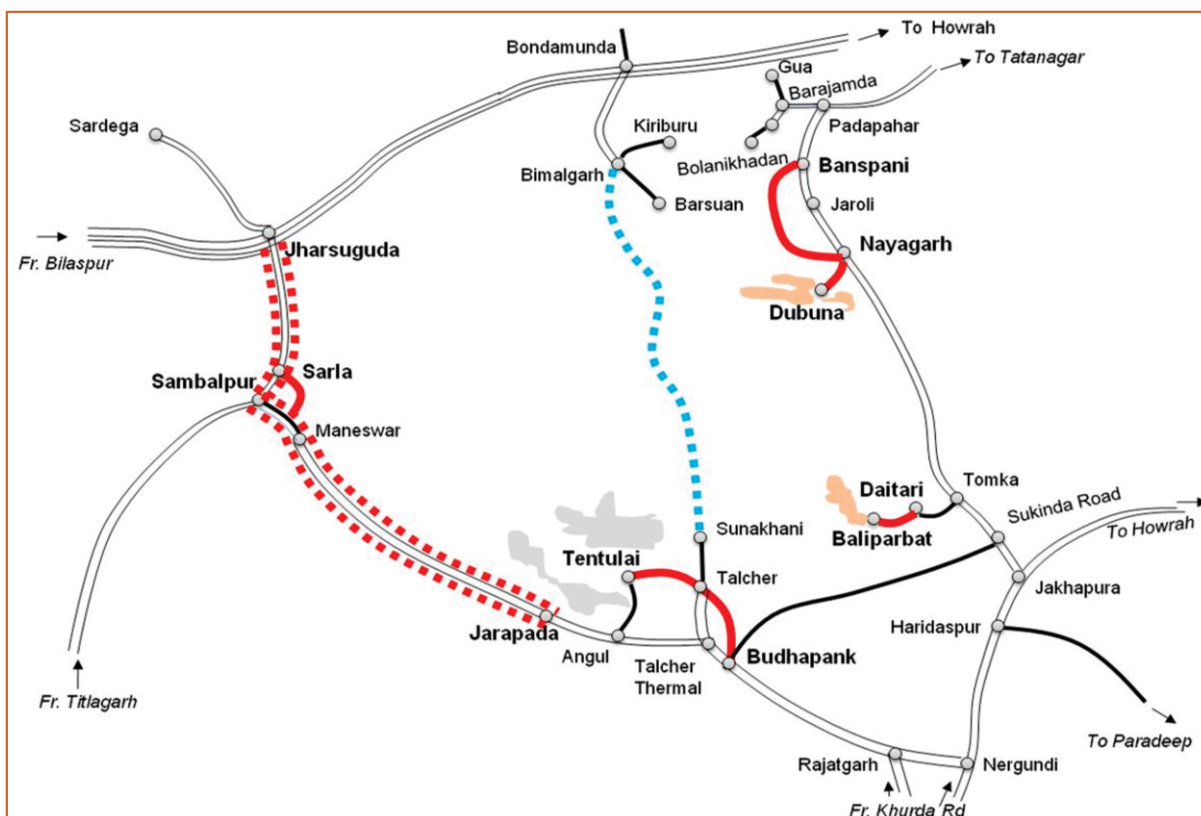
Y connection connecting Kuju station to Ranchi Road (Sl.No. 18)

Shivpur-Kathautia (Sl.No. 19)


Bilaspur-Nagpur 4th line (Sl.No. 20)

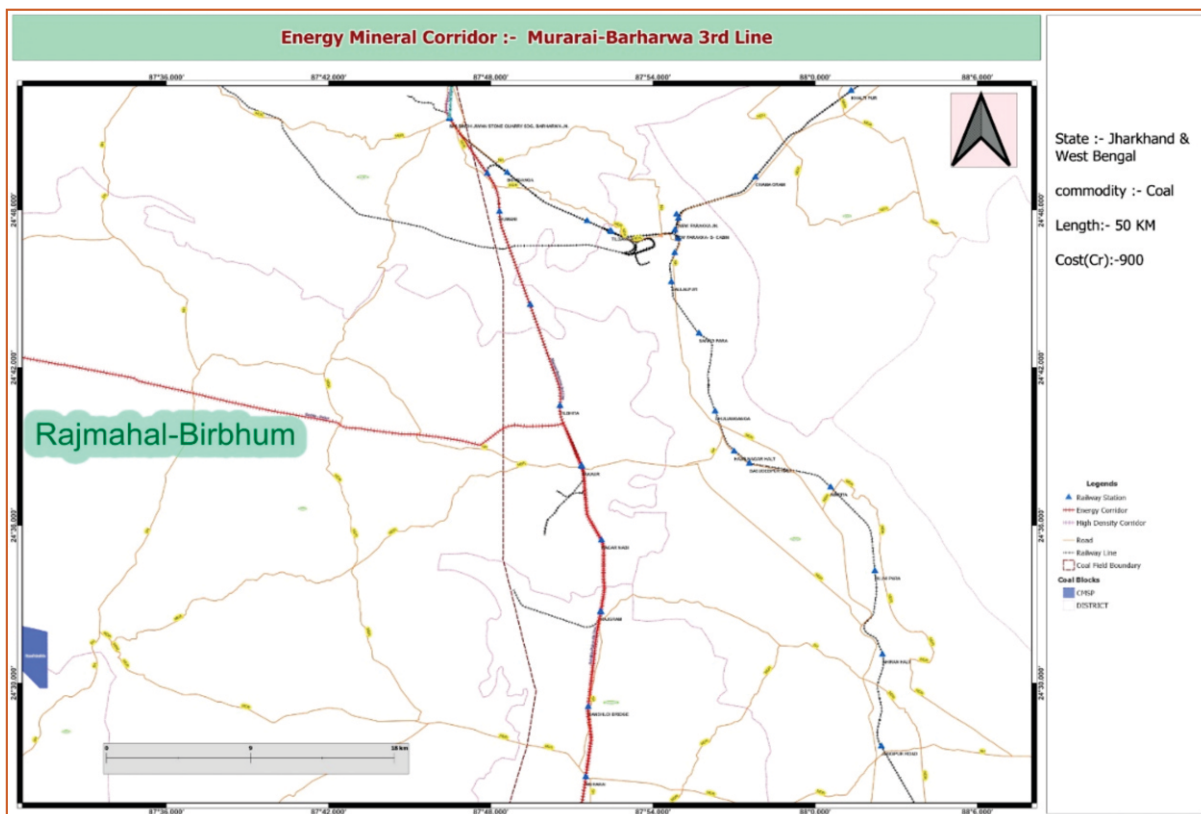


Itarsi- Nagpur 4th line (Sl.No. 21)

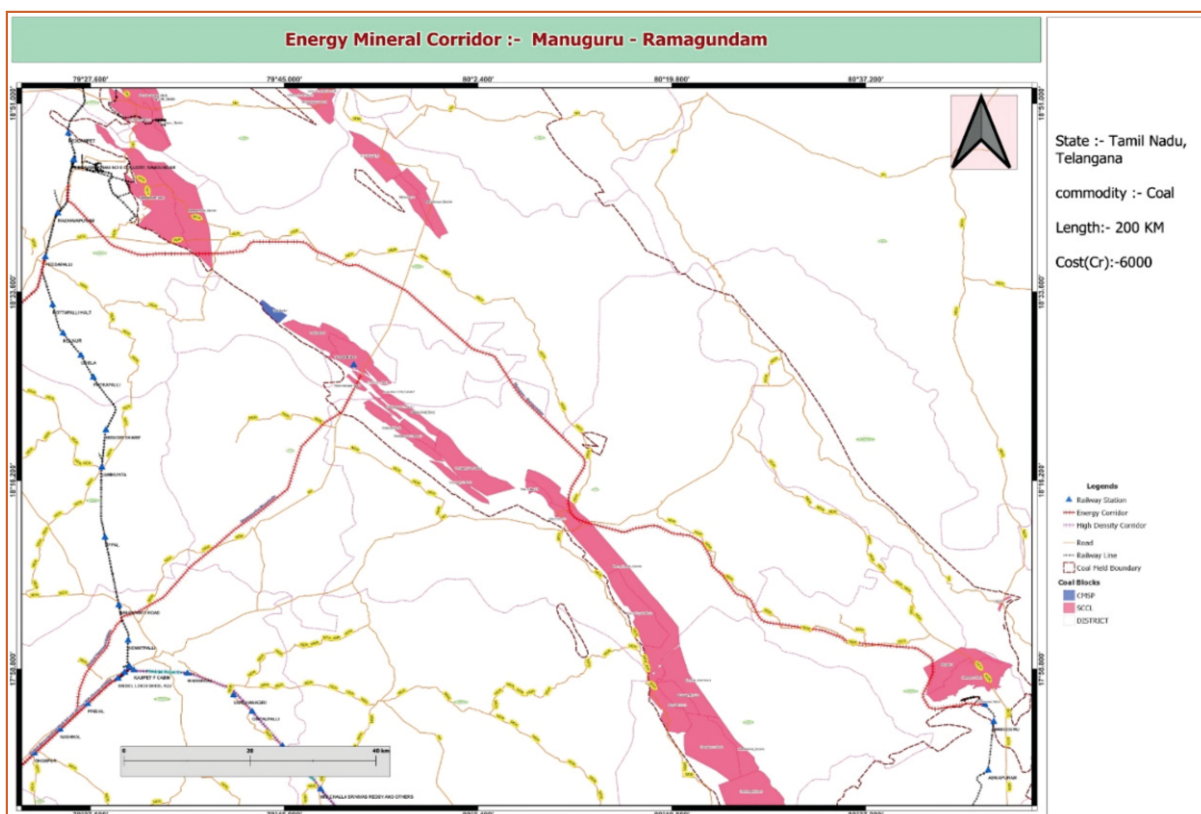


Muri-Barkakhana (Sl.No. 22)

Sambalpur city - Jarapada (Sl.No. 23)


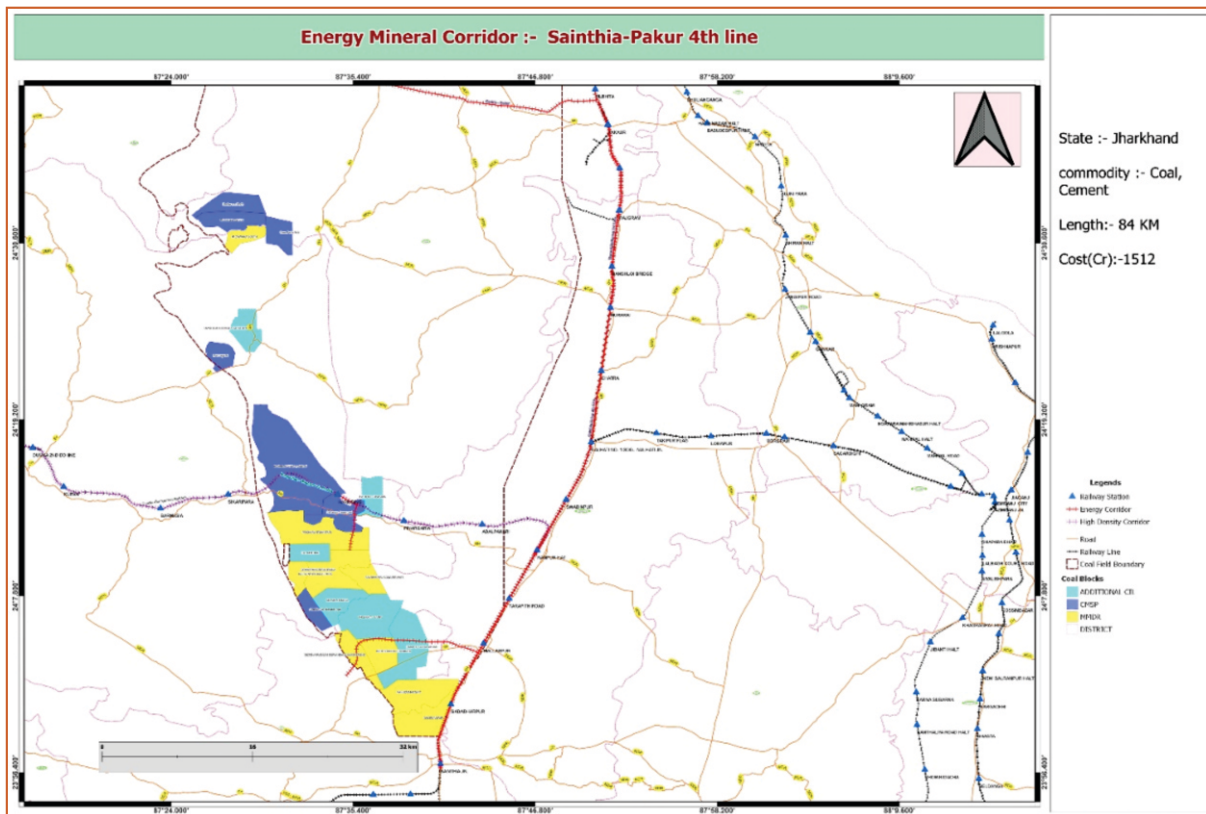
Mururai-Barharwa 3rd line (Sl.No. 24)



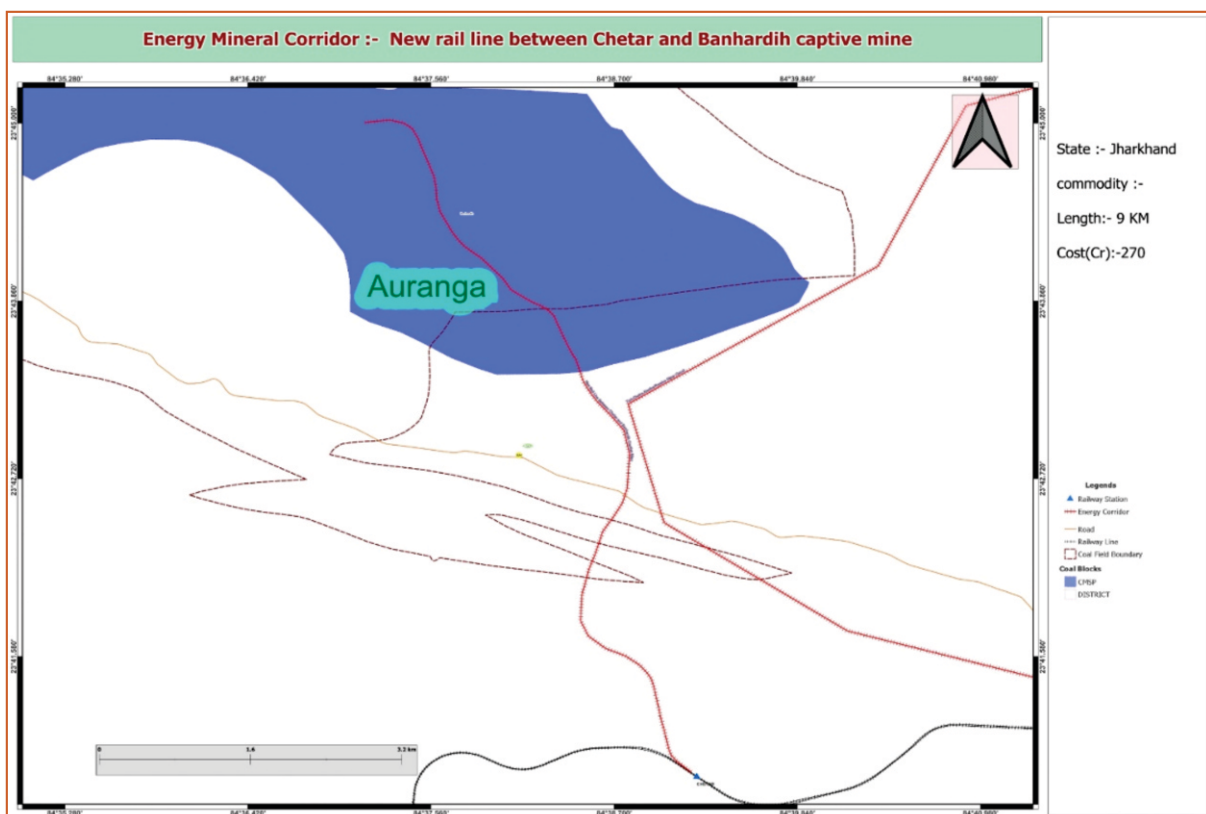
Manuguru-Ramagundam (Sl.No. 25)



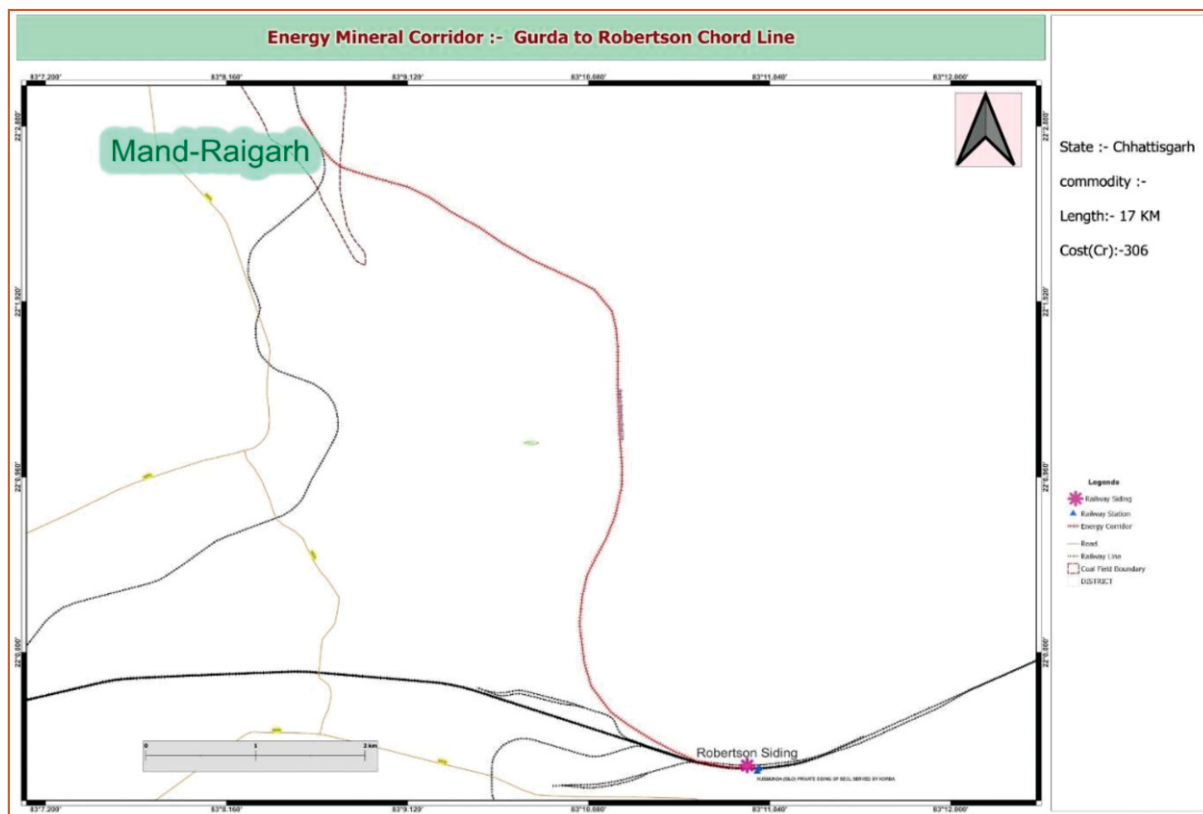
Sainthia-Pakur 4th line (Sl.No. 26)



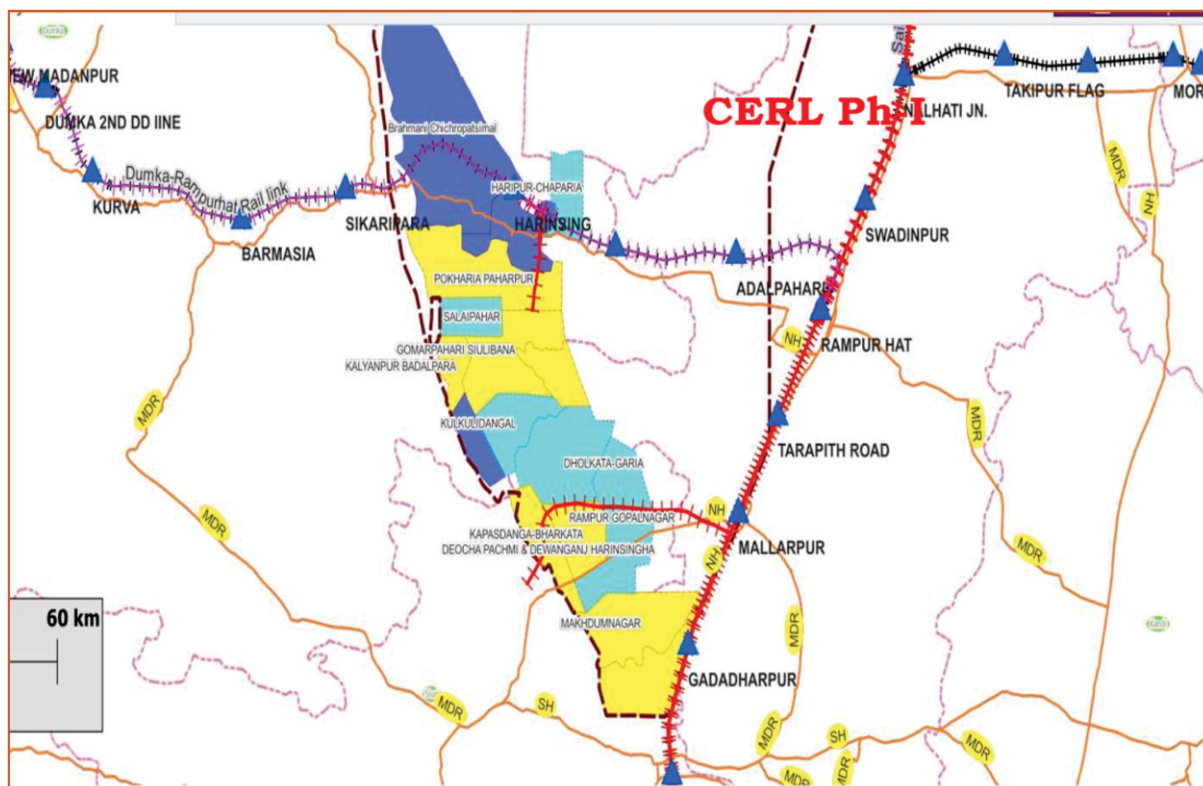
New rail line between Chetar and Banhardih captive mine (Sl.No. 27)

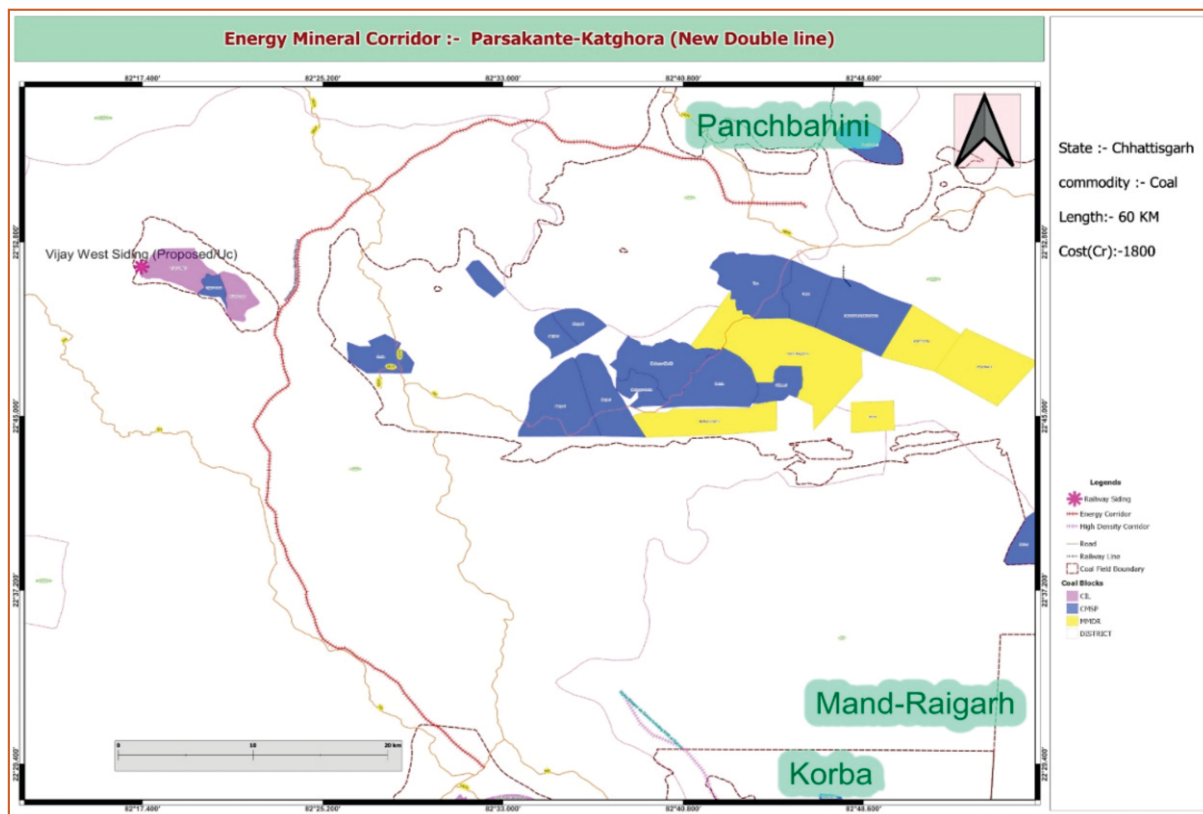
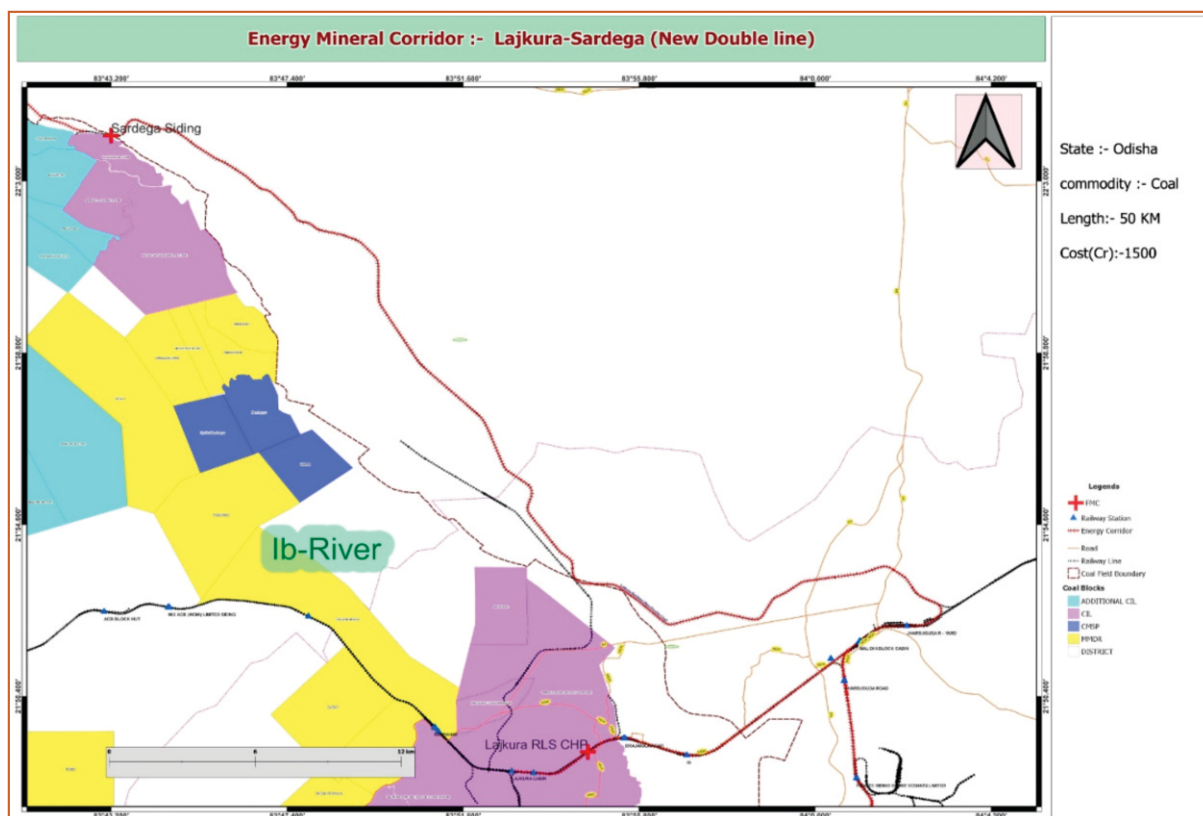


Gurda to Robertson Chord Line (Sl.No. 28)

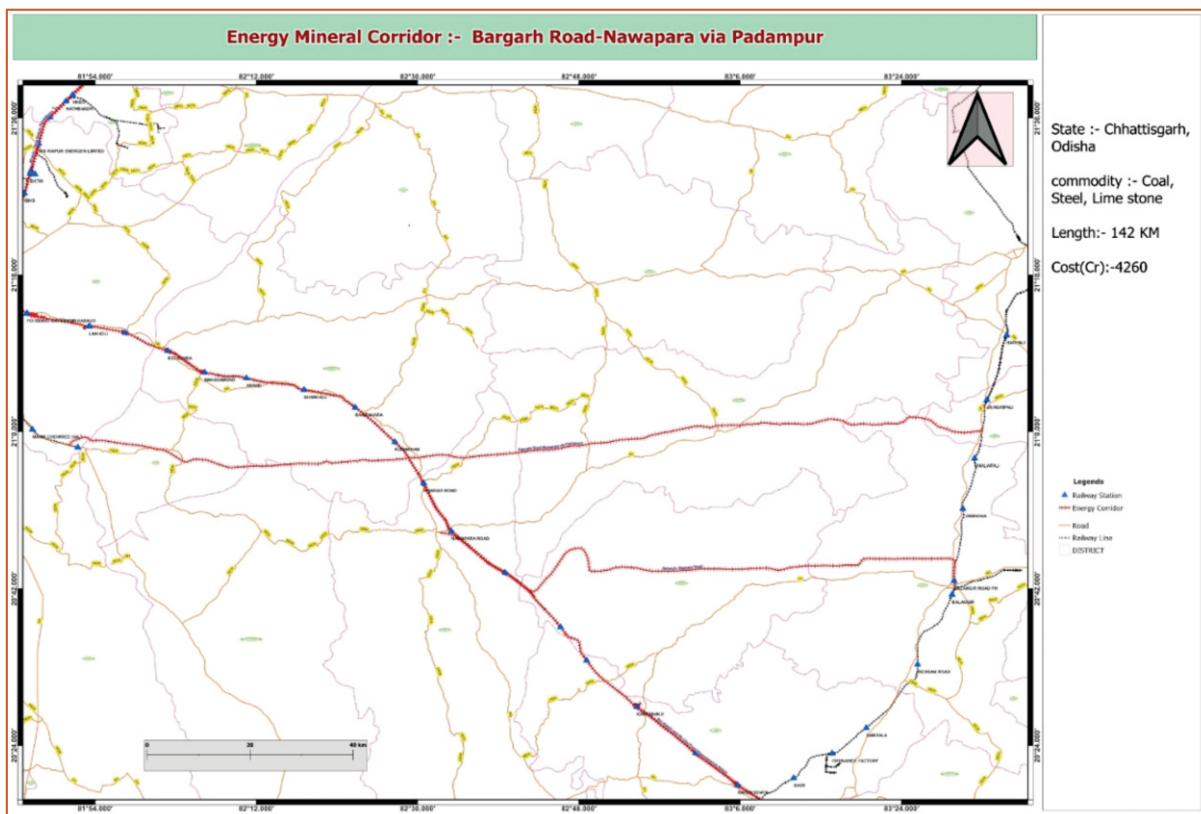


New line from Deocha -Pachami coal mine in Birbhum district of West Bengal to Mallarpur station (Sl.No. 29)

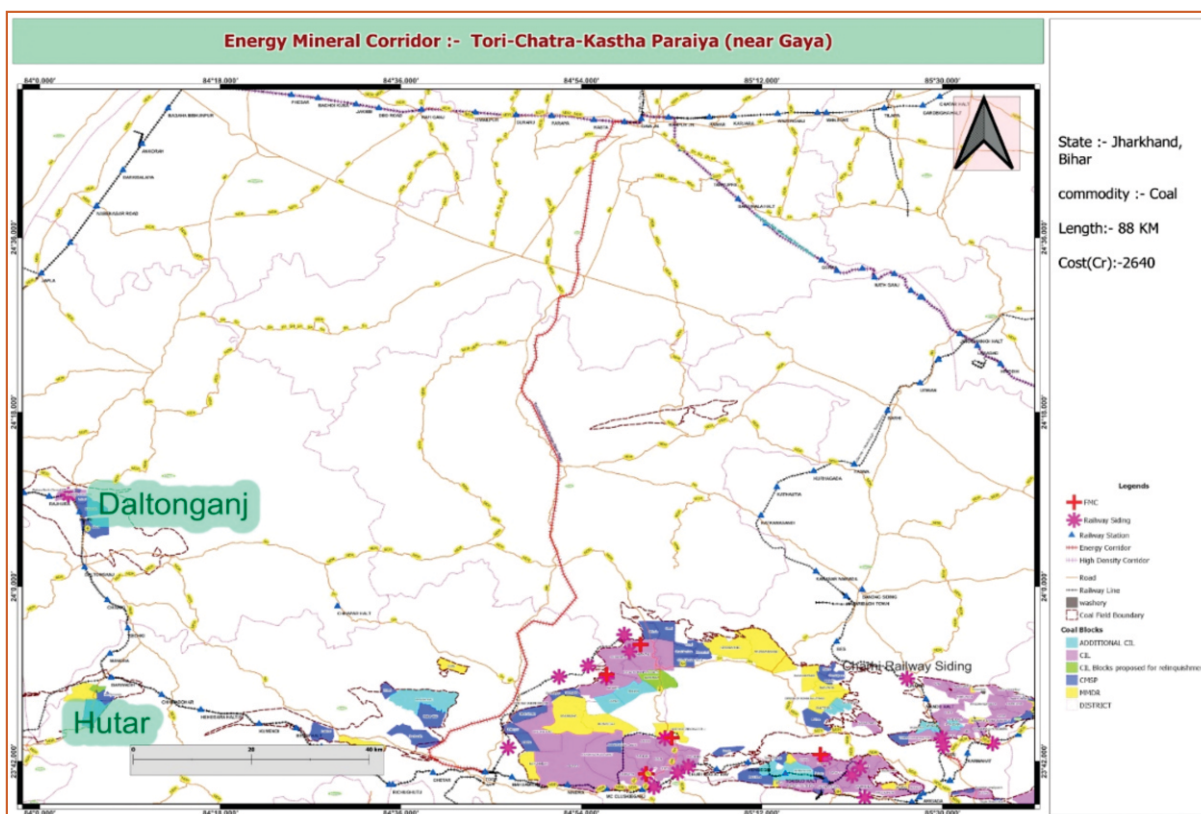


Parsakante - Katghora (Sl.No. 30)

Lajkura-Sardega New Double line (Sl.No. 31)


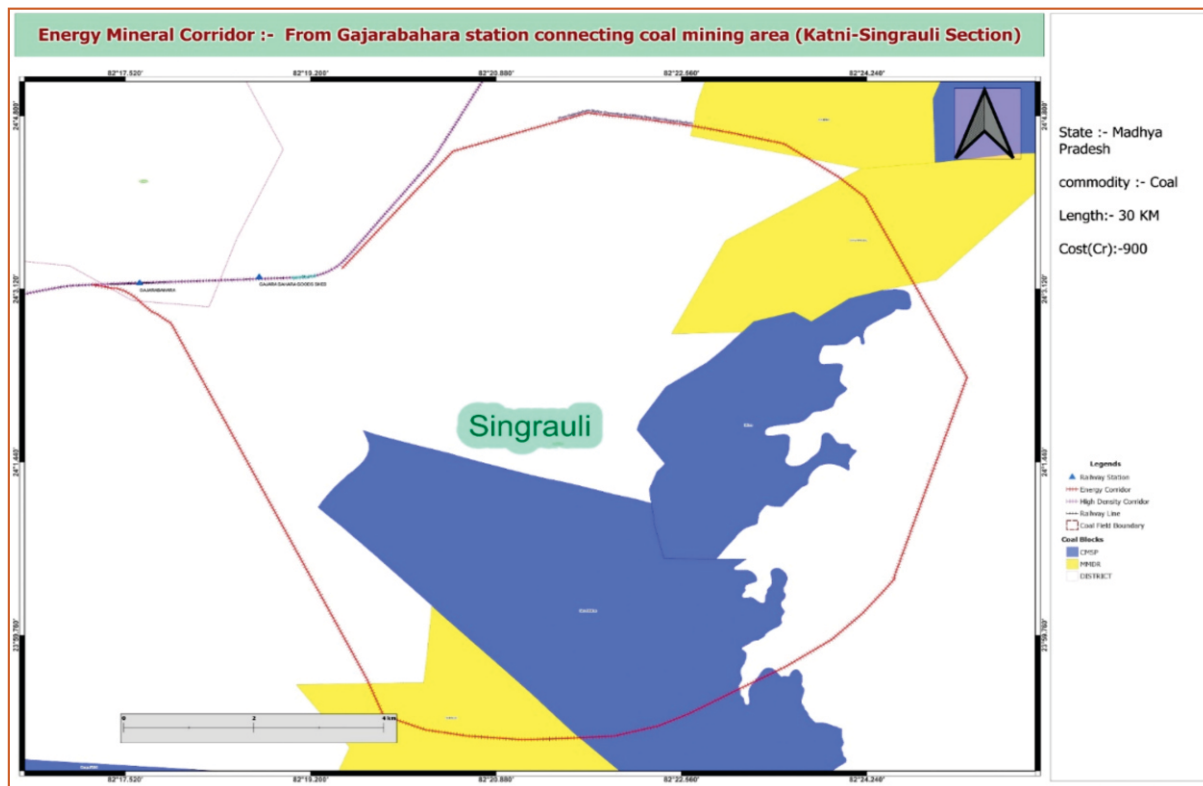
Bargarh Road –Nawapara via Padmapur (Sl.No. 32)



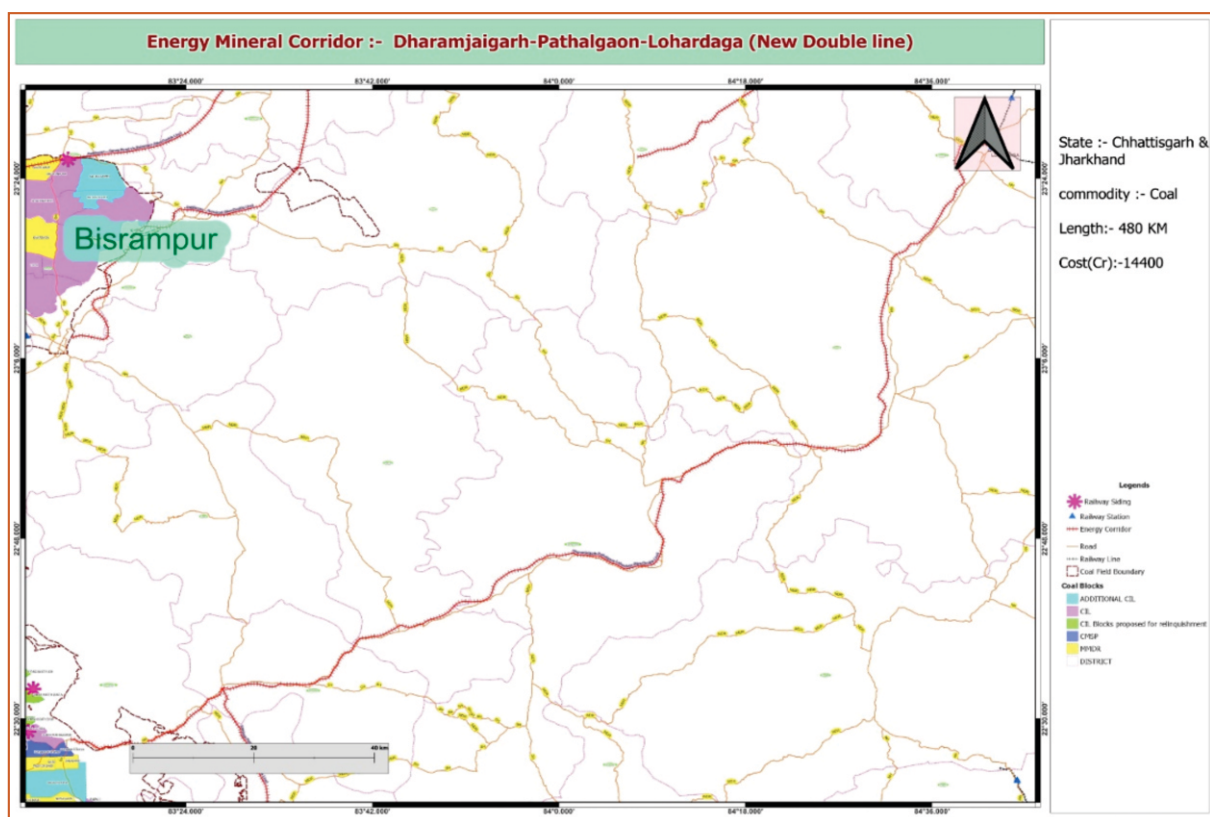
Tori-Chatra-Kastha/Paraiya (near Gaya) Track: 88, Costing: 2640cr. (Sl.No. 33)



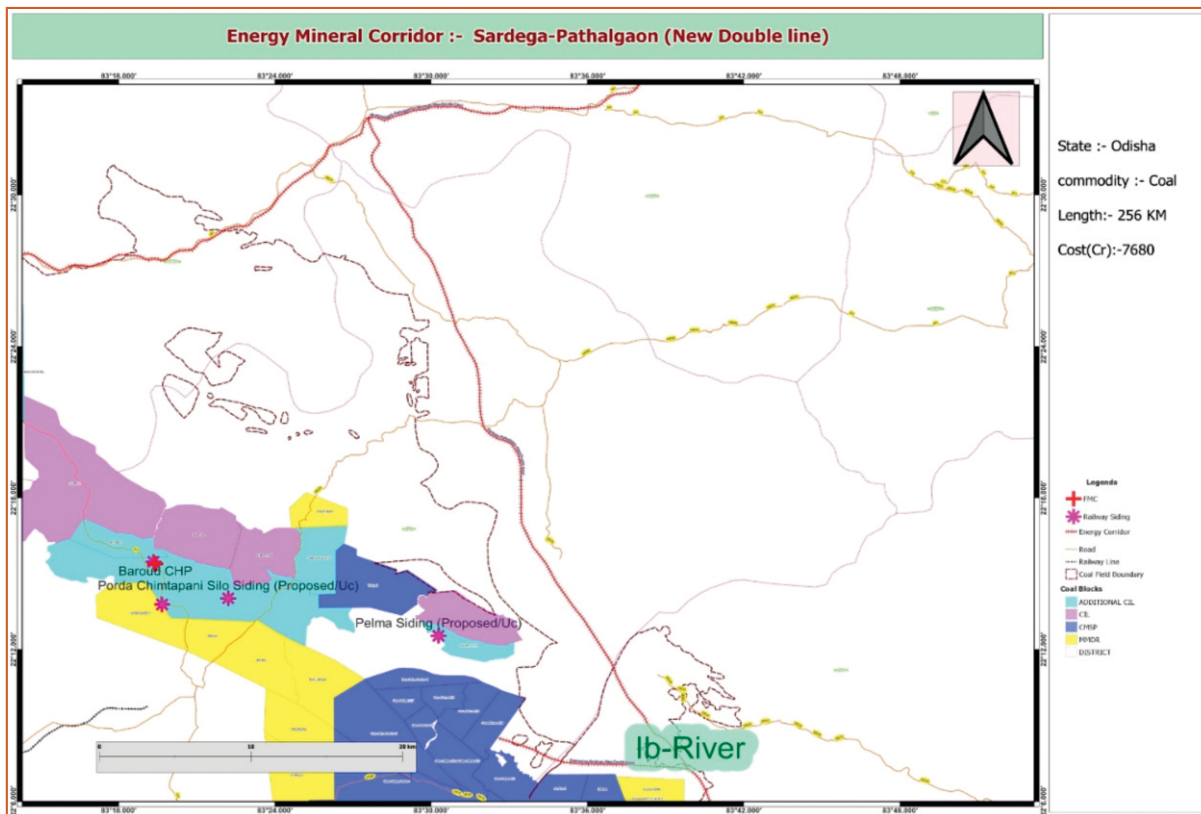
From Gajarabahara station connecting coal mining area (Katni-Singrauli Section)
Track: 30, Costing: 900cr. (Sl.No. 34)



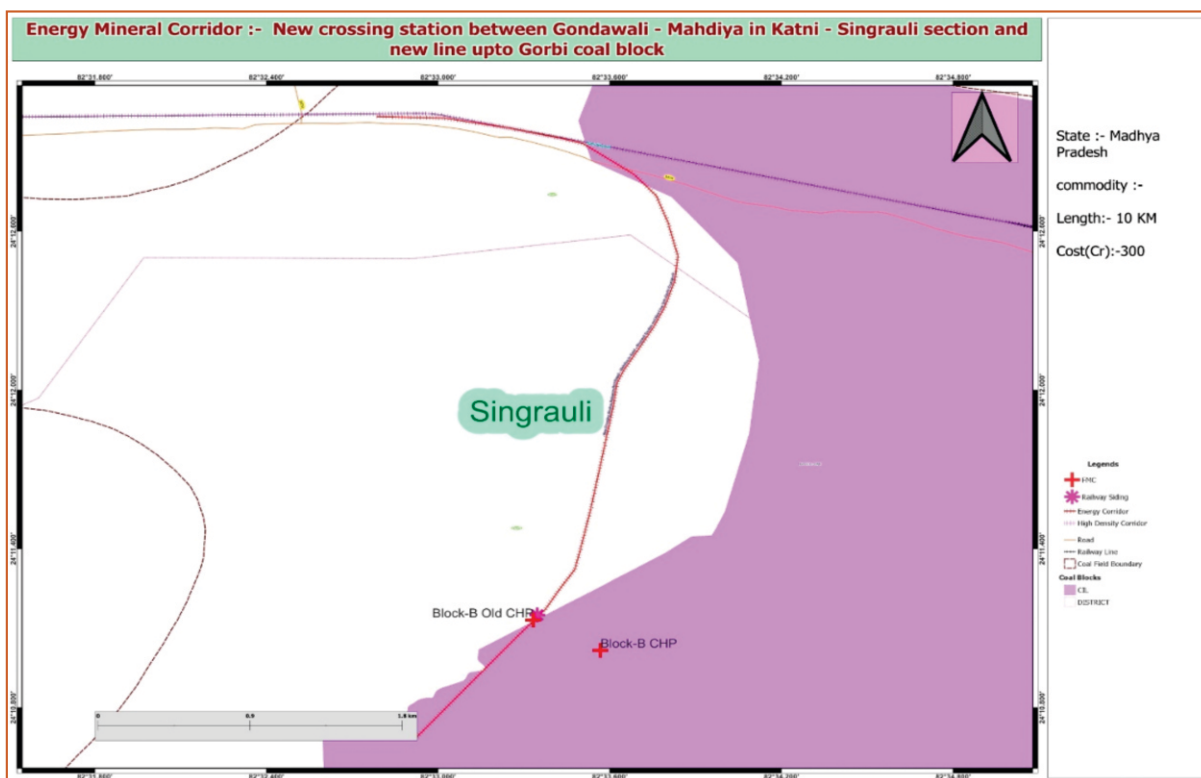
Dharamjaigarh-Pathalgaon-Lohardaga (New double line) (Sl.No. 35)



Sardega-Pathagaon (New Double Line) (Sl.No. 36)



New crossing station between Gondawali-Mahdiya in Katni-Singrauli section and new line up to Gorbi coal block (Sl.No. 37)



CHAPTER-VII

A PLATFORM FOR CUSTOMIZED APPLICATIONS

PM Gati-Shakti-National Master Plan has been developed as a GIS platform with the huge database of all the land, infrastructural facilities, mode of transportations, etc. All major ministries have been incorporated into the portal in the form of various layers, each containing vital information. These information can be used for many useful purposes. With such a rich database available, it is now possible to develop customized applications which will serve a very specific purpose and contribute to the progress of the nation. Ministry of Coal is in the process of development of two vital applications which are described hereunder:

1) COAL BLOCK INFORMATION PORTAL (CBIP)-Usage in Coal Block Auction

Coal India Limited is a Public Sector Undertaking and produces coal in the country through its seven coal producing subsidiaries. CMPDI is also a subsidiary of Coal India Limited which is engaged in coal exploration. In order to fulfill the country's coal demand, Ministry of Coal is auctioning coal blocks which are not under Coal India Limited to private entrepreneurs so that the demand for coal which is needed for ensuring country's energy security is met and the import of coal is gradually reduced. This is in line with the 'AtamNirbhar Bharat Program' of Hon'ble Prime Minister, Sri Narendra Modi. Most of the coal blocks which are being auctioned are in remote areas where the land use is a mix of forest, rural settlement, drainage system, etc. Since the coal block development involves huge funds, the investors who are interested-in, would like to know the exact land use of the area under the demarcated coal block so that the cost involved in development of the mine can be assessed before they go for the bidding process.

To facilitate this, an App called CBIP is under development which will provide vital information like:

- Forest type and area
- Rural settlement
- Cadastral/revenue maps of villages
- Rail and transportation system
- Drainage
- Vital installations like gas pipeline, transmission lines, etc.

Often a coal block development also involves diversion of the existing facilities or infrastructure present on the coal property to places which are non-coal bearing or if not possible, then resulting into minimum coal sterilization. This Coal Block Information Portal (CBIP) will be an application where investors can see the blocks they are interested, on a web platform. They can also do some analytics

such as finding out areas of particular land classes, etc. This will be a very important tool in the hands of potential investors before they can go for the bidding for a coal block.

A list of successful auctioned coal blocks are as follows upto 31st December 2023.

CMSP BLOCKS

Sl. No.	Name of Coal Mine/Block	Coalfield	State where Coal Mine/Block Located	Exploration status	Geo. Resource (Mte)	Auctioned/ Allotted	New Allocatee	End-use
1	Amarkonda Murgadangal	Rajmahal	Jharkhand	Regionally Explored	411.21	AL	Eastern Coalfields Limited, CIL	Sale of coal
2	Amelia	Singrauli Main Basin	Madhya Pradesh	Explored	393.59	AL	THDC India Limited	Power
3	Amelia (North)	Singrauli Main Basin	Madhya Pradesh	Explored	119.54	AU	Jaiprakash Power Ventures Limited	Power
4	Ardhagram	Raniganj	West Bengal	Explored	122	AU	OCL Iron and Steel Ltd.	NRS
5	Ashok Karkatta Central	North Karanpura	Jharkhand	Explored	110	AU	Moonpie Metaliks Pvt. Ltd.	Sale of coal
6	Badam	North Karanpura	Jharkhand	Explored	144.63	AL	Bihar State Power Generation Co. Ltd.	Power
7	Baitarni West	Talcher	Odisha	Explored	602.1	AU	Gujrat Mineral Development Corporation Ltd.	Sale of coal
8	Banhardih	Auranga	Jharkhand	Explored	920.39	AL	Patratu Vidyut Utpadan Nigam Ltd.	Power
9	Baranj-I	Wardha Valley	Maharashtra		10.12	AL	Karnatka Power Corporation Ltd.	Power
10	Baranj-II	Wardha Valley	Maharashtra		14.19	AL	Karnatka Power Corporation Ltd.	Power
11	Baranj-III	Wardha Valley	Maharashtra		28.7	AL	Karnatka Power Corporation Ltd.	Power
12	Baranj-IV	Wardha Valley	Maharashtra		15.29	AL	Karnatka Power Corporation Ltd.	Power
13	Barjora	Raniganj	West Bengal		1.56	AL	West Bengal Power Development Corporation Limited (WBPDC)	Power
14	Barjora (North)	Raniganj	West Bengal		85.49	AL	West Bengal Power Development Corporation Limited (WBPDC)	Power
15	Belgaon	Wardha Valley	Maharashtra	Explored	20.72	AU	Sunflag Iron and Steel Company Limited	NRS
16	Bhaskarpara	Jhilimili	Chhattisgarh	Explored	46.91	AU	Prakash Industries Ltd.	Sale of coal
17	Bicharpur	Sohagpur	Madhya Pradesh	Explored	52.6	AU	Ultratech Cement Limited	NRS
18	Bijahan	IB Valley	Odisha	Explored	327.046	AU	Mahanadi Mines and Minerals Private Limited	Sale of coal
19	Bikram	Sohagpur	Madhya Pradesh	Explored	20.98	AU	Birla Corporation Ltd.	NRS
20	Brahampuri	Pench-Kanhan	Madhya Pradesh	Explored	102.49	AU	Birla Corporation Ltd.	NRS

Sl. No.	Name of Coal Mine/Block	Coalfield	State where Coal Mine/Block Located	Exploration status	Geo. Resource (Mte)	Auctioned/ Allotted	New Allocatee	End-use
21	Brahmadiha	Giridih	Jharkhand	Explored	5	AU	Andhra Pradesh Mineral Development Corporation Ltd.	Sale of coal
22	Brahmini	Rajmahal	Jharkhand	Regionally explored	1928.17	AL	Eastern Coalfields Limited, CIL	Sale of coal
23	Brinda	North Karanpura	Jharkhand	Explored	34.71	AU	Dalmia Cement Bharat Limited	Sale of coal
24	Burakhap small patch	Ramgarh	Jharkhand	Explored	9.61	AU	Shreesatya Mines Private Limited	Sale of coal
25	Chakla	North Karanpura	Jharkhand	Explored	76.053	AU	Hindalco Industries Limited	Sale of coal
26	ChattiBariatu	North Karanpura	Jharkhand	Explored	193.68	AL	NTPC Ltd.	Power
27	ChattiBariatu South	North Karanpura	Jharkhand	Explored	353.85	AL	NTPC Ltd.	Power
28	Chhendipada (Revised)	Talcher	Odisha	Partly Explored	558.985	AU	Rungta Sons Private Limited	Sale of coal
29	ChichroPatsima I	Rajmahal	Jharkhand	Regionally explored		AL	Eastern Coalfields Limited, CIL	Sale of coal
30	Choritand Tiliaya	West Bokaro	Jharkhand	Explored	97.035	AU	Rungta Metals Private Limited	Sale of coal
31	Chotia	Hasdeo-Arand	Chhattisgarh	Explored	36.44	AU	Bharat Aluminium Company Ltd.	NRS
32	Dahegaon/ Makardhokra-IV	Umrer	Maharashtra	Explored	120.999	AU	Avassa Ferro Alloys Pvt. Ltd.	Sale of coal
33	Datima	Bisrampur	Chhattisgarh	Explored	13.3	AU	Shree Cement Limited	Sale of coal
34	Dip Side of Rampia	IB Valley	Odisha	Explored		AU	Jhar Mineral Resources Pvt. Ltd.	Sale of coal
35	Dipside Manoharpur	IB Valley	Odisha			AL	Odisha Coal & Power Limited	Power
36	Dulanga	IB Valley	Odisha		215.017	AL	NTPC Ltd.	Power
37	Durgapur-II / Sarya	Mand-Raigarh	Chhattisgarh	Explored	303.04	AL	Karnataka Power Corporation Ltd.	Power
38	Durgapur-II/Taraimar	Mand-Raigarh	Chhattisgarh	Explored	0	AL	Karnataka Power Corporation Ltd.	Power
39	East of Damagoria (Kalyaneshwari)	Raniganj	West Bengal	Explored	337.15	AL	BCCL	Sale of coal
40	Ganeshpur	North Karanpura	Jharkhand	Explored	137.89	AU	GMR Chhattisgarh Energy Limited	Power
41	Gangaramchak	Raniganj	West Bengal		13.68	AL	West Bengal Power Development Corporation Limited (WBPDCCL)	Power
42	Gangaramchak - Bhadulia	Raniganj	West Bengal			AL	West Bengal Power Development Corporation Limited (WBPDCCL)	Power
43	Gare Pelma - IV/1	Mand-Raigarh	Chhattisgarh	Explored	159.444	AU	Jindal Power Ltd	Sale of coal
44	Gare Pelma - IV/3	Mand-Raigarh	Chhattisgarh	Explored	246.84	AU	Jindal Power Limited	Sale of coal
45	Gare Pelma - IV/8	Mand-Raigarh	Chhattisgarh	Explored	107.2	AU	Ambuja Cements Limited	NRS

Sl. No.	Name of Coal Mine/Block	Coalfield	State where Coal Mine/Block Located	Exploration status	Geo. Resource (Mte)	Auctioned/ Allotted	New Allocatee	End-use
46	Gare Pelma-IV/2	Mand-Raigarh	Chhattisgarh	Explored	0	AU	Jindal Power Limited	Sale of coal
47	Gare Pelma-IV/4	Mand-Raigarh	Chhattisgarh	Explored	38.84	AU	Hindalco Industries Limited	NRS
48	Gare Pelma - IV/5	Mand-Raigarh	Chhattisgarh	Explored	99.61	AU	Hindalco Industries Limited	NRS
49	Gare Pelma-IV/6	Mand-Raigarh	Chhattisgarh	Explored	166.98	AU	Jindal Steel & Power Ltd.	Sale of coal
50	Gare Pelma-IV/7	Mand-Raigarh	Chhattisgarh	Explored	239.05	AU	Sarda Energy & Minerals Ltd.	Sale of coal
51	Gare Pelma Sector-I (East)	Mand-Raigarh	Chhattisgarh	Explored	965	AU	Jindal Power Limited	Sale of coal
52	Gare Pelma Sector-II	Mand-Raigarh	Chhattisgarh		1059	AL	Maharashtra State Power Generation Co. Ltd.	Power
53	Gare Pelma Sector-III	Mand-Raigarh	Chhattisgarh		210.2	AL	Chhattisgarh State Power Generation Co. Ltd.	Power
54	Gondkhari	Kamptee	Maharashtra	Explored	98.717	AU	Adani Power Maharashtra Ltd.	Sale of coal
55	Gondulpara	North Karanpura	Jharkhand	Explored	176.33	AU	Adani Enterprises Ltd.	Sale of coal
56	Gotitoria (East)	Mohapani	Madhya Pradesh	Explored	10.46	AU	Bolder Stone Mart Pvt. Ltd.	Sale of coal
57	Gotitoria (West)	Mohapani	Madhya Pradesh	Explored	0	AU	Bolder Stone Mart Pvt. Ltd.	Sale of coal
58	Gourangdih ABC	Raniganj	West Bengal	Explored	131.701	AL	West Bengal Mineral Development & Trading Corporation Limited	Sale of coal
59	Jaganathpur B	Raniganj	West Bengal	Explored	169.57	AU	Powerplus Traders Pvt. Ltd.	NRS
60	Jamkhani	IB Valley	Odisha			AU	Vedanta Ltd.	NRS
61	Jitpur	Rajmahal	Jharkhand	Explored	81.09	AU	Terri Mining Pvt. Ltd.	Sale of coal
62	Jogeshwar & KhasJogeshwar	West Bokaro	Jharkhand	Partially Explored	84.03	AU	South West Pinnacle Exploration Ltd.	Sale of coal
63	Khagra Joydev	Raniganj	West Bengal	Explored	178.265	AU	Orissa Metallurgical Industry Private Limited	Sale of coal
64	Kanta Basan	Hasdeo-Arand	Chhattisgarh			AL	Rajasthan RajyaVidyut Utpadan Nigam Ltd.	Power
65	Kasta (East)	Raniganj	West Bengal	Explored	222.12	AU	Jitusol Developers Ltd.	Sale of coal
66	Kathautia	Daltonganj	Jharkhand	Explored	32.55	AU	Hindalco Industries Limited	NRS
67	Kerandari	North Karanpura	Jharkhand	Explored	284.52	AL	NTPC Ltd.	Power
68	Kiloni	Wardha Valley	Maharashtra		39.51	AL	Karnatka Power Corporation Ltd.	Power
69	Kotre-Basantpur	West Bokaro	Jharkhand	Explored	148.399	AL	Central Coalfields Limited, CIL	Sale of coal

Sl. No.	Name of Coal Mine/Block	Coalfield	State where Coal Mine/Block Located	Exploration status	Geo. Resource (Mte)	Auctioned/ Allotted	New Allocatee	End-use
70	Lalgarh (North)	West Bokaro	Jharkhand	Explored	27.038	AU	Adhunik power & Natural resource	Sale of coal
71	Lohari	Daltonganj	Jharkhand	Explored	9.99	AU	Araanya Mines Private Limited	NRS
72	Madanpur South	Hasdeo-Arand	Chhattisgarh	Explored	86.82	AL	The Andhra Pradesh Mineral Development Corporation Limited	Sale of coal
73	Mandakini	Talcher	Odisha		322.78	AL	Karnataka Power Corporation Ltd.	Power
74	Mandla North	Pench-Kanhan	Madhya Pradesh	Explored	195.378	AU	Dalmia Cement (Bharat) Limited	Sale of coal
75	Manoharpur	IB Valley	Odisha		978.47	AL	Odisha Coal & Power Limited	Power
76	Manora Deep	Wardha Valley	Maharashtra		49.82	AL	Karnataka Power Corporation Ltd.	Power
77	Marki Barka	Singrauli Main Basin	Madhya Pradesh	Explored	80.06	AU	Birla Corporation Ltd.	Sale of coal
78	Marki Mangli-II	Wardha Valley	Maharashtra	Explored	11.54	AU	Yazdani International Pvt. Ltd.	Sale of coal
79	Marki Mangli-III	Wardha Valley	Maharashtra		6.19	AU	B.S. Ispat Limited	NRS
80	Marki Mangli-IV	Wardha Valley	Maharashtra	Explored	3.42	AU	Sobhagya Mercantile Ltd.	Sale of coal
81	Meral	Daltonganj	Jharkhand	Explored	17.045	AU	Trimula Industries Limited	NRS
82	Moitra	North Karanpura	Jharkhand	Explored	215.78	AU	JSW Steel Limited	NRS
83	Naini	Talcher	Odisha		455	AL	The Singareni Collieries Company Limited	Power
84	Namchik Nampuk	Arunachal Pradesh	Arunachal Pradesh	Explored	18.76	AU	Coal Pulz Private Limited	Sale of coal
85	Nerad Malegaon	Wardha Valley	Maharashtra	Explored	20.36	AU	Indrajit Power Private Limited	NRS
86	North Dhadu (Eastern Part)	North Karanpura	Jharkhand	Explored	923.945	AU	NTPC Mining Limited	Sale of coal
87	North Dhadu (Western Part)	North Karanpura	Jharkhand	Explored	923.945	AU	NLC India Limited	Sale of coal
88	Pachmo	West Bokaro	Jharkhand	Explored	101.992	AL	Central Coalfields Limited, CIL	Sale of coal
89	Pachwara Central	Rajmahal	Jharkhand	Explored	562	AL	Punjab State Power Corp. Ltd.	Power
90	Pachwara North	Rajmahal	Jharkhand	Explored	577.54	AL	West Bengal Power Development Corporation Limited (WBPDCL)	Power
91	Parbatpur-Central	Jharia	Jharkhand	Explored	235.71	AU	JSW Steel Limited	Sale of coal
92	Parsa	Hasdeo-Arand	Chhattisgarh		256	AL	Rajasthan Rajya Vidyut Utpadan Nigam Ltd.	Power
93	Parsa East	Hasdeo-Arand	Chhattisgarh		508.95	AL	Rajasthan Rajya Vidyut Utpadan Nigam Ltd.	Power

Sl. No.	Name of Coal Mine/Block	Coalfield	State where Coal Mine/Block Located	Exploration status	Geo. Resource (Mte)	Auctioned/ Allotted	New Allocatee	End-use
94	Patal East (Eastern Part)	South Karanpura	Jharkhand	Explored	41	AU	RCR Steel Works Private Limited	Sale of coal
95	Rabodih OCP	West Bokaro	Jharkhand	Explored	133.17	AU	Twenty First Century Mining Private Ltd.	Sale of coal
96	Radhikapur (West)	Talcher	Odisha	Explored	312.036	AU	Vedanta Ltd.	Sale of coal
97	Rajbar E & D	Auranga	Jharkhand	Explored	807	AL	Tenughat Vidyut Nigam Ltd.	Power
98	Rajhara North (Central & Eastern)	Daltonganj	Jharkhand	Explored	22.5	AU	Fairmine Carbons Pvt. Ltd.	Sale of coal
99	Rampia	IB Valley	Odisha	Explored	1177.76	AU	Jhar Mineral Resources Pvt. Ltd.	Sale of coal
100	Rauta Closed mine	Ramgarh	Jharkhand	Partially Explored	7	AU	Shreesatya Mines Pvt. Ltd.	Sale of coal
101	Rohne	North Karanpura	Jharkhand	Explored	423.17	AL	NMDC Ltd.	Sale of coal
102	Sahapur East	Sohagpur	Madhya Pradesh	Explored	64	AU	Chowgule & Company Pvt.Ltd.	Sale of coal
103	Sahapur West	Sohagpur	Madhya Pradesh	Explored	38	AU	Sarda Energy & Minerals Ltd.	Sale of coal
104	Saharpur Jamarpani	Rajmahal	Jharkhand	Explored	973.9	AL	UP Rajya Vidyut Utpadan Nigam Ltd.	Power
105	Sarisatoli	Raniganj	West Bengal		86.07	AU	CESC Limited	Power
106	Sasai	North Karanpura	Jharkhand	Explored	26.34	AU	Dalmia Cement Bharat Limited	Sale of coal
107	SialGhoghri	Pench-Kanhan	Madhya Pradesh	Explored	119.72	AU	Reliance Cement Company Private Limited	NRS
108	Sitanala	Jharia	Jharkhand	Explored	108.85	AU	JSW Steel Limited	Sale of coal
109	Sugia Closed Mine	Ramgarh	Jharkhand	Patch deposit.	4	AL	Jharkhand State Mineral Development Corporation Ltd.	Sale of coal
110	Suliyari	Singrauli Main Basin	Madhya Pradesh	Partially Explored	142	AL	The Andhra Pradesh Mineral Development Corporation Limited	Sale of coal
111	Tadicherla -1		Telangana		76.69	AL	Telangana State Power Generation Corporation Limited	Power
112	Takli-Jena-Bellora (North) & Bellora (South)	Wardha Valley	Maharashtra	Explored	117.26	AU	Aurobindo Reality and Infrastructure Pvt. Ltd.	Sale of coal
113	Talabira II & III	IB Valley	Odisha	Explored	152.325	AL	Neyveli Lignite Corporation	Power
114	Talabira-I	IB Valley	Odisha	Explored	22.54	AU	GMR Chhattisgarh Energy Limited	Power
115	Talaipali	Mand-Raigarh	Chhattisgarh		1260.52	AL	NTPC Ltd.	Power

Sl. No.	Name of Coal Mine/Block	Coalfield	State where Coal Mine/Block Located	Exploration status	Geo. Resource (Mte)	Auctioned/ Allotted	New Allocatee	End-use
116	Tara (East)	Raniganj	West Bengal		83.99	AL	West Bengal Power Development Corporation Limited (WBPDCCL)	Power
117	Tara (West)	Raniganj	West Bengal		125.7	AL	West Bengal Power Development Corporation Limited (WBPDCCL)	Power
118	Tokisud North	South Karanpura	Jharkhand	Explored	92.297	AL	NMDC Ltd.	Sale of coal
119	Trans Damodar	Raniganj	West Bengal	Explored	61.73	AU	The Durgapur Projects Limited	Power
120	Tubed	Auranga	Jharkhand	Explored	189.83	AL	Damodar Valley Corporation	Power
121	Urma Paharitola	Rajmahal	Jharkhand	Regionally Explored	579.3	AU	Aurobindo Reality & Infrastructure Private Limited	Sale of coal
122	Urtan North	Sohagpur	Madhya Pradesh	Explored	69.8	AU	Chowgule & Company Private Ltd.	Sale of coal
123	Utkal - C	Talcher	Odisha	Explored	196.34	AU	Jindal Steel and Power Limited	Sale of coal
124	Utkal - D	Talcher	Odisha	Explored	275.79	AL	NALCO	NRS
125	Utkal -A	Talcher	Odisha	Explored	332.85	AL	Mahanadi Coalfields Limited, CIL	Sale of coal
126	Utkal B 1	Talcher	Odisha	Explored	228.14	AU	Jindal Steel & Power Ltd.	Sale of coal
127	Utkal B 2	Talcher	Odisha	Explored	118.94	AU	Jindal Steel & Power Ltd.	Sale of coal
128	Utkal 'E'	Talcher	Odisha	Explored	122.48	AL	NALCO	NRS

MMDR BLOCKS

Sl. No.	Name of Coal Mine/Block	Coalfields	State	Exploration status	Geo. Resource (Mte)	Auctioned/ Allotted	Allocatee
1	ALAKNANDA	Talcher	ODISHA	PARTLY EXPLORED	500.00	AU	Rungta Sons Pvt Ltd
2	Arjuni (Eastern Part)		Madhya Pradesh	EXPLORED	106.12	AU	Ultra Tech Cement Limited
3	Arjuni (Western Part)		Madhya Pradesh	PARTLY EXPLORED	110.17	AU	Ganga Khanij Private Limited
4 & 5	Banai-Bhalumuda	Mand Raigarh	Chhattisgarh	Explored	1376.07	AU	JSW Steel Limited
6	Bandha	Singrauli	Madhya Pradesh	Under Exploration	441.5	AU	EMIL Mines & Mineral Resources Ltd.
7	Bandha North	Singrauli	Madhya Pradesh	Partially Explored	500	AU	Jai Praksh Power Ventures Limited
8	BANKHUI	TALCHER	ODISHA	PARTLY EXPLORED	500	AU	Yazdani Steel & Power Ltd.
9	BARRA		CHHATTISGARH	REGIONALLY EXPLORED	900.00	AU	Bharat Aluminium Company Ltd
10	BASANTPUR		JHARKHAND	REGIONALLY EXPLORED	9.00	AU	Gangaramchak Mining Private Ltd.
11	BEHERABAND NORTH EXTN		MADHYA PRADESH	PARTLY EXPLORED	170.00	AU	Auro Coal Pvt. Ltd.
12	BHIVKUND		MAHARASHTRA	EXPLORED	102.26	AU	Sunflag Iron & Steel Co. Ltd.
13	BINJA		JHARKHAND	REGIONALLY EXPLORED	50.00	AU	Assam Mineral Development Corporation Limited
14	BURAPAHAR		ODISHA	EXPLORED	547.89	AU	Gujrat Mineral Development Corporation Ltd.
15	Dahegaon Gowari		MAHARASHTRA	EXPLORED	162.80	AU	Ambuja Cements Limited
16	Dhirauli	Singrauli	Madhya Pradesh	Explored	586.39	AU	Stratech Mineral Resources Pvt. Ltd.
17	Garampani	MIKIR	ASSAM	EXPLORED	0.467792	AU	Assam Mineral Development Corporation Ltd.
18 & 19	Ghogharpalli & Its Dip Extension	Ib Valley	Odisha	Explored	1288.284	AU	Vedanta Ltd.
20	GONDBAHERA UJHENI		MADHYA PRADESH	EXPLORED	672.87	AU	MP Natural Resources Private Limited
21	GONDBAHERA UJHENI EAST		MADHYA PRADESH	PARTLY EXPLORED	250.00	AU	MP Natural Resources Pvt. Ltd.
22	JHIGADOR		CHHATTISGARH	REGIONALLY EXPLORED	250.00	AU	CG Natural Resources Pvt. Ltd.
23	Kalambi Kalmeshwar (Western Part)		MAHARASHTRA	PARTLY EXPLORED	47.782	AU	Samlok Industries Private Limited

Sl. No.	Name of Coal Mine/Block	Coalfields	State	Exploration status	Geo. Resource (Mte)	Auctioned/ Allotted	Allocatee
24	KHARGAON		CHHATTISGARH	REGIONALLY EXPLORED	250.00	AU	CG Natural Resources Pvt. Ltd.
25	Koilajan	NER	ASSAM	EXPLORED	0.0584	AU	Assam Mineral Development Corporation Ltd.
26	Koyagudem Block-III	GODAVARI VALLEY	TELANGANA	EXPLORED	119.6	AU	Auro Coal Pvt Ltd
27	Kuraloi-A North	IB Valley	Odisha	Explored	1680.23	AU	Vedanta Ltd.
28	MAIKI NORTH	SOHAGPUR	MADHYA PRADESH	REGIONALLY EXPLORED	97.17	AU	Maiki South Mining Pvt Ltd
29	Marwatola VI	Sohagpur	Madhya Pradesh	Explored	79.00	AU	JSW Cement Limited
30	Marwatola VII	Sohagpur	Madhya Pradesh	Explored	188.70	AU	Rama Cement Industries Private Limited
31	MEENAKSHI	IB VALLEY	ODISHA	EXPLORED	285.23		
32	Meenakshi West	Ib Valley	Odisha	Partially Explored	950.00	AU	Hindalco Industries Ltd.
33	North West of Madheri		Maharashtra	REGIONALLY EXPLORED	200	AU	MH Natural Resources Private Limited
34	Pathora East	Sohagpur	Madhya Pradesh	Partially Explored	110.402	AU	Shri Bajrang Power & Ispat Limited
35	Pathora West	Sohagpur	Madhya Pradesh	Partially Explored	81.691	AU	Shri Bajrang Power & Ispat Limited
36	Purunga	Mand Raigarh	Chhattisgarh	Partially Explored	260	AU	CG Natural Resources Private Limited
37	Sakhigopal-B Kankili	Talcher	Odisha	Partially Explored	500	AU	Rungta Sons Private Limited
38	Sherband	Mand-Raigarh	Chhattisgarh	Partially Explored	90	AU	Nilkanth Coal Mining Private Limited
39	Sursa		Chhattisgarh	REGIONALLY EXPLORED	72.55	AU	Madhya Bharat Minerals Pvt Ltd
40	TOKISUD BLOCK II		JHARKHAND	EXPLORED	127.69	AU	Twenty First Century Mining Pvt. Ltd.
41	Urtan	Sohagpur	Madhya Pradesh	Explored	55.39	AU	JMS Mining Pvt. Ltd.

2) SPARABLE LAND IDENTIFICATION SYSTEM PORTAL (SLISP)

Another App which is under development is called “Sparable Land Identification System”. Often it is seen that there are various land parcels under possession of government agencies which are no longer of use to the owners currently. For example, a piece of land under the control of Coal India Limited subsidiary may have a dumping site where large quantity of overburden is dumped. After dumping, this land is no longer useable by the coal subsidiary. This land or material lying on the land may be useful for another ministry/department such as NHAI for filling purposes where national highways are being built. Such land areas would be uploaded on the PM Gati Shakti-NMP. By this App, the user department can show their interest in such land and if found suitable, action for transfer of that land or material lying on it may be taken-up.

The App which is under development will identify such lands alongwith their attributes so that the total characteristic of the land parcel is known and put on the website under Separable Land so that it may be of use to any other ministry or department. Another example is a mine void where water is filled. This mine void area could be in possession of a coal subsidiary and this void filled with water may be useful for agricultural purpose by adjoining villages. Such applications will be of immense use to the users who are looking for suitable land or materials for specific use.

Many more customized applications can be developed on the PM Gati-Shakti NMP platform.

3) SECTORAL PLANS FOR EFFICIENT LOGISTICS (SPEL)

The three main types of logistics are- inbound logistics, outbound logistics, and reverse logistics. Transportation is considered to be the most important part of the logistics process. Over the years, the traditional logistics strategies have become outdated, and businesses are constantly evolving and finding new ways to manage production and logistics. There is a need to capitalize on modern technological support and anticipatory intelligence to stay competitive in the market. Besides cost reduction, logistics management is also required to keep optimum inventory levels for faster production rates.

Major importance of logistics management: Boost Business Profitability, Improve Customer Experience, Optimization of Operational Cost, Better Intermodal Operations, Ensure Seamless Delivery, Improve Warehouse Management, Enhance Visibility, Intelligent Route Planning, Risk Management, Scalability.

Industry / Companies must implement the best logistics planning practices to increase operations performance based on the proper coordination of process and exchange of relevant information. A well-established logistics strategy can help the organisations to meet the client's needs and optimize the entire supply chain operations. Logistics works optimally when there is extensive transparency and visibility into operations. This will ensure that the logistics sector serves as an engine of growth and a key driver for transforming India to a 5 trillion-dollar economy.

Vision

The vision is to develop a technologically enabled, integrated, cost-efficient, resilient, sustainable and trusted logistics ecosystem for accelerated and inclusive growth. To provide a long-term, stable and consistent policy regime and to develop an integrated cost-effective, reliable, sustainable and digitally enabled logistics ecosystem for accelerated and inclusive economic growth, making India a globally competitive and manufacturing hub and achieving the targeted objectives of single digit logistics cost on GDP.

Mission

The mission is to plan and coordinate all those activities necessary to achieve desired levels of delivered service and quality at lowest possible cost.

Objectives

The objective of logistics strategy is to deliver the right products to the right customers at the right time and at the least possible cost.



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PM
GatiShakti
National Master Plan for
Multi-Modal Connectivity





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**Sustainable Unearthing of
Mineral Resources Begins With Us**

OUR PRESENCE

