



CONSERVATION AND DEVELOPMENT OF TRANSPORT INFRASTRUCTURE



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1. Conservation, Safety and Infrastructure Development in Coal mines area -

The Coal Controller acts as the Member-Secretary for the Coal Conservation & Development Advisory Committee (CCDAC), constituted under the Coal Mines (Conservation & Development) Act, 1974 and also under Rule 12C of the Colliery Control (Amendment) Rules, 2021. The office of the Coal Controller receives proposals and scrutinizes applications/claims from Coal Companies regarding Protective work, Scientific Development Works, road and railways infrastructure projects in the coalfields areas to release of funds through CCDAC.

Budget for two Plan Schemes for the year 2023-24 is as under:

Conservation & Safety in Coal Mines - ₹ 20.00 Cr.

Development of Transport Infrastructure in Coalfields - ₹ 72.00 Cr.

There was spillover amount of ₹ 10.34 Cr. in Conservation and Safety Head and ₹ 86.26 Cr. in Development of Transport Infrastructure Head from 2023-24.

88th CCDA Committee has approved an amount of ₹ 70.78 lakhs in Conservation and Safety Head and ₹ 23.418 lakhs in Development of Transport Infrastructure Head.

Ministry of Coal has released an amount of ₹ 19.9604 Cr. in Conservation and Safety Head and ₹ 66.5828 Cr. in Development of Transport Infrastructure Head in FY 2023-24.

2. Coal India Limited (CIL): Railway Infrastructures Projects

In order to achieve the planned growth in production and evacuation in future, CIL has undertaken the construction of major railway infrastructure projects. These railways infra projects are being implemented by either Indian Railways (on deposit basis) or through JV companies with IRCON representing Railways, Subsidiary company (representing CIL) and concerned State Government. There are three (03) major rail infrastructure projects being implemented on deposit basis and four (04) rail infrastructure projects being implemented by JV companies.

2.1 Deposit basis -

East Central Railway, Patna is executing the Tori Shivpur new BG line with a length of about 44.37 KM for North Karanpura Area of CCL, in Jharkhand with a project cost of ₹ 3587.37 Crores. The doubling of the entire line was commissioned in Dec'19. Presently coal is being despatched through this new BG line. Tripling of this rail line to enhance its capacity from ~ 65 MTPA to ~ 100 MTPA, has been commissioned and inaugurated by Hon'ble PM on 01.03.2024.

South Eastern Railways, Kolkata has executed the Jharsuguda- Barpali- Sardega rail infrastructure project with a length of about 52.41 KM for IB Valley Coalfields of MCL situated in Sundargarh district of Odisha at a cost of ₹ 1123.90 Crores and the line has been commissioned in April-2018. The doubling of this rail route with loading bulb at Barpali and remodelling of Jharsuguda yard including rail flyover



complex has been approved and under execution at an estimated capital of ₹ 3200 Cr. This shall enhance coal evacuation capacity of the railway line from ~ 34 MTPA to ~ 65 MTPA. Doubling of Jharsuguda-Barpali-Sardega Rail line has been commissioned and inaugurated by Hon'ble PM on 03.02.2024. Land Acquisition for Bulbs at Barapali and Flyover Complex at Jharsuguda by Railways is under process and it is anticipated to be commissioned by June'2026.

2.2 Joint Venture basis -

Jharkhand Central Railway Limited (JCRL)-

Execution of Shivpur-Kathautia section with a length of 49.085 KM is being undertaken by a JV company named Jharkhand Central Railway Limited (JCRL) with CCL, IRCON and State Government of Jharkhand as its Partner at an estimated cost of ₹ 1799.64 Crores. Financial Closure achieved in May'22. The project is under construction and the present progress is about 52 % and it is anticipated to be commissioned by June'2025.

Chhattisgarh East Rail Limited (CERL)- A JV company formed by SECL, IRCON and the State Government of Chhattisgarh, is executing the construction of East Rail Corridor, in two Phases:

Phase-I: Kharsia- Dharamjaigarh with spur to Gare Palma and three feeder lines of about 132 KM at an estimated cost of ₹ 3055 Crores. The main rail corridor between Kharsia to Dharmajaigarh (74 KM), Spur Line between Gharghoda and Bhalumunda (13.873 KM and Feeder line to Chhal (8.429 KM) & Baroud (4.139 KM) have been commissioned and inaugurated by Hon'ble PM on 14.09.2023. Presently coal evacuation through this new BG Railway line is being done. The remaining work of Spur line between Bhalumunda and Gare Pelma (17 KM) and Feeder Line to Durgapur (7 KM) is under progress and anticipated to be commissioned by Dec'2024.

Phase- II: Dharamjaigarh- Korba with a length of

about 62.5 Km at an estimated cost of ₹ 1686.22 Cr. Financial closure has been achieved on 28.08.2023. Presently, Land acquisition is under progress. Total involved Private land (290.698 Ha.) has been acquired. Tenders are being finalized by IRCON. The project is anticipated to be commissioned by Aug'2026.

Chhattisgarh East West Rail Limited (CEWRL)

- A JV company formed by SECL, IRCON and the State Government of Chhattisgarh, is executing the construction of East - West Rail Corridor (Gevra Road to Pendra) via Dipka, Katghora, Sindurgarh and Pasan with a length of about 135 KM and Feeder lines of about 35 Km at an estimated project cost of ₹ 4970.11 Crores. This shall enable an evacuation of about 65 MTPA of coal from Korba Coalfields. Tenders for construction of rail lines have been awarded and construction is underway. The present progress is about 69.4% and it is anticipated to be commissioned by Dec'2024.

Mahanadi Railway Limited (MCRL)- A JV company formed by MCL, IRCON and the State Government of Odisha, is executing the construction of Railway infrastructure projects in the Talcher coalfields of MCL, to cater to the evacuation of coal. Angul-Balaram- Jharpada- Tentuloi link at Talcher Coalfields of MCL with a length of 69.10 KM (which consists of the Jharpada- Kalinga- Angul link of 14.22 KM length) with an estimated cost of ₹ 1700 Cr (excluding the cost of land).

In the first phase, the Angul- Balram section, 14.22 Km has been commissioned at a capital cost of ₹ 145 Cr. This has enabled an evacuation capacity of about 15 MTPA from Talcher coalfield.

In the second phase, Balram-Putagadia-Jarapada-Tentuloi Rail Line is planned to be constructed. The project has been taken up by Ministry of Railways. Project Evaluation Committee (PEC) has cleared the project. Balance land acquisition will be taken up by Railways in due course of time



2.3 First Mile Connectivity Projects -

CIL has taken steps to upgrade the mechanized coal transportation and loading system under 'First Mile Connectivity' projects. These infrastructure Projects shall help in improving coal quality, savings in under-loading charges and a positive impact on the environment.

FMC Phase-I: In FMC Ph-I, CIL has identified 33 Projects in mines having capacity 4 Mty and above, of 382.5 MTPA capacity. Out of these 33 FMC Projects, 15 Projects of 200.5 MTPA capacity have been commissioned and remaining 18 projects are under-construction. All Phase-I FMC Projects are targeted to be completed by FY 24-25.

FMC Phase- II: In FMC Ph-II, 8 Projects of 57 MTPA has been planned, out of which 6 FMC Projects totalling to 34.5 MTPA are under construction. The remaining 2 Projects are under different stages of formulation and tendering. All Phase-II FMC Projects are targeted to be commissioned by FY 25-26.

FMC Phase-III: In FMC Ph-III, 17 Projects of 324 MTPA has been planned, out of which 1 FMC Project of 5 MTPA capacity is under construction and 2 projects of 40 MTPA is under tendering process. The remaining 14 projects are under different stages of approval process. All Phase-III FMC Projects are targeted to be commissioned by FY 28-29.

FMC Phase-IV: In FMC Ph-IV, 14 Projects of 74 MTPA has been planned, out of which 2 FMC Project of 14 MTPA capacity are under tendering process. The remaining 12 projects are under different stage of formulation. All Phase-III FMC Projects are targeted to be commissioned by FY 29-30.

These FMC Projects shall enable increased mechanized evacuation from 151 MTPA to 988.5 MTPA by FY 29-30.

Efforts made by SCCL-

Sand Stowing:

To protect important surface features like Public Buildings, Colonies, Rail lines, Public roads etc., underground Voids /goaf (after coal extraction) are filled up (stowed) with River sand. Due to the acute scarcity of sand, various experimental trials are being conducted to use other materials like Bottom Ash, Boiler Ash and crushed OverBurden material etc. for stowing in underground mines as a substitute for Sand in SCCL Mines.

So far, 47.04 L. Cu. M. processed Overburden has been used for stowing in SCCL mines. Stowing in the 12 underground mines of SCCL is being done by River Sand, Bottom Ash and Processed OverBurden. Presently, 29% PoB, 50% Bottom Ash and about 21 % sand is being used for stowing in underground mines.

Rail and Infrastructure Project for Coal Evacuation:

Keeping in view of the planned enchantment of coal production, SCCL is having the coal despatch capacity of 100 MT., SCCL is taking following measures steps regarding coal evacuation and infrastructure are being taken by SCCL -

Coal Handling Plants (CHPs) : There are 10 nos. CHP and one Warf loading system with a cumulative capacity of 74 MT which dispatches by Rail / MGR systems. There are 10 nos. Pre-Weigh Wagon Loading systems and 19 nos. Pre-Weigh Truck Loading systems are installed & working at various Mines & Coal Handling Plants.

For Naini Coal block allotted to SCCL in Odisha, Phase- II of MCRL railway line of 68 KM is to be completed. Till completion of the MCRL railway line, SCCL is planning the various options by the Road/ Rail mode on temporary basis.



In addition to the construction of the Railway line, railway siding and Coal Handling Plant arrangements are being done for installation of Pre-Weigh Wagon Loading systems, crushers, and approach Road / BT Road/ Asphalt road: Roads for coal transportation is being constructed and maintained as per requirement.

First Mile Connectivity (FMC) Projects of SCCL:

To achieve the targeted dispatches through rail by reducing road transport of coal, it is proposed to construct three new CHPs (Phase-I) under First Mile Connectivity. SRP OC CHP & JVR OC CHP Completed.

Under Phase-II FMC projects, VK OC CHP (06 MTPA) and under Phase-III, RG OC3 (5 MTPA) CHP are planned.



JVR OC CHP and railway line- Development of Infrastructure for Coal evacuation:

GROUNDING OF NEW CHPs

SI No.	CHP/AREA	Designed Capacity, MTPA	Ordered/ Estimated value in crores	Present status	PDC
1	OC3 6CHP of RG2	05	161.94	CHP is under erection against P.O. 7600009284, Dtd:25.10.2022	31.10.2024 (2024-25)
2	VK7 CHP, KGM	06	332	Final tender documents are to be received from CMPDI	31.12.2026 (2026-27)
3	Naini CHP	10	459	Firm order released on CMPDI for preparation of tender documents	31.03.2027 (2026-27)

Efforts made by NLCIL-

TALABIRA II & III OCP (20 MTPA):

1. FMC Milestone:

Name of the project	Anticipated Timeline for commissioning
Commencement of mining operations	2019-20
CHP, Silo based dispatch and Mechanized Conveyor system (MDO Scope)	June -2025
Railway Siding (FMC)	June 2025

2. Commencement of mining operations: Coal production in Talabira II & III OCP commenced from 26.04.2020.

3. CHP, Mechanised Conveyor System and Rapid Loading Silo: Construction of CHP, Mechanised Conveyor System and Rapid Loading Silo are under the scope of MDO. Approval of DPR has been accorded by NLCIL on 07.10.2020. LoA has been issued by MDO on 29.10.2021.



4. Railway Siding (Talabira-II&III OCP): Initially, coal will be transported by road to nearby railway siding for further transportation to Paradip port for onward despatch to NTPL, Tuticorin. Action is initiated for constructing a Private Railway siding at Talabira-II&III OCP. The coal will be transported from pit head coal stockyard to railway siding through Mechanised conveyor system. Coal will be loaded in to railway wagons through computerised Rapid loading system (Silo). After commissioning of Railway siding, coal will be transported from pit head coal stockyard to NTPL, Tuticorin through various modes like mechanised conveyor system, rail and sea, completely avoiding road transportation. Construction of Rapid loading silo system is under the scope of MDO.



PACHWARA SOUTH OCP (9 MTPA):

- i. Neyveli Uttar Pradesh Power Limited (NUPPL) a JV of M/s NLC India Limited and M/s Uttar Pradesh Rajya Vidyuth Utpadan Nigam Limited (UPRVUNL) is developing Pachwara South Coal Block of 9 MTPA, in Dumka district, Jharkhand.
- ii. Coal production from Pachwara South OCP is expected to commence from the year March 2025
- iii. In Pachwara coal field, there are three coal blocks namely Pachwara North, Central and South.

- iv. West Bengal Power Development Corporation Limited (WBPDC) and Punjab State Power Corporation Limited (PSPCL) have been allotted the adjoining Pachwara North and Pachwara Central coal blocks respectively.
- v. At present, there is no rail connectivity with the Pachwara coal field.
- vi. Alternate railway siding is being developed at Kurwa station till the mail line is completed. Expected to get commissioned by December 2024.

PM GatiShakti NMP

PM GatiShakti- Nation Master Plan (PMGS-NMP) incorporates the infrastructure projects of various Ministries and State Governments which extensively uses spatial planning tools. The Ministry of Coal has Identified more than 100 data layers mapped along with attributes and metadata. The data layers are being monitored and updated as per the requirements and further layers are being added with their attributes as required. It enhances the integrated planning process of the resources of related Ministries during the planning stage.

74 layers have been mapped on NMP portal. The Ministry of Coal has used PMGS-NMP portal for resolving issues of alternate route of transmission line passing through Dhirauli Coal Block, alternate rail alignment of Pelma-Sardega and Tentuloi-Budhapunk lines to avoid overlapping with coal blocks.

The Ministry of Coal intends to build up the value chain of coal resource from exploration to planning and execution of coal sector projects through development of dashboards and applications on PM GatiShakti NMP platform and integrate with portal of the Ministry. Presently, the available land resources are being mapped on the portal. Also, the critical railway projects being closely monitored by mapping these infrastructures in consultation with the Ministry of Railways, BISAG, & CMPDIL.





Coal Logistic Plan and Policy

Seamless evacuation of coal is essential for coal import substitution. To strengthen India's energy security and realize the vision of Atma Nirbhar

Bharat by reducing the reliance on imported coal, Ministry of Coal has launched Integrated Coal Logistics Policy and Plan on 29.2.2024 with a vision to develop technologically enabled, integrated, cost effective, resilient, sustainable and trusted logistics ecosystem for coal evacuation. This strategic framework aims to propel accelerated demand and supply of coal sector in FY2030.

Ministry of Coal has constituted Inter-Ministerial Committee to monitor the implementation of following KPIs of coal Logistic plan:

- Developing infrastructure for 90% mechanized handling of coal by FY2030.
- To develop rail infrastructure as New/Capacity enhancement lines taken up by Ministry of Railways.
- Enhance transportation of coal via coastal shipping to 120 MT by FY2030.
- Enhance inland waterways transportation of coal to 8MT by FY2030.
- Additional wagons requirement of 1 Lakh wagons for evacuation by FY2030.
- Development of Smart Coal Logistics Dashboard.