



POLICY INITIATIVES AND REFORM MEASURES

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1. Measures related to augmenting Production and Efficiency in Coal Sector: Enhanced exploration efforts

CMPDI is the nodal agency for implementing the Plan scheme of Detailed Drilling in Non-CIL blocks. CMPDI executes the job through departmental resources, MECL and through tendering. The actual drilling vis-à-vis targets in Non-CIL/Captive mining blocks during last five financial years and the target for current financial year 2021-22 are as follows:

(Drilling in Lakh Metre)

Year	Target	Actual	Growth % w.r.t. Previous year
2016-17	3.48	3.08	7.32
2017-18	4.99	4.86	57.79
2018-19	5.93	4.84	-0.41
2019-20	8.16	6.96	43.80
2020-21	5.16	6.45	-7.32
2021-22	1.90	1.38 (Apr'21-Nov'21)	

Note: Figure for 2021-22 is provisional.

The shortfalls in achievement are due to short closure of 25 blocks by MoC, shifting of camps from one place to other, idling of 7 rigs of Talcher & Khosla camps, Odisha for more than 1 months due to adverse law & order condition, COVID-19 lockdown, restricted movement, serious law & order problems in few blocks, non-availability of forest clearance, etc.

CMPDI increased the departmental capacity from 4.51 lakh metre in 2017-18 to about 4.85 lakh metre in 2020-21 with a growth of 7.5% to cater to the increased requirement of detailed drilling in CIL & Non-CIL/Captive blocks.

The actual drilling in CIL blocks during the last five financial years and the target for current financial year 2021-22 are as follows:

(Drilling in Lakh Metre)

Year	Target	Actual	Growth % w.r.t. Previous year
2016-17	7.20	7.97	12.89
2017-18	7.04	8.48	6.40
2018-19	7.13	8.34	-1.65
2019-20	6.30	5.80	-30.46
2020-21	4.95	5.45	-6.03
2021-22	4.35	2.05 (Apr'21-Nov'21)	

Note: Figure for 2021-22 is provisional.

2. Renewed policy thrust to increase coal production

In order to maintain higher trajectory of production level well over its past levels of 600 Million tonne (Mt.) and to ensure energy security of the country as well as to eliminate non-essential import of coal, CIL has planned to produce 1 Billion tonne (Bt) coal production in a time bound manner. CIL has identified major resources and assessed their related issues to achieve projected production.

However, meeting the targets in future shall depend upon actual demand scenario that may dictate the terms of future course of development.

Coal India Limited (CIL) has successfully crossed the 600 Million Tonne (Mt.) mark in coal production. In 2021-22, the Annual Plan target is pegged at 670 Mt. and projection for 2022-23 as per revised 1 Bt plan of CIL is 700 Mt. The group-wise production plan of 2021-22 and actual production during Jan'20 to Nov'21 is given below.

(Figs. in Mt.)

CIL	2021-22	Jan'21 to Nov'21	2022-23
	BE(AP Tgt.)	Act.(Prov.)	Projection
Existing & Completed	271.06	216.33	700
Ongoing Projects	398.73	340.53	
Future Projects	0.21	00	
Total	670	556.86	

A major growth in production is envisaged from North Karanpura in CCL, Korba of SECL and IB & Talcher coalfield in MCL.

3. Completion of Projects and Expansion of existing Projects:

Coal India Limited (CIL)

During 2021, 16 mining projects have been sanctioned and 05 mining projects have been completed in CIL.

As on date, there are 121 ongoing coal projects (costing ₹20 Crs. and above) with total sanctioned capacity 904.81 Mty and with total sanctioned capital of ₹132645.22 Crs., that are under different stages of implementation.

Implementation and completion of these projects depend upon critical extraneous factors such as possession of land, green clearances, evacuation infrastructure etc.

In order to ensure timely completion of projects various steps have been taken by CIL which are as below:

- Persistent persuasion with State Governments to expedite possession of land in states of Jharkhand, Odisha, Chhattisgarh, MP and Maharastra. Further, land owners are being constantly persuaded to accept compensation and handover land acquired by the company.
- Constant coordination and liaising with State Government for expediting the process of grant of FC.
- State Governments have been constantly persuaded by the coal companies at all levels to initiate necessary action for curbing the frequent law & order issues.
- The implementation of projects is reviewed regularly at the subsidiary and CIL level. MoC reviews projects costing more than ₹500 Crs and/ or of capacities 3 Mty and above on quarterly basis and started reviewing projects ₹500 Crs. and above on monthly basis from Nov'21.

- e) The projects monitoring group takes-up critical issues with the State Government at the highest level at regular intervals. The MoC on its part follows up issues affecting implementation of projects with other Ministries & with State Govt. especially for facilitating Forestry Clearances and Physical possession of land.

For effective monitoring & facilitating quick & informed decision making, MDMS Portal was launched last year by CIL, which assimilates every detail of projects/ mines, analyses the performance and generates relevant reports.

Apart from this, the progress of the projects are being monitored through Master Control Networks uploaded on the project server. For better monitoring, reports based on these MCN are being generated through Dashboard developed on Power BI software.

In order to meet the growing coal demand, CIL has already taken up new projects & OC patches. Further, capacity expansions of existing mines/ projects are being taken up through EC expansion or through EPRs wherever feasible.

Singareni Collieries Company Limited

As on date, there are 14 on-going coal projects, costing ₹20 Cr. and above, that are under different stages of implementation. The status of different milestones of ongoing Projects is being uploaded in MDMS Portal (developed by CMPDI) for monitoring and in e-CPMP (online Coal Project Monitoring Portal) and OCMS portal (MoSPI) for resolving issues pending at State level & with the Central Ministries.

4. Measures being taken to increase coal production

During 2021-22, CIL envisages to produce 398.73 Mt. from the on-going group of projects. Due to outbreak of COVID-19 Pandemic during the end of FY 19-20 and consequent severe economic slump

globally as well as in the country, the growth trajectory in the country dipped sharply and saw a subdued coal demand in the country. Moreover, the huge pithead stock of about 100Mt had accumulated at CIL end during 2020-21 with no further scope of inventory enhancement. Hence, in order to liquidate the pithead stock and cater to demand without considerably increasing production and to cushion for any anticipated reduction in demand, the production plan was reworked keeping offtake remained unchanged. Accordingly, production plan of CIL was capped at 670 Mt. from 740 Mt. (as per earlier 1 Bt plan) keeping intact supply plan of 740 Mt.

In respect of CIL, major increase in production is envisaged from 121 mining projects (greenfield and expansion projects) which are under different stages of implementation and having a combined rated capacity of about 905 Mty. (as on 30.11.2021) and mainly from three subsidiaries viz. SECL, MCL & CCL.

CIL has taken the following steps to increase production of coal:

- High capacity mines are being planned, approved & implemented using State-of-the Art mechanization wherever feasible.
- Mines are being modernized for increasing man productivity both in underground & opencast mines depending upon geo-mining conditions.
- Expediting implementation of on-going projects to achieve targeted production as per schedule.
- Capacity augmentation of running projects through special dispensation under the EP act 2006.
- Effective monitoring & persuasion of issues related to projects with related Ministries & State Government.

- In order to maintain the planned growth in production and evacuation in future, CIL has undertaken 7 Railway Infrastructure Projects on deposit basis (3 nos.) and through JVs (4 nos.) with Indian Railways in coalfields of SECL, MCL & CCL having potential for growth.
- Effective & persistent support from the Ministry of Coal.
- Allocation of additional coal blocks to some of the subsidiaries of CIL to enhance production substantially.
- 15 Greenfield Projects are identified with a Capacity of about 170 Mty to be operated by Mine Developer cum Operator mode.
- 49 First Mile Connectivity projects are being planned in two phases. Out of these, 35 Projects in Phase-I are to be implemented by FY 2023-24 with a capacity of 414.5 Mt.
- CIL has taken initiatives for improvement in productivity by enhancing efficiency of its mines with the introduction of Digitization of operation and introduction of ERP in two phases.

SCCL has taken the following steps to increase Production of coal:

SCCL has envisaged to ramp up production to 80 Mt by the end of 2023-24. Following steps are taken to enhance the production:

- Planning to open 11 new mines (10 in GVCF and 1 in Talcher)
- Improving coal evacuation infrastructure facility: SCCL is modifying its CHP, constructing new CHP, Crushers.
- Construction of railway siding and laying of new railway lines for evacuation of coal.
- Development of roads for small distance transport of coal to the dispatch point.

NLC India has taken steps to achieve the target of 6 MTPA from Talabira II & III OCP from its original schedule of 4 MTPA during the current year 2021-22. Considering the high demand of coal, NLC India Ltd. is taking all out efforts to augment the coal production of Talabira Mine further. The above efforts will not only provide fuel security to end use plants but also make coal available in the market. Also, efforts are being made for arrangement of transfer of coal between NLC India Ltd. and NTPC Ltd. to reduce the landed price of coal.

5. Technology development and Modernization of Mines in CIL

Under Ground Mine Mechanization:

A consortium of IIT-ISM (Dhanbad), SCCL and PWC that was engaged for “Study of Underground Coal Mining-problems, potential, technology, modernization, production and safety” in 90 underground mines of CIL recommended the use of mass production technology like PSLW and Continuous miners for enhancement of Underground Coal Production.

To implement the above report, a committee was constituted. As per recommendation of the committee works for preparation and approval of PRs has commenced. At present, 17 nos of Continuous Miners (CM) have been deployed in 13 UG mines of CIL with total capacity of about 7.46 Mty. Moreover, CIL has envisaged a plan for commissioning of another 41 Nos. of CMs with total capacity of about 17.86 Mty by 2025-26.

Further, man-riding system has been introduced in a number of underground mines with the objective of reducing unproductive travelling time of mine workers. Presently, 42 man-riding systems are in operation in CIL mines. Another 63 man riding schemes have been prepared for underground mines of CIL. For a few underground mines proposed with mass production technology, trackless transport system has been proposed for men and material.

Three Free-steered vehicles are presently in operation in Jhanjra underground mine of ECL.

Two sets of Highwall miners are in operation SECL having total capacity of 1 Mty. CIL has formulated future plan for commissioning another 3 nos. of Highwall miners in ECL with total capacity of about 1.5 Mty.

Open Cast Mine Mechanization:

- CIL has introduced State-of-the-Art technology to improve work efficiency. High capacity HEMMs like 42 cum Shovel with 240 T Rear Dumper have been introduced in Gevra Expansion, Dipka & Kusmunda open cast mines.
- Surface Miners have been introduced in opencast mines in a big way to improve operational efficiency, customer satisfaction & to cater environmental needs. Around 47% of total coal production of CIL during 2020-21 was achieved through using Surface Miners.
- GPS based vehicle tracking, RFID system based monitoring devices with boom barrier are introduced to enable real time monitoring of the movement of vehicles which also facilitate corrective measures against pilferage etc.
- For improving overall efficiency & economics of mine through Digitization, CIL has taken initiatives for 'Digital Transformation' in seven (06) selected opencast mines (3 of SECL & 3 of NCL).
- Further, CIL is also in process of introducing Enterprise Resource Planning (ERP) and other IT-enabled system to manage its human, physical and financial resources which will give a big boost to the operating efficiency of the CIL.

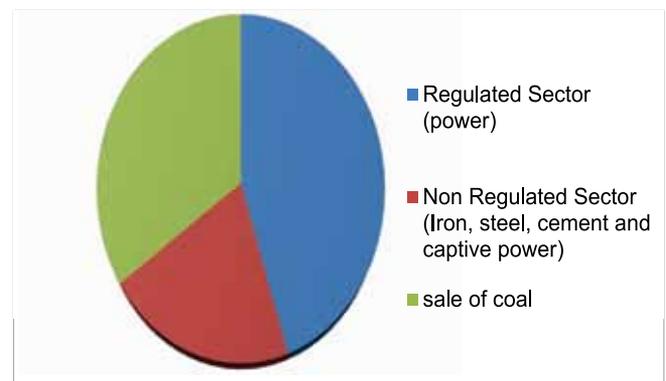
For precision of highest level, Total Station & 3D TLS survey instruments have already been introduced for survey & measurement wor

6. Allocation of coal mines cancelled/de-allocated by Hon'ble Supreme Court of India

The allocation of 204 coal mines de-allocated by Hon'ble Supreme Court is now made under the provisions of the Coal Mines (Special Provisions) Act, 2015. Under the provisions of the said Act, 107 coal mines have been successfully allocated. of these 107 coal mines, 47 have been allocated through e-auction (45 to private companies and 2 to a Government company)and 60 have been allotted to Government Companies.

Sector-wise allocation of these 107 coal mines are: 48 coal mines to the regulated sector i.e. power, 22 coal mines to the non-regulated sector i.e. iron& steel, cement and captive power as well as 37 coal mines for sale of coal. Pie Diagram of 107 allocated coal mines is below:

Sector-wise allocation of 107 coal mines allocated under CM (SP) Act, 2015



Under the provisions of the Coal Mines (Special Provisions) Act, 2015, 5 coalmines have been auctioned for sale of coal during the year 2021.

Directions of the Central Government have been issued to O/O of Nominated Authority to conduct auction of coal mines for sale of coal under the Coal Mines (Special Provisions) Act, 2015 from time to time. Recently, directions to conduct auction have been issued in respect of 24 coal mines for which the auction process is underway.

Para 2 .1.4 (b) of methodology for auction of coal and lignite mines / blocks for Sale of coal /lignite on revenue sharing basis and tenure of coking coal linkage dated 28.05.2020 has been further modified vide Order dated

24.11.2021 for the ongoing and successive tranches of auction as given below:-

Gasification or Liquefaction of coal

If the successful bidder consumes the coal produced either in its own plant(s) or plant of its holding, subsidiary, affiliate, associate for coal gasification or liquefaction or sells the coal for coal gasification or liquefaction process, a rebate of 50% on the percentage revenue share quoted by the successful bidder will be allowed on the total quantity of coal consumed or sold or both for gasification or liquefaction on an yearly basis, subject to the following conditions:

- i. At least 10% of scheduled coal production as per approved mining plan for that year shall be consumed or sold for gasification or liquefaction;
- ii. That Coal Controller's certification would be required for the quantity of coal consumed or sold or both for gasification or liquefaction.

7. Allotment of Coal/Lignite Blocks under MMDR Act

Under the provisions of MMDR Act, 1957 and rules made thereunder, 11 Coal Blocks were already allocated to Government Companies (Central/ State). Out of these, 9 coal blocks are allocated for end use power and 2 coal blocks are allocated for commercial mining/sale of coal. Also, 2 lignite blocks have been allocated under the provisions of MMDR Act, 1957 and rules made thereunder [1 for end use power and 1 for commercial mining/sale of lignite].

In addition, directions have been issued to the

Office of Nominated Authority for allocation of 89 Coal Blocks by Auction for sale of coal. Out of which 7 Coal blocks have been auctioned successfully till date.

Policy Reforms for allocation of coal/lignite blocks:

- (i) The Coal Blocks Allocation Rules, 2017 had been amended by the Coal Blocks Allocation (Amendment) Rules, 2020 w.e.f. 18.05.2020 in the light of the amendment in the Mines and Minerals (Development and Regulation) Act, 1957 made by the Mineral Laws (Amendment) Act, 2020. Henceforth, the successful allottee is entitled to grant of prospecting licence-cum-mining lease in respect of the relevant coal/lignite block from the State Government without the requirement of previous approval of the Central Government for grant of reconnaissance permit, prospecting licence or mining lease in respect of coal or lignite, where an allocation order or a notification of reservation of area had been issued by the Government.
- (ii) Colliery Control (Amendment) Rules, 2021 With the objective of scrutinizing the relevance and requirement of various compliances as well as rationalizing, reducing and simplifying the related processes to enhance ease of doing business by doing away parallel compliances, Coal Mines (Conservation and Development) Act, 1974 (CMCD) and CMCD Rules, 1975 have been repealed reducing one Act from the compliance burden and Colliery Control Rules, 2004 have been amended vide Colliery Control (Amendment) Rules, 2021 which have been notified and published in the Gazette of India vide G.S.R. 546(E) dated 09.08.2021.
- (iii) Mineral Concession (Amendment) Rules, 2021 Mines and Minerals (Development and Regulation) Amendment Act, 2021, carried

out amendments in MMDR Act 1957. The said amendments necessitated amendments in the Mineral Concession (Amendment) Rules, 1960. Hence, MCR, 1960 have been appropriately amended vide the Mineral Concession (Amendment) Rules, 2021 which have been notified vide gazette notification G.S.R 717(E) on 01.10.2021.

With insertion of Rule 24C in the MCR, 1960, mining lease for coal or lignite is now granted to a Government company or corporation for 50 years. Mining lease granted before the MCR reforms of 01.10.2021 shall be deemed to have been granted for 50 years or till 31st March, 2030, whichever is later. State Government are empowered to extend the mining lease for a further period of 20 years at a time for allotted mines.

With insertion of Rule 27A in the MCR, 1960, lessee of captive mine is allowed to sell coal or lignite up to such percent (50%) of the total coal or lignite produced in a financial year after meeting the requirement of the end use plant linked with the mine. This provision is not applicable to a power project awarded on the basis of competitive bid for tariff including Ultra Mega Power Projects.

Central Government may, by notification in the Official Gazette and for the reasons to be recorded in writing, increase the said percentage of coal or lignite that may be sold by a Government company or corporation beyond 50%.

Rule 28 of MCR, 1960 has been amended providing for lapsing of leases where production and dispatch has not commenced within a period of two years from the date of execution of the mining lease or is discontinued for a continuous period of two years after commencement of production or dispatch. The mining lease shall lapse on the expiry of the period of two years from the date of execution of the lease or as the case may be, discontinuance of the production and dispatch.

Rule 64B has been amended providing that royalty shall be charged on run-of-mine coal or lignite irrespective of its processing within or outside the leased area.

8. Quality and Third Party Sampling – Recent Decisions

To address the concerns of consumers (Power Utilities) regarding coal quality, third party sampling procedure (SOP) was put in place. Tripartite Memorandum of Understanding (MoU) were signed between Supplier (coal companies), Purchaser (Power Utilities) & CIMFR for sampling and testing of coal at the loading end. The sampling and coal testing charges are borne by the buyer and the seller equally.

For extending sampling facility for Non-Power consumers taking coal through linkage auction and supply to Power Utilities under Special Forward auction for Power, QCI and IIT-ISM have been engaged. Both QCI and ISM have started third party sampling after signing tripartite agreement with different Subsidiary Companies of CIL and the consumers.

Directions for coverage of Third Party Sampling to following remaining categories have also been issued to coal companies by Coal India Limited.

- I. Non-Power FSAs.
- II. Coal Supplied to SNAs
- III. Spot e-auction
- IV. Special Spot Auction
- V. Exclusive e-auction

Now, third party quality validation is available to consumers for supply of coal under all E-Auction schemes and FSAs. It has been directed that Power Utility and coal company should do grade reconciliation, by 5th of every month (or subsequent day in case of holiday) for all settled results against

coal supplies during the month preceding the previous month. Direction for ensuring the quality of coal, controlling grade slippage and regarding 15-day time frame for declaring the results of referee samples by nominated Referee laboratories have also been issued.

An App, named as UTTAM (unlocking Transparency by Third party Assessment of Mined Coal), has been launched through which all consumer/stakeholders as well as Coal Companies can access the declared grade, third party sample analysis results and referee analysis results.

As a reform process, it is decided that TPS (Third Party Sampling) Agencies for the power sector shall be empanelled by PFC. PFC shall now empanel the agencies, in addition to CIMFR and consumers would be free to take services of any of the empanelled agencies. Tender by PFC was recently floated in November 2021.

Coal India Limited has assigned work to CIMFR, QCI, SGS & COTECNA for carrying out sampling of 590 MT, 193 MT, 1.00 MT & 1.00 MT respectively and

Singareni Coileries Company Limited (SCCL) has assigned to CIMFR & IICT for carrying out sampling of 50.73 MT for power sector and 0.28 MT for NonPower sector respectively.

9. Rationalization of Coal linkages:

Ministry of Coal has issued the policy for linkage Rationalisation for power plants of State/Central PSUs in 2015. Coal linkage rationalisation in power sector (for State/Central PSUs) has resulted in decrease in transportation cost from the mines to the power plants leading to more efficient coal base power generation. Ministry of Coal has issued the policy for linkage Rationalisation for Independent Power Producers (IPP) in 2018.

So far 85.364 Million Tonnes of coal has been rationalised with annual potential saving of ₹6115.82 crore so far.

A new methodology has been formulated in 2020 on linkage rationalization covers the Power as well as Non-Regulated Sector (NRS) and coal swapping with imported coal has also been permitted.

10. Automatic transfer of coal linkage/LoA granted to the old plants while scrapping and replacing them with new plants.

The issue of Policy on transfer of linkage in case of scrapping of old units by replacing them with new plants was deliberated in the SLC (LT) Meeting held on 27.06.2014, wherein the Committee recommended that based on the recommendation of MoP the new plants will come up in a staggered way by the end of the 13th Plan and may also spill over to the 14th plan, Committee decided with regard to scrapping of old plants as under:

- (i) LoA/linkage granted to the old plant shall be automatically transferred to the new plant of the nearest super critical capacity'
- (ii) (ii) If the capacity of the new super critical plant is higher than the old plant, additional coal may be accorded priority subject to the availability of coal on the best effort basis from CIL.
- (iii) (iii) At least 50% capacity of the new super critical plant has to be retired. Old plants may be clubbed together to achieve this minimum benchmark of 50% of proposed super critical capacity.
- (iv) This policy shall be applicable to pre-NCDP plants in public sector, which have already been granted long term linkages/LoAs
- (v) Automatic transfer of LoA as explained above shall be permissible only when the new plant is set within the State in which the old plant is located and the old plant is actually scrapped. The old plant shall continue to operate till the CoD of new plant.

However, later on, point No. (v) was amended to the effect that for thermal power plants belong to central sector, automatic transfer of linkages/LoA from the scrapped to a new unit would be permitted outside the State in which the old unit is located.

11. Auction of coal linkages for non-regulated sector

Following the policy guidelines issued by Ministry of Coal on 15.02.2016 for allocation of coal linkages to the non-regulated sector, CIL has been conducting linkage auctions for coal allocation to Sponge Iron, CPP, Others (non coking), Others(coking) and Steel (coking) subsectors.

CIL has completed four tranches of linkage auctions so far and the fifth tranche is underway, where total 119.77 MT per annum of linkages have been booked by the successful bidders.

Coal linkages to power sector under SHAKTI

The Government approved the fading away of the existing Letter of Assurance (LoA) - Fuel Supply Agreement (FSA) regime and introduced Scheme for Harnessing and Allocating Koyala (Coal) Transparently in India (SHAKTI), 2017, which was issued by the Ministry of Coal on 22.05.2017. The Government also approved amendments to the SHAKTI policy, 2017, which was issued by the Ministry of Coal on 25.03.2019. The main features of the SHAKTI Policy (as detailed under its various paras) are as under:

Para A: FSA may be signed with pending LoA holders after ensuring that the plants are commissioned, respective milestones met, all specified conditions of the LoA fulfilled within specified time frame and where nothing adverse is detected against the LoA holder. Further, it has allowed continuation of the existing coal supply to the capacities of about 68,000 MW at the rate of 75% of Annual Contracted Quantity (ACQ), which may further be increased in future, based on coal availability. The policy has

enabled coal supplies at 75% of ACQ against FSA to about 19,000 MW capacities, which have been delayed in commissioning, provided these plants are commissioned within 31.03.2022. The medium term Power Purchase Agreements (PPAs) to be concluded in future against bids invited by DISCOMS have also been made eligible for linkage coal supply.

Para B (i): The Coal India Limited (CIL) / the Singareni Collieries Company Limited (SCCL) may grant coal linkages to State/Central Gencos/Joint Ventures at notified price on the recommendations of the Ministry of Power.

Para B (ii): Linkages to Independent Power Producers (IPPs), having Long Term PPAs based on domestic coal, where IPPs, participating in auction, will bid for discount on the tariff (in paise/unit). The bidders, who could not participate in the linkage auction under B (ii) due to any reason, may be allowed to participate in the B (ii) auctions of this policy. Further, the bidders, who could not secure linkage for full ACQ, may obtain linkage for the balance quantity by participating in future auctions at a later stage under B (ii) after benchmarking discount.

Para B (iii): Linkages to IPPs/ Power Producers without PPAs shall be on auction basis.

Para B (iv): Coal linkages may also be earmarked for fresh PPAs, by pre-declaring the availability of coal linkage with description, to the States. The states may indicate these linkages to DISCOMS/ State Designated Agencies (SDAs).

Para B (v): Power requirement of group of States can also be aggregated and procurement of such aggregated Power can be made by an agency, designated by the Ministry of Power or authorized by such states on the basis of tariff based bidding.

Para B (vi): Linkages shall be granted for full normative quantity to Special Purpose Vehicle (SPV) incorporated by nominated agency for

setting up Ultra Mega Power Projects (UMPPs) under Central Government initiative through tariff based competitive bidding under the guidelines for determination of tariff, on the recommendation of the Ministry of Power.

Para B (vii): The Ministry of Coal, in consultation with the Ministry of Power, may formulate a detailed methodology of a transparent bidding process for allocating coal linkages to IPPs, having PPAs, based on imported coal with full pass through of cost savings to the consumers'

Para B (viii):

- (a) Power plants with no PPAs are allowed coal linkage under B (iii) & B (iv) for a period of minimum 3 months upto a maximum of 1 year for sale of power generated through the linkage in Day Ahead Market (DAM) through power exchanges or in short term through Discovery of Efficient Energy Price (DEEP) portal.
- (b) Use of the existing coal linkage for sale of power through short term PPAs using DEEP portal or power exchange by the generator, which terminates PPA in case of default in payment by the DISCOM, for a maximum period of 2 years or until they find another buyer of power under long /medium term PPA, whichever is earlier.
- (c) Coal linkage under B (v) is also applicable in cases, where the nodal agency designated by the Ministry of Power aggregates/procures the power requirement for a group of states even without requisition from such states.
- (d) Central and state generating companies can act as an aggregator of power of stressed power assets.
- e) Mechanism to ensure servicing of debt.

As of now, coal linkages to the following capacities

have been granted under various Paras of the policy: (as on 01.12.21)

- (i) Clearance has been given for signing of Fuel supply Agreement (FSA) to 9 LoA holders with a total capacity of 7,21,0 MW under provisions of para A(i) of SHAKTI policy.
- (ii) 23 Thermal Power Plants (TPPs) have been granted linkage for a total capacity of 25340 MW under provisions of para B (i) of SHAKTI policy.
- (iii) First round of linkage auction under B (ii) of SHAKTI policy was conducted in September, 2017, whereby 27.18 Million Tonne per Annum (MTPA) of annual coal linkage was booked by ten successful bidders for about 9,045 MW capacity. In the second round conducted in May, 2019, quantity of 2.97 MTPA of linkage has been booked by eight bidders for about 874.9 MW capacity. In the third round, auction has been conducted by PFC Consulting Limited (PFCCL) during May,2020, where, 2.8 MTPA linkages have been booked by 5 successful bidders. Fourth round of linkage auction has been conducted by PFCCL in September,2021 where, 3.20 MTPA linkages have been booked by 5 successful bidders.
- (iv) The linkage auction for SHAKTI B (iii) was conducted in February, 2020, where out of the total offer of 11.8 MTPA, 6.48 MTPA was booked by 7 successful bidders.
- (v) Coal linkage have been earmarked from CIL for the States of Gujarat, Uttar Pradesh and Madhya Pradesh for a capacity of 4000 MW, 1600 MW and 2640 MW respectively for linkage under B(iv) of SHAKTI Policy.
- (vi) Coal linkage earmarked from CIL for a capacity of 2500 MW for linkage under B (v) of SHAKTI Policy.

(vii) 7 tranches of Linkage Auction have been conducted by Coal India Limited under B(viii) (a) of SHAKTI Policy. Out of total offered quantity of 37.52 MT of Coal, 6.66 MT have been booked by successful bidders

12. Policy on Bridge Linkage

Policy guidelines for grant of 'Bridge Linkage' to specified end-use plants of Central and State Public sector Undertakings (both in power as well as non-power sector which have been allotted coal mines/block, have been circulated to all concerned. Bridge Linkage shall act as a short term linkage to bridge the gap between requirement of coal of a specified end use plant of Central and State PSUs and the start of coal production from the linked Schedule-III coal mines and coal blocks allotted under MMDR act. Till now, Bridge Linkage has been granted to 37 Thermal Power Plants in Central/ State Public sector Undertakings.

13. Thrust on Washing of Coal

To meet the demand of Steel Sector, there is urgent need and necessity for augmentation of coking coal in the country. Due to scarce availability of resources of metallurgical coal in the country, the demand of steel sector can partially be met by washing of high ash coking coal at different target ash in economically feasible manner to maximize the blending ratio of washed coking coal to good quality imported coking coal which results into the reduction of import of the country. In this regard, one R&D project namely "Design of cost effective process flowsheet for improved washing efficiency of Indian Coking and Non-coking coals" is being implemented by IIT-ISM, Dhanbad in association with CMPDI and BCCL, Dhanbad. Under this study, a suitable beneficiation strategy will be developed to effectively utilize the high ash Indian coal for production of low ash product which can be used for metallurgical & thermal purposes.

To augment the washed coal production, CIL has planned for new washeries apart from renovation of existing washeries which are already in operation. Presently, CIL has 12 coal washeries, out of which, 10 are coking coal (including 2 recently commissioned coking coal washeries) and 2 non-coking coal washeries with total capacity of 23.63 Mty and 11 Mty, respectively. Most of the existing washeries are very old and have outlived their designed lives leading to low efficiency. To enhance the operational efficiency of existing washeries, CIL has planned comprehensive maintenance and renovation of old BCCL coking coal washeries on Renovate-Operate-Maintain (ROM) model.

To further boost the washing of coal, there are 13 new upcoming washery projects in CIL, which are under different phases of implementation. Out of the 13 washeries, 12 are coking coal and 1 non-coking coal washery. 4 washeries are under construction, 2 washeries are awaiting statutory clearances, 2 are under tendering stage and 3 washeries are under conceptual stages.

14. Master Plan to address Fire, Subsidence and Rehabilitation areas

Master Plan with a scope of dealing with Fire, Subsidence and rehabilitation of people from endangered areas was approved by the President of India, on 12.08.2009. The time schedule of implementation in Jharia Coalfield (JCF) is 12 years including 2 years of pre-implementation activities and for Ranganj Coalfield (RCF) it was considered for 10 years as per approved Master Plan. The periods of implementation of Master Plan for JCF has expired on 11.08.2021 and that for RCF has expired on 11.08.2019.

As per the directive of the 19th HPCC meeting, a draft comprehensive proposal incorporating alternative rehabilitation package, time, and cost overrun have been prepared by ECL in consultation with CMPDI, RI-1 & ADDA and BCCL in consultation with CMPDI RI-II & JRDA.

Both the comprehensive proposal have been discussed in the 21st HPCC meeting. As per the directive of the 21st HPCC meeting, revision of both the proposal is under finalization process at Govt of Jharkhand and Govt of W.B. respectively.

Summarized Status of Implementations of Master Plan in the leasehold of Bharat Coking Coal Ltd.

Fire dealing: The coal mine fire survey/study was instituted by BCCL through National Remote Sensing Centre(NRSC), Hyderabad for delineation of surface coal fires in Jharia Coalfield. There were a total of 34 active fire sites as per its report of 2017. BCCL has taken action for dealing with fire in these sites. NRSC has conducted a survey of fire in 2020-21 and reported the presence of 27 fire sites. Action is being taken by BCCL for dealing with fire in these sites as stipulated in the approved Master Plan.

At present, the work have been awarded 15 fire sites are economically viable (for digging out the firy coal) and also the implementation started.

The balance 12 fire sites are found to be economically unviable (for digging out the firy coal). In recent study by NRSC, 10 fire sites have shown decreasing trend/marginal indication of fire is being dealt by method of surface blanketing. Fire dealing at remaining 2 economically unviable sites is being planned with viability gap funding.

Under the guidance of PMO , a committee has been constituted under the Chairmanship of Secretary (Coal) to review the Jharia Master Plan and to suggest the way ahead .

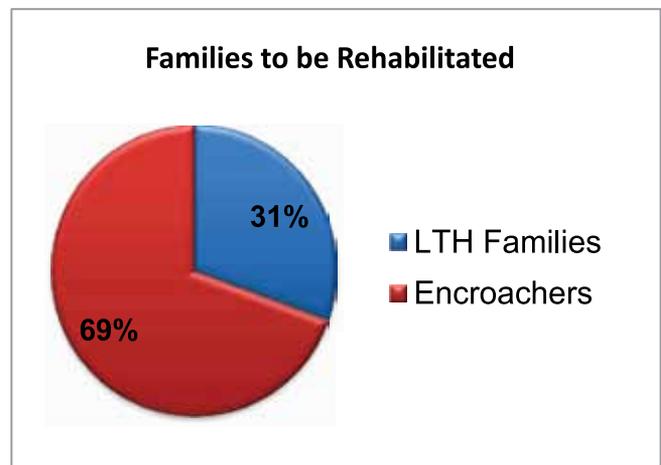
Rehabilitation: As per the Master Plan, total 54,159 families in 595 no. of sites were to be surveyed. JRDA completed the survey of 595 sites in 2020 .

6,352 house houses have been constructed in Belghoria Rehabilitation Township “Jharia Vihar” in which 2,670 non-LTH families(encroachers) are

shifted from affected areas.

In order to shift BCCL employees residing in fire affected areas, 7,714 houses have been built by BCCL in non-coal bearing zones and 4,182 families from fire and subsidence places have been shifted to these houses Further construction of 8,138 units by BCCL are in different stages of completion.

BCCL Board has decided to hand over 8,000 houses to JRDA for non BCCL families and same has been conveyed to JRDA .



For Non-BCCL part out of 23847 houses for encroachers (non-LTH), 18352 houses taken up for construction by JRDA. 6352 are completed and 12000 houses are under construction and will be completed by Aug 2022. In terms of shifting of families 4926 houses has been allotted 2676 families has been shifted till date.

Due to completion of tenure of Master Plan, to continue with the ongoing activities, proposal for time extension of Master Plan was examined and MoC gave extension for one year for “Committed works”. Further, as per the directive of Cabinet secretary, a Committee was constituted to review Jharia Master Plan under the Chairmanship of Secretary (Coal) on 25th August 2021 with the following Terms of Reference.

- Examine the progress of Jharia Master Plan.

- Review and make comprehensive assessment of the problem of fire and unstable areas in Jharia coalfield and suggest fire and unstable areas to be considered for rehabilitation.
- Formulate strategies for fire and safety management plan
- Suggest appropriate strategies for involvement of affected local communities.
- Formulate alternative proposals for rehabilitation and resettlement suited to local affected community.
- Suggest long term measures for management/ shifting of surface infrastructure over fire and unstable areas in Jharia Coalfields
- Assessment of coking coal reserve affected due to fire and unstable areas and suggest strategies for mining
- Suggest suitable mechanism for better implementation and monitoring

The committee visited the affected areas and interacted with stake holders. The report is under preparation.

15. Satellite Surveillance for land reclamation

Reclamation of mined out areas is important for sustainable development. Emphasis is being laid on proper reclamation which includes both technical and biological reclamation as well as mine closure. Satellite surveillance for land reclamation is being given the requisite thrust in order to assess the progressive status of reclamation and to take up remedial measures, if any, required for environmental protection.

Coal India Limited (CIL)

Land Reclamation Monitoring based on Satellite Data is being done for mines coming under two categories:

- (a) Mines producing more than 5 mcm (Coal+OB) mcm per annum. The mines / cluster coming under more than 5 mcm (Coal+OB) per annum are monitored on annual basis
- (b) Mines producing less than 5 mcm (Coal+OB) mcm per annum. The mines / clusters coming under less than 5 mcm (Coal+OB) per annum category are monitored at an interval of three years in a phase wise manner.

In the year 2021-2022, Land Reclamation Monitoring of total 105 projects comprising of 76 Opencast Projects producing more than 5 mcm (Coal+OB) per annum category and 29 opencast projects/clusters/ UG mines producing less than 5 mcm (Coal+OB) per annum category under different subsidiaries of CIL has been taken up for monitoring. The Digital Image Processing of Satellite Data has been completed and the reports are under compilation.

Singareni Collieries Company Limited (SCCL)

The satellite surveillance of progressive reclamation activities in all 20 opencast mines of SCCL is being carried out at an interval of once in 3 years in compliance to one of the Environment Clearance conditions stipulated by MoEF&CC.

NLC India Limited (NLCIL)

The satellite surveillance of progressive reclamation activities in all 5 opencast mines of NLCIL (Mine-I, Mine-IA, Mine-11, BLMP, Talabira) has been carried out in 2021-22. Trial for application of Drones usage has been taken up in one of the NLCIL Mines at Neyveli for surveying and mapping purposes. Once implemented, it will improve the overall efficiency of the mine management by providing accurate and comprehensive data detailing site conditions in a very short time.

Other New Initiatives

- **Drone Application:** Drones have been introduced for surveying and mapping

applications for the first time in CIL. CMPDI have procured drones which are equipped with LiDAR, optical and thermal sensors. It is presently being used for terrain mapping and volumetric measurements. Volumetric measurements have been undertaken at CCL, BCCL and NCL. For fast implementation of drone technology in various other applications related to mining, drones were deployed in outsourced mode for various applications like high-resolution mapping, blasting monitoring and inspection at NCL. The job has been completed successfully. Similarly, outside agencies are being engaged for various other applications to check the efficacy of drones in SECL, WCL, CCL and ECL. CMPDI is also in the process of validating the volumetric measurements done by drone based photogrammetry versus 3D TLS in outsourced mode in its three Regional Institutes i.e. Nagpur, Bilaspur and Singrauli. The work has been awarded. Application of drone may prove to be useful for enhancing productivity and safety in coal mining applications.

- **ERP:** Honourable Minister of Coal, Mines & Parliamentary Affairs, Shri Pralhad Joshi has inaugurated the Go-live of the ERP for Phase-I subsidiaries of CIL. ERP for Phase-II was made Go-live in August 2021 for CMPDI and other subsidiaries. The system integrator M/s Accenture has deployed personnel at CMPDI for implementation of ERP.
- **Big Data Management and Intelligent Analytics software** is intended to be introduced at CMPDI. This has various advance analytical tools like test analytics, forecasting, real-time checks, etc. which will enable Coal Industry to move forward to Industry 4.0.
- **Quarter Complaint Handling System:** An integrated portal (Colony Complaints

Management System) for CIL and its subsidiaries has been developed for lodging and resolving the complaints of quarter and office building by employees using their logins or through call center. A system generated SMS and email will be sent to complainant and various stakeholders at different stages against the complaint. Various features like feedback mechanism and dynamic reporting for status monitoring and data analysis are being made available.

- **A Data Interface (API)** has been developed for integration of Mine Data Management System (MDMS) with OCMS portal. This API is intended for use by Ministry of Statistics and Program Implementation (MoSPI).
- **Carbon Footprint Analysis of CIL and Roadmap for Carbon Neutrality:** The report involved analysis of carbon footprint and emission intensity for CIL's coal mining operations and future projections associated with coal production. The report also includes future roadmap towards achieving carbon neutrality and reductions in emissions intensity. · Sustainability Status Report for Coal Sector in India for the year 2019-20: This report covers the status on environmental sustainability of selected 40 mines from coal companies w.r.t. four parameters - namely land use, air quality, water regime and mine closure aspects and their categorizations. The report also highlights the roadmap to improve environmental sustainability in coal mining projects.
- **Report on "Mine Water Utilization in Coal Sector" for the year 2019-20:** The report covers the status of mine water available in running and abandoned mines and its utilization across coal companies for internal purposes as well as supply to communities

& other agencies for various purposes like drinking, irrigation and industrial uses. The report also highlights best practices undertaken by various coal companies w.r.t utilization of mine water resource.

- **Report on “Greening Initiatives in coal and lignite PSUs” for 2020-21:** The draft report covers statistics on status of land degradation, reclamation and plantation by coal & lignite PSUs within and outside project areas. Statistics include status of biological reclamation completed, technical and biological reclamation under progress, plantation done in other areas in mines and areas identified for further plantations in near future.
- **Monitoring of activities of Sustainable Development Cell (SDC)** through MDMS portal: The interface has been developed under MDMS portal for monitoring of SDC schemes and activities across the SCCL with respect to Mine Tourism, Renewable Energy, Bio-reclamation, Utilization of processed overburden & bottom ash for stowing operation in underground mines and other of best practices in SCCL.

16. Review of Productivity Norms- Output Per Manshift (OMS) of CIL

(In Tonnes)

Year	Output Per Manshift (OMS)		
	UG	OC	Overall
2020-21 (Actual)	0.93	15.09	9.02
2021-22 (Provisional) Apr'21-Oct'21)	0.94	14.31	8.40

17. Policy Initiatives and Reform Measures regarding Corporate Social Responsibility (CSR)

Coal India Ltd. (CIL) and its subsidiary companies are undertaking various activities & projects under

Corporate Social Responsibility (CSR) in conformity with the latest DPE guidelines, provisions of the Companies Act, 2013 and Rules framed thereunder. The allocation of funds during FY 21-22 has been done as per the CSR policy of CIL under which the higher of the two amounts - 2% of the average net profit for the three immediately preceding financial years OR ₹2.00 per tonne of coal production of the previous year (consolidated coal production of CIL in case of CIL (HQ)) is allocated for a particular financial year. CIL Board has approved the modified CSR policy of CIL in Apr' 2021 to incorporate Policy guidelines in compliance with Companies (Corporate Social Responsibility Policy) Amendment Rules, 2021.

The said CSR Policy has introduced certain reformative measures in the form of fresh guidelines such as:

- (i) CSR Projects completed before 1 year and of value above ₹1 Cr have been subjected to Impact Assessment for which services of reputed external agencies are utilized.
- (ii) Area General Managers have been delegated with power to undertake CSR Projects/ activities in mining localities having value up to ₹5.00 lakhs
- (iii) CIL and Subsidiaries need to design Annual Action Plans incorporating CSR activities & fund allocations at the beginning of Financial Year
- (iv) Memorandum of Understanding (MoU) needs to be signed with all implementing agencies for projects having value more than ₹5.00 lakhs
- (v) While finalizing CSR activities, suggestions given by the elected representatives/bodies need to be duly considered
- (vi) Where subsidiaries are unable to execute Govt. mandated CSR projects due to fund

crunch, on their complying the fund requisition formalities, CIL would consider funding such projects.

The details of CSR statutory provision and the amount utilized by CIL and its subsidiaries each for the last three years and the current year are as under:

(Fig. in ₹Crores)

Com-pany	2018-19			2019-20			2020-21			2021-22 (Provisional figures)		
	Statutory Provision	Total Al-location (incl. carry-over)	Expen-diture	Statu-tory Provi-sion	Total Al-location (incl. carry-over)	Expen-diture	Statu-tory Provi-sion	Total Al-location (incl. carry-over)	Expen-diture	Statu-tory Provi-sion	Total Allo-cation	Expen-diture (Apr-Nov 2021)*
ECL	0.32	16.09	16.46	10.03	16.46	11.48	8.84	16.46	11.55	17.47	17.47	8.79
BCCL	6.52	29.16	1.43	6.21	10	6.01	0	5.54	6.12	0	4.93	2.1
CCL	45.78	88.37	41.14	42.73	89.75	52.89	46.46	46.46	56.59	40.11	40.11	17.78
WCL	0	9.24	4.25	10.64	10.64	9.59	0	11.52	5.94	0	10.06	11.77
SECL	81.04	158.46	83.55	66.53	158.76	84.65	79.42	79.42	38.33	67.58	67.58	35.27
MCL	136.36	136.36	167.16	156.5	156.5	165.5	168.44	168.44	205.33	181.62	181.62	71.14
NCL	75.44	111.32	73.57	92.27	130.02	83.33	118.23	118.23	129.92	132.75	132.75	60.55
CMPDIL	1.53	1.42	1.58	3.01	3	3.07	4.64	4.64	4.65	5.9	5.9	0.1
CIL (Incl. NEC)	6.99	113.47	27.33	8.28	207.52	171.32	8.47	137.62	95.36	6.81	105.31	83.17
TOTAL	353.98	663.89	416.47	396.2	782.65	587.84	434.5	588.33	553.79	452.24	565.73	290.67

*Fund released so far has been shown as Expenditure

The major CSR activities undertaken during the current financial year are as under:

1. Healthcare

With guidelines from DPE having prioritized healthcare since FY 18-19, CIL & subsidiaries have consistently been spending a major chunk out of their CSR Budget on healthcare. MCL is coming up with Mahanadi Institute of Medical Sciences and Research (MIMSR) in Talcher, Angul district, Odisha at a cost of ₹492.62 cr. which will make a major difference in the health infrastructure of the area. ECL has supported 3.5 crore to the upcoming 200 bedded Hospital at Dumka.

That apart, some of the major Healthcare Projects undertaken by CIL are (i) Financial commitment of ₹20 Cr for supporting ₹10 lakh per patient under Thalassemia Bal Sewa Yojana towards treatment of Thalassemia and aplastic anemia by Bone Marrow Transplantation (ii) Procurement of Radiotherapy Unit at cancer hospital in Kolkata with

support to the tune of ₹10 Cr (iii) Setting up 31 PSA oxygen plants with an allocation of ₹46 Cr (iv) 40-bed ICU facility at Govt. Medical College Hospital Silchar with an commitment of ₹5 Cr (v) ₹30 Cr as part support to National Cancer Institute at Nagpur.

2. Rural Development

Project 'Utthan' – a Comprehensive Community Development project is under implementation by MCL taking technical and field support from BAIF Pune at a Project cost of ₹20.30Cr towards achieving better livelihood and quality of life of 6174 identified needy families. NCL has undertaken Small Holder Poultry Project for tribal women at Singrauli at a project cost of ₹8.75 Cr. The 2nd Phase of the Project meant for 250 women beneficiaries for setting up home-based poultry units for income generation is underway. CIL has committed CSR support to the tune of ₹19 Cr for the Road Alignment Project at Joshimath undertaken by the Govt of Uttarakhand

through 'Shri Kedarnath Uthhan Charitable Trust'.

3. Skill Development

The Skill Development Project in plastic engineering trade undertaken by CIL on pan India basis has entered into its 2nd Phase. The project at the cost of 21 Cr targets 3000 unemployed youth (8th/10th pass) who will be undergoing 6 months training at various CEPET Centres with placement opportunity of around 80%. ECL has adopted an ITI situated at Sikitia, Godda, and Jharkhand at a Project cost of ₹15.30 Cr, where 212 youths undergo training in 5 trades with good employment potential.

4. Initiatives in Aspirational Districts

24 nos. of Aspirational Districts have been allotted to CIL and subsidiaries for undertaking various CSR Projects aiming at development of those Districts. Major Projects undertaken by CIL in its Aspirational Districts are (i) PSA Oxygen Plants at Simdega and East Singhbhum (ii) Eklavya Vidyalayas 25 each in Narayanpur, East Singhbhum and Simdega (iii) Micro Irrigation project & Anganwadi Centres at Narayanpur (iv) Promotion of Horticulture and Sericulture at Simdega.

5. Welfare of the differently abled

CIL through its CSR Initiative is providing 12 months programme for rehabilitation of children with disabilities from under privileged communities in Bhopal along with vocational training for livelihood generation for persons with disabilities from 18-30 years through Arushi Society. Another project "Pehla Kadam" is providing Education, Awareness and Self Reliance of differently abled students studying Pehla Kadam Special School in Dhanbad aiming at upbringing the children with special abilities to be at par with other school-going children. SECL has provided financial assistance for implementation of accessible toilets to Person with Disability and Trans genders to be implemented by Swachh Bharat Mission- Gramin, Govt. of Chhattisgarh in 5 Districts

of Chhattisgarh.

6. Sanitation

- (i) 'Swachhta Maah' was observed during October 2020 during which various activities were undertaken to spread the message of cleanliness and hygiene.
- (ii) Various activities such as Creation of sanitation infrastructure, support to Open Defection Free (ODF) campaign etc. are being undertaken as part of Swachhta Action Plan.
- (iii) Construction of Pre-Fab Toilets in surrounding areas of 100 Railway Stations through RITES in ECL command areas.

7. COVID-19 Related Initiatives

A total amount of ₹269 crores were spent under CSR in FY 20-21 by CIL and its subsidiaries on COVID-19 related initiatives. This is 48.6% of the total CSR expenditure of FY 20-21 i.e. ₹553.85 crores.

₹90 cr. in total has been extended as financial support to various State Govts. to mitigate the disastrous effects of the pandemic. Amounts allocated to the States are as follows: Maharashtra (₹20 cr.), West Bengal (₹20 cr.), Jharkhand (₹20 cr.), Madhya Pradesh (₹20 cr.) and Chattisgarh (₹10 cr.)

Some of the remarkable initiatives taken by CIL and its subsidiaries to counter the Covid-19 pandemic are as under:

(A) Lifesaving Infrastructure Creation:

- o 1200 bedded dedicated COVID hospital (Level 3) at Bhubaneswar by MCL
- o 150 bedded dedicated COVID hospital at Talcher, Odisha by MCL
- o Conversion of govt. hospitals at Bilaspur and Ambikapur, Chattisgarh into 100 bedded dedicated COVID hospitals by SECL
- o 200 bedded COVID hospital at Hasdiha,

- Godda, Jharkhand by ECL
- o 150 bedded makeshift COVID hospital at Bokaro, Jharkhand by CCL
- o Conversion of 100 beds in ICU beds at Karnataka Institute of Medical Sciences (KIMS), Hubali, Karnataka by CIL.

(B) Income Generation Opportunities:

- o Women trained in Khadi and handloom by NCL sold masks to different agencies
- o MCL procured 3.10 lakh masks from women SHGs in Odisha benefitting about 200 women
- o CIL executed “Bharat Ke Kaladharmi” project to help performing artists who lost their livelihoods due to closure of tourist places in lockdown

- o Employment to people of nearby areas of mines in civil construction projects which were implemented under CSR
- o CIL provided laptops to 150 underprivileged girl students of Kasturba Balika Vidyalaya, New Delhi to enable them to get digitally educated as schools were closed during lockdown

(C) Helping the Underprivileged:

- o Free treatment at facilities created for COVID treatment such as SUM hospital in Bhubaneswar, Odisha
- o More than 5.5 lakh cooked food/dry ration packets distributed (incl. 71,000 on Shramik Special Trains)

More than 17.50 lakhs masks and more than 80000 litres of hand sanitizer distributed in nearby areas of mines