

CHAPTER

3



POLICY INITIATIVES AND REFORM MEASURES

POLICY INITIATIVES AND REFORM MEASURES

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 financial year 2020-21 are as follows:

Drilling in non CIL/Captive Mining Blocks

(Figures in L.Mtr.)

Year	Target	Actual	Growth % w.r.t. Previous year
2015-16	4.82	2.87	1.77
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	5.66	4.29 (Apr'20-Dec'20)	

Note: Figure for 2020-21 is provisional.

The shortfalls in target achievement are due to COVID-19 lockdown, restricted movement, serious law & order problems in many coal block areas, non-availability of forest clearance, etc.

CMPDI increased the departmental capacity from 4.51 lakh metre in 2017-18 to about 4.88 lakh metre in 2019-

20 with a growth of 11% 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 financial year 2020-21 are as follows:

Drilling in CIL Mining Blocks

(Figures in L.Mtr.)

Year	Target	Actual	Growth % w.r.t. Previous year
2015-16	10.15	7.06	29.54
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	4.91	3.48 (Apr'20-Dec'20)	

Note: Figure for 2020-21 is provisional.

2. Renewed policy thrust to increase coal production

Based on the demand projection in 'Coal Vision 2030' for coal sector in the country and subsequent demand projection on CIL, a road map to produce 1 BT coal by the year 2023-24 in order to reduce both demand-supply gap and non-essential import of coal in the country, has been prepared. To achieve projected

production, CIL has identified major projects and assessed their related issues.

Coal India Limited (CIL) has crossed the 600 MT mark in consecutive 2nd year in 2019-20. In 2020-21, the Annual Plan target is pegged at 660 MT and projection for 2021-22 as per 1 BT plan of CIL is 740 MT. The group-wise production plan of 2020-21 and actual production during Jan'20 to Nov'20 is given below.

(Fig. in MT)

CIL	2020-21	Jan'20 to Nov'20	2021-22
	BE	Actual	Projection
Existing & Completed	290.02	276.43	740
Ongoing Projects	369.88	271.48	
Future Projects	0.1	0.00	
Total	660	547.91	

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 2020, 34 mining projects have been sanctioned and 09 mining projects have been completed in CIL.

As on date, there are 114 on-going coal projects, costing Rs. 20 Crs. and above, 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 land authentication in States of Jharkhand, Odisha, Chhattisgarh, MP and

Maharashtra. Further, land owners are being constantly persuaded to accept compensation and handover land acquired by the company.

- Constant coordination and liaising with State governments 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 the projects is reviewed regularly at the subsidiary and CIL level. MoC reviews projects costing more than Rs. 500 Crs and / or of capacities 3 Mty and above on quarterly basis.
- The projects monitoring group takes-up critical issues with the State Govt. 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, CIL has launched the MDMS Portal with an aim to assimilate every detail of projects/mines, analyze the performance and generate 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.

Further, MoC has already established the e-CPMP (online Coal Project Monitoring Portal) for resolving issues pending at State level & with the Central Ministries.

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.

4. Measures being taken to increase coal production

During 2020-21, CIL envisages to produce 369.88 MT from the on-going group of projects. Due to the outbreak of COVID-19 Pandemic during the end of FY 19-20 and consequent to severe economic slump globally as well as in the country, the growth trajectory in the country dipped and saw a subdued coal demand in the country. Accordingly, the production plan of CIL was re-worked for FY 20-21 to 660 MT from 710 MT (as per 1 BT plan).

In respect of CIL, major increase in production is envisaged from 112 nos. of on-going projects (as on 30.11.2020) 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 158 MTY to be operated by Mine Developer cum Operator mode. Tenders for 7 such projects have already been floated.
- 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 404.5 MT. Tenders floated for all 35 projects, against which LoA has been issued for 17 projects. As on 30.12.20, out of these 35 projects, 2 have been commissioned and 8 are under construction.

5. Technology development and Modernization of Mines in CIL

Underground 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. CIL has planned to introduce 26 nos. of CM in 19 mines and 2 PSLW in 2 mines within 2023-24 of which 3 CMs have already been deployed in 3 mines. Currently, 15 CMs and 2 PSLW are in operation in 11 & 2 mines respectively.

Further, a man-riding system has been introduced in a number of underground mines with the objective of reducing unproductive travelling time of mine workers. Presently, 43 nos. of Man-Riding System (MRS) are in operation in different UG mines of CIL while in another 33 MRS are under various stages of approval and installations. For a few underground mines proposed with mass production technology, a trackless transport system has been proposed for men and material. Three Free-steered vehicles are presently in operation in Jhanjra underground mine of ECL.

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 45% coal production during 2019-20 was from Surface Miners.

- In order to further improve the operational efficiency, In-pit crushing & conveying/In-pit conveying system has been introduced in the mines of CIL. GPS based vehicle tracking, RFID system-based monitoring devices with boom barriers are introduced to enable real time monitoring of the movement of vehicles which also facilitate corrective measures against pilferage etc.

Further, CIL is also in process of introducing Enterprise Resource Planning (ERP) and other IT-enabled systems to manage its human, physical and financial resources which will give a big boost to the operating efficiency of the CIL.

For survey work, CIL has started using technology like 3D Terrestrial Laser Scanner (TLS).

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

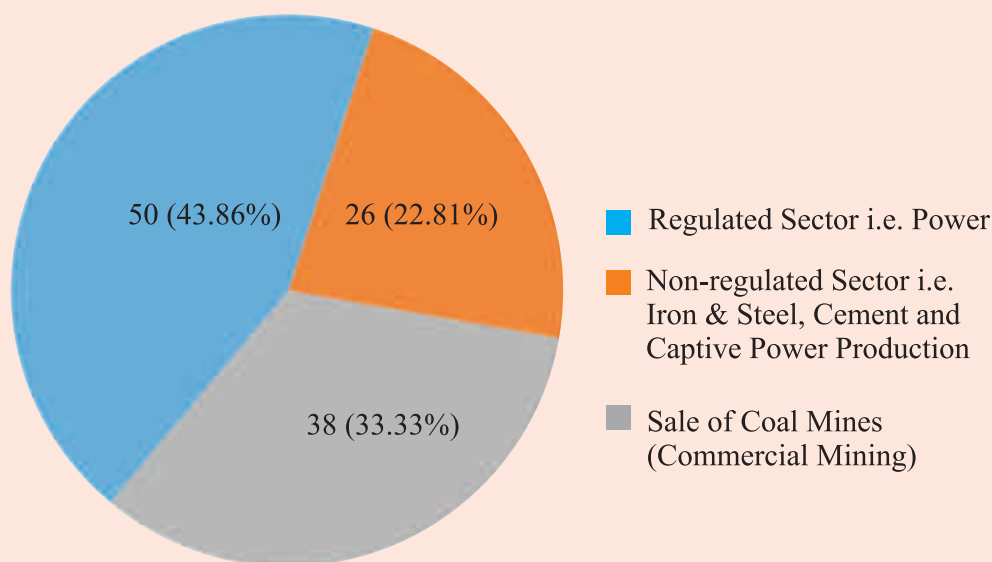
- The allocation of 204 coal mines de-allocated by Hon'ble Supreme Court is now made under the provisions of the Coal Mines (Special Provisions) Act, 2015. Under the provisions of the said Act, 114 coal mines have been successfully allocated. Of these 114 coal mines, 45 have been allocated through e-auction (44 to private companies and 1 to a Government company) and 69 have been allotted to Government Companies.

Sector-wise allocation of these 114 coal mines are: 50 coal mines to the regulated sector i.e. power, 26 coal mines to the non-regulated sector i.e. iron & steel, cement and captive power as well as 38 coal mines for sale of coal.

- Under the provisions of the Coal Mines (Special Provisions) Act, 2015, 16 coal mines have been auctioned for sale of coal during 2020.
- Directions have been issued to Nominated Authority for allotment of North of Arkhapol Srirampur (Southern Part) which is 50% of North of Arkhapol Srirampur coal mine to CIL for sale of coal under Rule 11(10) of CM (SP) Rules, 2014 during the year 2020.

Pie Diagram of 114 allocated coal mines is as under

Details of 114 Allocated Coal Mines



Commercial Mining

- Based on High Level Committee (HLC) recommendations, a discussion paper on auction of coal mines detailing auction methodology for auction of coal mines for sale of coal was placed in public domain by Office of Nominated Authority on 14.01.2020 for comments of the stakeholders by 31.01.2020. The auction methodology for sale of coal as recommended by HLC was extensively deliberated in the Ministry in various meetings and it was concluded that the recommendation may be accepted with modification wherever necessary and as the auction methodology and other conditions of auction proposed by HLC are different from existing methodology, approval of CCEA will be required for adopting the new methodology. Accordingly a Draft CCEA Note on adoption of methodology for auction of coal / lignite blocks for sale of coal revenue sharing basis was sent for Inter-Ministerial Consultation on 15.02.2020. After consultations, the final note for CCEA was formulated and sent to the Cabinet Secretariat on 30.04.2020.
- Methodology for auction of coal and lignite mines / blocks for sale of coal / lignite on revenue sharing basis and tenure of coking coal linkage was approved on 20.05.2020 and order in this regard was issued on 28.05.2020. Salient features of the Methodology are:
 - i. Based on Revenue sharing mechanism. Floor percentage at 4%.
 - ii. Applicable to fully explored as well as partially explored coal blocks.
 - iii. Upfront amount is based on value of estimated geological reserves.
 - iv. Successful Bidder to pay monthly revenue share based on % revenue share quoted, total quantity of coal and notional or actual price whichever is higher.
 - v. Incentives for early production, gasification and liquefaction of coal.
 - vi. Exploitation of CBM is allowed.
 - vii. No restriction on the sale and/ or utilisation of coal. More flexibility in coal production schedule.
- Directions of the Central Government were issued on 15.06.2020 to Nominated Authority for conducting e-auction of 33 coal mines for sale of coal under the provisions of CM (SP) Act, 2015. Later on, 05 coal mines were withdrawn from the auction process on the

requests of the State Governments. Therefore, 28 coal mines were offered for auction for sale of coal under CM (SP) Act. Of the 28 coal mines offered for sale of coal under CM (SP) Act, 2015, 16 coal mines have been auctioned for sale of coal.

7. Allotment of Coal/Lignite Blocks under MMDR Act

Under the provisions of MMDR Act, 1957 and rules made there under, 11 Coal Blocks have been allocated to Government Companies (Central/ State). Out of above 11 coal blocks, 9 coal blocks are allocated for end use power and 2 coal blocks are allocated for commercial mining/sale of coal. CBDPA (Coal Block Development & Production Agreement) has been signed with respect to 11 coal blocks. Further, 4 coal blocks have been decided to allocate to CIL/its subsidiaries for making them more than 100 MT companies. Also, 2 lignite blocks have been allocated under the provisions of MMDR Act, 1957 and rules made thereunder to the State PSU of Gujarat [1 for end use power and 2 for commercial mining/sale of lignite]. LBDPA (Lignite Block Development & Production Agreement) has been signed with respect to two lignite blocks.

Directions have been issued to the Office of Nominated Authority for allocation of 25 Coal Blocks by Auction for sale of coal. Out of which 3 Coal blocks have been auctioned successfully till date.

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 agreements 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.

1. Non-Power FSAs.
2. Coal Supplied to SNAs
3. Spot e-auction
4. Special Spot Auction
5. 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 companies 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.

Coal India Limited has assigned work to CIMFR & QCI for carrying out sampling of 546 MT and 73 MT respectively and Singareni Collieries Company Limited (SCCL) has assigned to CIMFR & IICT for carrying out sampling of 54.11 MT for power sector and 0.28 MT for Non-Power sector respectively.

As a part of the reform process and with a view to expand the base of Third Party Sampling, CIL has taken forward steps for engagement of reputed global level testing agencies besides CIMFR and QCI for quality sampling of coal. CIL floated a RFP for empanelment of global level third party agencies for the job of collection, preparation, analysis and documentation of coal samples collected at loading end. First RFP process is completed and one third party agency has been selected.

Another RFP has also been floated for further empanelment of additional third party agencies.

9. Rationalization of Coal linkages:

The Ministry of Coal has issued the policy for linkage Rationalisation for power plants of State/Central PSUs in 2015. Coal linkage rationalisation in the 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 based power generation. The Ministry of Coal has issued the policy for linkage Rationalisation for Independent Power Producers (IPP) in 2018. So far overall movement rationalization of 72.08 MT for power plants of State/Central PSUs has taken place with annual potential savings of Rs 4818 crore. In addition, Linkage Rationalization of 2 IPPs have been done and the approximate saving in electricity cost by the end consumer, as estimated by Central Electricity Authority (CEA) would be about Rs. 118 crore.

A new methodology has been formulated in 2020 on linkage rationalization covering 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) 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) 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 the new plant.

However, later on, point No. (v) was amended to the effect that for thermal power plants belonging to the 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.
- Presently, four tranches of linkage auction have completed, where about 80.5 MTPA of coal linkage was booked by the successful bidders with an average percentage premium of about 20% over non power notified price.
- The fifth tranche is underway, where linkage auctions for Steel(coking) and Sponge Iron sub sectors have been completed. Under the Steel(coking) subsector, 1.3 MTPA of coking coal linkage was booked with no premium. In the linkage auction for Sponge Iron subsector, 4.19 MTPA of coal linkage was booked by the successful bidders with an average premium of about 19%.

Coal linkages to power sector under SHAKTI

On 22.05.2017, the Ministry of Coal came out with a new policy for allocation of future coal linkages in a transparent manner for power sector consumers. This policy is known as 'Scheme for Harnessing and Allocating Koyala (Coal) Transparently in India' (SHAKTI). With the approval of CCEA, SHAKTI Policy, 2017 has been amended and the same has been issued by the Ministry of Coal on 25.03.2019. The policy is expected to positively contribute in resolution of a number of stressed assets. The salient features of the policy are:

A. Under the old regime of LoA-FSA

1. FSA may be signed with the pending LoA holders after ensuring that the plants are commissioned by 31.03.2022.
2. The 583 pending application for LoA may be closed.
3. The capacities totaling 68000 MW as per CCEA decision dated 21.06.2013 would continue to get coal at 75% of ACQ even beyond 31.03.2017.
4. About 19000 MW capacity out of 68000 MW which could not be commissioned by 31.03.2015 may be allowed coal supply under FSA at 75% of ACQ provided these plants are commissioned within 31.03.2022.
5. Actual coal supply to power plants shall be to the extent of long term PPA and medium term PPAs to be concluded in future against bids to be invited by Discoms as per bidding guidelines issued by MoP.

With these, the old regime of LoA-FSA would come to finality and fade away.

B. Following to be considered under new more transparent coal allocation policy for power sector, 2017-SHAKTI (Scheme for Harnessing and Allocating Koyala (coal) Transparently in India)

1. CIL/ SCCL may grant coal linkages to State/Central Gencos/JVs at notified price on recommendations of the Ministry of Power.
2. Linkages to IPP having PPA based on domestic coal but no linkage:

a. shall be on auction basis where bidders shall quote a discount on tariff.

b. Bid Evaluation Criteria shall be the non-zero Levelized Value of the discount.

3. Linkages to IPPs/ Power Producers without PPAs shall be on auction basis where methodology would be similar to that followed under linkage auction to non-regulated sector i.e. the bidders would bid for premium above the notified price of the coal company.
4. Coal linkages may also be earmarked for fresh PPAs, by pre-declaring the availability of coal linkage with description, to the States. States may indicate these linkages to Discoms/ SDAs.
5. Power requirements of a 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.
6. Linkages shall be granted for full normative quantity to Special Purpose Vehicle (SPV) incorporated by nominated agency for setting up Ultra Mega Power Projects (UMPP) under Central Government initiative through tariff based competitive under the guidelines for determination of tariff, on the recommendation of MoP.
7. MoC in consultation with MoP 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 saving to consumers.
8. (a) Short term linkage coal to Power Plants including private generators, which do not have PPAs under B (iii) and B (iv) of SHAKTI Policy.
(b) A generator which terminates PPA in case of default in payment by the Discom, may be allowed to use existing linkage coal for sale of Power through short term PPAs on Power exchange.
(c) Aggregation of Power by Nodal Agency under Para B (v) for a group of States even without requisition.

(d) PSU to act as an aggregator of Power of such Stressed Power assets and procure it through transparent bidding process and offer that Power to the Discom against their existing PPAs.

(e) Net surplus after meeting operating expenses generated in case where provisions of B (viii) (a) (b) (c) and (d) are utilized, shall be entirely used for servicing debt in first place.

Status of Implementation of SHAKTI

- A (i): Clearance has been given for signing of FSA for 10 power plants with a total capacity of 7210 MW.
- B (i): 23 Thermal Power Plants (TPPs) have been granted linkage for a total capacity of 25340 MW.
- B (ii): First round of linkage auction under B (ii) of SHAKTI policy was conducted in September, 2017, whereby 27.18 Million Tonne (MT) of annual coal linkage was booked by ten successful bidders for about 9,045 MW capacity. Second round of B (ii) auction has been concluded by CIL on 24.05.2019. During this second round quantity of 2.97 MT of annual linkage has been booked by eight bidders for about 874.9 MW capacity. Power Finance Corporation Limited (PFCCL) was directed to conduct the future rounds of auction under para B(ii). Auction has been conducted by PFCCL during May, 2020. 2.8 MTPA linkages have been booked by 5 successful bidders.
- B(iii): The linkage auction for SHAKTI B (iii) Long/medium term was conducted in February, 2020. Out of the total offer of 11.8 MTPA, 6.5 MTPA was booked by 7 successful bidders. The average premium gained was 8.5%.
- B(iv): Coal linkage granted from CIL for the States of Gujarat, Uttar Pradesh and Madhya Pradesh for a capacity of 4000 MW, 1600 MW and 2640 MW respectively.
- B(v): Coal linkage granted from CIL for a capacity of 2500 MW
- B(viii) (a): Auction for April - June, 2020 was completed on 19.03.2020. Out of 5.77 MT of

coal offered by CIL, 1.34 MT was booked by 9 successful bidders at notified price.

Auction for July - September, 2020 was completed on 13.07.2020. Out of 4.9L MT of coal offered by CIL, 0.63 MT coal was booked by 8 successful bidders at notified price.

Auction for October - December, 2020 has been completed on 15.09.2020. Out of the 5.89 MT offered by CIL, 0.35 MT coal has been booked by 6 successful bidders at notified price.

Auction for January - March, 2021 has been completed on 21.12.2020. Out of the 5.97 MT offered by CIL, 0.64 MT coal has been booked by 7 successful bidders at notified price.

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 specific 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.

And, SLC (LT) in its various meetings during FY 2018-19, 2019-20 & 2020-21 (till 31st December, 2020) extended the bridge linkage of 21 Thermal Power Plants in Central/ State Public Sector Undertakings.

13. Thrust on Washing of Coal

In order to meet the demand of the 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.

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 with an aggregate capacity of 34.63 Mty. Out of the 12 coal washeries, 10 are coking coal (including 2 new washeries commissioned in the last 2 years) whereas 2 are non-coking coal washeries with a 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 in 5 nos. of old coking coal washeries.

To further boost the washing of coal, there are 12 new upcoming washery projects in CIL, which are under different phases of implementation. Out of the upcoming 12 washeries, 9 are coking coal and 3 are non-coking coal. 4 washeries are under construction, 4 washeries are awaiting statutory clearances, 1 is under tendering stage and 3 washeries are under conceptual stages in phase-II.

Reject Disposal Utilization

A high-level technical committee vide OM No. CCNT-43016/1/2018-CCSD dated 04.04.18 of Ministry of Coal, Govt. of India was constituted to:

- Fix a threshold for GCV of washery rejects below which the reject may not have any market value and can be disposed off in mine voids without being misused;
- Frame a Standard Operating Procedure (SOP) for disposal of throwaway rejects in environmentally sustainable manner in the mine voids and/or other low lying areas;
- Draft an oversight/monitoring mechanism for disposal of throwaway rejects.

The said Committee has prepared the report titled “Defining throwaway coal washery rejects in terms of its calorific value, disposal in mine voids/low lying areas & monitoring mechanism” and submitted to the Ministry of Coal.

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

The 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 Coal field (JCF) is 12 years including 2 years of pre-implementation activities and for Raniganj Coalfield (RCF) it was considered for 10 years as per approved Master Plan. The periods of implementation of the Master Plan for JCF is due to expire and that for RCF has expired.

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-I & ADDA and BCCL in consultation with CMPDI RI-II & JRDA.

Both the comprehensive proposals have been discussed in the 21st HPCC meeting. As per the directive of the 21st HPCC meeting revision of both the proposals are in progress.

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 34 active fire sites as per its report of 2017. BCCL has taken action for dealing with fire at these sites. NRSC is conducting the fresh survey of fire in 2020-21 and has submitted an interim report in Oct 2020. As per interim report total active fire sites are 27. Action is being taken by BCCL for dealing with fire in these sites as stipulated in the Approved Master Plan.

Rehabilitation- As per the Master Plan, total 54,159 families in 595 nos. sites were to be surveyed. CIMFR, ISM, Whiz Mantra and JRDA has completed the survey of 595 sites in 2020 as follows:

6352 houses have been constructed in Belghoria Rehabilitation Township 'JhariaVihar' in which 2537 non-LTH families (encroachers) are shifted from affected areas-

In order to shift BCCL employees residing in fire affected areas 7714 houses have been built by BCCL in non-coal bearing zones and 4182 families from fire & subsidence places have been shifted to these houses. Further construction of 8138 units by BCCL is under progress and in different stages of completion-

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 2020-21, total 111 mines/clusters of CIL were selected for monitoring based on satellite data. Till December 2020, satellite data based Image Analysis of 108 mines/clusters [51 (more than 5 mcm) and 67 (less than 5 mcm)] have been completed.

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-II, Mine-III, BLMP, Talabira) has been carried out in 2020-21.

Other New Initiatives

- Drones are being introduced for surveying and mapping applications for the first time in CIL. The first Drones equipped with LiDAR, Optical and thermal sensors have been delivered to CMPDI on 28th December 2020 and it will be commissioned soon. Drones are also proposed to be used for various other applications in CIL mines to test their utility and effectiveness in outsourced mode. Once established, the application of Drone may prove to be useful for enhancing productivity and safety in coal mining applications.
- CMPDI has established MS Project Server with high capacity and configuration for online monitoring of Coal India projects like Contract, FMC, Future Mining, Procurement and Washeries. At present about 587 such projects across various subsidiaries of CIL are being monitored.
- CMPDI has developed an Online Coal Block Information System (OCBIS) for the use of Coal India and its Subsidiaries. It is overlaid on Google Maps for presentation of the classified data. OCBIS consists of information about layers of coal blocks, coalfields & CBM.
- Mine Data Management System (MDMS) Portal was developed by CMPDI for Coal India Limited, which depicts the salient features of projects being monitored by CIL. The main features of the portal is to monitor the progress of coal projects which encompass Environmental Clearance (EC), Forest Clearance (FC), Land Acquisition, Rehabilitation & Resettlement (R&R), financial parameters, HEMM procurement, production and other major infrastructure such as Coal Handling Plant (CHP), Silo and Railway sidings. Additionally, Environmental parameters are also being monitored through this portal. By implementing the portal, the monitoring agencies are reaping the benefits through retrieval of information from a single source.
- 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 CIL & subsidiaries with respect to Air Quality Management, Mine Tourism, Renewable Energy, Restoration of ecology and biodiversity and implementation of best practices in coal sector.

- CMPDI has developed a Coal Dashboard for MoC, depicting at a glance statistics of Exploration, Production, Information about Super 35/75 projects, Offtake, S&T Expenditure, information about critical & Super critical Thermal Plants.
- Portal for EIA/EMP vetting for quality

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

(Fig. in Tons)

Year	Output per manshift (OMS)		
	UG	OC	Overall
2019-20 (Actual)	0.99	14.25	8.53
2020-21 (Provisional) Apr'20-Nov'20	0.91	14.47	8.10

improvement: A portal is created for EIA/EMP vetting by the peers (Regional Institutes of CMPDI), experts at CIL level & respective subsidiaries of the projects.

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

Coal India Ltd. (CIL) and its subsidiary companies are undertaking different developmental activities under Corporate Social Responsibility (CSR) following the latest DPE guidelines and provisions of the Companies Act, 2013. The allocation of funds during FY 20-21 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 Rs. 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 Oct. 2020. As per the modified policy, for calculation of CSR budget of CIL (HQ), production of only those subsidiaries which had not incurred net loss in the immediately preceding financial year.

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)

CSR Budget and Expenditure for CIL and subsidiaries during last three years and current year												
Company	2017-18			2018-19			2019-20			2020-21 (Provisional figures)		
	Statutory Provision	Total Allocation on (incl. carryover)	Expenditure	Statutory Provision	Total Allocation (incl. carryover)	Expenditure	Statutory Provision	Total Allocation (incl. carryover)	Expenditure	Statutory Provision	Total Allocation (incl. carryover)	Expenditure (Apr.-Nov. 2020)
ECL	20.89	28.46	12.69	0.32	16.09	16.46	10.03	16.46	11.48	8.84	16.46	2.31
BCCL	9.98	25.38	2.74	6.52	29.16	1.43	6.21	10.00	6.01	5.55	7.20	4.33
CCL	54.88	80.49	37.90	45.78	88.37	41.14	42.73	89.75	52.89	46.46	83.32	41.89
WCL	0.00	9.13	7.23	0.00	9.24	4.25	10.64	10.64	9.59	0.00	15.31	2.12
SECL	93.30	171.04	93.62	81.04	158.46	83.55	66.53	158.76	84.65	79.42	153.63	21.83
MCL	122.85	122.85	267.52	136.36	136.36	167.16	156.50	156.50	165.50	168.44	168.44	48.72
NCL	72.47	72.47	36.59	75.44	111.32	73.57	92.27	130.02	83.33	118.23	164.92	56.48
CMPDIL	0.80	1.50	1.18	1.53	1.42	1.58	3.01	3.00	3.07	4.65	4.65	1.17
CIL (Incl. NEC)	7.88	110.83	24.31	6.99	113.47	27.33	8.28	207.52	171.32	8.55	137.62	64.96
TOTAL	383.05	622.15	483.78	353.98	663.89	416.47	396.20	782.65	587.84	440.14	751.55	243.81

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

1. Healthcare and Disaster Management

- a. Financial support for procurement of two water ambulances for Majuli district, Assam which is affected by flood every year
- b. Contribution towards COVID-19 relief measures by CIL and its subsidiaries through
 - i. Distribution of masks and sanitizers
 - ii. Distribution of cooked food and food ration
 - iii. Setting up of 500 bedded COVID hospital at Bhubaneswar by MCL and exclusive COVID-19 treatment centers in Bilaspur and Ambikapur, Chhattisgarh by SECL
- c. Contribution to state disaster relief funds/ authorities
 1. West Bengal – Rs. 20.00 cr. by CIL on behalf of ECL
 2. Maharashtra – Rs. 20.00 cr. by CIL on behalf of WCL
 3. Jharkhand – Rs. 20.00 cr. by CCL
 4. Madhya Pradesh – Rs. 20.00 cr. by NCL
 5. Chhattisgarh – Rs. 10.00 cr. by SECL
 6. Uttar Pradesh- Rs 5.00 cr by NCL

2. Sanitation

- a. 'Swachhta Mah' was observed during October 2020 during which various activities were undertaken to spread the message of cleanliness and hygiene.
- b. Various activities such as Creation of sanitation infrastructure, support to Open Defecation Free (ODF) campaign etc. are being undertaken as part of Swachhta Action Plan.

3. Skill Development

- a. A fresh MoU has been signed with Central Institute of Petrochemicals Engineering &

Technology (CIPET) for training upto 3000 persons from command areas of CIL's subsidiaries.

- b. CIL has approved financial assistance for construction of building for accommodation of resource persons, trainers and farmers at KrishiVigyan Kendra, Tuniki village, Medak district, Telangana.

4. Rural Development

- a. CIL has contributed towards improving livelihoods of farmers in Narayanpur, Chhattisgarh by way of providing them micro irrigation infrastructure.
- b. CIL has provided financial assistance for promotion of sustainable livelihood options for the people of Majuli, Assam which gets affected by floods every year.

5. Welfare of the differently abled

- a. SECL has provided financial assistance for implementation of accessible toilets to persons with disabilities and transgenders to be implemented by Swachh Bharat Mission-Gramin, Govt. of Chhattisgarh in 5 Districts of Chhattisgarh.

6. Education

- a. CIL has provided assistance for purchase of equipment for providing education through digital means to students of Kasturba Balika Vidyalaya, New Delhi.

7. Welfare of armed forces veterans and war widows

- a. CIL has contributed Rs. 1.00 cr. to Armed Forces Flag Day Fund for welfare of armed forces veterans, war widows and their families.
