



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 are as follows:

(Drilling in Lakh Metre)

Year	Target	Actual	Growth % w.r.t. Previous year
2019-20	7.60	7.88	29%
2020-21	7.65	7.70	-2%
2021-22	3.40	4.28	-44%
2022-23	2.00	2.58	-40%
2023-24	3.50	4.29	66%

The actual drilling vis-à-vis targets in CIL blocks during the last five financial years are as follows:

(Drilling in Lakh Metre)

Year	Target	Actual	Growth % w.r.t. Previous year
2019-20	6.30	5.80	-30
2020-21	4.95	5.45	-6
2021-22	4.35	3.98	-27
2022-23	4.19	3.58	-10
2023-24	3.70	3.80	6

In addition to the above, CMPDI also has carried out exploration in Coal & Non Coal through NMET funding and in FY 2023-24 has completed 0.34 lakh meter of drilling. During the period from 01.01.2023 to 31.03.2024, 0.45 Lakh metre of drilling has been carried out through NMET funding.

2. Renewed policy thrust to increase coal production

In order to maintain higher trajectory of production level well over its past levels of 773 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 770 Million Tonne (Mt.) mark in coal production. In 2023-24, the Annual coal production target was pegged at 780 Mt. and CIL achieved the coal production of ~ 774 Mt. The annual target of CIL for

2024-25 is 838 Mt. The group-wise production plan and actual production during the period of 2023-24 is given below.

(Figs. in Mt.)

CIL	2023-24		2024-25
	(AP Target)	Act.	AP Target
Existing & Completed	204.4	204.4	838
Ongoing Projects	575.4	568.8	
Future Projects	0.2	0.3	
Total	780.0	773.4	

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

3. Completion of Projects and Expansion of Existing Projects.

Coal India Limited

During FY-2023-24, 16 mining projects have been sanctioned and 03 mining projects have been completed in CIL.

As on 31-03-2024, there are 119 ongoing coal projects (costing ₹ 20 Crs. and above) with total sanctioned capacity of 895.93 Mty and with total sanctioned capital of ₹ 133567 Crores, 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 the timely completion of projects various steps have been taken by CIL which are as below:

a) Persistent persuasion with State Governments to expedite possession of land in states of Jharkhand, Odisha, Chhattisgarh, MP and

Maharastra. Further, landowners are being constantly persuaded to accept compensation and hand over land acquired by the company.

- b) Constant coordination and liaising with the State Government for expediting the process of grant of FC.
- c) State Governments have been constantly persuaded by the coal companies at all levels to initiate necessary action for curbing the frequent law & order issues.
- d) The implementation of projects is reviewed regularly at the subsidiary and CIL level. MoC reviews projects costing more than ₹ 500 Crs and above on monthly basis.
- e) The projects monitoring group (PMG) 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, ERP Portal was launched by CIL, which assimilates every detail of projects/



mines, analyses the performance and generates relevant reports.

Monitoring of Projects is done through PS Module of ERP Portal.

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 31.03.2024, there are 11 Projects of SCCL, Costing ₹ 150 Crore and above are being monitored through OCMS portal and are being updated monthly.

4. Measures being taken to increase coal production:

4.1 The steps taken by the Government to make the country self-sufficient in the production of coal are as under:

- i. Regular reviews by Ministry of Coal to expedite the development of coal blocks.
- ii. Enactment of Mines and Minerals (Development and Regulation) Amendment Act, 2021 for enabling captive mines owners (other than atomic minerals) to sell up to 50% of their annual mineral (including coal) production in the open market after meeting the requirement of the end use plant linked with the mine in such manner as may be prescribed by the Central Government on payment of such additional amount.
- iii. Single Window Clearance portal for the coal sector to speed up the operationalization of coal mines.
- iv. Project Monitoring Unit for hand-holding of coal block allottees for obtaining various approvals / clearances for early operationalization of coal mines.

- v. Auction of commercial mining on revenue sharing basis launched in 2020. Under commercial mining scheme, rebate of 50 % on final offer would be allowed for the quantity of coal produced earlier than scheduled date of production. Also, incentives on coal gasification or liquefaction (rebate of 50 % on final offer) have been granted.
- vi. Terms and conditions of commercial coal mining are very liberal with no restriction on utilization of coal, allowing new companies to participate in the bidding process, reduced upfront amount, adjustment of upfront amount against monthly payment, liberal efficiency parameters to encourage flexibility to operationalize the coal mines, transparent bidding process, 100% Foreign Direct Investment (FDI) through automatic route and revenue sharing model based on the National Coal Index.

4.2 Coal India Limited (CIL) has identified and initiated actions for fulfilling all the resources required like Environment Clearance / Forest Clearance, land acquisition, evacuation infrastructures such as mechanized loading through Coal Handling Plant (CHP) / SILO, Rail Projects etc. CIL is in constant endeavour to enhance its coal production through expansion of mines (brownfield projects), opening of new mines (greenfield projects), mechanization and modernization of its mines, both Underground (UG) & Opencast (OC). In its UG mines, CIL is adopting Mass Production Technologies (MPT), mainly with Continuous Miners (CMs), wherever feasible. CIL has also planned Highwalls (HW) mines. In its OC mines, CIL already has State-of-the- Art technology in its high capacity Excavators, Dumpers and Surface Miners.

4.3 Measures being taken by SCCL to increase coal production:

Presently, SCCL is operating 39 mines (22-Underground and 17-Opencast) in Telangana



State. Naini Coal Mine allocated to SCCL in Odisha State is expected to be started in FY 2024-25. SCCL has envisaged to ramp up production to 77 MT by the end of 2024-25. Following steps are taken to enhance the production:

- Planning to open 7 new mines (6 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.

4.4 Measures being taken by NLCIL to increase coal production:

NLC India has taken steps to achieve the target of 12 MT from Talabira II & III Coal mine during the year 2023-24. Considering the high demand of coal, NLC India Ltd. is taking all out efforts to augment the coal production of Talabira Mine further. During 2023-24, Talabira Coal production had touched 12.68 MT. In addition, Talabira II & III OCP is augmenting the coal production to 16.1 MT for F.Y. 2024-25. Also, the Pachwara South coal block which is allotted to NUPPL (a subsidiary of NLCIL) is in advanced mine development stage. Stage-I FC clearance is pending. This mine is expected to get operationalized by December 2024. The target of coal production is 1.68 MT for FY 2024-25. On best effort basis, NLCIL could produce around 17.78 MT during FY 2024-25. The above efforts will not only provide fuel security to end use plants but also make coal available in the market.

5. Technology development and Modernization of Mines in CIL

Underground Mine Mechanisation

The Vision 2047 of the nation, which is under

finalization, has highlighted a number of important would-be for the future. What evolved from the exercise clearly indicated that coal continues to remain a major player in the energy supply mix of the nation. Further, more and more energy should be sourced from environment friendly modes which include environmentally friendly mining methods thereby greatly enhancing the importance and relevance of underground mines. Therefore, CIL has prepared a UG Vision Plan and according to it, CIL has planned to produce 100 Mt by the year end 2029-30. The major thrust area to augment UG production is by introducing Continuous Miner (CM) in a big way as well as by implementing large number of Highwall mines to improve percentage of extraction and exploit the idle coal which otherwise would be lost forever in the batter of old/ discontinued/ running OC mines. Another method of increasing UG production has been taken by re-opening the abandoned/ discontinued mines through MDO by revenue sharing model. At present, 30 nos. of Continuous Miners (CM) have been deployed in 20 UG mines of CIL with total capacity of about 14.88 Mty.

As per UG Vision Plan, CIL has envisaged a plan for commissioning of another 110 Nos. of CMs with capacity of about 45.12 Mty by 2029-30. At present, 5 Highwall miners are running with a capacity of 2.36 Mt and additional 25 nos. of Highwall miners will be commissioned by 2029-30. For the purpose of auctioning of abandoned/ discontinued mines on revenue sharing model through MDO, a total of 36 mines (20 mines in Tranche-I, 7 mines in Tranche-II, 7 mines in Tranche-III & 2 mines in Tranche-IV) have been identified so far. Out of this, LOA have been issued for 20 mines having 31.295 Mty proposed capacity and rest of the mines are at different stages of progress. 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, 55 man-riding systems are in operation in CIL mines. Another



13 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. Accordingly, five Free-steered vehicles and six multi-utility vehicles are presently in operation in Jhanjra and Kottadih underground mine of ECL.

Opencast Mine Mechanisation

- CIL has introduced State-of-the-Art technology to improve work efficiency. High capacity HEMMs like 42 cum Shovel with 240 T Rear Dumper are running in Gevra Expansion, Dipka & Kusmunda open cast mines while 20 cum Shovel with 190 T Rear Dumper are running in Amlohri, Dudhichua, Jayant, Khadia & Nigahi of NCL and in Rajmahal of ECL.
- Surface Miners have been introduced in opencast mines in a big way to improve operational efficiency, customer satisfaction & to cater environmental needs. 50.16% of total coal production of CIL during 2021-22 was achieved through using Surface Miners and it has increased to 53.75% during 2022-23. In FY 2023-24, contribution of Surface Miner in total Coal Production of CIL is 54.91%. As on 1.4.2024, 47 numbers of departmental Surface Miners in addition to the Surface Miners deployed through hiring mode are in operation in several opencast mines of CIL.
- 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 (07) selected opencast mines (3 of SECL & 4 of NCL).

- The latest version of a suite of Geological & Mine modelling software for mine planning are being used. This provides best resource planning through pit design, pit optimization, scheduling of resources and dumps, etc. Geo-technical software/tools for analysing rock and soil slopes stability is also being used.
- Slope Stability Radar has been deployed in one mine of WCL, 3 mines of SECL and in one mine of ECL. Another Slope Stability Radar has been deployed in Dudhichua OC of NCL under S&T Study. In future Slope Stability radar will be deployed in other big mines of CIL as per need.
- Vibro Rippers for extraction of Overburden has been introduced in two mines of MCL and one mine of SECL. Also, consultation with OEMs is being done to introduce Surface Miner for extraction of OB.
- Drone-based Surface Survey is being conducted at various subsidiaries of CIL.
- Further, CIL has also introduced 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. Further, CIL has also introduced 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.

Surveying and Exploration

- For precision of highest level, Total Station & 3D TLS survey instruments have already been introduced for survey & measurement work. High end survey grade Drone Technology equipped with Optical Sensor, LIDAR and Thermal Sensors have been procured by CMPDI which are being used for different



survey purposes such as, Volumetric measurement, Topographical survey, thermal mapping of mine fire zones, change detection, Soil Moisture Conservation (SMC) Studies and generation of digital terrain models for mine operation.

- Creation of Gati Shakti Cell in Geomatics Division, CMPDI
- Updation of Coal Block, Mining related Information, Coal Evacuation, Land Data and other thematic layers on PMGS- Portal as per CIL Work Order. Data uploading and updation is done on regular basis.
- In exploration work, advancement is achieved through introduction of Drone technology for surveying areas with highly undulating topography and less approachability, especially like North East regions etc. Using this technology more grounds can be covered in less time and due to recent developments in software, handling this high definition dataset have become quite easier and accurate modelling of ore/mineral bodies, basements etc. for the whole area can be done. Further, Seismic survey, a conventional exploration technique (2D/3D) in normal surface terrain, is being used through departmental as well as outsourcing in coal exploration. Seismic data processing & interpretation is being done through state-of-the-art imported software, PARADIGM. In addition to this software, as a part of Aatmanirbhar Bharat initiative, a software viz. Spectral Enhancement (SPE) has been developed jointly by CMPDI and Gujarat Energy Research and Management Institute (GERMI) Gandhinagar for improvement of seismic output and resolution. In-house developed AI/ML module for automatic interpretation of Geophysical log data increase the accuracy of results and also reducing the interpretation time.

Technology Development and Modernisation of NLC Mines:

NLC India Limited is pioneer of Lignite and Coal Mining in India has adopted new mining technologies in his different sector of Mines and Thermal units.

The latest technologies which are being adopted in mining sector is summarised below:

NLCIL's, latest technological innovations:

1. Spatial data visualisation and volume measurement of OB/LIGNITE/COAL

- NLCIL is using 3D TLS for volume measurement of IB, OB, COAL and Lignite based on DTM to DTM in all its Lignite and Coal Mines in India.

2. Geospatial Data generation with integration of Trimble R12 DGPS and 3D-TLS which will make a Benchmark customization in Terrestrial laser Scanner usage in Mines.

3. Geographic information systems (GIS):

- These Geospatial data represents an object's location, size, and shape.
- GIS is used for
 - o OB/IB/Lignite/Coal reserve estimation.
 - o Geochemical and hydrology data.
 - o Report generation.

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

Out of 204 cancelled coal blocks, Nominated Authority has so far allocated 121 coal mines under the provisions of the Coal Mines (Special Provisions) Act, 2015, Out of which 57 coal mines have become operational while 54 coal blocks are under production.



During 2023-24, 16 coal blocks have been allocated to under the provisions of Coal Mines (Special Provisions) Act, 2015, out of the coal mines cancelled/de-allocated by Hon'ble Supreme Court of India.

7. Allotment of Coal/Lignite Blocks under MMDR Act, 1957:

So far 40 coal mines have been allocated under the provisions of MMDR Act. During 2023-24, 16 coal blocks have been allocated to under the provisions of MMDR Act.

Policy Reforms for allocation of coal/lignite blocks:

Commercial coal mining for sale of coal was launched for the first time in India on the 18th June 2020 to increase production of domestic coal and make India Atmanirbhar in Coal sector. Within a short span of 4 years, 9 rounds of auctions have been conducted successfully auctioning 104 coal mines having Peak Rated Capacity of ~225 MT. Commercial coal mining is a big boost for coal sector.

8. Quality and Third Party Sampling – Recent Decisions

To address the concerns of consumers (power Utilities) regarding coal quality, Standard Operating Procedure (SOP) for Third party Sampling had been introduced in 2015. Guidelines on Third Party Sampling at the loading end – Standard Operating Procedure were issued on 26.11.2015. As per the policy, an independent Third Party Agency was to be appointed by CIMFR by a transparent process for undertaking the work of sampling and analysis, of coal at the loading end on behalf of both the power plant (consumer) and the coal companies (supplier). CIMFR had also been permitted for undertaking of sampling and analysis of coal at unloading / receipt end by the Thermal Power Plants. The progress of the Third Party Sampling is being reviewed jointly

by Joint Secretary (Coal) and Joint Secretary (Thermal).

Third Party sampling has also been extended to Non-Power consumers taking coal under different FSAs and e-auction on optional basis.

CIMFR has discontinued Third-Party sampling activities w.e.f 11.11.2023.

On behalf of MOP, PFC has conducted two rounds of tender for empanelment of third party sampling agencies and 01 Third party sampling agency during first round and 10 third party sampling agency during second round has been empanelled by PFCL.

Consumers would be free to take services of any of the empanelled Third Party Sampling Agencies.

Moreover, QCI (Govt. Autonomous body) and CIMFR (a Govt enterprise) were also offered the job at the lowest discovered price of the PFCL tender. While QCI accepted the offer, CIMFR did not accept the said offer.

At present, 12 Third-Party sampling agencies are empanelled to undertake the job of third-party sampling.

9. Rationalization of Coal linkages:

Rationalization of coal linkages is a policy initiative of Ministry of Coal in order to reduce the distance in transportation of coal from the coal mines to the consumer. Coal linkage rationalization in power sector has resulted in decrease in transportation cost from the mines to the power plants leading to more efficient coal base power generation. The exercise helps in reducing the load on the transportation infrastructure, easing the evacuation constraints as well as reduction in landed cost of coal. The methodology for rationalization of coal for IPPs/ Private sector plants was also issued on 15.05.2018. The past rationalization exercises were implemented only for the Power Sector. The new methodology 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.

So far, total 92.16 Million Tonnes of coal has been rationalized with annual potential saving of ₹ 6420.00 crore so far. During December, 2023, 3rd round of rationalization was concluded for linkage quantity of 6.72 Million Tonne with a potential savings of approx. 580 Crore/Annum.

10. Auction of coal linkages for non-regulated sector:

Policy for Auction of Coal Linkages to Non-Regulated Sector (NRS) was introduced in the Year, 2016. The policy prescribes that allocation of coal linkages for NRS [except Fertilizer (Urea)] shall be auction based. Only the erstwhile Fuel Supply Agreement (FSA) for CPSEs and Fertilizer (Urea)] shall be renewed. The FSAs under the Policy shall be for the maximum period of 15 years. With the amendment to the policy introduced in 2020, the tenure of coking coal linkages in the NRS linkage auction has been revised for a period upto 30 years. Separate quantities are earmarked for various sub-sectors of NRS and the auctions are conducted for the sub-sectors.

Presently, the 7th tranche of NRS linkage auction is underway. Under the NRS linkage auctions, a coal quantity of 170.50 MT has been booked by the successful bidders so far

A new Sub-sector '*Production of Syn-Gas leading to coal gasification*' has been created in 2022 under the NRS linkage auctions in order to encourage coal gasification technology so that new consumers requiring coal for coal gasification are incentivized. This will also mitigate the adverse impacts of the conventional use of coal on the environment. Another new sub-sector under the NRS linkage auctions with the nomenclature of "Steel using Coking coal through WDO route" has been created in Mar' 2024. It is expected that the new subsector will lead to

enhanced domestic coking coal consumption in the steel Industry in the country.

11 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. Amendments to the said policy have also been introduced in year 2019 and 2023. 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 any product in 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:

- i) Clearance has been given for signing of Fuel Supply Agreement (FSA) to 9 LoA holders with a total capacity of 8,780 MW under provisions of para A(i) of SHAKTI policy.
- ii) 51 Thermal Power Plants (TPPs) have been granted linkage for a total capacity of 58,680 MW under provisions of para B (i) of SHAKTI policy.
- iii) Under SHAKTI B (ii), total six rounds of auction have been completed in which total booked quantity is 38.85 MT.
- iv) Under SHAKTI B (iii), total 28.94 MT quantity has been booked in five rounds of auction so far.
- v) Coal linkage have been earmarked from CIL for the States of Gujarat, Uttar Pradesh,



Madhya Pradesh, Rajasthan and Maharashtra for a capacity of 4000 MW, 1600 MW, 2640 MW, 3299 MW and 1600 MW respectively for linkage under B(iv) of SHAKTI Policy.

- vi) Coal linkage earmarked from CIL for a capacity of 4500 MW for linkage under B(v) of SHAKTI Policy.
- vii) 18 tranches of quarterly Linkage Auction have been conducted by Coal India Limited under para B(viii)(a) of SHAKTI Policy in which a quantity of 72.29 MT was booked by successful bidders.

12. Policy on Bridge Linkage

Guidelines for grant of 'Bridge Linkage' to specified end use plants of Central and State Public Sector undertakings (PSUs) [Both in Power as well as Non-Power sector] which have been allotted Schedule-III coal mines under the Coal Mines (Special Provisions) Act, 2015 and coal blocks allotted under the Mines and Minerals (Development and Regulation Act, 1957) were issued on 08.02.2016. Bridge Linkage acts 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 production from the linked allotted coal mine/ block.

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 (coking 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. Washed coking coal can be used to maximize the blending ratio with good quality imported coking coal which ultimately will result in reduction of coking coal import.

In this regard, two R&D projects namely "Effective

utilization of Middlings and Fines of Coking coal washery for recovery of carbon values" by NML Jamshedpur in association with CMPDI & BCCL; and "Performance Study of Coking Coal washery of Coal India Limited through Simulation analysis" by NML Jamshedpur & CMPDI Ranchi in association with BCCL are in progress and will be completed in FY 2023-24. Another R&D project namely "Upgradation of High Ash Indian Coals through Physical and Chemical beneficiation" by IIT Kharagpur in association with CMPDI, MCL & BCCL is also in progress and scheduled to be completed by September 2024.

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 13 coal washeries, out of which, 10 are coking coal (including 3 recently commissioned coking coal washeries) and 3 non-coking coal washeries with total capacity of 18.35 Mty and 21 Mty, respectively. Out of the 3 Non-coking coal washeries, Lakhanpur (10 Mty), MCL was commissioned on 15th April, 2024.

Most of the existing coking coal washeries are very old and have outlived their designed lives leading to low efficiency. CIL has awarded job of renovation of its existing Moonidih Washery (BCCL) through Turnkey method. CIL is also planning to monetise 4 old and inefficient Washeries of BCCL i.e. Dugda-II, Sudamdih, Madhuban and Mahuda through private sector.

To further boost the washing of coal, there are 8 new upcoming coking coal washery projects in CIL, which are under different phases of implementation.

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.

A. 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.

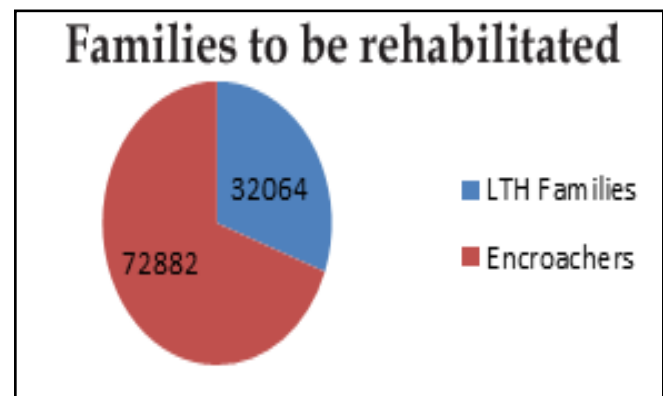
BCCL has taken action on 27 National Remote Sensing Center (NRSC) locations surveyed in 2020-21. Out of these 27 patches, 16 are economically viable. Work has been awarded and coal extraction started at 15 locations. For 1 location project has been awarded on MDO mode and preparatory works are undergoing. Out of balance 11 locations, as per latest report of NRSC (2021-22) at 10 locations fire has shown decreasing trend or marginal fire and overall surface fire area has been reduced to 1.8 sq km. Hence these locations are being dealt by surface blanketing. Out of these 10 locations blanketing has been completed at 8 locations. The process of digging out the fire at remaining 1 site is found to be economically unviable for which proposal has been sent to CIL for Viability Gap Funding (VGF).

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.

For rehabilitation of non LTH families, 18272 houses have been taken up for construction out of which 14874 houses have been completed in Belgoria Rehabilitation Township “JhariaVihar” in which 5035 houses have been allotted and 2827 families (Non LTH) have been shifted in new houses from affected areas.

In order to shift BCCL employees residing in fire affected areas, out of 15713 houses taken up for construction, 11944 houses have been completed and 4436 BCCL employees have been shifted in these houses.

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



Revised Jharia Master Plan:

Due to the completion of the tenure of the Master Plan, to continue with the ongoing activities, the proposal for time extension of the Master Plan was examined and the Ministry of Coal gave an extension for one year for “Committed works”. Further, as per the directive of the Cabinet Secretary, a committee was constituted to review the Jharia Master Plan under the Chairmanship of the Secretary (Coal) on 25th August 2021. The committee visited the affected areas and interacted with stakeholders. Way ahead to the Jharia Master Plan prepared by the committee. Based on the report Ministry of Coal prepared the Revised Jharia Master Plan and sent to the Cabinet Secretary for approval.

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.

Land Reclamation Monitoring of CIL mines 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/ Clusters 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 2023-2024, Land Reclamation Monitoring of total 121 projects comprising of 76 Opencast Projects producing more than 5 mcm (Coal+OB) per annum category and 45 opencast projects/clusters/UG mines producing less than 5 mcm (Coal+OB) per annum category under different subsidiaries of CIL were taken up for monitoring based on Satellite Data. The Digital Image Processing of Satellite Data and the report preparation was completed as per schedule and the reports were submitted to respective subsidiary/ CIL.

Drone based Surveys

CMPDI had two survey grade drones which are equipped with LiDAR, optical and thermal sensors.

CMPDI has recently acquired a new Fixed Wing VTOL Drone/UAV, further strengthening its fleet of Drones. These Drones/ UAVs are presently being used for various applications in different subsidiaries of CIL as per requirement received. Apart from the above, the services of Twelve (12) Drone Service Providers empanelled by CMPDI are also being used on regular basis. Some of the major Drone/ UAV Survey jobs completed in 2023-24 are as follows:

- CMPDI has taken up the job of Drone based topographical survey for coal blocks to be auctioned to prepare Fly through Videos of the coal blocks under 8th/ 9th Tranche of auction as per the directive of Ministry of Coal. This will provide a bird's eye view of the entire block area to the prospective bidders for their better understanding of the area and planning for development of the block in the earliest possible time. In Phase I, drone Survey and submission of output data for 38 coal blocks completed by January 2024. In Phase II, drone Survey and submission of output data for 21 coal blocks completed by March 2024. In Phase III, drone Survey and submission of output data for 8 coal blocks completed by March 2024.
- Drone survey for mapping in North Karanpura and South Karanpura Coalfields in Central Coalfields Limited has started in March, 2024 and the work is under progress.
- Preparation of High resolution ortho-photo mosaic image and topographical map using photogrammetry technique at (i) Kalyaneshwari, Ramnagar, Victoria and part of Sitarampur Block, Raniganj Coalfield, ECL, West Bengal and (ii) Rajrappa OCP, CCL, Ramgarh, Jharkhand.
- Topographical map & High resolution ortho-photo mosaic generation for Soil Moisture



- Conservation (SMC) Studies at Chhal and Baroud, SECL, Raigarh, Chattisgarh.
- Infrastructure mapping in the Gare Pelma IV/2 & IV/3 Block, SECL, MP.
- Topography & volumetric survey at old OB dump using photogrammetry technique at Urimari Project, CCL.
- As per directive of Niti Aayog, Drone Survey in abandoned mines of CCL was successfully completed and the output has been submitted to CCL.
- High resolution ortho-photo mosaic image and associated DGPS survey in connection with preparation of mine dossier for submission to MoC for auction in Tranche-8 auction for Kabitirtha Block under Raniganj CF, ECL & Sendur Block under, Tatapani Ramkola Coalfield, SECL.
- Acquisition of Data from UAV for preparation of Real time aerial footage and video of the project of Pundi OCP in respect of environment Department CCL.
- Acquisition of Data by UAV based Optical sensor, at Rajrappa OCP, CCL for washery site selection.

Satellite Surveillance for land reclamation NLC:

- Safety and surveillance in hazardous areas-** NLCIL has 259 Sq. Km leased hold area and have old dump and afforestation area that need surveillance for safety of mankind. NLCIL is started doing regular surveillance this area periodically with UAV and LIDAR combination.
- Time-lapse photography**—Started using RGB drones the photography of NLCIL mines & thermal are being done periodically.
- Measuring stockpile inventory** - NLCIL started as an experimental one, to use LIDAR/ RGB RTK/PPK enabled Drones for Lignite/ coal stock measurement.
- Site mapping**—Drones are being used to site mapping of mines and old dump. Recently Mine II in Neyveli Tamil Nadu and BLMP in Rajasthan, site mapping is carried out.

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

(In Tonnes)

Year	Coal India Limited			Singareni Collieries Co. Ltd.		
	UG	OC	Overall	UG	OC	Overall
2017-18	0.86	13.15	7.44	1.08	13.73	4.89
2018-19	0.95	14.68	8.51	1.40	16.94	6.23
2019-20	0.99	14.25	8.53	1.44	16.57	6.37
2020-21	0.93	15.09	9.02	0.92	13.86	5.62
2021-22	0.97	15.46	9.56	1.19	15.15	6.09
2022-23	1.05	22.04	12.80	1.27	13.94	5.31
2023-24 (Provisional)	1.18	25.43	13.43	1.19	13.24	5.42

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

17.1 Coal India Ltd. (CIL):-During the current financial year, Coal India Ltd. (CIL) and its subsidiary companies have undertaken different developmental projects/activities under Corporate Social Responsibility (CSR) as per their CSR policy which has been framed in accordance with the extant guidelines of Department of Public Enterprises (DPE) and provisions of the Companies Act, 2013. The details of CSR fund and expenditure by CIL and its subsidiaries during FY 23-24 and the preceding three years are as under:

(Fig. in ₹Crores)

CSR Budget and Expenditure (Fig.in ₹ Crores) for CIL and subsidiaries during last three years and current year								
Com-pany	2020-21		2021-22		2022-23		2023-24	
	Statutory Provision	Exp.	Statutory Provision	Exp.	Statutory Provision	Exp.	Statutory Provision	Exp.
ECL	8.84	11.56	12.57	13.86	0.00	6.92	0.00	7.33
BCCL	0.00	6.12	0.00	2.99	0.00	11.42	0.00	7.77
CCL	46.46	56.60	50.25	24.82	46.27	36.12	51.68	61.91
WCL	0.00	5.95	1.08	12.54	8.44	11.62	11.75	13.97
SECL	79.42	38.33	67.58	69.34	44.69	59.28	51.41	53.07
MCL	168.44	205.34	181.62	251.76	195.86	207.97	142.31	162.89
NCL	118.23	129.93	132.75	123.52	132.14	133.64	148.92	157.87
CMPDIL	4.65	4.66	6.61	6.86	7.30	8.92	7.66	8.81
CIL	8.47	95.36	6.81	77.64	7.10	42.04	11.30	98.56
TOTAL	434.51	553.85	459.27	583.32	441.80	517.93	425.03	572.18

As per DPE guidelines, the priority themes for the current year are 'Health & Nutrition'. Other than this, skill development has also been focused upon. The major CSR activities/projects undertaken during FY 23-24 are as under:

- I. Third phase of Thalassemia Bal Sewa Yojana (TBSY), the flagship project of CIL was launched by Hon'ble Minister of State (Health & Family Welfare), Govt. of India in May 2023. The third phase is worth ₹ 30 cr. and will cover at least 300 patients of Thalassemia and Aplastic anemia.
- II. MoU was signed with National Skill Development Corporation (NSDC) for setting up of Multi Skill Development Institutes

(MSDIs) in each subsidiary of CIL. The first MSDI has been inaugurated at Belgharia, Dhanbad by BCCL for 'Fashionpreneur' trade.

- III. Pabitra Mohan Pradhan Medical College & Hospital, a 500 bed hospital cum 100 seat medical college constructed by MCL at Talcher, Odisha at a cost of ₹ 493 cr. was inaugurated in Dec. 2023.
- IV. Jointly CIL and CCL successfully organized a CSR conclave "Re-engineering CSR" at Ranchi on 25th - 26th April 2023. Six thought leaders shared their valuable insights with the audience. About 300 participants attended the event which included top management

and senior executives of the company, CSR executives from all across CIL and students of reputed colleges such as IIM.

- V. CSR MIS was integrated with the ERP module of CIL and record-keeping of CSR activities through ERP has started.
- VI. MoU was signed with EdCIL (India) Ltd. for promotion of Digital Education by installation of smart classrooms and ICT labs in high schools of 11 coal mining districts of Jharkhand. The initiative was further replicated in other parts of India. The execution of the project has also started.
- VII. A project to train mining area youth in employable skills such as Chef, Electrician etc. was initiated with TATA Strive.
- VIII. Project Nanha Sa Dil was commenced in March 2024 as a comprehensive initiative for Congenital Heart Disease (CHD) patients in 4 districts of Jharkhand.
- IX. NIRMAN (Noble Initiative for Rewarding Mains Aspirants of National Civil Service Examination) to financially assist the civil service aspirants clearing civil service preliminary examination was launched by Hon'ble Minister (Coal) on 7th March 2024.
- X. Projects to construct girls' hostels at IIT, Bombay and NIT, Rourkela were initiated.
- XI. Supporting coaching of underprivileged students for various examinations such as JEE, NEET etc. were started by CIL, WCL (TARASH Super 30) & SECL (SECL Ke Sushrut) as an effort to replicate the best practice of CCL established through their CCL Ke Laal/Laadli project.
- XII. CIL provided MRI machine for neuro patients at Institute of Neurosciences, Kolkata.

Awards and accolades

Thalassemia Bal Sewa Yojana, a flagship CSR initiative of CIL has won Gold in 'Fuel, Power and Energy' sector in CSR category of 'Green World Awards' 2024 presented by 'The Green Organization' on 25th March 2024 in Brazil. The milestone of 500 patients was commemorated by Hon'ble Minister (Coal) at New Delhi on 7th March 2024.

17.2 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.

17.2.1 Measures being taken by SCCL to increase coal production

Presently, SCCL is operating 39 mines (22-Underground and 17-Opencast) in Telangana State. Naini Coal Mine allocated to SCCL in Odisha State is expected to be started in FY 2024-25. SCCL has envisaged to ramp up production to 77 MT by the end of 2024-25. Following steps are taken to enhance the production:

- Planning to open 7 new mines (6 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.



CSR Budget and Expenditure of SCCL during last three years and current year (Fig.in ₹ Crores)

Com- pany	2019-20		2020-21		2021-22		2022-23		2022-23	
	Statutory Provision	Exp.	Statutory Provision	Exp.	Statutory Provision	Exp.	Statutory Provision	Exp.	Statutory Provision	Exp.
SCCL	34.86	34.86	47.98	59.67	43.04	31.85	35.82	21.38	37.50	7.18

Policy initiatives and Reform Measures regarding Corporate Social Responsibility (CSR): SCCL

- SCCL has taking up various developmental activities under CSR for the benefit of communities and society at large. SCCL sanctioning the projects in the sectors of Health care, drinking water, sanitation, promoting education, training skills among unemployed youth, supporting orphan homes and old age homes, encouraging sports, plantation, rural development works such as laying roads, drains, construction of community halls, providing street lighting etc., Disaster management activities during Covid and Floods etc.
 - For the FY 2023-24, SCCL has to spend an amount of ₹ 37.50 crore under CSR as per Companies Act, 2013. An amount of ₹ 38.08 crore was sanctioned for various CSR activities and the expenditure amount is ₹ 7.18 crore.
- Following are the major activities taken-up by SCCL during the FY 2023-24:
- During the FY 2023-24, an amount of ₹ 1 crore sanctioned for Flood relief, rehabilitation and reconstruction activities in Jayashankar Bhupalpalli and Mulugu Districts.
 - During the FY 2023-24, an amount of ₹ 1.01 crore was sanctioned for skill development training programs to unemployed youth in SCCL operational districts.
 - During the FY 2023-24, an amount of ₹ 15 crore was sanctioned for Establishment of Dr. B.R. Ambedkar Knowledge Centers in 119 Constituencies of Telangana State under SCCL CSR.
 - During the FY 2023-24, an amount of ₹ 2 crore was sanctioned for providing infrastructure facilities to Govt Z.P.H School and Govt Junior College in Luxettipet village of Mancherial District.
 - During the FY 2023-24, an amount of ₹ 2.97 crore was sanctioned for providing infrastructure facilities to University College of Engineering, Kakatitya University, Kothagudem.
 - During the FY 2023-24, an amount of ₹ 13.75 Lakh was sanctioned for Providing 10 No.of bore-wells in Yellandu Area under SCCL CSR.
 - During the FY 2023-24, an amount of ₹ 10 Lakh was sanctioned for financial aid for maintenance of Manochaitanya Institution established for differently abled children at Godavarikhani under SCCL CSR.
 - During the FY 2023-24, an amount of ₹ 2 crore was sanctioned for providing Rural development works such as construction of Community halls, laying roads and providing open Gyms, Hy-mast lighting in villages of Bellampalli constituency.
 - During the FY 2023-24, an amount of ₹ 3.48 Lakh was sanctioned for Organizing Swachatha Pakhwada in peripheral villages of SCCL operational Areas through SCCL CSR.
 - Food packets distribution to flood victims in Bhadrachalam



13 Organized medical camp for flood victims in Bhadrachalam



14 Skill training to unemployed youth for Army/Police recruitment in SCCL Areas





15 HarGharTiranga – Distribution and Hoisting of National flags to the people in SCCL Areas

17.3 NLC India Limited (NLCIL):- Policy Initiatives and Reform Measures regarding Corporate Social Responsibility:

NLC India Limited (NLCIL) is undertaking different sustainable development activities and welfare activities under the CSR policy. The allocations of funds under CSR are as per DPE guidelines effective from 01.04.2014. These guidelines are based on Section 135(1) of Companies Act, 2013 which stipulates to spend at least 2% of the average net profit of the company for the three immediately preceding financial years.

The detail of projects in last 10 years whose cost is more than 10 Crore (year wise).

NLCIL (consolidated) - CSR			
No.	Financial Year	Description	Amount (₹ in Crore)
1	2015-16	Construction of toilet blocks for boys and girls in Government Schools (Tamil Nadu & Rajasthan) under Swachch Vidyalaya Abhiyan	36.72
2	2019-20	PM Cares Fund	20.00
3	2020-23	Construction of Public Toilet Blocks in circulating areas of Railway Stations of Tamil Nadu in Southern Railway	42.55
4	2019-24 (NUPPL)	Construction of 71 nos. of prefabricated toilet block in various railway stations of Northern Railway	16.17

17.3.1 CSR Mission Statement:

In alignment with Mission of the company, NLCIL through its CSR initiatives will continue to enhance the quality of life of the less privileged in society by providing necessary infrastructure and to be a credible and transparent organisation striving for the eradication of poverty and maintain ecological balance.

NLCIL adopts a project-based approach for almost all CSR projects and activities of the company. All relevant stake holders' groups are involved at different stages of CSR project cycle from need assessment, planning, implementation, monitoring, handing over of projects, impact assessment and sustainability. For almost over the 10 years, the CSR function of NLCIL is being functioning through an separate CSR department manned by professionals with cross functional competencies ranging from technical expertise in professionals in Civil Engineering and Social Work in Community Development, etc.,

17.3.2 CSR Principle of NLCIL:

NLCIL believes that there is no sustainable alternative to doing business other than by incorporating the principles of profit, people and planet, thus measuring the performance in terms of economic, social and environmental impact (Triple Bottom Line approach).

As a CPSE, NLCIL will assiduously pursue and implement environment management measures for generating clean power, controlling of pollution in workplace and the environment and maintaining ecological balance with sustained CSR programmes.

MAKING DIFFERENCE THROUGH CSR INTERVENTIONS – SUCCESS STORIES

1. JALAPARYAPTHA 'Sustainable Water Resources Augmentation' CONTEXTUAL BACKGROUND OF CSR PROJECT:

Historically, lakes have been managed by surrounding communities, sometimes with administrative and financial support of local rulers. Later, this seasonally prescribed role had been replaced by formal governance administrations.

The topography of Tamil Nadu usually gets rain from South West Monsoon and North East Monsoon and especially Cuddalore district receives rainfall from North East Monsoon to a maximum extent.

Normally the total rainfall in a year varies from 1200mm to 1600mm at an average of 1350mm.

When normal rainfall was experienced in the previous years, with certain rise and falls during that tenure (however a flood was experienced in 1996 with a rainfall 2126mm). Cuddalore District has been fully drowned due to sudden flooding during Nov.2015. This situation got worsened due to highest rainfall on 09/11/2015 to a tune of 454mm, highest rainfall since 50 years. But on contra, during 2016 poor rain fall was recorded and District has received meagre rainfall both in South West and North East Monsoon during 2016 and also South West Monsoon during 2017.

On account of miserable failure of monsoon rain in Cuddalore District, people find it difficult to meet their water requirements in terms of availability of safe drinking water, domestic consumption, livestock and irrigation. When situation was analysed it is noted that the water bodies in Cuddalore District have not been desilted for more than 50 to 100 years and hence the capacity of water bodies have diminished with silting.

In order to address this challenge, NLCIL has worked relentlessly to develop sustainable water augmentation resources in its vicinity and operating regions under CSR. The intervention includes de-silting and deepening of Water Bodies, facilitate the augmentation of water, rain water harvesting, irrigation and ground water recharging, flood control, environmental sustainability, strengthening of bunds, construction of sluices& regulators, tree plantation along the bunds to check soil erosion, installing solar powered pumps in these lakes& facilitating rural development.

MAJOR ACTIVITIES UNDERTAKEN DURING IMPLEMENTATION:

- Survey of the water body, ponds and tanks
- De-silting of water bodies/ponds



- Strengthening of bunds & construction of sluices & regulators
- Sinking bore-wells and setting up solar powered motor pumps
- Involvement of local community
- Geo-tagging of de-silted ponds
- Capacity building, monitoring and impact evaluation:
- Handing over of the rejuvenated lake to concerned stakeholders:
- There will be an appreciable rise in the ground water table in the surrounding regions.
- Enhanced food security through water security for paddy, sugarcane and other crops i.e., Paddy, Sugarcane, Jock fruit, Cashew, Sesame Seeds, Black grams etc. are main crops in this area.
- Walajah lake: irrigation area - 24700 acres, 22500 households and over 90000 populations are benefiting

In order to ensure sustainable eco-system, flora & fauna around vicinity of operations, NLCIL under CSR spent ₹ 61.53 Cr., towards Water Resources Augmentation projects alone under Rural Development from FY 2014-15 to FY 2020-21.

IMPACT OF THE PROJECT:

- 43 Nos. of water of bodies/ponds de-silted so far, under CSR since FY 2014-15 benefiting over 379968 populations in over 300 villages in Cuddalore Dist (28 Nos.), Coimbatore (1 Nos.), Dharmapuri (1 Nos.) in Tamil Nadu, Bikaner Dist (3) in Rajasthan and Pondicherry UT.
- Increase in the ground water levels.
- Increased livelihood of villagers leading to reduced migration from villages to cities
- Improved accessibility and availability of water for irrigation
- Bunds Strengthened for improved Flood Control and Access to Sluices/ Regulators.
- Improved livestock number in this region
- Improved pisi-culture and aqua-culture
- Increase in crop yields and this lead to improve the farmers earning levels.

The CSR outreach teams of NLCIL began to organize local communities through dialogue and campaigns to promote conservation of community water bodies and lake system. The local communities stepped up to save their village ponds.

2. PREVENTIVE HEALTHCARE

Ensuring healthy lives and promoting well-being for all at all ages is one among the 17 sustainable development goals. Poor sanitation conditions and lack of availability of primary healthcare facilities increase vulnerability of underprivileged and poor people in the society. With an aim to facilitate accessibility to basic healthcare facilities to the people living in neighbouring villages and to improve sanitation conditions in the villages. NLCIL under CSR has been incurred ₹ 229.16 Crore over the last 10 years towards the interventions on preventive Healthcare and Nutrition in the operational areas.

Community Health check-up camps:

NLCIL conducts a minimum of 10 medical camps for the benefit of people living in the vicinity villages and conducted 12 blood donation camps. Around 30000 needy populations in the surrounding villages of Neyveli have benefiting from the health camps every year. A multi-modal approach is adopted to address various health issues pertain to prevention of anaemia among pregnant rural women, low birth weight and diarraha diseases among infants, prevention of cataract among elderly population,



management of various communicable and non-communicable diseases. Medical team consisting of specialists drawn from various disciplines like General Medicine, General Surgery, Ortho, ENT, Ophthalmology, Obstetrics & Gynaecology, Paediatrics, Dermatology, Pulmonology and Neurology conduct the multi-modal medical camp towards providing comprehensive treatment through community outreach mode.

Strengthening public health infrastructure:

In order to address the gap between accessibility and availability of health infrastructure at public services, NLCIL undertaken numerous interventions under CSR.

Setting up of Oxygen generation plants:

The COVID'19 second wave infection in India took its spike and positive cases were in raise all over the country. The requirement of Oxygen to treat the patients has been become a priority aspect for the public health system. NLCIL had undertaken several proactive preventive and mitigating measures under CSR to fight against COVID'19 pandemics.

The company has installed 21 Nos. Oxygen Generation plants with for catering oxygen needs of the patents over 2100 Nos. beds at various Govt. Hospitals in Tamil Nadu, Rajasthan and Karnataka states in line with the Govt. preparations to tackle COVID'19 pandemic. With a view to help the public health system to fight against COVID-19, NLCIL under CSR distributed 360 Nos. of Oxygen concentrators to various Govt. hospitals in Tamil Nadu, Manipur, Odisha, U.P., and Rajasthan states.

Dialysis Centre at District Govt. Hospital Cuddalore:

NLCIL established a state of the art Kidney dialysis facility at District Govt. hospital in Cuddalore with 13 dialysis machines provided with allied facilities with budget outlay of ₹ 2.25 Cr during the FY 2016-17 and handed over to the District Health Department

for further services to needy patients. Around 50 kidney patients are undergoing dialysis every day.

Health infrastructure developed at various Government hospitals in Cuddalore District i.e. constructed patient waiting halls, toilets, approach roads etc., at Govt. PHC Palakollai, Irruppu and Panruti and provided medical health equipment to various hospitals as per the requirement every year. Over 50,000 populations are benefiting from the interventions. Constructed Trauma Care centre at Govt. Hospital Kurnjipadi – Beneficiaries 2,26,000 common public and constructed TB hospital at Cuddalore to facilitate quality health services to over 5,000 needy people every year.

3. PROMOTING QUALITY EDUCATION

With an intention to facilitate the accessibility of quality education to underprivileged sections in its operational Neyveli region, NLCIL has implemented various initiatives for the benefit over 5000 needy school children at Neyveli in Cuddalore District. NLCIL under CSR has been incurred ₹ 154.01 Crore over the last 10 years towards the interventions on promoting quality education and skill development in the operating areas.

NLCIL offers best education tough its 10 schools (3 Higher Secondary Schools, 2 High Schools, 3 Middle Schools and 2 Elementary Schools) The students' strength in these 11 schools was 5460. The Company implemented Breakfast scheme to Std. XI & XII students of 3 NLC Hr. Sec. Schools to enable the students to attend the morning special classes, to improve the attendance and performance in the Public examinations benefitting around 2000 students.

The Girl child strength in NLC schools 3250 out of total strength 5500. 95% of total strength is from Neyveli nearby areas. School uniforms for Std. I & XII students provided free of cost every year as one of the benefits to encourage them to continue their studies through Hr. Sec. Level. 33 Incinerators



(Sanitary Napkin Destroyers) are made available in all NLC schools in which Girl Students are studying. School Toppers among the girl students of Neyveli Schools were awarded ₹ 10,000/- cash award + Merit certificate and medal were presented every year. Students are enrolled in Scouts and guides forum in which 100 girl students of Neyveli schools are given training. NLCIL has reimbursed Tuition fees to SC & ST and OBC students of Jawahar Science College Neyveli for pursuing Degree in Arts & science which is run by NLCIL.

Special Education: The Sneha Opportunity School (SOS) the cynosure of CSR of NLC (India) Limited established for rehabilitating the mentally challenged children has been functioning since April 1987, to train and assist the mentally and physically challenged to become self-reliant and productive, to bring them into the main stream society by enhancing skills. The objective of the School is to provide day care, education and skill training services, to the special children free of cost. The regular activities of the school are providing day care, education & vocational training to the special children. Total 70 children with different impairments (Mental retardation, Cerebral Palsy with Hearing Impairment, MR, Visual Impairment, Autism and Down Syndrome) have been availing the services.

School Infrastructure:

NLCIL established science labs and other educational infrastructure in various Govt. schools in and around Neyveli over the years to promote grade specific learning by facilitating educational needs of school children. Installed smart classrooms at 27 Government schools so far for the benefit of over 15,000 school children. Constructed school buildings at around 60 schools and public educational institutions so far. Constructed 1528 Toilet blocks in 577 schools in Tamil Nadu state and 108 Toilets blocks in 71 schools in Rajasthan State under Swatch

Vidyalaya Abhiyan Project.

NUPPL: Uttar Pradesh

4. Providing Sanitation facilities by construction of 80 numbers of toilet block in various railway station of northern Railway

Introduction

In a significant partnership between Northern Railway, M/s RITES, and the NUPPL, a transformative project unfolded. The construction of 80 prefabricated toilet blocks in various railway stations across the Northern Railway network with a project cost of ₹ 20.02 Crore not only met a pressing need but also set an example of successful corporate social responsibility (CSR) collaboration.

Background:

Access to clean and safe sanitation facilities is a fundamental right and a crucial aspect of ensuring public hygiene and convenience. In India, railway stations are central hubs for millions of passengers daily. However, a lack of well-maintained toilet facilities often posed a severe challenge for commuters. The Northern Railway, in partnership with M/s RITES and NUPPL CSR, aimed to change this scenario by embarking on a mission to construct 80 prefabricated toilet blocks across its network.

Project Execution:

The project was meticulously planned and executed in various phases with the partners Northern Railway, M/s RITES and NUPPL:

Needs Assessment: The project began with a comprehensive needs assessment, identifying the most critical locations for constructing the toilet blocks. These sites were chosen based on factors such as passenger footfall and existing facilities.

Design and Prefabrication: Once the sites were finalized, the design and prefabrication of the



toilet blocks took place off-site. Prefabrication offered numerous advantages, including reduced construction time, cost-effectiveness, and superior quality control.

Site Installation: After fabrication, the prefabricated toilet blocks were transported to their respective railway stations. The installation process was swift, with minimal disruption to station operations.

Infrastructure and Utilities: To ensure the functionality of these toilet blocks, robust infrastructure and utilities such as water supply, sewage, and electricity were seamlessly integrated into the railway station's existing systems.

Maintenance and Hygiene: A comprehensive maintenance plan was established to keep the toilet blocks in pristine condition. This included regular cleaning, sanitation, and repair, ensuring a high level of hygiene for passengers.

Target group

Target group is Daily passengers commuting through these railway stations, Railway male and Female staff.

Locations

Various railway stations of Moradabad, Lucknow and Delhi division Northern railway

Success Factors:

Speed and Efficiency: The use of prefabricated construction techniques allowed for a rapid rollout of the project, addressing a critical need without causing disruptions to station operations.

Improved Passenger Experience: The newly constructed toilet blocks significantly improved the overall passenger experience at the railway stations, enhancing their convenience and comfort during their journeys.

Enhanced Public Hygiene: The project had a positive impact on public hygiene and sanitation

standards, contributing to the Swachh Bharat Abhiyan (Clean India Campaign).

Separate provision for Male, Female and Divyangjan- The newly constructed toilet blocks having the provision of Male, Female and divyangjan which caters passengers as per specific need and gives convenience to the broader range of community.

Funds Utilised

Total fund committed for this project was ₹ 20.02 Cr. Total fund spent for the project is 16.16 Cr.





5. Installation of 50 numbers of solar based submersible pump in villages of Kanpur Nagar for Insuring drinking water facility

Objectives

Seeing the hardship faced by resident of rural areas of Kanpur Nagar NUPPL has taken up the CSR work of Installation of solar based submersible pump along with construction of pump room and laying of distribution pipeline in 50 villages of Kanpur Nagar on the recommendation of District Magistrate Kanpur. The objective of the project was to ensure the drinking water for the villagers with the help of renewable energy. Since some of the village of Kanpur Nagar had a serious problem of unavailability of drinking water, further in summer this problem shoots up.

Target Group

Local residents, farmers, students, travelers etc.

Locations

50 different Villages of Kanpur Nagar, Uttar Pradesh

Introduction

In an era where corporate social responsibility (CSR) has gained immense significance, NUPPL emerged as a beacon of hope for the residents of Kanpur Nagar, Uttar Pradesh, by introducing an innovative and sustainable approach to provide clean drinking water. Their project, "Insuring Drinking Water Facility," was a testament to their commitment to the welfare of the community.

Problem Statement:

Kanpur Nagar, like many other parts of India, faced a persistent challenge in ensuring access to clean drinking water for its villages. The existing hand pumps and conventional electrical pumps were unreliable and often left communities without access to safe drinking water. NUPPL recognized this issue as an opportunity to make a meaningful change.

The Solution - Solar-Based Submersible Pumps:

NUPPL embarked on a transformative journey by installing 50 numbers solar-based submersible pumps in various villages of Kanpur Nagar. This innovative solution offered several advantages:

Sustainable and Renewable Energy: Solar power ensured a continuous source of energy, eliminating the dependence on conventional electricity and reducing the carbon footprint.

Cost-Effective: The project significantly reduced operational and maintenance costs, making clean drinking water more affordable for the villagers.

Reliability: Solar submersible pumps provided a consistent and dependable source of water, even in remote and off-grid locations.

Implementation:

NUPPL's CSR team meticulously planned and executed the project. They conducted surveys to identify the villages with the greatest need, obtained the necessary permits, and engaged local communities to ensure the successful installation of the solar-based submersible pumps.

Key Milestones:

Selection of Villages: NUPPL identified 50 villages in Kanpur Nagar with limited access to clean drinking water with the help of district administration and public representatives.

Installation: A dedicated team of engineers and technicians meticulously installed the solar-based

submersible pumps in each village under the guidance of NUPPL engineer in charge.

Training and Awareness: NUPPL organized training sessions to educate villagers on the maintenance and operation of the pumps, fostering a sense of ownership and self-sustainability.

Impact:

The "Insuring Drinking Water Facility" project brought about a profound impact on the lives of the villagers in Kanpur Nagar:

- **Improved Health:** Access to clean drinking water led to a significant reduction in waterborne diseases, resulting in better overall health for the communities.
- **Economic Empowerment:** Families no longer had to spend a significant portion of their income on purchasing water or medical treatments, allowing them to invest in education and livelihoods.
- **Enhanced Quality of Life:** The project contributed to an improved quality of life for the villagers, with more time available for productive activities and leisure.

Environmental Benefits: The project's use

of renewable energy sources decreased carbon emissions and contributed to a cleaner environment.

Sustainability:

NUPPL's commitment to the communities did not end with the project's installation phase. They established a dedicated maintenance team and continued to engage with the villagers to ensure the long-term sustainability of the solar-based submersible pumps.

Funds Utilised

Total fund committed for this project was ₹ 4.68 Cr. At the end of 2023-24, a total of ₹ 3.31 Cr. was utilized. This project is continuing next year also.

Conclusion:

NUPPL's CSR project showcases the power of corporate social responsibility in transforming lives. By bringing clean drinking water to the villages of Kanpur Nagar through solar-powered submersible pumps, NUPPL has not only quenched the thirst of the community but also ignited hope, health, and prosperity. This success story is a testament to the positive change that businesses can bring to society when they prioritize the welfare of the communities they serve.





6. Construction of 3 Community Centers in various village of Kanpur Nagar

Objective

The objective of the project is to develop basic infrastructure community center in villages. These community centers will cater villagers to organize various social and religious gatherings and develop harmony among them.

Target Group

Local residents of villages

Location of activity

Amouli, Dohru, Gujela Village of Ghatampur Tehsil of Kanpur Nagar

Introduction

NUPPL, a leading corporate entity committed to sustainable development and community empowerment, embarked on a transformative journey in Ghatampur Tehsil, Kanpur Nagar. Through a visionary CSR initiative, NUPPL partnered with the Uttar Pradesh Public Works Department (UPPWD) to construct 3 community centers in various villages, empowering local communities and fostering a sense of togetherness. The project, which is currently in progress, has already achieved significant milestones, with 2 out of 3 community centers almost completed.

The Challenge:

Ghatampur Tehsil, a rural area in Kanpur Nagar, was facing numerous challenges, including a lack of accessible community spaces, which limited social interaction and community development. These challenges led to NUPPL's determination to create a lasting impact through CSR.

The Solution:

NUPPL's partnership with UPPWD as the implementing agency was a crucial step towards achieving success. Together, they embarked on a mission to construct three state-of-the-art community centers that would serve as hubs for education, healthcare, skill development, and cultural activities. The project was meticulously planned and executed, with a strong focus on community participation and sustainability.

Key Achievements:

Completion of 2 Community Centers: Despite facing various challenges, NUPPL, with the support of UPPWD, successfully almost completed Two community centers. These centers now serve as beacons of hope and positive change in their respective villages. Work in other 3rd community center is under progress with full swing and expected to be completed within June 2024.

- **Empowering Local Communities:** The community centers have become focal points for various activities, ranging from health camps to vocational training sessions. These initiatives have empowered local residents by enhancing their skills, health, and overall quality of life.
- **Promoting Education:** NUPPL has planned to set up skill training labs, medical camps within these centers, providing access to educational resources and learning opportunities to the youth in these rural areas.
- **Cultural Exchange:** The community centers have brought communities together for cultural events, celebrations, and festivals, fostering a sense of unity and shared identity.
- **Economic Development:** Through the provision of vocational training and skill development programs, the project has facilitated economic opportunities for the local population, reducing unemployment and poverty.
- **Community Testimonials:** Local residents have expressed their gratitude for NUPPL's CSR initiative, highlighting the positive impact it has had on their lives. They speak of the improved access to healthcare, education, and economic opportunities, as well as the enhanced sense of community and pride.

Looking Ahead:

NUPPL's CSR initiative in Ghatampur Tehsil continues to create a profound impact on the lives of the local communities. The remaining seven community centers are under construction, and the project is on track to achieve even greater success in the coming months. NUPPL is committed to nurturing these centers, ensuring their long-term sustainability, and fostering the growth of the communities they serve.

Funds Utilised

Total fund Committed for this activity is ₹ 1.43 Cr out of which Total fund spent by NUPPL is ₹ 0.66 Cr of March 2024.

Conclusion:

NUPPL's CSR initiative in Ghatampur Tehsil, Kanpur Nagar, is a testament to the power of corporate responsibility in transforming lives and communities. Through a strategic partnership with UPPWD and a strong commitment to sustainable development, NUPPL has set an example of excellence in corporate social responsibility. The completion of 2 out of 3 community centers is just the beginning of a journey that promises to leave a lasting legacy of positive change in rural Uttar Pradesh.

7. Construction of Dinning shed cum Kitchen Hall in NCC camp training area at Kanpur Cantonment Uttar Pradesh

Objectives

The primary purpose of the dining shed cum kitchen is to provide a dedicated and hygienic space for preparing and serving meals to NCC cadets during their camp activities. This ensures that the cadets have access to nutritious and safe food while participating in training programs or other camp-related activities. It also serves as an area for education, training, and fostering a sense of community among the cadets.

Target group

NCC Cadets, Trainers/instructors, Supporting staff etc.

Location of activity

NCC camp area at Kanpur Cantonment, Uttar Pradesh

Introduction

In the heart of Kanpur Nagar's vibrant Cantonment area, a remarkable project has brought together the spirit of service, dedication, and community. The construction of the NCC Cadets' Dining Hall



cum Kitchen Center stands as a testament to the commitment and perseverance of all those involved. This success story chronicles the journey of this inspiring project, showcasing the transformation it has brought to the lives of NCC cadets and the local community.

The Vision:

The National Cadet Corps (NCC) is known for its mission to nurture young minds, instil discipline, and promote a sense of national pride among its cadets. In Kanpur Nagar, the NCC was facing a challenge - they needed a proper dining and kitchen facility to cater to the nutritional needs of the cadets. The lack of such a facility was not only affecting the cadets' physical health but also the overall morale of the unit.

The Journey:

The vision to construct the NCC Cadets' Dining Hall cum Kitchen Center began as a humble aspiration but quickly gained momentum. A diverse group of individuals, including NCC officers, local authorities and concerned citizens, came together to make this vision a reality.

Diligent Planning and Design:

An experienced team of NUPPL engineers collaborated to design a facility that not only met the immediate needs of the cadets but also ensured sustainability and adaptability for future requirements. The design considered environmental factors, safety regulations, and the overall aesthetics of the building.

Construction Phase:

The construction phase was marked by hard work and dedication from local laborers and skilled workers. The project's progress was closely monitored, ensuring that it adhered to safety standards and timelines.

The Impact:

The completion of the NCC Cadets' Dining Hall cum Kitchen Center has brought about transformative changes:

- **Improved Nutrition:** NCC cadets now have access to nutritious meals, fostering their physical well-being and overall performance.
- **Enhanced Morale:** A well-structured facility has boosted the cadets' morale, inspiring them to excel in their training and contribute positively to society.
- **Sustainable Future:** The project's design and construction principles ensure that it remains a valuable resource for generations of cadets to come.

Fund utilized

Total Fund utilized for the activity is 16.23 Lakh

Conclusion:

The Construction of the NCC Cadets' Dining Hall cum Kitchen Center in Kanpur Nagar is not just a building but a symbol of hope, unity, and community action. It showcases the immense potential when people come together with a common purpose, and it stands as a testament to what can be achieved when vision, dedication, and hard work merge to create a brighter future for all.



ANNEXURE

NLCIL (CONSOLIDATED) CSR EXPENDITURE - 10 years - up to 2023-24 (prov.)

No	CSR Activities	2023-24 (Prov.)	2022- 23	2021- 22	2020- 21	2019- 20	2018- 19	2017- 18	2016- 17	2015- 16	2014- 15
1	Medical-health & family welfare	10.09	14.14	11.91	6.57	22.70	6.44	5.57	6.94	43.81	6.73
2	Drinking water facility	25.41	8.18	0.56	1.51	1.35	1.06	1.55	0.00	0.13	0.90
3	Education & scholarship	12.01	25.14	14.70	14.70	6.71	15.46	7.95	10.48	24.15	15.47
4	Construction of link road	0.88	2.06	0.00	0.72	1.86	1.28	4.10	2.39	9.85	11.78
5	Promotion of sports	0.48	0.57	0.28	0.05	0.42	0.40	0.41	0.33	0.00	0.04
6	Community development centre	3.05	0.07	0.69	0.45	0.85	0.13	0.20	0.11	0.17	0.24
7	Afforestation & environment Sustainability	0.14	0.00	0.65	0.16	0.10	1.63	2.17	0.14	0.12	0.04
8	Sanitation & other Basic Amenities	0.00	0.00	18.02	2.31	11.70	1.86	0.94	1.44	0.00	0.00
9	Heritage, Art and Culture , Construction of School, Library & Hostel	1.64	0.16	0.40	0.06	2.25	1.23	1.72	1.35	0.62	0.23
10	Vocational Skill Centre development	1.20	0.00	0.01	0.82	1.42	3.01	1.76	0.44	0.21	0.09
11	Irrigation facilities	1.36	0.00	0.00	5.15	7.16	10.15	11.06	8.11	2.87	10.97
12	Electricity including solar & non-conventional energy	0.00	0.00	0.00	0.75	0.39	1.69	0.85	0.00	0.00	0.00
13	Relief on natural calamities	0.00	0.14	0.01	0.00	0.00	1.16	0.00	0.06	0.00	1.01
14	Promoting old age home	0.00	0.00	0.00	0.00	0.00	0.19	1.84	0.42	0.00	0.00
15	Contribution to Armed Forces	0.08	0.05	0.00	0.00	0.00	0.00	0.05	0.00	0.00	0.00
16	Others	3.42	2.47	1.22	19.55	32.88	7.47	4.85	5.70	0.71	0.25
Total Expenditure		59.77	52.99	48.46	52.79	89.78	53.15	45.03	37.91	82.64	47.74

