

पर्यावरण दर्पण

बीसीसीएल की पर्यावरण समाचार पत्रिका



भारत कोकिंग कोल लिमिटेड
धनबाद



ENVOPEDIA

LOCKDOWN CLEANS UP COAL TOWN AIR: A study was conducted by an associate professor in the department of environmental science and engineering at IIT(ISM), revealed that the pollution level in Dhanbad had gone down drastically within few days of the lockdown despite the normal functioning of around 45 collieries of Bharat Coking Coal Limited (BCCL) which shows that pollution in Dhanbad is primarily caused by vehicular emission, sweeping of roads and burning of biomass and coal.

6% DROP IN SO₂ EMISSION, BUT INDIA STILL TOP POLLUTER: India has recorded a 6% decline in emission of hazardous Sulphur dioxide (SO₂) in 2019 compared to 2018 - the first decline in four years. But by contributing 21% of global anthropogenic emissions of Sulphur dioxide, India continues to be at the top in the list of big emitters for the fifth year in a row.

DRAFT EIA NOTIFICATION: During the nationwide lockdown and ongoing pandemic Covid-19, the MoEF has been constantly working to clear the projects over video conference which shows its commitment towards the progress of nation.

URBAN AIR POLLUTION MAY MAKE COVID-19 MORE DEADLY: Long-term exposure to urban air pollution, especially NO₂, may make Covid-19 more deadly, according to a study conducted in the US. The study, published in The Innovation journal, analysed key urban air pollutants, including PM_{2.5}, NO₂, O₃, across 3,122 counties in the US. NO₂ had the strongest independent correlation with raising a person's susceptibility to death from Covid-19. A 4.6 parts per billion (ppb) increase of NO₂ in the air was associated with 11.3 per cent and 16.2 per cent increases in Covid-19 case-fatality and mortality rate.



MESSAGE

I am glad to know that Environment department of BCCL is going to publish 15th edition of its biannual newsletter “Paryavaran Darpan” on 46th Foundation day of CIL on 1st November 2020. I am sure the newsletter will provide a guiding light in creating awareness regarding environment management and sustainable development.

BCCL having the responsibility to fulfil country’s energy needs also understands its responsibility towards environment and sustainable development. BCCL has always been in the forefront in converting coal mining into sustainable mining. From converting mined out areas to green ecosystems, encouraging carbon sinking through roadside plantation and green corridors in mining areas, promoting renewable energy through installation of solar panels, continuous monitoring of air water and noise pollution and its abatement measures, promoting ecotourism are some but not all the initiatives BCCL has taken for years to fulfil its mantra of sustainable development.

Over the years, BCCL has set-up various Eco-parks over mined out degraded land in its command area. This year also one Eco Park, Parasnath Udyaan situated at Katras Area was inaugurated by Hon’ble Home Minister in august presence of Hon’ble Minister of Parliamentary Affairs, Coal & Mines during the launch of Vriksharopan Abhiyaan 2020.

Presently, the whole world is affected by Covid-19 pandemic and is still struggling to fight its effects, it becomes our greater responsibility to protect the nature for future generations. BCCL is also fulfilling its social responsibility in the fight against the Covid-19 pandemic.

I wish my Environment team every success in their future endeavours.

(GOPAL SINGH)
CHAIRMAN-CUM-MG. DIRECTOR
BHARAT COKING COAL LIMITED



Message

This year has been a year of challenges; opportunities; and start of fight against a Global Pandemic COVID-19. Bharat Coking Coal Limited has stood up against all the challenges and is fighting a constant battle against COVID-19. In these precarious time we ensured that Coal Production and Environment strive a balance. BCCL have put in concerted efforts by carrying out Vriksharopan Abhiyan; Engaging new Higher Capacity HEMMS promoting better capacity utilisation and reduction in GHG emissions. I strongly believe that technology can be the greatest solution towards Sustainable Environment. We too are moving towards State of Art technology by inculcating Dust Suppression Systems instead of conventional water sprinkling; Remote Sensing based studies of our reclamation progress; Shifting towards Renewable Energy like Solar Power Panels etc. Change is needed although making change is difficult. The solution that worked yesterday is only slightly appropriate today and will be irrelevant tomorrow. Environment Practices followed require a similar approach. CIL has an ambitious target of achieving 1 BT of Coal Production to meet the demand of the nation. The up-gradation of technology is the need of hour so that our target can be achieved sustainably and environment friendly manner.

We must not also forget the importance of the three aspects of organisational life i.e., People, Planet and Profit. A holistic balance is required in giving equal emphasis to all of these, without failure. Initiatives like “स्नेह स्मृति उपवन” , Panchvati Eco-Park , different Eco-Parks developed over mined out degraded land like Gokul Eco-cultural Park, Parasnath Udyaan, GKKC Eco-Park, Tetulmari Biodiversity etc. are a way forward towards this and must not stop. I congratulate BCCL Environment family for releasing 15th edition of "Paryavaran Darpan" on the occasion of 46th foundation Day of Coal India on 1st Nov 2020 and for its grand success.

(RAKESH KUMAR)
DIRECTOR (TECHNICAL) OPERATION
BHARAT COKING COAL LIMITED



Message

In the 14th session of Conference of Parties (COP14) of the United Nations Convention to Combat Desertification (UNCCD) held in New Delhi, Hon'ble Prime Minister has announced to restore 26 million hectares of degraded land by 2030. To achieve the ambitious land degradation neutrality target of India, CIL being the largest coal mining company with large land holding has committed to restore more than 10,000 Ha degraded land in coming ten years (by 2030).

BCCL is always trying its best efforts to restore the maximum mined out degraded land back to its best recoverable form. An intervention has been done in form of Ecological restoration to speed up the recovery of degraded land which has shown exemplary results in restoring the degraded lands by attracting bio-diversity, high levels of carbon sequestration within a short span of time.

BCCL has done biological reclamation over 1460 Ha mined out degraded land. This year we have done afforestation over 54.5 Ha OB dumps & grassing over 80 Ha of temporary OB dumps. Thinking a step ahead of Biological reclamation, BCCL has also set-up four Eco-parks over mined out degraded land. One Eco-park named Parasnath Udyaan situated at Katras Area was inaugurated by Hon'ble Home Minister in august presence of Hon'ble Minister of Parliamentary Affairs, Coal & Mines during the launch of Vriksharopan Abhiyaan 2020 by MoC.

BCCL is having environmental clearance of more than 89 MTPA for all mines located in Jharkhand. BCCL is also taking pollution control measures such as water sprinklers, overhead sprinklers, wheel washing arrangement for effective management of the air pollution. Sustainable Development Cell has been established in BCCL to ensure better environment management and sustainable coal mining.

I am pleased to know that Environment Department is going to release 15th edition of BCCL's environmental newsletter "Paryavaran Darpan" on the occasion of 46th CIL Foundation Day. BCCL is committed towards the sustainable coal mining and improvement of environmental conditions in its mining Areas for nurturing Mother Nature.

I congratulate all the employees and other stakeholders of the company on the occasion of CIL Foundation Day.

CHANCHAL GOSWAMI
DIRECTOR (TECHNICAL), PROJECT & PLANNING
BHARAT COKING COAL LIMITED



संदेश

मुझे यह जानकारी अत्यंत हर्ष हो रहा है कि कोल इंडिया के 46वें स्थापना दिवस के शुभ अवसर पर बीसीसीएल की पर्यावरण पत्रिका 'पर्यावरण दर्पण' का 15वाँ संस्करण प्रकाशित हो रहा है। कोल इंडिया एवं बीसीसीएल, न केवल देश की ऊर्जा आवश्यकता की आपूर्ति करने में प्रयासरत हैं अपितु पर्यावरण एवं सामाजिक सुधार की ओर भी आवश्यक प्रयास के लिए प्रतिबद्ध हैं। पर्यावरण, वन एवं जैव विविधता हेतु बीसीसीएल अपने खनन क्षेत्र में क्षरित भूमि पर झारखण्ड वन विभाग की सहायता से वनों की स्थापना कर रहा है। इसके अतिरिक्त बीसीसीएल अपने खनन क्षेत्रों में स्थानीय निवासियों की बेहतर जीवन शैली के लिए ईको-पार्कों की स्थापना कर रहा है। इसी क्रम में कतरास क्षेत्र में 'पारसनाथ उद्यान' की स्थापना की गई है जिसका उद्घाटन ई- माध्यम द्वारा वृक्षारोपण अभियान के शुभारंभ कार्यक्रम में माननीय गृह मंत्री, श्री अमित शाह जी द्वारा माननीय कोयला, खान एवं संसदीय कार्य मंत्री, श्री प्रल्हाद जोशी की गरिमामयी उपस्थिति में किया गया था। यह बीसीसीएल व धनबाद के लिए एक गौरव की बात है। इसके साथ ही बेहतर पर्यावरण के लिए प्रदूषण नियंत्रण के भी अनेक उपाय किए जा रहे हैं और बीसीसीएल सतत रूप से कोयला खनन के लिए प्रतिबद्ध है।

बीसीसीएल ने वैश्विक महामारी, COVID-19 के समय में अपना सामाजिक दायित्व के निर्वहन के लिए धनबाद में जन सामान्य की विभिन्न रूप से सहायता की है। बीसीसीएल ने अपने केन्द्रीय चिकित्सालय को COVID-19 उपचार के लिए समर्पित किया है एवं बीसीसीएल के अन्य चिकित्सालयों में भी COVID-19 के उपचार हेतु प्रबंध किए गये हैं।

मैं ,पर्यावरण के प्रति जागरूकता लाने वाली बीसीसीएल की पर्यावरण पत्रिका 'पर्यावरण दर्पण' के 15वें संस्करण के प्रकाशन के अवसर पर ,पर्यावरण विभाग को उनके इस प्रयास के लिए बधाई देता हूँ।

मैं पुनः आप सभी को 46वें कोल इंडिया स्थापना दिवस की हार्दिक बधाई देता हूँ ।

पी .वी .के .आर .मल्लिकार्जुनराव
निदेशक (कार्मिक)



MESSAGE

It gives me immense pleasure to inform you that the environment department is going to release the 15th edition of newsletter “Paryavaran Darpan” on the occasion of the 46th Foundation day of Coal India Limited. The Foundation Day is an annual observance, celebrated every year on the 1st of November and it has great significance for all the employees of CIL.

We, at BCCL would like to congratulate environment department for curbing the dust emission in the mines of BCCL and making coal mining sustainable by adopting various measures like water sprinkling, green belt development to tackle air pollution. A sustainable development cell has also been established in this regard, which will advise, mentor, plan and monitor the mitigation measures for maximizing the utilization of available resources in a sustainable way and minimize the adverse impact of mining.

The newsletter has completed its five year of successful publication while achieving its goal of spreading awareness about the good work of BCCL in the field of Environment conservation vis-a-vis energy production.

I believe that with all the people becoming more aware and informed about the environment that they live in, by sharing equal responsibilities and being more sensitive towards it, we will be able to conserve the environment efficiently. Lastly, I congratulate the Environment team members for their innovative efforts and wish the newsletter a grand success. Hence, I would also like to thank all the employees who put in their hard work and dedication even during this pandemic (Covid-19) to render their service towards the nation.

SAMIRAN DUTTA
DIRECTOR (FINANCE)
BHARAT COKING COAL LIMITED



MESSAGE

It gives me great pleasure to know that the Environment Department of BCCL is publishing fifteenth edition of its environment newsletter “Paryavaran Darpan” on the occasion of the 46th foundation day of CIL on 1st November 2020.

The famous quote by Gaylord Nelson “The ultimate test of man’s conscience may be his willingness to sacrifice something today for future generations whose words of thanks will not be heard”. This quote has a deep embedded meaning which we generally refer to as sustainable development. It is our collective and individual responsibility to preserve and tend towards the world in which we all live. But the question is that how many of us are ready to take this responsibility. Corona Pandemic has taught the humankind a nice lesson to limit our greed for resources. Nature is a shopping mall with limited resources and a defined regenerative power. The more we exploit it, the lesser resources we have at our disposal. It is just a matter of time when these resources will vanish. Prevention is always better than cure. BCCL aims at to be in the forefront of fight towards protecting environment and sustainable development. BCCL has been doing its best towards sustainable development with its initiatives to promote carbon sinking, land restoration, setting targets for land degradation neutrality, promoting renewable energy, eco-tourism etc. But there is still a great deal to be done.

BCCL’s environment newsletter “Paryavaran Darpan” has been successful in sharing all the environmental initiatives taken by BCCL and providing a platform to spread awareness towards environment amongst its stakeholders. I congratulate the environment department for their exemplary work and motivate them to keep working with the same enthusiasm.

In the journey of protecting our beautiful environment, I would like to quote, “The earth will not continue to offer its harvest, except with faithful stewardship. We cannot say we love the land and then take steps to destroy it for use by future generation.”

KUMAR ANIMESH
CHIEF VIGILANCE OFFICER

सम्पादकीय

पर्यावरण दर्पण ने अपने 5 वर्ष पूरे कर लिए हैं और हमें विश्वास है कि पर्यावरण के बारे में सार्थक सोच ने जड़े जमा ली हैं। इस पत्रिका की सफलता इसी में है कि सभी अपने कार्य प्रणाली एवं परिणामों के आकलन में इसके पर्यावरणीय प्रभावों का आकलन भी समाहित करे तथानुसार अपना निर्णय ले।

भारत कोकिंग कोल लिमिटेड ने हमेशा क्षेत्र के आर्थिक सामाजिक विकास में अपनी भागीदारी सुनिश्चित की है एवं बेहतर पर्यावरण के लिए सदैव प्रयत्नशील रहा है। इसके लिए सी एस आई आर -राष्ट्रीय पर्यावरण अभियांत्रिकी अनुसंधान संस्थान , नागपुर , वन अनुसंधान संस्थान , देहरादून एवं अन्य संस्थानों की विशेषज्ञता का उपयोग किया जा रहा है । त्रिस्तरीय पारिस्थिकी पुनरुद्धार के पश्चात जन सामान्य के लिए इको पार्क का विकास किया जा रहा है तथा अस्थायी ओ बी डंप में भी घास लगाये जा रहे हैं। बीसीसीएल द्वारा धनबाद के लिए गोकुल पार्क , पारसनाथ पार्क एवं वृन्दावन पार्क समर्पित किये गये हैं तथा इसी क्रम में अनेक इको पार्क अभी विकसित किये जा रहे हैं । हमारे लिए ये गर्व का विषय है कि खनन के पश्चात क्षरित भूमि पर बने हुए पारसनाथ उद्यान का उदघाटन ई -माध्यम द्वारा वृक्षारोपण अभियान के शुभारंभ कार्यक्रम में माननीय गृह मंत्री , श्री अमित शाह जी द्वारा माननीय कोयला, खान एवं संसदीय कार्य मंत्री , श्री प्रल्हाद जोशी की गरिमामयी उपस्थिति में किया गया।

प्रदूषण नियंत्रण के लिए नयी तकनीकों को भी शामिल किया जा रहा है। जल छिड़काव के टैंकर की सेवा जारी रखते हुए 10 नये मिस्ट स्प्रेडर खदानों में लगाये गए हैं एवं 05 फॉग कैनन भी खरीद प्रक्रिया में हैं। धनबाद की परिवेशी वायु के लगातार निरीक्षण के लिए निरंतर परिवेशी वायु गुणवत्ता निगरानी स्टेशन भी प्रक्रियाधीन है। इसके अतिरिक्त विभिन्न उपाय आवश्यकतानुसार किये जा रहे हैं।

कोविड-19 ने हम सभी को स्वच्छता एवं पर्यावरण की महत्ता सिखाई है परन्तु इसके साथ ही देश की आत्मनिर्भरता की आवश्यकता को रेखांकित किया है। हमें अपना कोयला उत्पादन बढ़ा कर देश की कोयले के लिए आयात की निर्भरता को कम करने की आवश्यकता है।

एक बेहतर पर्यावरण के निर्माण में सबकी सहभागिता होती है। हम सबको अपने अपने कर्तव्यों का समुचित निर्वहन करना है। इसमें आपके सुझाव आमंत्रित हैं जो हमारे कार्यों को बेहतर बनायेंगे।

देश कोविड-19 से उभरता हुआ विकास की ओर अग्रसर है। हमें विश्वास है कि देश आर्थिक जगत में अधिक शक्तिशाली हो कर उभरेगा परन्तु इसके लिए हमें यह मंत्र याद रखना होगा:

“ जब तक दवाई नहीं , तब तक ढिलाई नहीं ”

शुभकामनाओं सहित
सम्पादकीय मंडल



A PEEK INSIDE....

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CELEBRATING WORLD ENVIRONMENT DAY AT BCCL

World Environment Day 2020, hosted by Colombia, is the most renowned day for environmental action. Since 1974, it has been celebrated every year on 5 June: engaging governments, businesses, celebrities and citizens to focus their efforts on a pressing environmental issue.



This year, the theme is biodiversity – a concern that is both urgent and existential. Recent events, from bushfires in Brazil, the United States, and Australia to locust infestations across East Africa – and now, a global disease pandemic – demonstrate the interdependence of humans and the webs of

life, in which they exist.

BCCL also celebrated the World Environment day 2020 with full responsibility and enthusiasm at BCCL KNTA nursery in the ongoing pandemic of Covid-19 by taking preventive measure like using masks, hand gloves, sanitizer and maintaining social distancing

Due to ongoing pandemic of Covid-19, only



online quiz competition was organized by Environment Department, BCCL on the occasion of World Environment Day with the intentions of creating awareness about different aspects of environment. Token plantation was done by CMD and functional directors in the central nursery. One thousand masks and one thousand pair of gloves were also

distributed to the local vendors

VRIKSHAROPAN ABHIYAN 2020 IN CIL

Vriksharopan Abhiyan 2020 was celebrated in coal/lignite PSUs under Ministry of Coal, on 23rd of July 2020. Hon'ble Minister of Home GoI, Shri Amit Shah was the Chief Guest, and Hon'ble Minister of Coal, Mines and Parliamentary affairs, Shri. Pralhad Joshi, was also present in the virtual event held through webinar.



Shri Amit Shah, Hon'ble Minister of Home Affairs, & Shri. Pralhad Joshi, Hon'ble Minister of Coal, Mines and Parliamentary affairs, during Vriksharopan Abhiyan 2020



Chairman, CIL on Vriksharopan Abhiyan 2020

In CIL's Subsidiary during the event, 1 eco-tourism project from BCCL, Parasnath Udhyan, was inaugurated and foundation stone laying ceremony was held in another 3 eco-tourism project namely Kayakalp Vatika in Piparwar Area CCL, Lilari Eco-Tourism Parkin Lakhanpur Area, MCL and Chandra Shekhar Azad eco parkin Bina project NCL. CIL (HQ) along with CIL's Subsidiary have celebrated the event in a befitting manner by involving local leaders and stakeholders maintaining social distancing norms



Inauguration of Parasnath Udhyan eco-park, BCCL



Foundation laying ceremony Kayakalp Vatika in Piparwar Area, CCL



Foundation laying ceremony of Lilari Eco-tourism park in Lakhanpur Area. MCL



ECL, CMD addressing the gathering during the event



Plantation site in Nigaihi, NCL



WCL, CMD planting saplings

As per reports received from CIL's Subsidiaries, Vriksharopan Abhiyan 2020 was celebrated in 93 main locations of CIL, attended/viewed by about fifty thousand people including 10 nos. of MP and 9 Nos. of MLAs, across 8 states and 31 Districts, wherein more than 1.86 lakh saplings were planted and around 2.38 lakh saplings were distributed.

***Danghmei AP,
Dy. Mgr. (Env),
CIL (HQ) Env. Division
Kolkata***

ACTION PLAN FOR SUSTAINABLE ENVIRONMENTAL MANAGEMENT OF INDIAN COAL MINING SECTOR

The Indian Coal mining industry is playing a very important role of producing energy to the country so that country can move ahead with its developmental agenda. However it is subject to criticism by various stake-holders, and seen as major source of pollution. Hence, in addition to the strict implementation of EC-FC provisions, there is a need for proactive actions beyond the EC-FC provisions for better environment sustainability. It's high time to reverse this criticism and issues raised by its stake-holders and to brand the Indian coal mining sector as an illustrative environmentally sustainable industry. The final objective of the Coal mining industry would be to ease the lives of the surrounding communities. Formation of a "SUSTAINABLE DEVELOPMENT CELL" (SDC) at the Government level at this juncture was very pertinent.

Henceforth the Ministry of Coal has decided to establish a 'Sustainable Development Cell' in order to promote environmentally sustainable coal mining in the country and address environmental concerns during the decommissioning or closure of mines. The SDC at the ministry level will adopt a systemic approach, starting from collection of data, analysis of data, presentation of information, planning based on information; by domain experts, adoption of best practices, consultations, innovative thinking, site-specific approaches, knowledge sharing and dissemination and finally end with an aim to ease the lives of people and communities in general. The Sustainable Development Cell envisages to address the environment mitigation measures in a systemic manner and to provide a better environment to people working and residing in the vicinity of Mines.

Following tasks would be executed on a planned way:

- Land amelioration and afforestation
- Air quality, emission and noise management
- Mine water management
- Sustainable Overburden Management
- Sustainable Mine Tourism
- Planning and Monitoring
- Policy, Research, Education, and Dissemination

Objectives of Sustainable Development in Coal mining Sector

For achieving sustainable development, the coal mining industry need to ramp up its engagement, partnership and dialogue with other industry sectors, government, civil society and local communities. The major roles would be:

- To generate new ideas to plan, prepare guidelines, advise, mentor, monitor and evaluate the environment mitigation measures carried out by Coal companies for maximizing the utilization of available resources in a sustainable way and minimizing the adverse impacts of mining and mitigating it for further ecosystem services.
- To formulate future policy, framework for environmental mitigation measures including mine closure funds etc. at the GOI level.
- To explore, adopt and execute “Best global practices” of sustainable environmental management.
- To disseminate and share the knowledge.

Action Plan for Sustainable Environmental Management of Indian Coal mining Sector

Integrating the findings derived from a SWOT analysis with the Fundamental Principles for the Mining Sector, available best global practices and the long standing experience of the Author as a practicing environmental engineer in the Indian coal mining industry, an Action Plan for Sustainable Environmental Management of Indian Coal mining Sector is proposed herewith.

To achieve perceivable results, the activities of the Action Plan may be categorized and prioritized into Short Term, Medium Term and Long Term. Short term activities are those which need immediate action and could be taken up on war-foot scale to be achieved within six months; Medium term activities are those that could be achieved with in two years and those categorized as Long term could be achieved within four years.

The Coal mining industries, Lignite industry and the Policy framers should venture in detail on the following tasks:

1. Establish Environmental Accountability at the management levels
2. Ensure Participation with stake holders
3. Socio-economic impact assessment & Planning
4. Execute considering linkages between community and environment

5. Adopt environmentally Sound Technologies and Best Practices
6. Reinforce infrastructure, training and skills in environmental management
7. Environmental management to include early and comprehensive EIAs, monitoring & auditing, risk analysis & management
8. Encourage long term investments
9. Site specific actions for all environmental attributes to be addressed

Execution mechanism of the Action plan

- Ensure laws relating to the environment and other natural resources like forest and land work in harmony with mining laws.
- Complying EMPs, Mining plans, Environmental, Forest Clearance conditions itself will solve most of the issues of sustainable development.
- Mining industry must ramp up its engagement, partnership and dialogue with other industry sectors, government, civil society and local communities.
- Companies must work to integrate changes into their core business to achieve goals.
- Fixing accountability is the key to Success.

The coal companies since inception have worked more for social objective rather than business objectives. The changes occurred in companies for business sustainability resulting in Coal India Ltd., NLC India Ltd., and SCCL being major players of coal industry. It is however needed to link the work to masses for optimum utilization and awareness for utilization. SDC with its objectives will provide win-win situation for all stakeholders of the coal sector.



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(Select), Ministry of Coal, Govt. of India*

The above facts are the opinion of the author and not that of any ministry or industry

FIGHTING THE SCOURGE: BCCL HELPS IN COMBATING GLOBAL PANDEMIC COVID-19

BCCL is a socially responsible PSU which is always ready to cater to the needs of the people. In view of the global pandemic COVID-19, BCCL is contributing to ease the troubles faced by the needy section of the society by various methods as follows:

Sanitizing the Surroundings

The Municipal Commissioner, Dhanbad approached BCCL for urgent procurement of 5000 packets of bleaching powder for spraying and sanitising wards of Dhanbad to fight COVID-19. Out of total 20 MT of bleaching powder procured under CSR amounting to Rs. 6.4 Lakhs, 12.5 MT of bleaching powder has been distributed to Dhanbad Nagar Nigam towards sanitation and the rest are being distributed to Areas/HQs for sanitation of peripheral Areas.



Financial Assistance to District Administration, Dhanbad



Deputy Commissioner, Dhanbad requested CMD, BCCL for the urgent financial assistance of Rs. 2 Crores only towards tackling various issues under COVID-19 including help to poor and preventive measures. BCCL transferred the amount to DC, Dhanbad on 31st March,



2020. BCCL's Central Hospital has been earmarked as COVID-19 hospital in Dhanbad District.

Financial Assistance to Municipal Commissioner, Dhanbad

Municipal Commissioner, Dhanbad requested CMD, BCCL for urgent financial assistance of Rs. 10 lakhs towards procurement of fogging machine and sprayer for sanitisation purpose of different wards of Dhanbad to combat spreading of COVID-19.

Food Packets Distribution in Areas

In view of outbreak of COVID -19 and lockdown conditions throughout the country announced by Hon'ble Prime Minister, a review meeting was held by Chairman CIL on 28.03.2020 and it



was directed to take initiative for distribution of food material packets to the needy people in local areas with the help of District Administration for their survival during lockdown

period. The matter was discussed with CMD, BCCL and it was directed to take measures for distribution of food material packets in different Areas. Thus, provision have been made towards distribution of total 24,000 food packets, amongst peripheral populace, at a total estimated expenditure of Rs. 48 Lakhs. Till date, 7482 nos of food packets have been distributed in different Areas of BCCL in the nearby areas of Dhanbad and its operating areas.

Distribution of Face Masks and Hand Sanitiser/ Hand Wash

In order to curb the spread of global pandemic COVID-19, BCCL has taken steps to distribute face masks and hand wash to its Areas and HQs to be distributed amongst the populace in and around the Areas and HQs. Accordingly, 7000 nos. of masks & 7000 nos. of liquid hand wash are being distributed amongst peripheral populace, through Area/ HQs, amounting to Rs. 6.9 Lakhs (approx.).

Others

Apart from the above initiatives, BCCL Areas have also distributed cooked food packets in the populace to ease the burden on the needy/ daily wage labourers/ vulnerable section of the society. Till date, over 32,000 nos of cooked food packets have been distributed by the Areas in and around their operating area.



VRIKSHAROPAN ABHIYAN 2020

In the 14th session of the Conference of the Parties to the United Nations Convention to Combat Desertification held in New Delhi, India from 2-13 September 2019 in which 196 countries participated. One of the agenda was of this UN conference is to reverse degradation of land and fix critical gaps in its management.

In India, we are already on the way of combating desertification, the green covering is rising in India. In the last 5 years, forest cover has increased by nearly 15,000 square km and we are inching towards our target of having 33% of green cover.”

CIL being largest coal company with large land holding, has committed to restore more than 10,000 Ha target in next 10 years to achieve the ambitious land degradation neutrality target.

In this view to achieve, these ambitious targets, Ministry of Coal has launched Vriksharopan Abhiyan on 23.07.2020 in which all public sector coal and lignite companies participated to start the plantation campaign during the monsoon season to increase forest cover in the coal mining Areas of the country.

The Vriksharopan Abhiyan was launched by Shri Amit Shah, Hon’ble Home Minister in august presence of Shri Pralhad Joshi, Hon’ble Minister of Parliamentary Affairs, Coal & Mines. On this occasion, through Video Conferencing, inauguration and foundation laying of total six eco-parks across coal/PSUs across India was done by the Chief Guest, Hon’ble Home Minister in august presence of Hon’ble Minister of Parliamentary Affairs, Coal & Mines. The following eco-parks had been inaugurated

- a) Parasnath Udhyan, BCCL, Dhanbad
- b) Eco-Park, Mine-I, NLC, Cuddalore, TN

The foundation stone laying of the following parks was also done on this occasion:

- a) Lilari Eco-park, Lakhanpur Area, Jharsuguda, Odisha
- b) Expansion of Kayakalp Vatika, Piparwar Area, Jharkhand.
- c) Tourism Site in and around Siltation Pond near Bina GM office, Sonbhadra, UP
- d) Sal Forest Development Programme, Betrapada VF, Rangali Range, Sambalpur, Odisha

During the launch of Vriksharopan Abhiyan plantation was also done at more than 130 locations spread in 38 Districts of 10 States where Coal PSUs have operations. More than six lakhs plants were planted on this day and seedlings were also distributed under the campaign in the nearby areas for promoting plantation by society. Under this Abhiyan, large scale plantation is to be carried out in mines, offices, colonies and other sustainable areas of lignite and coal PSUs.

During the launch of the event, Hon'ble Chief Guest said that "The focal mantra of Indian heritage has been that we should harness natural resources and not exploit them. We ignored this principle at our own peril, leading to depletion of Ozone layer and forming Ozone Hole, which in turn resulted in global warming and climate change. There is only one solution to this problem and one that has been mentioned in the Puranas by sages that trees are friends of mankind and only greenery can get us out of this crisis. Trees give us the life-saving Oxygen, help reduce Carbon footprint and preserve the Ozone layer". He further added that the Coal sector today is not only ready to fulfill the growing demand for coal but is equally sensitive towards environmental sustainability. He also urged that, as this event coincides with the birth anniversaries of legendary figures, Shri Lokmanya Balgangadhar Tilak and Shri Chandrashekhar Azad who devoted their life to the service of the nation, the eco-parks may be named after them.



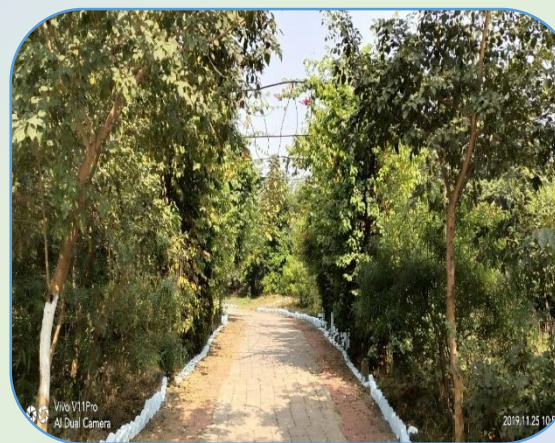
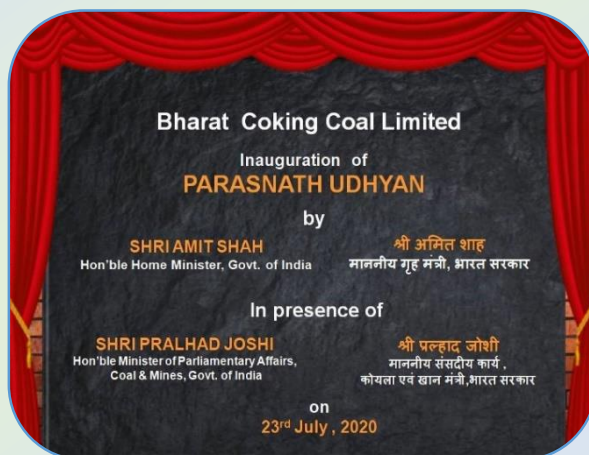
Inauguration of Vriksharopan Abhiyan by Shri Amit Shah, Hon'ble Home Minister in august presence of Shri Pralhad Joshi, Hon'ble Minister of Parliamentary Affairs

BCCL has also actively participated and Vriksharopan Abhiyan and was carried out in all 12 Areas and HQ. The following activities were carried out on the occasion of the launch of Vriksharopan Abhiyan.

A total 08 locations (01 Eco-Park for Inaugural and 07 Plantation sites) of BCCL were connected to the live VC of Vriksharopan Abhiyan namely:

- ABOCP, Block II Area
- NAKC/ABGC, Govindpur Area
- AKWMC, Katras Area
- Parasnath Udhyan, Katras Area
- GKKC/ KDS-K siding, Kusunda Area
- NT-ST-JG Project, Lodna Area
- Koylanagar Colony
- Jagjivannagar colony

BCCL's Parasnath Udhyan, an Eco park at OB dump at AKWMC, Katras Area spread over 3.5 ha was also inaugurated by Hon'ble Home Minister in august presence of Hon'ble Minister of Parliamentary Affairs, Coal & Mines. The eco-park has various components like water body, Jogging Tracks, Flower gardens, resting benches, eco-hut, Children's Play Area with swings, Green Tunnel, Dense Natural Plantation, waste to wealth zone. A short video of the Inauguration of Parasnath Udhyan was shared on twitter: <https://twitter.com/bcclenvironment/status/1286643267245768706>





Inauguration of the Parasnath Udhyann, Katras Area

The plantation activity was also carried out by BCCL in which 13810 plants were planted along with distribution of 14000 saplings in all 12 Areas and HQ. The plantation was carried out on degraded mined out lands, OB dumps, colonies and other places of BCCL. In BCCL, 922 persons with 40 Local leaders /Trade union leaders attended the event at the plantation sites/park connected though Video Conferencing. Under this abhiyan, BCCL has planted 145250 plants in FY 2020-21.

GLIMPSE OF LAUNCH OF VRIKSHAROPAN ABHIYAN IN BCCL



Plantation at AKWMC site, Katras Area



Avenue Plantation with gabion at KDS-K Siding,
Kusunda Area



Plantation at ABOCP site, Block-II Area



Sapling distribution at Western Jharia Area



Saplings Distribution at Gokul Eco-cultural Park, Lodna Area



Plantation At NT-ST-JG Plantation site, Lodna Area



Plantation at NAKC, Govindpur Area



Sapling Distribution at Bastacolla Area

ROLE OF SOCIAL MEDIA IN IMAGE BUILDING OF THE COMPANY

Today, social media such as Twitter, Facebook and Instagram, have become primary sources of information. During a crisis like the COVID-19 pandemic, role of social media has been employed in a responsible way. Social media is computer-based technology that facilitates the sharing of ideas, thoughts, and information through the building of virtual networks and communities. By design, social media is internet-based and gives users quick electronic communication of content. It was originated as a way to interact with friends and family but was later adopted by Govt. Deptt./corporate sector/businesses which wanted to take advantage of a popular new communication method to reach out to company's stakeholders or public in general.

Even though importance of social media has always been there but amid Covid-19 Social media **displays and strengthens solidarity** against corona virus. Companies can use social media for commercial purposes. In other words, companies use social media to brand, sell, market their business (which is close to traditional marketing efforts using mass-media) versus using social media to connect with and co-create with customers. This goes further to show how relevant and popular social media platforms have become in recent times.

As impact of social media on people's life is greater, greater will be outcome which is why BCCL is using different platforms of social to create environmental awareness, sensitization about company's CSR and welfare activities (especially during pandemic of Covid-19) to surrounding public and other stake holders and build environment friendly image of the company. BCCL has also using such platforms to effectively communicate with the stakeholders where one can suggest and seek help. BCCL environment nodal officer is coordinating with the PRO department of BCCL on regular basis and also using social media platform like Facebook, Instagram, twitter for dissipating regular activities of BCCL environment department and take parts in various seminars and workshops on social media.

In this regard, BCCL has been taken various activities to maximize the Company's social media reach to public in general and stakeholders in particular. BCCL Public relation department with corporation of different departments of BCCL have been organizing the workshops on Social Media at Koyla Bhawan and also in different Areas of BCCL

With efforts of PR department, BCCL is now available on Facebook, twitter, Instagram, and YouTube. Total followers on Facebook and twitter are 7,286 and 3820 respectively. In addition to this, Post Reach is 5k per day on average and 102.0K impressions over 30 day period on Facebook and Twitter respectively. To conclude, social media is a big platform not only for promotion or creating environment friendly image of company but also platform for two way communication where one can share their views as well as every stakeholders and employees are aware of what is happening in company.



Facebook



Twitter



Link for BCCL pages are as follows

- ♣ www.youtube.com/channel/UC8gtUXvYnNIuwc5kxSsgU3w
- ♣ www.facebook.com/BCCLOFFICIAL
- ♣ www.twitter.com/BCCLOfficial
- ♣ www.instagram.com/bccl.official

Link for BCCL Environment department pages are as follows

- ♣ www.bcclweb.in/
- ♣ <https://twitter.com/bcclenvironment>

SWACHHATA MAH, 2020

1st October – 31st October, 2020

BCCL is celebrating the month of October, 2020 as Swachhata Mah. BCCL HQs as well as all the Areas have actively participated in the celebrations of Swachhata Mah. All the activities are undertaken keeping in view of the COVID-19 pandemic situation and taking every precautions to prevent it from further spreading. Some of the activities being carried out are as follows:

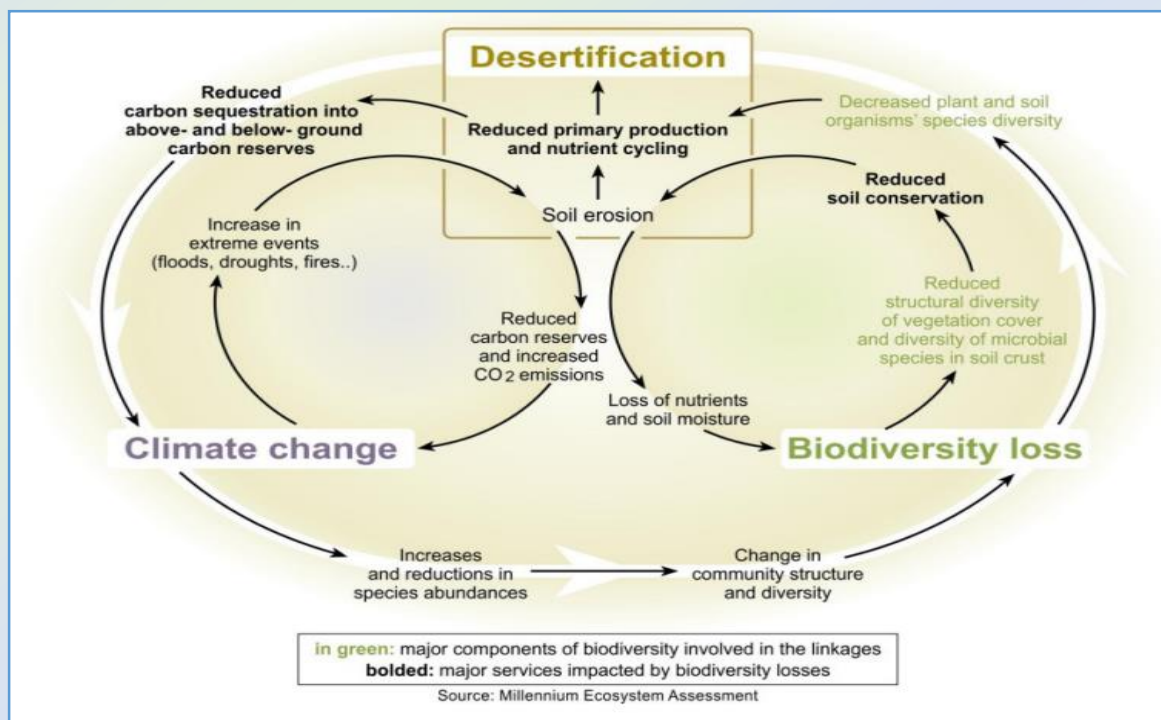
1. **Swachhata Pledge** – All the Areas and Departments in HQs participated in taking the Swachhata Pledge on 1st October, 2020. They promised that they will inculcate the message of Mahatma Gandhi to include cleanliness in their everyday life.
2. **Office/ Hospital Cleaning** – The office work areas and office buildings are being cleaned in HQs as well as Areas. The hospitals/ dispensaries in BCCL were also cleaned and the cleaning activity will continue during the month and beyond.
3. **Colony/ School Cleaning** – The colonies/ schools nearby are being cleaned including drainage cleaning, garbage cleaning and removal of unwanted shrubs in the colonies.
4. **IEC Materials** – Cloth banners are being displayed in all areas to encourage cleanliness. Awareness on COVID-19 precaution is also a continuous process and employees as well as residents of Dhanbad are being made aware of the precautions.
5. **Plantation** – BCCL is also including plantation in different areas as part of cleanliness and increasing green cover.
6. **Park Cleaning** – Parks were inaugurated in Bastacolla (Mahatma Gandhi Eco Park, Bera Colliery), Lodna (Mahatma Gandhi Eco Restoration Park), Katras (Mahatma Gandhi Smriti Upavan, Keshalpur) and Block II (Mahatma Udyan, ABOCP Mine). Cleaning of parks is also an integral and ongoing activity amongst all.
7. **Online/ Offline Competitions** – BCCL is undertaking various online/ offline competitions amongst the employees/ wards of employees. Essay competition (offline) was completed on 19.10.2020 where executives/ non-executives from all Areas and HQs participated in the competition on Swachhata at HQs. Online poem competition was conducted on 21.10.2020. Online Quiz competition is scheduled to be executed on 29.10.2020. The Arts and Crafts from Waste Material (Best from Waste) competition for the wards of employees of BCCL is scheduled on 28.10.2020.

8. **Sanitization** – Offices and residential areas are being sanitized regularly. Masks and sanitizers are also distributed. Water bodies around BCCL operational areas are also cleaned and sanitized.
9. **Webinar** – A webinar on Swachhata is scheduled on 29.10.2020 wherein distinguished personnel will take part in the seminar and discuss varying topics on Swachhata and allied issues with the employees of BCCL.



LAND DEGRADATION NEUTRALITY

Land degradation is a global concern for sustainable development, conservation of biodiversity and mitigating and adapting to climate change. Land degradation is any reduction or loss in the biological or economic productive capacity of the land resource base. Natural processes play a part, but humans cause most of the damage. The international community is working to halt and reverse land degradation, restore degraded ecosystems and sustainably manage our resources through a commitment to land degradation neutrality (LDN).



The concept of LDN emerged from the UN Conference on Sustainable Development (Rio+20) document “The Future we want” in 2012. LDN envisions a world where human activity has a neutral, or even positive, impact on the land. In 2015, the 12th session of the Conference of the Parties to the United Nations Convention to Combat Desertification (UNCCD COP 12) adopted 35 decisions related to desertification, land degradation and drought. These included how to pursue LDN within the framework of the Sustainable Development Goals (SDGs) and how to align UNCCD goals and the action of Parties with the SDGs. As a follow-up, the UNCCD launched a new initiative: Land Degradation Neutrality, which has been enshrined in the SDGs as target 15.3 on achieving a land degradation neutral world by 2030. UNCCD and the UN Environment Programme (UN Environment) came together to mark the United Nations General Assembly adoption of the “2030 Agenda for Sustainable Development”. As defined by parties to the convention, LDN is:-

A state whereby the amount and quality of land resources, necessary to support ecosystem functions and services and enhance food security, remains stable or increases within specified temporal and spatial scales and ecosystems.

LDN targets set by India are one of the highest in the world. About one-third of India's total land area, 29.32 percent, was undergoing land degradation (during 2011-2013) and India has pledged to achieve the land degradation neutrality by 2030.

COP 14 of UNCCD, which was hosted by India in 2019, was concluded by the adoption of "New Delhi Declaration: Investing in Land and Unlocking Opportunities", wherein our Hon'ble Prime Minister has declared the revised target of land restoration to an upward of 26 million hectares from previously set target of 21 million hectares to be achieved by 2030. In January'20, India has also become part of "Bonn Challenge", a global effort to bring 150 million hectares of the world's deforested and degraded land into restoration by 2020, and 350 million hectares by 2030.

Keeping in mind the ambitious target of 26 million hectares land restoration set by our Hon'ble Prime Minister in, CIL has come forward with its own set of targets for land restoration to contribute in achieving the India's target of LDN by 2030. CIL has set yearly targets of LDN for next ten years from 2020- 21 to 2029-2030, with total of **10046.20 hectares** to be achieved by 2030. It is pertinent to note that CIL had earlier given 7000 Ha as plantation target on 24.06.2020, which was later revised to 10046.20 hectares, i.e. about 44 % more than previous target. On the same line BCCL has also set a target of land restoration of **414.50 hectares** for itself despite having land constraints as Jharia Coalfield is very compact in size and is thickly populated, has fire related issues, multi seam mines etc.



LDN is a simple idea and a powerful tool. It means securing enough healthy and productive natural resources by avoiding degradation whenever possible and restoring land that has already been degraded. At its core are better land management practices and better land use planning that will improve economic, social and ecological sustainability for present and future generations.

मिशन २०२३-२४: ऊर्जा महत्वाकांक्षाएं एवं सतत-विकास

वर्तमान में भारतवर्ष प्रगतिशील देशों में सबसे तेज आर्थिक वृद्धि-दर से विकसित होने वाला देश बन कर उभरा है। अपनी विकास दर को भविष्य में यहीं बरकार रखने हेतु देश की ऊर्जा महत्वाकांक्षाओं को पूरा करने के लिए कोल इंडिया परिवार दिन रात एक कर जुटा हुआ है। खनन के द्वारा धरती का सीना चीर काला सोना निकालने में ४५ सालों से भी अधिक का अनुभव प्राप्त इस कंपनी ने नए नए कीर्तिमान स्थापित किये हैं। विगत २ वर्षों से ६०० मिलियन टन के आंकड़ों को पर कर राष्ट्र निर्माण में अपनी अहम भूमिका निभाते आ रहा है। विश्व की पांचवी सबसे बड़ी कोयला भंडार रखने वाला भारतवर्ष को कोयला उत्पादन में आत्म-निर्भर बनाने के लिए १ बिलियन टन के लक्ष्य को प्राप्त करने हेतु "मिशन २०२३-२४" कोल इंडिया लिमिटेड की पहली प्राथमिकताओं में से एक है।



भारत कोकिंग कोल लिमिटेड कोल इंडिया की अनुषंगी कंपनियों में से एक है। देश में कोकिंग कोल का अधिकांश उत्पादन करने के कारण इसका अत्यंत महत्वपूर्ण स्थान है। यह संपूर्ण इस्पात क्षेत्र के कुल प्राइम कोकिंग कोल की मांग का लगभग ५०% पूरा करता है। भारत सरकार द्वारा १६ अक्टूबर, १९७१ में अधिग्रहण किए जाने के उपरांत देश में उपलब्ध दुर्लभ कोकिंग कोल के संसाधनों के योजनाबद्ध विकास को सुनिश्चित करने हेतु बीसीसीएल को जनवरी, १९७२ में झरिया एवं रानीगंज कोलफिल्ड में चल रहे कोकिंग कोल खानों के परिचालन हेतु निगमित किया गया था। झरिया के आग से धधकती खदानों जैसी विषम परिस्थितियों के बावजूद मिशन २०२३-२४ में अपनी सकारात्मक सहभागिता सुनिश्चित करने हेतु भारत कोकिंग कोल लिमिटेड समय के साथ खनन तकनीकी में खुद को उन्नत करने में प्रयासरत है।

बढ़ती ऊर्जा महत्वाकांक्षाओं को पूरा करने का संकल्प के साथ-साथ कंपनी को इस बात का भली-भांति ज्ञान है कि खनन कार्यों से खनन क्षेत्र के आस-पास की पर्यावरण खनन के दुष्प्रभावों को कम-कम रखा जाये। इसमें कोई दो मत नहीं है कि ओपन कास्ट

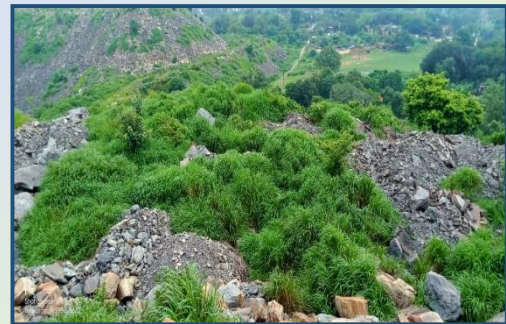


माइनिंग पर्यावरण के दृष्टिकोण से कई चुनौतियों को कंपनी के समक्ष रखता है। उनमें से एक है प्रसुप्त ओबी डंप जिनका उपयोग भविष्य में या तो पुनः उनके ऊपर ओबी रखने के लिए या पूर्णतः खनित खदानों को भरने के लिए किया जा सकता है। ऐसी परिस्थिति में ओबी डंप के ऊपरी सतह को लम्बे समय तक खुला छोड़ने पर हवा तथा बारिश के पानी के बहाव से कटाव की परेशानियों का सामना करना पर सकता है। भारत कोकिंग कोल लिमिटेड इस चुनौती का उपाय सरलता से ढूँढ निकला है- "बीज के गोले"।

शुरुआत में प्रायोगिक परियोजना के अंतर्गत सिजुआ क्षेत्र स्थित कुल २६ हे० के ३ प्रसुप्त ओबी डम्पों का चुनाव किया गया, जिनका भविष्य में उपयोग की प्रबल संभावनाएं थी। पत्थरों एवं चट्टानों से पटा पड़ा प्रसुप्त ओबी डंप के ऊपरी सतह को घाँस एवं झाड़ियों से ढकना अपने आप में एक चुनौतीपूर्ण कार्य था। घाँस एवं झाड़ियों के बीज ऐसी कठिन परिस्थितियों में अपने आप को अंकुरित करने में असफल साबित हो रहे थे।



पहले



बाद में

बीजों की मौलिक जरूरतों को ध्यान में रखते हुए मिट्टी के रूप में गोबर का प्रयोग कर गोलों का निर्माण किया गया। समान मात्रा में मिट्टी तथा गोबर लेकर उसमें दसवें हिस्से के बराबर घाँस तथा झाड़ियों वाले पौधों (जैसे बाँस एवं काली मेहँदी आदि) के बीजों को मिलाकर पानी से मिश्रित कर छोटे-छोटे गोले का रूप प्रदान किया गया। हल्की हवा में सूखने छोड़ देने के पश्चात बीज के गोले प्रसुप्त ओबी डंप के ऊपरी सतहों पर रखे जाने के लिए तैयार होते हैं। एक अच्छा मानसून और हरे-भरे घाँसों से ढँका प्रसुप्त ओबी डंप जहाँ हवा तथा पानी की तेज़ बहाव भी अपनी धार कुंठित करती पायी गयी। प्रयास भले ही छोटा हो परन्तु पर्यावरण पर इसका सकारात्मक प्रभाव दूरगामी तक अनुभव की जा सकेगी।

MINE CLOSURE PLAN AND ITS REIMBURSEMENT

The mining industry has learned that plans for closure of mine, plus post-closure use of the land, must be presented to stakeholders as part of a successful planning process and to obtain the “social license” from the community. Historic mining operations that were abandoned without closure methods that mitigated physical and environmental impacts have negatively influenced the ability of mining firms to obtain a social license. The new modern mine will not create the same impact during as the abandoned historic operations for which the operation and closure has to be tackled efficiently during the initial steps of the exploration program. The closure planning begins during project conception.

Mine closure plans have two components viz. i) progressive or concurrent mine closure plan, and ii) final mine closure plan. Progressive mine closure plan would include various land use activities to be done continuously and sequentially during the entire period of mining operation, whereas the final mine closure activities would start towards the end of mine life, and may continue even after the reserves are exhausted and/or mining is discontinued till the mining area is restored to an acceptable level. The mine closure details of the mining plan are being oriented towards the restoration of the land to its original condition as far as practicable.

In India, the Guideline for preparation of Mine closure plan was issued by Ministry of Coal on 27th August 2009 which was later on modified on 7th January 2013. In BCCL, a total of 56 Mine Closure Plans have been prepared on the basis of Ministry of Coal Guideline for preparation of mine closure plan dated 7th January 2013. Mine closure plans have been prepared in empirical way as per the yardstick prepared for OC & UG mines. In this, the closure cost for opencast mine was taken Rs. 6 lakhs per hectare of project area and Rs. 1 Lakhs per hectare of project area for underground mine.

Afterwards, guidelines for preparation of mining plan and mine closure plan was amended by Ministry of coal on the 16th of December 2019 and all coal (including lignite) mining operation in India is henceforth to be governed by this guideline. In this, the closure cost for opencast mine based on base year 01.04.2019 is taken Rs. 9 lakhs per hectare of project area and Rs. 1.5 Lakhs per hectare of project area for underground mine.

The detailed comparison of activities of OC mines with respect to MCP guidelines 2013 and 2019 is given below:

AS PER MCP GUIDELINES 2013			AS PER MCP GUIDELINES 2019		
	ACTIVITIES FOR OC MINE	Allocation (%)		ACTIVITIES FOR OC MINE	Allocation (%)
A.	Dismantling of infrastructure		A.	Dismantling of infrastructure	As per actual assessment of project
	Service building	0.2		Service building	
	Residential building	2.67		Residential building	
	Industrial structure CHP, Workshop, field substation etc.	0.3		Industrial structure	
B.	Permanent fencing of mine void and other dangerous area	1.5	B.	Safety & Security	
				Random rubble masonry/concrete wall	
				Toe wall around dump/Gabion wall	
				Barbered wire fencing	
				Fencing/boundary wall, fencing around water body	
				Garland drains	
C.	Levelling & grading of highwall slopes	1.77	C.	OB Dump Reclamation	
D.	OB dump reclamation		CA.	Technical Reclamation	
				Re-handling of OB	
				Levelling by Dozer	
				Grading	
				Levelling and grading of high wall slopes & OB Dump	
				Re-handling of OB	
	Handling / dozing of OB dump and backfilling	88.66	CB.	Biological Reclamation & Plantation	
				Top soil Management	
				Grassing of OB dump	
				Plantation around virgin Area , safety zone , green belt, over external Dump and internal reclaimed area	
				Plantation post care (including manpower)	
				Plantation over cleared area obtained after dismantling	

	Technical and bio-reclamation including plantation and post care	0.4	D	Land scaping of the open space in leasehold area for improving its esthetic. Drain, Pipe lines, Peripheral road,gates, View points, cemented steps on bank	
E.	Landscaping		E.	Environment mitigation & management	
				Air Quality (Water tanker , Sprinkler & other Control measures)	
				Water Quality (ETP & STP etc. operating cost)	
				Manpower Cost and supervision	
	Landscaping of open space for improving aesthetics and eco values	0.3	F.	Post Closure Monitoring	
F.	Plantation			Air Quality	
	Plantation over cleared area obtained after dismantling	0.5		Water Quality	
				Power Cost	
				Manpower Cost and supervision	
	Plantation around quarry area and in safety zone	0.2	G.	Entrepreneurship Development (Vocational/skill development training for sustainable income of affected people)	
	Plantation over external OB dump	0.02			
G.	Post closure Environment monitoring		H	Miscellaneous & Other measures like Golden Handshake, one time, alternative jobs, other services, financial grant etc.	
	Air Quality	0.22			
	Water Quality	0.2			
H.	Entrepreneurship development for sustainable income of affected people	0.26			
I.	Miscellaneous and other mitigative measures	2.0			
J.	Post Closure Manpower cost of supervision	0.8			

With respect to MCP Guidelines 2013, in OC mine, maximum weightage/fund allocation is given to Handling / dozing of OB dump and backfilling i.e. 88.66 % with 71% as progressive activity & 17.66% as final mine closure activity. With respect to MCP Guidelines 2019, fund

allocation is used to be made as per actual assesment of activity of respective project which makes fund allocation more realistics keeping in view no mine closure activity cost comes under mining operation. Activity like Random rubble masonry/concrete wall ,Toe wall around dump/Gabion wall , Barbered wire fencing ,Fencing/boundary wall, fencing around water body, Garland drains has been included in amended guidelines 2019.

Similarly, the detailed comparison of activities of UG mines with respect to MCP guidelines 2013 and 2019 has also been made which is given below:

	AS PER MCP GUIDELINES 2013			AS PER MCP GUIDELINES 2019			
	ACTIVITIES FOR UG MINE	Allocation (%)		ACTIVITIES FOR UG MINE	Allocation (%)		
A.	Dismantling of infrastructure		A.	Dismantling of Service building	As per actual assessment of project		
	Service building	3.5		Residential building			
	Residential building	10.58		Industrial Structure like CHP, workshop, field substation etc.			
	Industrial structure CHP, Workshop, field substation etc.	6.33		UG P&M and other facilities			
B.	Permanent sealing of mine entries (incline mouth and air shaft)	5.32	B	Permanent Sealing of Mine Entries			
	Sealing of incline mouths and air shafts			Sealing of Incline mouths, air shaft & Bore-wells			
C	Safety & Security						
	Fencing/boundary wall fencing						
	Garland drains						
C.	Subsidence Management		4.75			Securing of Incline, Air shafts &Bore wells etc.	
D.	Landscaping	8.8	D	Sectionalisation / Stoppings			
	Landscaping of open space for improving aesthetics and eco values			Protection measures against water bodies			
E	Plantation			13.0		E	Installation of bore well pump
	Plantation over leasehold area and on other open spaces						Subsidence Management and monitoring
			E			Landscaping of the open space in leasehold area for improving its esthetic. Drain, Pipe lines, Peripheral road, gates,	

				View points, cemented steps on bank	
				Development of Agriculture land sustainable income of affected people	
			F	Plantation	
				Plantation over leasehold area and on other open space	
			G	Environment mitigation & Management	
F	Post closure Environment monitoring			Air Quality (control measures)	
	Air Quality	6.83		Water Quality (ETP & STP etc. operating cost)	
	Water Quality	6.34		Manpower Cost and supervision	
G	Entrepreneurship development for sustainable income of affected people	7.65	H	Post Closure Monitoring	
				Air Quality	
				Water Quality	
				Power Cost	
				Manpower Cost and supervision	
			I	Entrepreneurship Development (Vocational/ skill development training for sustainable income of affected people	
H	Miscellaneous and other mitigative measures	14.6			
I	Post Closure Manpower cost of supervision	12.3	J	Miscellaneous & Other measures like Golden Handshake, one time financial grant, alternative jobs, other services etc.	

With respect to MCP Guidelines 2013,in UG, maximum weightage/fund allocation is given to Miscellaneous and other mitigative measures i.e. 14.6 %.With respect to MCP Guidelines 2019,in UG, fund allocation is used to be made as per actual assesment of activity of respective project which makes fund allocation more realistics keeping in view no mine closure activity cost comes under mining operation. Activity like Safety and security consisting of Fencing/boundary wall fencing, Garland drains, Securing of Incline, Air shafts &Bore wells etc., Sectionalisation / Stoppings, Protection measures against water bodies, Installation of bore well pump has been included in amended guidelines 2019.

At last, as per MCP Guidelines 2019 ,the quantity of work to be done activity wise along with its per quantity rate is to be mentioned while preparing the mine closure cost which makes fund allocation more realistic keeping in view no mine closure activity cost comes under mining operation as this was not available in previous guidelines.

Regarding reimbursement from escrow account, a work order was awarded to IEST Shibpur by BCCL on 26.10.2019 for audit of mine closure activities of 43 mines of BCCL. For expediting the process of reimbursement, audit of 43 mines was divided into two phases i.e. in the first phase 20 mines were taken and in the second phase 23 mines were taken. Final Audit report of 20 mines certified by IEST Shibpur taken in the first phase were submitted to Coal Controller, Kolkata and recommended for reimbursement of Rs. 72.83 crores (approx) in which ad hoc reimbursement of Rs. 36.41 crores has already been reimbursed by Coal controller. Rest 50 % of amount will be reimbursed after technical inspection/ scrutiny by Technical Committee of CCO Hq. For the second phase, field visit of 23 mines of BCCL has been done by team of IEST Shibpur.

The Financial Impact of changing from 80% to 50% reimbursement from Escrow Account combined with nullifying the eligibility of progressive OB backfilling as a Mine Closure Activity will be calamitous and will have huge impact on the cash inflow of the Mining Companies like BCCL etc. which may even lead to a liquidity crunch in extreme cases . At last, mining plans of all mines of BCCL are being revised as per MCP guidelines 2019 stating the quantity of work to be done activity wise along with its per quantity rate which makes fund allocation to closure activities more realistic.

★ *Environmental Initiative* ★

Owing to Frequent stoppage of work and severe threat to life & property due to emission of methane gas, an initiative for pre drainage of methane has been taken up by BCCL at XVI Seam of Moondih Colliery as a demonstration project

Bid was opened on 28.09.2020. One bidder participated in tender, i.e. Deep CH₄ Limited. Technical evaluation of the bid document is under process at CMPDIL, Ranchi.

बीसीसीएल में राजभाषा पखवाड़ा-2020 का सफल आयोजन

भारत कोकिंग कोल लिमिटेड में प्रतिवर्ष की भांति इस वर्ष भी राजभाषा पखवाड़ा-2020 का आयोजन बहुत हर्ष और उल्लास के साथ किया गया। यह आयोजन बीसीसीएल के सभी क्षेत्रों और मुख्यालय में दिनांक 01 से 15 सितंबर, 2020 के दौरान आयोजित किया गया। कार्यालय में हिंदी में कार्य करने के लिए जागरूकता बढ़ाने के उद्देश्य से इस अभियान में विविध गतिविधियाँ आयोजित की गयीं। वैश्विक महामारी कोविड-19 को दृष्टिगत रखते हुए इस वर्ष सभी आयोजन ऑनलाइन माध्यम से किए गए।

राजभाषा पखवाड़ा – 2020 का शुभारंभ दिनांक 01 सितंबर, 2020 को ऑनलाइन माध्यम से अध्यक्ष-सह-प्रबंध निदेशक और निदेशक (कार्मिक) द्वारा संयुक्त रूप से किया गया। इस अवसर पर एक वीडियो का निर्माण किया गया, जिसके माध्यम से अध्यक्ष-सह-प्रबंध निदेशक और निदेशक (कार्मिक) द्वारा सभी कर्मियों को राजभाषा पखवाड़ा की शुभकामनाएँ दी गयीं और कार्यालय में संपूर्ण कार्य हिन्दी में ही करने और राजभाषा प्रतियोगिताओं में उत्साहपूर्वक भाग लेने की अपील की गयी।

राजभाषा पखवाड़ा-2020 के दौरान दिनांक 03 सितंबर, 2020 को ऑनलाइन हिंदी प्रश्नोत्तरी प्रतियोगिता आयोजित की गयी। इस प्रतियोगिता में बीसीसीएल मुख्यालय के लगभग 80 प्रतिभागियों द्वारा भागीदारी की गयी। दिनांक 07 सितंबर, 2020 को ऑनलाइन हिंदी अनुवाद प्रतियोगिता आयोजित की गयी। इस प्रतियोगिता में लगभग 60 प्रतिभागियों द्वारा भागीदारी की गयी। ये दोनों ही प्रतियोगिताएं राजभाषा विभाग द्वारा विकसित पोर्टल myhindischool.com पर आयोजित की गयीं।

दिनांक 09 सितंबर, 2020 को कॉरपोरेट स्तरीय ऑनलाइन हिंदी स्वरचित कविता पाठ प्रतियोगिता का आयोजन गूगल मीट के माध्यम से किया गया। इस प्रतियोगिता में सभी क्षेत्रों और मुख्यालय के चुने हुए प्रतिनिधियों द्वारा इस प्रतियोगिता में निर्णायक मंडल के सदस्य के रूप में श्री राजपाल यादव, पूर्व महाप्रबंधक (कार्मिक एवं राजभाषा), बीसीसीएल, डॉ. के. एस. सिन्हा, वरिष्ठ प्रबंधक (विधि) और श्री उदयवीर सिंह, उप प्रबंधक (राजभाषा) थे। प्रतियोगिता में लगभग 30 प्रतिभागियों द्वारा काव्य प्रस्तुति दी गयी। प्रतियोगिता के अंत में श्री राजपाल यादव और डॉ. के. एस. सिन्हा द्वारा समीक्षात्मक वक्तव्य दिया



गूगल मीट के माध्यम से कविता प्रतियोगिता का आयोजन

गया। काव्य पाठ किया गया।



दिनांक 14 सितंबर, 2020 को तल-3 सभागार कोयला भवन में हिंदी दिवस समारोह का आयोजन किया गया। समारोह की अध्यक्षता श्री राकेश कुमार, निदेशक (तकनीकी/संचालन) द्वारा की गयी। उन्होंने अध्यक्षीय वक्तव्य देते हुए कहा कि हिंदी बहुत ही सरल व रोचक भाषा है तथा इसका साहित्य बहुत ही संपन्न है। हिंदी के विशाल

और समृद्ध साहित्य ने इसकी लोकप्रियता को बहुत बढ़ाया है। भारत में हिंदी मोती के माले के उस धागे की तरह है जो सभी भाषा रूपी मोतियों को जोड़कर रखता है। उन्होंने इस अवसर पर प्रकाशित की जाने वाली कार्यालय सहायिका की सराहना करते हुए कहा कि यह बहुत उपयोगी पुस्तिका है।

इसी अवसर पर निदेशक (तकनीकी/परियोजना व योजना) श्री चंचल गोस्वामी ने कहा कि इस वर्ष सभी प्रतियोगिताओं का ऑनलाइन आयोजन किया गया। इस महामारी के दौर में यह बहुत आवश्यक है। उन्होंने सभी प्रतिभागियों को इस अवसर पर बधाई देते हुए कहा कि आप हर दिन हिंदी में अधिक से अधिक कार्य करें।

श्री पी वी के आर मल्लिकार्जुन राव, निदेशक (कार्मिक) ने सभी अधिकारियों और कर्मचारियों को हिंदी में अधिक से अधिक कार्य करने का आह्वान करते हुए कहा कि हम वर्ष भर हिंदी में अधिक से अधिक कार्य करने का प्रयास करें। राजभाषा संबंधी लक्ष्य प्राप्त करने के लिए हमें निष्ठा, प्रतिबद्धता और अभ्यास को अपने कार्य का अहम हिस्सा बनाना होगा। उन्होंने इस अवसर पर कंपनी में राजभाषा के प्रति और अधिक सकारात्मक और उत्साहवर्धक माहौल बनाने के लिए कई सुझाव दिए।

कार्यक्रम का शुभारंभ कोल इंडिया कॉर्पोरेट गीत के साथ हुआ। इसके पश्चात हिंदी के प्रतिष्ठित साहित्यकार सूर्यकांत त्रिपाठी निराला को श्रद्धांजलि अर्पित की गयी। निदेशक मंडल का स्वागत हिंदी पुस्तक प्रदान कर किया गया।

इस अवसर पर कंपनी की गृह पत्रिका 'कोयला भारती' के अंक-33 का विमोचन किया गया। पहली बार इस पत्रिका को डिजिटल और मुद्रित दोनों ही रूपों में प्रकाशित कराया गया। इसके पश्चात राजभाषा विभाग द्वारा तैयार की गयी पुस्तिका 'कार्यालय सहायिका' का विमोचन भी निदेशक मंडल द्वारा किया गया।

हिंदी दिवस समारोह में बीसीसीएल के वार्षिक राजभाषा पुरस्कार डॉ. शंकर दयाल सिंह स्मृति राजभाषा सम्मान – 2020 से क्षेत्रों और विभागों को सम्मानित किया गया। क्षेत्रों में प्रथम पुरस्कार बस्ताकोला क्षेत्र, द्वितीय पुरस्कार सिजुआ क्षेत्र, तृतीय पुरस्कार लोदना व कुसुंडा क्षेत्र को प्राप्त हुआ। मुख्यालय के विभागों में प्रथम पुरस्कार वीआईपी प्रकोष्ठ, द्वितीय पुरस्कार पीएफ व पेंशन विभाग और भूसंपदा विभाग तथा तृतीय पुरस्कार जनसंपर्क विभाग, औद्योगिक संबंध विभाग, कर्मचारी स्थापना विभाग को प्राप्त हुआ। समारोह में पखवाड़ा के दौरान आयोजित की जाने वाली अन्य प्रतियोगिताओं के विजयी प्रतिभागियों के नाम की घोषणा भी की गयी।



समारोह में गृह मंत्री, भारत सरकार, कोयला मंत्री, भारत सरकार, अध्यक्ष, कोल इंडिया लिमिटेड और सचिव, राजभाषा विभाग के संदेश का भी वाचन किया गया। कार्यक्रम में स्वागत वक्तव्य, राजभाषा पखवाड़ा की रिपोर्ट प्रस्तुतीकरण और धन्यवाद ज्ञापन श्री दिलीप कुमार सिंह, उप प्रबंधक (राजभाषा) द्वारा किया गया। उनके द्वारा कहा गया कि बीसीसीएल का राजभाषा विभाग सदैव आपके सहयोग के लिए तत्पर है। हिंदी में काम करने में किसी प्रकार की समस्या होने पर राजभाषा विभाग में संपर्क करें। कार्यक्रम का संचालन श्री उदयवीर सिंह, उप प्रबंधक (राजभाषा) द्वारा किया गया।

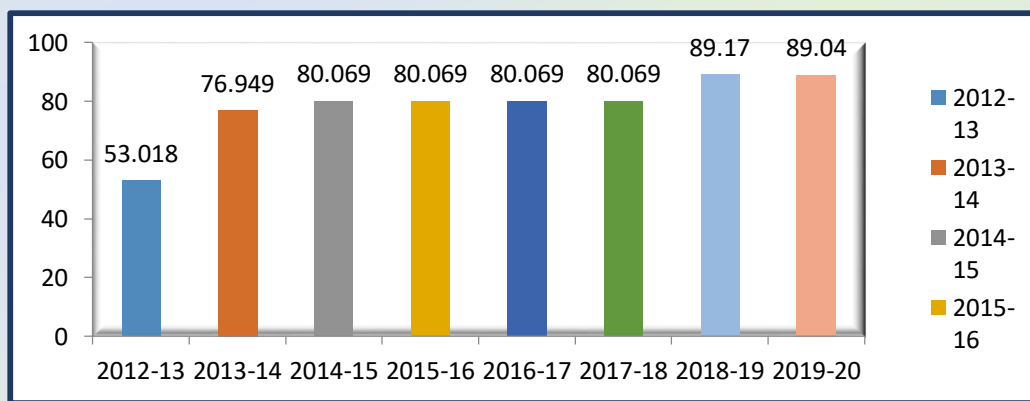
कार्यक्रम का सजीव प्रसारण फेसबुक लाइव, यूट्यूब लाइव और कंपनी की वीडियो कॉन्फ्रेंसिंग सेवा के माध्यम से किया गया। इन माध्यमों से बीसीसीएल के क्षेत्रों से बहुत से अधिकारी व कर्मचारी कार्यक्रम से सीधे जुड़े। कोविड-19 महामारी से बचने के लिए निर्धारित मानक संचालन प्रक्रिया (एसओपी) का पालन करते हुए संपूर्ण कार्यक्रम का आयोजन किया गया।

ENVIRONMENTAL CLEARANCES FOR BCCL MINES & WASHERIES

The coal mining activities in Jharia Coal Field started as early as 1890 and by year 1895 the Eastern Indian Railway extended their Howrah-Barakar line upto Katrasgarh and in 1901 Bengal Nagpur Railway extended their line from Midnapur to Gomoh. The expansion of railway lines in Jharia Coal Field gave an impetus to the industry and a number of Coal companies operating in this coalfield went on increasing. In the year 1971, all coking coal mines were taken over and subsequently nationalized in 1972 and BCCL was formed. Further, nationalization of Non-coking coal mines took place in 1973 and 184 non-coking mines were added, making a total of 398 Mines in BCCL. The total mines lately reduced to 103 after amalgamation, modification and operation being suspended. Environment Clearances for 103 Mines was a gigantic task. Therefore, BCCL has formulated a Cluster Concept grouping all its operative/inoperative/proposed mines (including Pit head washeries) into 17 Clusters for obtaining environmental clearances. BCCL is the pioneer company in the coal industry to formulate the cluster concept for EIA-EMP preparation and grant of Environmental clearances. MoEFCC has approved this Cluster Concept in Dec., 2009 and advised to go ahead with preparation of EIA-EMPs for all its clusters for grant of Environmental clearances. A cluster of mines includes all the operating, proposed, abandoned/ closed mines, washeries having boundaries contiguous and in close vicinity of each other. The cluster concept was developed as per the advices and suggestions of EAC and MoEFCC dovetailing approved Master Plan for Dealing with Fire Subsidence and Rehabilitation in the Leasehold of BCCL (Govt. approved Jharia Master Plan) and based on environmental rationale and benefits.

Subsequently BCCL obtained Environmental Clearance of all the mines located in Jharkhand and started mining in a scientific manner as per the prevailing mine regulations with the objectives of safety, conservation, environmental protection and to meet the country's coal demand. BCCL has been granted EC for 16 clusters with total peak production capacity of 89.04 MTPA. Environmental Clearance for all washeries including new has been obtained with total capacity of 21.8 MTPA

- EC of 16 clusters is available covering all operative, closed and proposed mines located in Jharkhand.
- EC Amendments and Capacity Enhancements for production requirements have been obtained from MoEFCC from time to time as depicted in Bar-Graph given below
- Total peak Capacity for 16 clusters is now 89.04 MTPA.



Environment Clearance Capacity (MTPA) of clusters of Mines

Environment Clearance of Washeries:

- Under cluster concept, EC of Moonidih Washery, Sudamdih Washery, & Dahibari Washery obtained for normative capacity of 1.6 MTPA each.
- Environmental Clearance for Patherdih coal Washery 5.0 MTPA and proposed Patherdih coal Washery 2.5 MTPA, Madhuban Coal Washeries 5.0 MTPA, Dugda Washery 2.5 MTPA, Bhojudih washery 2 MTPA have already been obtained. The Patherdih 5.0 MTPA washery is operational and validity of EC extended for Madhuban washery 5.0 MTPA.

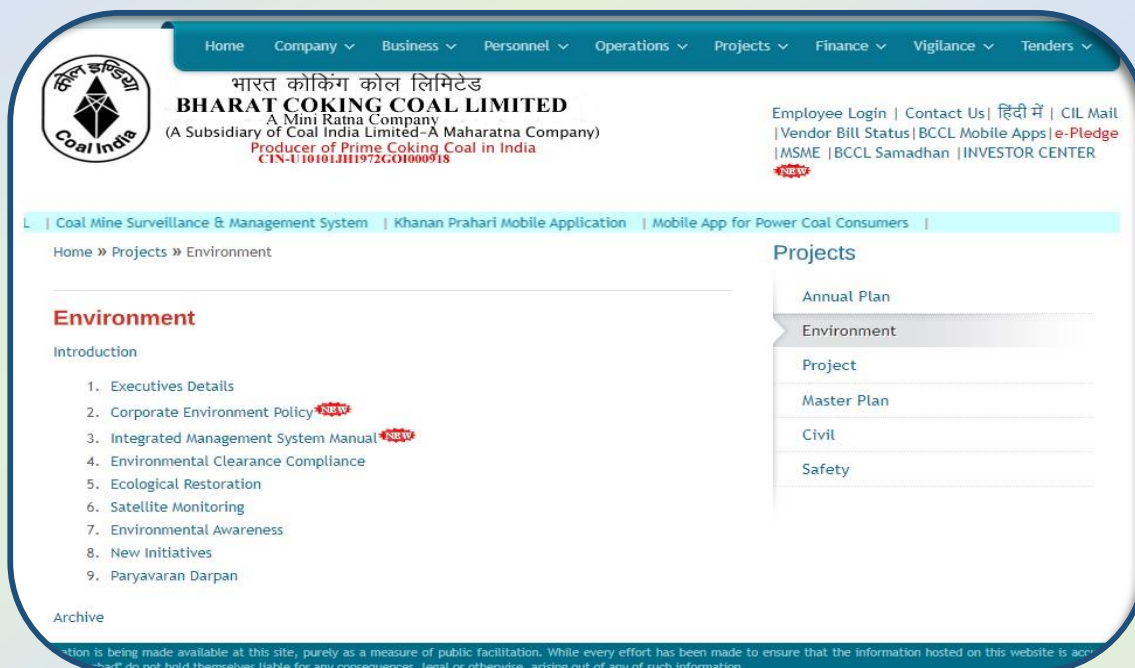
SI No	Description	Recent Amendments for facilitating Production Targets of 2020-21
1	EC of 17 Clusters of mines	<ol style="list-style-type: none"> 1. EC enhancement obtained in Cluster IV (Extended validity) & VII (Enhanced Capacity) 2. EC amendments obtained in Cluster V (for Sendra Bansjora and Kankanee), VIII(For Kuya and Dobari), IX(For Aml Joyrampur), X(For ASP ans Bhowrah South) & XI(For Gopalichak and Kenduadih) for facilitating individual mine capacities. 3. Thereafter, EC amendments have also been obtained for Cluster VII (for production from Rajapur OCP) on 20.8.2020. 4. Further amendment obtained in Cluster V (For Nichitpur OC) on 30.09.2020 5. EAC has recommended the Proposal for Cluster VIII for grant of EC by 2nd EAC held on 28.09.2020. <p>Environment Clearances in Process:</p> <ol style="list-style-type: none"> 1. Cluster-XVII (CV AREA WB portion/Kalyaneshwari OC, 04 MTPA), recommended for EC in EAC meeting held on 07.08.2020. 2. Form-1 uploaded for consideration for Grant of ToR of New Moonidih Coking Coal Washery (2.5 MTPA) considered in EAC held on 27.10.2020.

ACTIVITIES TAKEN UP FOR ENVIRONMENTAL CLEARANCES COMPLIANCES:

Post Grant of Environment Clearances, many specific conditions, general conditions of Environment Clearance and Consent to Operate issued by State Pollution Control Board has to be complied for sustainable and smooth mining operations. Additionally, Dhanbad was listed as Non-Attainment Town thus National Clean Air Program for Dhanbad was developed and is under implementation for which BCCL is a major stakeholder. Following activities have been taken up for ensuring compliances.

- BCCL has taken prompt action for compliance of all conditions of Environmental Clearances and submitting the compliance to regulatory authorities regularly which along with Clearance letters are uploaded periodically on BCCL official website.
- As per conditions of EC, Monitoring locations are fixed on cluster basis in consultation with JSPCB, Ranchi. JSPCB has approved Air-37, water-37+17 (surface+ mine water) & noise-37 locations covering all clusters. BCCL is also in process of setting up 40 Online PM₁₀ Analyzers and 02 CAAQMS (One at Jagjeevan Nagar and One at Katras MT Hostel). Tender for 40 PM₁₀ Analyzer and One CAAQMS is under technical evaluation. Furthermore, the tender for one CAAQMS is to be floated.
- Environment monitoring work is entrusted to CMPDI, RI-II. As per the monitoring report submitted by CMPDIL, RI-II for March 2020, April 2020 & May 2020; out of total 80 samples monitored per month, all core zone samples complied the coal mine standard (as per MoEF&CC Gazette Notification No. GSR 742(E) dt 25.09.2000 Standards for Coal Mines). The mine water effluent discharge parameters, noise level are also within limit.
- NEERI, Nagpur has been awarded the work to carry out Source Apportionment Study to identify the major sources of pollution in Dhanbad. A Draft interim report has been submitted by NEERI for the Work of Source Apportionment Study undertaken under MOU of CIL with NEERI. Final Report is awaited.
- 10 water sprinklers with dust suppression arrangement are procured by Excavation department in 2019-20 with total cost of 16.71 crores out of which 10 are commissioned. Tender for Procurement of 05 Mist sprinklers has been processed by E&M department on 03.07.2020. Presently the tender is under technical evaluation by E&M Department.
- BCCL already has 116 Mobile Sprinklers with Capacity of 1685.2 KL alongwith 368 Fixed Sprinklers installed at Railway Sidings and Washeries.

BCCL ENVIRONMENT IS ACCESSIBLE AT



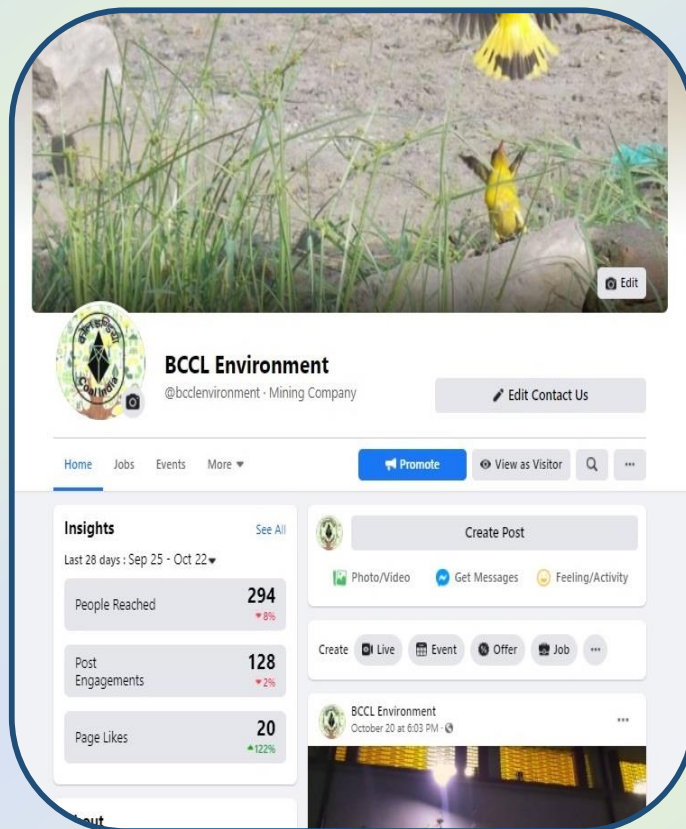
The screenshot shows the BCCL website with the following details:

- Header:** Home, Company, Business, Personnel, Operations, Projects, Finance, Vigilance, Tenders.
- Logo:** Coal India.
- Company Name:** भारत कोकिंग कोल लिमिटेड (BHARAT COKING COAL LIMITED).
- Subsidiary:** A Mini Ratna Company (A Subsidiary of Coal India Limited - A Maharatna Company).
- Product:** Producer of Prime Coking Coal in India.
- CTN:** U10101JH1972G.O1000918.
- Links:** Employee Login, Contact Us, हिंदी में, CIL Mail, Vendor Bill Status, BCCL Mobile Apps, e-Pledge, MSME, BCCL Samadhan, INVESTOR CENTER.
- Navigation:** Coal Mine Surveillance & Management System, Khanan Pahari Mobile Application, Mobile App for Power Coal Consumers.
- Environment Section:**
 - Introduction:**
 - Executives Details
 - Corporate Environment Policy **NEW**
 - Integrated Management System Manual **NEW**
 - Environmental Clearance Compliance
 - Ecological Restoration
 - Satellite Monitoring
 - Environmental Awareness
 - New Initiatives
 - Paryavaran Darpan
 - Projects:**
 - Annual Plan
 - Environment
 - Project
 - Master Plan
 - Civil
 - Safety



The screenshot shows the Twitter profile of @BCCLEnvironment with the following details:

- Profile Picture:** A landscape image of a green field.
- Handle:** @BCCLEnvironment.
- Bio:** BCCL Team Environment.
- Joined:** February 2020.
- Following:** 17.
- Followers:** 95.
- Not followed by anyone you're following.**
- Tweets:**
 - Retweeted:** @BCCLEnvironment Retweeted.
 - Text:** श्री पीवीकेआरएम राव, निदेशक (कार्मिक), बीसीसीएल के कुशल नेतृत्व में कंपनी के अधिकारियों व कर्मचारियों ने उत्साहपूर्वक ऑनलाइन कोविड-19 शपथ ग्रहण की और निम्नलिखित संबंधित सुरक्षा उपायों को अंमल में लाया - मास्क पहनना, शारीरिक दूरी और हाथ धुलना।

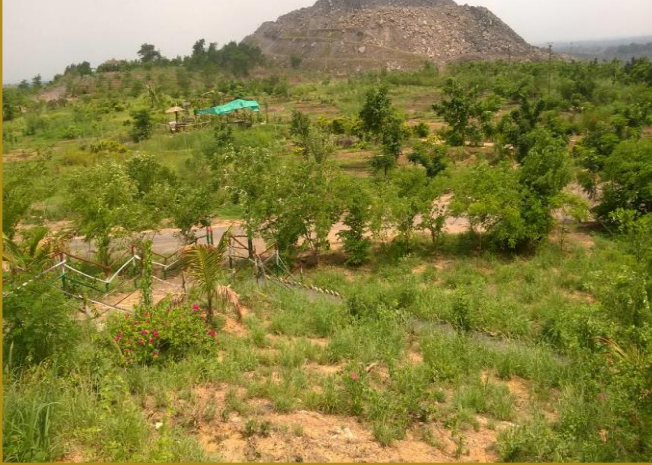
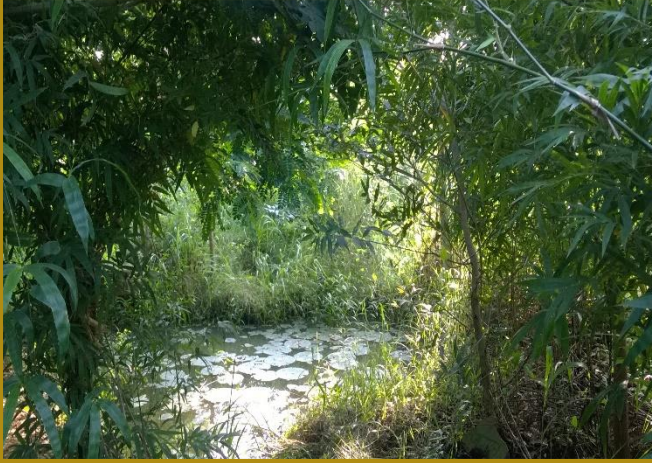


The screenshot shows the Facebook page of BCCL Environment with the following details:

- Profile Picture:** A landscape image of a green field.
- Page Name:** BCCL Environment.
- Page Info:** @bcclenvironment · Mining Company.
- Insights:**
 - People Reached:** 294 (+8%).
 - Post Engagements:** 128 (+2%).
 - Page Likes:** 20 (+122%).
- Post:** A photo of a yellow bird in a field.
- Post Date:** October 20 at 6:03 PM.



पर्यावरण विभाग
भारत कोकिंग कोल लिमिटेड
एक मिनी रत्न कम्पनी
(कोल इंडिया लिमिटेड का एक अंग)
कोयला भवन, धनबाद-826005



FOLLOW BCCL ENVIRONMENT ON SOCIAL MEDIA HANDLES



/BCCL Environment



bccl.environment



@BCCLEnvironment

MAIL YOUR SUGGESTIONS AND FEEDBACK TO – darpanparyavaran@gmail.com

For Internal Circulation only