Volume VIII Issue II, JUNE 2023 भाग ८ अंक २, जून २०२३

Bharat Coking Coal Limited

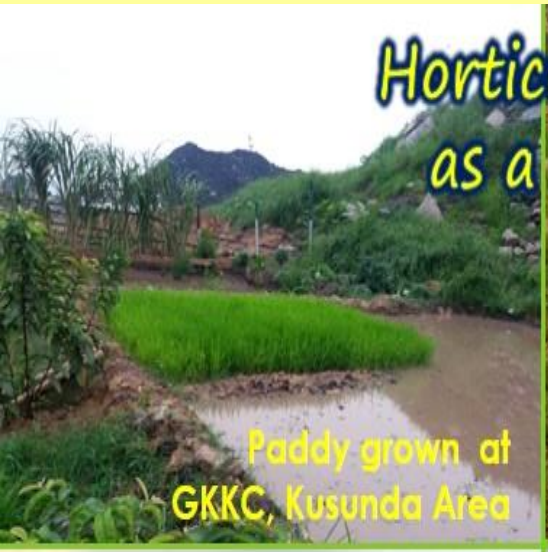
5 JUNE 2023 | HOSTED BY CÔTE D'IVOIRE
SOLUTIONS TO PLASTIC POLLUTION

LiFE Lifestyle for Environment

पर्यावरण दर्पण

पर्यावरणीय समाचार पत्रिका

Horticultural initiatives by BCCL as a part of Eco-Restoration


Paddy grown at GKKC, Kusunda Area

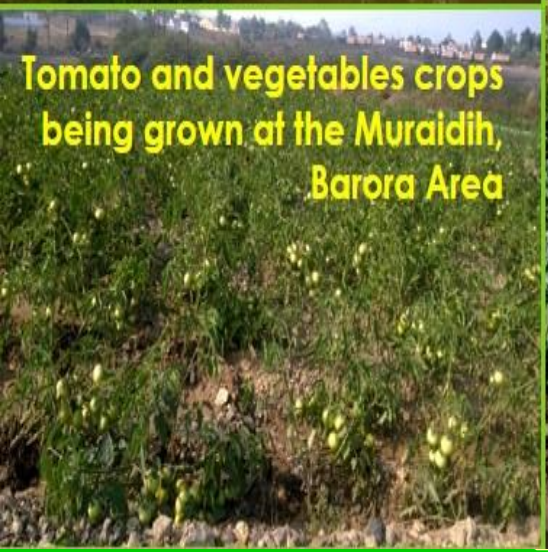

Crop at Muraidih, Barora Area

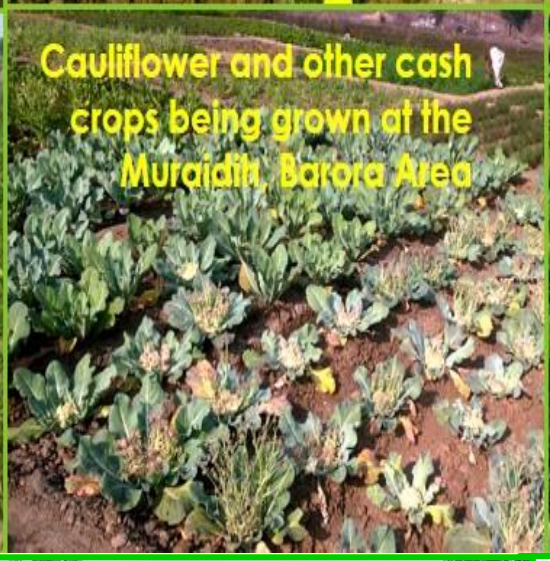

Mustard and Wheat cultivation at Lodna


Sugarcane grown at GKKC, Kusunda Area


Flowers grown at Muraidih, Barora Area


Wheat grown at GKKC, Kusunda Area


Tomato and vegetables crops being grown at the Muraidih, Barora Area


Cauliflower and other cash crops being grown at the Muraidih, Barora Area


Maize cultivation at AKWMC, Katras


Sunflower at Gokul Park, Lodna


Lady finger at PB Area


Wheat at GKKC, Kusunda

FROM THE OFFICE OF THE CMD- SHRI SAMIRAN DUTTA

Editorial Team of Paryavaran Darpan conducted a short interview of all the Directors of BCCL. Here is an excerpt of a short interview of our very dynamic CMD Sir, Shri Samiran Dutta.

***Editorial Team**: Heartiest Congratulations Sir. BCCL has achieved historical growth under your adroit leadership with record production and dispatch of coal by BCCL in the FY 2022-23*

***CMD Sir**: Thank You. This achievement was possible only with the support of entire BCCL family.*

***Editorial Team**: Sir, BCCL has been publishing its Biannual Environmental Newsletter since 2015. BCCL creates awareness among all its stakeholders through Paryavaran Darpan. We are sure our readers will love to know the future plans of BCCL through this edition of Paryavaran Darpan.*

***CMD Sir:** Yes, creating social awareness about the Environment is one of the obligation of every Company. Publishing this environment newsletter is one of the appreciable approach towards the fulfillment of this responsibility*

Editorial Team: Sir, How can BCCL integrate the concept of "Mission LiFE" in its vision?

***CMD Sir:** BCCL is one such organization which not only mines out natural resource but also changes the gamut of life. Every aspect of life is directly or indirectly affected by coal mining. Our product "Coking Coal" is used in the steel industry and other coal for electricity generation so we are only empowering life in one way or the other. Lifestyle for Environment, better known as LiFE is directly linked with Environment and if you see BCCL's vision includes "attaining environmentally and socially sustainable growth through best practices from mine to market" and our various activities are directed at fulfilling this vision. Though we degrade the land for mining out this precious coal but at the same time due care is taken to minimize this harm and return it to the original form at the earliest through plantation and ecological restoration. In fact plan is underway to transplant the trees instead of felling them for continuance of mining activities. The water pumped out during mining is being supplied for various uses, thereby ensuring ease of living in the surrounding areas. BCCL has organized various awareness drives in form of Nukkad Natak, cleanliness, Plantation, distribution of sapling, jute bags and clay bottles to create awareness among the residents of JCF. BCCL is committed for transforming the life of all and motivate them to adopt LiFE.*

Editorial Team: Where do you see BCCL in the next 03 years?

***CMD Sir:** BCCL is the leader of coking coal market and in the next three years we will certainly maintain this position. The coking coal market has abundant opportunities and sky is the limit for us. The only thing we need to ensure is that coal is extracted in the best possible, environment friendly manner, transitioning to "Sustainable Mining". BCCL is moving from pure coal to mixed bag of coal+ renewable. We are already diversifying in form of addition of solar energy and tapping the potential of Coal Bed Methane and Coal Mine Methane. With the network of new washeries being established, washed coal supply to Indian market will gain an impetus. We will be a modern and an efficient company in coming 03 years, providing energy security to the nation.*

Editorial Team: How does BCCL plan to give back to "Mother Earth"

***CMD Sir:** BCCL is emphasizing on giving back to Mother Nature through eco-restoration, plantation and grassing and reducing carbon footprint in day to day activities of the company through incorporation of energy saving measures like using e-vehicle, LED Lights, solar pumps etc. We should at least return what we have received from our Mother Nature. To facilitate this, proper implementation of Mine Closure Plan needs to be ensured. Further, adoption of new age eco-friendly technology for mass production like High Wall Mining along with augmentation of coal extraction from Underground mines will enable BCCL to steer the development through the greener route. BCCL will be executing "Belting Solution" for transportation of coal with the help of covered conveyor belts.*

This quote resonates with the values of BCCL

"Investment in Environment gives the best risk free return"

Editorial Team: Sir, Your Message for world Environment Day and Paryavaran Darpan.

***CMD Sir:** Learning to implement the concept of reduce, reuse and recycle are key to creating a better planet for all of us and with this mantra we can Beat the Plastic pollution. I wish the team of Paryavaran Darpan my best wishes and success for this newsletter*

From the Desk of the Director-Shri Sanjay Kumar Singh

Editorial Team of Paryavaran Darpan conducted a short interview of all the Directors of BCCL. Here is an excerpt of a short interview of our beloved Director (Technical) Operations.

Editorial Team: Heartiest Congratulations Sir on the record production and dispatch of coal by BCCL in the FY 2022-23

D(T) Sir: Thank You. This achievement is the result of the untiring effort of all members of BCCL family.

Editorial Team: Sir, BCCL has been publishing its Biannual Environmental Newsletter since 2015. BCCL creates awareness among all its stakeholders through Paryavaran Darpan. We are sure our readers will love to know your vision through this edition of Paryavaran Darpan.

D(T) Sir: Yes, Paryavaran Darpan is a commendable work of Environment Department and it certainly make our stakeholders aware of the work being done by BCCL for the environment.

Editorial Team: Your experience as a mining Engineer for the last 37 years?

D(T) Sir: Mining Industry is the toughest Industry when the Nation is not at War. All the officers, workers, supervisors put in blood and sweat to keep the wheel of Coal Mining Industry moving forward. The historic achievement of 704 MT Coal production by CIL is the result of sheer dedication of all those involved in this tough industry. When I had joined this Industry, thing were not so mechanized. The risk involved were higher. The 90's saw tremendous change, post the liberalization. Globalization took a central stage and with this mining sector started adopting modern technologies and greater emphasis was laid on mechanization. Today the concept of mining has become "sustainable mining" where environment is being given due importance. "Change is the only constant" and the mining industry is following this mantra through incorporation of High Wall Mining, Ecological Restoration and advanced pollution mitigating techniques like fog Canon, PM10 Analyzers, CAAQMS.

Editorial Team: How do you see the company moving forward sustainably?

D(T) Sir: There is a famous saying " Mining Industry starts as a boom town and ends as a Ghost Town". We have work very hard to prove the above saying wrong. The whole focus should be on leaving the area after mining better than pre-mining condition. CIL is taking various steps for ensuring a better environment for future generation. With due importance being given to Mine Closure, CIL and its subsidiary is transitioning to "Sustainable Mining", taking into account economic as well as social development of the entire area.

Editorial Team: How the company will achieve the "Zero Carbon" Vision of our honorable Prime Minister.

D(T) Sir: CIL has to move from pure coal to mixed bag of coal+ renewable. We are already diversifying in form of addition of solar energy, Coal Bed Methane and Coal Mine Methane. Coal will remain a part of the energy mix with decreasing percentage over the years at least for next 20 years. Emphasis should be on giving back to Mother Nature through eco-restoration, plantation and grassing and reducing carbon footprint in day to day activities of the company. BCCL is working on the solution of "Zero Carbon" through incorporation of energy saving measures like using e-vehicle, LED Lights, solar pumps etc.

Editorial Team: Sir, Your Message for world Environment Day and Paryavaran Darpan.

D(T) Sir: Millions of people from all over the world come together on World Environment Day to raise awareness and act responsibly for the environment. The theme for World Environment Day 2023 will focus on solutions to plastic pollution under the campaign #Beat Plastic Pollution and we have to learn to use the material more sustainably, offering hope that one day, plastic pollution will be history. I congratulate the Environment department for publishing Paryavaran Darpan and wish it all success.

From the Desk of the Director- Shri U. A KAOLE

Editorial Team of Paryavaran Darpan conducted a short interview of all the Directors of BCCL. Here is an excerpt of a short interview of our Director (Technical) Project & Planning.

Editorial Team**: **Heartiest Congratulations Sir on the record production and dispatch of coal by BCCL in the FY 2022-23

***D(T) Sir:** Thank You. This landmark achievement has laid the foundation of future growth of BCCL.*

Editorial Team: Sir, BCCL has been publishing its Biannual Environmental Newsletter since 2015. BCCL is creating awareness among all its stakeholders through Paryavaran Darpan. Through this edition of Paryavaran Darpan our readers get an insight of your vision.

***D(T) Sir:** Yes, Publication of Paryavaran Darpan regularly to create awareness for the protection of our mother earth for the future generation reflects our commitment towards Environment Management*

Editorial Team: What major challenges are being faced by BCCL on its journey of becoming an environmentally sustainable company?

***D(T) Sir**: The environment issues in the coal mining sector are quite complex and require multi-disciplinary actions for their fulfilment. The whole fabric of industrialization, economic growth and development is closely interwoven around the environment. BCCL has to work in densely populated region which makes large scale mechanization difficult. Further, the fire infestation of coal mines of JCF makes the task even more complicated. The legacy mines inherited by BCCL has challenged every skill of mining engineers for converting them into sustainable mines.*

Editorial Team: What is your vision for the environmental well-being of Jharia Coalfields?

***D(T) Sir:** The development of BCCL and the community around Jharia Coalfield is intertwined. When BCCL charters its growth story, the growth of people in JCF is ensured through economic prosperity and environmental investment by BCCL. Introduction of mechanization in transportation of coal through a network of conveyor belts, increasing network of pucca roads, establishment of network of CAAQMS & PM10 Analyzers, effective deployment of Fog Canons & Mist Sprinklers and introduction of mechanical sweepers will ensure reduced Air pollution. Further, the grassing and ecological restoration will enable JCF to return to its pristine condition. The establishment of zero discharge washeries will improve the environment along with enhancing the treasury of the nation. BCCL is committed to make Jharia Coalfield the cleanest and greenest coalfield in the country.*

Editorial Team: Sir, your message on the theme of World Environment Day 2023 "Solution to Plastic Pollution".

***D(T) Sir**: 50% of the plastic we use is single-use or disposable. With "Solution to Plastic Pollution"as the theme for this year's Environment Day, the world is coming together to combat single-use plastic pollution. Plastic is a menace which we have to get rid of. We have to come together and explore sustainable alternatives and urgently reduce the production and excessive use of single-use plastic polluting our environment and threatening human health. Plastic bags takes 500 to 1,000 years to disintegrate, estimate scientists. I urge all my colleagues to help in curbing this menace and minimize the use of plastics in our life.*

Editorial Team: Sir, Your Message for world Environment Day and Paryavaran Darpan.

***D(T) Sir** : I would like to congratulate the Environment team of BCCL for their continuous efforts to improve the environmental conditions while adopting new technologies and wish the newsletter a grand success.*

From the Desk of the Director-Shri Murli Krishna Ramaiah

Editorial Team of Paryavaran Darpan conducted a short interview of all the Directors of BCCL. Here is an excerpt of a short interview of Director (Personnel)

Editorial Team: You have seen the work undertaken by BCCL for improvement of environment. How was it? What work would you rank the best?

Director (P)*: BCCL as an organization is handling environment as per the applicable statutory provisions very clearly. We comply all the norms while going for land acquisitions, during mining operations and post mining. We do follow all the norms, when we are cutting trees and plant trees as per the applicable norms. Now with the vision of CMD, BCCL, we are planning that we should not cut any tree, rather transplantation of the trees which are required to cut for any infrastructural activities to a location where tree plantation is required. Further, on the scale of 10, I would be ranking BCCL at 8.5-9.0 because we are aware of the coming statutes in environment; at the same time we are prepared to implement those aspects which are going to come in future years and there is always a scope for improvement no matter how perfectly we perform.*

Editorial Team: What more can BCCL do for sustainable development of Jharia Coalfield?

Director (P)*: We already have Jharia Master Plan in action, at this stage we have to focus our efforts to shift those people to safer locations. For this, our State Administration is also committed and we are committed beyond the limits because this is what we are supposed to do and we will definitely be involved in the sustainable mining with the inclusion of all its aspects be it, social, economic or financial in Jharia Coal Field.*

Editorial Team:How can the community be involved in the environment works undertaken by BCCL?

Director (P)*: My idea of handling the Environment is a bit different to what normally is.India is a country where we worship trees and festivals are celebrated in which specific trees are worshipped. We have to make efforts to connect the environment with community's faith. One such small example is that we can have a Rudraksha garden, wherein Rudraksha tree shall be worshipped by people. Similarly, we can also develop Arjun, Bael and Pipal gardens as these trees are worshipped by us and will not be cut down for livelihood. In future, imagine a situation, we plant 200 Rudraksha plants and within 5-6 years they start flowering. The moment we see a Rudraksha flower, it will make people happy and may be after 10 years, we will be seeing the Rudraksha seeds available in Dhanbad. I am looking at conserving the Environment and making the people aware in this regard.*

Editorial Team: How can BCCL ensure Public Participation in its endeavor for Environment?

Director (P)*:Public participation can be ensured through increasing awareness among them.This can be achieved by educating the children in the schools about environmental concerns like to get rid of plastic and re-using plastic. Distribution of Environment friendly bags like Jute bags to people in the market complex, taking jute bags in the schools, by which we can save the environment by reducing the use of single-use plastic. I would like to focus on increase in awareness campaigns like organizing cleanliness competitions i.e. Clean School competition, Clean road competition, clean office competition so that people can become aware and finds newer ways of keeping the environment clean. BCCL is a leader in Dhanbad and leadership means creating resources for future. We have to create resource for future for the sustainable development of the people of Dhanbad.*

FROM THE OFFICE OF DIRECTOR (FINANCE) - SHRI R.K.SAHAY

Editorial Team of Paryavaran Darpan conducted a short interview of all the Directors of BCCL. Here is an excerpt of a short interview of our beloved Director (Finance)

Editorial Team: Heartiest Congratulations Sir on holding the Helm of Finances of BCCL and assuming the charge of Director Finance!

D(F) Sir: Thank You

Editorial Team: *Sir, BCCL has been publishing its Biannual Environmental Newsletter since 2015. BCCL disseminates information among all its stakeholders and tries to fulfill its responsibility of creating Environmental Awareness through Paryavaran Darpan. We are sure our readers will like to know your vision through this edition of Paryavaran Darpan.*

D(F) Sir: Yes, Paryavaran Darpan is a very good initiative of Environment Department and it certainly creates awareness among stakeholders about the work being done by BCCL for the environmental well-being.

Editorial Team: Where do you see the company going in next three years?

D(F) Sir: BCCL will take a long jump in the next three years. We will achieve lots of new landmark in the coming years. The goal of production & dispatch of 41 MT of Coal will be achieved this year. Financially the company is in good shape and we intend to create history by paying dividend to the shareholders for the first time after wiping off the cumulative losses. There will be augmentation in production of washed coal which will help in reducing India's import bill and increase in domestic supply of Coal to the Steel sector. We expect the company to earn substantial profit in the coming three Financial Years.

Editorial Team: What is the economic viability of diversification of BCCL from pure coal to mixed bag of coal+ renewable energy?

D(F) Sir: The diversification of BCCL from pure coal to mixed bag of coal + renewable energy is a long journey for which plans are already underway. We are already diversifying in form of addition of solar energy, CBM and CMM. Viability will come only in the long run when sufficient capacity of other energy sources are added. In the short run, we will be able to partially meet our energy requirement and these venture will earn profit in the long run.

Editorial Team: How all expenditure incurred for environment well-being though booked under various head may be reflected under Environment in its true sense?

D(F) Sir: The data for all expenditure is already available in SAP. We will correlate and integrate the data spread under various heads and reflect it under environmental expenditures. For accounting, expenditure will be booked under their natural head but for reporting purposes data can be collected, classified and analysed under environment head. This will ensure better reporting of true picture of expenditure incurred for environment well-being

Editorial Team: Sir, Your Message for world Environment Day and Paryavaran Darpan.

D(F) Sir: The theme for world Environment Day 2023 is Solution for Plastic pollution. As responsible Citizens we should all proactively try to reduce, reuse and recycle to achieve the Solution for Plastic pollution. Lastly, I would like to end with the quote of Martin Luther King Jr. that "If you can't fly then run, if you can't run then walk, if you can't walk then crawl, but whatever you do you have to keep moving forward." Hope that this journey of creating a better Environment has many more milestones and is reflected in every edition of this Newsletter "Paryavaran Darpan".

From the Desk of the CVO- Shri Aman Raj

I am delighted to know that the Environment Department of BCCL is celebrating "World Environment Day under the theme of "Solution for Plastic pollution" and also inaugurating the event with publication of its in house Magazine "Paryavaran Darpan".During interaction with the editorial team of the magazine Paryavaran Darpan, I shared my views and thoughts with the team and I also wish to share the same with all the readers of the Paryavaran Darpan.

"Plastic Pollution has become a global menace.It clogs our landfills, leaches into the ocean and is combusted into toxic smoke, making it one of the gravest threats to the planet. Plastics including micro plastics are now ubiquitous in our natural environment Plastic pollution and its detrimental impacts on health, the economy and the environment cannot be ignored. We are fully committed to reduce the consumption of single-use plastic, which can and must be replaced with durable and sustainable alternatives. You might know the 3 Rs — Reduce, Reuse, Recycle but we suggest 3 more: Remove, Refuse and Rally.

It is also to share that environmental pollution and engaging with activity of polluting environment is a form of corruption with Mother Nature in many ways. Let us say, while choosing various products for an industry / organization we often compromise on quality or take quality checks on lackadaisical manner, this ultimately leads to lower durability and eventually forming scraps / waste before its due lifetime. As such, it is our moral responsibility to think on that angle and help save environment at any means possible, for a cleaner, greener future.

I wish the magazine "Paryavaran Darpan" a long life of successive publication.

A PEEK INSIDE....

संपादकीय

सुगम ऊर्जा उपलब्धता के क्षेत्र में भारत कोकिंग कोल लिमिटेड एंव कोल इंडिया लिमिटेड ने 50 वर्ष पूरे कर लिए हैं और भविष्य की आवश्यकता को पूरा करने के लिए कटिबद्ध हैं | देश आजादीका अमृत महोत्सव मना रहा है एवं हम अपनी प्रतिबद्धता के साथ देश के विकास में अपनी भूमिका निभा रहें हैं |

तकनीकी विकास ने अनेकों वस्तुओं एवं सेवाओं को सस्ता कर दिया है, ताकि हर वर्ग तक इस वस्तुओं एवं सेवाओं की उपलब्धता सुनिश्चित कराई जा सके | इन्टरनेट सेवा इसका एक उदाहरण है जो सस्ता होने के कारण आवश्यकता से अधिक उपयोग में आ रहा है, कार्बन उत्सर्जन का एक स्रोत है | संसाधनों के अत्यधिक उपयोग का पर्यावरण पर प्रतिकूल प्रभाव पड़ता है | मिशन लाइफ हमें प्रेरित करता है कि अपना जीवन पद्यति को पर्यावरण के अनुकूल बनाएं | इसकी शुरुआत उपभोग / खपत में कटौती से ही होगी | अत: हमें जिम्मेदार उपभोक्ता बनना होगा एवं संसाधनों का दुरूपयोग रोकना होगा | बेहतर तकनीक के इस्तेमाल से संसाधनों का बेहतर इस्तेमाल होगा एवं सतत विकास की अवधारणा पर हम अग्रसर होंगे |

प्लास्टिक ने हमें अनेकों समाधान दिए है परन्तु अब यह स्वयं एक समस्या का रूप ले चूका है | वर्ष 2018 में विश्व पर्यावरण दिवस पर इसके समाधान के लिए संकल्प लिया गया था | समस्या की गंभीरता को देखते हुए इस वर्ष पुनः प्लास्टिक प्रदूषण से निराकरण का संकल्प लिया जा रहा है | पूरे मनोयोग से सभी को इसमें सहयोग करने की आवश्यकता है |

उर्जा उपलब्धता बढ़ाने के लिए अपने नए लक्ष्य की ओर भारत कोकिंग कोल लिमिटेड अग्रसर है | उत्पादन के साथ पर्यावरण संरक्षण पर भी विशेष ध्यान दिया जा रहा है एवं नयी तकनीकों से लैस उपकरणों को लगाया जा रहा है | धूल दमन के लिए मिस्ट स्प्रिंकलर, फॉग कैनान इत्यादि लगाये जा रहें है | मेकेनिकल स्वीपर से सड़कें की बेहतर सफाई हो सकेगी | अपने कार्य क्षेत्र के बाहर भी पेड़ लगायें जा रहे हैं | खनन पश्चात पौधारोपण किए गए अनेक क्षेत्रों को पार्क के रूप में विकसित किया जा रहा है, ताकि जन-सामान्य उसका उपयोग कर सकें |

विकास के पथ पर हमें लंबा रास्ता तय करना है और इसमें सबका साथ अपेक्षित है | आइये मिलकर अपने लक्ष्यों को प्राप्त करें |

शुभकामनाओं सहित

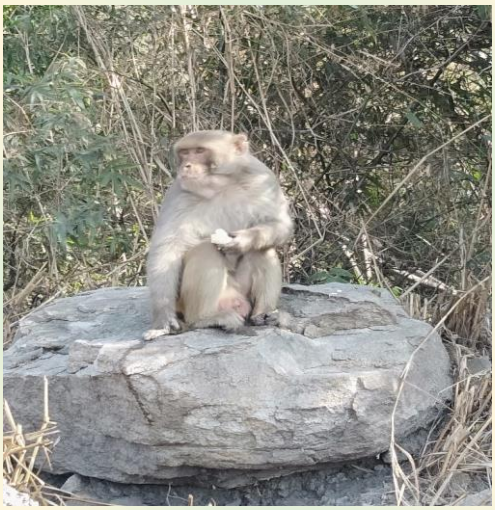
प्रधान संपादक

"Beyond Extraction: The Socio-Religious Dimensions of Ecological Restoration in Mining Areas"

Mining activities have long been associated with significant environmental degradation, causing profound socio-economic disruptions in affected communities. However, the growing recognition of the importance of sustainable development and environmental stewardship has led to the emergence of eco-restoration practices in mining areas. Eco-restoration aims to rehabilitate and restore the ecological balance of degraded lands, bringing about positive social and religious implications in these regions. This article explores the socio-religious impact of eco-restoration in mining areas and highlights the transformative potential it holds for communities.

Environmental Healing and Community Well-being

Eco-restoration initiatives in mining areas have the potential to heal the damaged environment, rejuvenating natural ecosystems and improving overall community well-being. As degraded lands are restored, the ecological functions and services they provide, such as clean air, water, and fertile soil, are reinstated. This restoration leads to enhanced biodiversity, which plays a vital role in maintaining the balance of ecosystems. A healed environment contributes to the physical and mental health of community members, fostering a sense of well-being and harmony with nature.



Various species of Fauna at Vrindavan Eco-Park, GKKC, Kusunda Area

Livelihood Opportunities and Economic Revitalization

Eco-restoration projects create employment opportunities and stimulate economic revitalization in mining communities. Restoration activities require skilled and unskilled labor. Moreover, the restoration of ecosystems often fosters the development of ecotourism, which can attract visitors and generate revenue for the local economy. By diversifying livelihood options, eco-restoration projects help alleviate poverty, reduce dependence on mining, and promote sustainable economic growth.

Cultural Preservation and Traditional Knowledge

Mining areas are often rich in cultural heritage, with indigenous communities possessing deep-rooted connections to the land and traditional knowledge systems. Eco-restoration endeavours provide opportunities for cultural preservation, as they encourage the involvement of local communities in decision-making processes and project implementation. Indigenous knowledge about plants, ecosystems, and sustainable land management practices can be integrated into restoration efforts, honouring traditional wisdom and strengthening cultural identity. This inclusion empowers marginalized communities and fosters a sense of pride, reviving and safeguarding their cultural heritage.

Spiritual and Religious Significance

Mining areas are sometimes imbued with spiritual and religious significance for local communities. These lands may hold sacred sites, places of worship, or cultural rituals deeply tied to the natural surroundings. Eco-restoration initiatives acknowledge and respect the spiritual and religious values associated with the land, ensuring that restoration activities are conducted with sensitivity and reverence. The revitalization of degraded ecosystems can rekindle the spiritual connection between the community and the land, fostering a sense of sacredness and reinforcing religious practices.

Temple at Vrindavan Eco-Park, GKKC, Kusunda Area

Social Cohesion and Community Empowerment

Eco-restoration in mining areas can serve as a catalyst for social cohesion and community empowerment. By involving local residents, restoration projects promote collective action, cooperation, and social integration. Communities become active participants in the restoration process, fostering a sense of ownership and responsibility for the land. This engagement strengthens social bonds, enhances community resilience, and empowers individuals to take charge of their environment. As a result, eco-restoration becomes a platform for community building and social transformation.

Eco-restoration in mining areas has the potential to bring about profound socio-religious impacts. By healing the environment, creating livelihood opportunities, preserving culture, respecting spiritual values, and empowering communities, these initiatives pave the way for sustainable development and the well-being of affected populations. One such example is the Vrindavan Eco-park located at Gondudih Khas Kusunda Colliery, Kusunda Area of Bharat Coking Coal Limited, Dhanbad. The eco-restoration site spans over 14 Ha, with more

than 30000 plants is home to many native reptiles, avian species and insects. Even apes and mongoose have been spotted at times. The site has won many laurels at different platforms and this motivation has led to the construction of one Temple at the highest point of the site. The said temple is visible from nooks and corner of Dhanbad city and is very soon going to be a sought after Kali Mata Temple in the region. The site is expected to attract devotees from far of places turning the place into a tourist and economic hotspot.

Recognizing the interdependence between ecology, society, and spirituality, eco-restoration represents a holistic approach that acknowledges the multifaceted nature of human-environment relationships. Through its transformative power, eco-restoration offers hope and a path towards a harmonious coexistence between communities, nature, and religious values in mining areas.

Suraj Kumar,
Asst. Manager (Env.)
Kusunda Area

पेड़ों का महत्व

बिगड़ा है पर्यावरण,बढ़ता जाता ताप ।
ज़हरीली सारी हवा,कैसा यह अभिशाप ।।

ईंधन खपता रोज़ ही,बिजली जलती ख़ूब।
हरियाली नित रो रही,सूख गई सब दूब।।

यंत्रों ने दूषित किया,मौसम और समाज ।
हमने की है मूर्खता,हम ही भुगतें आज ।।

नगर घिर गये धुंध में,धूमिल सारे गांव ।
धुँआ-धुँआ जीवन हुआ,गायब सारी छांव।।

दिखती नहिं पगडंडियाँ,चारों ओर गुबार ।
तिमिर विहँसता नित्य ही,रोता है उजियार ।।

जनजीवन रोने लगा,सिसक रहा इनसान ।
हर प्राणी भयभीत है,आफत में है जान ।।

आवाजाही रुक गई,मंद हुआ व्यापार ।
शिक्षा,ऑफिस,काम पर, हुई सघनतम् मार।।

प्रकृति बिलखती आज तो,कारण है अविवेक।
यदि हम चाहें निज भला,तो करनी हो नेक।।

आत्मचेतना से मिटे,प्रियवर आज कलंक।
सभी करें कुछ अब खरा,क्या राजा,क्या रंक।।

कोरोना के वेग से,हर जन है भयभीत।
आओ हम मिलकर लड़ें,तब पाएँगे जीत।।

फिर से अब आबाद हों,नगर,बस्तियाँ-गाँव ।
तभी मिलेगी वक़्त को,मनभावन इक छाँव ।।

.. ✍
रिंकु दुबे वैष्णवी
राजभाषा विभाग
कोयला भवन

"Breaking Up with Plastic: Taking Responsibility for a Sustainable Future"

Introduction

Plastic pollution is one of the most pressing environmental issues facing our planet. It has devastating effects on our health, the environment, and the ecosystem's sustainability. As a responsible corporate entity, we have a duty to take a closer look at our plastic consumption and take measures to minimize our environmental impact. As Rhea Suh, the President of the Natural Resources Defense Council, stated, "Plastic pollution is one of the greatest threats to our planet, and it is entirely preventable."

I. The Urgency of Plastic Pollution

1. Alarming Statistics

According to a study by the Ellen MacArthur Foundation, by 2050, there will be more plastic in the ocean than fish if we do not take action now. The scale of plastic pollution is staggering, with millions of tons of plastic waste being generated every year. It is a cause of concern for all of us.

2. Environmental and Health Impacts

Plastic pollution has far-reaching consequences for our environment and health. Plastics do not readily decompose, and they persist in the environment for hundreds of years, causing harm to marine life, ecosystems, and even entering our food chain. The toxins present in plastic can pose serious health risks.

II. Taking Action: Our Commitment to Reduce Plastic Waste

At Bharat Coking Coal Limited, we believe that every action counts, and we are committed to reducing our plastic waste. As Ratan Tata, the Chairman Emeritus of Tata Sons, said, "I believe that every business has a responsibility to give back to the community."

A. Promoting Eco-friendly Alternatives

1. Switching to Sustainable Packaging

We can start by promoting the use of eco-friendly alternatives, such as cloth bags, paper bags, or biodegradable packaging. These alternatives are a better option than single-use plastics, which contribute significantly to plastic pollution. As per a study by the United Nations, plastic bags can take up to 1,000 years to decompose, and most of them end up in landfills or the ocean, causing irreversible damage. By encouraging the adoption of sustainable packaging, we can reduce our plastic footprint.

2. Engaging Suppliers and Partners

Collaborating with our suppliers and partners is crucial in promoting eco-friendly alternatives. By working together, we can explore innovative solutions, such as

using plant-based materials or developing reusable packaging options, to reduce plastic waste throughout the supply chain.

B. Implementing Recycling and Waste Management Programs

1. Establishing Recycling Infrastructure

To effectively address plastic pollution, we must prioritize recycling. Implementing comprehensive recycling programs within our organization can encourage employees and stakeholders to recycle and reuse plastic products. This includes setting up designated recycling bins, educating individuals about proper recycling practices, and partnering with recycling facilities.

2. Extended Producer Responsibility (EPR) Programs

As per the Environmental Protection Agency (EPA), recycling one ton of plastic can save up to 7.4 cubic yards of landfill space. Exploring the implementation of extended producer responsibility (EPR) programs can also contribute to reducing plastic waste. EPR programs hold producers accountable for the entire life-cycle of their products, including proper disposal or recycling. By actively participating in EPR initiatives, we can ensure responsible plastic waste management.

III. Raising Awareness and Collaboration

A. Educating Stakeholders and the Community

1. Internal Awareness Campaigns

We can educate our employees through awareness campaigns that highlight the environmental impact of plastic pollution. By organizing seminars, workshops, and training sessions, we can empower our workforce to make sustainable choices and reduce plastic waste in their daily lives.

2. Community Outreach and Education

Engaging with local communities is crucial in spreading awareness about plastic pollution. We can organize educational programs in schools, community centers, and public events to educate individuals about the importance of reducing plastic waste and the benefits of eco-friendly alternatives.

B. Collaborating with Like-minded Organizations

1. Partnerships for Change

Collaborating with like-minded organizations, NGOs, and government agencies can amplify our efforts in combating plastic pollution. The Plastic Pollution Coalition is a global alliance of individuals, organizations, and businesses working together to reduce plastic pollution. By joining forces, we can share knowledge, resources, and best practices to develop innovative solutions, create impactful campaigns, and advocate for policy changes at a larger scale.

2. Plastic Pollution Coalitions and Initiatives

Participating in global initiatives like the Plastic Pollution Coalition and supporting their mission can contribute to a collective effort to reduce plastic pollution. These coalitions bring together individuals, organizations, and businesses striving to address plastic waste and promote sustainable practices.

IV. Advocating for Policy Changes

A. Lobbying for Legislative Action

To ensure a sustainable future, it is crucial to advocate for policies that prioritize environmental protection and tackle plastic pollution. By actively engaging with policymakers and lobbying for legislative changes, we can encourage the implementation of regulations that ban single-use plastics, promote plastic recycling, and support sustainable practices. The European Union has already taken significant steps in this direction by proposing a new law to reduce plastic pollution.

B. Embracing International Examples

Drawing inspiration from successful international examples, we can influence policy changes at a national level. By highlighting the achievements of countries or regions that have implemented effective measures to combat plastic pollution, we can encourage our government to adopt similar approaches. For instance, the Coca-Cola Company has committed to collecting and recycling the equivalent of every bottle or can it sells globally by 2030. Similarly, IKEA has pledged to remove all single-use plastic products from its stores and restaurants by 2020.

Conclusion:

In conclusion, plastic pollution is a critical issue that demands immediate attention and action. As per the World Economic Forum, by 2030, the amount of plastic produced globally is projected to double. As responsible individuals and organizations, we must take responsibility for our plastic consumption and work towards reducing our plastic footprint. By promoting eco-friendly alternatives, implementing recycling and waste management programs, raising awareness, fostering collaboration, and advocating for policy changes, we can contribute to a sustainable future. Let us join hands in breaking up with plastic and embracing a future that is free from its harmful impact. As Mahatma Gandhi once said, "Be the change you wish to see in the world." It is our responsibility to take care of the planet we live on and leave a better future for generations to come.

Siddhant Sanjay
Asst. Mgr. (Geology)
D(T)P&P Sectt., BCCL HQ

ENVIRONMENTAL AUDIT & ENVIRONMENTAL PERFORMANCE LNDEX RANKING

Environmental auditing is a systematic, documented, periodic and objective process in assessing an organization's activities and services in relation to assessing compliance with relevant statutory and internal requirements.

It also facilitates in management control of environmental practices, promoting good environmental management, maintaining credibility with the public, raising staff awareness and enforcing commitment to departmental environmental policy, exploring improvement opportunities & establishing the performance baseline for developing an Environmental Management System (EMS).

The EPI is a global rating system that ranks nations based on their environmental health, provides a data-driven evaluation of the global level of sustainability & helps to identify issues, define goals, follow trends, understand outcomes and identify effective policy methods. Also, good data and fact-based research may also help policy makers narrow their goals, improve relationships with important stakeholders and optimise the return on environmental spending.

In this regard, The Indian Council of Forestry Research & Education in (ICFRE), an autonomous body of Ministry of Environment, Forest & Climate Change, Govt.of India was entrusted to carry out Environmental Audit and Environmental Performance Index ranking of 35 mines of CIL under the ambit of MoU signed between Coal India Ltd. & ICFRE.

BCCL has obtained 17 Environment Clearances on cluster basis. Currently, two clusters (Cluster IV & Cluster VII) are included in list of 35 mines of CIL for Environmental Audit and Environmental Performance Index ranking. The aforesaid two clusters have obtained EC amendment with condition as:

QUOTE

“Every three years third party environmental Audit shall be carried out.”

UNQUOTE

In compliance of this, a team of experts from ICFRE visited the Cluster IV and Cluster VII for Environmental Audit and Environmental Performance Index ranking.

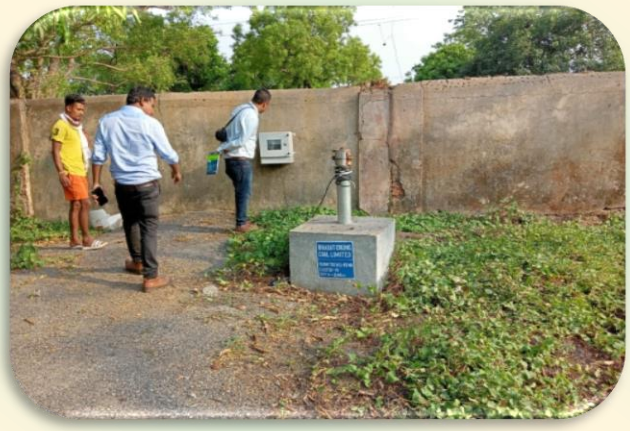
In compliance of this, a team of experts from ICFRE visited the Cluster IV and Cluster VII for Environmental Audit and Environmental Performance Index ranking.

The scope of work of the audit is as below:

- To review the conditions laid down in the Environmental Clearances (EC) approval from the MOEF&CC for mitigation of adverse environmental impacts.
- To assess the compliance by project authority towards project approval conditions and other approvals of the mine vis-a-vis progress of development of the mine.
- To conduct site inspection, review of relevant documents & monitoring data mechanism.

- To assess the technical aspects of progressive mining, green belt development, biological reclamation of over burden (OB), top soil management and review the adequacy of strategies, plans or programs prepared for the purpose.
- To identify gap in compliance of EC conditions and suggest appropriate corrective action for implementation by the respective project.





ICFRE Officials at Cluster IV & VII for Environmental Audit & EPIR

Environmental Index ranking based on the compliance of stipulated conditions and performance/evaluation of measures adopted as per Environmental Clearance condition to address the environmental safeguard in coal mines of the BCCL.

The Environmental audit will be beneficial in BCCL for compliance as it will help to identify shortcomings and provide better solutions for environmental well-being. It will also increase employee awareness of environmental standards and responsibilities along with financial benefits, identifies issues of non-compliance at the earliest allowing for proactive management planning, lowering corrective action costs and lastly improves stakeholder relationship.

Discover the Hidden Gem of Moonidih UG Project:

Western Jharia Area's Pristine Biodiversity

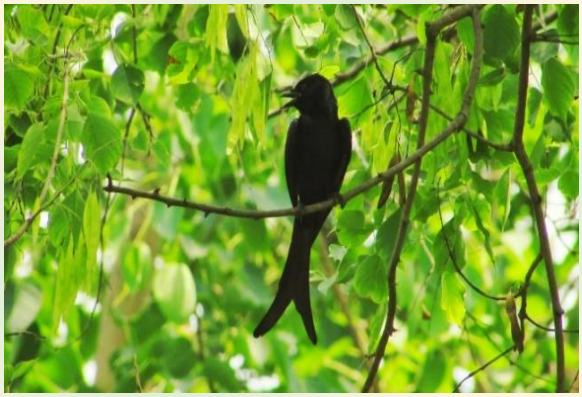
Moonidih UG Project, located in the WJ area, is renowned for its exceptional mining practices and 5-star rating by Ministry of Coal. But did you know that the area is also home to a rich variety of animals, insects, and birds? Despite its mining activities, the WJ area remains largely untouched and boasts pristine biodiversity. This is a photo essay exploring the avian side of Moonidih.

Black-rumped flame back woodpecker

The Black-rumped Flameback, also known as the Lesser Golden-backed Woodpecker, is a medium-sized woodpecker species found in South Asia. It has a striking black rump and a golden-yellow back. They are skilled climbers and feed on insects, fruits, and tree sap. Males have a distinctive red crown, while females have a black crown. They communicate through drumming on tree trunks to establish territories and attract mates. These woodpeckers play a vital role in controlling insect populations and maintaining healthy forest ecosystems.

Black Drongo

The Black Drongo is a small, glossy black bird found in parts of Asia, including India. It is known for its aerial agility and feeding habits, primarily insectivorous. They are skilled at catching insects in mid-air and have been observed mobbing and driving away larger birds. They are also known for their aggressive behaviour, often attacking intruders that come close to their nests. These birds have a distinct forked tail and emit a sharp, metallic call



Eurasian Hoopoe

The Eurasian Hoopoe is a unique bird found across Europe, Asia, and North Africa. It has a distinctive crown of feathers, a long, curved bill, and vibrant plumage. Hoopoes are known for their distinctive "hoo-poo" call and impressive crest display. They feed on insects and larvae, using their bill to probe the ground. Hoopoes are famous for their elaborate courtship displays and nest in tree hollows or crevices. They are considered a symbol of good luck and have a rich cultural significance in many regions.

Indian Parakeet

The Indian Parakeet, also known as the Rose-Ringed Parakeet, is a small and colorful bird found in India, Sri Lanka, and parts of Southeast Asia. These social birds form flocks of up to 100 individuals and are known for their ability to imitate human speech, making them popular as pet birds. Additionally, they play a crucial role as seed dispersers for numerous plant species. Interestingly, females possess a narrower neck ring compared to males. However, their propensity for damaging crops has led to them being considered pests in certain areas.

Koel

The Koel, also known as the Asian Koel, is a species of cuckoo found in parts of Asia, including India and Southeast Asia. The male Koel is glossy black with striking red eyes, while the female is brown with white spots. They are known for their distinctive and melodious calls, especially during the breeding season. The Koel is a brood parasite, laying its eggs in the nests of other bird species. The host bird unknowingly raises the Koel chicks as their own. They primarily feed on fruits and insects and play a role in seed dispersal.

Red Rumped Swallow

The Red-rumped Swallow, scientifically known as Cecropis daurica, is a migratory bird found in Europe, Asia, and Africa. It has a distinctive red rump and blue-black upperparts. They build cup-shaped nests made of mud and grass, often under the eaves of buildings. They are agile fliers and feed on insects caught in mid-air. These swallows undertake long-distance migrations, traveling thousands of kilometers each year. They play an

important ecological role by controlling insect populations and are known for their graceful aerial acrobatics.

Indian black Ibis The Red-naped Ibis, also known as the Indian Black Ibis, is a large wading bird found in South Asia. It has a glossy black body with a reddish-brown nape. They inhabit wetlands and feed on small aquatic creatures, insects, and even reptiles. They have a distinct downward-curved bill and long legs for foraging in shallow water. These ibises are known for their communal nesting, where multiple pairs build their nests close to each other. They play an important ecological role in wetland ecosystems by regulating prey populations and contributing to nutrient cycling.

Spotted Dove

The Spotted Dove is a medium-sized bird found across parts of Asia, including India, Southeast Asia, and Australia. It has a pale brown body with dark spots on its wings. Spotted Doves are known for their soft cooing calls that are often heard in urban and rural areas. They feed on seeds, grains, and small insects. These doves build flimsy nests made of twigs in trees and shrubs. They are adaptable birds and can thrive in a variety of habitats, including gardens, parks, and agricultural areas.

Brahmini Starling

The Brahmini Starling, also known as the Chestnut-tailed Starling, is a medium-sized bird found in South Asia. It has a glossy black plumage, chestnut-colored tail, and bright yellow eyes. They are highly social and form large flocks. Their diet consists of fruits, insects, and nectar. Males and females have similar appearances. Their melodious calls and ability tomimic sounds make them popular cage birds. These starlings play a role in seed dispersal and help control insect populations, contributing to the ecological balance of their habitats.

Bulbul

Two species of bulbul can be seen here: Red whiskered bulbul (Right) and Red vented bulbul (Left). The Bulbul is a family of passerine birds found across Africa, Asia, and the Pacific Islands. They are known for their melodious and varied songs. Bulbuls have a diverse diet that includes fruits, insects, and nectar. They are often seen in gardens and forests, adding beauty with their vibrant plumage. Some species of bulbuls have distinctive crests or colorful markings. These sociable birds form monogamous pairs and are skilled nest builders. They contribute to seed dispersal and pollination, making them ecologically significant.



Yellow footed green pegion

The Yellow-footed Green Pigeon, also known as the Yellow-legged Green Pigeon, is a medium-sized pigeon species found in parts of India and Southeast Asia. It is characterized by its vibrant green plumage, yellow feet, and a distinctive red patch around the eye. They primarily feed on fruits and seeds, contributing to seed dispersal and forest regeneration. They are known for their swift and agile flight. Due to habitat loss and hunting, they are considered a threatened species and require conservation efforts to ensure their survival.

Grey Catbird

The Grey Catbird is a medium-sized songbird found in North America. It is known for its slate-grey plumage and a black cap on its head. They are skilled mimics, imitating the songs of other birds and even sounds like a cat's meow. They feed on insects, berries, and fruits. They build cup-shaped nests and are monogamous. These vocal birds play an important role in seed dispersal and contribute to the diversity of forest ecosystems.

Sunbird

The Purple Sunbird is a small bird species found in parts of South Asia. The male has vibrant purple plumage, while the female is olive-brown. They have curved beaks for feeding on nectar and insects. They are known for their acrobatic flight displays and melodious songs. These sunbirds play a vital

role in pollination and are often found near flowering plants.

Golden Fronted Leafbird

The Eurasian Hoopoe is a colorful bird species found in Europe, Asia, and North Africa. It has a distinctive appearance with a long, curved bill and an elaborate crest. It feeds on insects and can be recognized by its unique calls.

Egret:

Egrets are elegant wading birds found worldwide, with species such as the Great Egret and Snowy Egret being well-known. They have long legs, slender necks, and plumage that ranges from white to gray. Egrets feed on fish, amphibians, and small aquatic creatures, often seen hunting in shallow water or wetland habitats. They have a specialized hunting technique, using their sharp bills to spear prey with swift precision. These birds are known for their beautiful breeding plumage, which includes long, delicate plumes that were once sought after for the millinery trade. Conservation efforts have helped protect their populations and preserve their important ecological roles as top predators in wetland ecosystems.

White breasted water hen

The White-breasted Water Hen, also known as the White-breasted Waterhen, is a medium-sized bird found in wetland habitats across South Asia and Southeast Asia. It has a distinctive white breast, grey body, and red eyes. They are skilled swimmers and feed on insects, small vertebrates, and aquatic plants. Their loud and distinctive calls can be heard during the day and night. These water hens build floating nests among dense vegetation near water

bodies. They are excellent runners and can quickly disappear into thick vegetation when threatened.

Wagtail

Wagtails are small, slender birds that belong to the family Motacillidae. They are known for their distinctive tail-wagging behaviour, which gives them their name. Wagtails are found in various habitats worldwide and are often seen near water bodies. They have a slender body, long legs, and a slender, wagging tail. These birds are primarily insectivorous, feeding on flying insects and other small invertebrates. They have a graceful and agile flight, and some species are known for their long-distance migratory journeys. The most common species of wagtail is the White Wagtail, recognized by its black and white plumage and its habit of bobbing its tail up and down. Wagtails are known for their cheerful calls and are a delight to observe in both urban and natural settings.

Asian open bill

The Asian Open bill, also known as the Asian Open bill Stork, is a large wading bird found in South and Southeast Asia. It is characterized by its distinctive beak, which has a gap or "open bill" that gives the bird its name. They primarily feed on large snails, using their bill to extract the flesh. These storks are social birds that often gather in large flocks during the breeding season. They build nests on trees and lay 2-4 eggs per clutch. The Asian Openbill plays an important role in controlling snail populations and maintaining the ecological balance of wetland habitats.

Stork Billed kingfisher

The Stork-billed Kingfisher is a large and colorful bird found in parts of Southeast Asia. It has a robust bill and striking plumage with shades of blue, green, and white. It inhabits wetland areas and preys on fish, frogs, and small reptiles. It builds its nests in tree cavities near water bodies. The call of the Stork-billed Kingfisher is loud and distinctive, often resembling a series of harsh rattling or cackling sounds. It is known for its agile diving and fishing abilities, plunging into the water to catch its prey. This kingfisher species is considered a symbol of good luck in some cultures and is admired for its vibrant appearance and unique behaviours.

Indian Robin

The Indian Robin, also known as the Black Robin or the Indian Chat, is a small passerine bird found in the Indian subcontinent. Males have a striking black plumage with a white belly and a red vent. They are known for their melodious and varied song, often sung from exposed perches. Females have a brownish-grey coloration with a white patch on their wings. They build cup-shaped nests and lay eggs in them. Indian Robins primarily feed on insects and small invertebrates, foraging on the ground or catching prey in mid-air. They are commonly found in open woodlands, gardens, and agricultural fields throughout their range.

Magpie

Magpies are highly intelligent and social birds belonging to the crow family. Known for their striking black and white plumage, they are found across Europe, Asia, and North America. They are opportunistic omnivores, feeding on insects, small animals, fruits, and even scavenging. Magpies are renowned for their vocalizations, including a variety of calls, and their ability to mimic other bird species. They are known for their nest-building skills, constructing large, dome-shaped nests high up in trees. Magpies are often associated with their penchant for collecting shiny objects and are considered symbols of both good and bad luck in different cultures.

Jungle Blabber

The Jungle Babbler, also known as the Seven Sisters, is a small passerine bird found in the Indian subcontinent. They live in social groups of 7 to 15 individuals and communicate through a chorus of melodious calls. They forage on the ground for insects, fruits, and seeds, displaying cooperative feeding behaviour

SHUBHAM SINGH,
MT (ENV)
WJ AREA

पर्यावरण दिवस-2023

प्रत्येक वर्ष 5 जून को पर्यावरण दिवस मनाया जाता है। यह धरती सहित संपूर्ण ब्रह्मांड पांच तत्वों से मिलकर बना है। ये पांच तत्व हैआकाश -, वायु, अग्नि, जल और धरती। धरती यानी की जड़ पदार्थ। जैसे सभी ग्रह और नक्षत्र इसी के अंतर्गत आते हैं।

हम जानते हैं कि ग्रीन हाऊस गैसों के 'प्रमुख उत्सर्जक देशों' में अमेरिका सबसे आगे है। नवीनत आँकड़े कहते हैं कि वैश्विक कार्बन डाइ ऑक्साइड उत्सर्जन में अमेरिका तथा चीन का हिस्सा लगभग 20 प्रतिशत है। धरती के गर्भ से लगातार प्राकृतिक संसाधनों का दोहन किया जा रहा है, जिसके कारण धरती इसके दुष्परिणाम भुगत रही है।डेढ़ वर्ष पूर्व जीइओ-4 ने चेताया था कि यदि आर्थिक विकास के नाम पर प्राकृतिक संसांधनों का इसी तरह दोहन होता रहा तो आने वाले 150 वर्ष में जलवायु परिवर्तन के चलते धरती का पर्यावरण किसी भी प्राणी और मानव के रहने लायक नहीं रह जाएगा।

हजारों फिट नीचे खदान से कोयला और हीरा निकाला जाता है। बोरिंग के प्रचलन के चलते जगह-जगह से धरती में छिद्र कर दिए गए है। पहले वृक्ष कटते थे अब जंगल कटते जा रहे हैं। पहाड़ कट रहे हैं। नदियों को प्रदूषित कर दिया गया है और समुद्र के भीतर भी खुदाई का काम जारी है। यहाँ तक कि अंतरिक्ष में भी कचरा फैला दिया गया है।उक्त सभी कारणों के चलते तूफानों और भूकंपों की संख्या बढ़ गई है। मौसम पूरी तरह से बदल गया है कहीं अधिक वर्षा तो कहीं सूखे की मार है।

खेतों की जगह अब तेजी से कालोनियां ले रही है। शहरी और ग्रामीण विकास के चलते अंधाधुंध वृक्ष काटे जा रहे हैं। चिपको आंदोलन अब कहीं नजर नहीं आता। हरित क्रांति के नाम पर शुरुआत में रासायनिक खाद और तमाम तरह के जहरीले उत्पादन बेचे गए और जब इसके नुकसान सामने आने लगे तो बाजारवादी ले आए हैं जैविक खाद का नया फंडा।ग्लेशियर पिघल रहे हैं। इसके पिघलने से धरती के तापमान में वृद्धि हो रही है। ग्रीन हाऊस गैसों के 'प्रमुख उत्सर्जक देशों' में अमेरिका सबसे आगे है। नवीनत आँकड़े कहते हैं कि वैश्विक कार्बन डाइ-ऑक्साइड उत्सर्जन में अमेरिका तथा चीन का हिस्सा लगभग 20 प्रतिशत है।

वैज्ञानिकों ने अतीत और वर्तमान के आंकड़े इकठ्ठे कर कम्प्यूटर में दर्ज कर जब तीस(30) साल के बाद की पृथ्वी के हालात जानना चाहा तब पता चला कि धरती का तापमान पूरे एक डिग्री बढ़ चुका है। हिमालय के ग्लेशियरों के पिघलने की गति बढ़ती जा रही है, समुद्र का जल स्तर 1.5 मिलीमीटर प्रतिवर्ष बढ़ रहा है और अमेजन के वर्षा वन तेजी से खत्म होने के लिए तैयार है, बस यह तीन स्थिति ही धरती को खत्म करने के लिए काफी है। इस धरती के पर्यावरण को बिगाड़ने के लिए प्रत्येक व्यक्ति, संस्था, समाज, संगठन और राष्ट्र जिम्मेदार है। सभी अपने-अपने स्तर पर धरती को नुकसान पहुंचाने में लगे हैं।

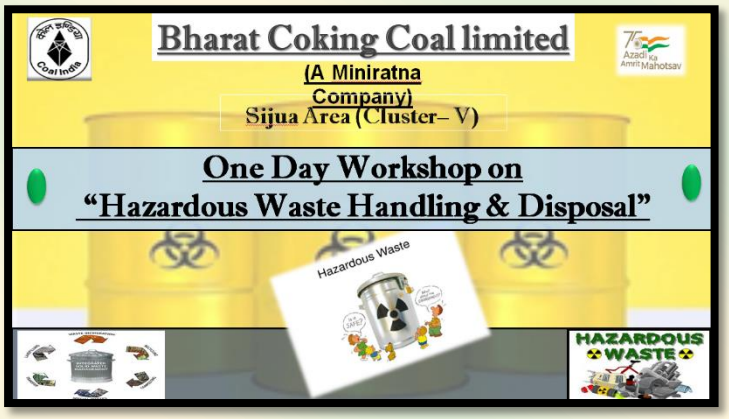
हर साल किसी न किसी देश में जलवायु परिवर्तन पर सम्मेलन होते हैं। "रियो डी जेनेरियो" में पर्यावरण को लेकर विकसित और विकासशील राष्ट्र कई बार इकठ्ठे हुए, फिर भी जिनेवा में मिटिंग करते हैं। जिसका अभी तक कोई ठोस निष्कर्ष नहीं निकला है । मानव समाज और वन्य जीवों का पारस्परिक संबंध है, यदि वन्य जीव भूमंडल पर न रहें, तो पर्यावरण पर तथा मनुष्य के आर्थिक विकास पर प्रभाव पड़ेगा । आज तेजी से बढ़ती हुई आबादी की प्रतिक्रिया वन्य जीवों पर भी हो रहा है ।

हमें घर के आसपास पौधारोपण करना चाहिए । इससे गर्मी , भू-क्षरण, धूल इत्यादि से बचाव तो कर ही सकते हैं, पक्षियों को बसेरा भी दे सकते हैं, फूल वाले पौधों से अनेक कीट-पतंगों को आश्रय तथा भोजन दे सकते हैं।अतः पर्यावरण पर बड़ी-बड़ी बातें करने से पहले हमें कुछ आदतें अपनानी होंगी तथा उनका पालन भी करना होगा, क्योंकि स्थितियों को बदलने की सबसे अच्छी शुरुआत स्वयं से होनी चाहिए ।

(बी के दास)
प्रबंधक (कार्मिक),
वी आई पी सेल

Workshop on Hazardous Waste Management in Coal Mining Industry

Hazardous wastes generated in coal mining industry pose grave risks to human health & environment. Scientific disposal of these wastes are necessary to minimize its adverse impacts as it requires specialized treatments due to the presence of a mixture of chemicals and substances.



India has put in place a robust legislative framework for the effective management of Hazardous wastes in the country. Ministry of Environment, Forest and Climate Change (MoEF & CC), formerly known as Ministry of Environment and Forest (MoEF), promulgated Hazardous Waste (Management and Handling) Rules, 1989, under the provision of The Environment Protection Act, 1986. In September 2 008, the said rules were amended and new rules entitled "Hazardous waste (Management, Handling and Trans-boundary Movement) Rules, 2008" were promulgated. These rules were further amended in the year 2009 & 2010 for proper management and handling of hazardous wastes in the country. The rules have been further amended, entitled Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016, to include other wastes such as Waste tyres, paper wastes, metal scraps, used electronic items, etc.

India has also ratified the Basel convention on trans-boundary movement of hazardous wastes in the year 1992 and is a signatory to the convention. It is an international treaty that was designed to reduce the movements of hazardous waste between nations, except where it is perceived to be in accordance with the principles of environmentally sound management.

In view of the need to tackle the challenges posed by the generation of hazardous wastes during the coal mining and its ancillary operations by ensuring proper handling, storage, transportation, processing, treatment, destruction and disposal of Hazardous wastes and to fulfil, and to go even a step beyond, the statutory requirements; a one-day workshop was organized on 03.09.2022 in the conference hall of Sijua Area Office with a view to raise the awareness and sensitization regarding hazardous waste management in Bharat Coking Coal Limited.

Officials of the Ramky Enviro Engineers Limited were invited to the workshop as the expert agency on the subject matter. Total 30 delegates from all the areas and the Headquarters of

BCCL participated in this awareness-cum-brain storming workshop. The delegates cut across multiple departments and disciplines of BCCL- Environment, Excavation, Mining, and Material Management.

The workshop was opened by the Addl. General Manager of Sijua Area Shri A.K. Roy on an urging note to the participants to rise to the occasion to counter the threat the hazardous wastes pose. Shri Kumar Ranjeev, HoD (Environment), BCCL presented a holistic scenario of the current state of the hazardous waste management in BCCL and the challenges lying therein. Thereafter, a presentation was delivered by the officials of the Ramky Enviro Engineers Limited delineating the detailed techno-legal aspects associated with the Hazardous Waste Management in Coal Mining Industry which was followed by an active and vigorous brain-storming session wherein the participants put forth their opinions and engaged in multi-pronged deliberations.

The workshop was successful in stirring the idea-boxes inside the minds of the participants who deal with the hazardous waste management in BCCL. It was successful in taking the awareness quotient on the subject matter one or two notches up higher. The workshop was just one step forward in strengthening the already robust and responsible hazardous waste management ecosystem in Bharat Coking Coal Limited. It ended with a belief that it must have ignited few fresher and better ideas among the participants which would go a long way in ensuring far more effective management of hazardous wastes in BCCL.

RAJESH RANJAN

Dy. Manager (Env.), Sijua Area

Activities under Mission LiFE

Pond cleaning at Koyla Nagar, BCCL Township, Dhanbad

Awareness Drive at Maheshpur Colliery, Govindpur Area

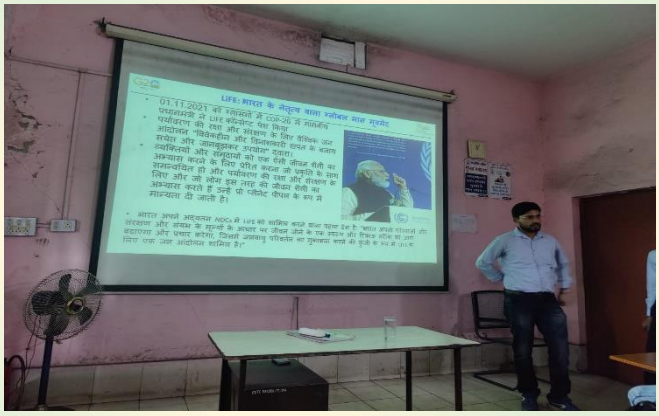
Awareness drive at GVTC, PB Area

Workshop on Mission LiFE at Sijua Area

Awareness Drive and Mission LiFE Pledge program at HRD, Kalyan Bhawan

Pledge taken at GVTC, Barora Area along with Forest department

Presentation on Mission LiFE at GVTC Barora Area



Training provided to staff under Mission LiFE at Barora VTC

Cleanliness Drive in Sijua Area

Say No to single Use of Plastic" under Mission LiFE programme at Sendra Bansjora Colliery, Sijua Area

Distribution of red clay bottle along with jute bag in Barora Area under Mission LiFE programme

Awareness program at EJ area under Mission LiFE

Plantation of medicinal plants in Sijua Area under Mission LiFE programme

Awareness through Nukkad Natak in Sijua Area

Seminar on Renewal application for NoC from CGWB at HRD, Kalyan Bhawan

WHAT IS ESG? HOW CAN WE CONTRIBUTE INDIVIDUALLY?

Introduction: Understanding ESG

Environmental, Social, and Governance (ESG) are three pillars that companies, investors, and individuals consider when making decisions about their actions, investments, and policies. ESG is a concept that focuses on sustainable and responsible business practices, ensuring that corporations are mindful of their impact on the environment, society, and governance issues. ESG is a vital consideration in today's business world as it emphasizes sustainability and the long-term implications of actions taken by companies, individuals, and governments.

ESG and the History of Environmental Concerns

Environmental concerns first came to the forefront in the 1980s when the hole in the ozone layer was discovered. The depletion of the ozone layer was caused by the release of chlorofluorocarbons (CFCs) into the atmosphere. CFCs were commonly used in refrigeration, air conditioning, and aerosol sprays. The discovery of the ozone hole led to the adoption of the Montreal Protocol in 1987, which called for the phase-out of CFCs and other ozone-depleting substances. The discovery of the ozone hole and the subsequent adoption of the Montreal Protocol was a significant milestone in global environmental cooperation. **The Montreal Protocol is widely regarded as one of the most successful international agreements ever reached.** It has led to the phasing out of CFCs and other ozone-depleting substances, and the ozone layer is slowly recovering.

The ozone hole also highlighted the need for a comprehensive approach to environmental issues. In 1992, the United Nations Conference on Environment and Development (UNCED) was held in Rio de Janeiro, Brazil. The conference resulted in the adoption of **Agenda 21, a comprehensive plan of action for sustainable development.** Agenda 21 is a blueprint for sustainable development that focuses on **environmental conservation**, social development, and economic growth. It provides a framework for governments, international organizations, and individuals to address environmental concerns.

In the year 2000, the United Nations created the Millennium Development Goals (MDGs), a set of eight goals that were to be achieved by 2015. The MDGs included targets such as reducing poverty, promoting gender equality, improving maternal health, and **ensuring environmental sustainability**. The focus on environmental sustainability highlighted the need to address climate change, biodiversity, and other environmental concerns. In 2015, the United Nations announced **Agenda 2030, a set of Sustainable Development Goals (SDGs) aimed at** ending poverty, **protecting the planet**, and ensuring peace and prosperity for all. Agenda 2030 includes 17 SDGs, including SDG 13, which focuses on climate action. The goal is to take urgent action to combat climate change and its impacts by reducing greenhouse gas emissions and increasing adaptation measures.ESG has become a significant consideration in the achievement of SDG 13 and other SDGs. Investors and companies are increasingly focused on ESG metrics and incorporating them into their decision-making processes. Investors are considering ESG factors when making investment decisions, and companies are integrating ESG principles into their operations.

Environmental Aspects of ESG

Environmental considerations are a critical aspect of ESG. Environmental factors include climate change, biodiversity, pollution, and natural resource depletion. Companies and investors are increasingly focused on reducing their carbon footprint and mitigating the impact of their operations on the environment. Climate change is one of the most significant environmental challenges facing the world today. The burning of fossil fuels is the primary cause of climate change. Carbon dioxide (CO_2) is the most significant greenhouse gas emitted by human activities. The increase in atmospheric CO_2 concentrations is causing global temperatures to rise. Companies and investors are increasingly focused on reducing their carbon footprint. This includes reducing energy consumption, increasing energy efficiency, using renewable energy, and improving supply chain sustainability. Investors are also considering the carbon intensity of their investments and divesting from companies with high carbon emissions. Investors and companies are also considering the physical risks of climate change, such as sea-level rise, extreme weather events, and drought. These physical risks can have significant financial implications, including property damage, supply chain disruptions, and increased insurance costs.

Conservation of biodiversity is another essential aspect of Climate conservation, which involves preservation of ecosystem services, such as pollination, nutrient cycling, and pest control. Human activities, such as deforestation, habitat destruction, and pollution, are causing a significant decline in biodiversity. Biodiversity loss can have significant economic and social impacts, including decreased food security, increased disease transmission, and reduced tourism. Companies and investors are increasingly focused on preserving biodiversity. This includes reducing deforestation, protecting wildlife habitats, and reducing pollution. **Investors are also considering the impact of companies on ecosystems and biodiversity when making investment decisions.**

Pollution is another significant environmental concern that affects air, water, and soil quality. Human activities, such as industrial production, transportation, and agriculture, are significant sources of pollution. Pollution can have significant health and environmental impacts, including respiratory problems, water contamination, and soil degradation.

Companies and investors are increasingly focused on reducing pollution. This includes reducing emissions, improving waste management, and reducing the use of harmful chemicals.

Natural resource depletion is a significant environmental concern that includes the depletion of non-renewable resources, such as fossil fuels, and the degradation of renewable resources, such as forests and fisheries. Human activities, such as overconsumption, overfishing, and mining, are significant causes of natural resource depletion. Natural resource depletion can have significant economic and social impacts, including reduced access to clean water, increased energy prices, and reduced food security. Companies and investors are increasingly focused on reducing natural resource depletion. This includes reducing waste, improving resource efficiency, and developing sustainable supply chains.

Social Considerations in ESG

Social considerations are another critical aspect of ESG. Social factors include labour practices, human rights, community relations, and product safety. Labour practices include fair labour practices, safe working conditions, and non-discrimination. This includes ensuring that workers are paid a minimum living wage, providing safe working conditions, ensuring financial security by mandatory employer contribution to provident fund and, promoting diversity and inclusion. Adoption of fair labour practices falls under the umbrella of securing human rights of the labours. Human rights include the right to life, liberty, and security, as well as freedom from discrimination and persecution. Companies and investors are increasingly focused on promoting human rights and ensuring that their operations do not contribute to human rights violations.

Community relations include engaging with local communities and respecting their cultural and social values. Companies and investors are increasingly focused on building positive relationships with local communities and addressing their concerns. This includes engaging with local stakeholders, promoting economic development, and supporting community initiatives. Incorporation of any industrial economic activity involves a mandatory stage of Product obtaining environmental clearance which can only be secured with the consent from local community sought during public hearing. Safety is another critical social consideration in ESG. Ensuring that products are safe for consumers and do not pose a threat to human health or the environment is essential. This includes testing products for safety, providing clear product labelling, and recalling products that are found to be unsafe.

Governance Aspect of ESG

Governance is an important aspect of ESG, and it has multiple connotations in the context of environmental, social, and governance issues. In general, governance refers to the systems and processes that organizations use to make decisions, manage risks, and ensure accountability. Good governance practices are essential for sustainable and responsible business practices, and they can have a significant impact on environmental and social outcomes. Within the context of ESG, governance can be broken down into several key areas, including:

1. Board Diversity and Independence: The Companies Act, 2013, mandates that certain classes of companies must have at least one woman director on the board. The Securities and Exchange Board of India (SEBI) has also recommended that companies have at least one independent director on their board. These requirements

aim to improve board diversity and independence, which are important aspects of good corporate governance.

2. Shareholder Rights: India's regulatory framework provides for several rights for shareholders, including the right to vote on significant decisions, the right to receive timely and accurate information, and the right to participate in meetings. These rights ensure that shareholders can hold companies accountable for their actions and decisions.

3. Risk Management: Companies in India are required to have a robust risk management framework in place to identify, assess, and manage risks associated with their business operations. This framework helps companies to ensure that they are taking a responsible approach to risk management, which is an important aspect of good governance.

4. Whistle-blower Protection: The Companies Act, 2013, requires companies to have a mechanism in place to receive and investigate complaints from whistle-blowers. This mechanism protects employees and stakeholders who report unethical or illegal activities from retaliation.

5. Transparency and Disclosure: Companies in India are required to provide comprehensive disclosures about their financial performance, risk management practices, and ESG policies and practices. These disclosures help investors and other stakeholders to evaluate a company's governance practices and make informed decisions.

Individual Contribution towards ESG

Environmental, Social, and Governance (ESG) issues are becoming increasingly important in today's world, and everyone has a role to play in contributing to ESG efforts. While companies and governments have a significant impact on ESG issues, individual contributions are also essential to achieving sustainability goals. Here are some ways that individuals can contribute to ESG:

1. Reduce Energy Consumption
   Reducing energy consumption is one of the easiest ways that individuals can contribute to ESG efforts. Simple steps like turning off lights when not in use, using energy-efficient appliances, and reducing heating and cooling needs can help to reduce carbon emissions and save money on energy bills. Individuals can also consider using renewable energy sources like solar or wind power to further reduce their carbon footprint.

2. Use Renewable Energy
   Using renewable energy sources like solar or wind power is another way that individuals can contribute to ESG efforts. While installing solar panels or wind turbines may not be feasible for everyone, individuals can consider using green energy providers or investing in community solar projects to support renewable energy production.

3. Reduce Water Consumption
   Reducing water consumption is another important way that individuals can contribute to ESG efforts. Simple steps like fixing leaks, using water-efficient

appliances, and reducing outdoor water use can help to conserve water resources and reduce water bills. Individuals can also consider collecting rainwater for outdoor use or installing low-flow showerheads and faucets to further reduce water consumption.

4. Reduce Waste
   Reducing waste is another important way that individuals can contribute to ESG efforts. Simple steps like recycling, composting, and reducing the use of single-use plastics can help to reduce the amount of waste sent to landfills and conserve resources. Individuals can also consider repairing and repurposing items rather than throwing them away and supporting companies that use sustainable materials and production methods.

5. Support Sustainable Products
   Supporting sustainable products is another way that individuals can contribute to ESG efforts. Choosing products made from renewable resources, recycled materials, and products with environmentally friendly certifications can help to reduce the environmental impact of consumption. Individuals can also consider supporting companies that prioritize sustainability in their operations and supply chains.

6. Vote for Policies that Promote Sustainability
   Voting for policies that promote sustainability at the local, state, and national levels is another way that individuals can contribute to ESG efforts. Individuals can support candidates who prioritize sustainability and vote for policies that promote clean energy, reduce greenhouse gas emissions, protect natural resources, and support sustainable development. Individuals can also participate in public comment periods and other advocacy efforts to support ESG policies and initiatives.

Conclusion

ESG has become an essential consideration for companies and investors in recent years. Environmental, social, and governance factors can have significant impacts on the long-term sustainability of companies and investments. Investing in ESG funds and promoting ESG practices in companies can provide investors with the opportunity to promote sustainability while mitigating investment risks on account of ESG violations in future. Individuals can also contribute to ESG efforts by reducing energy consumption, using renewable energy, reducing waste, and supporting sustainable products. By working together, we can create a more sustainable future for ourselves and future generations.

Pramod Kumar Jha, Sr. Mgr. (Mining)
Jai Prakash Patel, Manager (CP)
Aditya Vishal, Dy Manager (Mining)

NEED OF EFFLUENT TREATMENT PLANT IN HOSPITALS

Hospitals around the globe require large amounts of water for their proper functioning for various health care facilities. Bio Medical waste imposes a grave hazard to human health and the environment because of their capability to enter watersheds, pollute surface and groundwater. According to the World health organization (WHO) guidelines for the proper functioning of healthcare facilities, 40–60 L/day of water is required for every inpatient. Operating theatres require around 100 L/intervention.

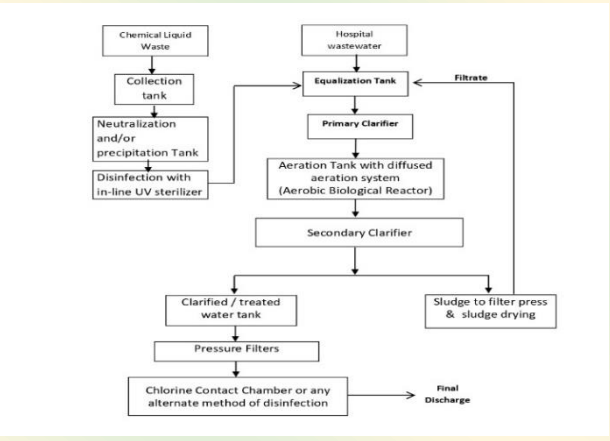
Hospital Water pollution is caused in various areas of the hospital, including patient wards, surgery units, clinical wards, ICU, kitchens, and laundries, and its composition varies depending on the activities performed. Pharmaceuticals, radionuclides, detergents, medical drugs, heavy metals, radioactive substances, antibiotics, antiseptics, surfactants, solvents, and potentially pathogenic and drug resistant microorganisms are all found in hospital wastewater. The effluent from a hospital is classified as black water (faecal matter, urine, food residues, toxic chemicals etc), which contains the highest toxins and is hazardous. Grey water (bathing, washing, laboratory processes, etc.) is the lowest contaminated wastewater, and storm water is rainwater.

For the compliance of BMWM Rules, 2016; Effluent Treatment Plant should be provided in every HCF (with bedded facilities) to treat the wastewater generated.

ETP (Effluent Treatment Plant) is a process design for treating the hospital waste water for its reuse or safe disposal to the environment. These plants remove approximately 80-90% of the organic matter from wastewater. The main objective of Effluent Treatment Plant (ETP) is to remove as much of the suspended solids and organic matter as possible before the waste water is discharged back to the environment or re-used for various hospital purposes.

The amount of wastewater generated from the hospital depends on the capacity or the number of beds available in the hospital, type and size of the healthcare facility, technical facilities available, services provided (laundry, kitchen, air-conditioning), in-house wastewater management facilities, etc.

ETP in Koyla Nagar Hospital



Scheme for Waste water Treatment

BCCL has been installed Effluent Treatment Plant of different capacity as per requirement for the compliance of BMWM,2016 at various Health care Facilities such as Central Hospital, Dhanbad(30 KLD & 5 KLD), Koyla Nagar Hospital (10 KLD), Regional Hospital

Katras(5 KLD),Regional Hospital Barora (5 KLD), Regional Hospital Sijua(3 KLD) & Regional Hospital PB Area(5 KLD). Regional Hospital Bastacolla and Regional Hospital Lodna is under tendering stage.

Wastewater generated from the HCF is treated in the ETP and shall be disposed into drain / sewer or could be reused in: Flushing, Horticulture, and Scrubber.

Installation of ETP in BCCL hospital not only ensure safeguard to environment against pollution but also contribute in sustainable development by reducing load on Water sources through reuse of treated waste effluent water from the hospital.

ROLE OF SPCBs IN OPERATION OF MINES - CONSENT TO OPERATE (CTO)

Coal mining, like any other developmental activity, does have impacts on native environment, which are generally contained within the mining area itself. One of the impacts of mining activities involving drilling, blasting, loading and transport of coal is generation and dispersion of suspended particulate matter in the atmosphere for which various air pollution control measures including those mentioned in the EMP/EC/CTO are taken by mine operators to minimize the impact and maintain air quality applicable standards. Before commencement of mining, it is mandatory for all mines to obtain Environmental Clearance (EC) from MoEF&CC for which, a detailed Environment Impact Assessment (EIA) is carried out and accordingly a comprehensive Environment management Plan (EMP) with all safeguards is prepared.

State Pollution Control Boards (SPCB) were constituted in pursuance of the Water (Prevention & Control of Pollution) Act, 1974. After the enactment of **the Air (Prevention & Control of Pollution) Act, 1981,** the enforcing responsibility was entrusted to these Boards. The members of State Pollution Control Boards are nominated by respective State Governments. SPCBs supplement the CPCB as they are a statutory organization entrusted to implement Environmental Laws and rules within the jurisdiction of a state.

With a view to strengthen the monitoring mechanism for effective compliance through self-regulatory mechanism, the SPCBs exercising jurisdictional control over the mines of the respective states, directed while issuing the certificate of CTE / CTO or its renewal from time to time.

After obtaining Environmental Clearance(EC), all new intending project proponents are required to obtain 'No Objection Certificate' (NOC) from the jurisdictional State Pollution Control Board (SPCB) in the form of 'Consent to Establish' (CTE). Subsequently, for carrying out operations, the units are required to obtain 'Consent to Operate' (CTO) from the respective SPCBs. SPCBs play oversight role through periodical inspections in order to ensure compliance of standards prescribed under the Acts / statutes. Consent to operate remains valid for a maximum period of 5, 10, and 15 years according to the red, orange, and green category of the industry respectively. The industry/project proponent intending for renewal of the Consent to Operate shall apply through OCMMS (Online Consent Management & Monitoring System) 120 days before the expiry of the period of previous Consent to operate.

BCCL mining area has been divided in 17 cluster with mine lease boundary lying in close vicinity and includes operating mines, abandoned mines, proposed projects, existing / proposed washeries with a view to take up effective environmental management during and after mining including ecological reclamation & restoration of mines including voids, dumps & unstable sites. Currently, all operational 14 clusters of BCCL have CTO.

These Environmental Permits stipulate all necessary conditions including mitigation measures to protect the environment. The existing statutory environmental framework provides adequate safeguards to minimize the adverse environmental impacts of mining on native environment.

Mission LiFE- *LIFESTYLE FOR ENVIRONMENT*

Hon'ble PM at COP-26 in Glasgow on 01.11.2021 introduced LiFE Concept. Global mass movement to protect and preserve the environment by "mindful and deliberate utilization, instead of mindless and destructive consumption". To nudge individuals & communities to practice a lifestyle that is sync with nature and to protect & preserve the environment & those who practice such a lifestyle are recognized as Pro Planet People. India is the first country to include LiFE in its updated NDCs as: ***"India will put forward and propagate a healthy and sustainable way of living based on its traditions and the values of conservation and moderation, including through a mass movement for LIFE, as a key to combating climate change."***

Aim of the **Mission LiFE** to translate vision of LiFE into measurable impact:

- ✓ To mobilize at least **1 billion Indians** and **global citizens** to take individual and collective action for protecting and conserving the environment in the period **2022-28**.
- ✓ At least **80%** of all Indian **villages** and **ULBs** to become **environment-friendly** by **2028**.
- ✓ It will be incubated, curated and piloted by **NITI Aayog** and **implemented** by **MoEF&CC**. **Mission LiFE** aims **sustainability by** adoption of **Bottom-Up** approach:
  - ❖ **Change in Demand (Phase I):** Nudging individuals to practice simple yet effective environment-friendly actions in their daily lives.
  - ❖ **Change in Supply (Phase II):** Changes in individual-demand will gradually nudge industries & markets to alter supply as per the revised market demands.
  - ❖ **Change in Policy (Phase III):** By influencing demand & supply dynamics, long-term vision is to trigger shifts in industrial & government policy that can support both sustainable consumption & production.

75 LiFE Actions across **7 categories** *(Energy, Water, Plastic, Food Systems, Waste, Health and E-waste)* is identified which are:

- ✓ Specific & measurable
- ✓ Easy to practice by individuals, communities & institutions, with minimal supply-side dependencies
- ✓ Non-disruptive to ongoing economic activity and in fact, promoting economic activity in the foreseeable future

Against a BAU Scenario by 1 billion Indians from 2022-23 to 2027-28, the impact of LiFE actions can be significant the foreseeable future

Beat Plastic Pollution

Plastic pollution has emerged as a grave threat to our society, causing significant harm to the environment and human health. The pervasive use of plastic in everyday life has led to alarming levels of plastic waste, which finds its way into landfills, water bodies, and even delicate ecosystems. However, there are steps we can take to mitigate this issue and curb the use of plastic.

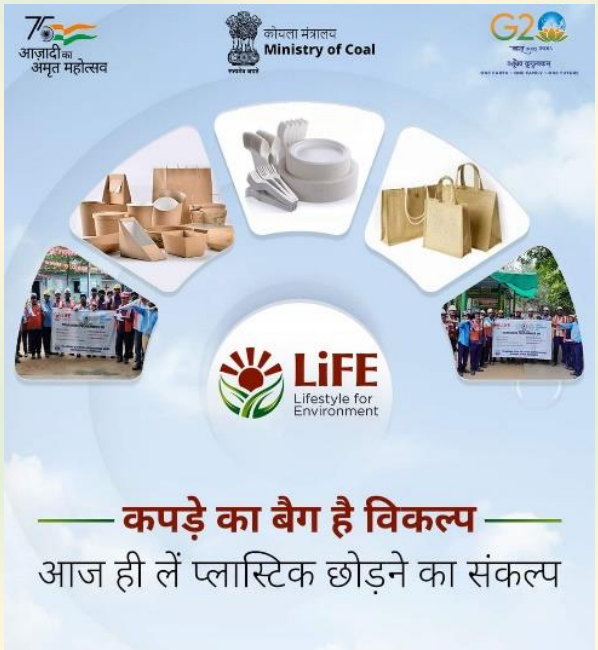
Firstly, raising awareness about the detrimental impacts of plastic pollution is crucial. Educating individuals about the long-lasting effects of plastic waste on the environment and wildlife can foster a sense of responsibility and encourage behavioural changes.

Secondly, promoting the use of sustainable alternatives is essential. Encouraging the adoption of reusable bags, bottles, and containers can significantly reduce plastic consumption. Furthermore, supporting businesses that offer eco-friendly packaging options can drive the demand for sustainable alternatives.

Additionally, implementing effective recycling programs and waste management strategies is vital. Governments and communities should collaborate to establish comprehensive recycling infrastructures, ensuring proper segregation and disposal of plastic waste.

Lastly, encouraging innovation and research into alternative materials is key. Investing in the development of biodegradable or compostable alternatives to plastic can pave the way for a more sustainable future.

Plastic pollution poses a severe threat to society and the environment. It clogs our oceans, contaminates soil, and persists for centuries. By raising awareness, promoting sustainable alternatives, implementing recycling programs, and supporting research into alternative materials, we can work towards curbing the use of plastic in our everyday lives. It is our collective responsibility to address this menace and safeguard our planet for future generations.



World Environment Day 2023 puts the spotlight on a pressing issue: 'Beat Plastic Pollution.' In today's world, where plastic waste has become an environmental crisis, this theme holds immense relevance. By promoting sustainable alternatives, reducing plastic consumption, and advocating for proper waste management, we can collectively combat this global challenge. Let us unite on World Environment Day 2023 to beat plastic pollution and create a cleaner, healthier planet for generations to come.

Vaishali Singh,
Deputy Manager
Vigilance Department

CIL's Outlook for Sustainable Growth

Coal India and its subsidiaries have cumulative electricity contract demand of 1100 MVA with an annual energy consumption of approximately 4600 million. Coal India Ltd is well poised for adopting clean energy to cater to its electrical energy requirement. The total solar energy generated during 2022-23 was 68.36 Lakh units through its installed RE capacity which is 70 % more than the previous year.

In this endeavour, CIL has planned to become a net-zero energy company by setting up 3000 MW Solar Power Projects to offset the current fossil fuel-based power requirement. CIL has also incorporated a subsidiary company namely 'CIL Navikarniya Urja Limited (CNUL) to venture into the new Business areas of new and renewable Energy (Non-conventional) segments.

CIL envisaged a three-pronged strategy to achieve the 3000 MW Target.

- Development of Solar Projects in available land parcels and rooftop spaces at subsidiaries of CIL wherever feasible.
- Development of Solar Projects in states with high potential like Rajasthan and Gujarat etc
- Developing solar projects by participating in Solar tenders of SECI/DISCOMs etc.

CIL's Action Plan for the development of solar power projects and energy efficiency projects towards meeting green energy requirements and to become a Net Zero Energy Company by 2025-26 are as under:-

Year	Current Installation till 2022-23	2023-24	2024-25	2025-26	Total
Capacity (MW)	11.05	398.82	1443	1158	**3000**

a) CIL was awarded 100 MW Solar Power project against e-reverse auction conducted by GUVNL for the procurement of solar power to meet their RPO obligation. CIL is establishing the solar power project in Gujarat to supply solar power to GUVNL for a period of 25 years.

b) CIL entered into an MOU with Rajasthan Rajya Vidyut Utpadan Nigam Ltd (RVUNL) on 13th Oct 2022 for setting up the 1190 MW solar power plant at the 2000 MW solar park of RVUNL.

c) 200 MW (NCL-50 MW, MCL-50 MW, CCL-20 MW, BCCL-25 MW, WCL-15 MW & SECL-40 MW) solar projects have been awarded by CIL's subsidiaries & will be commissioned in 2023-24.

d) Tender under Award stage-55 MW (BCCL-20 MW & ECL-35 MW)

e) Project DPR under approval stage– 115 MW (55 MW-WCL, SECL-40 MW, MCL-50 MW).

f) Approximately 20 MW Rooftop solar power projects are under various stages of implementation at Subsidiaries. More rooftops are being identified to meet the residential/commercial load of subsidiaries to reduce the power cost.

g) CIL subsidiaries have already identified land for the installation of approximately 725 MW in different subsidiaries of CIL to set up solar projects for captive requirement subject to its viability & state regulations on open access & grid connectivity.

h) CIL is exploring suitable sites for setting up pump storage plants (PSPs) and floating solar projects at the abandoned mines at the different subsidiaries of CIL. Further stabilized OB dumps are being explored for solar projects.

Neeraj Gupta, Manager (Min.)
Solar Cell, CIL

पर्यावरण और आदमी

जल, जंगल, और जमीन से बना है प्रकृति में पर्यावरण, इनके बीच एक संतुलन बना कर ही आदमी को अपना और अपने परिवार का पालन करना चाहिए था, जो आदीम काल से ही हमारा आदिवासी समाज कर रहा था। परन्तु आज का आदमी जंगल से दोस्ताना रिश्ता न रख कर, इसके दुश्मन कुल्हाड़ी से अपनापन ज्यादा बढ़ा लिया और वर्त्तमान में जंगल को छोड़ कुल्हाड़ी को नई तकनिकी से सुशोभित कर दिया है। जिसके कारण हमारा प्राणवायु, जिसके बिना हम एक सेकेण्ड भी नही रह सकते है, दूषित हो गया है। आदमी आज हजारो बीमारियो का शिकार बन रहा है। आदमी पर्यावरण के दुश्मन आधुनिकता के अधीन हो गया है,

जबकि इसे अपने और अपने आने वाले पीढ़ी के सुरक्षित जीवन के लिए शुद्ध पर्यावरण के अधीन होना था। "१०० चूहा खा कर बिल्ली चली तीर्थ" करने वाली कहावत के तरह अब पर्यावरण -पर्यावरण चिल्ला रहा है। जैसे एक संत कबूतरों को शिकारियो से बचाने के लिए एक मन्त्र दिया कि "शिकारी आयेगा पहले दाना डालेगा फिर जाल बिछाएगा, पर भूल से भी वहा जाना नही", परन्तु कबूतर कहा मानने वाले है जैसे ही दाना देखा सब भूल जाते है और जाल में फस जाते है उसी प्रकार लाख समझाने के बाबजुद आदमी आधुनिकता के जाल में फसते जा रहे है और जल ,जमीन और जंगल को नष्ट करने को आतुर हो गया है।

आपसी सहयोग के भाव को छोड़ कर अति संचय और विलासिता के चक्कर में अपने सच्चे हितेषी शुद्ध पर्यावरण के साथ आदमी दगावाजी कर रहा है, परिणाम स्वरुप कोविड- 19 का प्रकोप आदमी को झेलना पड़ा, और अभी भी झेलना पड़ रहा है। जो आक्सीजन प्रकृति मुफ्त में और प्रचुर मात्रा में हमें हमारे जन्म से पूर्व माँ के दूध के तरह उपलब्ध करा देता है, उसके लिए तरसना पड़ा और इसके कमी के कारण लाखो-लाख जान गवाना पड़ा। कोविड- 19 के समय जब सभी कल कारखाने बंद थे और सड़के सुनी थी तो देश का पर्यावरण काफी हद तक शुद्ध हो गया था और इसका अनुभव भी हमको हुआ। अंत में ,मै आज के महा मानवों से करवद्ध प्रार्थना करता हूँ कि शुद्ध और जीवन के अनुकूल पर्यावरण को बनाये रखे ,चाहे इसके लिए अपनी विलासिता को कितना भी कम करना पड़े ।

नरेश राय
सहायक प्रबंधक (सर्वे)
सुरक्षा एवं बचाव विभाग

BCCL in News……..

मधु पालन केंद्र बन गया ब्लॉक दो केजमुनिया स्नेह स्मृति उपवन

बढ़ेगी पेड़ पौधों में उड़पज शक्ति - पर्यावरण प्रबंधन

बाघमाराः ब्लॉक दो एबीओसीपी माइंस के जमुनिया काली मंदिर स्थित स्नेह स्मृति उपवन की हरियाली व सुंदरता के बीच अब मधुमखी पालन भी किया जा रहा है. आधा दर्जन से अधिक प्राकृतिक मोम से बना हुआ पट्टीनुमा आकृति छत्तें बनाया गया है. कुछ दिन बाद मधुमक्खियों की छत्ते से मधु निकाला जायेगा. मजदूरों को शुद्ध मधु भी उपलब्ध होगा. पर्यावरण प्रबंधन उतम कुमार झा ने बताया कि मधु मक्खी पालन से पेड़ पौधों के लिए उपज शक्ति बढ़ गया है. पर्यावरण को संतुलन के लिए मधु मक्खी पालन एक महत्वपूर्ण कदम है .इसमें से एक रानी मधु मक्खी ही मधुमक्खियों को आपस में संघ को जोड़ कर रखती है. चारों तरफ हराभरे फल- फुल के पेड़ पौधों से उपवन की सुंदरता बढ़ा दी है .

त्रिशक्ति महिला समिति के सदस्यों ने किया उपवन का दौरा

ब्लॉक दो क्षेत्र की त्रिशक्ति महिला समिति सदस्यों ने उपवन का दौरा कर मधुमक्खी पालन का जायजा लिया. उपवन की खुबसुरती पर महिला सदस्यों ने पर्यावरण अधिकारी एंव मजदूरों को प्रोत्साहित किया.पौधों का संरक्षण कर रहे सुरेश राय ने बताया कि उपवन में सुर्यमुखि का फुल भी बड़े पैमाने पर लगाया गया है. आम, केला काजू, अमरूद सहित सभी प्रकार के फल - फूलों के पौधों के अलावा चंदन का पेड़ भी है. रात को उपवन की फूलों की खुशबू चारों तरफ फैलती है. दिन में चिड़ियों की चहचहाट उपवन की सुंदरता बिखेर रही है.पक्षियों को पानी पीने के लिए पेड़ों पर मटका लगाया गया है. अक्सर उपवन में सुबह शाम मोर का विचरण होता है. अधिकारी हो मजदूर उपवन में आकर सकुन महसुस करते हैं. यहां प्रबंधन द्वारा किये प्लांटिंग कार्य की खुब प्रशंसा हो रही है. प्रदूषण की रोकथाम एंव पेड़ पौधों को हरा भरा रखने के लिए प्रतिदिन मिस्ट स्प्रे मशीन से पानी का छिड़काव किया जा रहा है.

Bharat Coking Coal Limited @BCCLofficial · Apr 3

Congratulations Team #BCCL

On behalf of the BCCL Family, we expressed heartfelt gratitude to all the employees and stakeholders for being a part of this achievement and supporting at every step.

#atmanirbharbharat

बीसीसीएल कर्मियों ने चलाया स्वच्छता अभियान अभियान

कतरास (वार्ता संभव): बीसीसीएल के कतरास क्षेत्र अंतर्गत रामकनाली कोलियरी के पार्श्वनाथ उद्यान में रेन हार्वेस्टिंग टैंक सहित पूरे पार्क में स्वच्छता अभियान चलाया गया। इस अवसर पर पर्यावरण ऊर्जा और जल संरक्षण का शपथ लिया गया। झामुमो सह मजदूर नेता राजेंद्र प्रसाद राजा, सुरेंद्र राम (पार्क के इंचार्ज) निरंजन सिंह, संतलाल राम, अशोक कुमार, समर भुइया, विजय भुइया, रामबालक, उदय रजवार, करण कुमार, दिलीप नोनिया, रंजीत बावरी, संतोष नोनिया, समरेश बावरी, अरुण रवानी, मिट्ठू बावरी, शैलेंद्र रजवार, परमेश्वर भुइया, मनोज भुइया, मैट्रीभूमि, रवि नोनिया, मनोहर भुइंया, बासुदेव भुइंया, बृहस्पति राय, संजय महतो एवं रामदास पांडे आदि बीसीसीएल कर्मियों ने अभियान चलाया।

भूमिगत आग रोकने को सिंफर कर रहा मानिटरिंग

निदेशक मंडल की बैठक में सीएमडी बोले - बीसीसीएल की तरक्की में है सबका सहयोग

- केंद्रीय कैबिनेट से मंजूरी मिलते ही शिफ्टिंग में लाई जाएगी तेजी
- छह नए वेब्रिज की स्थापना की बीसीसीएल ने इस वित्तीय वर्ष में

कोयला जगत

4.43 एकड़ भूमि का इस वर्ष बीसीसीएल प्रबंधन ने किया है अधिग्रहण

425 लोगों को अनुकंपा के आधार पर दी गई है नौकरी

180 प्रभावित परिवारों को किया गया है स्थानांतरित

190 जिले के बेरोजगार युवकों को दिया गया कौशल विकास का प्रशिक्षण

शनिवार को कोयला भवन मे प्रेस वार्ता करते बीसीसीएल सीएमडी व अन्य • जागरण

जागरण संवाददाता, धनबाद : बीसीसीएल चुनौतियों से गुजरने के बावजूद कोल इंडिया में पहले स्थान पर पहुंची है। कोल इंडिया की सभी अनुषंगी कंपनियों के बीच लगातार दो वर्षों तक उत्पादन लक्ष्य हासिल किया। ये बातें बीसीसीएल के सीएमडी समीरन दत्ता ने निदेशक मंडल के साथ शनिवार को कोयला भवन में आयोजित प्रेस वार्ता में कही। उन्होंने कहा कि बीसीसीएल कोकिंग कोल उत्पादन करने वाली कंपनी है।

कंपनी बेहतर करेगी तो इसका असर सिर्फ धनबाद ही नहीं, पूरे देश में देखने को मिलेगा। इसकी तरक्की में सबका सहयोग है। उन्होंने कहा कि बीसीसीएल वेतन समझौता 11 के बावजूद पिछली छह लगातार तिमाही में मुनाफा कमाया है। उन्होंने कहा कि भूमिगत आग को रोकने की लिए सिंफर के विज्ञानियों से मानिटरिंग कराई जा रही है। केंद्रीय कैबिनेट की मंजूरी मिलते ही झरिया मास्टर प्लान की शिफ्टिंग को गति मिलेगी।

वैसे भी खनन क्षेत्र में आग बुझाने का काम व कोयला खनन का काम बीसीसीएल करेगी। शिफ्टिंग कार्य भी जल्द किया जाएगा। वहीं कोयला चोरी रोकने के लिए भी कई कदम उठाए जा रहे हैं। सभी के सहयोग से इस पर रोक लगाया जा सकता है। तकनीकी निदेशक संजय सिंह ने कहा कि बंद भूमिगत खदान खोले जा रहे हैं। वाशरी का भी मोनेटाइजेशन किया जा रहा है। तकनीकी निदेशक प्रोजेक्ट एंड प्लानिंग उदय अनंत कावले ने कहा कि बीसीसीएल ने कैपिटल बजट की राशि लक्ष्य से अधिक खर्च कर किया है। कई योजनाओं पर काम किया जा रहा है।

सौर ऊर्जा की दिशा में कंपनी का बढ़ता कदम : बीसीसीएल में 1.31 एमडब्ल्यूपी रूफटाप सौर ऊर्जा संयंत्र स्थापित कर चालू किया गया है। भोजुडीह वाशरी में 25 मेगावाट ग्राउंड माउंटेड सोलर पावर के लिए एलओए जारी किया गया है। दुग्धा वाशरी में 20 मेगावाट ग्राउंड माउंटेड सोलर पावर के लिए टेंडर जारी किया गया है।

नई परियोजना चालू करने की दिशा में हो रहा काम : वित्तीय वर्ष 2022-23 के दौरान 10.767 मिलियन टन की वार्षिक क्षमता वाले 16 किराए के पैच की पहचान की गई। 3.23 एमटी की वार्षिक क्षमता वाले सात पैच के लिए एलओए जारी किया गया है। तीन पैच के लिए टेंडरिंग पूरी कर ली गई और शेष छह पैच अनुमोदन प्रक्रिया के विभिन्न चरणों में हैं। उन्होंने कहा कि संपूर्ण सीआइएल में पहली बार ब्लाक टू ओसीपी में एमडीओ मोड में पहली हाईवाल परियोजना के साथ रेवेन्यू शेयरिंग मोड के तहत तीन परित्यक्त खदानें के लिए एलओए जारी किया गया है।

नियोजन के मामलों को जल्द ही किया जाएगा अपडेट

निदेशक कार्मिक मुरली कृष्ण रमैय्या ने कहा कि इस साल 425 आश्रित को नियोजन दिया गया है। यह गत वर्ष से अधिक है। नियोजन का मामला अपडेट किया जा रहा है। सेवानिवृत्त कर्मियो के मेडिकल बिल अपडेट करने के लिए सभी एरिया को निर्देश दिया गया है। चिकित्सा, श्रमिक समस्या पर कंपनी का ध्यान है। जल्द ही सभी मामलों का हल किया जाएगा।

कोल इंडिया में लांच हुआ प्रोजेक्ट डिजिकोल

जासं, धनबाद : कोयला खदानों के डिजिटलीकरण के लिए कोल इंडिया लिमिटेड ने शुक्रवार को प्रोजेक्ट डिजिकोल लांच किया। कोल इंडिया लिमिटेड के अध्यक्ष प्रमोद अग्रवाल ने कोलकाता स्थित कोल इंडिया मुख्यालय में इस प्रोजक्ट को लांच किया और प्रोजक्ट की निगरानी और सहायता के लिए एक डिजिटल वाररूम का शुभारंभ किया। डिजिकोल परियोजना उन्नत डिजिटल समाधानों का उपयोग करके कोल इंडिया के खनन कार्यों को भविष्य के लिए तैयार करने में मदद करेगी। उन्होंने कहा कि डिजिकोल परियोजना कोल इंडिया में डिजिटलीकरण की दिशा में अहम पड़ाव है। यह परियोजना प्रक्रियाओं को और अधिक सक्षम और बेहतर बनाने में मदद करेगी। तकनीकी निदेश डा. बी वीरा रेड्डी ने कहा कि यह गर्व की बात है कि कोल इंडिया अत्याधुनिक डिजिटल तकनीकों के साथ भविष्य के लिए माडल खदानें स्थापित कर रही है, जिससे वैश्विक मानदंडों के मुताबिक विकास को बढ़ावा मिलेगा।

कुसुंडा एरिया उत्पादन के मामले में दूसरे स्थान पर

संस, केंदुआ : कोयला उत्पादन और डिस्पैच में कुसुंडा एरिया ने वित्तीय वर्ष 2022-23 में शानदार प्रदर्शन करते हुए 790 करोड़ रुपये का मुनाफा कमाया है। इस मुनाफे के साथ कुसुंडा एरिया ने पूरे बीसीसीएल में द्वितीय स्थान प्राप्त किया है। वहीं पिछले वर्ष कुसुंडा एरिया को 474 करोड़ रुपये का फायदा हुआ था। कुसुंडा जीएम वीके गोयल ने शनिवार को मटकुरिया आफिसर्स क्लब में आयोजित प्रेस कांफ्रेंस में यह जानकारी दी। जीएम ने कहा कि एरिया ने वित्तीय वर्ष में 61.30 लाख मैट्रिक टन कोयला का उत्पादन व 61.74 लाख मैट्रिक टन कोयला का डिस्पैच कर पहले स्थान पर रहा। उन्होंने कहा कि एरिया के अधिकारियों, श्रमिकों की मेहनत व यूनियन प्रतिनिधियों के सहयोग से कुसुंडा एरिया को यह सफलता मिली है। उन्होंने कहा कि टीम भावना के कारण एरिया ने कोयला के उत्पादन व डिस्पैच लक्ष्य को प्राप्त करने में सफल रहा है। जीएम ने कहा को वित्तीय वर्ष 2023-24 के लिए कुसुंडा एरिया को 65.50 लाख मैट्रिक टन कोयला उत्पादन का लक्ष्य मिला है।

जिले में सबसे ऊंचाई पर स्थित मंदिर • कुसुंडा एरिया के गोंदूडीह में पांच दिवसीय जय मां काली यज्ञ आज से

ओबी से बने 170 फीट पहाड़ पर विराजेंगी मां काली

भास्कर न्यूज | भूली

170 फीट ऊंचे ओबी के पहाड़ पर बना मां काली का मंदिर और इनसेट में मंदिर।

रांची के प्रसिद्ध पहाड़ी मंदिर की तरह धनबाद में ओबी से बने एक पहाड़ पर मां काली का मंदिर बनाया गया है। कुसुंडा एरिया के गोंदूडीह में ओबी (ओवर बर्डेन) से निर्मित 170 फीट ऊंचे पहाड़ पर 35 फीट ऊंचा मंदिर बन कर तैयार है। ओबी पहाड़ पर वृंदावन इको रेस्टोरेशन पार्क है और इसी पार्क में मंदिर है। यह धनबाद का अबतक का सबसे ऊंचा मंदिर है। वर्ष 2018 के जनवरी माह में मंदिर की नींव रखी गयी थी। मां काली की प्रतिमा की प्राण प्रतिष्ठा के लिए गुरुवार को भव्य कलश शोभायात्रा निकाली जाएगी। इस अवसर पर पांच दिवसीय श्रीश्री 108 जय मां काली प्राण प्रतिष्ठा यज्ञ का आयोजन भी किया गया है। यज्ञ के दौरान प्रतिदिन संध्या आरती व प्रवचन होगा। यज्ञ के अंतिम दिन 29 मई को प्रतिमा की प्राण प्रतिष्ठा, देवी श्रृंगार, छप्पन भोग, हवन एवं पूर्णाहुति के साथ महाप्रसाद का वितरण किया जाएगा। तब जाकर श्रद्धालु मां के दर्शन कर पाएंगे। 170 फीट ऊंचे ओबी पहाड़ से आसपास का पूरा इलाका दिखता है। मंदिर तक पहुंचने के लिए पहाड़ पर रास्ते बनाए गए हैं। इन रास्तों पर चार पहिया वाहन जा सकता है। लोग पैदल या अपने वाहन से सुगमतापूर्वक मंदिर तक पहुंच सकते हैं। यज्ञ के सफल आयोजन में गोंदूडीह-खास कुसुंडा कोलियरी के पीओ टी पासवान, मैनेजर दिलीप कुमार, टुनटुन यादव, रामायण प्रसाद, शिव कुमार यादव, संतोष यादव, राजेश यादव, बीएन झा, विजय कुमार सिंह, सुशील सिंह, इंदर भुइयां, नागेंद्र सिंह, बीसी मंडल, बलराम गुप्ता, धनंजय प्रमाणिक आदि सक्रिय हैं।

जानें कब कौन-सा होगा धार्मिक अनुष्ठान

25 मई : कलश यात्रा, पंचांग पूजन, मंडप प्रवेश, मंडप पूजन, वेदी पूजन, जलाधिवास, प्रवचन, संध्या आरती

26 मई : मंडप पूजन, वेदी पूजन, अनाधिवास, प्रवचन एवं संध्या आरती

27 मई : मंडप पूजन, वेदी पूजन, धृताधिवास, शकराधीवास, मधुराधिवास, प्रवचन, संध्या आरती

28 मई : मंडप पूजन, वेदी पुष्पाधिवास, फलाधिवास, दोपहर 3 बजे से नगर भ्रमण, शय्याधिवास प्रवचन एवं संध्या आरती

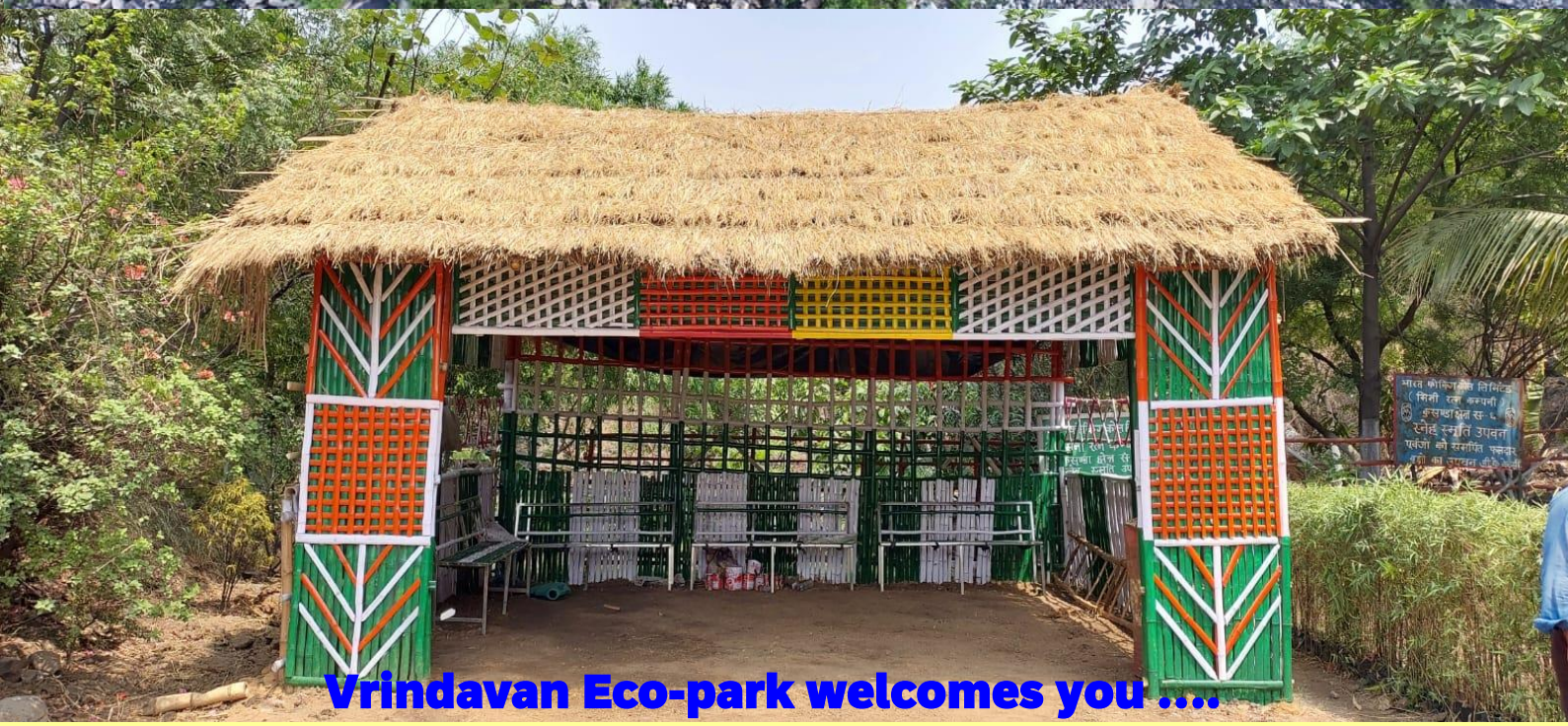
29 मई : मंडप पूजन, वेदी पूजन, महास्थान प्राण प्रतिष्ठा, देवी श्रृंगार, छप्पन भोग, हवन पूर्णाहुति, महाभंडारा एवं प्रसाद वितरण के साथ यज्ञ का समापन

साढ़े तीन फीट ऊंची है मां काली की प्रतिमा

मंदिर कमेटी के अनुसार, मंदिर निर्माण, मूर्ति व मंदिर के साज-सज्जा पर करीब 20 लाख रुपये का खर्च आया है। मां काली की मूर्ति कोलकाता से आई है, जो ब्लैक मार्बल की है। मूर्ति की ऊंचाई साढ़े तीन फीट है। मंदिर के गुंबज पर पीतल के पांच कलश और शीर्ष पर एक त्रिशूल लगाया गया है।

मंदिर के आसपास लगाए गए हैं 25000 पौधे

मंदिर निर्माण से पूर्व बीसीसीएल ने पहाड़ को वृंदावन इको रेस्टोरेशन पार्क के रूप में विकसित किया। पार्क 11.7 हेक्टेयर में फैला हुआ है। इसमें लगभग 25 हजार फलदार, छायादार और औषधीय पौधे लगाए गए हैं। यहां आनेवाले लोगों के लिए जगह-जगह बांस व बिचाली के शेड तथा बांस की ही कुर्सियां बनाई गई हैं।



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