

Future-Ready Jharkhand

Making Just Transition a Reality



September, 2022

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Introduction

Efforts to achieve a Net-zero carbon emission target has positioned India at the forefront at the recently concluded United Nations Conference on Climate Change at Glasgow in 2021 (COP 26 in 2021). In this conference, India expressed its desire to intensify its climate action by presenting five nectar elements (Panchamrit). India has recently updated Nationally Determined Contribution (NDC), as agreed under the Paris Agreement, which translates the 'Panchamrit' into enhanced climate targets and is also a step towards achieving India's long term goal of reaching Net-zero by 2070. This massive action will also help India usher in low emissions growth pathways.

Situating this action in Jharkhand, a key state of India, it will face various challenges in this path considering the transition towards a greener economic model looks imminent. The state has a looming concern of resource depletion in the next 30-40 years. 12 coal rich districts of Jharkhand (Hazaribagh, Ramgarh, Dhanbad, Bokaro, Giridih, Palamu, Ranchi, Chatra, Latehar, Godda, Pakur and Dumka) are poised to face it's multiplier effects on the state economy and the people at large.

The phase out of fossil fuel will lead towards social upheaval, job losses, unemployment and a negative impact on the local economy. It is assumed that it will impact about 1.5 million direct jobs, besides creating many ghost towns in coal rich districts. This situation calls for taking formidable measures for decarbonising the existing economic sectors, ensuring growth trajectory and securing sustainable livelihood options for people.

Aimed towards enabling a forward-looking economy and guided by the national climate goals and international commitments, Centre for Environment and Energy Development (CEED) actively supported Department of Forest, Environment & Climate Change (Government of Jharkhand) and Jharkhand State Pollution Control Board through organising a series of three workshops (during May and June, 2022) on overarching idea of Sustainable Pathways for Future-ready Jharkhand.

Idea and Rationality

Considering Jharkhand needs to emulate a sustainable-looking path with ensuring inclusive development, it is vital to put in place a visionary plan that streamlines the social, and economic transition to enable a successful paradigm shift. In this connection, formalisation of Just transition process through an institutional means is essential with bringing onboard all key stakeholders located in government, private and civil society realms.

In this context, CEED organized a state level conference 'Making Just Transition a Reality in Jharkhand' on 14 September 2022 through active engagement of key players and influencers who can deliberate and put forth the broader contours and models of Just transition suitable for

the state. Some of the key considerations that underpin the just transition related task and priorities are indicated below:

- Assessing the magnitude and nature of the effects that the net-zero related transitions may bring directly and indirectly upon formal and informal economy for the state
- Bringing out a replicable and forward-looking economic model in realisation of energy security and livelihood security with focus on attaining sustainable development goals
- Assessing the impact in coal-rich districts and developing a state and district specific action plans through analysing gaps in policy & programs to support the transition.

Aims & Objectives

The conference aimed to bring key players and influencers (leaders from public sector units, industry, corporate companies and academia) to brainstorm the overall frameworks of the just transition process in a participatory and solution driven manner. Some of key objectives were as follows:

- To provide knowledge, options and recommendations for formalisation of Just transition process through institutional means that can work in a time-bound and result-oriented manner
- To bring valuable perspectives and insights from key industries and public sector units on the common ideas and the way forward for transition related goals at cross-sectoral level
- To put forth immediate, short-term and long term work-to-do-list as a blue-print for the state government on realising just transition

The conference witnessed active participation from prominent public sector units (e.g. Central Coalfields Ltd, Central Mine Planning and Design Institute,), Jharkhand State Pollution Control Board, leading corporates like Tata Steel, Tata Power, Hindalco, Adani Industries, and noted academic institutions from the state such as Central Institute of Mining and Fuel Research, Central University of Jharkhand, Birla Institute of Technology, Ranchi University, and Xavier Institute of Social Service. The stakeholders unanimously recommended to the state government to immediately form a "Task-Force" to develop a roadmap for overall transition in the state.

Just Transition: Cases and Learnings from around the Globe

To better inform the policy level discussions in Jharkhand, key lessons from around the globe with similar context and geographical attributes will be useful, which has been briefly summarized below.

<u>Germany</u>

Germany has undertaken a complex transition process in recent times. In Germany, policy support often took the shape of efforts to diversify and reposition the economy, environmental remediation and protection, support for the labour force, improve social welfare and quality of life. Typically, these policies were implemented through financial support for government agencies, enterprises, and employees, public services and help for communities and coal miners; or direct investments in structural reform in the coal region.

Key Lessons

- 1. Adopt a proactive strategy for transition policy: German policy has been actively guiding the move away from coal since the 2000s. In coal regions, this proactive strategy contributed to the development of new sectors and the creation of jobs.
- 2. The convergence of worker-focused policies with decades of regionally-wide, forwardlooking structural policies, as well as significant public investments promoting economic diversification, contributed to the success of the region's transformation efforts.
- 3. Customize policies to local conditions: In Germany, community-led "bottom-up" initiatives have had greater success than federal government-led "top-down" initiatives. This entails giving local governments some autonomy as well as financial support to carry out transitional measures.
- 4. Initiative for maintaining the regional identity and heritage: The Ruhr region's transition from a coal mining centre to a cultural hub is symbolised by Zeche Zollverein, which was once the largest coal mine in the world. The Zollverein Coal Mine and Coking Plant, also known as the "Zollverein Coal Mine Industrial Complex," was added to the UNESCO World Heritage List on December 14, 2001. Since then, the former industrial complex has been recognised as one of the most significant cultural sites in the entire world.
- 5. All levels of government should make large investments: The region's economic diversification was made possible by significant expenditures made in supporting infrastructure, education, tourism, culture, and the service industry by European, federal, state, and local governments.

South Africa

One of the most comprehensive just transitions national dialogues is taking place in South Africa. It was the only nation to include the concept of a just transition in its initial Nationally Determined Contribution (NDC) in 2015. A series of discussions and evaluations were then held in its wake, with labour unions playing a significant part. This has assisted in laying the framework for transition in the energy sector, together with the 2020 Presidential Climate Change Coordination Commission's (PCCCC) mandate to coordinate just transition.

Key Lessons

- 1. Institutional support and a policy framework : Inclusion of a just transition in high-level policies and plans. South Africa was the only country to mention a just transition in its initial Nationally Determined Contribution (NDC) in 2015.
- 2. South Africa is one of a few countries that has conducted national-level, ongoing social dialogue to develop a vision for a just transition.
- 3. Conducting vulnerability assessments by sector and developing sector-specific job resilience plans are also strengths of the proactive approach.
- 4. The identification of outstanding, contentious issues, such as power sector privatisation and natural resource management, is also an important outcome that will inform future sectoral planning.

<u>Spain</u>

The just transition initiatives for the coal sector in Spain are primarily reactive, addressing the effects of earlier mine closures and the future of coal communities, rather than proactively moving a sizable active workforce.

Key Lessons

- 1. Cohesive management of the coal sector and its personnel, including the signing of relevant union agreements
- 2. A mostly enabling environment (with the exception of coal-dependent communities), with public and EU support for the energy transition and significant domestic renewable potential.
- 3. In developing the Just Transition strategy and similar previous agreements, diverse governmental and non-governmental stakeholders, including unions and the general public, were engaged and coordinated.

Key Highlights of the Conference

- The Govt. of Jharkhand is proactively working towards formalizing the process of Just Transition by setting up a governance structure in the form of a task force.
- Net-zero emission or becoming a carbon neutral economy has been prioritized globally and locally, so Jharkhand needs to prepare its economy in the same direction. Considering the multi-dimensionality of the just transition process, a holistic and inclusive approach right from the beginning should be taken.
- Various countries are formalizing the Just transition process, including Denmark, Australia, New Zealand, Poland, and Germany. Jharkhand should learn from these models by contextualizing it in its geography and socio-economic milieu.
- To formulate the Just Transition process, a set of policy-guidelines and cross-sectoral frameworks should be developed in the form of immediate, short and long term plans that takes into account everything while minimizing the socio-economic burden of the transition.
- For making Just transition sustainable and inclusive, combined efforts of all actors can have a positive influence on Jharkhand's just transition process. What matters is how early we begin, as the transformation will take decades of consistent approach to bring long-term impacts.
- Hazaribagh, Ramgarh, Dhanbad, Bokaro, Giridih, Palamu, Ranchi, Chatra, Latehar, Godda, Pakur and Dumka are the coal-concentric districts, therefore it is necessary to prioritize area-specific plans and measures in commensurate with the net-zero target and climate goals.
- Mapping of all mines, including closed and operational mines with detailed social surveys, are required. It is necessary to find an alternative for the workers who work in coal mines and earn their livelihoods with suitable social security measures.
- Robust livelihood plans centered around ethnicity, culture, and geographical attributes should be fundamental to alternative economic models. District/Block/Panchayat and clusters specific plans should be taken into consideration while making recommendations.
- Offsetting climate impact and decarbonizing the industrial and business processes has now become an important policy and regulatory priority than ever.
- The change in India's NDC to reduce emission intensity from 30% to 45% will also have an impact on Jharkhand. Next decade must be the period of implementation in order to achieve just transition in the state as about 14 districts in Jharkhand are highly climate vulnerable.

Inaugural Session



Overview

The workshop began with the opening session, which included Mr. L. Khiangte (IAS), Additional Chief Secretary, Department of Forest, Environment, and Climate Change, Government of Jharkhand; Mr. Shashikar Samanta (IFS), Chairman, Jharkhand State Pollution Control Board (JSPCB), Government of Jharkhand; Mr. AK Rastogi, Former Principal Chief Conservator of Forest (PCCF) & Ex-Chairman, JSPCB, Government (CCL).

The session established the larger background, elaborated the conference's main goals and objectives, and invited the distinguished visitors, the session chair, the panelists, and the participants to recommend the steps and solutions needed to make the Just Transition a reality in Jharkhand.

Mr L. Khiangte (IAS), Additional Chief Secretary, Department of Forest, Environment and Climate Change, Jharkhand in his special address remarked that there is a need to identify specific sectors that can lead the process of change for sustainable transition in the run up to Net-Zero emission target.

Mr AK Rastogi , Former Principal Chief Conservator of Forest (PCCF) & Ex-Chairman, JSPCB delivered the keynote address and emphasized the need of integrated approach for

mainstreaming strategies in the planning, programmatic and implementation phase with a clear vision in bringing out a replicable and forward-looking economic model in realization of energy security and livelihood security with focus on attaining sustainable development goals.



Key Highlights of Inaugural Session

- The Govt. of Jharkhand is proactively working towards formalizing the process of Just Transition either by setting up a task force or a governance model. The next 5 years will reflect the approach in which we move towards this process.
- The central and state governments must think and should create more opportunities for just transition. The local community has to be reskilled and linked with other livelihood opportunities locally.
- Transitions of high carbon emissions sectors like transport, coal, oil and gas require diversification of the operational model especially with regard to moving towards cleaner energy and future plans in the wake of rising emissions.

- Transition into green sectors such as RE, climate resilient agriculture, cleaner fuels and cleaner technologies for the economy will be crucial for creating new jobs, attracting financing and revenue and setting the tone of growth in the system.
- Need to enhance this understanding and capabilities among business and industry stakeholders that lowering carbon emissions and sustainability approaches boost industrial competitiveness. In such a scenario, Environment, Social and Governance (ESG) can be instrumental in initiating carbon budgeting and achieving carbon neutrality.
- The synergistic participation of all small, medium and big business houses on a common platform toward climate actions will strengthen the current and future governance policies.
- Closed mines may be highly helpful if operated in a sustainable manner. Pisciculture, groundwater recharge, conversion of coal mines into tourist attractions or hotels, and afforestation activities to improve the environment on a long-term basis are all examples of initiatives that can help the environment.
- A collaborative effort of government departments, private players, corporates, civil society and research institutes is required to bring about change in the environment and make transition a reality for the benefit of the local community.

Quotes from the Speakers



Shri L.Khiangte, IAS, Additional Chief Secretary, Dept. of Forest, Environment and Climate Change, Govt. of Jharkhand

"The State government is seriously contemplating the governance structure of sustainable transition in the form of a special task force. This process will be driven by a green vision that puts sustainability, inclusivity and public interest at the center stage. Industrial growth should be aligned with community development and nature conservation. There are plenty of opportunities

for economic diversification towards sustainability with enormous potential for livelihood generation for people."



Shri AK Rastogi, IFS, Former PCCF & Ex-Chairman-JSPCB, Govt. of Jharkhand

"For moving towards a sustainable transition, bringing onboard all stakeholders is inevitable who can set the common goals and acceptable ideas. Just transition is a long-term people-centric process. Stakeholder consultation and planned research would be imperative to identify vivid challenges and opportunities. Given the complex nature of socio-economic challenges and the diverse ambition of different stakeholders, a multi-

sectoral task force has become necessary to make a coherent effort with optimum result."



Shri Ramapati Kumar, Chief Executive Officer (CEO), Centre for Environment and Energy Development (CEED)

"The Jharkhand Government has shown dedication and commitments to enable just transition in the state. However, for streamlining the just transition process, a special task force is needed, which should ideally work in a convergent and inclusive approach with consulting all stakeholders and identify key prospects and priorities to better realise it. What is important here is to

set immediate, short and long-term work-to-do-lists with clear goals as a blue-print for strengthening the making of a future-ready economy in the state."



Shri Shashikar Samanta, IFS, Chairman, Jharkhand State Pollution Control Board, Govt. of Jharkhand

"In the transition phase, we need to take utmost priority on environmental and social safeguards and development for all. Moving towards more scientifically proven and cleaner industrial and mining operations will be crucial, where JSPCB will play an important role in setting guidelines on matters for closure of

mines or reclamation of land and ecosystem regeneration."

Session 1 : Sectoral Approach in Enabling Just Transition in Jharkhand

Overview

One of the major pathways where energy transformation will play a vital role is net-zero, or becoming carbon neutral. The shift to a new economic model includes a number of challenges that Jharkhand will need to overcome. Millions of people's lives have been negatively impacted by the overreliance on fossil fuels and the unscientific extraction of natural resources, which has resulted in massive carbon emissions and unchecked air, water, and soil pollution.

Mining, energy generation, medium and small-scale industries, agriculture, and service sectors are key economic sectors that can play major roles in a net-zero scenario in Jharkhand, where changes in their processes can lead to offsetting and reducing carbon emissions. It has been acknowledged that the absence of transition-related strategies may put many people working in fossil fuel-dependent industries at risk of losing their jobs, potentially jeopardizing many of the sustainable development goals.

Objective of the Session

The aim of the session was to better understand the multi-sectoral role in terms of sustainability and green economy in the broader framework of just transition.

The topics that were covered included managing mine closure, repurposing the Thermal Power Plants (TPPs), the role of coal industries and Industrial Product & Process Use (IPPU) sectors in enabling Just Transition in the state of Jharkhand

The session was chaired by Mr. PM Prasad, Chairman cum Managing Director (CMD), Central Coalfields Limited (CCL) who set the context and outlined a vision for transition, which would be

imperative for the extreme climate challenges in the state and ensuring energy security and integrity of the socio-economic structure.

Other notable speakers of the session include Mr. Somesh Biswas, Chief-Corporate Sustainability, Tata Steel Ltd; Mr. Abhijit Sinha, General Manager, Environment, Central Mine Planning & Design Institute Limited (CMPDI) and Mr. Basudev Hansdah, Chief O&M, Tata Power.

Key Highlights of the Session

- Ensuring energy security and integrity of the socio-economic structure will remain a priority along with industrial decarbonisation. This entails a sensible phase-out of coal use while building a solid socioeconomic system with superior alternatives.
- A participatory approach will be a vital element for an equitable and just transition. Learning from best practices around the world may be incorporated while developing a local solution.
- Steel standards for specifying green/greener products and creating an enabling ecosystem for green steel demand would be imperative for low-carbon steel production.
- Just transition has now been accommodated as the key element of mine planning as mining activities normally leave long-lasting impacts on landscape, ecology, and on the mindset of the local population.
- The impact of transition on the socio-economic ecosystem could be stressful for the vulnerable community. The psychological preparedness of the affected community should be also part of the transition process.
- A progressive mine closure plan, which includes all allied activities required to be executed continuously and sequentially during the entire life of the project, may limit the disturbance up to a minimum level.
- The transition process may have an impact on about two-third of the informal labour working in thermal power plants and allied businesses, necessitating reskilling and upskilling.

Quotes from the Chairman and Speakers



Shri PM Prasad, Chairman cum Managing Director, Central Coalfields Ltd (CCL)

"A transition towards updated NDCs would present manifold challenges to the central/state governments. The coal industry is ready and supportive of the transition process. At the larger level, the transition process will help the state, industries and society. Ensuring energy security and integrity of the socioeconomic structure will remain a priority along with

industrial decarbonisation. There is a need for adequate financial infrastructure, apart from CSR initiatives, to support the mammoth task of just transition. A participatory approach will be a vital element for an equitable and just transition. "



Shri Somesh Biswas, Chief, Corporate Sustainability, Tata Steel Ltd

"Just Transition is a forward-looking concept motivated by the principle of sustainability and climate justice. It mandates inclusivity and justice for all, sharing benefits and burdens of transition equitably. Clean energy based technological advancement, steel scrap policy, standards for specifying green/greener products and creating an enabling ecosystem for green steel demand

would be imperative for low-carbon steel production. Also, supporting the greening infrastructure measures and capacity building of local communities will make positive contributions."



Shri Abhijit Sinha, GM (Environment), Central Mine Planning & Design Institute Ltd

"A progressive and scientific mine closure plan can limit the ecological disturbance up to a minimum level. The recovered area may be put to a variety of uses, including the development of industry, farming, housing, and other economic opportunities. For the most vulnerable group, the effects of change on the socioeconomic ecology may be distressing. The

transition process should take into account the impacted community's psychological preparation."



Shri Basudev Hansdah, Chief O&M, Tata Power

"Technological challenges and a growing economy would keep thermal (fossil fuel-based) power plants relevant in near future. Despite several technological challenges, India has observed exponential growth of RE over the last two decades. The transition process may have an impact on about two third of the informal labour working in thermal power plants and allied businesses, necessitating reskilling and upskilling."

Session 2: Making Just Transition a Reality in Jharkhand : Structure & Processes

Overview

Although the energy transition is real and already underway, Jharkhand is concerned about its socioeconomic effects on millions of people dependent formally or informally in the fossil fuel based economy such as sectors like coal mining, transportation, and power industries as well as the sponge iron, steel, and bricks industries. The idea of a just transition enters the picture here, which calls for a clear framework and set of guidelines to help alleviate social and economic vulnerabilities brought upon by the potential loss of livelihoods during the change.

Objective of the Session

The focus of the discussion was on creating a Just transition and making it truly future-ready through structure, process, outlines, and models.

The discussion centered on the coordinated strategy adopted by different stakeholders to implement a visionary plan that streamlines the thorough feasibility and scalability assessments of the technical, social, and economic transition to enable a successful paradigm shift in achieving the requirements of the net zero goal.

Mr AK Rastogi , Former Principal Chief Conservator of Forest (PCCF) & Ex-Chairman, JSPCB chaired the second session and outlined the objective of the session to develop multi-lateral consensus, accountability and roadmap for precise carbon neutrality and achieving a net-zero transition in Jharkhand.

The Contours and Models of Just Transition for a future-ready Jharkhand were presented by Dr. Manish Kumar, Director (Research & Development), Centre for Environment and Energy Development (CEED) and Mr. Ramapati Kumar, Chief Executive Officer, CEED, reiterated the necessity of having a special task force or committee that should be given the mandate to map out the scope of ensuing impacts and potential opportunities in the transition phase for informed public policy discussion and decision-making for developing a forward-looking economy.

Key Highlights of the Session

- To establish Just transition policies, we must look through various lenses, from the lens of unemployment, agricultural productivity, and migration towards the perspective of sustainable development.
- Models in some developed and underdeveloped nations have identified efficient transition pathways for coal regions, and established the structures that are helping build capacities and competencies of a wide range of institutions and individuals involved in this process of just transition.
- Jharkahnd should operate in a mutual learning environment with stakeholders with whom the proponent is eager to collaborate. The large corporations and even technical partners can learn and/or be a form of revolution in our ladder.
- There should be a short-term social evaluation of impacted employees and communities, as well as upskilling and reskilling, and training of workers and communities in collaboration with local IITs and other training organizations. There must also be funding provision of financial, educational, health, and training centers for betterment of workers.
- The Taskforce will act through a convergence model with bringing onboard the government departments and agencies with leading corporate, PSUs, environment and energy think-tanks, academia, civil society and common people and make a collaborative effort for bringing out visionary roadmaps and action-plans.

Quotes from the Chairman and Speaker



Shri AK Rastogi, IFS, Former PCCF & Ex-Chairman-JSPCB, Govt. of Jharkhand

"Just transition is a long-term people-centric process. Stakeholder consultation and planned research would be imperative to identify vivid challenges and opportunities. Given the complex nature of socioeconomic challenges and the diverse ambition of different stakeholders, a multisectoral task force has become necessary to make a coherent effort."



Dr. Manish Kumar, Director (Research & Development), Centre for Environment and Energy Development (CEED)

"CEED has prepared a draft model, based on our learning from the past several months of interactions with different stakeholders and extensive research, which is open for discussion suggestions and positive criticism. The governance structure on just transition should take a holistic and inclusive approach with bringing all stakeholders at a common platform to set the priorities for the states while

looking at the policy gaps and lacunae in the existing system."

Media Coverage of the Conference



A Brief profile of Speakers

Mr. L. Khiangte, IAS

Additional Chief Secretary, Department of Forest, Environment and Climate Change Government of Jharkhand (GoJ)

Mr. L.Khiangte is an officer of Indian Administrative Service of 1988 batch. His contribution has been exemplary during various responsibilities in the state. A humble administrator, he is widely celebrated for his efforts toward the progress of Jharkhand. Mr. Khiangte has been supporting issues relating to the environment, and his presence today will be instrumental in defining the future pathway for sustainable development of Jharkhand.

Mr. Shashikar Samanta, IFS

Chairman, Jharkhand State Pollution Control Board Govt. of Jharkhand

Mr. Shashikar Samanta is an Indian Forest Service officer and ardent supporter of participatory initiatives for a clean and green Jharkhand. He has played a key role throughout his career in fostering conversation between many stakeholders to ensure climate resilience. He has played significant role in forward-thinking decisions on forest area policy and planning, climate adaptation, and mitigation strategies, as well as in promoting the discourse between many stakeholders to ensure climate to ensure climate resilience.

Mr. A. K. Rastogi, IFS (Rtd)

Former Principal Chief Conservation of Forest (PCCF) and Ex-Chairman, Jharkhand State Pollution Control Board (JSPCB) Government of Jharkhand

Mr. A. K. Rastogi has been a critical force in terms of taking lead on various policy issues and has worked in various departments such as Land acquisition, Water resource and Pollution control board. Mr. Rastogi brings vast experience in the field of climate and has represented the government in various international conferences such as COP meetings and other forums. His area of interest includes land/water resource management, biodiversity conservation, environmental laws and climate change issues.

Mr. P.M. Prasad

Chairman-Cum-Managing Director Central Coalfields Limited

Mr. P.M. Prasad has an illustrious career as an industry leader and successfully led key coal mining projects in various parts in India. Mr. Prasad brings in more than three decades of experience in the coal sector and his interventions has led towards many policy shifts within the industry. With vast technical & managerial experience, he has been instrumental in bringing sustainable practices in mining. Mr. Prasad has been supporting issues relating to the environment, and his presence today will be crucial in defining the future action for sustainable development of Jharkhand.

Mr. Ramapati Kumar Chief Executive Officer (CEO) Centre for Environment and Energy Development (CEED)

Mr. Ramapati Kumar has 25 years' cross-cultural experience in conceptualising and executing policy development. His aspiration for sustainable development has transformed into this beautiful organisation Centre for Environment and Energy Development (CEED). He contribute to Environment Management, Sustainability, Climate change, Renewable Energy, Waste management including E-waste, Education, and Livelihood. He has participated in various national and international conferences to highlight the issues related to climate change, energy and so forth. Mr. Kumar has wide experience in public policy making and is part of various committees engaged with climate change mitigation projects.

Mr. Somesh Biswas

Chief, Corporate Sustainability Tata Steel Limited

Mr Somesh Biswas has about three decades of experience of mining to market in the steel industry. He has worked in different functions – Spanning from Steel Plant Maintenance, Operation, Improvement Program, to Marketing & Sales. His current responsibilities involve Strategy development for Entering Alloy Steel business, Growing Long Carbon steel business and several others. Mr Biswas takes interest in conceptualisation of techno-economic feasibility of sustainable initiatives in Tata Steel.

Mr. Abhijit Sinha

General Manager, Environment Central Mine Planning & Design Institute Limited (CMPDI)

Mr. Sinha has more than three decades of expertise in the mining industry and is a specialist in environmental management. In order to promote environmentally friendly mining design, EIA ar Management Plan and practices, he has played a key role in regularly dealing with the multidimensional environmental challenges present in the coal and other mineral industry.

Mr. Basudev Hansdah

Chief (O&M) Tata Power

Mr. Basudev Hansdah is the current Tata Power chief of operations and maintenance. He has over 27 years of experience in the field of energy, power system analysis, reliability, and production. He has played a key role in providing sustainable, affordable, and innovative energy solutions.

Dr. Manish Kumar Director (Research & Development) Centre for Environment and Energy Development (CEED)

Dr. Manish Kumar leads the interdisciplinary research on ambient air quality, energy transition, and climate change issues in India and South Asia. He has been deeply instrumental in investigating the sources of air pollution over the Indo-Gangetic Plain (IGP) and understanding the contributions from the underlying value chain. He has more than 10 years of experience in environmental research over a wider set-up, including government, industry and academia. Dr. Kumar has completed his post-doctoral research on air pollution in India and the potential for ai quality improvement using science and sustainability applications jointly with the Stockholm Resilience Centre (SRC) and the Stockholm University, Sweden. Dr. Kumar has also served as visiting scientist at the Max Planck Institute for Chemistry, Germany. He has published more tha 30 peer-reviewed articles in various national and international journals. Dr. Kumar serves as the editor and reviewer in several international peer-reviewed journals.

Agenda of the Conference

Time	Agenda
09:00 AM-10:00 AM	Registration of the Delegates
10:00 AM-11:00 AM	Inaugural Session
	10:00 AM: Lighting of the Lamp
	10:05 AM-10:15 AM: Welcome & Context Setting
	Shri Ramapati Kumar Chief Executive Officer (CEO) Centre for Environmment and Energy Development (CEED)
	10:15 AM-10:25 AM: Special Address
	Shri Shashikar Samanta, IFS Chairman, Jharkhand State Pollution Control Board Govt. of Jharkhand
	10:25 AM-10:35 AM: Special Address
	Shri Rahul Sharma, IAS Secretary Dept. of Planning and Development Govt. of Jharkhand
	10:35 AM-10:45 AM: Keynote Address
	Shri AK Rastogi, IFS Former PCCF & Ex-Chairman-JSPCB Govt. of Jharkhand
	10:45 AM-11:00 AM: Address by Chief Guest
	Shri L.Khiangte, IAS Additional Chief Secretary Dept. of Forest, Environment and Climate Change Govt. of Jharkhand
11:00 AM-11:15 AM	Tea Break

Time	Agenda	
11:15 AM-12:20 PM	Session 1 : Sectoral Approach in Enabling Just Transition in Jharkhand Session Chair Shri L.Khiangte, IAS Additional Chief Secretary Dept. of Forest, Environment and Climate Change Govt. of Jharkhand	
	11:15 AM-11:25 AM: Coal Industries for Enabling Just Transition Shri PM Prasad Chairman cum Managing Director Central Coalfields Ltd (CCL)	
	11:25 AM-11:35 AM: Industrial Product & Process Use (IPPU) sectors and Just Transition Shri Somesh Biswas Chief, Corporate Sustainability Tata Steel Ltd	
	11:35 AM-11:45 AM: Managing Mine closure: Perspectives from Just Transition Shri Abhijit Sinha General Manager, Environment Central Mine Planning & Design Institute Limited (CMPDI)	
	11:45 AM-11:55 AM: Just Transition Goals and Repurposing the Thermal Power Plants Shri Basudev Hansdah Chief O&M Tata Power	
	11:55 AM- 12:20 PM : Open Discussion (Q & A)	
12:20 PM-12:40 PM	Session 2: Making Just Transition a Reality in Jharkhand : Structure & Processes	
	Session Chair Shri AK Rastogi, IFS Former PCCF & Ex-Chairman-JSPCB Govt. of Jharkhand	
	12:20 PM-12:40 PM: Contours and Models for Just Transition in Jharkhand	
	Dr. Manish Kumar Director (Research & Development) Centre for Environment and Energy Development (CEED)	
12:40 PM-1:00 PM	Open Discussion (Q & A)	
1:00 PM-2:00 PM	Networking Lunch	
2:00 PM-3:00 PM	Closing Remarks	