

Minutes of Regional Meeting on Environmental Challenges in Jharkhand

Date: 23rd- 24th October, 2021

Place: Dhanbad, Jharkhand

Legal Initiative for Forest and Environment (LIFE) in association with Yugantar Bharti had organised a two days regional meeting on environmental challenges in Dhanbad, Jharkhand. The main objective of the meeting was to identify various environmental issues such as air pollution, water pollution, and the impact of mining on natural environment and loss of biological diversity. The meeting held on 23rd and 24th October, 2021 was attended by various civil society organisations, Research institutes like IIT, CIMFR, and professionals working in environment and public health sectors respectively.

DAY 1

The workshop started with an introductory speech by Rakesh Kumar Sing (RKS), Trustee at LIFE.

Chief Guest of the workshop Shri Saryu Rai, the independent MLA initiated the workshop with his speech. In his speech, he highlighted the poor air quality of this city and raised his concerns about the environmental issues. He mentioned how Dhanbad has been subjected to these environmental issues due to the coal mining in the area affecting the livelihood of people. He also reiterated the urgent and dire need of restoration of environment in this region, without which it will be difficult for people to survive in long run. He appreciated the work of government for our development but at the same time mentioned how the sustainability has lagged in some sectors due to which there is smoke in the air of Dhanbad, compromising fundamental rights of the people in their way of development. He highlighted the presence of EIA Notification 2006 and at the same time violations associated with this Notification. The urbanization has led to many environmental issues in the rural communities. He commended the initiatives of LIFE as an organization effectively using advocacy in protecting the environment and biodiversity. He further requested LIFE to undertake actions to bring about some change in Dhanbad.

Ritwick Dutta, Managing Trustee LIFE presented his significant legal interventions related to various environmental issues that have been done by LIFE. He firstly shared some facts about India's pollution status, where India ranks on the 168th position out of 180 in the Environmental Performance Index and the ranking is further going down every year. He showed that most polluted cities in the world are mostly Indian where 14 out of top 15 cities are Indian cities. He further discussed about the National Clean Air Programme (NCAP) and how its targets are ambitious that even with 100 percent implementation of action plans, the outcome of reduced air pollution can never be achieved. He further explained this by sharing the facts that out of 4000 cities in India, only 378 cities were analyzed in NCAP where 222 cities were identified as non-attainment cities. Implementing action plans only in 222 cities out of 4000 cities in India will not bring the change required. On which he said - "The NCAP document is not worth the paper on which it is printed." He then talked about some of the interventions of LIFE which received successful judgements that made a difference at the policy level. He also highlighted LIFE's interventions into processes as well. As example he shared about the issue raised when draft EIA notification was released for it to be released in regional languages. With this,

a progress has been observed where now latest release of forest conservation act amendment draft has come out in many languages.

Technical Session-I: Air Pollution and Human Health

Rakesh Kumar Singh gave a presentation on the air pollution, and its impacts on human health. He discussed about the Air Pollution Index, air pollution standards, air contaminants, Particulate matter and how because of its small size it reaches our lungs and blood stream and impact health. He further shared some facts: India ranks first in the world with air pollution related deaths. People travelling in cars are exposed to 15 times higher pollution level. 98% of Indian population is living in polluted air. World health ranking site shows India is 16th out of 43 countries in Asthma rate.

Presentation by Kankana Das on “Action Plan for Improving Air Quality in Dhanbad”. She highlighted some major faults in the NCAP programme and Dhanbad action plan, such as CPCB approved action plans did not even mention the latest standards of Indian air quality rather 2009 standards were given. She pointed out the complete similarity in NCAP action plan in 2019 with Comprehensive Environmental Pollution Index (CEPI) based action plan of 2010. No improvement or efforts in making action plans and implementation negligible. She showed that the action plan of widening of road for decongestion of traffic cannot work on long-term giving example of US where addition of 42% more roads in urbanized areas led to 144% increase in congestion. She further raised the issue of silence on C&D waste management facility in the city. Also mentioned about the lack of health assessment in NCAP document. And lastly made her comments on implementation of Graded Response Action Plan (GRAP) is just on papers without its visible impacts in air pollution reduction.

Presentation by RK Singh on “Efficacy of GRAP in Mitigation of Delhi’s air pollution”. He discussed about the lack in the implementation of GRAP and its only focus on PM 2.5 and 10 and not on the entire AQI pollutant range. He showed his analysis on PM 10 and PM 2.5 seasonal data, where only monsoon showed low pollution with AQI in “Good” condition, otherwise throughout the year high pollution levels were observed. But GRAP is only introduced during winter season and only on Particulate matter. Concluding he said that GRAP has not been a successful tool to abate air pollution and its introduction in Dhanbad will similarly not be a success.

Presentation by Mr. Siddharth Sigh from Natural Resource Environment Group, CSIR-Central Institute of Mining and Fuel Research (CIMFR), Dhanbad on “Black Carbon in the Air of Dhanbad and its Sources”. He talked about Soot (aerosol black carbon) properties, how it is formed by incomplete combustion and its various generation sources. Can develop large scale haze at regional level. Long term exposure may lead to cardiopulmonary and lung cancer mortality. He showed his study about the BC (black carbon) mass concentrations which showed higher ranges in Dhanbad due to local combustions as the sources. Timeseries showed that due to fossil fuel combustion, high values of BC in winter. His analysis showed that fossil fuel combustion is contributing approx. 80% to BC and biomass burning is 15-20%.

Presentation by Dr. Bhanu Pandey, Scientist at Natural Resource Management Division, CIMFR on “Ambient Air Quality of Dhanbad and surrounding areas”. In his presentation, he showed his study where sampling monitors were located near coal mines, some at distance of coal mines and some at their CIMFR campus. PM10 was measured using spectrophotometer and other instruments. The measures revealed that ambient air standards were crossed in all three seasons. In winter conditions, due to inversion of air, pollutants dispersion is less and concentrations were therefore on the higher

side. Air Pollution Index (API) also showed that that except for CIMFR (moderate) location, API was high in all other locations. He concluded that coal mining is the 1st major pollution source, then vehicular pollution and then wind-blown dust.

Dr. Gurdeep Singh, IIT (ISM) Dhanbad also shared some of his experiences. He shared how he managed to get 1 lack 86 thousand fine levied by the high court for illegal mining in Goa. A capping was introduced in Supreme court and imposed conditions on production in mining. All mines were working in violation without any environmental clearances. They made all mines to take ECs.

Technical Session – II: Restoration of mining areas

Presentation by Dr. Raj Shekhar Singh, Retd. Scientist CIMFR on “Ecological Restoration of Mined out areas”. In his presentation, Mr. Singh talked about the alteration in land use because of coal mining. This calls for a restoration plan to recover and repair the land post mining activities as naturally it will take more than half a century to recover itself. He explained scientific approaches integrated with ecological approaches of restoration, revegetation for reclamation and carbon sequestration. He further explained how restored area has many benefits in terms of carbon sequestration, improves air, enhances soil filtration by 35%, fetches birds and wild animals, reduces noise pollution, economic by Rs 3-4 lakhs in 20 years.

Tanvi raised a question of use of tree species *Leucaena leucocephala* (subabool) in restoration as it is not a native species. They answered that the subabool is a good fodder and its regrowth and dispersion is very fast. So its plantation is good as a fodder species.

Mr. Ranvijay Singh shared his experience when he was a member of the advisory committee and he has never been proud of the decisions he had to take while in the committee where he said he was among the destroyer of the environment taking decisions contrarily. He requested RD to look into the committee composition of State CAMPA where there are no experts and the transparency is negligible on where CAMPA money is being used. Another issue he raised is that there are talks about allowing access to “sainani” into interior portions of forests/protected areas. He requested to not allow that and LIFE being an activist group to raise this issue.

Another presentation by RK Singh on “Issues with Fly Ash Disposal in Jharkhand”. He shared some facts regarding the requirement of land for fly ash storage. He mapped all the thermal power plants of Jharkhand and their fly ash storage sites. He shared his findings that there are 8 TPPs located near Damodar river and have 26 fly ash disposal sites. He further discussed about utilization of fly ash and its hazards. The concern raised was that whether the use of fly ash bricks is good as there are chances of fly ash radiations. Fly ash is present in every construction as fly ash is mixed in cement. Fly ash breaches are very detrimental for the river as is an example of Bokaro ash pond breach.

Mr. Ranvijay Singh suggested that the reuse of fly ash in the form of bricks should be promoted as there would not be much radiation from it. It will be a 5” wall of fly ash which will further be covered with paint and plaster. There are lesser chances of radiation. On the other hand it was added by another person that the paint is also a chemical compound that cause radiation.

Ritwick Dutta shared about LIFE’s intervention on sinking of Fly ash barges. Every year during fly ash export from India to Bangladesh, at least 7-8 barges were sinking. A case was filed on behalf of Matsyabichi group of fishermen and the case is still going. But since the case was filed, one change that has happened is that no barge has sunk after that.

DAY 2

Technical Session I: Coal Bed Methane and Biomedical Waste Disposal

Ajay Kumar Singh, Retd. Scientist from CIMFR who was part of IPCC and is currently under preparation of assessment report 6. He gave his presentation on “Coal bed methane: Extraction process and environmental issues”. He explained the presence of the unconventional gas Coal Bed Methane (CBM) in coal and how it releases in underground mines. Methane explosion is one of the identified environmental issues. In opencast mines, the methane gets released directly into the atmosphere. These methane emissions contribute to global warming. 1 million tonne per year increase in methane emission will take place if it continues to mine and further increase coal mining. He further explained the Geochemical characteristics of CBMW in India.

Presentation by Debadutta Mohanty, PhD, from CSIR on “Indicator for Communities to assess impact of coalbed methane extraction”. Discussed about regulatory framework for coal mines, Oil mines.

Kankana Das raised a question: as informed in the presentation, the coal below 600 m depth is non-mineable coal. Where mining already happening, what is the status there. The question was addressed by Ajay Kumar Singh where he explained that most of the mine have 1 tone releases 1 cubic meter methane released. Degree three mines where gas concentration is very high, there the coal mining is called CMN and mined with a different methodology.

RKS: Where does Coal bed methane extraction fit into the green clearance processes. Addressing the question, Ajay Kumar Singh explained that coal bed methane is a natural gas. From production point of view, earlier there were no regulations for coal bed methane, but now the government has kept it under Natural gas and its regulations apply.

Presentation by Rahul Chaudhary on “Waste Management Rules” and highlighting the amendments made in the Waste Management Rules 2018. Rahul Choudhary had talked about the waste management issues in Jammshedpur and with respect to broader area of Jharkhand as well. He highlighted existing regulations covering solid waste, plastic waste, bio medical waste and hazardous waste, as these are the most relevant while looking at city and the state perspective. He shared case studies based on his years’ experience on various litigation and also highlighted as to how a citizen can approach courts and tribunals as and when needed.

On this issue, a member of the Damodar Bachao Andolan raised his concern of Biomedical Waste Management in their area. He said that there are only two Biomedical Waste Disposal Plants in Jharkhand and almost 300 nursing homes and private hospitals (with approximate 70,000 beds as per record) are disposing BM Waste with the regular waste or into the jungle. Because of this, villagers especially small children are being exposed to these careless disposals on a daily basis. Another member of the Damodar Bachao Andolan raised the issue of waste disposal in Ganga near drinking water plant. A steel plant is disposing its toxic waste directly into the river.

Presentation by Dr. Hridesh Agarwatta, CSIR on “Mercury emissions from coal and manufacturing sector”. He discussed about Discussed about the Minamata Convention – to protect human health and environment from anthropogenic release of Mercury and its compounds. India is also a legally binding signatory to the treaty as Mercury is a global pollutant, creates issues in the body-nervous, chromosomes, DNA. He further informed that Indian coal has a high concentration of mercury and therefore is a major emitter of mercury into the air. Mercury partitioning takes place in power plant where 80-90% goes into air on coal combustion in power plants and rest into the fly ash. Further

discussed about the environmental issues of mining and power industry, Mine Soil Quality Index and Bio-reclamation of low-lying areas.

Technical Session II: Forest and Wildlife

Presentation by Tanvi Sharma, LIFE, on the “Trends of forest diversion in Jharkhand”. In her presentation, she highlighted the forest loss specific to Jharkhand and also Chotanagpur region of Jharkhand referring the State of Forest Reports where she talked about the problem of degradation of moderately dense forest to open forest. Further she highlighted some projects approved by the Forest Advisory Committee (FAC) and Regional Empowered Committees (RECs) diverting forest land and affecting protected areas.

Technical Session III: Documentation for Legal Action

Presentation by Rahul Choudhary enlightening the attendees about the legal framework and approach they may adopt if wish to raise any environmental issue to the National Green Tribunal. He explained the basic procedure involved in going for litigation and gave some examples of cases he worked on.

RK Singh presentation on “Review of Environmental Clearances”. He gave insights into how a project can be identified and accessed from the Ministries website “PARIVESH” portal. He also explained the use of Google Earth, Sentinel website for latest satellite data and GPS app for locating project.

In the concluding remarks, Shri Saryu Rai once again appreciated LIFE to come forward and initiate such discussion at local level. He further suggested the promotion of interventions by social groups and scientists and try to make the environmental issues a socio-political issue so they such problems get highlighted to public and they become more aware of their rights, become vocal on the problems they face and the actions they can take. He also spoke about the gap in the funding implementation and the actual conditions. As example, he informed how the Swatch Bharat Abhiyan has constructed toilets but most of them are still not functional.

The meeting ended with vote of thanks, given by Shri Aashish Sheetal of Yugantar Bharti.

Issues to be taken up in future

- Scope out litigation on the issue raised for untreated waste disposal by steel plant in the river near drinking water plant and need for sewage treatment plant in the city.
- Litigation on mismanagement of Biomedical waste.
- Research into the State CAMPA funds, where there are no experts and the transparency is negligible on where CAMPA money is used.
- Action to be taken up for installation of air monitoring devices in the polluted areas.
- Litigation on Raitola village rehabilitation issue where the villagers are residing between in the BCCL owned mine and majorly exposed to gaseous releases from the underground mine.