



CLOSING THE ENFORCEMENT GAP:

Groundtruthing of Environmental Violations in Sarguja, Chhattisgarh

This is a collaborative research between Janabhivayakti, representatives of Hasdeo Arand Bachao Sangharsh Samiti (HABSS) and the Centre for Policy Research (CPR)-Namati Environmental Justice Program

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ENFORCEMENT GAP:
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EXECUTIVE SUMMARY

The Ministry of Environment, Forest and Climate Change (MoEFCC) granted clearance to the PEKB Open Cast Coal Mine Project and Pit Head Coal Washery in Sarguja, Chhattisgarh, on December 21, 2011. This clearance was subject to compliance with 36 Specific Conditions and 18 General Conditions. Once operations started, however, people in the area began facing severe impacts such as:

- an increased rate of road accidents caused by speeding trucks involved in the transportation of coal,
- dust pollution, not only from the increased vehicular traffic, but also the unchecked burning of coal and
- contamination of common water sources, e.g. rivers and streams, due to the discharge of mine waste from the project site.

In May 2015, Janabhivayakti, a non-governmental organisation (NGO) along with the Centre for Policy Research (CPR)-Namati Environmental Justice Program, and affected village representatives from the Hasdeo Arand Bachao Sangharsh Samiti (HABSS) initiated a community-led groundtruthing process in the area impacted by mining operations. Taking the impacts as a starting point, the organisations worked together. They studied the law and legal safeguards, which if complied with could directly rectify or curtail the impacts. Relevant data was then collected and submitted as evidence to the administrative authorities entrusted with the responsibility for ensuring compliance with the clearance conditions. It was found that many Specific Conditions in the environment clearance were being violated. Further, transgression was also identified with respect to the Terms of Reference (ToR) under the Environment Impact Assessment (EIA) Notification, 2006 and a National Green Tribunal (NGT) judgment pertaining to the project.

The purpose of the groundtruthing exercise was not only to seek remedies in the present instance to minimise the environmental and social impacts, but also to empower the community to be able to deal with future impacts. Further, by seeking to improve monitoring and compliance, it also aimed to strengthen the regulatory process.

BACKGROUND OF THE REGION AND THE ISSUE

The Project

The Parsa East and Kanta Basan (PEKB) Open Cast Coal Mine Project (10 MTPA) and Pit Head Coal Washery (10 MTPA) are located in the Hasdeo Arand coalfield of Udaipur tehsil in Sarguja, Chhattisgarh. The region was once a 'no-go' area for mining, aiming to protect and conserve high density forest cover, biodiversity and wildlife¹. For the Project and Washery, 2711.034 ha of land have been allotted to Rajasthan Rajya Vidyut Utpadan Nigam Limited (RVUNL) for a period of 30 years and the Mine Developer and Operator (MDO) contract is with Adani Mining Private Limited. A 135 MW reject coal based thermal power plant linked to this project has also been proposed within the mine lease.

The MoEFCC had issued a forest clearance for all of the above to RVUNL vide F. No. 8-31/2010-FC dated July 6, 2011 (*see Annexure 1*). This approval under section 2 of the Forest Conservation Act, 1980, was granted against the Ministry's own Forest Advisory Committee (FAC)'s final recommendation dated June 22, 2011. The FAC had rejected the proposals for both Tara and PEKB coal blocks, in view of the fact that the area proposed for diversion had "high ecological and forest value and the number of trees to be felled was very high, which did not justify diversion from conservation point of view."²

The region where the mining is being carried out was once a 'no-go' area for mining, aiming to protect and conserve high density forest cover, biodiversity and wildlife.



PEKB Open Cast Coal Mine, Sarguja, Chhattisgarh

¹Press release regarding a joint study conducted by the Ministry of Coal and MoEFCC in 2010– the only such study that clearly demarcated areas for coal mining and arrived at a prioritisation framework for coal allocation based on environmental impact.

²Meeting Minutes of the FAC, 2014.

However, the then Minister of Environment and Forests disagreed with the recommendations and granted the Stage-I or in-principle approval for forest clearance on June 23, 2011. The environment clearance for the same project was granted on December 21, 2011, under the EIA Notification, 2006, subject to compliance with the terms and conditions mentioned (see Annexure 2). Subsequently, the Stage-II forest clearance for diversion of 1898.328 ha was granted on March 15, 2012.

Monitoring and Compliance- Environment and Forest Clearance Conditions

Environment Clearance

There are four stages under the EIA Notification, 2006 namely:

1. **Screening-** Categorisation of a project or activity under Category A (needs approval from the MoEFCC or Category B [needs approval from the State Environment Impact Assessment Authority (SEIAA)]. A Category B project or activity is further classified as B1 (requires an EIA) or B2 (does not require an EIA).
2. **Scoping-** Finalisation of ToR for the EIA and preparation of the draft EIA report
3. **Public Consultation-** Public hearing
4. **Appraisal-** The Expert Appraisal Committee (EAC) or State Level EAC reviews the application

After these, an environment clearance is granted with a set of General and Specific Conditions, either by the MoEFCC or SEIAA.

Once clearance has been granted, every six months, the project proponent has to report on the status of compliance with the stipulated conditions. The proponent needs to submit a compliance report to the regional office of the MoEFCC, with a copy to the regional office of the State Pollution Control Board (SPCB) and zonal office of the Central Pollution Control Board (CPCB). Also, every six months, the regional office of the CPCB- Bhopal- appoints an officer as per the jurisdiction to carry out an inspection and make a monitoring report. If the clearance is given by the SEIAA, then monitoring of compliance will be done by the SEIAA and the regional office of the SPCB.

Post clearance, every six months, the project proponent has to submit a compliance report to the regional office of the MoEFCC, with a copy to the regional office of the SPCB and zonal office of the CPCB.

Forest Clearance- Diversion of Forest Land for Non-Forest Use

Whenever a government department or private agency or an individual wants to use forest land for non-forest use, permission has to be taken for the diversion of forest land from the relevant forest department and from the Divisional Forest Officer (DFO) in particular. Based on the application, the DFO will inspect the site and prepare a report against a series of criteria. She/he will then forward a recommendation on whether or not the forest land can be diverted for non-forest use. While the DFO prepares the site inspection report, the District Collector (DC) certifies that the recognition of rights as per the Forest Rights Act (FRA), 2006 has been completed in the area. If this has not taken place, she/he needs to ensure that the FRA claims are settled and thereafter take the consent of the gram sabha for diversion of the forest land. Next, based on the DFO's recommendation, the Principal Chief Conservator of Forests (PCCF) will forward the proposal. If the area in question is more than 40 ha, then this will be to the MoEFCC's FAC. The FAC will then review the proposal, and if required undertake a site visit as well during the process of review. It will give its recommendations, based on which the MoEFCC grants the Stage-I clearance or in-principle approval with a set of conditions for compliance.

If the area is less than 40 ha, the proposal will be forwarded to the relevant regional office of the MoEFCC. Then, based on the recommendation of the Regional Empowered Committee (REC), the Additional PCCF (APCCF) will decide whether or not to grant the forest clearance.

To monitor compliance with the conditions given in the Stage-I clearance, the project authority has to submit a compliance report every six months to the regional office of the MoEFCC at Bhopal and also to the DFO at the regional office of the State Forest Department. Additionally, according to the jurisdiction, an officer from regional office of the MoEFCC will visit the site for an inspection every six months and document compliance with the conditions. Based on compliance with conditions in the Stage-I clearance, the FAC, if satisfied, grants the Stage-II clearance. The final notification is to be given by the state under section 2 of the Forest Conservation Act, 1980.



Map of Hasdeo Arand region marking the forest cover and wildlife presence

Overview of Hasdeo Arand Region³

The Hasdeo Arand coalfield is spread over north Korba, south Sarguja and Surajpur districts. It is one of the largest intact forest areas in central India outside of the protected area system. The coalfield covers a total area of 1,878 sq km, of which 1,502 sq km has forest

cover. Around 80% of it is covered by good quality forest—approximately 1,176 sq km has a canopy cover of over 40%, while an additional 116 sq km has a canopy cover of over 70%. The forest is extremely rich in biodiversity, reporting the presence of several endangered species. It is also part of a large elephant corridor supporting the migration of wild elephants, stretching from Gumla district in Jharkhand to

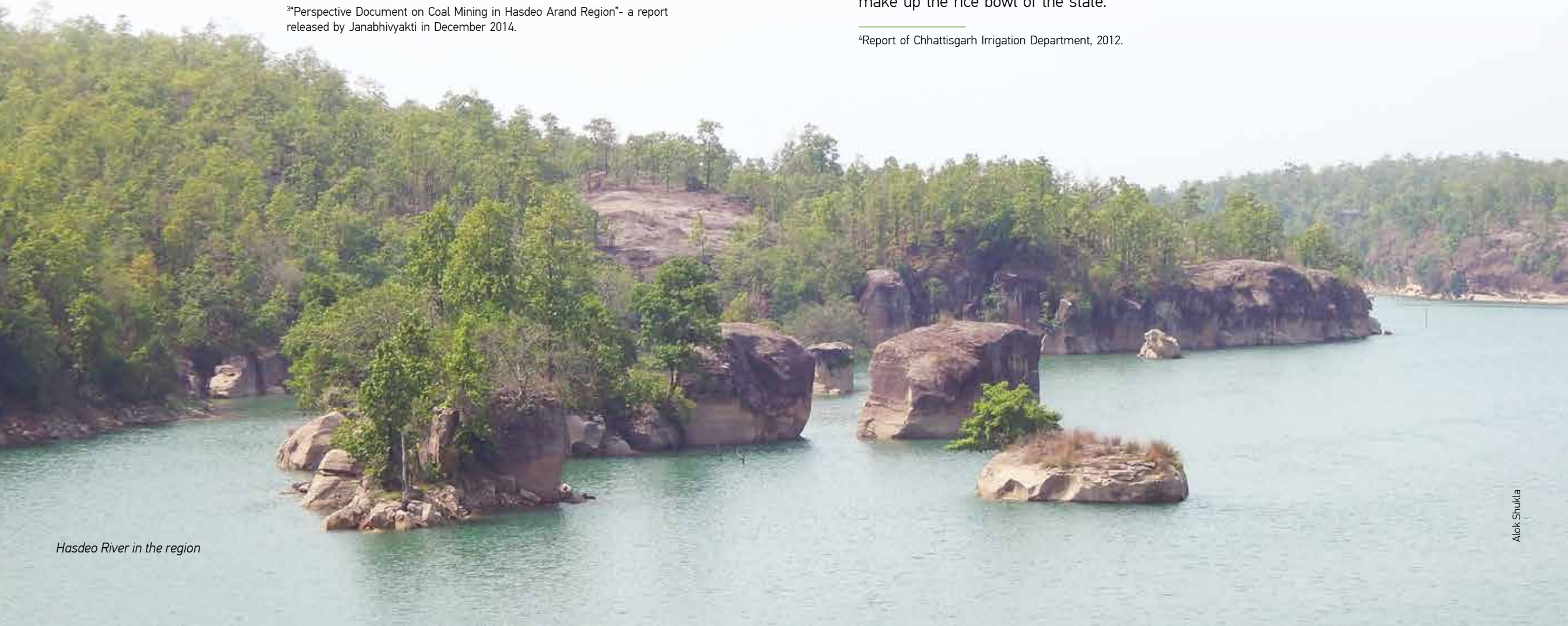
³"Perspective Document on Coal Mining in Hasdeo Arand Region"- a report released by Janabhivyakti in December 2014.

Korba district in Chhattisgarh. The entire Hasdeo Arand forest was declared as 'no-go' for coal mining by the MoEFCC in 2010, the only one of nine coalfields surveyed which was entirely declared as 'no-go'. Such 'no-go' areas represent only 8.11% of the total potential coal bearing area in the country and 11.50% of the total explored coal bearing area of India.

The Hasdeo Arand region is home to a large and vulnerable population. Most people are Adivasis or other traditional forest dwellers. Over 90% of the residents are dependent on agricultural cultivation and forest produce for their livelihood. The implementation of the FRA, 2006 has remained extremely poor till date, leaving the population extremely susceptible to abuse and exploitation.

The region is the watershed of the Hasdeo Bango reservoir on the Hasdeo River, which is a tributary of the Mahanadi River and one of the most important rivers of Chhattisgarh. It also houses the Bango dam, which is critical from the viewpoint of irrigation for approximately three lakh hectares of agricultural land in Korba and Janjgir-Champa districts⁴- the areas that make up the rice bowl of the state.

⁴Report of Chhattisgarh Irrigation Department, 2012.



Hasdeo River in the region

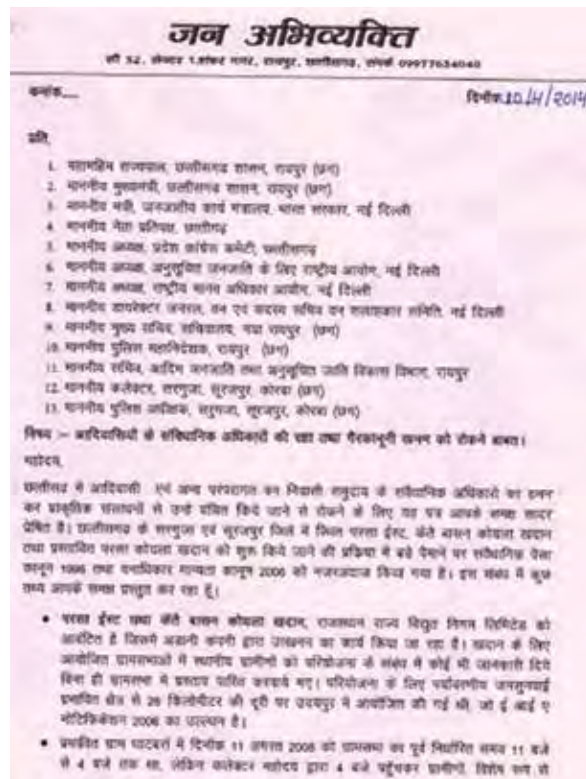
ABOUT THE COMMUNITY-LED RESEARCH

The purpose of this effort was to undertake an applied research study that is led by affected people. This was to ascertain whether the environmental and social impacts of mining in the region have been legally approved.

Memorandum against the violation of law for the public hearing and land acquisition (page 1)

Janabhivyakti, one of the partner organisations in this process, has been working since 2012 in the villages impacted by the mining of coal. It has been carrying out research to understand the history of the project in question and how the affected people have engaged with it in the past. It has also looked into the impacts felt by the community with respect to the implementation of mining activity in the PEKB Open Cast Coal Mine. During the preliminary discussions with people from the affected villages, it was revealed that there had always been some opposition to the setting up of mining operations in the area. People had raised concerns related to impacts on livelihoods, water and the fragmentation of an important forest habitat. People were also aware of the impacts of coal mining and power plants in neighbouring districts and had argued for a precautionary approach. More in-depth discussions also revealed that the due process of law had not been followed in the procedures for the recognition of rights, the public hearing and land acquisition. In April 2014, Janabhivyakti submitted a memorandum to the Governor of Chhattisgarh, demanding the protection of constitutional rights of tribes and to stop the illegal mining at PEKB Open Cast Coal Mine (copy shown in image alongside). Many impacts were being faced due to the operation of the mine, including those related to dust, water pollution and access to forests.

Janabhivyakti along with the CPR-Namati Environmental Justice Program, initiated a groundtruthing process along with representatives of the affected community (see Annexure 3). The purpose of this effort was to carry out an applied research led by affected people, to ascertain whether the environmental and social impacts of mining in the region have been legally approved. If not, the aim was to investigate whether through the administrative route, compliance with the conditions in the environment and forest clearance approvals could lead to remedying the current situation. It was also an attempt to look into the future impacts being minimised and the mining operations being made legally accountable.



METHODOLOGY

The groundtruthing for this project was carried out with the following components:

1. Trainings: An initial training was held with community members, with a major focus on identifying the impacts that the community was facing as a result of the project's functioning. The concept of groundtruthing was discussed to document the non-compliance with environmental conditions. Some technical discussions were also held related to the process of EIA and forest and environment clearances.
2. Identification of active community representatives: 10 community representatives were identified from three highly affected villages (three members each from two villages and four from the third). These representatives were volunteers who were actively engaged with issues concerning their village and were especially concerned by the problems the project in question was causing. They worked at identifying irregularities in the project area and their impacts. For this, they collected data, conducted field visits and organised meetings and interviews with people in the affected villages.
3. Identification of key impacts: This began with the identification of problems and finding out who was responsible for causing them. It went on to further investigate the time period for which the impacts were being felt and which laws were being violated.
4. Data collection: Given that data collection is an important aspect of any study, the Right to Information (RTI) Act, 2005, photographs, gathering news reports and Global Positioning System (GPS) mapping were discussed. Later, RTI applications and photographs became important tools in the process.
5. Filing complaints: Once data, such as that mentioned above, was collected, complaint letters were drafted with all evidence in support of the violation of law and non-compliance with the conditions. Along with charters of demands, the letters were sent to the concerned departments/authorities for resolutions.
6. Seeking remedies: The ultimate aim was to help project affected people by empowering them to attain solutions to their problems, and especially get environmental remedies through better environmental compliance.

Complaint letters regarding the non-compliance with conditions can later be used as data to sensitise the MoEFCC, CPCB and SPCBs to regulate the provisions of compliance and monitoring in an effective manner. Additionally, the data generated on non-compliance can be a valuable source of information to the government on the performance of environmental law.

INITIATION OF THE GROUNDTRUTHING PROCESS

During the discussion, the participants highlighted the key impacts being faced in the region due to the operation of the PEKB coal mine project allocated to RVUNL in a joint venture with Adani Mining Private Limited.

In May 2015, the community-led groundtruthing process was initiated by Janabhivaykti with a meeting of villagers from Salhi, Hariharpur and Ghatbarra. These three villages were initially selected as they were highly affected by the PEKB project. During the discussion, the participants highlighted the key impacts being faced in the region due to the operation of the PEKB coal mine project allocated to RVUNL in a joint venture with Adani Mining Private Limited. The purpose of this meeting was to:

- Understand the conditions listed in the environment clearance granted to the PEKB project and the process through which the approval was granted.
- Discuss the possibilities of a community-led evidence gathering process, which would be carried out by the representatives of the affected villages along with HABSS and Janabhivaykti- who would enable understanding the law and the implications of the violations.
- Identify a list of conditions which could be verified and investigated through a community-driven process, with technical assistance related to mapping and legal clauses provided by the organisations involved.
- Ascertain the extent of evidence already available with the community and in the paralegal work that had been done by organisations like HABSS and Janabhivaykti.
- Discuss what additional evidence would be required in order to strengthen the association of the impacts with the non-compliance with legally mandated conditions.

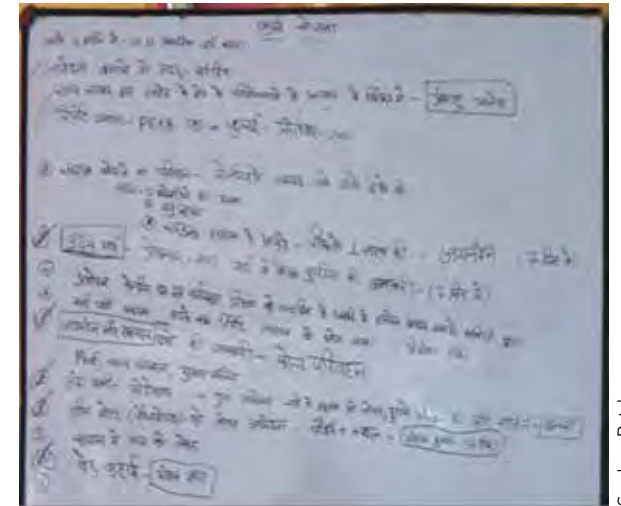
Meeting with the villagers for the community-led research



Sandeep Patel

- Build a database of all the cases pertaining to non-compliance with conditions that could be used as a tool to counter the expansion of the project.

The first meeting on May 20, 2015 started by explaining the process of granting an environment clearance to a project and the need for it. After this, the environment clearance letter issued to RVUNL was briefly discussed and shared with all those present. One by one, each condition in the clearance was discussed with respect to whether or not it was being violated. As the meeting progressed, the concept of a community-led research process got refined and the community representatives demanded a copy of the clearance letter in Hindi. A committee of 10 representatives was suggested for monitoring of the violations by PEKB. It was decided that in the upcoming meeting, members for the monitoring committee would be identified from Salhi, Hariharpur and Ghatbarra. They would be those directly affected and willing to contribute with commitment. The committee would then collect all necessary evidence related to non-compliance with conditions.



Action Plan prepared during the meeting on May 20, 2015

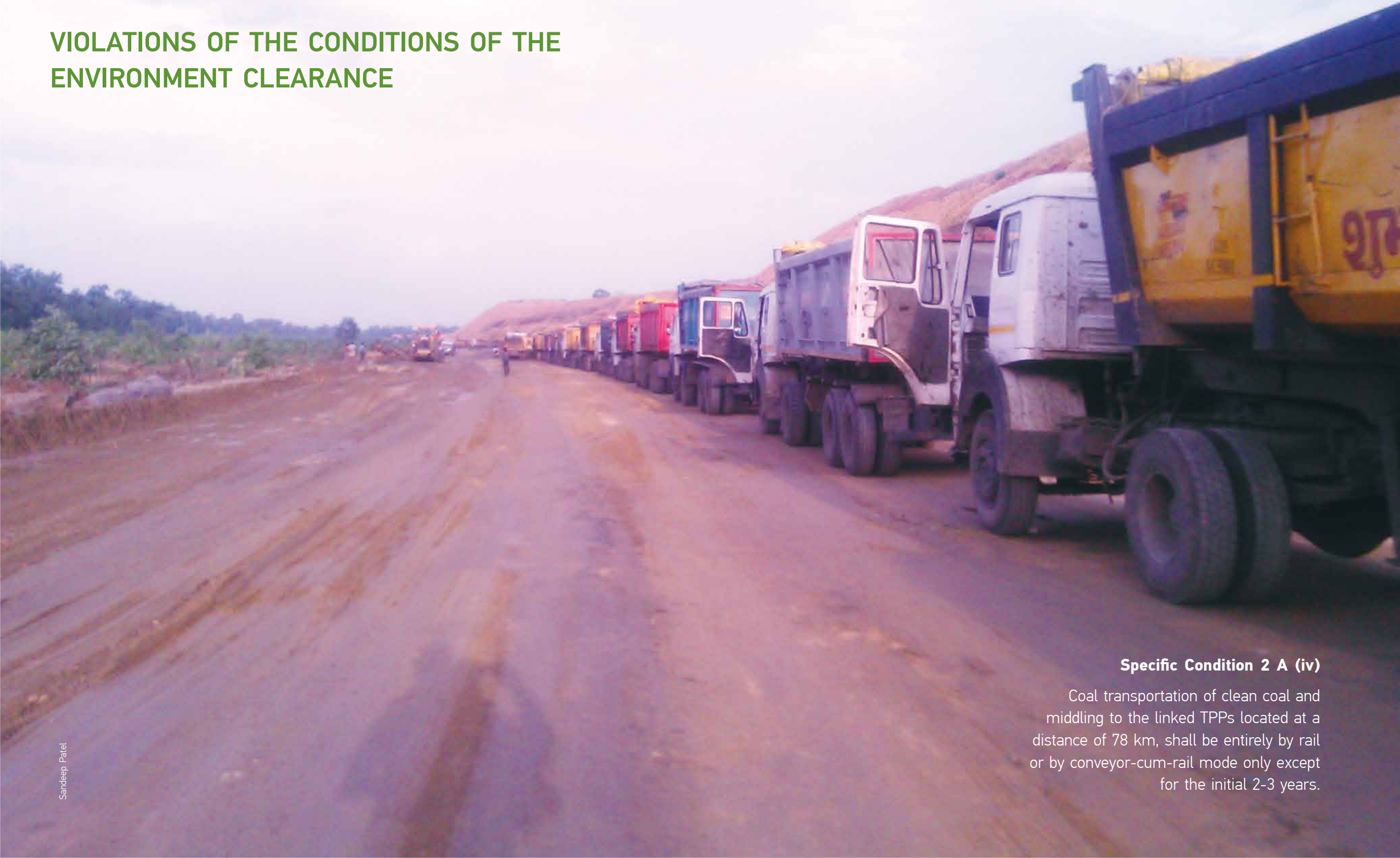
Sandeep Patel

The second meeting was held on May 21, 2015 and 10 representatives from the community volunteered to be on the monitoring committee (see Annexure 4). The clearance letter was again read, post which six conditions were initially easily identified by the community members as being violated, and due to which impacts were being felt as well. Banas, a resident of Ghatbarra, said that in the past four years the number of road accidents had increased due to the transportation of coal by road. He added that this was a violation of Specific Condition 2 A (iv), which restricted the transportation of coal by road after three years of operation. He decided to gather relevant information like news reports, photographs of accidents, First Information Reports (FIRs), etc. with regard to the accidents and transportation of coal. Similarly, Ramlal Kariyam, one of the affected villagers from Salhi, said that all the trucks loaded with coal openly pass by, without the covering of canvas sheets. Due to this, coal dust spread across the road and on houses along the street. In this manner, six conditions were identified and accordingly responsibilities for the gathering of necessary documents, reports and data were distributed. The meeting concluded with a resolution that the community would do their best in terms of a collective effort to highlight non-compliance with the clearance letter conditions. This way, they resolved to set up a solid ground for effective governance to minimise the impact of the coal mine.

One by one, each condition in the clearance was discussed with respect to whether the non-compliance was leading to the impacts being faced.

FINDINGS OF THE COMMUNITY-LED GROUNDTRUTHING

VIOLATIONS OF THE CONDITIONS OF THE ENVIRONMENT CLEARANCE



Specific Condition 2 A (iv)

Coal transportation of clean coal and middling to the linked TPPs located at a distance of 78 km, shall be entirely by rail or by conveyor-cum-rail mode only except for the initial 2-3 years.



Transportation of coal by high capacity trucks

Specific Condition 2 A (iv):

The very first issue of non-compliance on the part of the project taken up was related to the Specific Condition 2 A (iv) in the environment clearance dated December 21, 2011.

It was established that though it had been more than three years since the date of clearance, the proponent was still transporting coal by road, using high capacity trucks. Sewa Ram, Sarpanch of Salhi, mentioned that these trucks carried coal all the way to Kamalpur railway siding via Premnagar, and to Raigarh via Ambikapur. He also shared that with the movement of these trucks, the rate of road accidents had increased, resulting in the death of many till date. Necessary evidence, such as photographs and media articles regarding accidents was collected and



Media coverage (The Hitavada) - coal transportation

accordingly a letter was drafted on May 22, 2015 to the Director of the MoEFCC. It addressed the impacts of transportation of coal and demanded that action be taken as per conditions 3 and 4 of the same clearance. These conditions held the provisions to withdraw the given clearance and for the MoEFCC to stipulate any further conditions for environmental protection.

Remedy:

Within 20 days from filing the complaint, the villagers of Salhi noticed that barricades/stoppers were placed at various locations to control the speed of the trucks, starting from a school in Salhi to Premnagar-Kamalpur in Surajpur district and from Dandgaon to Udaipur-Lakhanpur in Sarguja district. Also, every truck traveling from the mine was now completely covered with canvas sheets. On October 7, 2015, the Regional Officer of the Chhattisgarh Environment Conservation Board (CECB), Ambikapur visited Salhi and spoke with the villagers, including Sewa Ram. He investigated the matter and made a panchnama, assuring that action would be taken against the company.



Specific Condition 2 A (v):

A Railway Siding to be established adjoining the mine shall be commissioned within 24 months. Until the railway siding is constructed and commissioned, transportation of clean coal and middling to the linked TPPs at Rajasthan shall be by high capacity trucks (30-T or more) only. Clean coal and middling from the pit head coal washery shall be loaded by rapid (silo) loading system and transported by rail only after the commissioning of the railway siding and establishment of rail network to Surajpur TPS located at a distance of 78 km.

Specific Condition 2 A (v):

In order to minimise the impacts and consequences of transportation of coal by road, the MoEFCC in the clearance letter mentioned that the proponent had to construct a railway siding adjoining the mine, which would need to be commissioned within 24 months. In a meeting held on July 15, 2015, the 10 member committee pointed out a violation in this regard- even after 24 months, RVUNL had not constructed a railway line. This had resulted in the increase in frequency of truck movement in the area and consequently the number of accidents.

As per a compliance report submitted by the proponent, it was found that the project authority had constructed 53 km



Media coverage (Dainik Bhaskar) - an accident due to transportation of coal by road

10-12 days after the letter was sent, news was received from Salhi that in the upcoming gram sabha on August 20, 2016, an agenda item for discussion would be the railway line. This was an indication that the letter sent had an impact.

of rail siding from Surajpur to Tarkeshwar, but it did not stretch along the mine. Due to this absence, heavy vehicles were engaged in the transportation of coal and this had become a “red alert” for people. Those residing near the roads were forced to spend their lives amidst a ball of dust and smoke arising from vehicular emission, as around 400 trailers were moving with reckless speed along this route. It had become a danger zone of sorts for them.

Jainandan Singh Porte, resident of Ghatbarra, identified a list of 45 schools with around 4,000 children, along the road to Premnagar. It was also discovered that the children of anganwadi centres were being forced to search for alternate locations to eat their meals, instead of under the trees as before.

With the above mentioned details, the 10 member committee drafted a letter and presented it to the Director and respective regional offices of the MoEFCC on July 16, 2015, demanding to stop the transportation of coal via road.

Remedy:

10-12 days after the letter was sent, news was received from Salhi that in the upcoming gram sabha on August 20, 2016, an agenda item for discussion would be the railway line. This was an indication that the letter sent had an impact.

Post the letter that had been sent on May 22, 2015, the management of RVUNL approached the MoEFCC for amendments to the environment clearance (see Annexure 5). It requested for an extension in the time period to set up the Fluidised Bed Combustion (FBC) based thermal power plant and for establishment of the railway siding. As per Specific Condition 2 A (iii), the FBC based thermal power plant was scheduled to be commissioned within two to three years. However, now completion was expected within next four years, i.e. by 2019/2020. As per Specific Condition 2 A (v), railway siding was scheduled to be commissioned within 24 months. The target now though was to commission it by March 2018. On September 1, 2015, the Expert Appraisal Committee (EAC) discussed the proposal for the amendments and recommended them. However, till date the MoEFCC has not issued any amendments.



Specific Condition 2 A (xv)

The raw coal, washed coal and coal wastes (rejects) shall be stacked properly within the washery premises at earmarked site(s) within stockyards of one-day capacity fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored raw coal, washed coal and coal wastes do not catch fire.

Ramlal Kariyam

Specific Condition 2 A (xv):

The third meeting was held on July 30, 2015, to discuss the strategy to counter the ill effects of smoke due to the coal being on fire. The villagers from Parsa said it was a common phenomenon for them to see coal on fire at the stockyard. They shared that the smoke of burning coal had an intense and suffocating odour and flew across Parsa, Kanta and Salhi. The mining authority of PEKB had a site within the mine lease area for storage of reject coal. The stockyard had a huge amount of reject coal dumped, irrespective of the Specific Condition 2 A (xv) which also specified that the storage capacity should be limited to one-day.

The huge pile of coal was on fire- a fire at its peak- since a long time, and the management



Ramlal Kariyam

Coal on fire



Ramlal Kariyam

Burning coal



Ramlal Kariyam

Burning coal covered with mud

had been completely unable to stop the fire. Instead of sprinkling water, the management started to dump soil over it. However, with this the amount of smoke from fire started to increase.

The villagers said that they had repeatedly requested the management to control the fire, but due to the authority's negligence over the matter, such a serious situation remained the same. With evidence like photographs and news articles, on August 7, 2015 they wrote another letter to the Director of MoEFCC, and sent copies to the regional offices of the MoEFCC, CPCB and SPCB. They asked that not only should the violation by the project proponent pertaining to said Specific Condition 2 A (xv) be looked into, but also the false and misleading data being submitted in this regard every six months in the compliance report.

Remedy:

After the application was filed, by September 10, 2015 it was observed

that the management, on priority, transported more than half of the dump to other place and continued to do so as the pile built up. It also increased the number of trucks for transportation. By September 12, 2015 it was noticed that storage at the stockyard was being maintained at as low a quantity as possible. Earlier the reject coal was dumped at the stockyard, irrespective of the criterion of one-day capacity and further transported to the buyer with whom there was a contract for utilisation of reject coal. However, by then, the reject coal was being transported directly from the washery to the buyer.



Specific Condition 2 A (vii)

The drainage of River Atem outside the project area shall not be disturbed through construction of embankment or by diversion of nalas/streams without prior study and approval.

Sandeep Patel

Specific Condition 2 A (vii):

Adani Mining Private Limited was continuously draining coal mixed waste water into the Ghatbarra nala via a pipeline. This waste water was flowing down to Salhi by means of a canal that had been constructed (*photograph alongside*), with the black water subsequently entering River Atem. As a result, the water across the channel was being polluted, and this not only affected the villagers, but also the animals dependent on the 'Nistari' water⁵.

The coal mixed waste water passed through the fields of farmers, damaging their crops. It was emerging as a serious threat to the farmers solely dependent on agriculture, as with the deposit of coal dust in their fields there were chances that the land would turn barren soon.

The Ghatbarra nala was once a free flowing water body in the area which was used by the villagers on a daily basis as their 'Nistar'. However, the project proponent diverted the flow of



Pipeline from coal pit to discharge coal mixed waste water

Kranti Rawat

Dumping waste water from the coal pit into the canal

⁵'Nistari' water is a common water body in the village used by villagers and animals.



Reservoir for waste water from the coal pit- created by diverting the flow of the nala at Ghatbarra

Sandeep Patel



Dumping of waste water from the coal pit via a motor and pipeline

Sandeep Patel

the natural stream by constructing a temporary reservoir within the stream itself. The boundaries of the reservoir narrowed down the path of the stream and diverted the flow of water.

On September 18, 2015, Jainandan Porte of Ghatbarra showed the others how the nala/flow of stream at their 'Nistar' was diverted by the construction of a reservoir to store waste water from the coal pit. Being a temporary reservoir with a wall of mud, many a time when the reservoir exceeded its capacity, the wall broke. This resulted in all the waste water flowing down the stream, crossing the Salhi and Shivnagar nalas and finally flowing into River Atem. A letter highlighting all this, supported by evidence, was sent on October 20, 2015 to the Director and regional offices of the MoEFCC.

Remedy:

On December 21, 2015 the Regional Officer of CECB, Ambikapur visited Salhi for an investigation. He discussed the community's problems with them. After reporting the non-compliance, the community witnessed that the company was no longer releasing waste water into the river. Though the reservoir was still there, the level of water had been maintained as such to avoid any overflow.



Specific Condition 2 A (xiii)

Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.

Ramlal Kariyam

Specific Condition 2 A (xiii)

The rationale behind Specific Condition 2 A (xiii) was to mitigate the impact of water pollution, especially during the rainy season.

However, as no retaining wall was constructed around the overburden (OB) dump, this led to another cause of water pollution. During rainfall, the water from the OB dump flew down the streets and percolated into nearby areas. Similarly, the stockyard where reject coal was stored had no retaining wall. Due to this, during the rainy season, the reject coal mixed with water and entered into the fields of farmers and also other water bodies.

Earlier, this stream at village Salhi used to be a good source of water for drinking and irrigation purposes. However, now the stream not only lost its previous quality, but also its



OB dump without retaining wall

Ramlal Kariyam

Thick black slurry now went into the stream and then met the river, leaving the residents hesitant to use this water.

beauty. Thick black slurry now went into the stream and then met the river, leaving the residents hesitant to use this water. The residents even kept their cattle away from the stream, thinking it unfit for them as well.

To establish required evidence, a site visit was carried out by the committee members on September 18, 2015. The letter they sent on October 20, 2015 to the Director and regional offices of the MoEFCC also had details about violation of this condition mentioned.

Remedy:

In light of the fact that no remedy in this regard was attained, a follow up letter to the SEIAA was sent on December 14, 2015.



Waste water after rainfall

Ramial Kariyam



Specific Condition 2 A (xx)

The Washery unit shall be a zero discharge facility and no wastewater shall be discharged from the washery into the drains/natural watercourses. Recycled water shall be used for development and maintenance of green belt and in the Plant Operations. A Filter Press shall be installed in the washery plant for recovery of water.

Ramial Kariyam

Specific Condition 2 A (xx)

Instead of following Specific Condition 2 A (xx), Adani Mining Private Limited installed several motor pumps to discharge waste water from the pit into the reservoir. No waste water was recycled. The waste water could be treated and used for development of a green belt and the plant's operation, but these measures were not adopted by Adani. Evidence in support of the impacts was collected from July 25-30, 2015. Based on the evidence, in the letter sent on August 7, 2015 to the Director of MoEFCC and regional offices of the MoEFCC, CPCB and SPCB with regard to violation of Specific Condition (xv), details about non-compliance with this condition too were highlighted.

Remedy:

Till date, no remedy has been attained with respect to the violation of this condition.

USE OF NON-COMPLIANCE DATA FOR A PUBLIC HEARING SUBMISSION-SARGUJA POWER PRIVATE LIMITED (SPPL)

Specific Condition 2 A (ii):

“The exact location of the FBC based TPP shall be finalised within 2 months in consultation with the villagers and an application for ToR submitted to the MoEF immediately thereafter.”

During data collection in the villages regarding the above condition, it was found that no consultation with the villagers had taken place for the identification of a location. There was also no information about it in the EIA report. Hence, it was a violation of the said condition.

The public hearing is part of the mandatory third step in the procedure to receive an environment clearance as per the EIA Notification, 2006. It is to be carried out in the presence of the District Magistrate or her/his representatives, along with someone from the SPCB. The date and location of the public hearing has to be advertised in a local newspaper 30 days prior to it. Also 30 days prior to the hearing, copies of the draft EIA report, including a summary of the EIA report, both in English and a local language, needs to be provided to the concerned SPCB(s),

District Magistrate, Gram Panchayat, Zila Panchayat or Municipal Corporation, District Industries Office and concerned regional office of the MoEFCC. As the entire public hearing is based on the draft EIA report, it is important for the community or communities that will be affected to go through it before the hearing. It contains all the information related to the area, people, livelihood, culture and climatic condition, along with the impact of the project and mitigation measures to minimise the effect.

The draft EIA report as per the ToR for the public hearing submitted by SPPL was prepared entirely on the basis of false and misleading data. As per the EIA Notification, 2006, suggestions and objections are invited by the DC within 30 days from the date of the report's publication. As mentioned previously, since May 2015, the community

had been working to identify non-compliance with environment clearance conditions. The community gathered all the complaint letters filed till date and used them to sensitise the DC and the CECB- the authorities responsible for organising the public hearing- with respect to the ecological and environmental damage being done by the project authority. It was pointed out that not only were the clearance conditions bypassed, but the ToR for setting up a power plant were violated as well. Correlating the four stages of the EIA process with the data in the complaints filed, established grounds under Section 8 (vi) of the EIA Notification, 2006 to demand the cancellation of the public hearing.

Violation of Condition 10 of ToR – SPPL:

“Status of compliance to the conditions stipulated for environmental and CRZ clearances of the previous phase(s), as applicable, shall be submitted.”

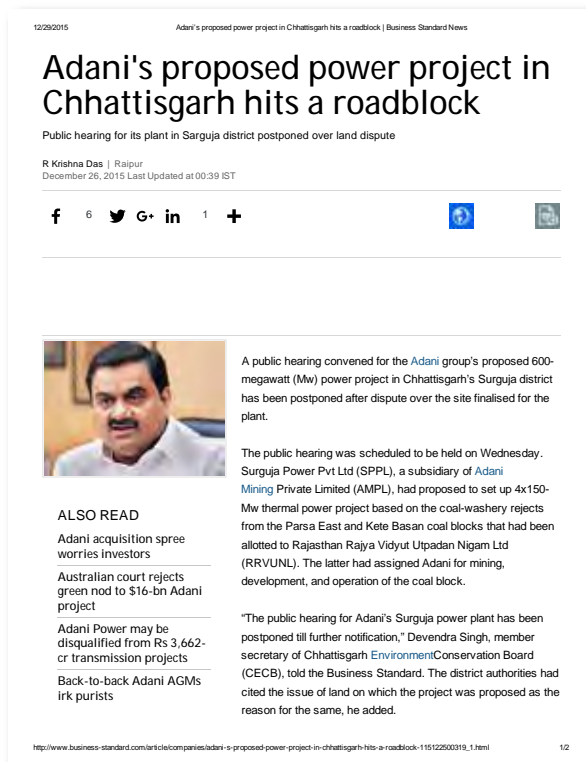
Instead of mentioning the status of compliance, the project proponent had stated that the condition was not applicable to it, as it was a Greenfield project. This was incorrect and misleading. The project was linked to the coal block, and the correlation of this power plant had also been mentioned in the environment clearance under Specific Condition 2 A (ii). As mentioned previously, there were many complaint letters that the community had filed regarding the non-compliance with various conditions imposed on the project- transportation of coal by road, delay in constructing railway siding, polluting natural water bodies by discharging waste water from the mine into them, and air pollution.

On December 21, 2015, HABSS submitted a memorandum to the DC for the cancellation of the public hearing for a 540/600 (4*135/150) MW reject coal based power plant. The memorandum had five key points highlighting false and misleading data on the basis of which the EIA report was made. It was pointed out that this was a violation of the EIA process. The very first point raised a question on the expansion capacity of the project from 135 MW to 540/600 MW. The environment clearance dated December 21, 2011 with Specific Condition 2 A (iii) says 135 MW shall be commissioned. However, the EIA report prepared by Greencindia mentioned 540/600 MW and had no reasonable explanation for the increased capacity of the thermal power plant (TPP).

Remedy:

Based on the above mentioned points, in its memorandum dated December 21, 2015, the community demanded for cancellation of the public hearing. The DC and the CECB took the matter seriously, and postponed the public hearing.

The community gathered all the complaint letters filed till date and used them to sensitise the DC and the CECB- the authorities responsible for organising the public hearing.



Media coverage (Business Standard) - SPPL public hearing postponed

NON-COMPLIANCE WITH THE JUDGMENT OF THE NATIONAL GREEN TRIBUNAL (NGT)

PEKB's forest clearance was challenged in the NGT and on March 24, 2014, the NGT cancelled the same (*see Annexure 6*). The NGT noted that the approval was granted against the recommendation of the FAC. The NGT cited the impact on the rich biodiversity of the Hasdeo Arand forest (considered by the MoEFCC to be a 'no-go' area), and also the fact that the forest area was an extremely important elephant corridor⁶. Further, the NGT remanded the case to the MoEFCC to seek fresh advice from the FAC on a number of parameters.⁷ Post this, the project authority approached the Supreme Court. The Supreme Court revoked the stay on mining (*see Annexure 7*) and allowed the mining and transportation of coal "...till further orders are passed by Ministry of Environment and Forests."

In spite of the Supreme Court's stay order on any activity other than mining, the company overruled the decision and began to cut the tress in the forest in Salhi. During discussions, people of Salhi shared that trees were being felled for the construction of a railway line. The community wondered how the trees were being felled even though the forest clearance was under trial in the Supreme Court. Post this, Alok Shukla from Janabhivayakti had filed an RTI application with the MoEFCC in January 2015 for further collection of evidence. He had asked for updates with respect to the NGT's judgment dated March 24, 2014 that had stated that fresh advice from the FAC be sought by the MoEFCC.

After a long wait, a reply to the RTI application was received on October 14, 2015. It revealed that as directed by the NGT, the FAC, in its meeting held from April 29-30, 2014 examined various parameters related to biodiversity and wildlife in the project area. After examination, the Committee had said that as the matter was sub-judice in the Supreme Court, a decision may be deferred. However, when the database of the Supreme Court's website was accessed, it was found that an order of the Supreme Court dated April 28, 2014 had said that the company could continue mining until further orders were passed by the MoEFCC.

On December 15, 2015 a letter was written by Alok Shukla of Janabhivayakti to the Chairperson and all the other members of

the FAC. It requested them to carry out the study as per the NGT's judgment of March 24, 2014, wherein the NGT had remanded the case to the MoEFCC to seek fresh advice of the FAC on seven points. The NGT had also directed the MoEFCC to pass a reasoned order according to the FAC's report. The letter had a copy of the RTI application's reply, the judgment of the NGT dated March 24, 2014 and the Supreme Court's order of April 28, 2014 attached.

Follow-up

On February 24, 2016 a follow-up letter was written by Alok to all the FAC members, to carry forward directions 2 (seeking fresh advice of FAC) and 3 (MoEFCC to pass reasoned order in light of advice given by the FAC) of the NGT's judgment. It also requested for urgent intervention as the project proponent was carrying out tree felling on a massive scale in the area while the review was pending before the FAC. Photographs of trees being felled were also attached. The damage was intensifying with construction work for the railway line having begun post its in-principle approval on October 16, 2015. On January 8, 2016, the District Level Committee (DLC) of forest rights, Sarguja, rejected the Community Forest Rights (CFR) of Ghatbarra, awarded in 2013. It stated that they were hampering mining activities, though the DLC had no power to state such a thing under the FRA, 2006. The letter of cancellation was attached as an annexure to the letter and it was demanded that the project be reviewed as per the orders of the NGT and Supreme Court. It was demanded that the tree felling and construction of railway line be stopped. A site inspection along with the project affected families was also requested for.

The damage was intensifying with construction work for the railway line having begun post its in-principle approval on October 16, 2015.

The NGT has noted that the approval was granted against the recommendation of the advisory committee. Further, that the mining was impacting the rich biodiversity of the Hasdeo Arand forest which was an extremely important elephant corridor.

⁶Elephant Migration Route Map prepared by the Chhattisgarh State Forest Department.

⁷The NGT's judgment dated March 24, 2014, based on an appeal by Sudiep Shrivastava.

THE ORGANISATIONS INVOLVED

1. Janabhivaykti is a registered NGO working on social and environment justice issues in Chhattisgarh.
2. Hasdeo Arand Bachao Sangharsh Samiti (HABSS) is a community based organisation comprising of forest dwelling communities living in and around the Hasdeo Arand forest region in Chhattisgarh.
3. Centre for Policy Research (CPR)-Namati Environmental Justice Program is a collaborative project that works with a network of grassroots legal professionals who research questions regarding environment law implementation and citizens' empowerment by participating in the process of resolving environmental non-compliance and related impacts that affect communities. Through this process, the Program builds an epistemic community geared towards finding solutions to environmental challenges.

ANNEXURES

Annexure 1: Forest Clearance Letter (06.07.2011)

F. No. 8-31/2010-FC
Government of India
Ministry of Environment and Forests
(FC Division)

Paryavaran Bhawan, CGO Complex,
Lodhi Road, New Delhi - 110510.
Dated: 6th July, 2011

To

The Principal Secretary (Forests),
Government of Chhattisgarh,
Raipur.

Sub: Diversion of 1898.328 ha of forest land for Parsa East and Kete Basan captive coal block open cast mining project in favour of M/s Rajasthan Rajya Vidyut Utpadan Nigam Limited in South Surguja Forest Division in Surguja district of Chhattisgarh.

Sir,

I am directed to refer to the State Government's letter no. F - 5 - 4 / 2010 / 10 - 2 dated 28.04.2010 on the subject mentioned above seeking prior approval of the Central Government under section-2 of the Forest (Conservation) Act, 1980 and to say that the proposal has been examined by the Forest Advisory Committee constituted by the Central Government under section-3 of the said Act.

After careful examination of the proposal of the State Government, the Central Government hereby conveys the stage-I approval for diversion of 1898.328 ha of forest land (for mining in two phases) in Parsa East and Kete Basan captive coal block open cast mining project in favour of M/s Rajasthan Rajya Vidyut Utpadan Nigam Limited in South Surguja Forest Division in Surguja district of Chhattisgarh subject to fulfillment of the following conditions:

1. (i) The Compensatory Afforestation (CA) shall be raised and maintained over double degraded orange forest land in extent to the forest land proposed to be diverted.
(ii) The State Government shall immediately transfer and mutate the non-forest land identified for CA in favour of the State Forest Department.
(iii) The land identified for the purpose of CA shall be clearly depicted on a Survey of India toposheet of 1:50,000 scale.
(iv) The degraded orange forest land identified for raising Compensatory Afforestation shall be notified by the State Government as RF under Section-4 or PF under Section-29 of the Indian Forest Act, 1927 or under the relevant Section(s) of the local Forest Act, as the case may be, within a period of six months. The Nodal Officer (Forest Conservation) shall report compliance in this regard.
2. The User Agency shall create, fence and maintain a proper safety zone around the mining area. The User Agency shall deposit funds with the Forest Department for the creation, protection and regeneration of the safety zone area, and also shall bear the cost of afforestation over one and a half time of the safety zone area in degraded forest elsewhere.
3. The following activities shall be undertaken by the User Agency under supervision of the State Forest Department at the project cost:

- i. Proper mitigative measures to minimize soil erosion and choking of streams shall be prepared and implemented.
 - ii. Planting of adequate drought hardy plant species and sowing of seeds to arrest soil erosion.
 - iii. Construction of check dams, retention/toe walls to arrest sliding down of the excavated material along the contour.
 - iv. No damage shall be caused to the top-soil and the user agency will follow the top soil management plan.
4. The State Government shall charge the Net Present Value of the forest area diverted under this proposal from the User Agency as per the Judgement of the Hon'ble Supreme Court of India dated 28.03.2008 & 09.05.2008 in IA No. 566 in WP (C) No. 202/1995 and as per the guidelines issued by this Ministry vide letter No. 5-3/2007-FC dated 05.02.2009 in this regard.
 5. The User Agency shall furnish an undertaking to pay the additional NPV, if so determined, as per the final decision of Hon'ble Supreme Court of India.
 6. All the funds received from the User Agency under the project shall be transferred to Ad-hoc CAMPA in account number **CAF SB01025203** of Corporation Bank, Block-11, CGO Complex, Phase-1, Lodhi Road, New Delhi - 110 510.
 7. The Wildlife Management plan and programme should be prepared under the aegis of an institution like the Wildlife Institution of India. Other independent institutions with expertise on elephant-related issues especially, like the Nature conservation Foundation, Wildlife Trust of India and the Centre for Ecological Studies at the Indian Institute of Science could also be involved in the preparation and implementation of such a management plan with funds from the project proponents (IFFCO and RVUNL). The plan should be prepared over the next four-six months and should be submitted to the Ministry for monitoring.
 8. The user agency will assist the State Government in conservation and preservation of flora and fauna of the area.
 9. The mining shall be done in two phases:
 - i. During phase-I, covering 15 years, the mining shall be restricted to 762.00 ha of forest land.
 - ii. During Phase-II, the mining permission over remaining 1136.00 ha will be linked to the reforestation and biodiversity management in phase-I.
 - iii. The project proponent will submit the application for permission for mining in phase-II along with compliance report of phase-I.
 10. The User Agency will ensure the dumping of OB as per the plan and will submit the duly approved phased Reclamation plan along with the compliance report.
 11. The forest land shall not be used for any purpose other than that specified in the proposal.
 12. No labour camps shall be set up inside the forest area.
 13. The user agency shall provide alternate fuel to the labourers working at the site to avoid damage / felling of trees.

14. Any tree felling shall be done only when it is unavoidable under strict supervision of the State Forest Department.
15. No damage to the flora and fauna of the adjoining area shall be caused.
16. The user agency will obtain Environmental clearance and any other clearances required for such project.
17. The user agency shall undertake transplantation of important tree species under 60 cm girth under the supervision of the State Forest Department.
18. The user agency shall establish and operate a Vocational Training Institute having capacity to impart training in at-least five disciplines, to be decided by the State Government concerned in consultation with the user agency, for the benefits of the eligible unemployed youth in the project affected villages. The user agency should also endeavour to employ such trained manpower in their own industry or any other appropriate industry, preferably located in vicinity of the forest land being diverted.
19. The user agency shall setup an independent Social Welfare Department / Division and follow the subsequent condition of the project-affected and the project-displaced persons in such a way as to understand their socio-economic conditions before and after the project and take such corrective measures as are necessary to restore them to their original or better-than-original condition.
20. The user agency will provide permanent vehicular mobility to the Regional Office for periodic monitoring of the projects already existing and those are coming up in the area.
21. The State Government will not come up for opening up the main Hasdeo-Arand area.
22. The user agency will obtain the clearance under the provisions of ST&OTFD (Recognition of Forest Rights) Act, 2006 before the final approval and will submit certificate towards the settlement of all claims and rights over the proposed forest land under the Act, along with the compliance report, as per the advisory dated 03.08.2009 issued by MoEF.
23. Any other condition that the CCF (Central), Regional Office, Bhopal, may impose from time to time for the protection and improvement of flora and fauna in the forest area.

After receipt of the compliance report on fulfillment of the conditions mentioned above, the Central Government shall consider the handing over of forest land for non-forest purposes under section-2 of the Forest (Conservation) Act, 1980.

Yours faithfully,


(N.C. Saravanan)

Assistant Inspector General of Forests

Copy to:

1. The Principal Chief Conservator of Forests, Government of Chhattisgarh Raipur.
2. The Nodal Officer (FCA), O/o the PCCF, Government of Chhattisgarh Raipur.
3. The Chief Conservator of Forest (Central), Eastern Regional Office, Bhopal.
4. User Agency.
5. Monitoring cell.
6. Guard file.


(N.C. Saravanan)

Assistant Inspector General of Forests



Ministry of Environment & Forests (MOEF)

No.J-11015/03/2008-IA.II(M)

Paryavaran Bhawan,
C.G.O.Complex,
New Delhi -110510.

To

Dated: 21st December 2011

Managing Director,
M/s Rajasthan Rajya Vidyut Utpadan Nigam Ltd.,
Vidyut Bhawan,
Janpath, Jyoti Nagar,
JAIPUR - 302005.

Sub: Parsa East and Kanta Basan Opencast Coal Mine Project (10 MTPA) and Pit Head Coal Washery (10 MTPA) of M/s Rajasthan Rajya Vidyut Utpadan Nigam Ltd., located in Hasdeo-Arand Coalfields, in villages Parsa, Kente, Basan, Salhi, Hariharpur, Ghatbara, Parogiya, Tehsil Udaypur, Dist. Sarguja, Chhattisgarh- Environmental clearance - reg.

Sir,

This is with reference to letter No. RVUN/Dy. CE (fuel)/XEN (F)/F./D. 544 dated 29.12.2007 along with application for Terms of Reference (TOR) for a new **Parsa East and Kanta Basan Opencast Coalmine Project of 10 million tonnes per annum (MTPA) production capacity** and this Ministry's letter dated 13.03.2008 granting the TOR and subsequent letter No. RVUNL/CE (PPC&F)/F./D.557 dated 29.05.2008 along with application for TOR for a pit head coal washery of 10 MTPA capacity and this Ministry's letter dated 11.07.2008 granting the TOR and your application for environmental clearance dated 27.07.2009 for the **Parsa East and Kanta Basan Opencast Mine Project-cum-Pit head Coal Washery** and subsequent letters dated 14.09.2009, 29.10.2009, 30.11.2009, 22.01.2010, 29.06.2011, 23.08.2011, 24.08.2011, 19.09.2011, 29.09.2011 and 14.10.2011. In addition, letter No. F 5-9/2008/10-2 dated 22.09.2009 of the Secretary, Forest Dept., Government of Chhattisgarh along with letter dated 17.09.2009 of Office of Principal Chief Conservator (Wildlife) and Chief Wildlife Warden, Government of Chhattisgarh and subsequent letter No 3306/2299/2011/10-2 dated 06/09/2011 of Additional Secretary Forest Dept., Govt. of Chhattisgarh have also been received on the project in the Ministry. The Ministry of Environment & Forests has considered the application. It is noted that the proposal is for opening a **new Parsa East and Kanta Basan Opencast Mine project of 10 MTPA production capacity in a total project area of 2711.034 ha along with a pit head coal washery of 10 MTPA (ROM)** to be located within the leasehold of the mine located in Hasdeo-Arand Coalfields in Tehsil Udaypur, Dist. Sarguja, Chhattisgarh. Grade of coal is mainly G. The washed coal is for captive consumption of linked Thermal Power Plants - Chhabra Phase-II (2x 250 MW) and Jhalawar (Kalisindh 2x 600 MW) of the company located in Rajasthan. Rated capacity of 10 MTPA would be achieved during the third year. An estimated 2.25 MTPA of coal rejects would be generated in the coal washery which should be fully utilised in the proposed 135 MW pithead FBC based TPP, the exact location of which is being finalised in consultation with the villagers. The pit head FBC based TPP would be established within two years of commissioning of the pit head Washery.

The total project area is **2711.034 ha** which includes a **total mining lease area of 2388.525 ha** and 322.509 ha outside the ML area for infrastructure and external OB dumps. Of the total project area of 2711.034 ha, 1898.328 ha is forestland, 702.163 ha is agricultural land, and 110.543 ha is Govt. wasteland. The project is to be operated in two phases of 15 years each. The total land requirement for phase -I (for the initial 15 years) is 1300.5 ha, of which 762.0 ha is

forest land, 538.50 ha is non-forest land and a total area of 1410.534 ha of the total lease area is required for phase -II (from 16th year onwards), of which 1136.328 ha is forestland and 274.206 ha is non-forest land. There are no National Parks, Wildlife Sanctuary, Biosphere Reserves found in the 15 km buffer zone. River Atem and streams joining it from the block control the drainage of the project area and the direction of flow of River Atem is away from the Hasdeo-Arand coalfield. There are 16 protected forests and one reserved forest within the study area of which two are located within the core zone - Phatepur PF and Matringa PF. Since the mine lease is on the fringe of Hasdeo-Arand coalfield, the forests of the Hasdeo-Arand coalfields would not be fragmented. Forestry clearance has been obtained 1898.328ha of forest land vide MOEF letter No. letter No. 8-31/2010-FC dated 05.07.2011. A number of endangered fauna such as the Indian Elephant, Sloth Bear, Leopard, Hyeana, etc are found in the study area. Elephants have been reported about 10km from the ML. The CWLW, Govt. of Chhattisgarh has stated that the area does not form a part of the Elephant Reserve. Forest cover of Phase-II would be left undisturbed during Phase-I of operation (15 years) of mining and available for wild life which venture into the habitat. During Phase-II (after 15 years), forest cover (with native species) grown in Phase-I area after reclamation, would also be available for the wild life. The mine is surrounded by forest area in the southern and eastern parts of the mine which would also provide continuity, shelter, food and water to the fauna present in the area. An amount of Rs 22 crores has been earmarked for WL Conservation Plan, which is being prepared by the WII, Dehradun within 4-6 months. The Plan would include - strict fire control, protection from grazing, deepening of old tanks and desilting ponds and tanks, and erection of check dams, management of existing pasturelands and development of new pasture land consisting of native species, nursery for conserving bio-diversity of native species, identification and management of specific areas such as habitats, riparian zones, etc. The migratory corridor between Samar - Got Elephant Reserve in district Sarguja and Badal Khol Reserve in district Jashpur would be strengthened through the proposed Wild Life Conservation Plan.

Of the total project area of 2711.034 ha, 2388.525 ha is quarry area, 165.83 ha is for external OB dump, 47.34 ha is for coal washery (of which 30 ha is for the Plant and storage area and the balance 17.34 ha is for green belt), 31.44 ha is for colony, 21.62 ha is for infrastructure which includes a 10 MTPA capacity CHP, and 56.279 ha is area for safety zone and for rationalisation. Of the total forestland of 1898.328 ha, 1654.109 ha is protected forests, 214.963 ha is Chote Jhar ke Jungle, and 29.256 ha is Bade Jhar Ke Jungle. The project is opencast mining by mechanised method involving shovel-and-dumper and surface miners which would eliminate drilling and blasting for coal extraction. Drilling and blasting would be required for OB removal. Blasting would be by use of delayed electric detonator. Grade of coal is F. Water table is in the range of 3.50-8.20m bgl during pre-monsoon and near surface-6m bgl during post-monsoon. The total estimated OB generation from the mine is 2334.62 Mm³/day (560.11Mm³ in Phase-I and 1774.51 Mm³ in Phase -II). The total estimated top soil generation in the entire mine life is 30.13 Mm³ (Phase -I-12.80 Mm³, Phase -II-17.33). Of an estimated 2334.6 Mm³ of OB generated over the life of mine, 64.40 Mm³ of OB would be dumped in two external OB dumps of a max. height of 60m and 90m in an area of 165.83 ha, and the balance 2270.22 Mm³ of OB would be backfilled in the decoated void. Mining would be sequential and backfilling would begin at the end of 3rd year which would continue till end of mine life and there would be no external dumping from 4th year onward. An estimated 30.13 mm³ of topsoil would be generated over the life of the mine, which would be used for green belt development and mine reclamation. Backfilling would begin from the 4th year, and there would be no external dumping from 4th year onwards. Ultimate working depth of the mine is 225m below ground level (bgl). At the post mining stage, the entire quarry area would be backfilled and reclaimed with vegetation and there would be no void left as a water body.

The proposed coal washery to be established within the ML would be wet process based on heavy media/cyclones/jigs for washing raw coal from the coalmine of 32.1%-54.2% ash content and clean coal (7.75 MTPA) after washing would have an ash content of 29.5-30.5%. Transportation of 30,300 TPD raw coal (of 40% ash content) from the mine pit to the surface and to CHP and thereafter by closed belt conveyors to the coal washery. Clean coal (of ash content of 30.5% or less) and middling from the pit head coal washery would be loaded by rapid loading system and transported by rail via Surajpur Railway Station to linked TPPs located at a distance of 78km. A Railway Siding is proposed to be commissioned within 24 months adjoining the mine. The balance 2.25 MTPA of coal rejects of 72% ash content would be utilised for power generation in an FBC based

Thermal Power plant also to be established within the ML. Coal rejects would be dispatched to the FBC based TPP through a closed belt conveyor.

Peak water requirement would be 9000 m³/d, which includes 3600 m³/d for the mine and 5400 m³/d for the coal washery (which includes 3750 m³/d make-up water for the coal washery and 1650 m³/d for dust suppression); which will be met from mine pit water and rainwater. The first year's water requirement for the project would be met from tube well and thereafter tubewell water is for domestic consumption only. Clearance from groundwater angle has been obtained from the Central Ground Water Authority on 23.09.2009 for use of groundwater to an extent of 615 m³/d. An STP is proposed for the colony.

The project involves R&R of 5 villages – Parsa, Kente, Salhi, Hariharpur, and Ghatbara comprising 243 home and land losers, 56 homestead losers and 159 land losers. An R&R Action Plan for Rs 20.693 crores has been prepared. A CSR Action Plan has been prepared which includes activities for tribal welfare. A sum of Rs. 10 crores as one time capital expenditure and Rs 5/T annually for coal production for the life of the mine has been earmarked for activities under CSR to be taken up for the adjoining villages. Community development work would be carried out which includes skill development of the local communities and addressing issues such as availability of minor forest produce for the tribal/local communities. Public Hearing was held for the coalmine project-cum-coal washery on 16.01.2009. Life of the mine-cum-coal washery at the rated capacity of 10 MTPA is 45 years. Mining Plan was approved by Ministry of Coal on 16.07.2009. Capital cost of the Coalmine project Rs 1120.25 crores and for the coal washery is Rs 88 crores.

2. The Ministry of Environment & Forests hereby accords environmental clearance for the above-mentioned Parsa East and Kanta Basan Opencast Mine Project of 10 MTPA production capacity along with a pit head coal washery (10 MTPA ROM) of M/s Rajasthan Rajya Vidyut Utpadan Nigam Ltd., involving a total project area of 2711.034 ha under the Environmental Impact Assessment Notification, 2006 and subsequent amendments thereto and Circulars thereunder subject to the compliance of the terms and conditions mentioned below:

A. Specific Conditions

- (i) The maximum production of Parsa East and Kanta Basan Opencast Mine Project shall not exceed 10 MTPA production capacity and the production of pit head coal washery shall not exceed 10 MTPA ROM.
- (ii) The exact location of the FBC based TPP shall be finalised within 2 months in consultation with the villagers and an application for TOR submitted to the MOEF immediately thereafter. The location of CHP, Washery and the FBC shall be taken up in an integrated manner vis-à-vis transportation of coal (raw, clean coal, and coal rejects) from the mine, CHP, washery and FBC based TPP by closed conveyors only.
- (iii) The estimated 2.25 MTPA of coal rejects shall be fully utilised for power generation in an FBC based Thermal Power Plant being established within the ML. Coal rejects shall be dispatched to the FBC based TPP through a closed belt conveyor. The linked 135 MW FBC Power Plant shall be commissioned in 2-3 years. Until an FBC based TPP is established, the coal rejects shall be sold during the initial 2-3 years, to users of coal rejects for which an Agreement shall be entered into. There shall be no storage of coal rejects within the project area beyond 2-3 months of its generation.
- (iv) Coal transportation of clean coal and middling to the linked TPPs located at a distance of 78km, shall be entirely by rail or by conveyor-cum-rail mode only except for the initial 2-3 years.
- (v) A Railway Siding to be established adjoining the mine shall be commissioned within 24 months. Until the railway Siding is constructed and commissioned, transportation of clean coal and middling to the linked TPPs at Rajasthan shall be by high capacity trucks (30-T or more) only. Clean coal and middling from the pit head coal washery shall be loaded by

rapid (silo) loading system and transported by rail only after the commissioning of the railway siding and establishment of rail network to Surajpur TPS located at a distance of 78km.

- (vi) Transportation of 30,300 TPD raw coal (of 40% ash content) from the mine pit to the surface and to CHP and thereafter to the coal washery shall be by closed belt conveyors only. Transport of coal rejects to the FBC based TPP shall also be by closed belt conveyors only.
- (vii) The drainage of River Atern outside the project area shall not be disturbed through construction of embankment or by diversion of nalas/streams without prior study and approval.
- (viii) Topsoil shall be stacked properly within the dump area with proper slope at earmarked site(s) and shall be used concurrently for reclamation and development of green belt within a year of its generation.
- (ix) Sequential mining shall be undertaken for the two-phases and internal dumping (backfilling) would be started at the end of 3rd year and no external dumping from 4th year onwards. By the end of phase -I (15th year), about 74% of the total excavated area would be backfilled and reclaimed. At the end of project an area of 1929.84 ha would be reclaimed out of a total ML area of 2388.53 ha. There shall be no external OB dumping from the end of 3rd year onwards.
- (x) OB shall be stacked at earmarked external OB dumpsite of 165.83 ha within ML area and shall be a maximum height of 60m and one of 90m with a bench height of 30m each. The ultimate slope of the dump shall not exceed 28°. Monitoring and management of existing reclaimed dumpsites shall continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment & Forests and its Regional office located at Bhopal on yearly basis.
- (xi) Catch drains and siltation ponds of appropriate size shall be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The water so collected shall be utilised for watering the mine area, roads, green belt development, etc. The drains shall be regularly desilted and maintained properly.
- (xii) Garland drains (size, gradient and length) and sump capacity shall be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity shall also be provided for adequate retention period to allow proper settling of silt material.
- (xiii) Dimension of the retaining wall at the toe of the dumps and OB benches within the mine to check run-off and siltation shall be based on the rainfall data.
- (xiv) There shall be no drilling and blasting for coal extraction and use of shovel and dumper combination with drilling and blasting shall be for OB removal only. Controlled blasting shall be practiced only during daytime with use of delay electric detonators. Drills shall be wet operated. The mitigative measures for control of ground vibrations and to arrest the fly rocks and boulders shall be implemented.
- (xv) The raw coal, washed coal and coal wastes (rejects) shall be stacked properly within the washery premises at earmarked site(s) within stockyards of one-day storage capacity fitted with wind breakers/shields. Adequate measures shall be taken to ensure that the stored raw coal, washed coal and coal wastes do not catch fire.
- (xvi) Crushers at the CHP shall be operated with high efficiency bag filters, water sprinkling system shall be provided to check fugitive emissions from crushing operations, conveyor system,

haulage roads, transfer points, etc. Hoppers of the coal crushing unit and washery unit shall be fitted with high efficiency bag filters and mist spray water sprinkling system shall be installed and operated effectively at all times of operation to check fugitive emissions from crushing operations, transfer points, stockyards and at the Railway Siding.

- (xvii) All approach roads shall be black topped and internal roads and major haul roads shall be black topped or concreted and swept regularly with mechanical sweepers. A 3-tier avenue plantation using local species shall be developed along the main roads, and approach roads to the mine and to the washery and to Railway Siding. In addition, green belt shall be developed using local species all along the periphery of the site, along the areas such as the washery unit, crushing unit, and stockyards. Railway Siding and Silo Loading Area shall be properly maintained and green belt developed all around it. Water sprinkling arrangements shall be established and functional during transfer and loading of coal.
- (xviii) A 30m green belt consisting of a 3-tier plantation using native species shall be developed between quarry and villages, and external OB dump and villages and the R&R site. The green belt/plantation using a mix of native species shall be developed within two three years of grant of environmental clearance.
- (xix) Proper records of quantum of raw coal, clean coal and coal rejects generated and being utilised shall be maintained. Proper records of ash content (of raw coal, clean coal and coal rejects) shall be maintained in this regard. The company shall enter into a contract for the use of coal rejects until the FBC TPP is commissioned within 24-36 months. The details of quantum and ash content of raw coal, clean coal and coal rejects generated and utilised shall be uploaded regularly on the company website.
- (xx) The Washery unit shall be a zero-discharge facility and no wastewater shall be discharged from the washery into the drains/natural watercourses. Recycled water shall be used for development and maintenance of green belt and in the Plant Operations. A Filter Press shall be installed in the washery plant for recovery of water.
- (xxi) The entire total estimated requirement of make-up water of 3750m³/day for the coal washery shall be met from mine water. No groundwater shall be used for the mine and Washery Plant Operations except for drinking purpose and during the initial first year of mine operation. Any additional water requirement envisaged for mine/washery operations shall be obtained from mine pit water, by recycle/reuse to the maximum extent and from rainwater harvesting measures.
- (xxii) Heavy metal content in raw coal, washed coal and coal rejects shall be analysed twice in a year and records maintained thereof and also uploaded on the company website.
- (xxiii) No fly ash from the linked TPPs shall be used in backfilling of the void without undertaking an environmental feasibility study and without prior approval of this Ministry under EIA Notification, 2006.
- (xxiv) Area brought under afforestation shall not be less than 2600.633ha, which includes reclaimed external OB dump (165.83 ha), topsoil dump, backfilled area (2365.949 ha), along ML boundary, infrastructure and washery area (26.976 ha), along roads, green belt (41.878 ha), in undisturbed areas/safety zone and in colony by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha.
- (xxv) A Plan for OB dumping and management so that there is no void left at the post mining stage shall be submitted to the Ministry immediately. A Progressive Mine Closure Plan shall be implemented by reclamation of the total quarry area of 2365.949 ha backfilling and reclamation by afforestation, to create a 3-storeyed forest in lieu of original forest, by planting native species in consultation with the local DFO/Agriculture Department/relevant

institution. The density of the trees shall be around 2500 plants per ha. At the post mining stage, the entire quarry area shall be backfilled and reclaimed with vegetation and there shall be no void left as a water body.

- (xxvi) A Conservation Plan (in-situ and ex-situ) for endangered faunal species reported in the study area and for the medicinal plants found in and around the project area shall be prepared in consultation with Wildlife Institute of India, Dehradun within 4 months from date of environmental clearance and the Plan shall be implemented in consultation with the State Forest and Wildlife Departments. An in-situ conservatory of species found in the pre-mining original ecosystem and rare and endangered plant species including medicinal plants species found in the study area during pre-mining phase shall be established and reintroduced during mine reclamation and habitat restoration. The Conservation Plan shall include conservation of areas within the project boundary to be left undisturbed as free passageways for the wildlife to reach the forests in the study area. The Conservation Plan shall also include activities of mine reclamation and wildlife habitat restoration of mined out areas within the core zone and project area using native species representative of the forest ecosystem during the pre-mining phase. Separate funds of Rs. 20 crores as capital costs and Rs. 2 crores as revenue costs shall be earmarked for implementation of the various activities under the Conservation Plan. The status of the Conservation Plan including financial status shall be reported once a year as part of the monitoring report to this Ministry and to the MOEF Regional Office, Bhopal. The proponent shall also participate in the Regional Wildlife Conservation Plan (RWLCP) for the study area prepared by the State Wildlife Dept. and in addition to the above funds shall also contribute financially for implementation of the RWLCP. Habitat development/conservation measures along the migratory route/habitats of elephants found/visiting the area shall form a part of the Regional Action Plan.
- (xxvii) Regular monitoring of groundwater level and quality shall be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity shall be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality in May and in monsoon. Data thus collected shall be submitted to the Ministry of Environment & Forests and to the Central Pollution Control Board quarterly within one month of monitoring.
- (xxviii) The Company shall put up artificial groundwater recharge measures including rainwater harvesting structures for augmentation of groundwater resource in case monitoring indicates decline in water table. The project authorities shall meet water requirement of nearby village(s) in case the village wells go dry due to dewatering of mine.
- (xxix) ETP shall also be provided for workshop, and CHP. Effluents shall be treated to conform to prescribed standards, particularly for pH and TSS in case of discharge into any watercourse within or outside the lease.
- (xxx) An STP shall be provided for the township/colony to treat the domestic effluents to prescribed standards and for their reuse in project activities.
- (xxxi) Industrial wastewater (workshop and wastewater from the washery) shall be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time before discharge. Oil and grease trap shall be installed for treatment of workshop effluents.
- (xxxii) R&R Plan prepared for an estimated Rs. 20.693 crores shall be not less than the norms laid down/approval by the State Government and shall not be inferior than that in the National R&R Policy and shall be completed within a specified time-frame. R&R shall include specific income generation schemes and setting up of SHGs and cooperatives, and activities and assistance under the Tribal development Plan for the tribals being displaced and provision of annuities for the under-privileged sections. The provision also includes a Corpus Fund for the maintenance of the Resettlement site. The status of the implementation of the R&R

Plan along with financial status of the activities undertaken shall be uploaded on the company website and updated at least once in a year.


- (xxxiii) The proponent shall provide not less than Rs. 10 crores towards capital costs and Rs 5/T of coal as revenue expenditure (which shall be up scaled after adjusting for depreciation of the rupee) towards activities undertaken under CSR for 12 villages - Salhi, Hariharpur, Parsa, Parogia, Basan, Shivanagar, Suskam, Sontarai, Janardanpur, Tara, Mendra and Fatehpur - for the life of the project. The activities shall include establishing/strengthening of schools roads, drainage and sanitation, community halls, drinking water in the villages and skill development of the local communities. The CSR Plan shall also include Tribal Welfare activities for the tribals and their skill development for alternate livelihood and addressing issues such as availability of minor forest produce for the tribal/local communities. The details of the activities and expenditure made thereon in each of the villages taken up under CSR shall be displayed on the company's website and updated at least once in six months. The socio-economic development of the villages shall be monitored over the life of the project using indices such as the UNDP Human Development Index.
- (xxxiv) For monitoring land use pattern and for post mining land use, a time series of land use maps, based on satellite imagery (on a scale of 1: 5000) of the core zone and buffer zone, from the start of the project until end of mine life shall be prepared once in 3 years (for any one particular season which is consistent in the time series), and the report submitted to MOEF and its Regional office at Bhopal.
- (xxxv) A Final Mine Closure Plan along with details of Corpus Fund shall be submitted to the Ministry of Environment & Forests for approval 5 years in advance of final mine closure for approval. The Plan shall include habitat restoration of the project area consisting of a 3-storeyed forest ecosystem, using a mix of native species found in the pre-mining ecosystem in the study area.
- (xxxvi) A dedicated team drawn from disciplines of ecology, wildlife, sociology, hydrology, etc shall be engaged over the life of the project for implementation of Wildlife Conservation Plan, R&R and CSR Plan and for progressive and final mine closure plan and issues of habitat restoration.

B. General Conditions

- (i) No change in technology and scope of working shall be made without prior approval of the Ministry of Environment and Forests.
- (ii) No change in the calendar plan including quantum of mineral coal and waste being produced shall be made.
- (iii) Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring PM₁₀, PM_{2.5}, SO₂ and NO_x. Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, in the particulate matter etc. shall be carried out at least once in six months.
- (iv) Data on ambient air quality (PM₁₀, PM_{2.5}, SO₂ and NO_x) and heavy metals such as Hg, As, Ni, Cr, etc) and other monitoring data shall be regularly submitted to the Ministry including its Regional Office at Bhopal and to the State Pollution Control Board and the Central Pollution Control Board once in six months. Random verification of samples through analysis from independent laboratories recognised under the EP Rules, 1986 shall be furnished as part of the compliance report.

- (v) Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operation of HEMM, etc shall be provided with ear plugs/muffs.
- (vi) Industrial wastewater (workshop and wastewater from the mine) shall be properly collected, and treated so as to conform to the standards including for heavy metals before discharge prescribed under GSR 422 (E) dated 19th May 1993 and 31st December 1993 or as amended from time to time. Oil and grease trap shall be installed before discharge of workshop effluents.
- (vii) Vehicular emissions shall be kept under control and regularly monitored.
- (viii) Monitoring of environmental quality parameters shall be carried out through establishment of adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board and data got analysed through a laboratory recognised under EP Rules, 1986.
- (ix) Personnel working in dusty areas shall wear protective respiratory devices and they shall also be provided with adequate training and information on safety and health aspects.
Occupational health surveillance programme of the workers shall be undertaken periodically to observe any contraindications due to exposure to dust and to take corrective measures, if needed.
- (x) A separate environmental management cell with suitable qualified personnel shall be set up under the control of a Senior Executive, who will report directly to the Head of the company.
- (xi) The funds earmarked for environmental protection measures shall be kept in separate account and shall not be diverted for other purpose. Year-wise expenditure shall be reported to this Ministry and its Regional Office at Bhopal.
- (xii) The Project authorities shall advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned within seven days of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and may also be seen at the website of the ministry of Environment & Forests at <http://envfor.nic.in>
- (xiii) A copy of the environmental clearance letter shall be marked to concerned Panchayat/Zila Parishad, Municipal Corporation or Urban Local Body and local NGO, if any, from whom any suggestion/representation has been received while processing the proposal. A copy of the clearance letter shall also be displayed on the company's website.
- (xiv) A copy of the clearance letter shall be displayed on the website of the concerned State Pollution Control Board. The EC letter shall also be displayed at the Regional Office, District Industry Centre and Collector's Office/Tehsildar's Office for 30 days.
- (xv) The clearance letter shall be uploaded on the company's website. The compliance status of the stipulated EC conditions shall also be uploaded by the project authorities on their website and updated at least once every six months so as to bring the same in the public domain. The monitoring data of environmental quality parameters (air, water, noise and soil) and critical pollutants such as PM₁₀, PM_{2.5}, SO₂ and NO_x (ambient and stack if any) and critical sectoral parameters shall also be displayed at the entrance of the project premises and mines office and in corporate office and on the company's website.

- (xvi) The project proponent shall submit six monthly reports on the status of compliance of the stipulated environmental clearance conditions (both in hard copy and in e-mail) to the respective Regional Office of the MOEF, the respective Zonal offices of CPCB and the SPCB.
- (xvii) The Regional Office of this Ministry located at Bhopal shall monitor compliance of the stipulated conditions. The Project authorities shall extend full cooperation to the office(s) of the Regional Office by furnishing the requisite data/ information/monitoring reports.
- (xviii) The environmental statement for each financial year ending 31st March in Form-V is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be uploaded on the company's website along with the status of compliance of EC conditions and shall be sent to the respective Regional Offices of the MOEF by E-mail.
3. The Ministry or any other competent authority may stipulate any further condition for environmental protection.
4. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract the provisions of the Environment (Protection) Act, 1986.
5. The above conditions will be enforced *inter-alia*, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and Rules. The proponent shall ensure to undertake and provide for the costs incurred for taking up remedial measures in case of soil contamination, contamination of groundwater and surface water, and occupational and other diseases due to the mining operations.



(Dr.T.Chandini)
Director

Copy to:

1. Secretary, Ministry of Coal, New Delhi.
2. DG (F) and Special Secretary, Ministry of Environment and Forests, New Delhi.
3. Secretary, Department of Environment & Forests, Government of Chhattisgarh, Secretariat, Raipur.
4. Principal Chief Conservator of Forests and CWLW, Govt. of Chhattisgarh, Raipur.
5. Chief Conservator of Forests, Regional office (EZ), Ministry of Environment & Forests, E-2/240 Arear Colony, Bhopal – 462016.
6. Chairman, Chhattisgarh State Environment Conservation Board, 1-Tilak Nagar, Shiv Mandir Chowk, Main Road, Avanti Vihar, RAIPUR-Chhattisgarh – 492001.
7. Chairman, Central Pollution Control Board, CBD-cum-Office Complex, East Arjun Nagar, New Delhi -110032.
8. Member-Secretary, Central Ground Water Authority, Ministry of Water Resources, Curzon Road Barracks, A-2, W-3 Kasturba Gandhi Marg, New Delhi.
9. District Collector, Sarguja, Government of Chhattisgarh.
10. Monitoring File 11. Guard File 12. Record File.

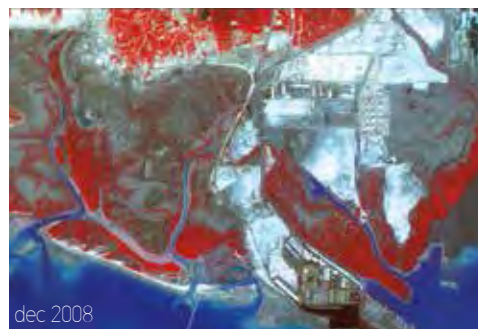
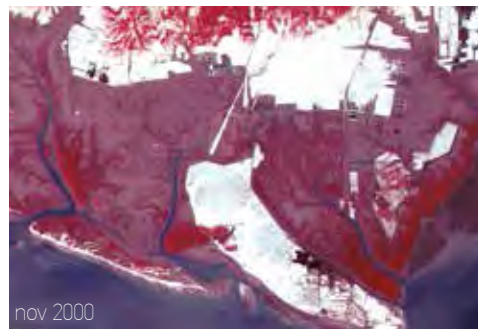
Annexure 3: Legal Empowerment for Environmental Compliance: Using the Method of Groundtruthing



ground truthing

a note on methodology

legal empowerment for environmental compliance: using the method of groundtruthing



what is groundtruthing?

Groundtruthing broadly means to compare facts stated in official documents and maps with the ground realities at a site or in a place. As a method of physical verification of statements made on paper, groundtruthing can act as an effective tool to create evidence by collecting easily observable facts about operations that might be illegal, prohibited or causing harm. The evidence can be used in complaints directed to the relevant regulatory authority, appellate mechanism or judicial body. This method is useful for one-time investigations or the ongoing monitoring of impacts.

For instance, if an environmental approval or license of an industry states that effluents should not be discharged in a nearby river, photographic evidence with date/time/location details can be created to show if this specific condition is being complied with or not. Visual evidence can be prepared with photos taken at different times during a week to show the frequency/time table of discharge.

why is groundtruthing required?

In several countries, there are regulatory procedures in place for the setting up of industry and infrastructure projects. These procedures aim

to reduce or mitigate the environmental and social impacts of these projects. This is done through a system of conditional approvals or by binding the project to a list of mandatory safeguards that are to be implemented by them. Groundtruthing is required to assess if these conditions and safeguards are being complied with and resulting in better outcomes.

There are also MoUs (Memorandum of Understanding), lease agreements and contracts that are agreed upon and signed between a project developer, governments and communities. These documents may also contain several commitments made by various parties. Groundtruthing is useful to monitor if these commitments are being upheld and to what effect.

who can groundtruth?

The groundtruthing method can be used at three different levels:

- **Public spirited individual or small teams:** E.g. environmental or rights based organisations along with key local "informants".
- **Group of Community representatives:** E.g. affected people or village council members.
- **Legal Empowerment/Paralegal programs for Environmental Justice (EJ):** E.g. affected communities with paralegals collect evidence of impacts and seek remedies.

at what stage to groundtruth?

- **Pre approval:** To confirm the facts and baselines presented to obtain approvals E.g. Environment Impact Assessment report and compliance with consent provisions.
- **During construction:** Corroborating the safeguards and conditions under which a project should be built. E.g. damages to households or sacred sites, dumping in rivers or agricultural

fields, construction of retaining walls, restricting encroachments and rehabilitation plans.

- **Post approval:** Monitoring the compliance of legal conditions of a license, approval and agreements even as operations are underway, E.g. preventing water pollution, safeguards related to transportation of raw materials, functional emission control devices and regulating withdrawal of groundwater.

what to groundtruth?

Identification of items for groundtruthing is an essential component of the method. The items need to be selected carefully. Some general principles, which could help with selection, include:

- **Availability of official data:** This method can be most effective when approval letters, impact assessment reports and safeguard plans are available to compare conditions with said impacts.
- **Access to site:** The method is also dependent on the possibility of access to the sites of impact to collect observable evidence like photographs, water samples, and GPS (Global Positioning System) coordinates.
- **Knowledge of institutional links:** The method also requires a person involved in evidence collection to have knowledge on the institution to which the proof will be presented. Different institutions might require their own formats or stringency of evidence types and complaints.
- **Multiple evidence:** It is best to groundtruth those statements for which multiple pieces of evidence can be provided. A thumb rule to persuade a regulatory agency or remedial body is to collect three pieces of evidence per violation, illegality or impact. This is called triangulation. E.g. a photograph of effluent discharge can be supported by an earlier show-cause notice of a regulatory agency or an approval condition along with media reports attributing the action to particular activity/agency/project.

groundtruthing as a process and outcome in legal empowerment?

Groundtruthing can be an important component in the process of legal empowerment as well as an outcome of imparting legal knowledge to communities. While implementing community paralegal programs related to social or environmental justice, the groundtruthing method can be used for collecting reliable and relevant evidence.

It is also possible to undertake this at a community level only if legal knowledge has been shared with them. It can be an exercise done to assess the effectiveness of legal trainings on environmental compliance. Community organisers and paralegals can include this method as part of their cases to seek remedies (see references below). It can be recommended as a method of monitoring of impacts by local government agencies and village councils.

for more information

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references

- Closing the Enforcement Gap: Findings of a community-led groundtruthing of environmental violations in Mundra, Kutch (<https://namati.org/resources/closing-the-enforcement-gap-findings-of-a-community-led-ground-truthing-of-environmental-violations-in-mundra-kutch/>), 2013
- CPR-Namati Environmental Justice Case Tracking Form, 2015
- Handbook on Legal and Administrative Remedies for Community Level Environment Justice Practitioners (Version 1), February 2016 by CPR-Namati Environmental Justice Program
- Paralegal Practice Guide, Version 1.0 by CPR-Namati Environmental Justice Program (under finalisation)
- Calling the Bluff: Revealing the state of Monitoring and Compliance of Environmental Clearance Conditions by Kanchi Kohli and Manju Menon, Kalpavriksh, New Delhi/Pune

Annexure 4: List of Community Representatives- 10 Member Committee

- i. Jainandan Porte
- ii. Banas Kumar
- iii. Khel Singh
- iv. Mangal Say
- v. Mohar Korram
- vi. Vijay Korram
- vii. Rampraves Porte
- viii. Pradhan Ram
- ix. Sanak Ram Uike
- x. Sahodri Bai

**BEFORE THE NATIONAL GREEN TRIBUNAL
PRINCIPAL BENCH AT NEW DELHI,
NEW DELHI**

Appeal no. 73/2012

In the matter of:

Sudiep Shrivastava
r/o Dharam Prakash Chawl
Mungeli Naka Bilaspur
Chhattisgarh- 495001 Appellant

Versus

1. State of Chhattisgarh
Through the Principal Secretary (Forests)
Government of Chhattisgarh
Raipur
2. Union of India
Through the Secretary
Ministry of Environment and Forests
Government of India
Paryavaran Bhawan, C.G.O Complex
Lodhi Road, New Delhi – 110003
3. M/S Rajasthan Rajya Vidyut Utpadan Nigam Ltd
Vidyut Bhawan
Jyoti Nagar, Janpath
Jaipur- 302005
4. Kente Basan Coilleries co. Ltd
C/O M/S Rajasthan Rajya Vidyut Utpadan Nigam Ltd
Vidyut Bhawan
Jyoti Nagar, Janpath
Jaipur- 302005 Respondents

Counsel for appellant:

Mr. Raj Panjwani, sr. advocate along with
Mr. Rahul Choudhary, Mr. Ritwick Dutta
and Srilekha Advocate

Counsel for Respondents:

Mr. Atul Jha, Advocate for respondent no. 1
Ms. Neelam Rathore, Mr. Vikramjeet,
Ms. Syed Amber Advocates for respondent no. 2
Mr. Parag Tripathi sr. Advocate along with
Mr. Kunal Verma Advocates for respondent no. 3
Mr. Pinaki Mishra, sr. Advocate, Mr. Ravi Nair
and Mr. Arjun Khera, Advocates for respondent no. 4

Present:

Hon'ble Mr. Justice Swatanter Kumar (Chairperson)
Hon'ble Mr. U.D. Salvi (Judicial Member)
Hon'ble Dr. D.K. Agrawal (Expert Member)
Hon'ble Prof. A.R. Yousuf (Expert Member)
Hon'ble Dr. R. C. Trivedi (Expert Member)

JUDGMENT

Per U.D. Salvi J.(Judicial Member)

Dated: 24th March, 2014

1. A diversion of 1898.328 hectares of forest land at Parsa East and Kante-Basan captive coal blocks (shortly referred to as PEKB Coal Blocks) situated in Hasdeo-Arand coal fields in Hasdeo-Arand forest- South Sarguja Forest Division, District Sarguja, Chhattisgarh in favour of M/s Rajasthan Rajya Vidyut Utpadan Nigam Ltd (shortly referred to as RVUNL) - the respondent no. 3 herein vide order no. F 5-4/2010/10-2 dated 28th March, 2012 passed by the State of Chhattisgarh - the respondent no. 1 herein in pursuance to the approval under section 2 the Forest (conservation) Act 1980 (shortly referred to as FC Act) accorded by

Blocks lying in the same region without any basis therefor in any study.

49. In view of the aforesaid discussion it is evident that the FAC did not examine all the relevant facts and circumstances while rendering its advice and to cap it the Minister acted arbitrarily and rejected the FACs advice for the reasons having no basis either in any authoritative study or experience in the relevant fields. In short the reasons adduced by the Minister fail to outweigh the advice rendered by the FAC. This calls for quashing of the Minister's order dated 23rd June, 2011 rejecting the FACs advice and consequential order dated 28th March, 2012 passed by the respondent no. 1- State of Chhattisgarh in order to have holistic reappraisal of the entire issue. It is therefore, just and necessary to remand back the entire case to the Minister with appropriate directions to get a fresh advice from the FAC on the material issues in the present case and to reconsider the entire matter afresh in accordance with law. The point numbers 2 and 3 are answered accordingly.

Hence, the order:

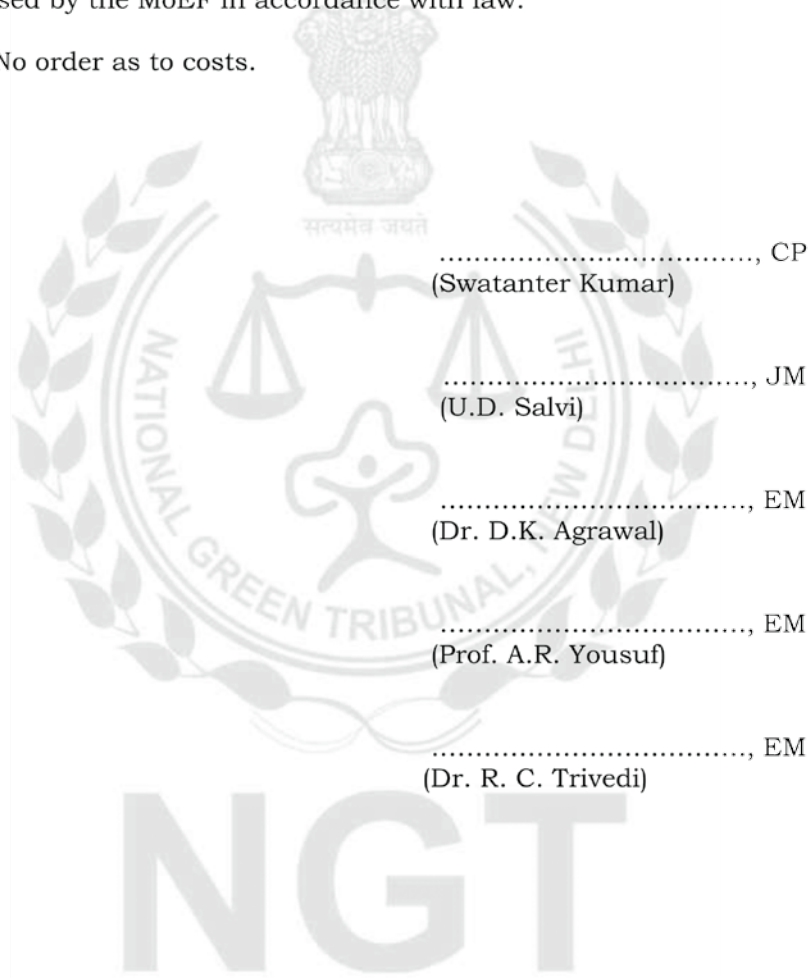
1. Order dated 23rd June, 2011 passed by the respondent no. 2- MoEF Government of India and consequential order dated 28th March, 2012 passed by the respondent no. 1 State of Chhattisgarh under section 2 of the Forest (Conservation) Act 1980 for diversion of forest land of PEKB Coal Blocks are set-aside;
2. The case is remanded to the MoEF with directions to seek fresh advice of the FAC within reasonable time on all aspects of the

proposal discussed herein above with emphasis on seeking answers to the following questions: (i) What type of flora and fauna in terms of bio-diversity and forest cover existed as on the date of the proposal in PEKB Coal Blocks in question. (ii) is/was the PEKB Coal Blocks habitat to endemic or endangered species of flora and fauna. (iii) Whether the migratory route/corridor of any wild animal particularly, elephant passes through the area in question and, if yes, its need. (iv) Whether the area of PEKB Block has that significant conservation/protection value so much so that the area cannot be compromised for coal mining with appropriate conservation/management strategies. (v) What is their opinion about opening the PEKB Coal Blocks for mining as per the sequential mining and reclamation method proposed as well as the efficacy of the translocation of the tree vis-a-vis the gestation period for regeneration of the flora? (vi) What is their opinion about the Wildlife Management plan finally prescribed. (vii) What conditions and restriction do they propose on the mining in question, if they favour such mining? Liberty is granted to the FAC to seek advice/opinion/specialised knowledge from any authoritative source such as Indian Council of Forestry Research and Education Dehradun or Wildlife Institute of India including the sources indicated in the present case by the parties.

3. The MoEF shall pass a reasoned order in light of the advice given by the FAC in accordance with law and pass appropriate order in accordance with law.

4. All work commenced by the respondent no. 3 project proponent and respondent no. 4 pursuant to the order dated 28th March, 2012 passed by the respondent no. 1 State of Chhattisgarh under section 2 of the FC Act 1980, except the work of conservation of existing flora and fauna, shall stand suspended till such further orders are passed by the MoEF in accordance with law.

5. No order as to costs.



Annexure 7: Supreme Court's Order (28.04.2014)

12/11/2015 courtnic.nic.in/supremecourt/temp/4395201452842014p.txt

ITEM NO.322 COURT NO.4 SECTION XVII

S U P R E M E C O U R T O F I N D I A
RECORD OF PROCEEDINGS

CIVIL APPEAL NO(s). 4395 OF 2014

RAJASTHAN RAJYA VIDYUT UTP.NIGAM LTD Appellant (s)

VERSUS

SUDIEP SHRIVASTAVA & ORS Respondent(s)

(With appln(s) for ex-Parte stay,exemption from filing c/c of the impugned Judgment,permission to file additional documents and office report)

Date: 28/04/2014 This Appeal was called on for hearing today.

CORAM :

HON'BLE MR. JUSTICE A.K. PATNAIK
HON'BLE MR. JUSTICE SURINDER SINGH NIJJAR
HON'BLE MR. JUSTICE FAKKIR MOHAMED IBRAHIM KALIFULLA

For Appellant(s) Mr. Mukul Rohtagi, Sr. Adv.
Mr. Vikram Nankani, Adv.
Mr. Kirat Singh Nagra, Adv.
Mr. Monish Panda, Adv.
Mr. Arjun Khera, Adv.
Mr. Avneesh Arputham, Adv.
Mr. Kunal Verma, Adv.

For Respondent(s) Mr. Raj Panjwani, Sr. Adv.
Ms. K.V.Bharathi Upadhyaya, Adv.

For State of Chhattisgarh
Mr. Ravindra Shrivastava, Sr. Adv.
Mr. Atul Jha, Adv.
Mr. Sandeep Jha, Adv.
Mr. Dharmendra Kumar Sinha, Adv.

For RR 4 Mr. Parag P. Tripathi, Sr. Adv.
Mr. Vikram Nankani, Adv.
Mr. Kirat Singh Nagra, Adv.
Mr. Manish Panda, Adv.
Mr. Arjun Khera, Adv.
Mr. Avneesh Arputham, Adv.
Ms. Monisha Handa, Adv.

UPON hearing counsel the Court made the following
O R D E R

Heard learned counsel for the appellants.

<http://courtnic.nic.in/supremecourt/temp/4395201452842014p.txt>

1/2

Issue notice.

Since respondent No. 1 has already entered appearance through counsel. No formal notice need be issued to respondent No. 1. Let notice be issued to the other respondents.

In the meanwhile, we stay the direction in the impugned order that all works commenced by the appellant pursuant to the order dated 28th March, 2012 passed by the State of Chhattisgarh under Section 2 of the Forest Conservation Act, 1980 shall stand suspended till further orders are passed by the Ministry of Environment and Forests.

[KALYANI GUPTA]
COURT MASTER

[SHARDA KAPOOR]
COURT MASTER

CLOSING THE ENFORCEMENT GAP: Groundtruthing of Environmental Violations in Sarguja, Chhattisgarh

Closing the Enforcement Gap: Groundtruthing of Environmental Violations in Sarguja, Chhattisgarh outlines a community-led groundtruthing exercise carried out in relation to operations of the Parsa East and Kanta Basan (PEKB) Open Cast Coal Mine Project and Pit Head Coal Washery in Sarguja, Chhattisgarh. Discussions about the impacts faced by people living around the project area were carried out along with a reading of the regulatory conditions, court orders and other legal requirements already in place to mitigate these impacts. Instances of possible non-compliance were identified along with evidence and presented to specific government authorities for action. This document explains the process of groundtruthing, nature of violations and the remedies sought.

Along with *Closing the Enforcement Gap: Findings of a Community-led Ground Truthing of Environmental Violations in Mundra, Kutch*, and a *methodology note on groundtruthing*, this document can be used as a guide to carry out more such efforts to attain mandated compliance of other projects.



कसटेद अरुण ववाओ संघर्ष समिती

Janabhivayakti

