

QUORUM

**HON'BLE MR. JUSTICE B. D. AGARWAL,
FORMER JUDGE, GAUHATI HIGH COURT, GUWAHATI**

**DR. SHANTANU KUMAR DUTTA, ADDITIONAL DIRECTOR
REPRESENTATIVE OF CENTRAL POLLUTION CONTROL BOARD**

IN THE MATTER OF

Threat to Life Arising Out of Coal Mining in South Garo Hills District

-Vs-

**The State of Meghalaya & Ors.
And other connected matters**

PRESENT

- :** **Dr. Shantanu Kumar Dutta,**
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Addl. Director, Central Pollution Control Board,
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- :** **Dr. Manjunatha C, IFS**
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Secretary & Commissioner,
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- :** **Shri. P. L. N. Raju, Director,**
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- :** **Dr. Z. Changsan**
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- :** **Shri J. H. Nengnong**
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- : **Shri. W. S. Manner, IFS**
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- : **Shri. M. Somorjit Singh,**
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- : **Shri. S. Singh,**
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- : O/o Central Institute of Mine Fuel Research –
Council of Scientific and Industrial Research,
(CIMFR – CSIR), Dhanbad
- : **Shri A. S. Siddique,**
Counsel of Shri Pawan Sharma,
Applicant in I.A. No. 244/ 2020 in O.A. No.
110(THC)/2012

PROCEEDINGS OF 27TH GENERAL SITTING

MINUTES OF TWENTY SEVENTH SITTING OF THE COMMITTEE CONSTITUTED BY THE HON'BLE NGT UNDER CHAIRMANSHIP OF HON'BLE MR. JUSTICE B.D. AGARWAL, FORMER JUDGE, GAUHATI HIGH COURT HELD ON 18TH NOVEMBER, 2020 AT 10:30 A.M. IN THE COMMITTEE ROOM – II, MAIN SECRETARIAT BUILDING, MEGHALAYA, SHILLONG- 793001

Agenda

1. Review the progress in implementation of items D & E of the Action Plan prepared by the NGT Committee for restoration of environment in areas affected by coal mining in Meghalaya.
2. Consider the application filed by Shri Pawan Sharma, G.S. Road, Shillong in I.A. No.244/ 2020 in O.A. No. 110 (THC)/ 2012.
3. Consider the response submitted by the Coke Oven Units with respect to the show cause notice issued to them by the National Green Tribunal Committee.
4. Any other item with permission of the Chairperson

PROCEEDINGS

AGENDA NO. 1

Review the progress in implementation of items D & E of the Action Plan prepared by the NGT Committee for restoration of environment in areas affected by coal mining in Meghalaya.

D. PROVISION OF SAFE DRINKING WATER IN AREAS AFFECTED BY ACID MINE DRAINAGE.

D.1 Development of potable water purifier to treat acidic water to ensure availability of good quality potable water in affected areas

Decision was not taken.

D.2 Distribution of potable water purifier in areas affected by acid mine drain

Dr. Z. Changsan, Regional Director of Central Pollution Control Board (CPCB), Shillong informed that as per the information provided by the Director, Meghalaya Institute of Natural Resources, MBDA, Shillong, "*The Meghalaya Institute of Natural Resources under the Meghalaya Basin Development Authority, as part of the NGT sponsored Project to restore acid mine drainage (AMD) have also distributed 200 portable water filters to 4 AMD affected locations i.e. Pamra Paithlu (70 nos), Narwan (40 nos), Jalapahet Sutnga (40 nos) and Suchen Mulieh (50 nos) over and above AMD treatment using Open Lime Canal.*" However, according to the Director, CPCB, the supplied portable water purifier having ultra-filtration membrane can remove bacteria, virus and iron but not capable to neutralise acidic water, which is the main concern in the AMD affected area.

The MBDA is directed to submit a report to this Committee about the performance/feedback of utility and feasibility of portable water purifier being distributed by them for further consideration.

D.3 Financial assistance for construction of roof top rain water harvesting structures to store rain water to meet requirement of potable water in areas affected by acid mine drain

D.4 Assessment of feasibility to provide safe drinking water in AMD affected areas through deep bore wells

D.5 Provision of safe drinking water in AMD affected areas through deep bore well wherever found feasible

E. BIOLOGICAL RECLAMATION OF AREAS AFFECTED BY COAL MINING.

E.1 Identification/delineation of areas affected by coal mining.

E.2 Development of cost of effective models for biological reclamation of coal mining affected areas

The Hon'ble NGT, in its order dated 09.01.2020 mentioned that *"the State of Meghalaya and the CPCB are allowed to utilize an amount of Rs.40,36,500.00 from the MEPR Fund to implement a pilot project for afforestation and reclamation of coal mining affected land and organization of a festival-cum-mass awareness programme submitted by the Principal Chief Conservator of Forest (Climate Change Research & Training), Govt. of Meghalaya and North Eastern Regional Directorate of the CPCB."* The Committee verified that as per the project proposal, the above sanctioned amount was having three components, viz.,

- i) Rs. 31,73,500.00 to be utilised by the Principal Chief Conservator of Forest (Climate Change, Research & Training), Government of Meghalaya. The scope includes fencing of entire selected areas of 3.0 ha out of which 1.0 ha shall be handed over to CPCB for plantation. PCCF (CCR&T), Government of Meghalaya shall plant AMD resistant species in 1.0 ha of land by conventional method after necessary treatment of soil with lime and other fertilizer applications.
- ii) Rs. 4,63,000.00 to be utilised by CPCB for the implementation of dense plantation (Akira Miyawaki Method) in an area of 1.0 ha.
- iii) Rs. 4,00,000.00 for the mass awareness programme in the coal mining affected areas.

Mining & Geology Department has stated that it has received the project proposal from the PCCF (CCR&T), Government of Meghalaya for an amount of Rs. 32.09 lakhs. The Committee recommended the release of the amount with immediate effect. The CPCB will place the demand note for release of Rs. 4.63 lakhs to Mining & Geology Department for the accrued estimate. The CPCB will undertake plantation work during the month of March or April, 2021 after the Forest Department completes the fencing work of the identified area. CPCB informed that plantation festivals-cum-mass awareness programme being an integral part of the Akira Miyawaki Method of plantation to ensure people's participation in the plantation, 50% of the sanctioned amount for the mass awareness program i.e. 2.00 lakhs shall be spent on the plantation day. The committee agreed to the suggestion of CPCB.

Dr. Manjunatha C, IFS, Secretary to the Government of Meghalaya, Mining & Geology Department also suggested that the PCCF (CCR&T), Government of Meghalaya in association with the CPCB, Regional Directorate, Shillong shall

prepare and submit proposals for implementation of plantation work as per Miyawaki method covering 5.0 ha of land each in the 5 coal mining affected districts in the State, viz., East Jaintia Hills, South West Khasi Hills, West Khasi Hills, South Garo Hills, West Garo Hills. The Secretary also recommended submission of project proposals by the PCCF (CCR&T), Government of Meghalaya in 10.0 ha of land by the conventional method covering two districts, i.e., 5.0 ha each in East Jaintia Hills and South Garo Hills. The Secretary, Mining & Geology Department suggested that as fencing of a selected area for plantation incur a huge percentage of the total cost and, therefore, the new project proposals from the concerned Departments shall not include the cost of fencing. The suggestion is accepted in principle with exception to grazing areas.

The Committee also recommended that the Divisional Forest Officer (Silviculture), Meghalaya, Shillong shall attend also NGT meetings if the agenda relates to afforestation.

E.2.1 Identification and prioritisation of AMD resistant species

As suggested by the Secretary, Mining & Geology Department, the Committee also agreed to involve the expertise of the Rain Forest Research Institute, Jorhat for plantation in the mining affected areas. The Forest Department, Government of Meghalaya shall request RFRI, Jorhat to submit proposals for a pilot project aiming at suitable species selection and standardise a method of plantation for reclamation of the coal mining affected areas in the State.

AGENDA NO.2

Consider the application filed by Shri Pawan Sharma, G.S. Road, Shillong in I.A. No.244/ 2020 in O.A. No. 110 (THC)/ 2012

Shri Pawan Sharma together with his counsel were virtually present in the meeting through video conference. However, it was difficult to hear to the petitioner/counsel as the audio at the end of the petitioner were not functioning properly. With the consent of the Petitioner and his Counsel, the hearing of the petition filed by Shri Pawan Sharma is deferred.

The Secretary to the Committee is directed to convene the next meeting on 8th December, 2020 (Tuesday) at 10.30 A.M. The Petitioner and his Counsel shall attend the next Sitting in persons, besides other concerned officers.

AGENDA NO.3

Consider the response submitted by the Coke Oven Units with respect to the show cause notice issued to them by the National Green Tribunal Committee

The MSPCB as well as the Commerce & Industries Department, Government of Meghalaya have submitted their written replies to the notices given by this Committee and also circulated these reports to the Chairman and the Members.

In the reply of the MSPCB, it has been informed that closure notices were issued on 5th August, 2020 to 16 coke-oven units due to violation of environmental conditions and also for not obtaining either CTE or CTO. The MSPCB is directed to apprise this Committee as to how many units have in fact closed in compliance to their notices within two weeks' time.

In the last sitting, the Deputy Commissioners of coal bearing Districts were requested to submit a report to this Committee as to how many coke industries were running in their respective Districts. However, no reports from the Deputy Commissioners have been received by the Committee.

The Committee directed that reminders should be given to all the concerned Deputy Commissioners to submit their respective reports within a week positively by 5th December, 2020

During the deliberation, Shri B. Mawlong, MCS, Joint Secretary to the Government of Meghalaya, Commerce & Industries Department informed the Committee that Single Window Agency comprises of Hon'ble Chief Minister, Minister-in-charge of Commerce & Industries and senior executive officers including the Chairman of MSPCB. However, there is no representation from the Mining & Geology Department; hence this Committee suggests the Government to include a representative from Mining & Geology Department as well as most of the industries in the State depend on various minerals available in the State of Meghalaya.

The Committee decided to have further discussion on the agenda in its next meeting to be held on 8th December, 2020.

AGENDA NO.4

- a) **Presentation by Trinity Impex International with respect to progress in the implementation of the project for Phytoremediation of AMD affected streams in East Jaintia Hills District.**

With respect to the Agenda 3 of 25th Sitting held on 1st September, 2020, Mr. S. Singh, Chief Executive Officer, Trinity Impex International informed the Committee that the process of culturing the algae is already in the process and regular dosing of the algae in the streams will begin in the first week of December, 2020. Hence, this matter will be discussed in the next meeting at length. The agency is directed to give their presentation in the next meeting.

b) Presentation by NESAC, Umiam, Shillong with respect to resubmission of project proposal entitled “Preparation of Geospatial Database Inputs for Planning and Restoration of environment of West Khasi, South West Khasi and South Garo parts of East Jaintia Hills, Meghalaya”.

The Hon'ble NGT vide its order dated 9th January, 2020 noted that *“NESAC was to prepare a geo-reference map and provide the same to CIL. NESAC was also to undertake analysis of the area where coal was to be handed over to CIL, using high resolution satellite imageries for the period in question.”* In the same order the Hon'ble NGT also noted that *“if NESAC is not able to undertake the said exercise, the same may be entrusted to National Remote Sensing Centre (NRSC), Hyderabad. The CPCB may coordinate with NRSC for the purpose.”* As per the NGT order CPCB, RD, Shillong had requested NRSC, Hyderabad vide its letter dated 28th August, 2020 to carry out the desired exercise. NRSC was also requested by the Government of Meghalaya for carrying out the assessment as desired by the Hon'ble Tribunal. However, NRSC vide its letter dated 31st August, 2020 reiterated that NESAC, which had already completed an assessment covering the area of interest, would be able to complete the further study. NRSC also endorsed the technical limitations cited by NESAC with respect to providing satellite based assessments of the volume and quantity of coal available at depots.

Subsequently, in the 26th sitting of the Committee held on 1st October, 2020, NESAC was asked to resubmit the project proposal by incorporation of coal dump and coal depots, preparation of land use / land cover map using 2014 satellite data for East Jaintia Hills District and change analysis w.r.t. 2018/2019 data for the same area.

Mr. P. L. N. Raju, Director and Mr. S. Somorjit Singh, Scientist was present in the 27th meeting through video conference. They elaborated the scope of the project as well as the time requirement of about 18 months to complete the project. The committee insisted on an early completion of the project. Subsequently, the director NESAC agreed to complete the project within a period of 12 months after the agency could procure the data from various agencies which process would take

about 3 months of time. Accordingly, it is expected that the NESAC shall be able to complete the project within a period of 15 months. The committee accepted the project, at a total cost of Rs 80.98 lakhs.

The Committee decided to direct the NESAC to start with the data procurement process and in the meantime the Committee would recommend to the Hon'ble NGT to approve the cost of the project from the MEPR Fund.

c) Presentation by CIMFR – CSIR regarding the development of technology for treatment of AMD.

The Committee had an interaction with CIMFR–CSIR, Dhanbad regarding the development of technology for treatment of AMD in the affected areas. The office of the CIMFR – CSIR, through video conference, informed the Committee that the pilot project could not make sufficient progress due to prevailing COVID-19 situation and also due to delay in getting land clearance for the identified site. Member Secretary, Meghalaya State Pollution Control Board (MSPCB) informed that site clearance for the project would be obtained in 3 or 4 weeks' time. Besides this, the team is in the process of treating and executing the pilot project. The CIMFR – CSIR also informed the Committee that characterisation of acidic water to be treated had been completed and high aluminium in the water was a main concern for the treatment method.

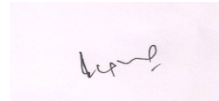
The CIMFR – CSIR is requested by the Committee to expedite the work for installation of the field demonstration plan within a month and complete the pilot project by March, 2021. The Committee also noted that as the COVID-19 situation in the State is improving, CIMFR – CSIR shall be able to start the field work without further delay.

Secretary, Mining & Geology Department requested CIMFR – CSIR whether the agency shall be able to develop portable water purifier to be provided in the mining affected areas either in household level or in community level as suitable. CIMFR – CSIR also expressed their willingness to take up the pilot project for development of portable water purifier to treat acidic water.

In addition to the pilot project developed by CIMFR – CSIR, the Committee also intends to involve a reputed Company like Ion-Exchange Ltd, Eureka Forbes Ltd, etc. for installation and demonstration of portable water supply system. The Committee also intends to obtain information from Jal Jeevan Mission (JMM) to know the mission of JMM to cover the coal mining areas in the State under its mission to supply portable water to various localities in the State.

In addition to the pilot project developed by CIMFR – CSIR, the Committee also approves that the Secretary to the Government of Meghalaya, Mining & Geology Department, may be directed to invite the Chief Engineer, Public Health Engineering Department in person and the Mission Director of JMM in the State in the next meeting to take a decision as to whether EOI can be floated from private firms and how to invite firms to develop a technology for water purifier for supplying drinking water.

The Chairman thanked all present and concluded the meeting.



(Justice B.D. Agarwal)

Former Judge, Gauhati High Court
Chairman, NGT Committee, Meghalaya