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Performance Appraisal of Environmental Clearance in Kerala in 2016

Kerala has emerged as a mining hotspot, with mining of minor minerals occupying a major chunk of the projects which are appraised for environmental clearance. The appraisal for projects are done in the most casual manner and not effort is made to consider the cumulative impact of such scale mining. Given the extreme fragility of the ecosystem, with the Western Ghats on one side, the Back Waters and the Coast, both the SEIAA and SEAC should have exercised due diligence while considering projects are approval. This has clearly not been done. For a small state like Kerala, this analysis reveals disproportionate number of approvals for minor minerals. There is a clear need for

An attempt has been made to do an in-depth analysis of the environmental clearance process followed by various State Environment Impact Assessment Authority (SEIAA) and the State Level Expert Appraisal Committee (SEAC) constituted under the provision of Environment Impact Assessment (EIA) Notification 2006. The present paper focuses on the State of Kerala, wherein all the minutes of meetings of SEIAA and the relevant SEAC minutes for the year 2016 were examined. A total of 205 different projects were considered by SEIAA in 16 meetings spread over the year 2016. Out of the 205 projects, 149 projects were granted environmental clearance; whereas 6 projects were not granted environmental clearance by SEIAA.

The Mining of Minor Minerals sector accounts for nearly 90 % of the projects appraised, which was followed by building and construction sector (9%). Clearly, given the huge natural resource the building and construction sector is in need, there is likely chance of these minor minerals being used in this sector as well. At times, the excavation work take place for other industrial activities including site development and filling of low lands and so on. One project of Common Biomedical Waste Treatment Facility (CBWTF) was also appraised in the meeting. This sector has a huge potential for emission of mercury, dioxin and furans besides

the criteria pollutants¹, yet there is nothing in the proceedings of the SEIAA². Neither the EC conditions put any mandate on the proponent to install Air Pollution Control Devices (APCD) as a mitigation measure, which reflects that there was no seriousness on the part of the Authority to undertake a 'detailed scrutiny' with respect to the pollution potential.

It seems that the SEIAA meetings are just an eye wash and an obligatory procedural hurdle, as administrative issues like the shifting of authority office to a new building, purchase of new office equipment, participation of standing counsel in International Conference on Environment in New Delhi organized by the National Green Tribunal were the some of the subject of discussion (*50th SEIAA meeting dated 25th February 2016*).

In most of the cases a very generic approach has been taken by SEAC while recommending mining projects for EC to SEIAA. Whereby projects have been recommended by merely adding a clause of adherence to specific conditions set out by the field inspection report, though such field specific conditions were not disclosed.

None of the minutes of meetings listed the various general and/or specific conditions while granting and/ or recommending the project for EC. The extent of discussion with respect to air pollution were generic and only extended to dust suppression, green belt, parking area and ambient air quality being below the prescribed CPCB standards.

It seems from the minutes that, the primary concern of all the meetings was to ascertain the number of projects pending for Environmental Clearance before each of the authorities and to undermine the reason for such pendency and resolve them arbitrarily as soon as possible to reduce the pendency of the Environmental Clearance applications. So much so, even after finding inconsistencies between the proposed description and site visit reports of the SEAC, the project proponent was asked by SEIAA only to swear under an affidavit that they would abide the general conditions and specific conditions in the EC once it is granted to them.

The entire years' environmental clearance granting procedure was analysed in the light of air pollution perspective, so as to assess how much priority has been given during the discussion of projects at SEIAA-SEAC meetings.

It was found that, the discussion on air pollution and its mitigation measures was limited to the water sprinkling during construction phase of any project, parking and traffic management details for building and construction sector without focusing on the potential impacts on air quality, which might arise from the increased vehicular movements; consideration of only criteria pollutants (PM₁₀, PM_{2.5}, SO₂, NO_x) for monitoring of baseline concentration as well as future impact modelling and ignorance toward the concentration of other process related pollutant emission.

The overall analysis of the proceedings before the SEAC and SEIAA clearly reveals a lack of seriousness on the part of the members of these bodies to undertake the

¹ PM_{2.5}, PM₁₀

² Item No 48.24 of 48th SEIAA meeting dated 23rd January, 2016

detailed scrutiny which is required under the EIA Notification. The projects were considered in a mechanical manner and approval was granted without consideration of any key environmental issues. Issues concerning air pollution specially with respect to mining projects as well as biomedical waste treatment facility were not even discussed, even though they have potential to cause impact on environment and health of the people. There is thus an urgent need to review the functioning of both SEIAA as well as SEAC in order to ensure that they comply with the aims and objective of the EIA Notification, 2006.

SECTOR WISE ANALYSIS

1. Mining of Minor Minerals

A total of 184 projects out of 205 projects were mining of minor minerals. Out of the total 184 projects, 137 projects were given clearances. The minor minerals include ordinary earth removal, quarry, building stone quarry, Laterite mining etc.

Minor minerals were appraised as Category B-2 Project under the EIA Notification, 2006. The discussion on air pollution were limited to the water sprinkling at haul road to reduce dust emission and covering of vehicle top carrying mined out materials.

Analysis

The entire mining process involves various activities in phased manner, which includes drilling, blasting, loading and unloading, haul road, transportation of raw materials and products, crushing of ore, waste/top soil handling and last but not the least DG set operations and therefore are responsible for fugitive dust emission into the atmosphere.

Merely setting up of conditions of water sprinkling and that to only along the haul roads does not help in controlling air pollution.

Cumulative Impact Assessment study must be needed to carry out to estimate the potential impacts of all the activities listed and their contribution to fugitive air pollution, which was missing while checked information from minutes of meetings. This is a gross violation of EIA notification 2006, which mandates submission of detailed information on cumulative impacts from a proposed as well as existing project³.

At times, the removal of this material was done for site development work needed for other industrial operation like Integrated Refinery Expansion Project of BPCL⁴. In this case, the urgency of BPCL for necessary site development work was given priority and therefore EC was granted for removal of ordinary earth without having any discussion on the site suitability, presence of villages in close vicinity and without putting any condition for mitigation of probable fugitive air pollution which may occur from the excavation activity

³ Para 9 of Form 1 of Appendix I of EIA Notification

⁴ Item No 48.08 of 48th meeting of SEIAA dated 23rd January, 2016

2. Building and Construction Projects

Building and construction projects are appraised as Category 8 (a) as well as category 8 (b) under EIA Notification, 2006⁵. The SEAC appraises category 8 (a) project. A total of 20 projects out of 205 projects which were appraised by SEAC, during the period of one year in 2016 were building and construction project. Out of these, 11 projects were granted Environmental Clearance by State Environment Impact Assessment Authority (SEIAA). A close look at the clearance granting procedure of building construction sector found that following discussions took place which has direct/indirect consequences on air environment.

- The parking space provided as part of the proposed project and the traffic management plan for entry and exit along with the details of internal width between drive way and proposed building has been given, however the information in terms of present level of transport infrastructure and measures proposed for improvement was not detailed out in the minutes of SEAC. In spite of this, the final environment clearance conditions did not list out any measures, which are potential pollution preventive in nature;
- Adoption of dust control measures including spraying of water, peripheral barricading, covered shedding for cement and other raw material handling and loading area, covering of the excavated earth with tarpaulin sheet etc;

Analysis

It has been found that, the majority of the units were only asked to ensure space for Material Recovery Facility for storing non-biodegradable waste; however no discussion was there on the management and disposal mechanism of biodegradable waste. According to the Solid Waste Management Rules 2016, all gated communities and institutions with more than 5,000 sqm area shall, within one year from the date of notification of these rules and in partnership with the local body, ensure segregation of waste at source by the generators as prescribed in these rules, facilitate collection of segregated waste in separate streams, handover recyclable material to either the authorised waste pickers or the authorized recyclers. The bio-degradable waste shall be processed, treated and disposed off through composting or bio-methanation within the premises as far as possible. The residual waste shall be given to the waste collectors or agency as directed by the local body⁶.

All resident welfare and market associations shall, within one year from the date of notification of these rules and in partnership with the local body ensure segregation of waste at source by the generators as prescribed in these rules, facilitate collection of segregated waste in separate streams, handover recyclable material to either the authorised waste pickers or the authorised recyclers. The bio-degradable waste shall be processed, treated and disposed off through composting or bio-methanation within the

⁵ Building and construction projects having built-up area of more than or equal to 20,000 sqm and less than 1,50,000 sqm is considered as 8(a) projects and townships and area development projects covering an area of greater or equal to 50 ha and or built up area of greater or equal to 1,50,000 sqm is considered as Category 8(b)

⁶ Para 7 of Rule 4 (Duties of Waste Generators) of Solid Waste Management Rules 2016

premises as far as possible. The residual waste shall be given to the waste collectors or agency as directed by the local body⁷.

In absence of such provision in the minutes of the meeting will pave the way for the proponent to increase landfill burden, which is already a source of methane gas emission into the air.

Insufficient details on existing traffic movement as well as the impact of increased vehicular movement from the proposed project on air environment were not detailed out in the minutes. In absence of this information, change in the air quality can hardly be determined; the minutes of meeting have also not detailed out the background air quality level as well as the incremental increase based on the dispersion model taking into consideration the increased traffic level and the impact of DG set operation on the air quality around the project site. This is a gross violation of Appendix II to be read with Para 6 of the EIA Notification⁸

A cross check with the SEAC meeting revealed the fact that, no information has been furnished on the potential cumulative impacts that may arise from the projects of concern, which is a mandatory pre-requisite of conducting EIA study⁹.

3. Common Bio Medical Waste Treatment Facility

One project was appraised under this category. The project was appraised under Item 7(da). The project was granted EC with certain general conditions with no focus on the air pollution mitigation measures on an assumption that, waste will be segregated at source before transporting to the facility for treatment.

Analysis

It is important to note that, this sector has a huge potential for emission of mercury, dioxin and furans besides the emitting criteria pollutants¹⁰, yet there is nothing in the proceedings of the SEIAA¹¹. The conditions are silent on the issue of emission factor from the incinerator. Under Schedule II of the Bio Medical Waste Management Rules 2016, standards for Bio-medical Waste Incineration are prescribed. The emission limit was mentioned as 50 mg/Nm³ for particulate matter and to achieve that Air Pollution Control Device (APCD) must be installed. There was no discussion recorded in the minutes of SEAC and SEIAA about the pollutant emission control.



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⁷ Para 6 of Rule 4 (Duties of Waste Generators) of Solid Waste Management Rules 2016

⁸ Air Environment of Form 1 A

⁹ Para 9 of Form 1 of Appendix I of EIA Notification

¹⁰ PM2.5, PM10

¹¹ Item No 48.24 of 48th SEIAA meeting dated 23rd January, 2016