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Analyzing the performance of the Environmental Appraisal Procedure in the State of Uttar Pradesh



Legal Initiative for Forest and Environment

L e g a l I n i t i a t i v e F o r F o r e s t a n d
E n v i r o n m e n t

Key Findings

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An attempt has been made to do an in-depth analysis of the environmental clearance process followed by various State level 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 Uttar Pradesh, wherein all the minutes of meetings of SEIAA and the relevant SEAC minutes for the year 2016 were examined.

A total of 1357 different projects were considered by SEIAA in the meetings, out of which 511 projects were granted environmental clearance. It must be mentioned here that during the 152nd meeting dated 2nd January, 2016, 314 projects were appraised, out of which 185 were granted EC while during the 154th meeting dated 8th February 2016, 259 projects were considered out of which 134 projects were granted EC. The appraisal of such a huge number of projects in just two meetings raises serious doubts on the quality of the appraisal maintained by the expert committee members. It was found from the SEIAA meeting minutes that, they have merely followed the recommendation of SEAC and granted environmental clearance to the proponent.

The Building and Construction sector accounts for nearly 42% of the projects appraised. Clearly, given the huge natural resource needs of this sector, there is bound to be impacts on other sector. It is natural therefore, that mining of minor minerals, which provides the inputs for the construction sector, accounts for another 53% of the projects appraised. There was no effort to undertake cumulative impact assessment given the close linkage between the mining of minor minerals and building and construction categories.

It is important to note here that, the minutes of the meetings of SEIAA did not have any discussion regarding the projects being appraised; rather it has simply listed out the projects with relevant date of SEAC meetings in which they were appraised without listing any conditions or any other information.

Lack of adequate information in the minutes itself is the violation of EIA Notification dated 14th September, 2016, which states that *“the minutes of the EAC/SEAC meeting shall be finalised within 5 working days of the meeting and displayed on the website of the concerned regulatory authority. In case the project or activity is recommended for grant of EC, then the minutes shall clearly list out the specific environmental safeguards and conditions. In case the recommendations are for rejection, the reasons for the same shall also be explicitly stated”*¹.

Further, the EIA Notification states all decisions of the SEIAA shall be taken in meeting and shall ordinarily be unanimous; provided that, in case a decision is taken by majority, the details of views, for and against it, shall be clearly recorded in the minutes and a copy thereof sent to MoEF². An instance of this, is however, not seen in even one of the SEIAA meetings. They are merely, without application of mind, accepting the recommendations of SEAC.

In case of minor mineral projects, it was found during the analysis that, all the minor mineral projects of Uttar Pradesh were under the scanner of Allahabad High Court because of an ongoing case of **Vijay Kumar Dwivedi Vs State of UP and Ors.** in **PIL No. 28916 of 2016**³. In spite of that, the SEIAA has granted

¹Para 6 of Appendix V of EIA Notification 2006

² Para 3 sub-Para 7 of EIA Notification – State level Environment Impact Assessment Authority

³ MANU/UP/1740

Equivalent Citation: 2016(9)ADJ61, 2016(4) ALJ 690, 2016, 5 AWC52020All, 2016.

EC to the mining of minor mineral projects with a mere direction stating that it will be subject to the final order of Allahabad High Court.

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 to this aspect during the discussion of projects at SEIAA-SEAC meetings.

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; covering of soil during mining of minor minerals without discussing emission from vehicles and machineries used on site; use of vague words like 'proper measure', 'adequate green belt'; 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 minutes of meeting do not reflect whether due importance was given to the existence of District Survey Report while considering appraisal of minor minerals, which was mandated vide S.O.141 (E) dated 15.01.2016.

The Delhi High court in ***Utkarsh Mandal V. Union of India*** [W.P (C) 9320/2009] held that "The whole purpose of "outsourcing" the task to an EAC comprised of experts was to have a proper evaluation of such objectives on the basis of some objective criteria. It is that body that has to apply its collective mind to the objections and not merely the MoEF which has to consider such objections at the second stage. We therefore hold that in the

context of the EIA Notification dated 14th September 2006 and the mandatory requirement of holding public hearings to invite objections it is the duty of the EAC, to whom the task of evaluating such objections has been delegated, to indicate in its decision the fact that such objections, and the response thereto of the project proponent, were considered and the reasons why any or all of such objections were accepted or negated. The failure to give such reasons would render the decision vulnerable to attack on the ground of being vitiated due to non-application of mind to relevant materials and therefore arbitrary."

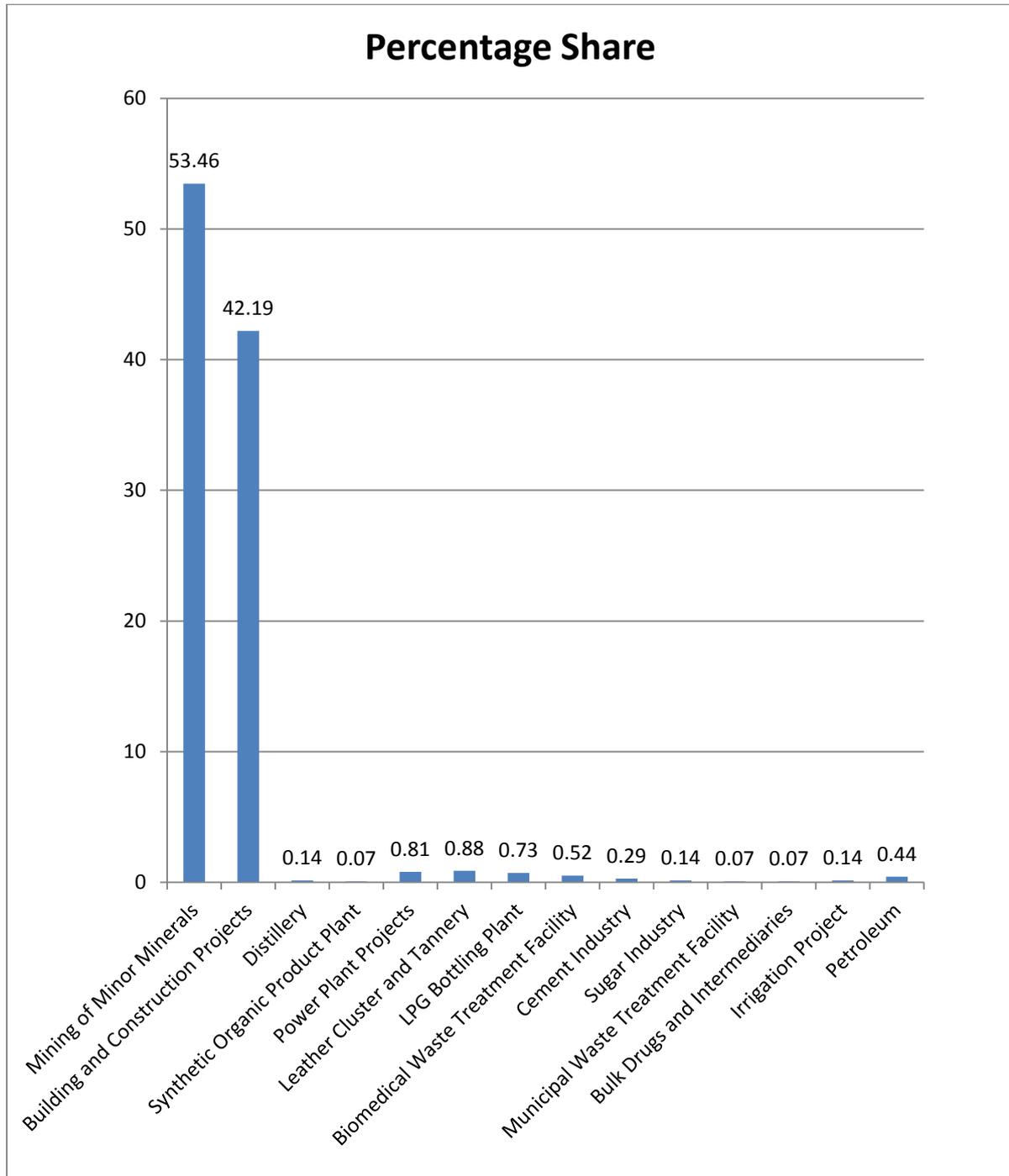
Hence, it is right to conclude that SEAC which appraises category B projects in their respective states should appraise such projects on the basis of its merits and demerits on the environment. The appraisal should be reasoned and should be in consonance with the spirit of environment clearance process where all the trade-offs are well evaluated. Thereafter the projects are placed before SEIAA who takes a final call on the fate of such projects based on the reasoned recommendation of SEAC and the documents submitted by the project proponent.

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

Categories of Project Appraised

A total of 1357 projects were appraised through the whole year of 2016, the distribution of which is presented in the Figure 1.

Fig 1: Types of Projects Appraised in 2016



SECTOR WISE ANALYSIS

1. Building and Construction Projects

Building and construction projects are appraised as Category 8 (a) as well as category 8 (b) under EIA Notification, 2006⁴. The SEAC appraises category 8 (a) projects. A total of 572 different projects were appraised under this sector, out of which 116 projects were given clearance and not a single project was rejected.

A close look at the clearance granting procedure of building and construction sector found that following discussions took place regarding the direct/indirect consequences of the projects on the air environment.

- Parking provisions as per Development Authority bye-laws
- Post project monitoring for air, water (surface and ground), Stack emission from D. G. sets, STP to be carried out as CPCB Guidelines. Height of the stack should be provided based on combined DG sets capacity and be 6 m higher than the tallest building.

Analysis

Specification of fuel for DG set is missing in the minutes, which might otherwise contribute to SO₂ emission in the absence of DG sets using ultra-low sulphur diesel as fuel.

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 Notification⁵

2. Mining of Minor Minerals

Mining of Minor Minerals category projects are appraised as Category B-2 project under the EIA Notification, 2006. A total of 726 different projects under the “Mining of Minor Mineral” sector were appraised, out of which 376 projects were granted EC. The minor minerals included brick earth, sand, gravel, morum, stone, granite and sandstone. Not a single project

⁴ 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)

⁵ Air Environment of Form 1 A

was rejected by SEIAA or SEAC. Projects were either deferred, required submission of further information or clarification had been sought from the project proponent.

The discussion on air pollution was limited to water sprinkling during various activities and at haul roads to reduce dust emission; covering of vehicle top carrying mined out materials; hiring of vehicles having “PUC” certificate and covering of the project site.

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 which are responsible for fugitive dust emission into the atmosphere.

Merely stipulating conditions for water sprinkling and monitoring emissions from the transportation of materials do 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. 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 project⁶.

Mandate for water sprinkling in critical areas only during excavation stage cannot suffice, as there are locations prone to air pollution having high levels of particulate matter emission, like loading and unloading points, all transfer points and approach roads.

There is also a need to put a cap on the proper conditions stipulated on the maximum volume of mineral that a vehicle should be allowed to carry.

Use of words like “properly storing top soil” renders this requirement vague and therefore there is a need to clearly specify the steps and measures that are required to be taken to ‘properly’ store the excavated soil. Further, measures to ensure that the ambient air quality levels are within permissible limit also need to be specified.

3. Common bio-medical waste treatment, storage and disposal facilities

The common bio medical waste treatment, storage and disposal facility is appraised under the Item 7(da) of the EIA Notification, 2006. 7 projects were considered for environmental clearance and none of them were granted EC. 2 projects were closed, 1 was deferred, 1 was issued TORs and 3 projects were asked to submit further information. The TOR granted to the project proponent asked for details on pollution control technologies, monitoring of stack and fugitive emissions for SPM, HCL & NO₂ as per Bio Medial Waste (Management & Handling) Rules 1998.

⁶ Para 9 of Form 1 of Appendix I of EIA Notification

Analysis:

According to the Guidelines for Bio-medical Waste Incinerator ([Revised Draft](#)), incomplete combustion from incinerators may result in the release of carbon monoxide and elemental chlorine, the monitoring and discussion regarding which have not been mentioned in the TORs assigned. When the SEAC had recommended the project for granting of TORs, the Bio-Medical Waste Management Rules, 2016, had not come into force. The Bio-Medical Waste Management Rules, 2016 came into force on 28th March, 2016. Therefore in the [170th SEIAA Meeting](#) dated 25th October, 2016 the TORs assigned may ask for monitoring of pollutants as per the new Rules, which mandates monitoring of mercury emission in the atmosphere.

170th SEIAA meeting dated 25th October, 2016

Item No. 4, M/s Medicare Environmental Management Pvt. Ltd.

Parameters like SPM, HCL & NO₂ monitoring of stack and fugitive emissions to be monitored as given in the Bio Medical Waste (Management and Handling) Rules, 1998

This shows that the SEIAA blindly accept the recommendations of the SEAC, without giving much thought about the project being appraised.

4. LPG Bottling Plant

LPG Bottling Plants projects fall under Item 6 (b) - Isolated Storage and Handling of Hazardous Chemicals of the EIA Notification, 2006. Under this category, 10 projects were appraised, out of which 3 applications were granted clearance, 2 applications were issued TORs, 1 was deferred and for 4 projects, the proponent was asked to submit further information regarding the project.

Discussion on air pollution and its mitigation was focused on regular monitoring of PM₁₀, SO₂, NO_x, CO, VOCs and HC (Methane and Non-methane) and displaying of results; installation of real time VOC analysers to monitor VOC emission; dedicated parking facility for loading and unloading of material and good traffic management system for incoming and outgoing vehicles to avoid congestion on the public road.

Analysis:

The committee members did not take into account the monitoring of incremental pollution load on the ambient air due to the increased vehicular emissions in the region as a result of the proposed project.

Although the need for regular and real-time monitoring of VOCs has been constantly stressed, there has been no mention or discussion during the SEIAA meetings regarding the proper mitigation measures to be undertaken by the project proponent for the VOC emissions. In the absence of mitigation measures, the purpose of monitoring of VOC would be nullified.

It must be mentioned here that, Polycyclic Aromatic Hydrocarbons (PAHs) and their related molecules, nitropolycyclic aromatic hydrocarbons (NPAHs) are known to be highly carcinogenic and mutagenic, capable of triggering genetic mutations in living organisms.⁷ LPG bottling plant is very sensitive to any kind of leakage of propane gas and therefore, EC condition must make it mandatory for the proponent to have adequate Leak Detection and Repair Technique (LDAR). The conditions or the project description in the minutes lack any such information.

5. Installation, Expansion and Modernization of Power Plant Projects

Thermal Power Plants are appraised under Type 1 (d) of the EIA Notification 2006 and projects less than 500 MW (coal/lignite/naptha & gas based) or \geq 5MW (all other except biomass & municipal solid non hazardous waste) fall under Category B, which are appraised by SEAC.

A total of 11 projects ranging from 5 MW to 55 MW relating to installation, expansion, modernization of power plants were appraised during the year 2016, which included installation of captive power plant, expansion of rice husk biomass power plant, gas based power plant and steam generation & accompanying enhancement in co-generation power plant. 3 projects were granted EC, 1 was issued TORs, 2 projects were closed and delisted due to non-appearance of project proponent and 2 projects were deferred.

A close look at the discussion found these pointers which have direct or indirect implications on the air environment. Monitoring of PM₁₀, PM_{2.5}, SO₂ and NO_x for ambient air and stack emission; installation of continuous ambient air quality monitoring stations; installation of Electrostatic Precipitator; use of process generated solid waste like bagasse as fuel in the boiler and parking facility.

Analysis

The need for cumulative impact assessment neither discussed nor mandated during the SEIAA meetings, which was a violation under EIA Notification. The bagasse-fired power plant comes with its own problem, as it leads to the emission of substantial amount of CO and Total Suspended Particulates (TSP or dust) which contribute to air pollution and reduction in the visibility⁸.

In any bagasse-fired boiler or incinerator, adequate furnace area is essential in order to ensure a low gas velocity and thus minimise carryover. Common practice of mixed firing of bagasse and coal causes more smuts than either fuel used on its own, and hence should be avoided.

⁷ <http://cdn.intechopen.com/pdfs/22712.pdf>

⁸ <http://www.asian-energy-journal.info/Abstract/Bagasse%20%E2%80%93%20a%20sustainable%20energy%20resource%20from%20sugar%20mills.pdf>

The conditions stipulated do not mention any measures to monitor or reduce carbon monoxide emission. The conditions stipulated for the different types of power projects in this sector are similar without looking at the type of fuels used and hence the conditions often tend to miss out important parameters.

6. Sugar Plant

Sugar Plants or industries are covered under Item 5 (j) of the EIA Notification 2006. Plant with over 5000 TCD cane crushing capacity falls under Category B. Under this category, 2 projects were considered, out of which 1 was granted EC and the other 1 was issued TORs.

The discussion which could have impact on air parameter includes monitoring of PM₁₀, PM_{2.5}, SO₂ and NO_x, installation of 2 continuous ambient air quality monitoring station, installation of Electrostatic Precipitator and plan for peripheral greenbelt and provision for parking facility within the project premises to avoid congestion.

Analysis

The type of fuel being used for the operation of the sugar plant is Bagasse (100%), as can be seen in the consideration of the project during the 276th SEAC Meeting dated 18th June, 2016 (Item No. 13, by Mr. P. K. Asthana)⁹. The use of Bagasse as a fuel presents problems in case of sugar industry. Bagasse is generally a non-homogeneous fuel, with heavy and light fractions, large and small particles intermixed, which are not conducive to complete and even combustion¹⁰. In any bagasse-fired boiler or incinerator, adequate furnace area is essential in order to ensure a low gas velocity and thus minimise carryover. Common practice of mixed firing of bagasse and coal causes more smuts than either fuel used on its own, and hence should be avoided.

A study titled, "Rising critical emission of air pollutants from renewable biomass based cogeneration from the sugar industry in India" by S. K. Sahu et. al. revealed that, the Indian sugar industry has adopted and made impressive growth in bagasse (a renewable biomass, i.e. left after sugarcane is crushed) based cogeneration power to fulfil their energy need, as well as to export a big chunk of energy to grid power. But like all other fossil fuels, bagasse combustion also generates various critical air pollutants like particulate matter, NO_x, SO₂, CO and CO₂. The estimated emission from the world's second largest sugar industry in India for particulate matter, NO_x, SO₂, CO and CO₂ is estimated to be 444 ± 225 Gg, 188 ± 95 Gg, 43 ± 22 Gg, 463 ± 240 Gg and 47.4 ± 9 Tg, respectively in 2014.¹¹

7. Cement Grinding Unit and Cement Industry

Cement plants are covered under Item 3 (b) of the EIA Notification 2006. 4 applications were appraised under this category which include cement grinding unit and cement industry as well. Out of these, 2 applications were given clearance, 1 project was issued TORs and the other project was deferred.

⁹<http://seiaaup.in/Uploads/MeetingMinutePdfs/20160629114307AM.pdf>

¹⁰http://www.sasta.co.za/wp-content/uploads/Proceedings/1970s/1970_Moor_Notes%20on%20Air%20Pollution.pdf

¹¹<http://iopscience.iop.org/article/10.1088/1748-9326/10/9/095002>

The discussion which could have impact on air parameter included control of particulate and gaseous emission through installation of high-efficiency bag filters, suction systems, dust collectors and covered conveyor belts for transportation of raw materials, covered sheds for storage of raw materials, closed clinker stockpile system, asphaltting/concreting of roads and regular water sprinkling shall be carried out in critical areas prone to air pollution such as haul road, loading and unloading points, transfer points and other vulnerable areas; transportation of fly ash in closed containers; monitoring of ambient air quality for PM₁₀, PM_{2.5}, SO₂ and NO_x.

Analysis

Cement grinding unit acts as a major source of fugitive dust emission especially during transportation of raw materials and finished products. However, the appraisal procedure did not ask for any cumulative impact assessment study considering various sources of air pollution of the existing as well as new plants. The source of the fly ash has not been discussed in case of the various projects appraised. The source of fly ash would determine the distance to be traversed by the vehicles for transportation of raw materials and would give a better idea about the location feasibility of the project. However, this point fails to find mention in the SEIAA-SEAC appraisal procedure. In the absence of any information on this, it becomes difficult to assess whether the measures proposed will be enough to mitigate air pollution.

The pollutant specification from the stack emission is missing in the EC conditions, which is again a vague statement when looked from the environmental clearance granting procedure. Stand alone clinker grinding unit of cement plant [is responsible for SO₂ and NO_x emission](#) and therefore it is important to put restriction on the emission of these two pollutants. The generalised statement for setting up of stack emission standard fails to clarify as to which pollutant is needed to be controlled.

The selection of plant species plays a major role in air pollution mitigation and therefore it has to be done keeping in mind the air pollutant tolerant capacity and also considering the bio-climatic condition of the area. In the event of non specification of plant species, there is a likely chance of inappropriate selection and dominance of ornamental species, which maybe an invasive species and can cause loss in soil nutrients.

8. Distillery Unit

Distilleries are appraised as item no. 5(g) under the EIA Notification, 2006. 2 applications were appraised under this category, to which, TORs were issued.

A close look at the discussion found few aspects which could have impact on air environment. These include selection of stack height based on maximum sulphur content in the coal; action plan to control ambient air quality as per NAAQS Standards for PM₁₀, SO₂ and NO_x as per GSR 826(E) dated 16th November, 2009; baseline monitoring and assessment of incremental impact on VHC (Volatile Hydro Carbon) and VOC; measures to

control secondary fugitive emissions from all the sources; development of greenbelt as per CPCB standards; traffic study of the area with respect to existing traffic, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.

Analysis

Distillery industry is one of the industries in the list of 17 most polluting industries, mainly responsible for causing water pollution. There has been no mention or discussion in the SEIAA meetings regarding the proper mitigation measures to control the green house effects, radiation effects, ozone depletion effects and acid rain effects which would result from this type of project. Distilleries are also a major source of carbon dioxide during the process of ethanol production¹², however monitoring of CO₂ has not been mandated in the TOR; neither had it ask for installation of CO₂ scrubber. CO₂ being one of the major greenhouse gases contributing to the phenomenon of global warming, is an extremely important parameter which should be continuously monitored.

9. Leather Cluster and Tanneries

Item 4 (f) of the EIA Notification 2006 covers “Leather/ skin/ hide processing industry”. A total of 12 different projects were appraised under this category, out of which 4 were given clearance. The other projects were either deferred, delisted or information was sought from the project proponent.

The air pollution specific conditions mandated upon the project proponent were mainly for the installation of air quality monitoring stations and greenbelt development as per the CPCB standards.

Analysis

The impact on the environment due to the pollution caused from transportation of raw materials, use of generators and machinery have not been addressed. No standards have been stipulated for the type of vehicles to be used during the operation of the proposed unit.

The conditions stipulated to the project proponent do not list out the parameters to be monitored during the operation phase of the project. It is worth mentioning here that the leather cluster and tanneries are known to emit huge number of critical pollutants like Hydrogen sulphide (H₂S), Carbon monoxide (CO), Carbon dioxide (CO₂), Nitrogen dioxide (NO₂), Volatile Organic Compounds (VOCs) and Ammonia (NH₃).^{13 & 14} Over 90% of all

¹² Project Proponent will take proper mitigation measures to control the green house effects, radiation effects, ozone depletion effects and acid rain effects during the building construction phase and operation phase of the project.

¹³ <https://prezi.com/awutwffwtsuj/air-pollution-from-leather-tanning-industry/>

¹⁴ <http://www.jocpr.com/articles/ambient-air-pollution-from-the-leather-tanneries-in-vellore-district-in-reference-to-the-asthma.pdf>

leather tanneries globally use chromium for tanning.¹⁵ Inhalation of trivalent chromium in the form of chromium sulphate can lead to occupational asthma, hand, feet and nasal ulcerations known as “chrome holes” with the effects of chronic dosage being unknown.¹⁶ Chromium recovery system mainly aimed at mitigation of chromium through discharge in the effluent, however, no such measures discussed to ensure that chromium does not add to the air pollution in the area. People living in the vicinity of leather clusters are also known to develop bronchial asthma disease and hence proper mitigation measures must be taken to ensure mitigation of air pollutants from this category of industries.

Cr-specific health hazards like carcinoma of the larynx and lung parenchyma and paranasal sinuses among workers of tanneries have also been reported.¹⁷ Also the emission of VOC, which is a known carcinogen, must be mitigated by the project proponent and appropriate measures must be mandated by the SEIAA while stipulating conditions.

The mitigation measures listed in the EIA guidance manual were not discussed and explicitly mandated upon the project proponent.

10. Irrigation Project

Irrigation projects come under the Item 1(c)(ii) of the EIA Notification, 2006. Projects having more than 2000 ha and less than 10000 ha of culturable common land are appraised at SEAC.

2 applications were appraised, out of which 1 was granted EC, where as the other on granted amendment in the environmental clearance.

The discussion was limited to water sprinkling through tankers during construction phase, monitoring of criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels) or critical sectoral parameters; allowing of vehicles having “PUC certificate” for suppression of fugitive emissions.

Analysis

The loss of green cover for the irrigation project would entail increase in air pollution in the area since the trees act as air purifiers and enhance the quality of ambient air in the area

11. Municipal Solid Waste Processing and Disposal Facility

The project comes under the Category 7(i) of the EIA Notification 2006. 1 project was appraised under this category, which was given EC.

The minutes did not list any conditions stipulated to this project.

¹⁵<http://www.newindianexpress.com/states/tamil-nadu/2017/mar/26/an-idea-to-reduce-leather-industry-pollution-1586005.html>

¹⁶<https://prezi.com/awutwffwtsuj/air-pollution-from-leather-tanning-industry/>

¹⁷<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2796741/>

Analysis

Municipal Solid Waste Facility is responsible for emission of air pollutants like methane and carbon dioxide¹⁸ both of which are potent greenhouse gases contributing to global warming and climate change. Nitrous oxide is also emitted from this type of facility. The measures to mitigate the emission of these gases should have been discussed in detail by the SEIAA and SEAC and appropriate conditions should have been put in place. However, by not detailing any information in the minutes, the committee members showed lack of seriousness about the environment.

12. Petroleum

The project comes under the Category 5(e) of the EIA Notification 2006. 6 projects were appraised under this category, out of which 4 were granted EC, 1 was granted amendment of EC and 1 was remanded back to SEAC.

A close look at the discussion found few pointers, which can have direct or indirect impact on the air environment. This includes onsite monitoring and display of data on PM₁₀, SO₂, NO_x, CO, VOCs and HC (Methane and Non-methane); regular monitoring of VOC and HC in the work zone area in the plant premises; greenbelt development; dedicated parking facility for loading and unloading of material shall be provided in the plant; traffic management system for incoming and outgoing vehicles to avoid congestion on the public road.

Analysis

The project proponent has been asked to submit the monitored data to the Ministry's Regional Office at Shillong. The statement raises serious doubts as to why the submission should be made to the regional office at Shillong, when the Ministry of Environment, Forest and Climate Change has its Central Zone regional office in Lucknow.¹⁹

Volatile organic compounds (VOCs) emitted during crude oil and petroleum product terminal storage activities have the potential to cause significant damage to the environment.²⁰ Although the TORs assigned mention the details of devices to put in place for monitoring of VOCs, nothing has been mandated to adopt measures for control and reduction of VOC emissions, in case of its presence in the air.

13. Manufacturing Units of Bulk Drugs and Intermediates

The project comes under the Category 5(f) of the EIA Notification 2006. Under this category, 1 project was appraised for issuance of TORs, which was granted. The TORs mainly asked to carry out ambient air quality data (except monsoon) at 8 locations for PM₁₀, PM_{2.5}, SO₂, NO_x, CO and NH₃, Cl, HCl, HBr, H₂F, VOC, HF and the same was to be collected from all ambient

¹⁸http://www.hpccc.gov.in/PDF/Solid_Waste/GHG%20Emission.pdf

¹⁹<http://www.moef.gov.in/about-ministry/regional-offices>

²⁰<http://www.ifc.org/wps/wcm/connect/81def880488543ab1fcf36a6515bb18/Final+-+Crude+Oil+and+Petroleum+Product+Terminals.pdf?MOD=AJPERES>

air quality measurement devices for 12 weeks from all the stations. Also, the air quality modelling for the proposed project should include consideration of emission from all sources of pollution.

Analysis

It has been noted from the analysis of the TOR conditions that nothing has been mandated to focus on the air pollution control devices needed to be installed to mitigate pollution. Such a gross ignorance of an important aspect of project appraisal raises questions about the seriousness on the part of SEIAA and SEAC in the appraisal procedure.

14. Expansion of Synthetic Organic Products

The project comes under the Category 5(f) of the EIA Notification 2006. 1 project was appraised for environmental clearance, which was for expansion of synthetic organic products plant. However the project was remanded back to SEAC for necessary action, though no detailing about the concerned SEAC was recorded in the minutes of SEIAA meeting. This is another clear example of lackadaisical approach on part of the SEIAA-SEAC in appraising project and disseminating information to the public.

Conclusion

Submission of insufficient data, lack of importance to the cumulative impact assessment, lack of synchronisation between the previous and subsequent meeting discussion and stipulation of generalised conditions irrespective of the type, location and capacity of the project are some of the gaps that has been observed while analysing the appraisal procedure. Also, the discussion with respect to air pollution seems to be lacking in most cases with the SEAC recommending projects for environmental clearance even after some glaring gaps, like absence of sufficient air pollution control measures by the project proponent, which would minimise air pollution. The entire appraisal process must be made more effective and stringent, so as to ensure that the projects granted clearance do not cause any adverse impacts on the environment.