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Analyzing the performance of the  
Environmental Appraisal Procedure in the State  
of Maharashtra



Legal Initiative for Forest and Environment

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ENVIRONMENT

## Key Findings

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 Maharashtra, wherein all the minutes of meetings for the year 2016 (May to August) were examined. It is to mention here that, the minutes of the meetings of SEIAA were uploaded in the website of Maharashtra only for four months. To further add to it, the minutes of SEAC meetings referred by SEIAA for each project appraised, were not available on public domain and therefore, the analysis procedure was restricted to the minutes of the SEIAA meetings and cross check of every individual project from SEAC meetings could not be done.

A total of 208 different projects were considered by SEIAA in four meetings, out of which 121 projects were granted environmental clearance. 4 projects (1.92%) were rejected, while 35 projects (16.8%) were deferred and 43 projects (20.67%) were delisted.

The Building and Construction sector accounts for nearly 82 % of the projects appraised. Synthetic chemicals projects account for nearly 8% of the project appraised and granted environmental clearance. This sector has very high pollution potential, yet there is nothing in the proceedings of the SEIAA as well as SEAC which reflects that there was any seriousness on the part of the authority to undertake a 'detailed scrutiny' with respect to the pollution potential.

Lack of adequate information on the SEIAA website of Maharashtra for the year 2016 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”*<sup>1</sup>.

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 MoEF<sup>2</sup>. An instance of this is however not seen in even one of the minutes of SEIAA meeting. They are merely, without application of mind, accepting the recommendations of SEAC.

The environmental clearance granting procedure followed by SEIAA- SEAC draws serious attention to the fact that, the environment has hardly got any importance while granting the clearance. Appraising 208 projects in a total of four meetings, or an average 50 projects per meeting raises serious doubts on the quality maintained by the expert committee members. It was found from the SEIAA meeting minutes that, they have merely followed the recommendation of

<sup>1</sup>Para 6 of Appendix V of EIA Notification 2006

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

SEAC and granted environmental clearance to the proponent.

The entire four month's 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.

The discussion on air pollution while granting clearance to minor minerals was largely restricted to the covering of soil, whereas the emission from vehicles and machineries used on site were not at all discussed in the minutes of the meeting. The mitigation measures with respect to air pollution control were largely based on the use of vague words like 'proper measure', 'adequate green belt' and so on, which invariably gives the escape route to the project proponents. Measurement like water sprinkling was restricted to the soil excavation area, rather it must be recommended in critical areas prone to air pollution like loading and unloading points of raw materials, all transfer points and approach road to the site. The need for cumulative impact assessment has not been discussed while appraising any of these projects and neither were the proponents asked to carry out further study on this. It seems that, the expert members of SEAC have remained blissfully ignorant to the Column 9 of Form I of EIA Notification 2006.

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 by MoEF&CC 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 14<sup>th</sup> 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."

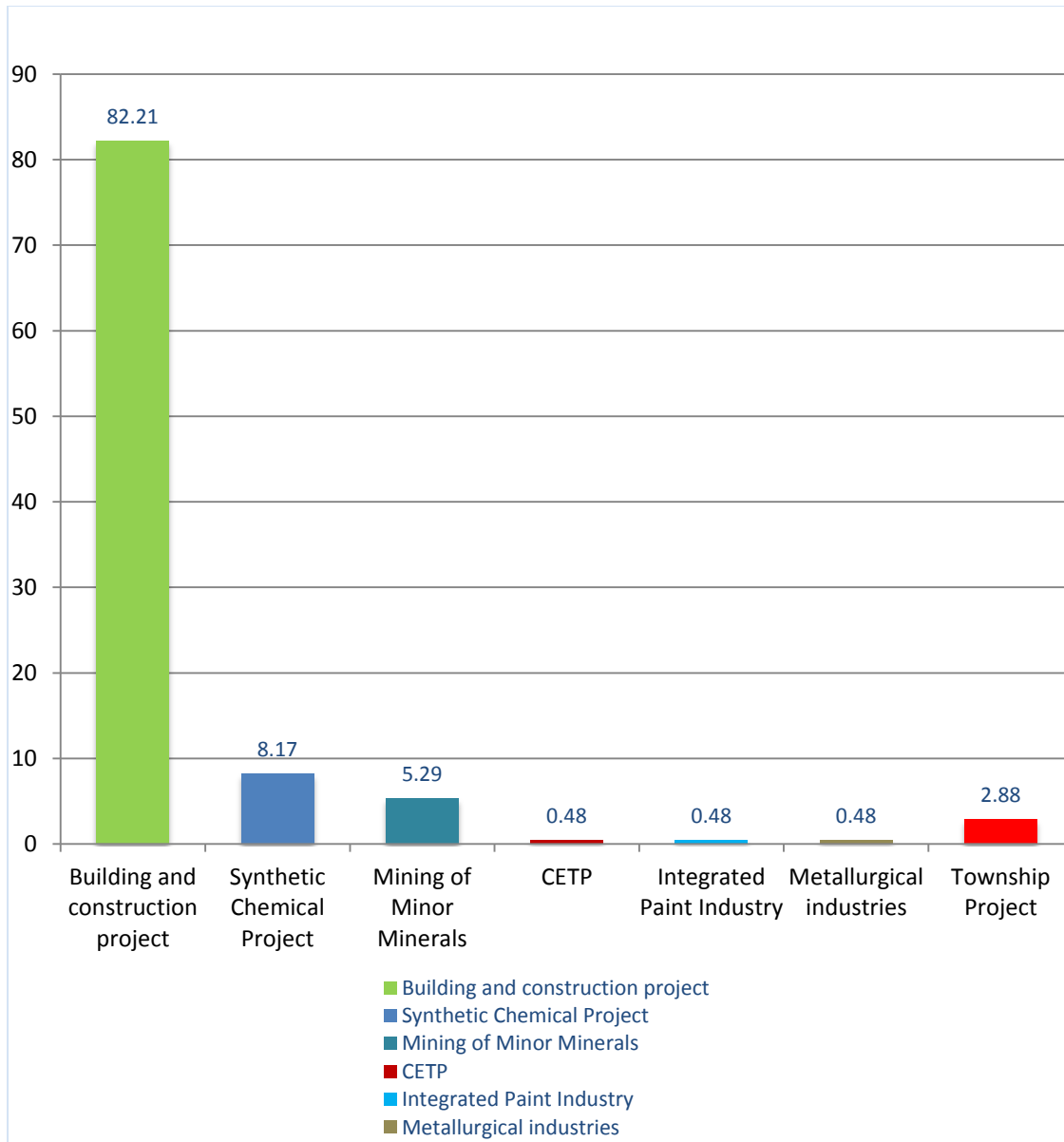
Hence it is right to conclude that SEAC which appraises category B projects in their respective states should appraise such projects on the basis of its merits and demerits of such projects on the environment. The appraisal should be reasoned and should be in consonance with the spirit of environment 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 208 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, 2006<sup>3</sup>. The SEAC appraises category 8 (a) project. A total of 171 projects out of 208 projects were building and construction sector, which have been considered in the year 2016 (May to August). Pune district has the maximum no. of proposals under this category followed by Navi-Mumbai.

SEIAA has refrained themselves from following the due course under the law while dealing with violation cases. For example, in case of the construction of “Shonest Tower” at Pune (Refer Box 1), SEIAA deferred the project instead of delisting it as mandated by MoEF&CC vide Office Memorandum dated 16<sup>th</sup> November, 2010, under Para 4 sub-para (ii) which states that “After the Competent Authority has approved the proposal for grant of environmental clearance, MoEF/SEIAA will send a communication to the project proponent informing that although the proposal has been approved by the Competent Authority, formal environment clearance will be issued to the project only after the matter relating to the violations have been put up to the Board of Directors of the Company or to the Managing Committee/CEO of the Society, Trust, partnership/individually owned concern for consideration of its environment related policy/plan of action as also a written commitment in the form of a formal resolution to be submitted to the MoEF/SEIAA to ensure that violations of the Environment (Protection) Act, etc. will not be repeated. For the purpose, a time limit of 90days will be given to the project proponent. In the meantime, the project will be delisted.”

### **Box 1**

#### **Item No. 8, 105<sup>th</sup>SEIAA Meeting, at Pune by M/s Sanskruti and Essen Associates**

A criminal case was filed against the project proponent by MPCB because the project proponent has obtained a letter from the Pune Municipal Corporation (PMC) dated 12/07/2016 which mentions that the construction completed on site is 19,937.30 sqm which is in contradiction with the statement of project proponent which had reported completed construction of 20,900sqm. The matter is sub-judice before the Pune District court and hence the SEIAA decided to defer the proposal till the legal opinion is awaited.

<sup>3</sup> 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)

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.

- Use of low sulphur diesel based generator sets during the construction phase and hiring of vehicles having 'PUC Certificate' and operation of vehicles during non-peak hours
- Monitoring of incremental pollution loads on the ambient air and noise quality during the construction phase and adequate measures taken to reduce ambient air and noise quality
- Traffic congestion near the entry and exit points should be avoided; however the information in terms of present level of transport infrastructure and measures proposed for improvement was not detailed out in the minutes

### ***Analysis***

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 Notification<sup>4</sup>

It has been found that, the majority of the units are planning to dispose of the solid waste at the landfill site run by the local authority. The huge waste generation from these units will increase the burden on the landfill or otherwise, it might lead to the open burning of solid waste resulting in air pollution. The possibility of re-utilisation of construction waste and debris within the project site in order to reduce the amount of waste generated and sent to the landfill sites, has not been discussed during the appraisal of the projects.

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 body<sup>5</sup>.

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

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<sup>4</sup> Air Environment of Form 1 A

<sup>5</sup> Para 7 of Rule 4 (Duties of Waste Generators) of Solid Waste Management Rules 2016

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 body<sup>6</sup>.

## ***2. Mining of Minor Minerals***

Minor minerals were appraised as Category B2 project under the EIA Notification, 2006.

A total of 11 projects were mining of minor minerals, which included sand, stone, granite and sandstone. Out of the 11 projects, 4 projects were given environment clearance; whereas not a single project was rejected by SEIAA or SEAC. 3 projects were deferred due to procedural issues, 2 projects were deferred to SEAC seeking further clarification on information prime facie disclosed from the site inspection report, 1 project was delisted and 1 project was transferred to DEIAA as per MoEF notification dated 20.01.2016.

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, green belt development as per the Central Pollution Control Board (CPCB) guidelines, regular maintenance of roads used for transportation of minor minerals, monitoring of ambient air quality at the boundary of the mining area and at the nearest habitation in the month of January, April and November.

### ***Analysis***

The entire mining process involves various activities in phased manner, which includes drilling, blasting, loading and unloading, use of haul road for 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.

While air pollution caused due to transportation of material has been addressed, air pollution caused due to vehicles and machinery used has not been addressed. There is therefore a need to carry out Cumulative Impact Assessment study to estimate the potential impacts of all the activities listed and their contribution to fugitive air pollution, which is a mandatory pre-requisite under the EIA Notification 2006. The fuel quality must be mandated for the vehicles plying to and from the mine site.

Merely setting up of conditions of water sprinkling and that to only along the haul roads does not help in controlling air pollution. There is a need for water sprinkling in critical areas prone to air pollution such as loading and unloading point, all transfer points and approach roads, which was not mentioned during the meetings of the SEIAA and not mandated in the EC conditions.

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<sup>6</sup> Para 6 of Rule 4 (Duties of Waste Generators) of Solid Waste Management Rules 2016

### 3. Common Effluent Treatment Plant

Common Effluent Treatment Plant is appraised under Item no. 7 (h) of EIA Notification 2006. Only one proposal for CETP project was appraised by SEIAA, which was rejected. The proposal was for amendment of the earlier EC condition given to a CETP. The proponent was asked to continue complying with the conditions given in the previous EC till its operation. However, the very conditions were not discussed in the minutes of the meeting.

### 4. Synthetic Organic Chemicals

Synthetic Organic Chemical Industries are appraised under 5 (f) of the EIA notification. A total of 17 projects under this category were appraised out of which 12 projects were given clearances. Special emphasise was laid by SEAC on such industries being zero discharge while recommending such projects to SEIAA.

The discussion on air pollution was reflected through some additional conditions such as:

Emission outlet of particulate matter of less than  $100 \text{ mg/Nm}^3$  shall be achieved by subjecting the flue gases from boilers to a cyclone separator and bag filter (of 99.9% efficiency), followed by a stack height of 35 m with the use of Induced Draft (ID) Fan and development of greenbelt at 2 locations – inside plant premises ( $370.3 \text{ m}^2$ ) and outside plant premises ( $766.22 \text{ m}^2$ ).

#### **Analysis**

There is no mention of installation of scrubbers as mitigation measure for control of process gaseous emissions of HCl,  $\text{SO}_2$ ,  $\text{Cl}_2$  and  $\text{NH}_3$ . It is also important to note that there is no mention of VOCs which is a major pollutant from the process as well as from the industrial waste water as well. Further, according to the United State Environment Protection Agency (US EPA)[1] the [equipment leaks in chemical processing unit is also a major contributor](#) of emission of pollutant in the air. No discussion or condition has been imposed on the unit to install Leak Detection and Repair (LDAR) system.

It is important to note here that VOCs refer to a group of chemicals. Each chemical has its own toxicity and potential for causing different health effects. Common symptoms of exposure to high level of VOCs include eye, nose and skin irritation, its various toxic and neurological effects; carcinogenicity, teratogenicity and mutagenicity<sup>7</sup>. It has the potential to cause photochemical ozone at ground level and damage to stratospheric ozone as well<sup>8</sup>.

VOCs do have direct and indirect adverse effects on plants and animals, with general implications for the well-being of natural ecosystems. VOCs which are persistent in nature have the potential to remain in the ecosystem for long and can pass through numerous

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<sup>7</sup> <http://www.health.state.mn.us/divs/eh/indoorair/voc/>

<sup>8</sup> <http://www.ultralast.com.au/the-harm-of-VOCs-in-our-environment.pdf>



possible environmental pathways, for example via sewer system or through contamination of the natural water cycle.

Particulate matter emission from boiler depends on the capacity and main feed of the boiler according to the prescribed standard for [boiler](#) by CPCB<sup>9</sup>. Thus, in the absence of detailed information on the boiler size and feed, it is difficult to accept whether the stack height and emission standard stipulated in the conditions are adequate enough to address air pollution from this sector.

## ***5. Metallurgical Industries***

Only one project was considered under this category in the 103<sup>rd</sup> SEIAA meeting dated 26<sup>th</sup>, 27<sup>th</sup> and 30<sup>th</sup> June, 2016, which was delisted due to the absence of the project proponent in that particular meeting and also in the consequent meetings. There was no further discussion regarding this project.

## ***6. Integrated Paint Manufacturing***

Integrated paint project is appraised under category 5 (h) of the EIA Notification 2006. Only one project was appraised by SEIAA under this category in the district of Raigad, which was granted EC.

The discussions on air environment were focused on baseline survey for air environment for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, Ammonia, Ozone, Lead, Arsenic, Nickel, Benzopyrene; monitoring of atmospheric and stack emissions for flue gas characteristics such as SPM, SO<sub>2</sub>, NO<sub>x</sub>, CO etc. and installation of control system for air pollution stacks.

### ***Analysis***

There are mainly 2 types of air emissions that occur during the paint manufacturing process – VOCs and pigment dust. The use of pigment pastes to reduce the pollution by pigment dust and measures to keep down the level of VOCs released during the process of paint manufacturing should be properly specified while granting EC.

The ambient air quality monitoring parameter must be extended to the monitoring of VOC as well, as this is a major contributor to indoor and outdoor air pollution and has proved to have impact on environment and health.

The type of air pollution control system used in the stacks need to be specified as otherwise, there will be likely chances that proponent do away with the devices, which are not worth enough to mitigate pollution.

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<sup>9</sup> CPCB industry specific standard for boiler emission

***Conclusion***

Submission of insufficient data, lack of importance to the cumulative impact assessment, lack of synchronisation between the previous and subsequent meeting discussion and generalised listing of 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. The discussion with respect to air pollution seems to be lacking in most cases with the SEAC recommending projects for environmental clearance even after observing some glaring gaps. The entire appraisal process must be made more effective and stringent, so as to ensure that the projects granted clearance do not cause adverse impacts on the environment.