



सत्यमेव जयते

# Report of the Comptroller and Auditor General of India on Environmental Clearance and Post Clearance Monitoring



Union Government  
Ministry of Environment, Forest and Climate Change  
Report No. 39 of 2016  
(Performance Audit)

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Comptroller and Auditor General of India  
on  
Environmental Clearance and Post Clearance  
Monitoring**

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Ministry of Environment, Forest and Climate Change  
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## Preface

*Ministry of Environment, Forest and Climate Change (MoEF&CC) is the nodal agency for the planning, promotion, co-ordination and overseeing of the implementation of India's environmental and forestry policies and programmes. In recognition of the need for ensuring protection of the environment, MoEF&CC has taken various regulatory and promotional measures which include establishment of procedures for environmental impact assessment and granting clearance for various types of projects. Environment Impact Assessment systematically examines both beneficial and adverse consequences of proposed projects and ensures that these effects are taken into account during project design.*

*The Performance Audit on 'Environmental Clearance and Post Clearance Monitoring' examined whether the process of grant of EC was carried out in a timely and transparent manner, in respect of environmental clearances granted during the calendar years 2011 to July 2015, and the monitoring of compliance with the environmental clearance conditions by the concerned agencies for the clearances granted during the calendar years 2008 to 2012.*

*The Performance Audit revealed that the Environment Impact Assessment process suffers from various procedural deficiencies which led to delays in grant of environmental clearances. Each project was treated singularly for Environment Impact Assessment but cumulative impact study/assessment was found lacking. There were lack of compliance of environmental clearance conditions by Project Proponents. We also noticed weaknesses in monitoring by State Pollution Control Boards/Union Territory Pollution Control Committees and Regional Offices of MoEF&CC in compliance of environmental clearance conditions. There was lack of monitoring in the Critically Polluted Areas. A National Regulator for looking at the entire process of grant of environmental clearances and its monitoring is under consideration by MoEF&CC.*

*We hope that this report prepared for submission to the President of India under Article 151 of the Constitution of India, for being laid before the Parliament, will help the planners and administrators in improving the process of environmental clearance and the post clearance monitoring.*



## Executive Summary

Environment Impact Assessment is a planning tool to integrate environment concerns into developmental process from the initial stage of planning. The Ministry of Environment, Forests and Climate Change made Environmental Clearance for certain development projects mandatory through its notification of January 1994 which was revised in September 2006.

The Performance Audit on 'Environmental Clearance and Post Clearance Monitoring' seeks to examine whether the process of grant of Environmental Clearance is carried out in a timely and transparent manner and its compliance with the prescribed process; and that the Project Proponents complied with the conditions attached to the Environmental Clearances.

We sampled 216 projects which had been granted Environmental Clearance between calendar years 2011 to July 2015 to examine the process of grant of Terms of Reference and Environmental Clearance at the Ministry and 352 projects which had been granted Environmental Clearance between calendar years 2008 to 2012 to check the post Environmental Clearance monitoring.

### Environment Impact Assessment process

The database for the projects granted Environmental Clearance by the Ministry as initially received from the National informatics Centre cell (August 2015) and that provided by the Ministry later in October 2016 differed significantly. There were discrepancies such as inclusion of Category B projects along with Category A projects, sectoral misclassification, wrong depiction of location of projects. The database did not contain the time taken at each stage of EIA process.

(Paragraph 2.2)

The process of grant of Environmental Clearance included grant of Terms of Reference, public consultation, assessment of Environment Impact Assessment report and grant of Environmental Clearance by the Ministry. Out of 216 projects only in 14 *per cent* of the projects the Terms of Reference was granted within the prescribed time limit of 60 days, in others there were delays upto 365 days. In 11 *per cent* cases, the Environmental Clearance was granted within the prescribed time limit of 105 days, in other projects there were delays at various stages like scrutiny of the Final Environment Impact Assessment reports, appraisal of the application by the Expert Appraisal Committee, placing the recommendations of the Expert Appraisal Committee before the Competent Authority, conveying the recommendations of Expert Appraisal Committee and the decision of the Ministry to the Project Proponent.

(Paragraph 2.3)

In 25 *per cent* cases, the Environment Impact Assessment reports did not comply with Terms of Reference and in 23 *per cent* cases they did not comply with the generic structure of the report. Cumulative impact studies before preparing the Environment Impact Assessment reports was not made a mandatory requirement, thus the impact of a number of projects in a region on the ecosystem was not known. Ministry had not followed due process in issue of Office Memoranda and the Office Memoranda so issued had the effect of diluting the provisions of original notification.

(Paragraphs 2.5, 2.6 and 2.7)

The Ministry has not yet appointed Regulator at the National level as observed by the Supreme Court (July 2011) to carry out an independent, objective and transparent appraisal and approval of the projects for Environmental Clearances and to monitor the implementation of the conditions laid down in the Environmental Clearance.

(Paragraph 2.11)

There was non-uniformity in the terms and conditions of the Environmental Clearance for similar kind of projects. The Environment Impact Assessment reports were found prepared by non-accredited consultants.

(Paragraphs 2.12 and 2.13)

There was no provision for the Project Proponents to fulfill their commitments in a time bound manner and to ensure that the concerns of the local people were included in the final Environment Impact Assessment report/Environmental Clearance letter. The public hearing process did not have quorum requirement and qualification of residency to participate in the public hearing process. Commitments made by Project Proponents in Environment Impact Assessment report during public hearing was also not monitored. Besides, the reservations expressed during the public hearings were not included in the Environment Impact Assessment reports.

(Paragraph 2.14)

### **Compliance to General Conditions of Environment Clearance**

In respect of 13 general Environmental Clearance conditions, non-compliance in the sampled projects ranged from four to 56 *per cent*.

(Paragraph 3.1)

There was shortfall of expenditure on Environment Management Plan activities (26 *per cent* cases), Enterprise Social Responsibility activities (20 *per cent* cases) and development of green belt (47 *per cent* cases). Time bound action plan for implementing the Environment Management Plan was not made in 64 *per cent* of the cases.

(Paragraphs 3.2 and 3.4)

In 56 *per cent* of the cases approval of the Competent Authority was not obtained for the actual number of trees cut by the Project Proponents. Ground water was used without permission of the Competent Authority in 19 *per cent* of the cases. The scope of

work was changed after obtaining the Environmental Clearance in 10 *per cent* of the cases.

(Paragraphs 3.5, 3.6 and 3.7)

The annual environmental audit report was not submitted by Project Proponents to State Pollution Control Boards/Union Territory Pollution Control Committees in 19 *per cent* of the cases and in seven *per cent* of the cases construction/operations was commenced before grant of Environmental Clearance.

(Paragraphs 3.8 and 3.9)

### **Compliance to Specific Conditions of Environment Clearance**

In respect of 18 specific Environmental Clearance conditions, non-compliance in the sampled projects ranged from 5 to 57 *per cent*.

(Paragraph 4.1)

There was absence of preparation and maintenance of action plan for conservation of flora and fauna in 57 *per cent* of the cases. Construction of Rain Water Harvesting structure was not done in 29 *per cent* of the cases. Shortfall in relief and rehabilitation measures for people affected by projects was observed in 22 *per cent* of the cases.

(Paragraphs 4.5, 4.8 and 4.10)

Improper storage of fly ash was noticed in 33 *per cent* of the cases. Non-utilisation of fly ash generated was also noticed in 21 *per cent* of the cases.

(Paragraphs 4.13 and 4.16)

Consolidation and compilation of muck in the designated muck dumping sites was not done in 33 *per cent* of the cases. Implementation of Catchment Area Treatment in Irrigation projects was not carried out in 56 *per cent* of the cases.

(Paragraphs 4.17 and 4.20)

### **Monitoring of compliance of EC by Project Proponents**

There were non-compliance in setting up of separate monitoring cell with adequate manpower in 98 projects. In 71 projects there were shortfalls in monitoring of environmental parameters by the Project Proponents. There were inadequacies in monitoring by third party/agencies in 201 projects.

(Paragraphs 5.2, 5.4 and 5.5)

### **Action plan for Critically Polluted Areas**

The Ministry did not carry out biennial environmental quality monitoring in Critically Polluted Areas through a third party for computing Comprehensive Environmental Pollution Index.

(Paragraph 6.2)

State Pollution Control Boards of five States had not prepared action plans and eight States did not monitor the implementation of action plans. The third party monitoring of implementation of action plan was not done by 10 State Pollution Control Boards.

(Paragraphs 6.3 and 6.7)

#### **Monitoring of compliance of ECs by Regional Offices of the Ministry**

There were only 15 scientists available for monitoring of Environmental Clearance conditions against sanctioned strength of 41. Regional Offices have not been delegated the powers to take action against the defaulting PPs and they had to report the violations of the Environmental Clearance conditions to the Ministry.

(Paragraph 7.5 and 7.6)

The Ministry did not have a database of cases received by it where the violations were reported by Regional Offices. No penalty was imposed by the Ministry for violating conditions of Environmental Clearance in the last two years.

(Paragraphs 7.8)

#### **Monitoring of compliance of Environmental Clearances by State Pollution Control Boards/Union Territory Pollution Control Committees**

Clear cut responsibilities were not assigned to State Pollution Control Boards/Union Territory Pollution Control Committees under Environment Impact Assessment Notification 2006 regarding post Environmental Clearance monitoring.

(Paragraph 8.2)

State Pollution Control Boards/Union Territory Pollution Control Committees were not able to ensure that projects were running with valid Consent to Establish in 11 cases and without Consent to Operate in four cases.

(Paragraph 8.4)

24 State Pollution Control Boards/Union Territory Pollution Control Committees did not have in place sufficient infrastructure and manpower for monitoring despite having sufficient funds.

(Paragraph 8.6)

#### **Conclusion**

The existing processes for grant of Environmental Clearance suffered from various procedural deficiencies. There were delays at each stage of the Environment Impact Assessment process. Each project is treated as a single project for Environment Impact Assessment but cumulative Environment Impact Assessment which is critical in evaluating impact on environment, was found to be lacking. There were variations in the database for the projects granted Environmental Clearance by the Ministry as initially received from the National Informatics cell and that provided by the Ministry. A National Regulator to oversee the entire process of grant of Environmental Clearance and

monitoring is yet to be appointed despite directions of the Hon'ble Supreme Court. Environmental Clearances were granted to the Project Proponents without checking the compliance of the conditions mentioned in the previous Environmental Clearances and recommendations of the Regional Office.

The Ministry did not compile information about closed/non-operational projects which indicated poor coordination among the Ministry, State Pollution Control Boards/Union Territory Pollution Control Committees and Project Proponents. Mechanism to ensure redressal of the concerns of the public in the final Environment Impact Assessment report/EC letter and implementation of the commitments made by the PP during public consultation in a time bound manner were also not firmly in place. Besides, shortcomings were noticed in the conduct of public hearings.

There were shortages in compliance of 13 general conditions prescribed in the Environmental Clearances by the Project Proponents. The non-compliances noticed were non fulfillment of the Environment Management Plan commitments, maintaining sufficient greenbelt, activities under Enterprise Social Responsibility, change in scope of the projects without requisite approvals and commencement of construction/operations before grant of Environmental Clearance.

There were shortages in compliance to 18 specific conditions prescribed in Environmental Clearances by Project Proponents. The non-compliances noticed were non preparation and implementation of the Emergency Preparedness Plan, allocation of funds for Action plan for conservation of flora and fauna non consultation with the State Forest and Wildlife Department, non installation of Effluent Treatment Plants and Sewage Treatment Plants at project premises, non implementation of Occupational Health Surveillance programme etc. In Thermal Power Plants, environmentally safe practices of storage of fly ash were not adhered to, coal of more than permitted ash content was being used, fugitive emission of fly ash was not properly controlled and the fly ash generated was not being fully utilized.

In spite of the conditions mentioned in the Environmental Clearance, the Project Proponents showed poor monitoring of environmental parameters. The Ministry/Central Pollution Control Board did not undertake environmental quality monitoring in Critically Polluted Areas due to non-finalization of the firms for the same. Project Proponents were also not uploading half yearly compliance report on their website. There was wide gap between the sanctioned strength *vis a vis* men in position of scientists in all the Regional Offices.

Regional Offices had not been delegated powers to take action against the defaulting Project Proponents. No penalty was imposed by the Ministry for violating conditions of Environmental Clearance in the last two years. State Pollution Control Boards/Union Territory Pollution Control Committees had not been carrying out post Environmental Clearance monitoring due to lack of clear cut responsibility assigned to them under Environment Impact Assessment Notification 2006.

## Recommendations

Based on the audit findings, the following recommendations are made:

- i. MoEF&CC may take suitable action in consultation with NIC for revalidation of database and arrive at correct picture of the projects which have been granted EC by the Ministry.
- ii. In order to increase transparency and fairness in grant of EC, MoEF&CC may streamline the processes including adhering to the timelines as per the EIA Notification.
- iii. MoEF&CC, while scrutinising the EIA reports, may ensure that they are as per the ToR, comply with the generic structure, baseline data is accurate and concerns raised during the public hearing are adequately addressed.
- iv. MoEF&CC may evaluate the entire process of EIA by involving all stakeholders, following legal processes and make suitable amendments in EIA Notification 2006 rather than resorting to Office Memorandums.
- v. MoEF&CC may grant fresh EC to the PPs only after verifying the compliance to the earlier EC conditions.
- vi. MoEF&CC may adhere to its circular of 2010 on EC of coal linked mine for Thermal and Metallurgical projects so that firm coal linkage is available and the status of environment and forestry clearance of the coal sources i.e. the linked coal mine/coal block is known.
- vii. MoEF&CC may consider bringing conditions of EC compatible with the nature and type of project in order to avoid non-uniformity in similar kind of projects.
- viii. The EIA reports/EC letters should clearly mention cost of activities under EMP and ESR along with the timelines for their implementation.
- ix. MoEF&CC may consider making EMP/EC condition(s) more specific for the area to be developed under Green belt and species to be planted in consultation with Forest/Agriculture Department along with post EC Third Party evaluation.
- x. MoEF&CC may consider endorsing copy of EC letter issued to each project to the Central Ground Water Board/State Agencies to ensure monitoring of Ground Water extraction.
- xi. MoEF&CC should work out strategies in co-ordination among ROs, CPCB, SPCBs/UTPCCs and other Departments of State Governments to strictly monitor the compliance of condition mentioned in the EC periodically.
- xii. MoEF&CC and SPCBs may consider adopting risk based approach to monitor the conditions stipulated in the ECs of the project and devise schedule for percentage check of six-monthly compliance reports and environment statements.
- xiii. MoEF&CC may consider bringing suitable condition by mentioning the name and number of post/posts to be engaged by the proponent for implementation and monitoring of environmental parameters.

- xiv. MoEF&CC may consider bringing the mandatory EC conditions on installation of monitoring stations and frequency of monitoring of various environment parameters in respect of air, surface water, ground water noise, etc.
- xv. MoEF&CC may in consultation with SPCBs introduce a system of surprise check by the SPCBs at premise of PPs to verify the third party testing of environmental parameters.
- xvi. MoEF&CC may issue advisory to the State Government regarding implementation and monitoring of the action plan of critically polluted area at regular intervals.
- xvii. MoEF&CC may put in place mechanism to ensure that the compliance reports are regularly and timely received and uploaded by PPs and the Ministry on their websites.
- xviii. MoEF&CC may take expeditious measure to have the requisite number of scientists in place in the respective ROs.
- xix. MoEF&CC should evolve a system by delegating powers to ROs for taking action against the defaulting PPs.
- xx. MoEF&CC should have a system in place where the reports of violation received from ROs are compiled and constantly monitored in coordination with the ROs for ensuring that the PPs comply with EC conditions and take action as per law.
- xxi. MoEF&CC may issue directive to the State Government to frame modalities clearly delegating responsibility of monitoring the compliance to EC letter and commitments made in the EIA reports.
- xxii. MoEF&CC may issue advisory to SPCBs/UTPCCs for periodical monitoring after grant of CTE and CTO to Project Proponents.
- xxiii. MoEF&CC may advise the State Governments to strengthen the infrastructure and manpower of SPCBs so that they properly monitor the EC conditions of the project running in their jurisdictions.



**CHAPTER**

**1**



# 1 Introduction

## 1.1 Background

Article 48 A of the Constitution of India brings out that the State shall endeavor to protect and improve the environment and to safeguard the forests and wildlife in the country. Article 51 A(g) of the Constitution of India enjoins upon the citizens of India to protect and improve the natural environment including forests, lakes and rivers and wildlife and to have compassion for living creatures. These highlight the importance the Constitution of India has assigned for the protection and safeguard of environment and natural resources.

The impact of efforts to achieve rapid economic growth and development and continuing pressures of demand generated by those sections of society who are economically more advanced and impose great strain on the supply of natural resources, has been recognized as one of the environmental problems in India. The Ministry of Environment, Forest and Climate Change (MoEF&CC) is the nodal agency for the planning, promotion, co-ordination and overseeing of the implementation of India's environmental and forestry policies and programmes. In recognition of the need for environmental protection, the MoEF&CC has taken various regulatory and promotional measures.

## 1.2 Environment Impact Assessment and Environmental Clearance

Environment Impact Assessment (EIA) is a process used to identify the environmental impacts of a project prior to its approval. EIA systematically examines both beneficial and adverse consequences of the proposed project and ensures that the environmental impact and the mitigation measures are taken into account during the project design. There are many benefits of considering environmental effects and mitigation early in the project planning cycle, such as protection of the environment, optimum utilization of resources and saving overall time and cost of the project. Properly conducted EIA also lessens conflicts by promoting community participation, informs decision-makers, and helps lay the base for environmentally sound projects.

EIA in India commenced in 1976-77 when the erstwhile Planning Commission asked the then Department of Science and Technology to examine river-valley projects from an environmental perspective. This was subsequently extended to cover those projects which required approval of the Public Investment Board. These were administrative decisions and lacked the legislative support. The Government of India (GoI) enacted the Environment (Protection) Act on 23<sup>rd</sup> May 1986. MoEF&CC made EIA and Environmental Clearance (EC) mandatory for certain development projects through its notification of

January 1994 under the Environment (Protection) Act, 1986. Subsequently, keeping in view the experience gained in EC process over a period of one decade, MoEF&CC brought out EIA Notification in September 2006.

EIA exercise is to be carried out before any project is undertaken. The process of granting EC for the projects has been defined in EIA Notification 2006. This comprises of four stages namely Screening, Scoping, Public Consultation and Appraisal, all of which may not apply in each cases. This has been summarized in **Annexure I**.

### **1.3 Categorisation of projects and Appraisal Committees**

The EIA Notification 2006 has classified projects under two Categories - A and B, based on the spatial extent of potential impacts and potential impacts on human health and natural and manmade resources, as given in the Schedule of the EIA Notification.

New projects or activities and expansion and modernization of existing projects or activities, listed in the Schedule to EIA Notification 2006, require prior EC from the concerned regulatory authority, which is MoEF&CC for projects falling under Category 'A' in the Schedule and at State level, the State Environment Impact Assessment Authority (SEIAA) for projects falling under Category 'B' in the said Schedule.

The MoEF&CC grants EC on the recommendations of sector specific Expert Appraisal Committees (EACs). The various specialized EAC<sup>1</sup> constituted by MoEF&CC are (a) Coal Mining; (b) Industrial Projects; (c) Infrastructure and Miscellaneous Projects and Coastal Regulation Zone (CRZ); (d) Mining Projects; (e) New Construction Projects and Industrial Estates; (f) Nuclear Projects; (g) River Valley and Hydroelectric Projects; and (h) Thermal Projects.

The SEIAA makes its decision on the recommendations of a State or Union Territory Level Expert Appraisal Committee (SEAC). The SEAC at the State or the Union Territory level is constituted by the Central Government in consultation with the concerned State Government or the Union Territory Administration, with identical composition. In the absence of a duly constituted SEIAA or SEAC, a Category 'B' project is appraised at Centre as Category 'B' project.

These Committees are constituted by the Central Government and consist of professionals and experts in the field of Environment Quality, Sectoral Experts in Project Management, EIA Process Experts, Risk Assessment Experts, Life Science Experts in Floral and Faunal Management, Forestry and Wildlife Experts and Environmental Economics Experts with experience in project appraisal, fulfilling the eligibility criteria laid down in Appendix VI of the EIA Notification.

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<sup>1</sup> There is one more EAC for Defence Projects. However, the details of Defence projects, constitution of EAC and minutes of meeting of this EAC are not kept in public domain.

#### 1.4 Category-wise Environment Clearance granted by MoEF&CC

The sector wise EC granted by MoEF&CC for Category A projects during the calendar years 2008 to 2015 (upto July 2015) are given in Table 1.1. These details were provided by the National Informatics Centre (NIC) Cell of MoEF&CC (August 2015)<sup>2</sup>. The observations on this are brought out in para 2.11 of Chapter 2.

**Table 1.1: Sector wise EC granted by MoEF&CC**

Sector	2008	2009	2010	2011	2012	2013	2014	2015 <sup>3</sup>	Total
Coal Mining Projects	73	60	33	25	25	45	43	39	343
Industrial Projects	785	539	295	219	265	233	143	171	2,650
Infrastructure and Miscellaneous Projects and CRZ	184	110	99	80	123	102	62	84	844
Mining Projects (Non coal)	199	180	85	58	69	87	225	89	992
New Construction and Industrial Estate Project	580	252	139	63	81	209	108	70	1502
Nuclear Power Projects	1	1	1	0	4	1	0	0	8
River Valley and Hydroelectric Projects	11	11	10	11	4	10	3	8	68
Thermal Power Projects	83	69	75	48	46	15	17	13	366
<b>Total</b>	<b>1,916</b>	<b>1,222</b>	<b>737</b>	<b>504</b>	<b>617</b>	<b>702</b>	<b>601</b>	<b>474</b>	<b>6,773</b>

The analysis in the subsequent Chapters is based on the figure of 6,773 ECs which contain the sector wise, State wise and year wise details.

#### 1.5 Organisational set-up

MoEF&CC is headed by the Secretary who reports to the Minister in charge of MoEF&CC. The Impact Assessment Division of MoEF&CC is entrusted with the task of appraisal of various projects pertaining to Industry, Coal Mining, Infrastructure/Construction, Non-Coal Mining, River Valley and Thermal Power Sectors. The ECs are approved/rejected by the Minister, MoEF&CC based on the recommendations of sector specific EAC. The Monitoring Cell at MoEF&CC and its 10 Regional Offices (ROs) monitor the compliance of EC conditions. CPCB along with State Pollution Control Boards/Union Territory Pollution Control Committees (SPCBs/UTPCCs) are responsible for implementation of legislations relating to prevention and control of environmental pollution.

#### 1.6 Post Environmental Clearance Monitoring

After examining various aspects of a project, MoEF&CC grants EC subject to implementation of the stipulated environmental safeguards. In order to ensure adequacy of these safeguards and to undertake mid-course corrections required, if any, the MoEF&CC undertakes monitoring of cleared projects. It is mandatory for the project management to submit half-yearly compliance reports in respect of the stipulated prior

<sup>2</sup> MoEF&CC had been repeatedly requested to confirm the figures of projects granted EC. In October 2016, MoEF&CC mentioned that 4,534 ECs had been granted during 2008 to July 2015 without the sector wise and year wise details.

<sup>3</sup> Upto July 2015.

EC terms and conditions in hard and soft copies to the regulatory authority concerned, on 1<sup>st</sup> June and 1<sup>st</sup> December of each calendar year. The latest such compliance report should also be displayed on the web site of the concerned regulatory authority.

#### **1.6.1 Regional Offices of MoEF&CC**

Monitoring of cleared projects is undertaken by the ROs of MoEF&CC. Initially, GoI set up five ROs in 1986 at Bengaluru, Bhopal, Bhubaneswar, Lucknow and Shillong with a Headquarter unit at New Delhi to monitor and evaluate ongoing forestry development projects and schemes with special emphasis on conservation of forest land and to advise the State/ Union Territory Governments in preparation of proposals involving diversion of forest land for non-forestry purposes under the provisions of the Forest (Conservation) Act, 1980. In view of the increasing work relating to all aspects of environmental management including pollution control and environmental management of projects and activities in the country and in view of Hon'ble Supreme Court's observation of 2011, five more ROs were established subsequently at Chandigarh (1988), Ranchi (2013) and Dehradun, Nagpur and Chennai (2014-15). Thus, 10 ROs are presently functioning under MoEF&CC.

#### **1.6.2 Central Pollution Control Board**

The Central Pollution Control Board (CPCB), a statutory organisation, was constituted in September, 1974 under the Water (Prevention and Control of Pollution) Act, 1974. Further, CPCB was entrusted with the powers and functions under the Air (Prevention and Control of Pollution) Act, 1981. It serves as a field formation and also provides technical services to the Ministry regarding the provisions of the Environment (Protection) Act, 1986. Functions of the CPCB, are (i) to promote cleanliness of streams and wells in different areas of the States by prevention, control and abatement of water pollution; and (ii) to improve the quality of air and to prevent, control or abate air pollution in the country. Air Quality Monitoring is an important part of the air quality management. One of the mandates of CPCB is to collect, collate and disseminate technical and statistical data relating to water pollution. Water Quality Monitoring (WQM) and Surveillance are under the ambit of CPCB.

#### **1.6.3 State Pollution Control Boards/Union Territory Pollution Control Committees**

State Pollution Control Boards (SPCBs) are implementing various environmental legislations in the States, mainly including Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981, Water (Prevention and Control of Pollution) Cess Act, 1977 and some of the provisions under Environment (Protection) Act, 1986 and the rules framed there under, such as Biomedical Waste (Management & Handling) Rules, 1998, Hazardous Waste (Management & Handling) Rules, 2000, Municipal Solid Waste Rules, 2000 etc.

CPCB has delegated its powers and functions from time to time under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981 to various Union Territories Pollution Control Committees (UTPCCs).

### 1.7 Why we chose the topic

The importance of EIA in harmonizing developmental efforts with conservation of environment and ecology has been emphasized nationally and internationally. The Convention on Biological Diversity (CBD)<sup>4</sup> recognizes impact assessment as an important tool for ensuring that development is planned and implemented with biodiversity in mind.

Over the years, there were a number of issues regarding delay in grant of ECs, quality of the EIA reports, assessment of impact of the projects on environment, effectiveness of public consultation, monitoring of the compliance of the environment clearance conditions. There have also been a number of Court Judgments, Parliamentary questions and amendments to the EIA notification with regard to the EC process and post clearance monitoring.

In view of the above, we decided to undertake this topic for Performance Audit.

### 1.8 Audit Objectives

Performance Audit on Environmental Clearance and Post Environmental Clearance Monitoring seeks to examine whether:

1. the process of grant of EC is in compliance with the laid down procedure, is adequate, fair and transparent.
2. there is adequate Post Environmental Clearance Monitoring to ensure that the project proponents comply with all the conditions laid down in the EC letter and commitments made in the EIA report.

### 1.9 Audit Scope, Methodology and Sampling

The EIA notification issued by MoEF&CC in 2006 identified 39 different types of developmental projects and activities, grouped into eight sectors<sup>5</sup>. The scope of our audit is as follows:

- i. With reference to Audit Objective 1, we covered projects that were granted EC by MoEF&CC between January 2011-July 2015 in all sectors except Nuclear Power Projects.
- ii. With reference to Audit Objective 2, we covered projects<sup>6</sup> that were granted EC by MoEF&CC between calendar years 2008-2012 in all sectors except Nuclear Power Projects.

<sup>4</sup> Signed by 150 countries including India, at the 1992 Rio Earth Summit, the Convention on Biological Diversity is dedicated to promoting sustainable development. It was conceived as a practical tool for achieving the principles of Agenda 21 of the United Nations.

<sup>5</sup> 1. River Valley and Hydroelectric Projects, 2. Nuclear Power Projects, 3. Thermal Power Projects, 4. Coal Mining, 5. Non coal Mining, 6. Infrastructure, 7. Construction and 8. Industry.

We selected projects year wise, State/UT wise and sector wise based on stratified judgement sampling. Since, a project takes four to five years for operationalisation, therefore, in respect of examination of Audit Objective 2, the projects granted EC during the time frame 2008 to 2012 have been sampled. The details of sampling for Audit Objective 1 and Audit Objective 2 are given in **Annexure II**.

We examined records in MoEF&CC including its 10 Regional Offices (ROs), CPCB and 33 SPCBs/UTPCCs. We also examined compliance reports submitted by the Project Proponents (PPs) to MoEF&CC and the ROs of MoEF&CC. Joint site visits were carried out along with officials of SPCBs/UTPCCs. During the site visit, we test checked the records furnished by the PPs in relation to EIA and compliance to EC.

We held entry conference with MoEF&CC on 17 September 2015 wherein audit objectives, scope, methodology and sample were discussed. Thereafter the field audits commenced in the Ministry and 33 selected States/UTs<sup>7</sup>. The Exit conference was held on 28 October 2016 wherein Audit Observations and the recommendations of the PA report were discussed. The reply of the Ministry was received on 31 October 2016. The replies have been suitably incorporated in relevant Chapters. The comments furnished by the Ministry on the recommendations along with further Audit comments have been given as **Annexure III**.

### **1.10 Audit Criteria**

The audit criteria were derived from the Environment (Protection) Act 1986, Environment Impact Assessment Notification 2006, its amendments and other related circulars, office memoranda, instructions and guidelines issued by MoEF&CC and other Regulatory Authorities.

### **1.11 Acknowledgement**

We acknowledge the cooperation extended by MoEF&CC, Central Pollution Control Board, State Pollution Control Boards, Regional Offices and selected Project Proponents during the course of the Performance Audit.

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<sup>6</sup> We gave preference to those projects that were selected for Audit Objective 1 and are complete. These also include 22 projects in critically polluting areas in 16 States.

<sup>7</sup> Andhra Pradesh, Assam, Andaman & Nicobar Islands, Bihar, Chandigarh, Chhattisgarh, Dadra & Nagar Haveli, Daman & Diu, Delhi, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Odisha, Puducherry, Punjab, Rajasthan, Sikkim, Tamil Nadu, Telangana, Tripura, Uttarakhand, Uttar Pradesh and West Bengal.

**CHAPTER**

**2**

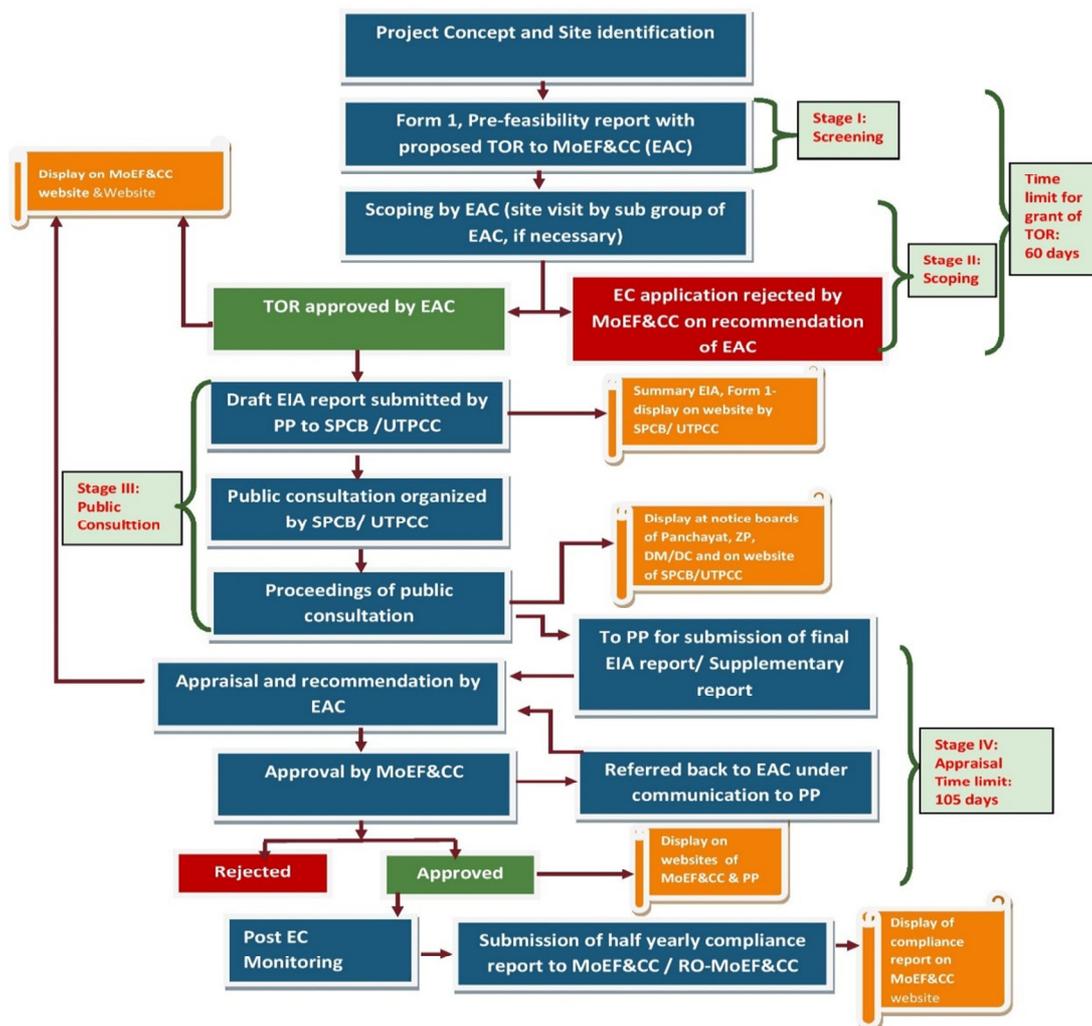


# Process of grant of Environment Clearance

## 2.1 Introduction

Environment Impact Assessment (EIA) exercise is to be carried out before any project is undertaken. EIA Notification of 2006 and its amendments define Environmental Clearance (EC) process. This comprises of a maximum of four stages, all of which may not apply to a particular case. These four stages in sequential order are Stage 1: Screening (Only for Category 'B' projects and activities); Stage 2: Scoping; Stage 3: Public Consultation; and Stage 4: Appraisal. The process of granting ECs and post EC monitoring for Category A projects is illustrated in the **Chart 2.1**.

**Chart 2.1: Process of grant of EC**



SPCB: State Pollution Control Board, UTPCC: Union Territory Pollution Control Committee, EIA: environment Impact Assessment, PP: Project Proponent, EAC: Expert Appraisal Committee, TOR: Terms of Reference, EC: Environmental Clearance

The present chapter deals with deficiencies noticed in EIA processes. We scrutinised 216<sup>8</sup> projects relating to seven sectors which were granted EC between 2011-2015. **Chart 2.2** shows the percentages of delay in various EIA processes details of which are described in succeeding paragraphs.

**Chart 2.2: Delay of EIA processes (in per cent)**

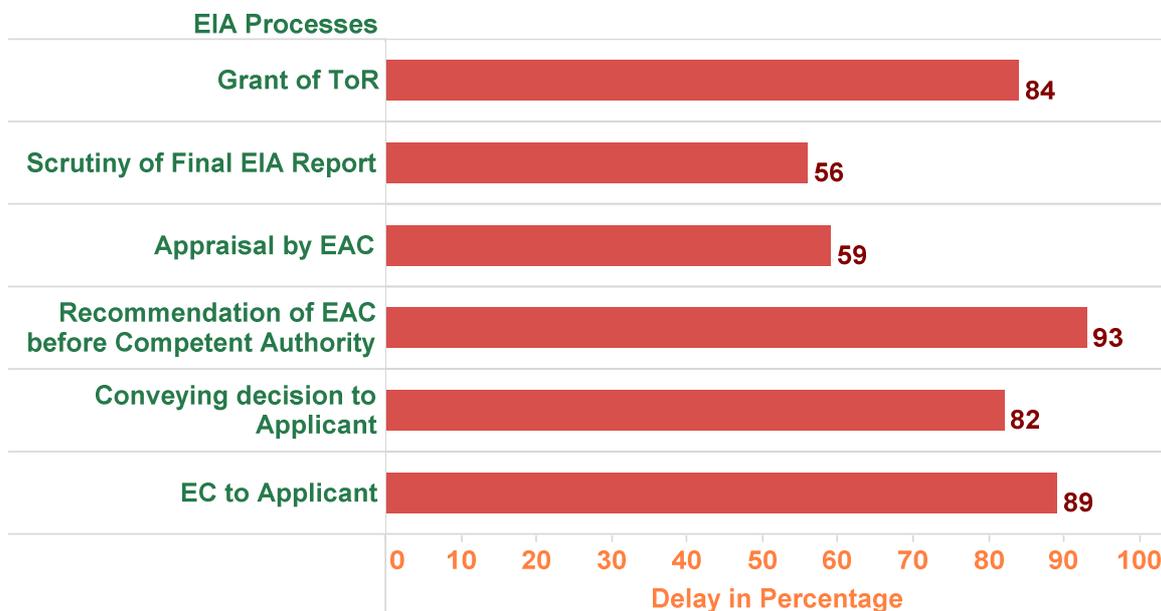


Chart 2.2 shows that overall delay in grant of EC to the applicant is in 89 *per cent* cases. In terms to various EIA processes, maximum delay (93 *per cent* cases) occurred in giving recommendations of EAC before the Competent Authority whereas the least delay occurred in scrutiny of final EIA Report.

## 2.2 Inconsistencies noticed in respect to database of Environmental Clearances

The information relating to the number of projects (6,765) granted EC during the period January 2008 to July 2015 pertaining to seven sectors namely Coal Mining, Industry, Non Coal Mining, Construction, Infrastructure, Thermal and River Valley was provided by NIC cell (August 2015) of MoEF&CC. We noticed the following discrepancies in the database:

- a. Category 'B' projects were included in the database of Category 'A' projects.
- b. Projects granted EC by SEIAA were also included in the database.
- c. Projects were misclassified under a different sector. For example, the list of Non Coal mining sector included some projects from industrial sector, Coal mining etc.
- d. Location of projects was also wrongly depicted.

We attempted to reconcile the discrepancies in the database with MoEF&CC. The Ministry furnished (June 2016) database maintained by them for Thermal Power Projects granted EC during the period January 2008 to July 2015 which differed

<sup>8</sup> We selected a sample of 249 projects out of 2,917 projects granted EC during 2011 to July 2015. We received 216 files only.

significantly with the figures provided by NIC, Cell. The Ministry did not furnish reply in respect of other remaining sectors. Further, the database does not contain the time taken at each stages of EIA process. The detail findings of audit relating to delay are contained in subsequent paragraph.

MoEF&CC further stated (October 2016) that the figures appearing in the Audit Report do not match with the data made available by the NIC<sup>9</sup>, According to MoEF&CC's reply, 4,534 ECs were granted during 2008 to July 2015.

However, during the course of Audit, the EIA division of MoEF&CC was repeatedly asked to confirm the figures of projects granted EC and point out the inconsistencies, if any. But the Ministry did not furnish reply<sup>10</sup>. MoEF&CC provided only the year wise figures of project granted EC (October 2016) and which significantly differed from database furnished earlier by NIC to audit. MoEF&CC did not provide State wise and sector-wise database of the projects granted EC.

### 2.3 Adherence with the timelines of EIA process

According to Para 7(i) II of the EIA Notification 2006, the EAC concerned determine the Terms of Reference<sup>11</sup> (ToR) on the basis of the information furnished by the applicant in the prescribed form. The ToR has to be conveyed to the applicant by the concerned EAC within 60 days of the receipt of the prescribed form. Depending on the sector the validity of the ToR ranges between four to five years.

Further, to obtain EC, the Project Proponent (PP) submits the Final EIA report, the outcome of the public consultations including public hearing proceedings to the MoEF&CC for appraisal by the EAC. The EAC concerned has to make categorical recommendations to the regulatory authority concerned either for grant of prior EC on stipulated terms and conditions, or for rejection of the application for prior EC, together with reasons for the same.

As per the EIA Notification 2006, the Final EIA Report and the other relevant documents submitted by the applicant should be scrutinized in MoEF&CC within 30 days from the date of its receipt. The appraisal of an application has to be completed by the EAC concerned within 60 days of receipt of the final EIA report. The recommendations of the EAC had to be placed before the Competent Authority for a final decision within the next 15 days. The regulatory authority has to consider the recommendations of the EAC concerned and convey its decision to the applicant within 45 days of the receipt of the recommendations of the EAC concerned. The EC has to be conveyed to the applicant within 105 days of the receipt of the final EIA Report.

<sup>9</sup> NIC is responsible for maintaining the website and online system for applications for environmental clearance of the Ministry.

<sup>10</sup> except the Thermal Power Projects

<sup>11</sup> ToR prescribes detailed and comprehensive terms addressing all relevant and environmental concerns for preparation of an EIA Report.

We scrutinised 216<sup>12</sup> projects which had been granted EC between 2011-15 to examine whether prescribed time limit had been observed by MoEF&CC in grant of EC.

Year wise delays in grant of EC for the sampled projects is given in Table 2.1 below.

**Table 2.1: Year wise delay in grant of EC**

Year of Grant of EC	Number of projects	Number of projects with delays	Maximum delay (days)	Average delay (days)
2011	61	45	944	86
2012	56	54	588	184
2013	24	23	820	231
2014	25	25	761	316
2015 (upto July)	42	38	1,002	238
<b>Total</b>	<b>208</b>	<b>185</b>		

Note: Out of sampled 216 projects delay could not be ascertained in eight projects (Coal-1, Non-Coal – 3, Infrastructure – 3, River Valley – 1) due to insufficient information.

From the above table it is evident that in 185 projects (89 *per cent*) the EC was not granted within the prescribed time limit of 105 days. The average delay in grant of EC increased from 86 to 316 days during 2011 to 2014. In 2015, the average delay declined to 238 days. We observed that the delay was attributable to delay in processing of EC application at various stages, which are highlighted in the succeeding paragraphs.

The number of projects with delays are depicted sector wise and stage wise in the Table 2.2 & 2.3.

**Table 2.2: Sector wise delay in grant of EC**

Sector	Grant of ToR	Scrutiny of Final EIA Report	Appraisal of the application by the EAC	Placing recommendations of the EAC before the competent authority for a final decision	Conveying recommendations of EAC and the decision of the MoEF&CC to the applicant	Overall time for grant of EC excluding ToR
<b>Number of cases</b>	180	168	202	207	210	208
Sector wise delays						
1. Coal Mining	22	13	32	34	28	34
2. Industry	30	18	22	34	29	30
3. Non Coal Mining	26	26	28	33	34	33
4. Construction	-	14	8	16	15	19
5. Infrastructure	31	15	18	34	33	31
6. River Valley and Hydro Electric	5	5	4	6	6	6

<sup>12</sup> Coal – 39, Industry - 34, Non-Coal – 37, Construction – 20, Infrastructure – 38, River Valley – 7, Thermal – 41.

Sector	Grant of ToR	Scrutiny of Final EIA Report	Appraisal of the application by the EAC	Placing recommendations of the EAC before the competent authority for a final decision	Conveying recommendations of EAC and the decision of the MoEF&CC to the applicant	Overall time for grant of EC excluding ToR
7. Thermal Power	38	3	8	36	28	32
<b>Total</b>	<b>152</b>	<b>94</b>	<b>120</b>	<b>193</b>	<b>173</b>	<b>185</b>
<b>Percentage of selected cases</b>	<b>84</b>	<b>56</b>	<b>59</b>	<b>93</b>	<b>82</b>	<b>89</b>

Details are given in the **Annexure IV**. The number of projects showing stage wise delay in grant of EC is given in Table 2.3 below.

**Table 2.3: Stage wise delay in grant of EC**

Stages of EC process	Prescribed time limits in days	Projects where the EC was conveyed to the applicant within the prescribed time limit	Projects with delay of 0-30 days	Projects with delay of 31-90 days	Projects with delay of 91-180 days	Projects with delay of 181- 365 days	Projects with delay beyond 365 days
Grant of ToR	60	28	47	60	33	12	0
Scrutiny of Final EIA Report	30	74	37	46	9	1	1
Appraisal of the application by the EAC	60	82	16	37	25	28	14
Placing recommendations of EAC before the Competent Authority	15	14	54	88	38	11	2
Conveying recommendations of EAC and the decision of the MoEF&CC to the applicant	45	37	44	72	36	17	4
Overall time for grant of EC	105	23	12	38	56	47	33

As would be seen from the tables above the Sector wise delay ranged from 55 to 91 *per cent* and in only 23 cases EC was granted within the prescribed time limit.

MoEF&CC stated (October 2016) that the reasons for delay were because of delay in moving documents from Central Registry sections to concerned Impact Assessment section, opening of specific files for submitting to the Member Secretary concerned, insufficient skilled hands in Impact Assessment Division, large influx of projects for EC during 2011-14, delays on part of PP from whom additional information/clarification was

sought and deficiencies in awareness about the impact process among PPs and consultants.

MoEF&CC further stated (October 2016) that it had taken important initiatives to streamline the process of grant of EC. Online submission of EC had been introduced (July 2014) which had increased transparency and speed of disposal of cases through better monitoring. These steps have delegated more powers to the States. The Ministry had made efforts to constitute more committees and also to organize frequent meetings to reduce backlog of projects received for ToR/EC. It had also amended EIA Notification (April 2015) and introduced provision of deemed ToR approval for projects within 30 days failing which the PP can commence preparation of EIA/EMP report as per the standard ToR.

However, audit noticed that the average days taken for processing the EC has increased in case of offline projects in the last two years.

### **2.3.a Instances of delay in grant of ToR**

In a Coal Mining project in Chhattisgarh, viz **Kuchena Washery of M/s Aryan Coal Beneficiation Ltd.** of 5 Million Tons Per Annum of washed coal in an area of 9.311 ha, the letter for ToR was received in Ministry on 14 August 2007. The project was considered by the EAC twice i.e. on 28-29 November 2007 and 28-30 July 2008. The ToR for the project was finally issued on 25 August 2008. The Ministry sought some clarification from the PP on 17 January 2008. The PP took 139 days to furnish the clarification sought by the Ministry. MoEF&CC took 377 days from 14 August 2007 to 25 August 2008 to grant the ToR. Thus, there was a delay of 178 (377-139-60) days due to delay in processing of file by MoEF&CC. The MoEF&CC stated (October 2016) that the actual processing time to grant ToR was 130 days. However, the reply of the Ministry was not supported by any document.

Another industrial project in Andhra Pradesh viz **Expansion of Induction Furnace & Rolling Mill, Anantapur of M/s Hindupur Steel & Alloys Pvt. Ltd** was granted EC on 22 June 2015. The application for ToR was received at MoEF&CC on 20 June 2012. A letter was issued by the Ministry on 22 November 2012 informing the PP about consideration of the proposal in the 3<sup>rd</sup> Reconstituted EAC. After consideration of the proposal in the said EAC, the file was put up again on 1 February 2013 whereby a notification about the project being in notified industrial area was to be sought from the PP. The said letter was issued to the PP on 14 February 2013. The information was received from the PP on 11 March 2013. The ToR was granted on 29 April 2013. In all, MoEF&CC took 313 days from 20 June 2012 to 29 April 2013 to scrutinize the Form 1<sup>13</sup>. The PP took 25 days to furnish the desired information. Thus EAC took 288 days (313-25) to scrutinise the Form 1. Thus, there was a delay of 228 days (288-60) due to delay in processing of file by MoEF&CC.

<sup>13</sup> Form 1 is a prescribed application form for seeking prior EC.

### 2.3.b Instances of delay in scrutiny of Final EIA Report

In a Coal Mining project in Odisha namely, **Bhubaneswari Opencast Coal Mining Project of M/s Mahanadi Coalfields Ltd**, the request for grant of EC along with final EIA/Environment Management Plan (EMP) report was received in MoEF&CC on 18 August 2010. On 2 November 2010, MoEF&CC sought the additional information and the reply of the same was received on 20 November 2010 i.e. after 18 days. On 9 March 2011, the MoEF&CC intimated to PP that the Project would be considered in the EAC meeting held on 28-29 March 2011. Thus, a total of 222 days were taken from the date of receipt of EIA report to the date of intimating the PP about the EAC meeting and a delay of 174 (222-30-18) days was noticed and no reason was found for such delay.

The MoEF&CC stated (October 2016) that the proposal was put on hold from its receipt till 20 November 2010 for bonafide reasons. However, no such reasons were furnished by the Ministry.

Similarly, in a River Valley and Hydro Electric project in Madhya Pradesh, namely, **Kundaliya Major Multipurpose Project of Water Resources Department**, the EIA report was received on 20 May 2013 and was put up by the concerned division of MoEF&CC on 25 July 2013. It was first considered in the 77<sup>th</sup> EAC meeting held on 10-11 December 2013. Mainly, on account of this there was a delay of 175 days.

### 2.3.c Instances of delay in appraisal of the application by the EAC

An Industrial project in Bihar, namely, **Grain and Molasses based Distillery Unit, Co-generation Plant, Darbhanga of M/s Tirhut Industries Ltd** was granted EC on 16 May 2015.

The final EIA report was received in MoEF&CC on 4 June 2012. The project was first considered in the 2<sup>nd</sup> Reconstituted EAC Meeting held on 31 October 2012. The project was finally considered in 34<sup>th</sup> Reconstituted EAC Meeting held on 17-19 February 2015. The EAC on 26 February 2015 recommended the project for EC. On 13 March 2013 i.e. 133 days after the EAC Meeting, a letter was issued by the MoEF&CC to Bihar SPCB to seek clarification whether the public hearing meeting conducted in May 2012 was supervised/presided as per EIA Notification 2006. The information was received on 2 April 2013 and Bihar SPCB on 11 April 2013 was requested to conduct the fresh public hearing for the project concerned. The same was conducted on 11 July 2014 and the minutes of the public hearing/photographs were received in the Ministry on 27 January 2015. The total time taken by MoEF&CC for appraisal of the project was 997 days from 4 June 2012 to 26 February 2015. There was a delay of 937 days (997-60). MoEF&CC in its reply (October 2016) stated that the total time consumed after submission of correct and complete document was 113 days. The reply is not tenable as the Ministry initially took five months to consider the project in the first EAC conducted on 31 October 2012. Further, a clarification regarding supervision of public hearing as per EIA Notification was sought from SPCB after 133 days from the conclusion of 2<sup>nd</sup> EAC meeting. This

clarification should have been sought before the EAC meeting or in the EAC meeting itself. Taking this into consideration, the delay stands at 937 days.

Similarly, in respect of a **Limestone Mine of M/s Adhunik Cement Ltd, Meghalaya**, the EIA report was received in MoEF&CC on 27 April 2012. The said report was placed before the 30<sup>th</sup> EAC Meeting held on 29– 31 August 2012. On 7 September 2012, the Committee recommended the project for issuance of EC subject to an appropriate conservation plan for the cited Schedule-I species. There was no movement of file from 7 September 2012 to 11 March 2013 (i.e. for 166 days). On 11 March 2013, MoEF&CC intimated the PP to submit the required conservation plan and on 16 April 2013 the PP submitted the conservation plan. The proposal was examined in the 8<sup>th</sup> EAC meeting held on 26– 28 June 2013 wherein the Committee recommended (5 July 2013) the proposal for grant of EC and also added that since the conservation plan had already been approved by the Competent Authority at the State level, such conservation plan need not be placed before the EAC. Thus, a total of 434 days were taken. Out of 434 days, PP took 35 days to furnish additional information. Therefore, there was a delay of 339 days due to processing of file at the MoEF&CC. The reply of Ministry (October 2016) was silent about delays in the project.

### **2.3.d Instances of delay in placing recommendations of EAC before the Competent Authority**

In Tamil Nadu a project, namely, **Construction of Novotel Hotel and Commercial block, of M/s Srilanad Mansions Pvt. Ltd**, the EAC recommended the project on 16 December 2011. However, the recommendations of the EAC were submitted to the Competent Authority on 4 July 2012 after lapse of 201 days. Thus, there was a delay of 186 days in submission of recommendations of EAC to the Competent Authority.

Similarly, in an Infrastructure Project in Jharkhand, namely, **Widening and improvement from 2-lane to 4/6 laning of Barhi to Hazaribagh of M/s National Highway Authority of India**, the recommendations of the EAC were to have been placed before the Competent Authority for a final decision within the next 15. However, there was a delay of 137 days (10 February 2012 to 10 July 2012 i.e. 152-15). No justification was on record in the notings for the same.

### **2.3.e Instances of delay in conveying the EC to the Applicants**

In a Construction Project in Kerala, namely, **Construction of IT park project, of M/s L&T Tech Park Ltd**, a total of 1,049 days were taken in granting of EC, against mandated time of 105 days. Thus, delay of 944 days was observed. Reason for delay could be attributed to multiple references to State authorities for ascertaining infrastructure, Coastal Regulation Zone (CRZ) applicability and assembly elections, in addition to procedural delays.

Similarly, in a Thermal Power Project in Odisha, namely, **2x660 MW Imported Coal Based Thermal Power Plant, of M/s Visa Power Pvt Ltd**, EIA Report was received from

PP on 21 June 2010 and EC was granted by MoEF&CC on 17 January 2012. Thus, 575 days were taken in place of prescribed 105 days for issue of EC to PP. Thus, there was a delay of 470 days in issue of EC to PP.

## 2.4 Illustrative cases of delay in grant of EC

Box 2.1 illustrates cases of delay by the Competent Authority.

### Box 2.1: Illustrative cases of delay by the Competent Authority

#### Non Coal Mining Sector

**1. Expansion of Slate Mining Project of M/s Ashok Somany, Haryana:** The recommendations of the EAC were submitted by the Secretary, MoEF&CC to the Competent Authority on 19 July 2012. However, the Competent Authority gave approval on 4 October 2012 (i.e. after 77 days). No reasons were found on the file to justify this delay of 77 days.

#### Industrial Sector

**2. Manufacturing of Manmade fibres at Surangi, Silvassa of M/s DNH Spinners Pvt. Ltd, Dadar & Nagar Haveli:** The file was forwarded to the Competent Authority on 18 April 2012 for approving the recommendations of the EAC. The EC was granted to the project on 12 July 2012. The Competent Authority took 80 days to approve the recommendations of the EAC. No valid reason for the delay was found in the file.

**3. Exploratory Drilling (offshore) Blocks of M/s Oil and Natural Gas Corporation Ltd, Andaman:** The file was forwarded to the Competent Authority on 9 June 2014 for approving the recommendations of the EAC. The Competent Authority gave approval on 20 July 2014. The Competent Authority took 41 days to approve the project. No valid reason for the delay was found in the file.

**4. Expansion of Cement Plant at Bennibari Industrial Estate of M/s Kailashpati Cement Pvt Ltd, Assam:** The file was forwarded to the Competent Authority on 7 February 2012 for approving the recommendations of the EAC. The Competent Authority took 50 days to approve the proposal for environmental clearance. No valid reason for the delay was found in the file.

Box 2.2 illustrates cases of delay in issue of EC letter after grant of EC by Competent Authority.

### Box 2.2: Illustrative cases of delay in issue of EC letter after grant of EC

#### Coal Mining Sector

**1. Expansion of Kakatiya Khani Opencast Sector I Coal Mining Project of M/s Singareni Collieries Company Ltd, Telangana:** The EC was approved by the Competent Authority on 17 March 2015. On 19 March 2015 the Ministry granted the EC. However, the EC letter was issued on 11 May 2015 i.e., after 53 days.

**2. Cluster 8 (Group of 7 mines) of M/s Eastern Coalfields Ltd, West Bengal:** The EC was submitted to the Competent Authority on 16 March 2015. The Ministry granted the EC on 19 March 2015 but the EC letter was issued on 11 May 2015 i.e. after 53 days.

**3. Pit head captive wet washery of M/s Jayaswal Neco Industries Ltd, Chhattisgarh:** It was observed that the EC was approved by the Competent Authority on 18 May 2013. The EC was granted on 10 June 2013, however, EC letter was issued to the PP on 8 July 2013 i.e. after 28 days.

## 2.5 Adequacy of EIA reports

According to Para 7 and Appendix III of the EIA Notification 2006, the Generic Structure of EIA Report consists of Chapters pertaining to Introduction, Project description, Description of environment, Anticipated environmental impacts and mitigation measures, Analysis of alternative<sup>14</sup>, Environmental Monitoring Program, Additional studies, Project benefits, Environmental Cost benefit analysis<sup>15</sup>, EMP, Summary and Conclusion, Disclosure of Consultants engaged. The EIA Report should be in compliance with ToR.

Out of 216 cases scrutinised in audit, we found non-compliance of EIA report with ToR which is given in Table 2.4.

**Table 2.4: Non-compliance of EIA Report with ToR**

EAC	Projects where the EIA report did not comply with ToR	Number of EIA reports not conforming to the Generic structure
<b>1 Coal Mining</b>	In 9 projects the baseline data was collected before the grant of ToR which was irregular. In another 2 projects namely Manuguru Opencast IV Extension Project and Ananta OCP Expansion Project, the EIA reports partially complied with the ToR.	In 15 Projects, the EIA report was not according to Generic Structure.
<b>2 Industry</b>	In 21 projects, the EIA report did not comply with ToR.	In 19 projects EIA reports not conforming to the Generic Structure
<b>3 Non Coal Mining</b>	1 project	4 projects
<b>4 Building/ Construction</b>	Not Applicable as ToR and EIA is not prepared.	
<b>5 Infrastructure Development</b>	8 projects	6 projects
<b>6 River Valley and Hydro Electric</b>	6 projects	6 projects
<b>7 Thermal Power</b>	8 projects	-
<b>Total</b>	<b>55</b>	<b>50</b>
<b>Percentage of cases</b>	<b>25</b>	<b>23</b>

<sup>14</sup> In case, the scoping exercise results in need for alternatives.

<sup>15</sup> If recommended at the scoping stage.

Details of cases of non-compliance of EIA Report and ToR are given in Box 2.3.

**Box 2.3: Illustrative cases of non-compliance of EIA Report with ToR**

**Coal Mining Sector**

**Collection of baseline data before the grant of ToR /**

**collection of data for one month as against one season of three months**

**a.** In respect of **Sheetaldhara-Kurja and Kapildhara Group of Underground Mine, Madhya Pradesh**, the ToR was granted on 20 March 2009. However, base line data was collected between October 2008 and December 2008 i.e. before the issue of ToR, which was irregular.

**b.** As per ToR conditions, collection of one-season primary baseline data on environmental quality should be collected for air, noise, water and soil. However, in respect of Cluster 1 coal mining area of Jharkhand, it was observed that in respect of water, noise and soil instead of three months, only one-month data was collected.

**c.** In **Jamunia UG Project of M/s. Western Coal Fields Ltd, Madhya Pradesh**, as per ToR dated 15 April 2009, baseline data collection can be for any season except monsoon. As per final EIA report base line data was collected in the pre-monsoon season of 2005 .i.e. more than four years before the date of EIA.

However, the MoEF&CC did not raise any objection on these points. It was observed in other project files that MoEF&CC asked the PP to collect the fresh baseline data i.e. after the grant of ToR.

**Industrial Sector**

**Non-insertion of essential condition in ToR**

**a. Drilling of Development well and Exploratory Well of M/s Oil India Ltd, Arunachal Pradesh:** It was observed that permission from State Forest Department regarding the impact of the proposed plant on the surrounding Reserve Forests namely Namsi, Chongkham, Manabhumi and Tengapani that were located within 10 km of the projected area, had not been obtained at time of submission of the EIA Report.

**b. Manufacturing of MS Ingots at Sirmour, Himachal Pradesh of M/s Ambika Alloys:**

- It was observed that the Reserved/Protected Forests Bhabarwala and Shisamwala (5 km) were within 10 km from the project site. The ToR did not contain the condition wherein the PP needs to take permission from the State Forest Department regarding the impact of proposed expansion on the surrounding reserve forests.
- The ToR did not mention the season for which the data for all environmental parameters was to be taken by the PP.

**c. Zinc & Lead Metal Melting & Casting Unit at Pantnagar, Uttarakhand of M/s Hindustan Zinc Ltd:** It was observed that the Reserved/Protected Forests namely Dhimri, Gangapur, Patiya and Tanda were within 10 km from the project site. The ToR did not contain the condition wherein the PP needs to take permission from the State Forest Department regarding the impact of proposed expansion on the surrounding reserve forests.

**d. Integrated Steel Plant along with Captive Power Plant and associated facilities at Bodundakala Industrial Area, Balaghat of M/s. Rashmi Cement Ltd, Madhya Pradesh:** The condition of public hearing was not included in the ToR. The information towards public hearing was not available in the file as well as in the EIA report. Hence, the information related to public hearing could not be ascertained in audit. It also could not be ascertained whether the project was exempted from the public hearing.

MoEF&CC replied (October 2016) that the consultants also certify that the EIA was as per the ToR and it had covered all the topics prescribed in ToR. The same was also examined by the EAC while appraising the projects. Baseline data was collected by the consultants by carrying on study at the site.

Audit is of the opinion that the Ministry has just explained the procedures of scrutinizing the EIA reports. However, the fact remains that there have been shortcomings in the preparation of the EIA reports with respect to the ToRs, still the projects have been granted ECs.

## **2.6 Lack of cumulative impact assessment**

As per para 9 of Appendix I (Form I) of the EIA Notification 2006, the PP has to provide information regarding the factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality. As per para 9.4, the PP has to provide the cumulative effects due to proximity to other existing or planned projects with similar effects.

We observed that either no information was given regarding cumulative effect or very general information was given by the PPs without any substantive cumulative impact studies in the EIA reports. Audit noticed that in most of the EIA reports the PPs have indicated that they have not carried out cumulative studies. Also, there was no mandatory requirement of cumulative impact studies before preparing the EIA reports.

MoEF&CC stated (October 2016) that the ToR prescribed area or parameters on which the PP had to conduct the study for preparing the EIA/EMP. The study area is 10 km from the boundary of the project site. Data is collected for one season to make it representative. Thus, every EIA report shows the cumulative impact on the environmental parameters of all activities affecting that parameter.

However, the fact remains that in most of the EIA reports, the PPs had not indicated that they had carried out cumulative studies.

## **2.7 Changes of EIA processes by issue of Office Memorandum**

The EIA Notification 2006 was issued by MoEF&CC under the provisions of Section 3 of Environment (Protection) Act 1986. The changes in the notification was a legal process which also require opinion of the stakeholders and Gazette notification.

Ministry issues Office Memoranda (OMs) from time to time to explain the office procedure or to define processes where there was no express provision or clarity in the EIA notification.

We observed that MoEF&CC had issued 181 OMs till October 2014 relating to EIA notification. Some of these OMs had the effect of diluting the provisions of original notification as detailed in the Box 2.4 given below.

**Box 2.4: Dilution of EIA Notification 2006 by OM**

MoEF&CC vide its OM dated 12 December 2012 and 27 June 2013, had provided for considering the applications of the project where construction had been done/started without prior EC. The purpose of EIA is to identify, examine, assess and evaluate the likely and probable impacts of a proposed project on the environment and thereby, to work out remedial action plans to minimize these adverse impacts on the environment. All this is required to be done at a stage before the commencement of the project. The EIA notification does not visualise such examination post-commencement and upon completion of the project, in relation to the covered projects and activities. The OM issued by MoEF&CC was challenged and was quashed by National Green Tribunal in July 2015, with the observation that these OMs were *ultra vires* the provisions of the Act of 1986 and the Notification of 2006 and suffered from the infirmity of lack of inherent jurisdiction and authority.

MoEF&CC stated (October 2016) that after quashing of OMs by NGT, the Ministry was in the process of establishing procedures/system for dealing with such cases of violation for environment clearance through notification.

**2.8 Grant of fresh EC for expansion without checking of earlier EC conditions**

As per MoEF&CC circular (May 2012), while submitting the application for consideration for grant of EC of all expansion projects under the EIA Notification 2006, the PP should submit a certified report of the status of compliance of the conditions stipulated in the EC for the ongoing/ existing operation of the project by the ROs of MoEF&CC.

Scrutiny of files revealed that in three cases in Coal Mining Sector, fresh EC was granted to the PPs without checking the compliance of the conditions mentioned in the previous EC, details of which are given in Table 2.5.

**Table 2.5: Details of cases where EC was granted without checking compliance of previous EC**

Sector	Project	Details
Coal	Expansion of Samaleswari OCP (from 11 MTPA to 15 MTPA)	<p>The RO, MoEF&amp;CC, conducted the monitoring of the Project on 16 April 2013 and gave report of non-compliance of prior EC conditions viz,</p> <ul style="list-style-type: none"> <li>• No plantation work had been taken by the project after 2009-10;</li> <li>• There were illegal felling in some places by the locals and project had to take up gap plantation in these open patches; the Geo-reference Map of the lease area duly authenticated by the State Government was not submitted;</li> <li>• The Rehabilitation work was yet to be initiated;</li> <li>• No efforts had been made to develop the laboratory with required number of instruments to make it functional;</li> <li>• The compliance status of the stipulated EC conditions, was yet to be uploaded;</li> </ul>

Sector	Project	Details
		<ul style="list-style-type: none"> <li>The monitoring data of environmental quality parameters and the six monthly compliance reports were yet to be submitted.</li> </ul> <p>The EAC did not seek any explanation from the PP for such non-compliance and recommended the project for grant of EC.</p>
Coal	Expansion of Paunderpauni Coal Washery	<ul style="list-style-type: none"> <li>The EC was granted for expansion of the project, without the independent inspection to verify compliance with the stipulated conditions mentioned in the earlier EC by RO of MoEF&amp;CC.</li> <li>It was mentioned in the minutes of the EAC meeting that "the Ministry should have obtained the details on the equipment and technology to be adopted with justification for the enhancement of capacity of the washery from the PP before award of EC". However, it was observed that the Ministry issued the EC letter without obtaining such information from the PP.</li> </ul>

MoEF&CC stated (October 2016) that it was an established process that for the project which comes for expansion, the certified copy of the last monitoring report is submitted and examined and that recently orders have been issued to all the Member Secretaries to clearly mention about this in the note submitted for approval of EC.

However, MoEF&CC did not offer specific comments on the cases mentioned in the Table 2.4.

## 2.9 Non-operation of projects that have been granted EC during 2008-12

Para 9 of the EIA Notification contains provisions for validity of EC. MoEF&CC was asked to provide information<sup>16</sup> about the projects that were granted EC by MoEF&CC during 2008-2012, but did not commence production operations or complete all construction operations (in case of construction projects) before the expiry of the validity of EC. MoEF&CC did not furnish any reply to these queries.

Audit had selected a sample of 352 projects granted EC during 2008-12 for joint physical verification along with respective SPCBs/UTPCCs. During the joint physical verification or as per information provided by SPCBs/UTPCCs, it was observed that in 159 projects (44 per cent) for which EC had been granted by MoEF&CC, the projects were either not in operation or had not started for reasons such as forest clearance, financial constraint, market viability, land dispute, technical reason etc.

The above indicated that MoEF&CC did not have compiled information related to these projects. Lack of information about closed/non-operational projects indicates poor coordination among MoEF&CC, SPCBs/UTPCCs and PPs. This also indicates that MoEF&CC had not maintained online database of current status of all the projects granted EC.

<sup>16</sup> Audit memo Number 137(PA) dated 27 April 2016

## 2.10 EC of the linked coal mine for Thermal and Metallurgical projects

MoEF&CC circular (November 2010) stipulates that for Thermal power and Metallurgical projects, the availability of requisite quantity of coal is essential to ensure viability of the project. In order to access the likely adverse environmental impact of such projects, it was desirable to have information about the quality of coal to be used in the project, its source and distance with respect to the location of the project. The quality of coal, besides environmental loading, also has bearing on the land requirement for the project. It was also necessary that the status of environment and forest clearance of linked coal source was ascertained well in advance. All the proposals relating to thermal power projects, steel, sponge iron and any other such project, which are largely dependent on availability of coal as raw material, shall be considered only after the firm coal linkage was available and the status of environment and forestry clearance of the coal sources i.e. the linked coal mine/coal block was known.

We examined the EC letter for the sampled projects issued after November 2010 and checked whether the linked coal mine was specified in the EC letter/EIA report. Subsequently, during the site visit, it was checked whether the Thermal Power Project was using the coal as specified in the EC letter.

A total of 43 projects, with EC granted during 2008-11 and another 41 projects, with EC granted during 2011-15 were examined from this perspective. Of these projects, nine each from these two periods were granted EC after issuance of the direction in November 2010.

During scrutiny of these projects, we observed the followings:

- a. In three projects, spread across Bihar and Chhattisgarh, EC specified the name of the company, from where the proposed coal was to be procured. However, it did not specify the name of the block or the mine, therefore the location or distance of the source could not have been forecasted, details of these projects are shown in Table 2.6.

**Table 2.6: Missing coal link mine of Thermal Projects**

State	Project	Date of EC	Coal linkage
1. Bihar	Nabinagar STPP	27 December 2010	Central Coalfield Limited
2. Chhattisgarh	Expansion of Coal Based Thermal Power Plant	18 March 2011	South Eastern Coal Field Limited
3. Chhattisgarh	Coal based Thermal Power Plant	24 January 2012	South Eastern Coal Field Limited

- b. In a project (**Vindhaychal STPP**) in **Madhya Pradesh**, EC (granted on 02 May 2012) had specified coal to be procured from Pakri Barwadih Coal Block in Jharkhand. However, citing delay in mining of coal from the specified block, coal from a different mine was being utilised. Further the change in source of coal had not been communicated to MoEF&CC, which was in gross violation of the directives.

- c. In a project (**Super-Critical Technology Coal Based TPP**) in Maharashtra, EC was granted on 27 November 2012). However, no firm linkage with coal block or mine for supply of coal was specified in EC, which was in violation of the directives.
- d. In four projects spread across Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal, though EC specified the coal block from where coal was to be sourced, however it could not be established whether EC to these coal blocks for operation has been granted. Details of these five projects are given in Table 2.7

**Table 2.7: Non establishment of EC of coal linkage mine**

State	Project	Date of EC	Coal linkage
1. Rajasthan	Expansion by addition of 1x250 MW Lignite Based Barsingsar Thermal Power Plant	30 July 2012	Hadla coal block was given EC on 21 January 2013 but no details about EC granted to Palana coal block could be found.
2. Tamil Nadu	Expansion of Coal Based TPP at village Peria Obulapuram and Papankuppam, in Gummidipondi Taluk	18 May 2011	Mahanadi coal fields. No details about EC granted to linked coal mine.
3. Uttar Pradesh	Feroz Gandhi Unchahar Thermal Power Project	10 May 2013	Talaipalli coal block and Pakri Barwadih Coal Block in Jharkhand. EC had been granted to coal block on 19 May 2009. No details of EC granted to Talaipalli coal block could be found.
4. West Bengal	Sagardighi Thermal Power Projects at Sagardighi	18 May 2011	EC for the project did not specify the exact details of the coal block linked with the project.

MoEF&CC stated (October 2016) that such precise linkage with any particular coal mine was not required if a coal PSU prescribes coal linkage from a group of mines of a particular area. The coal was imported in case the PP files a copy of the MoU entered for imports and that if coal was purchased in e-auction then also no specific linkage was required.

However, the reply of Ministry was silent as to why in the above mentioned cases, the EC was granted without specifying the block/mine in contravention of the provisions contained in the Circular of November 2010.

## 2.11 Appointment of a National Regulator

As per Section 3(3) of the Environment (Protection) Act 1986, the Central Government may appoint a National Regulator for appraising projects, enforcing environmental conditions for approvals and to impose penalties on polluters.

In the ruling given in the case of Lafarge Umiam Mining Pvt. Ltd (6 July 2011) the Hon'ble Supreme Court had also emphasized the need for such a Regulator. In its judgement in the case of T.N. Godavarman Thirumulpad, Hon'ble Supreme Court observed (6 January 2014) that the Central Government was required was a Regulator at the national level having its offices in all the States which can carry out an independent, objective and

transparent appraisal and approval of the projects for environmental clearances and which can also monitor the implementation of the conditions laid down in the ECs.

We observed that the Central Government constituted State Level Environment Impact Assessment Authority (SEIAA) for each State/UT under section 3(3) of the Environment (Protection) Act 1986 for granting ECs to Category B projects. However, no such authority was there at the National level and MoEF&CC was itself granting ECs to Category A projects.

MoEF&CC constituted a high level committee to review various Acts administered by the Ministry. The committee in its report (November 2014) suggested for creation of National Environment Management Authority (NEMA) and State Environment Management Authority (SEMA) as the pivotal authorities to process applications for composite EC (one window), for Category A cases through NEMA and for Category B projects through SEMA. These would be standing technical organizations, manned with professionals, supported by appropriate technology, which would have the primary responsibility for processing all environmental clearance applications in a strictly time-bound manner. The NEMA and SEMA would also be responsible for formulating the conditions to be imposed on project components before 'consent' is accorded, along with assessment of quantum/nature of potential environmental damage. These would be agencies responsible for monitoring the compliance of the conditions imposed, ensuring that transgressions are addressed effectively and for effective follow up of punitive measures.

MoEF&CC stated (October 2016) that it has appointed a technical consultant to examine the recommendations of the committee, identify gaps in India's Environmental laws in view of land mark judgements of the Supreme Court and best practices in other countries in implementation and management of environmental laws.

## **2.12 Accreditation of consultants for preparing EIA reports**

The Environmental appraisal of Development Projects is undertaken as per the provisions of the EIA Notification, 2006 based on the EIA and EMP reports prepared by the PP in assistance with their Consultants. Good quality EIA Reports are a pre-requisite for improved decision making. It was felt that there was a need to enhance the quality of EIA Reports as the Consultants generally undertake preparation of EIA/ EMP Reports in many sectors and in some instances without requisite expertise and supporting facilities like laboratories for testing of samples, qualified staff etc. Therefore, in December 2009, MoEF&CC issued an Office Memorandum<sup>17</sup> mandating that EIA/ EMP Reports prepared by such Consultants who are not registered with Quality Council of India (QCI) or National Accreditation Board for Education and Training (NABET), shall not be considered by the Ministry after 30<sup>th</sup> June 2010.

<sup>17</sup> F.No.J-11013/77/2004-IA II(I) dated 2<sup>nd</sup> December 2009.

Further, in March 2016, MoEF&CC amended the EIA Notification 2006, and included the provision that the Environmental consultant organisations which are accredited for a particular sector and the category of project for that sector with the QCI or NABET or any other agency as may be notified by the MoEF&CC from time to time shall be allowed to prepare EIA report and EMP of a project in that sector and category and to appear before the concerned EAC.

We observed that EIA report and EMP were prepared by the consultants who were not accredited for the particular sector with the QCI or NABET, as detailed in Table 2.8.

**Table 2.8: Consultants of the Project not registered with NABET**

EAC	Our observations
<b>1. Coal Mining (39 cases)</b>	<ul style="list-style-type: none"> <li>➤ 17 projects were not applicable/expansion projects.</li> <li>➤ Five projects were provisionally accredited/the accreditation was under process.</li> <li>➤ The EIA report of one project was not found in the scanned file.</li> <li>➤ Accreditation of consultants for the remaining 10 projects could not be ascertained.</li> </ul>
<b>2. Industry (34 cases)</b>	<ul style="list-style-type: none"> <li>➤ Consultant was said to be accredited but certificate of accreditation was not attached in 27 projects.</li> </ul>
<b>3. Non Coal Mining (37 cases)</b>	<ul style="list-style-type: none"> <li>➤ Five projects were provisionally accredited/the accreditation was under process/ waitlisted.</li> <li>➤ Consultant was said to be accredited but certificate of accreditation was not attached in three projects.</li> <li>➤ 11 projects, the EIA report was silent about the accreditation of the consultant</li> </ul>
<b>4. Construction (20 cases)</b>	<ul style="list-style-type: none"> <li>➤ Not Applicable as ToR and EIA are not prepared.</li> </ul>
<b>5. Infrastructure (38 cases)</b>	<ul style="list-style-type: none"> <li>➤ In 13 projects, the consultants preparing the EIA Report were not registered with NABET for said project activity.</li> <li>➤ In 9 projects, the consultants preparing the EIA Report stated that they were registered with NABET for said project activity but certificates were not attached for verification.</li> </ul>
<b>6. River Valley and Hydro Electric (7 cases)</b>	<ul style="list-style-type: none"> <li>➤ In 5 projects, the consultants preparing the EIA Report were not registered with NABET for said project activity</li> </ul>
<b>7. Thermal Power (41 cases)</b>	<ul style="list-style-type: none"> <li>➤ In 10 projects, the consultants preparing the EIA Report were not registered with NABET for said project activity</li> </ul>

MoEF&CC stated (October 2016) that the accreditation of consultants was done by QCI and the qualification criteria, eligibility for different sectors and their process of training and renewal was handled by QCI.

However, the reply of Ministry was silent on the issue of EC being granted in cases where the consultant was not registered or was provisionally registered.

### 2.13 Non uniformity of EC conditions

The EC letter contains general and specific conditions to be complied with by the PP. The general conditions pertain to EMP, Enterprise Social Responsibility<sup>18</sup> (ESR), location of monitoring stations, monitoring of environmental parameters by RO/SPCB etc. The specific conditions pertain to a particular project, sector and site.

We observed that there was non-uniformity in the terms and conditions in the various ECs. We noticed cases of varying terms and conditions for similar projects granted clearance during comparable/similar time frames.

Variation in EC conditions were noticed with regards to EMP/costs relating ESR, condition to obtain Consent to Operate/Consent to Establish (CTO/CTE), variation in the Particulate emission, uploading the compliance of EC conditions on the PPs website, Rainwater harvesting, groundwater, consultation with forest department for plantation works, top-soil etc. The details are given in the **Annexure V**.

MoEF&CC stated (October 2016) that although the uniformity of EC conditions was desirable, it cannot be made 100 *per cent* as some of the conditions are project and site specific.

The reply is not tenable as some of the general conditions applicable to all sectors were found missing from the ECs and also variations were noticed in the ECs of similar kinds of projects.

### 2.14 Public Consultation

As per EIA Notification, Public Consultation was a process by which the concerns of local affected persons and others who have plausible stake in the environmental impacts of the project or activity are ascertained with a view to taking into account all the material concerns in the project or activity design as appropriate.

The Public Consultation comprised of a public hearing at the site or in its close proximity-district wise, to be carried out in the manner prescribed, for ascertaining concerns of local affected persons.

The concerned SPCB or UTPCC was to finalize the date, time and exact venue for the conduct of public hearing and advertise the same in one major National Daily and one Regional vernacular Daily / Official State Language. A minimum notice period of 30 days was to be provided to the public for furnishing their responses.

The District Magistrate/District Collector/Deputy Commissioner or his or her representative not below the rank of an Additional District Magistrate assisted by a

<sup>18</sup> MoEF&CC has also been using Corporate Social Responsibility (CSR) in place of ESR in the ECs granted.

representative of SPCB or UTPCC, was to supervise and preside over the entire public hearing process.

The summary of the public hearing proceeding accurately reflecting all the views and concerns expressed was to be recorded by the representative of the SPCB or UTCC and read over to the audience at the end of the proceedings explaining the contents in the local/vernacular language and the agreed minutes were to be signed by the District Magistrate/District Collector/Deputy Commissioner or his or her representative on the same day and forwarded to the SPCB/UTPCC concerned.

The public hearing was to be completed within the period of 45 days from the date of receipt of the request letter from the applicant. Thereafter the SPCB/UTCC concerned was to send the public hearing proceedings to the concerned regulatory authority within eight days of the completion of the public hearing.

The issues of public hearing, time-bound plan for implementation of the commitments by the PP, analysis of cases of adverse public hearing, the commitments made by the PP being in alignment with the statutory requirements of CPCB/SPCB, videography of the proceeding of the public hearing, were to be included in the EIA Report.

#### 2.14.1 Review of Public Consultation process in EIA Reports

We examined 216 projects in MoEF&CC granted EC between 2011-July 2015, for evaluating the process of Public Consultation as stipulated in EIA Notification 2006. Public Consultation was not applicable to Building/Construction sector as ToR and EIA are not prepared. In 196 projects where Public Consultation was to be conducted, we found irregularities in 62 projects (32 per cent), summary of which is given in Table 2.9.

**Table 2.9: Summary of sector wise irregularities in Public Consultation**

EAC	Projects examined	Projects with irregularities	Percentage of Non-Compliance
1. Coal Mining	39	6	15.38
2. Industry	34	12 <sup>19</sup>	35.29
3. Non Coal Mining	37	7	18.91
4. Construction	20	Not Applicable as ToR and EIA is not prepared	
5. Infrastructure	38	21	55.26
6. River Valley and Hydro Electric	7	7	100
7. Thermal Power	41	9 <sup>20</sup>	21.95
<b>Total</b>	<b>216</b>	<b>62</b>	

Table 2.8 shows that the due diligence process as prescribed in the EIA Notification for the conduct of Public Consultation was not followed in any of the seven sectors examined in Audit. The non-compliance was maximum in case of River Valley and Hydro Electric projects.

<sup>19</sup> Advertisements in respect of public hearing were missing from the file.

<sup>20</sup> Absence of records related to press clippings.

The irregularities included delay in conduct of public hearing, missing advertisements, advertisement not in vernacular language, not taking views of public into account etc.

A few interesting cases of non-compliance with EIA Notification are given below:

In case of **Binkara Underground Coal mine Project of M/s SECL in Chhattisgarh**, we observed that EC was granted without any mention of the reservations expressed by public during public hearing and subsequent complaint letters received from Sarpanch, Gram Panchayat, Adhyaksh, Gram Sabha, Vidhayak, Ambikapur etc. against the setting up of the Project.

In another case of **Coal Mine Expansion Project of M/s. Jindal Steel & Power Limited in Chhattisgarh**, we observed that there was delay of 318 days in completing the public consultation proceedings.

We noticed other shortcomings in the process of public consultation such as related documents and dates of advertisement by SPCBs, date of public hearing, date of forwarding of proceedings by the SPCBs etc were not available in the files. Hence, it was difficult to check that the process of public consultation had been adhered to.

#### **2.14.2 Non-fulfillment of the commitments made during the Public Consultation**

We carried out site inspection of 352 sampled projects granted EC between 2008-2011, pertaining to various sectors, 125 projects were exempted from public hearing, the condition for Public Hearing was not stipulated in 11 projects by MoEF&CC. Out of the remaining 216 projects we observed compliance in fulfilment of the commitments made during Public Hearing in respect of 92 projects. In case of 44 projects, information was not furnished by PPs and in 20 projects, the condition in respect of public hearing was not applicable as no major commitments were made or the projects were yet to commence.

We observed shortfall in fulfilment of the commitments made during Public Hearing in respect of 60 projects. The shortfalls were in respect of following commitments:

- Compensatory afforestation and green belt plantation.
- Installation of instruments for air, water, noise quality monitoring not done.
- Employment to local population.
- Establishment of hospital and medical facilities for local population.
- Installation of Rain Water Harvesting and Dust Management System.
- Construction of Effluent Treatment Plant.
- Implementation of activities under ESR.
- Education facility for local population.

A few cases of shortfall in fulfillment in commitments made during public hearing are given below:

**Nabinagar STPP in Bihar of M/s Nabinagar Power Generation Company Ltd:** commitments included installation of instruments to control air, water, noise and dust pollution, development of green belt and recycling of treated effluent. There was 100 *per cent* shortfall in fulfillment of commitments as installation of instruments for air, water and noise quality monitoring was not done. Dust management was not done. Green belt was not created. ETP was under construction.

**Construction of new Passenger Terminal building at Chandigarh airport of M/s Airport Authority of India:** commitments included planting of trees on periphery, employment to local residents, waste water treatment, free education and medical facilities. We observed that there was 100 *per cent* shortfall as plantation of trees was not done; no detail was provided by PP regarding employment, STP of 600 KLD was installed instead of 930 KLD and no activities under ESR was carried out.

**Open Cast Coal Mines Project (Sikni) of M/s Jharkhand State Mineral Development Corp. Ltd:** commitments made during public hearing included road development, plantation, distribution of plants, protection against water logging, arrangement of drinking water, providing medical facility and employment to displaced persons. The Company committed to build hospital at Latehar, free plants distribution and nursery for plants and looking after of Shasang school. We observed that only Bal Samagam and Bal Diwas were organised. No commitment of public hearing was fulfilled by the PP.

**Sheetaldhara Kurja and Kapildhara group of mines in Madhya Pradesh of M/s SECL:** commitments included construction of road, school building, plantation and provision of drinking water. Provision of drinking water was made through tanker. Commitments towards construction of road, school building and plantation of trees were not fulfilled by the PP.

**Mawmluh Limestone Mine of M/s Mawmluh Cherra Cement Ltd in Meghalaya:** commitments during public hearing included installation of effective pollution control devices and green belt development. The PP stated that sufficient funds had been earmarked for improving the environmental conditions under the expansion programme. We observed that there was 100 *per cent* shortfall as green belt had not been developed and Pollution control systems were also not installed. No expenditure was incurred by the PP towards socio-economic development and ESR.

**Grain Based Distillery and Cogen Power Plant of M/s BCL Industries and Infrastructures Ltd in Punjab:** commitments included opening of a primary school for free education to the children of the area. There was 100 *per cent* shortfall as the commitment was not fulfilled by the PP.

**Sandstone Mine in Rajasthan of M/s Thekeder Ravinder Bhardwaj:** commitments included employment to local people, Plantation in mining lease area, systematic waste dumping, safety measures for labourers and ₹ 0.25 lakh per year was to be earmarked

for socio-economic upliftment of local villagers. There was shortfall as no such funds for upliftment were earmarked and no expenditure was incurred.

**Shankarpur Underground Coal Mine Project in West Bengal of M/s Eastern Coalfields Ltd:** commitments included sprinkling of water on road, formation of committee to look after the problem of vibration, development of green barriers around quarry, intensive tree plantation, and initiation of activities under ESR. During onsite visit it was found that progressive afforestation plan had not been prepared, portion of approach road was found damaged, water sprinkling system was not installed at loading site, conveyor system, transfer points and railway siding. The project authority stated that mobile water tankers were used for dust suppression at these points. However, the same were not found at those sites during joint onsite visit.

### 2.14.3 Shortcomings in the EIA notification of 2006

We noticed the following shortcomings in the EIA Notification with regard to public consultation:

- a. For the commitments made in the public hearing, there was no provision that the PP would fulfil the commitments in a time bound manner.
- b. There was no provision to ensure that the concerns of the local people were addressed in the final EIA report/EC letter.
- c. There was no monitoring as to whether the PP fulfilled the commitments made during public hearing.
- d. As per the EIA Notification of 1994, all persons including bona fide residents, environmental groups and others located at the project site/sites of displacement/sites likely to be affected can participate in the public hearing. Though, as per EIA Notification of 2006, there is no such condition but it is mentioned that there shall be no quorum required for attendance for starting the proceedings. However, to encourage participation of project affected families so as to take into consideration their views and concerns, a quorum for their participation may be necessary.

### 2.15 Conclusion

There were delays at each stage of the EC process namely granting of ToR, scrutiny of final EIA Report, appraisal of the application by the EAC, placing recommendations of the EAC before the Competent Authority for a final decision and conveying recommendations of EAC and the decision of the MoEF&CC to the applicant.

There were cases of non-compliance of EIA reports with ToRs and non-conformity of EIA reports with the Generic structure as prescribed in the EIA Notification. Other inadequacies noticed were EIA reports framed on baseline data collected before grant of ToR or with data collected for one month as against prescribed period of one season of three months and non-insertion of essential conditions in ToR.

PPs had not indicated that they had carried out cumulative studies in the EIA reports, therefore, assurance could not be derived on cumulative effect of existing and planned activities on the environment.

ECs were granted to the PPs without checking the compliance of the conditions mentioned in the previous ECs and recommendations of the Regional Office. There was also non-uniformity in EC conditions in similar kind of projects.

MoEF&CC did not compile information about closed/non-operational projects which indicated poor coordination among MoEF&CC, SPCBs/UTPCCs and PPs. During the joint physical verification or as per information provided by SPCB, we observed that a lot of projects were either not in operation or had not started for reasons such as forest clearance, financial constraint, market viability, land dispute, technical reason, etc.

EIA reports were prepared by the consultants whose accreditation were provisional or not complete or whose accreditations were not verifiable.

A National Regulator to carry out an independent, objective and transparent appraisal and approval of the projects and also to monitor the implementation of the conditions laid down in the ECs was yet to be appointed by MoEF&CC.

Mechanism to ensure redressal of the concerns of the public in the final EIA report/EC letter and implementation of the commitments made by the PP during public consultation in a time bound manner were also not firmly in place. Besides, shortcomings were noticed in the conduct of public hearings.

## **2.16 Recommendations**

We recommend that,

- i. MoEF&CC may take suitable action in consultation with NIC for revalidation of database and arrive at correct picture of the projects which have been granted EC by the Ministry.  
(Paragraph 2.2)
- ii. In order to increase transparency and fairness in grant of EC, MoEF&CC may streamline the processes including adhering to the timelines as per the EIA Notification.  
(Paragraph 2.3)
- iii. MoEF&CC, while scrutinising the EIA reports, may ensure that they are as per the ToR, comply with the generic structure, baseline data is accurate and concerns raised during the public hearing are adequately addressed.  
(Paragraph 2.5)
- iv. MoEF&CC may evaluate the entire process of EIA by involving all stakeholders, following legal processes and make suitable amendments in EIA Notification 2006 rather than resorting to Office Memorandums.  
(Paragraph 2.7)

v. MoEF&CC may grant fresh EC to the PPs only after verifying the compliance to the earlier EC conditions.

(Paragraph 2.8)

vi. MoEF&CC may adhere to its circular of 2010 on EC of coal linked mine for Thermal and Metallurgical projects so that firm coal linkage is available and the status of environment and forestry clearance of the coal sources i.e. the linked coal mine/coal block is known.

(Paragraph 2.9)

vii. MoEF&CC may consider bringing conditions of EC compatible with the nature and type of project in order to avoid non-uniformity in similar kind of projects.

(Paragraph 2.13)



**CHAPTER**

**3**



# Compliance to General Environment Clearance Conditions

## 3.1 Introduction

Environment Clearances (ECs) are granted for Category A projects by MoEF&CC after following the due processes as per EIA Notification 2006. EC is issued to the PP of the project and lays down conditions to be adhered to as per the commitments made by PP in EIA report. This chapter contains observations on non-compliance to 13 general EC conditions relating to projects spread across all States. The 13 general conditions are as under.

- i. Shortfall in expenditure and no time bound action plan for Environment Management Plan (EMP)
- ii. No separate head of account and earmarking of funds for EMP
- iii. Non/short depiction of Environment Management Plan cost in Environment Clearance letter
- iv. Non consultation with Forest Department for EMP activities
- v. Shortfall in development of green belt
- vi. Shortfall in activities relating to ESR
- vii. Variation in amount for activities under ESR mentioned in the Environment Impact Assessment Report and Environment Clearance letter
- viii. Non obtaining of permission of the competent authority for cutting of trees
- ix. Irregular use of Ground water
- x. Change in scope of work after obtaining the Environment Clearance from Ministry of Environment, Forest & Climate Change
- xi. Non submission of annual Environment Audit Report / Environment Statement
- xii. Commencement of construction/ operation before grant of Environment Clearance
- xiii. Non advertising of Environment Clearance in newspaper by the Project Proponent.

In order to assess whether PPs complied with the EC conditions, we examined records/information furnished by the PPs relating to 352 projects that were granted ECs by MoEF&CC between calendar years 2008-2012 in seven sectors. Result of audit findings are summarised in Chart 3.1.

**Chart 3.1: Evaluation of Non-Compliance of General EC Conditions**

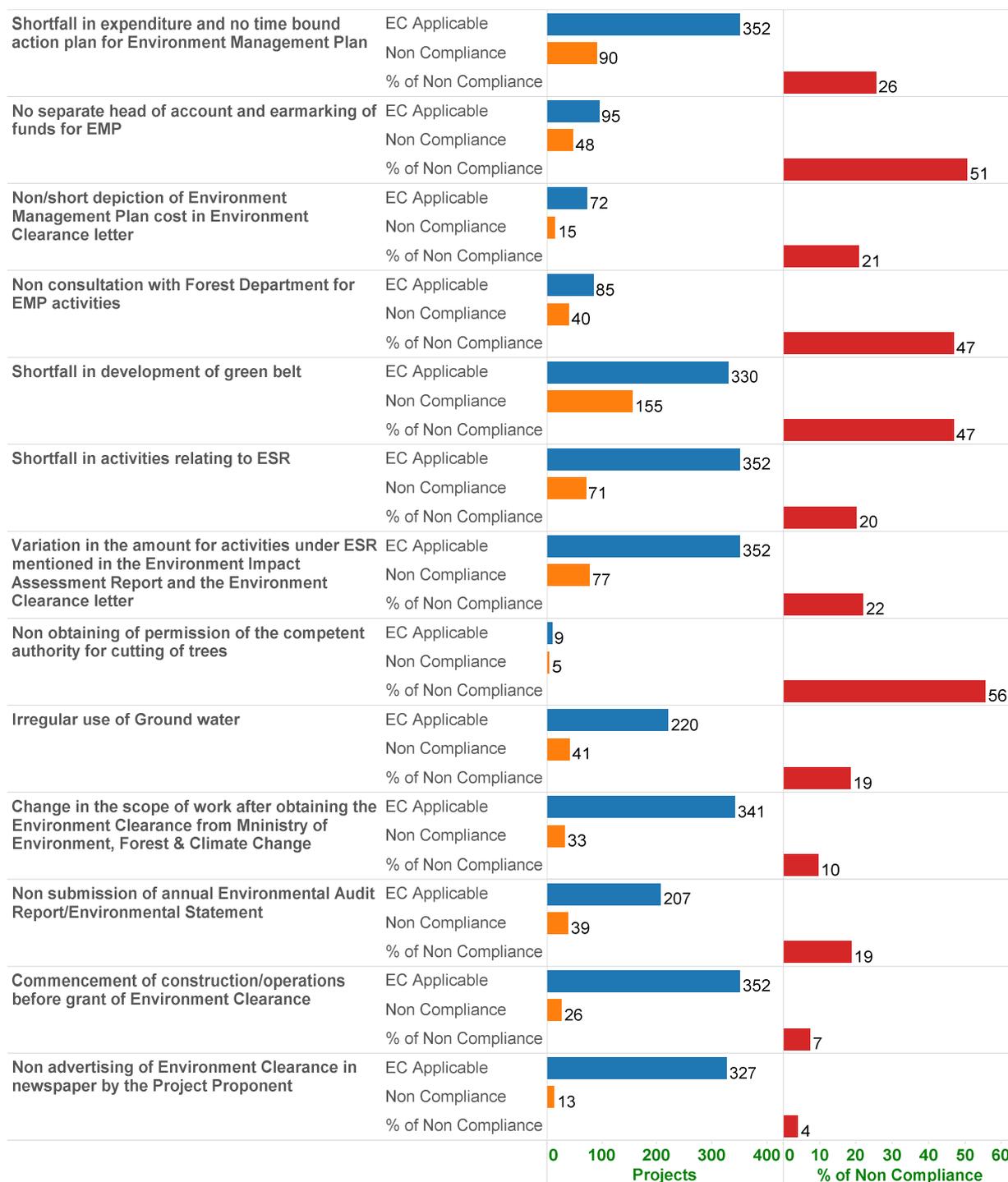


Chart 3.1 shows that that percentage of non-compliance by sampled projects to general conditions ranged from four to 56 *per cent*. Projects in which non-compliance is more than 25 *per cent* relate to five out of 13 general EC conditions. They are as follows:

- (i) Non obtaining of permission of the Competent Authority for cutting of trees;
- (ii) No separate head of account and earmarking of funds for EMP;
- (iii) Shortfall in development of green belt;
- (iv) Non consultation with Forest Department for EMP activities; and

(v) Shortfall in expenditure and no time bound action plan for EMP.

Out of the 352 projects test checked in audit, ten projects which exhibited maximum number of non-compliance of general EC conditions are as indicated in Table 3.1 below.

**Table 3.1: 10 projects with maximum number of non-compliance of general EC conditions**

State	Project	Proponents	Non-Compliance
1. Bihar	Upgradation of Patna-Gaya-Dobhi section on NH-83	National Highway Authority of India	Shortfall in actual expenditure relating to EMP, 100 % short fall in Green Belt development, Short fall in activities under ESR, Variation in amount in activities under ESR, Use of Ground Water without permission, Advertisement not done in two newspapers.
2. Bihar	3x60 MW Nabimagar STPP	M/s Nabinagar Power Generation Company	100 % short fall in Green Belt, Short fall in activities under ESR, Variation in amount in activities under ESR, Non-submission of EA Report, Construction prior to grant of EC, No extension of EC after expiry, Change in scope of work.
3. Bihar	Rehabilitation, Upgradation and Strengthening of SH-87	M/s Bihar State Road Development Corporation	100 % short fall in Green Belt, Short fall in activities under ESR, Variation in amount in activities under ESR, No permission to cut trees, Use of Ground Water without permission.
4. Uttarakhand	225 MW Gas bases combined power plant	M/s Gama Infracorp Pvt. Ltd.	Non consultation with Forest Department, Variation in amount in activities under ESR, Non-submission of EA Report.
5. Andaman & Nicobar Islands	Development of harbor facilities at Katchal	M/s Port Management Board	100 % short fall in Green Belt development, Change in scope of work, Advertisement not done in two newspapers, Non-submission of EA Report.
6. Uttarakhand	Shopping Mall cum multiplex and hotel at Haridwar	M/s Lotus Infra Project Pvt. Ltd.	Development of Green Belt, No extension of EC after expiry, Change in scope of work.
7. Telangana	Grain based Distilleries	M/s Empee Distilleries Ltd.	Non-consultation with Forest Department, Development of Green Belt, Non-submission of EA Report, Construction prior to grant of EC.
8. Punjab	Orchard Country at Sante Majra	M/s Ansal Lotus Melange Project Pvt. Ltd	Development of Green Belt, Use of Ground Water without permission, Non-submission of EA Report, No extension of EC after expiry.
9. Meghalaya	Construction phase of Ferro Silicon Plant with 10 MW CPP at Riwiang	M/s Shree Shakambari Ferro Alloys Pvt Ltd.	100 % short fall in Green Belt development, Use of Ground Water without permission, Advertisement not done in two newspapers, Short fall in activities under ESR.
10. Chhattisgarh	Expansion of Steel Plant at Rajnandgaon	M/s Crest Steel and Power Pvt. Ltd.	Development of Green Belt, Short fall in activities under ESR, Variation in amount in activities under ESR, Variation in amount in EMP

Detailed audit findings relating to 13 general EC conditions are in succeeding paragraphs.

### **3.2 Issues relating to Environmental Management Plan**

Preparation of Environmental Management Plan (EMP) is required for formulation, implementation and monitoring of environmental protection measures during and after commissioning of projects. EMP of the projects is formulated with an aim to avoid, reduce, mitigate, or compensate for adverse environmental impacts/risks and propose enhancement measures.

The plan should indicate the details as to how various measures have been or are proposed to be taken including cost components as may be required. The cost of measures for environmental safeguards should be treated as an integral component of the project cost and environmental aspects should be taken into account at various stages of the projects viz:

- a. Conceptualization: preliminary environmental assessment
- b. Planning: detailed studies of environmental impacts and design of safeguards.
- c. Execution: implementation of environmental safety measures
- d. Operation: monitoring of effectiveness of built-in safeguards

The EMP should be necessarily based on considerations of resource conservation and pollution abatement, some of which are: liquid effluents, air pollution, solid wastes, noise and vibration, occupational safety and health, prevention, maintenance and operation of environment control systems, house-keeping, human settlements, transport systems, recovery-reuse of waste products, vegetal cover, disaster planning and environment management cell.

#### **3.2.1 Shortfall in expenditure and no time bound action plan for EMP**

The EMP included in the EIA report submitted to the EAC when applying for EC for projects should clearly depict the cost (initial as well as recurring costs) required for carrying out environmental protection measures and should also include the basis for deriving such costs along with time bound action plan for implementation of the EMP. Such clarity in the EIA Report was necessary for monitoring the adequacy of activity wise and cost wise compliance by the PP.

We observed that out of the 352 sampled projects pertaining to various sectors, in 90 projects (26 per cent), there was a shortfall in expenditure towards EMP as depicted in Table 3.2.

**Table 3.2: Shortfall in expenditure towards EMP**

Percentage of shortfall	1 to 20 %	More than 20 to 40 %	More than 40 to 60 %	More than 60 to 80 %	More than 80 to 100 %
Number of projects	12	17	14	20	27
Percentage of sampled projects	3	5	4	6	8

Thus, the objective of pollution mitigation, water conservation, green belt development, proper waste management, effluent treatments, environment parameter monitoring, dust suppression, etc was not achieved as per the commitments made by the PPs and MoEF&CC did not monitor the same.

Besides this, in respect of 64 projects, the PPs did not furnish the details of expenditure on EMP and as such proper implementation of EMP could not be determined. Further, in 226 projects of the sample cases examined, time bound action plan for fulfilling the EMP commitment was not mentioned in the EIA report or the EC letter.

A few illustrative cases are given below:

In case of, **Phase I of Special Economic Zone of M/s Mangalore Special Economic Zone Ltd, Karnataka**, we observed that there was provision of ₹ 660 crore and ₹ 100 crore per annum for capital and revenue expenditure respectively under EMP. The money was to be spent on pollution control monitoring system, green belt and social welfare. However, the PP had incurred a capital expenditure of ₹ 186.71 crore and no revenue expenditure on EMP. Thus, there was a shortfall of 72 *per cent*.

In another case of **Collection of Minor Minerals from river Jakhan-2 of M/s Uttarakhand Forest Development Corporation**, an amount of ₹ 11.45 lakh per annum was specified in EIA report to mitigate the adverse impact which might be caused due to mining operation and over all scientific development of local habitat. The areas for which funds were earmarked were for monitoring of air, water, ambient noise, soil quality, inventory of flora, socio economic condition of local population, physical survey and manpower cost for environmental cell. No time bound action plan for fulfilling the EMP commitments was mentioned in EIA report. We observed that there was a shortfall of 88 *per cent* and most of the expenditure was made only towards monitoring of air, water and noise through outsourced agency hired for the purpose

As the EMP activities are envisaged to mitigate the adverse effects caused to the environment, the shortfall in EMP expenditure indicates that PPs were not committed towards sustainable development. Further, the efforts from MoEF&CC and SPCBs/UTPCCs to ensure strict compliance were by PPs were also lacking.

### 3.2.2 No separate head of account and earmarking of funds for EMP

In addition to the shortfall in actual expenditure on EMP by PPs, we evaluated EC letters issued by MoEF&CC to check the earmarking of funds for EMP and maintenance of separate account for such earmarked funds.

We observed that out of the 352 sampled projects, the EC letter had stipulated the condition for maintenance of separate account for funds for environmental protection measures in only 95 (27 per cent) projects. The condition for separate account was not mentioned in 244 projects.

We found that in 48 projects, PPs had not maintained separate account for such funds and therefore it was difficult to determine actual expenditure on EMP.

### 3.2.3 Non/short depiction of EMP cost in EC letter

The PP provides the cost estimates relating to EMP in the EIA Report. While appraising the project, the EAC considers these figures and gives its recommendations, which are approved by MoEF&CC.

We noticed that MoEF&CC did not follow a uniform practice of mentioning the amount approved in the EC letter, hence it was difficult to ensure that the compliance of expenditure on EMP could be watched through six monthly progress reports submitted by the PP.

It was observed that out of the 352 sampled projects, in 202 projects the EC letter did not stipulate the EMP amount, as a result proper monitoring of EMP expenditure could not be done. Further, in 72 projects, the EMP cost was mentioned in both EIA report and the EC letter but in 15 of cases the EMP cost mentioned in EC letter was less than the cost estimated by the PP in the EIA report, for which no justification was provided by MoEF&CC in its reply given to Audit in October 2016.

A few illustrative cases are given below:

In case of, **Expansion of Steel Plant at Rajnandgaon of M/s Crest Steel and Power Pvt. Ltd, Chhattisgarh**, we observed that an amount of ₹ 7.50 crore was proposed by the PP for EMP measures in the EIA report. However, the EC letter mentioned an amount of ₹ 1.50 crore for EMP measures. No justification was given by MoEF&CC for such variation.

Similarly, in case of **Expansion and modernization of foundry unit at Solapur of M/s Kirlosker Ferrous Industries Ltd, Maharashtra**, we observed that an amount of ₹ 2.65 crore and ₹ 0.78 crore per annum towards capital and recurring expenditure was proposed by the PP for EMP measures in the EIA report. However, the EC letter mentioned an amount of ₹ 5.00 crore for EMP measures, without depicting the capital and recurring expenditure separately.

### 3.2.4 Non consultation with the Forest Department for EMP activities

Consultations with State Forest Department are required for proper implementation of the plantation, conservation of flora and fauna and several other activities mentioned in the EMP

We observed that out of the 352 sampled projects pertaining to various sectors, in 191 projects the EC letter did not stipulate condition for consultations with forest department. Out of 85 projects where such condition was stipulated, we found that PPs did not comply with EC condition in 40 projects (47 per cent).

A few illustrative cases are given below:

In case of, **Tiroda Iron Ore Mine of M/s Gogte Minerals Ltd, Maharashtra** the EC condition required that adequate plantation should be raised in the Mining Lease (ML) area, haul roads, Over Burden (OB) dump sites etc. green belt development should be carried out considering CPCB guidelines including selection of plant species and in consultation with the local District Forest Officer/ Agriculture Department. During field visit, thick plantation on the OB dumps between the school and the ML area and haul roads was observed. The PP, however, accepted that the plantation plan was prepared by them on their own without consultation with the State Forest Department.

In case of, **Gas based combined power plant of M/s Gama Infraprop Pvt. Ltd, Uttarakhand**, the EC condition required that in addition to development of green belt social forestry measure should be taken up in consultation with the District Forest Department. However, it was observed that no social forestry measures or any block of degraded forest was identified or action plan in this regard was found to have been under taken by the PP.

### 3.3 Shortfall in development of green belt

Green belt is an important sink for air pollutants. Trees also absorb noise and by enhancing the green cover, improve the ecology and aesthetics and affect the local micrometeorology. Trees also have major long term impacts on soil quality and the ground water table. By using suitable plant species, green belts can be developed in strategic zones to provide protection from emitted pollutants and noise.

We observed that out of the 352 sampled cases, the condition in respect of development of green belt was stipulated in respect of 330 projects. Compliance to this condition was reported in 133 projects. The condition in respect of development of green belt was not applicable in 18 projects as they were under construction and in 22 projects, records were not furnished by PP. In two projects, shortfall could not be ascertained due to non-specificity of EC in respect of area/number of trees for plantation.

We observed shortfall in development of green belt in 155 (47 *per cent*) projects. In respect of 139 projects where the percentage range of shortfall is quantifiable the details are given in Table 3.3. Shortfall could not be quantified in case of 16 projects since measurable parameters such as area to be developed under green belt and number of trees to be planted were not mentioned in the EC.

**Table 3.3: Shortfall in development of Green Belt**

Range of short fall in %	Projects	Percentage of Projects
1-20	16	12
21-40	17	12
41-60	27	19
61-80	30	22
81-100	49	35
<b>Total</b>	<b>139</b>	

We also found that in 20 cases, the PPs had not planted a single tree (100 *per cent* shortfall) to mitigate the negative effects of the project. Five cases of 100 *per cent* shortfall are given in Table 3.4.

**Table 3.4: 100 per cent shortfall in development of Green Belt**

State	Project
1. Bihar	Expansion of M S Ingot Production of M/s Balajee Ingot India Pvt. Ltd
2. Madhya Pradesh	Lower Goi Irrigation Project of M/s NVDA Barwani
3. Maharashtra	Widening of existing two lane to four/six lane of NH 17 (Panvel to Indapur Section) of National Highway Authority of India
4. Meghalaya	Mawmluh Limestone Mine of M/s Mawmluh Cherra Cement Ltd.
5. Odisha	Bhubaneswari open cast coal mining project of M/s Mahanadi Coalfields Ltd

A few illustrative cases are given below:

The EC letter of a non-coal mining project in Jharkhand, namely, **Hisri Bauxite Mining Project of M/s Hindalco Industries Ltd** entailed plantation in 2.98 hectares. A total of 12,700 trees had to be planted. However, only 85 trees were planted. There was a shortfall of 12,615 trees i.e. 99 *per cent*.

The EC letter of an infrastructure project in Mizoram, namely, **Construction of new 2 lane highway of M/s Public Works Department (Highway)** entailed plantation of a minimum of three times the number of trees cut. A total of 3,084 trees were felled. So, there was a requirement to plant 9,252 trees. However, only 200 trees were planted. There was a shortfall of 9,052 trees i.e. 98 *per cent*.

The objectives to mitigate the adverse effects on environment to restore the land, maintain ambient air quality and ecological balance through plantation stood defeated in absence of plantation/ shortage of plantation by the PPs.

### 3.4 Enterprise Social Responsibility issues

MoEF&CC had prescribed public consultation, social impact assessment and Relief & Rehabilitation (R&R) action plan besides EMP in the generic structure of EIA report. The PPs had to clearly state the activity-wise costs involved (both capital as well as recurring costs), the phasing of these activities in EIA report.

The EIA reports envisage to carry out Enterprise Social Responsibility (ESR) activities such as protection of flora and fauna, animal welfare, agroforestry, conservation of natural resources and maintaining quality of soil, air and water, protection of national heritage, art and culture, eradicating hunger, poverty and malnutrition, promoting preventive health care and sanitation and promoting education etc.

#### 3.4.1 Shortfall in activities relating to ESR

EIA report submitted by PP to the EAC when applying for EC for projects should clearly depict the activity-wise costs involved (both capital as well as recurring costs) and the phasing of these activities under ESR. Such clarity in the EIA Report was necessary for monitoring the cost wise compliance by the PP during the operational phase of the project.

We observed that out of 352 projects, no funds were earmarked for activities under ESR in 178 projects in the EIA report/EC. In 103 projects, either ESR amount was not mentioned in EIA report / EC or expenditure was not available. There was a partial shortfall of six *per cent* to 99 *per cent* in 57 projects and 100 *per cent* shortfall in 14 projects.

A few illustrative cases are given below:

In case of **Expansion of Paper Mill & Captive Power Plant, Balasore of M/s Emami Paper Mills Ltd, Odisha** we observed that there was no time bound action plan for activities under ESR (literacy, education and training, healthcare and medical relief, community service, natural calamities and disaster relief, infrastructure development and maintenance, alternative and renewal energy, renovation and maintenance of heritage and historical site and structure, poverty alleviation and employment creation, protection and welfare of cows and other milk cattle, social security and empowerment, rural development, environment and ecology, research activities, promotion of national integration, women empowerment, other activities) in EIA report/EC. Moreover, against the total funds of ₹ 95 crore committed for activities under ESR, expenditure of ₹ 4.09 crore was incurred during 2012-13 to 2015-16 by the PP leading to an overall shortfall of 95 *per cent*.

Similarly, in another project **Expansion of Coal Based Thermal Power Plant at Gondia of M/s Adani Power Maharashtra Pvt Ltd** we observed that there was no time bound action plan for activities under ESR (medical facilities, education, rural development, charitable works, etc.) in EIA report/EC. Moreover, against the total funds of ₹ 105.60

crore committed for activities under ESR, expenditure of ₹ 11.97 crore was incurred during 2012-13 to 2014-15 by the PP leading to a shortfall of 89 per cent.

### 3.4.2 Variation in the amount for activities under ESR mentioned in EIA Reports and EC letters

The PPs should provide cost estimates relating to activities under ESR in the EIA Report. While appraising the project, the EAC considers these estimates and gives its recommendations. Ideally, MoEF&CC should mention the amount approved in the EC letter, so that the compliance of activities under ESR can be watched through six monthly progress reports submitted by the PP.

We observed that out of 352 projects, in 77 projects there was variation in the amount of activities under ESR committed in the EIA Report and that mentioned in the EC letter.

A few illustrative cases are given below:

In case of **Six laning road of Chilakaluripet to Nellore section of M/s NHAI, Andhra Pradesh**, we found that the amount of activities under ESR specified in EIA report was ₹ 2.5 crore but the same was not mentioned in EC.

In another case of **Installation of Emulsion Styrene Rubber at Panipat Refinery of M/s IOCL, Haryana** we found that the amount of activities under ESR as specified in EIA report was ₹ 4.50 crore but the same was not mentioned in EC.

### 3.5 Non-obtaining of permission of Competent Authority for cutting of trees

The ECs of projects in respect of upgradation of highways stipulate that the PP shall obtain necessary prior permission for cutting of trees from the Competent Authority. Compensatory afforestation shall be carried out as per stipulated conditions of MoEF&CC and State Forest Division.

We observed that out of the 352 sampled cases, in only nine projects it was stipulated that prior permission of the Competent Authority had to be taken for cutting of trees. Non-inclusion of the provision for obtaining permission prior to cutting trees poses the risk of indiscriminate cutting of trees by the PPs. In two out of these nine projects, the PPs had cut same number of trees as approved by the Competent Authority and in another two projects information was not furnished by the PPs.

We observed that in the remaining five (56 per cent) of the nine projects the trees cut were in excess of the number of trees permitted for cutting by the Competent Authority. Thus, PPs did not take prior permission of the Competent Authority for the actual number of trees cut by them. These five cases are given in the Table 3.5.

**Table 3.5: Trees cut in excess of sanctioned numbers**

States	Name of Project	Observation arising from Joint Site Visits	
		Trees for which cutting permission obtained	Trees actually cut
1. Bihar	Rehabilitation Upgradation and strengthening of SH-87 of M/s Bihar State Road Development Corporation Ltd	482	15,765
2. Chhattisgarh	Upgrading to 4 lane of NH 6 from Aurang to Saraipali of M/s NHAI	18,621	34,679
3. Karnataka	4/6 laning of Kundapura/Surathkal stretch of NH-17 of NHAI	14,956	18,400
4. Madhya Pradesh	Rehabilitation & Upgrading of 2 lanes of Amarwara – Umrana of NHAI, Chhindwara	2,815	11,031
5.	Upgradation of Chhindwara/Chourai/Seoni section of NHAI, Chhindwara	1,066	1,455

### 3.6 Irregular use of Ground water

The EC letters of some of the projects stipulate that the PP shall obtain necessary prior permission from the Central Ground Water Authority (CGWA) for drawl of requisite quantity of ground water required for the project.

We observed that out of the 352 sampled cases, the condition in respect of permission of the Competent Authority for use of ground water was stipulated in respect of 220 projects. Compliance to this condition was found in 102 projects. In case of 16 projects, the records were not furnished to Audit and in case of 61 projects, this condition was not applicable as the projects were not using groundwater.

We observed that in 41 out of the 220 projects, there was violation of EC conditions, as prior permission of CGWA was not taken by PPs for drawl of ground water.

Illustrative cases are given below:

In two projects namely, **Up gradation of Patna-Gaya-Dobhi section on NH-83 of M/s NHAI and Construction of AIIMS, Apex Health Care Institute Phulwari Sharif, Patna of Department of Health, Government of Bihar**, the ECs stipulated that either no groundwater shall be used for the project or permission of competent authority would have to be taken for its drawl. We observed that groundwater was being used without permission of the competent authority i.e. CGWA.

Thus, in 19 *per cent* cases, prior permission from the Competent Authorities for drawl of requisite quantity of ground water was not taken by the PPs.

### 3.7 Change in the scope of work after obtaining EC from MoEF&CC

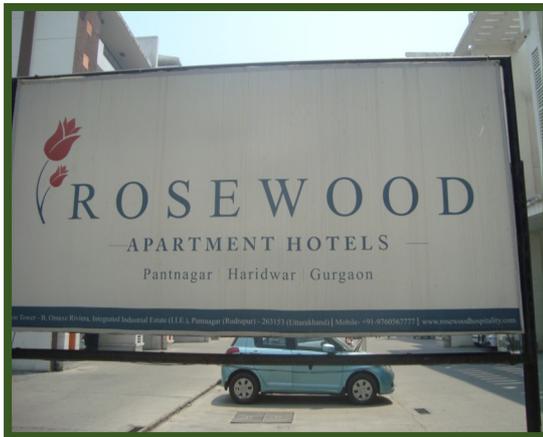
One of the general conditions stipulated in EC of MoEF&CC was that in the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the MoEF&CC.

It was observed that out of 352 sampled projects, in 11 projects, this condition was not stipulated in the concerned EC letter. Out of remaining 341 projects, in 33 cases no fresh appraisal was done/revised EC issued by the MoEF&CC although there was change in scope of work by the PP.

Out of these 33 projects, in eight projects the production/storage capacity was enhanced, in 14 projects the limits like build-up area, floors, pockets, etc were increased, in two projects the land/forest area was increased/diverted, in four projects the project profile of vessels/dock was changed, in four projects fuel/source mode of transport was changed and in one case Captive Power Plant was not installed.

A few illustrative cases are given below:

In a project of **Residential complex of Omaxe Riveria, Uttarakhand**, we observed that the PP was to build a structure of three pockets having Ground plus four floors as per EC. The PP constructed four pockets in contravention to the EC conditions. An apartment block consisting of 64 rooms was found leased to Rose Wood Serviced Apartment Hotels. Further, an under-construction structure was also coming up within the project site where the sign boards suggested opening of bar, restaurant and hotel which was against the provisions of the EC letter. Thus, the scope of EC was changed without getting prior approval of the MoEF&CC.



**Service Apartment with 64 rooms in OMAXE Riveria Infrastructure, Rudrapur, Uttarakhand**

**Proposed Hotel and Bar restaurant coming up within OMAXE Riveria Infrastructure, Rudrapur, Uttarakhand**

Similarly, in another case, EC for township project **Ashiana Amarbagh, Jodhpur**, was awarded for construction of only 345 units and total built up area of 44,664.34 sq. meters. We observed that there were 413 units constructed and the area of construction was also enhanced to 55,019 sq. meters. Fresh appraisal from the MoEF&CC was not obtained by the PP.

In case of, **Mata No Madh Lignite Mine of M/s GMDC Ltd, Gujarat**, EC was granted for production of 2.40 Million Ton Per Annum (MTPA) of lignite. However, it was observed that the actual production was 3.19, 3.07 and 3.28 MTPA during 2012-2015.

The EC was issued by the Competent Authority keeping in view various factors which affect the environment. These conditions should be strictly followed by PPs in letter and spirit. However, their violation adversely affects the environment and puts additional burden on the local surrounding, local population and resources there of.

### 3.8 Non submission of annual Environmental Audit Report/Environmental Statement

As per MoEF&CC circular dated 30 June, 2009, environmental statement for each financial year ending 31<sup>st</sup> March, in Form-V, was to be submitted by the PP as prescribed under the Environment (Protection) Rules, 1986. This was also to be put on the website of the company along with the status of compliance of EC conditions and the same shall also be sent to the Regional Office, MoEF&CC by e-mail.

Out of 352 sampled projects, in 145 projects (41.19 *per cent*) this condition was not separately specified in the EC letter. As such, out of 207 projects, 150 projects had submitted the environmental statement in Form V and non-compliance of this condition was observed in 39 projects (18.89 *per cent*). In remaining 18 cases, either information was not available or not applicable.

In the absence of environmental statement, the SPCB/MOEF&CC/RO could not keep an effective watch over the various aspects of the construction/operation of the project like probable compromise in the quality of environmental parameters, discharge of pollutants, management of hazardous as well as solid wastes, consumption of water, raw material, etc.

### 3.9 Commencement of construction/operations before grant of EC

Para 9 of the EIA Notification, 2006 provides that prior EC granted for a project or activity shall be valid for a period of 10 years in the case of river valley projects, 30 years in the case of mining projects and five years in the case of all other projects. The period of validity may be extended by the concerned regulatory authority by a maximum period of five years, provided an application is made within the validity period.

We observed that out of 352 sampled projects pertaining to different sectors which were granted ECs during the year 2008 to 2012, construction/operation commenced before grant of EC in 18 projects. Moreover, extension in validity of EC was not obtained by the PPs after the expiry of EC in eight projects.

A few illustrative cases are given below:

In case of **Construction of City Emporia Mall, Chandigarh of M/s Real Tech Constructions Pvt Ltd** we observed that the Regional Office of MOEF&CC found (August 2008) that the built-up area of commercial complex was more than 2,00,000 sq ft hence EC was required to be obtained by the PP. Chandigarh Pollution Control Committee issued (August 2009) show cause notice under section 27 of Water (Prevention and Control of Pollution) Act 1974. PP in reply stated that the additional area was to be used

only for parking purpose and not for any commercial use and that there would be no additional water requirement/waste water generation, etc. MoEF&CC renewed the EC (November 2009) without imposing any penalty.

Similarly, in another construction sector project **Metropolitan Mall, Jalandhar, Punjab of M/s MGF Developments Ltd** we observed that the EC issued to the earlier PP expired in February 2013 and the incomplete work was taken over (January 2015) by new PP without obtaining fresh EC. No penal action was taken against the PP for violation.



**Metropolitan Mall, Jalandhar, Punjab**

Commencement of construction/operations before grant of EC and existence of projects without extension of validity of EC shows that there were serious deficiencies in monitoring of projects by the MoEF&CC leading to adverse impacts on the environment.

### **3.10 Non-advertising of EC in newspapers by the Project Proponent**

As per General Condition of EC letter issued by MoEF&CC, the PP shall advertise the EC in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded EC and that copies of clearance letter were with the SPCB and could also be seen on the website of the MoEF&CC.

It was observed that out of 352 sampled projects, in case of 211 projects, the advertisements were given in two newspapers. In 25 projects, this condition was not stipulated in the concerned EC letter. In 92 cases, the relevant records was not available.

Out of remaining 24 cases, we observed that in 11 projects the advertisement was given only in one newspaper and in 13 projects the advertisement was not given in any newspaper.

Thus, the PP failed to make the stake holders/general public aware about the EC given to the project by the MoEF&CC. In 25 projects, this condition was not stipulated in the concerned EC letter. As such the MoEF&CC was not uniform in stipulating this necessary condition in EC letter.

### **3.11 Conclusion**

Environment Management Plan is a commitment made by the PP with regards to pollution mitigation, water conservation, green belt development, proper waste

management, effluent treatments, environment parameter monitoring, dust suppression etc. We observed that the PPs were not fulfilling the EMP commitments. MoEF&CC also did not ensure that there was a time bound action plan for fulfilling EMP commitments.

The requirement of maintaining sufficient greenbelt as committed in the EIA reports were not met by the PPs. The activities under ESR were either not carried out or were at variance with the commitments spelt out in the EIA reports.

MoEF&CC and its Regional Offices were not able to ensure that the PPs take prior permission from the competent authorities for drawl of requisite quantity of ground water.

The PPs had changed the scope of the projects without requisite approvals or had commenced construction/operations before grant of EC. This indicated that MoEF&CC was not able to ensure that the PPs follow the EC condition in letter and spirit.

The PPs had not regularly submitted the annual Environmental Audit Report/Environmental Statement to the concerned SPCBs. The requirement of publishing the EC in two local newspapers was also not complied with by the PPs, thereby failing to make the stake holders/general public aware about the EC given to them.

### 3.12 Recommendations

We recommend that,

- i. The EIA reports/EC letters should clearly mention cost of activities under EMP and ESR along with the timelines for their implementation.  
(Paragraph 3.2 and 3.4)
- ii. MoEF&CC may consider making EMP/EC condition(s) more specific for the area to be developed under green belt and species to be planted in consultation with Forest/Agriculture Department along with post EC Third Party evaluation.  
(Paragraph 3.3)
- iii. MoEF&CC may consider endorsing copy of EC letter issued to each project to the Central Ground Water Board/State Agencies to ensure monitoring of Ground Water extraction.  
(Paragraph 3.6)



**CHAPTER**

**4**



# Compliance to Specific Environment Clearance Conditions

## 4.1 Introduction

Environment Clearances (EC) are granted for Category A projects by MoEF&CC after following the due processes as per EIA Notification 2006. EC is issued to the Project Proponent (PP) of the project and lays down conditions to be adhered as per the commitments made by PP in EIA report. Apart from general conditions, it also stipulates certain specific conditions either relating to sectors or to the project to be followed by PPs. This Chapter contains observations on non-compliance to 18 specific EC condition relating to projects spread across all States. The 18 conditions are as under:

- (i) Implementation of Emergency Preparedness Plans
- (ii) Preservation of Topsoil
- (iii) Management of Over Burden dumps
- (iv) Preparation and implementation of action plan for conservation of flora and fauna
- (v) Ensuring installation/functioning of pollution control systems like Effluent Treatment Plants
- (vi) Implementation of Occupational Health Surveillance Programme and non-identification of risk
- (vii) Construction of rain water harvesting structures
- (viii) Construction of residential facilities for labourers
- (ix) Relief and Rehabilitation
- (x) Handling of hazardous waste materials
- (xi) Obtaining of clearance for the handling of explosive materials
- (xii) Storage of Fly Ash in case of Thermal Power Projects
- (xiii) Utilisation of coal with ash content within permitted level in case of Thermal Power Projects
- (xiv) Control of fugitive emission of fly ash in case of Thermal Power Projects
- (xv) Utilization of Fly Ash generated in case of Thermal Power Projects
- (xvi) Consolidation and compilation of the muck in the designated muck dumping sites in case of River Valley and Hydro Electric Power projects
- (xvii) Implementation of the Fishery Conservation & Management Plan
- (xviii) Implementation of the Catchment Area Treatment Plans

In order to ensure that PPs are complying with the EC conditions, we examined records/information furnished by the PPs relating to 352 projects that were granted EC by MoEF&CC between calendar years 2008-2012 across the country relating to seven sectors. Result of audit findings are summarised in Chart 4.1.

**Chart 4.1: Evaluation of Non-Compliance to Specific EC Conditions**

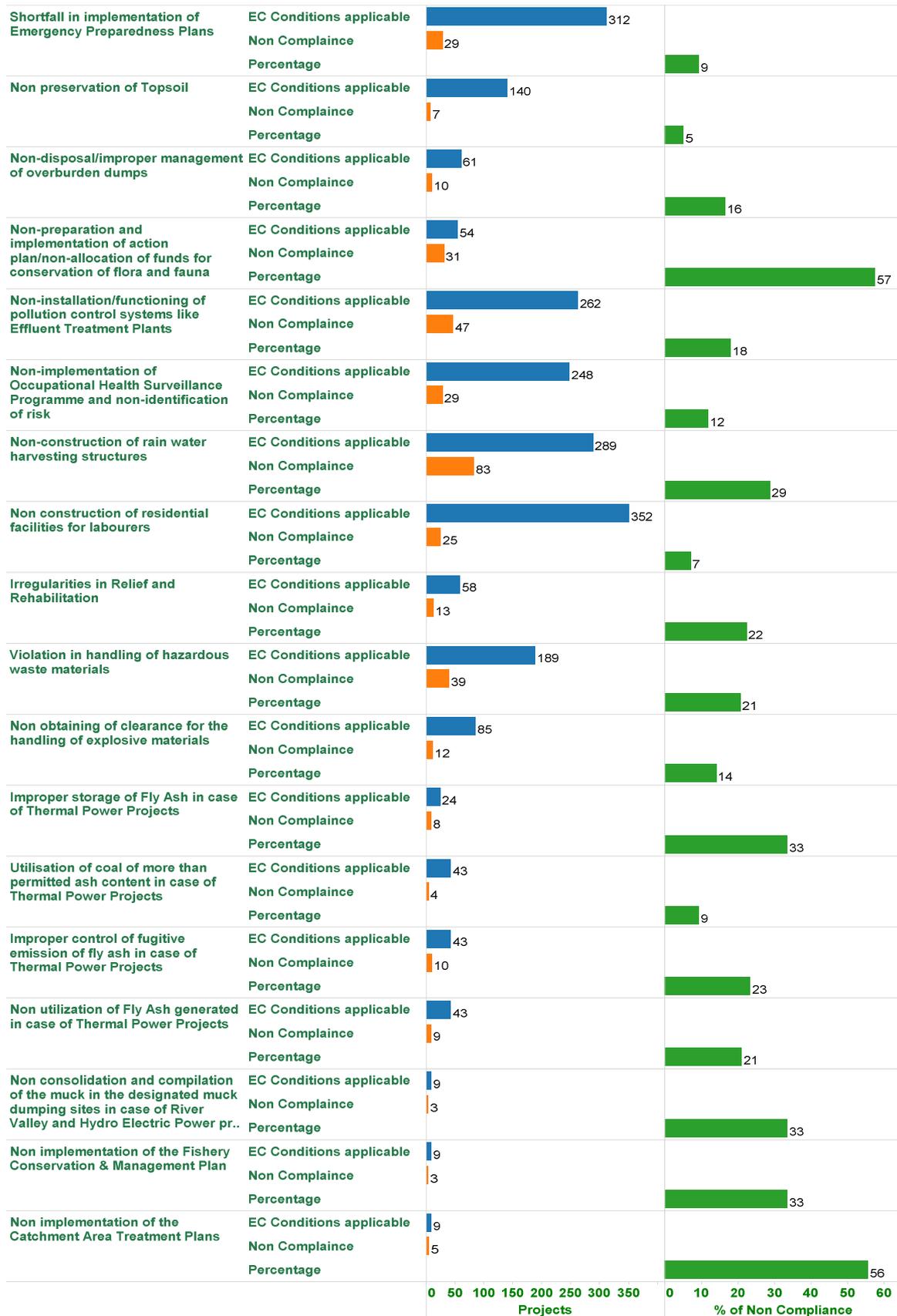


Chart 4.1 shows that that percentage of non-compliance by sampled projects to specific conditions ranged from five to 57 *per cent*. Projects in which non-compliance is more than 25 *per cent* relate to six specific EC conditions and most relate to River Valley and Hydro Electric Power projects and Thermal Power Projects. These are as under:

- (i) Non-preparation and implementation of action plan/non-allocation of funds for conservation of flora and fauna
- (ii) Non implementation of the Catchment Area Treatment Plans
- (iii) Non consolidation and compilation of muck in the designated muck dumping sites in case of River Valley and Hydro Electric Power projects
- (iv) Non implementation of the Fishery Conservation and Management Plan
- (v) Improper storage of Fly Ash in Thermal Power Projects
- (vi) Non-construction of rain water harvesting structures.

Out of the 352 projects test checked in audit, 10 projects which exhibited maximum number of non-compliance of specific EC conditions are as indicated in Table 4.1 below.

**Table 4.1: 10 projects with maximum number of non-compliance of specific EC conditions**

State	Project	Proponents	Non-Compliance
1. Bihar	2x195 MW (Stage-II) Coal Based Thermal Power Plant	M/s Kanti Bijli Utpadan Vitaran Ltd.	Storage of fly ash, Control of fugitive emission of fly ash, Utilisation of more than permitted ash content, Non-implementation of Occupational Health Surveillance Programme, Non-construction of Rain Water Harvesting Structure, Non-implementation of Relief and Rehabilitation Programme.
2. Meghalaya	Mawmluh Limestone Mine	M/s Mawmluh Cherra Cement Ltd.	Shortfall in Emergency Preparedness Plan, Non preservation of Topsoil, Non-Management of Overburdens, Non Conservation of Flora and Fauna, Non-installation of ETPs, Non-implementation of Occupational Health Surveillance Programme, Non-construction of Rain Water Harvesting Structure.
3. Jammu & Kashmir	Khrew Limestone	M/s Jammu & Kashmir Cement Ltd.	Shortfall in Emergency Preparedness Plan, Non Conservation of Flora and Fauna, Non-implementation of Occupational Health Surveillance Programme, Non-construction of Rain Water Harvesting Structure.
4. Uttarakhand	Residential Complex of Omaxe Riveira, Rudrapur.	M/s Omaxe Ltd	Shortfall in Emergency Preparedness Plan, Non-construction of Rain Water Harvesting Structure, Non-installation of ETPs, Handling of Explosives, Handling of Hazardous Waste Materials.
5. Meghalaya	Construction phase of Ferro Silicon Plant with 10 MW CPP at Riwiang	M/s Shree Shakambari Ferro Alloys Pvt. Ltd.	Shortfall in Emergency Preparedness Plan, Non-installation of ETPs, Non-construction of Rain Water Harvesting Structure, Non-implementation of Occupational Health Surveillance Programme, Handling of Hazardous Waste Materials.

State	Project	Proponents	Non-Compliance
6. Jammu & Kashmir	Proposed Integrated Cement Plant	M/s Tramboo Cement Industries Ltd.	Shortfall in Emergency Preparedness Plan, Non-construction of Rain Water Harvesting Structure, Hazardous Waste Materials, Non preservation of Topsoil, Non Conservation of Flora and Fauna.
7. Bihar	Construction of AIIMS, Phulwari Sarif, Patna	Department of Health, Government of Bihar	Non preservation of Topsoil, Non-construction of Rain Water Harvesting Structure, Non-installation of ETPs, Handling of Hazardous Waste Materials, Non-construction of shelter for labourers.
8. Madhya Pradesh	Lower Goi Irrigation Project	M/s NVDA Barwani	Shortfall in Emergency Preparedness Plan, Non preparation of Catchment Area Treatment, Non-implementation of Occupational Health Surveillance Programme. Non implementation of relief and rehabilitation.
9. Himachal Pradesh	Sainj HEP 100 MW	M/s Himachal Pradesh Power Corporation Ltd.	Non preservation of top soil, Non implementation of Fishery Conservation and Management Plan, Non preparation of Catchment Area Treatment, Non Conservation of Flora and Fauna, Non consolidation and compilation of Muck Disposal Plan, Non implementation of Relief and Rehabilitation.
10. Karnataka	1.120 KLPD Mollasses based distillery unit, Bagalkote	M/s Nirani Sugars Ltd	Shortfall in Emergency Preparedness Plan, Non-installation of ETPs, Non-construction of Rain Water Harvesting Structure.

Detailed audit findings relating to 18 specific EC conditions arising from test check of records of 352 PPs are in succeeding paragraphs.

#### 4.2 Shortfall in implementation of Emergency Preparedness Plans

EIA reports and EC conditions in most of the projects require the PPs to prepare and implement the Emergency Preparedness Plan (EPP) after assessing the risks at the project sites. The Generic Structure of EIA document as per EIA Notification, 2006, Appendix III, also provided for inclusion of emergency procedures.

We observed that out of the 352 sampled projects pertaining to seven sectors, in 312 projects the EPPs was stipulated in EIA Report/EC conditions. Out of these 312 projects, in 29<sup>21</sup> projects, the PP did not comply with this condition. In 206 projects, the PPs complied with this condition and in 77 projects the information was not available.

Non-compliance to EPPs included non-availability of ambulance, fire fighting facilities, explosion hazards, medical facilities, protection against cyclones, floods, earthquakes, cloudbursts, mine inundation, early warning system, mock drills for disaster preparedness, training etc.

A few illustrative cases are given below:

<sup>21</sup> 13 projects did not comply with the EC conditions and 16 projects partially complied.

In case of, **Mawmluh Limestone Mine of M/s Mawmluh Cherra Cement Ltd, Meghalaya**, the nature of emergencies indicated in EIA report were slope failures at the mine faces and accident due to explosive and heavy mining equipment sabotage. The PP had to prepare a documented procedure for emergency preparedness and responses for control of different types of accidents. However, it was observed that proponent had not prepared the EPP.

Similarly, in another project, **Khrew Limestone, of M/s Jammu & Kashmir Cement Ltd, Jammu & Kashmir**, it was observed that the Disaster Management Plan was discussed in detail in EIA Report, however, no such plan was in place.

MoEF&CC replied (October 2016) that the District Authorities and the Inspectorate of Factories and Boilers are empowered under the law to approve EPPs and ensure compliance.

MoEF&CC should have ensured that the District Authorities had ensured compliance to EPP conditions so that mismanagement and mishandling of the situation at the time of emergency could be ruled out.

#### 4.3 Non preservation of topsoil

Topsoil is the most fertile portion of soil. Plants generally concentrate their roots in and obtain most of their vital nutrients from this layer. The actual depth of the topsoil layer can be measured as the depth from the surface to the first densely packed soil layer known as subsoil. As per the EC, every proponent involved in any type of excavation has to (i) preserve the top soil to reclaim the excavated areas and dumps or (ii) all the topsoil excavated during construction activities to be stored for use in horticulture/landscape development within the project site. This would ensure that the top soil was properly stacked, for utilization later for reclamation and plantation.

We observed that out of the 352 sampled projects pertaining to various sectors, in 140 projects the condition of preservation of topsoil was stipulated in EC letter. Out of 140 projects, we found that in seven projects, PPs did not comply with this condition and in 50 projects information was not furnished by PPs.

MoEF&CC, while accepting the audit observation, stated (October 2016) that steps were being taken to improve compliance of the condition.

#### 4.4 Non-disposal/improper management of Over Burden dumps

EC letters issued to various PPs specifically in coal/non-coal mining sectors contain condition in respect of management of Over Burden (OB) dumps created during such mining operations. The OB so generated was to be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo-textile was to be under taken for stabilization of the dump. The OB should not be left idle for long period and the mining area was to be backfilled with OB at the end of the mine life.

Out of the 352 sampled projects pertaining to various sectors, this condition was stipulated in the EC letter of 61 mining projects. We found violation of this EC condition in 10 projects.

A few illustrative cases are given below:

In case of **Enhancement of iron ore production of M/s V.S. Lad & Sons Iron ore mine, Bellary, Karnataka**, the EC included a condition that protection of dumps against erosion should be carried out. Thick plantation of native trees was to be carried out. However, the OB was noticed to be vertical and no stabilising measures like benching, geo-coir matting, construction of toe wall, etc were done. As per the Central Empowered Committee survey the OB has eroded and spread to the adjoining forest areas resulting in encroachment due to which the mining lease stood cancelled.

In case of **Enhancement of iron ore production of M/s. Ashwathnarayana Singh, Karnataka**, the EC stipulated that the OB shall be stacked at earmarked dumpsites and shall not be kept active for long periods and the height of the OB shall not exceed 30 meters. Audit noticed that OB dumps were not properly stabilized during the period of operation, the slope and height of the mines were not maintained at the limits prescribed which led to the frequent sliding and rolling down of the dumps creating deep gullies. Though plantation was taken up in the OBs, erosions during the rainy seasons had reduced the survival rates of plantations. Encroachment was also reported on the OBs by the Indian Council of Forestry, Research and Education.

MoEF&CC, while accepting the audit observation, stated (October 2016) that steps were being taken to improve compliance of the condition.

Thus, improper management of Over Burden excavated during project execution may lead to erosion of soil and may affect the surface runoff.

#### **4.5 Non-preparation and non implementation of action plan/non-allocation of funds for conservation of flora and fauna**

The EC letters of some of the projects contained a stipulation for preparation and implementation of action plan and allocation of funds for the conservation of flora and fauna. Such plans should contain a data compiled after survey of the area in and around the project area listing out the species of flora and fauna and the proposed action to be taken for the conservation of the same. Generally, the concurrence of the State Forest Department shall be obtained before submitting the same to MoEF&CC. Necessary allocation of funds for implementation of the conservation plan are to be made and the funds so allocated are to be included in the project cost. All the safeguard measures brought out in the Wildlife Conservation Plan so prepared specific to the project site was to be effectively implemented. A copy of action plan was to be submitted to the MoEF&CC and its ROs.

We observed that out of the 352 sampled cases, the condition in respect of preparation/implementation of action plan/allocation of funds for conservation of flora and fauna was stipulated in respect of 54 projects. Compliance to this condition was observed in 18 projects. In respect of one project, condition in respect of action plan for flora and fauna was not applicable as it had just commenced. In respect of four projects, the shortfall could not be determined because the information in respect of action plan for flora and fauna was not furnished by the PP.

We observed that in respect of 31 projects (57 *per cent*), there was shortfall with respect to preparation and implementation of action plan/allocation of funds for conservation of flora and fauna in consultation with the State Forest and Wildlife Department.

A few illustrative cases are given below:

In case of, **Development of Harbour facilities at Katchal of M/s Port Management Board (PMB), Andaman & Nicobar Islands**, the EC stipulated a condition on monitoring the impacts on the reefs and corals. As all the species of corals were under Schedule-I of the Wildlife Protection Act, 1972. PMB thus approached Zoological Survey of India (ZSI) to undertake survey of corals. ZSI recommended that periodic monitoring of the health of coral reefs should be undertaken during construction as well as post construction periods. Andaman and Nicobar Island Coastal Zone Management Authority (ANCZMA) directed that PP should earmark one *per cent* of the estimated cost of the projects at the disposal of the ANCZMA for monitoring of the coral, its associates as also marine flora and fauna during the construction period and two years thereafter. In 90<sup>th</sup> meeting, the EAC while recommending the project, directed that impacts on the reefs and corals shall be monitored as suggested by ZSI.

We noticed that the impacts on the reefs and corals were not periodically monitored by PMB and it had not deposited 1 *per cent* of the estimated cost (₹ 127.28 crore) of the project to ANCZMA.

In another project namely, **Pakhar Bauxite Mine of M/s Hindalco Industries Ltd, Jharkhand** the EC stipulated that the critical habitat in the area including dens of python, fox and bear should be protected by adopting appropriate wildlife conservation measures by preparing conservation plan specific to this project in consultation with the State Forest and Wildlife Department. For this purpose, PP was directed to spend ₹ 48.24 lakh as capital cost and ₹ 10 lakh as recurring cost. However, we observed that neither precautionary measures for conservation and protection of endangered fauna was planned by the PP nor the funds earmarked were spent over wildlife conservation measure.

MoEF&CC while accepting the audit observation, stated (October 2016) that the Ministry would issue necessary direction in this respect to the State Authorities.

#### 4.6 Non-installation/functioning of pollution control systems like Effluent Treatment Plants

The EC letters of 262 projects stipulated that an Effluent Treatment Plant (ETP) of adequate capacity for treatment of effluents from the process, sedimentation tanks for treatment of mine discharge or a Sewage Treatment Plant (STP) for treatment of the domestic effluent should be established. The purpose of this stipulation was to stop ground/surface water contamination.

We observed that out of the 262 cases where the condition was stipulated, pollution control systems like ETPs and STPs were seen installed in 161 projects. In case of three projects, records were not furnished by the PP and in 51 cases, the condition was not applicable as the projects were either in the construction phase or the units were not generating waste.

We also observed that in respect of 23 projects, ETP/STP not installed and in remaining 24 cases, these were either not functioning or working at lesser capacity.

Due to non-installation of ETPs and STPs at project premises, the untreated waste water was discharged and was being allowed to flow down through drains thereby contaminating the surface/ground water.

A few illustrative cases are given below:

In a project in Uttarakhand - **Residential complex of Omaxe Riveria, Rudrapur of M/s Omaxe Ltd**, the EC stipulated installation of STP certified by an independent expert and submission of report in this regard to MoEF&CC before the project was commissioned for operation. We observed that the STP was found installed but of less capacity i.e. 600 KLD as compared to 1,430 KLD. The STP was found to be non-functional during the Joint Physical Verification. We also observed that the STP had been non-functional for months together which were supported by non-maintenance of STP log book after April 2014 and non-monitoring of treated water after May 2013.



**Non-operational STP of OMAXE Reveria Infrastructure, Rudrapur, Uttarakhand**

In case of **Mohanpur Open Cast Coal Mine of M/s Eastern Coalfields Ltd, West Bengal**, the EC stipulated providing of ETP of adequate capacity for workshop. Also, the industrial wastewater (workshop and wastewater from the mine) was to be properly

collected and treated so as to conform to the standards prescribed. However, during site visit it was observed that no ETP was installed in the project area and the waste water was being discharged into the open low lying area just after passing through settling tank.



**Water discharge in open area at Mohanpur OCP, West Bengal**

MoEF&CC stated (October 2016) that non-compliances for non-installation of ETPs/STPs in case of industrial projects had been taken up by the Ministry and CPCB in July 2015 and it has been mandatory for all industries to have online monitoring system including flow meter in the ETP system thereby reducing physical monitoring which was not possible due to shortage in staff strength in Ministry and CPCB.

However, measurable outcomes of the above action were not indicated by MoEF&CC.

#### **4.7 Non-implementation of Occupational Health Surveillance Programme and non-identification of risk**

In some projects, the EC condition entailed that the occupational health and safety measures for the workers including identification of work related to health hazards, training on malaria eradication, HIV, and health effects on exposure to mineral dust etc. should be carried out. Review of impact of various health measures should be undertaken periodically by the PP.

We observed that out of the 248 cases where the condition was applicable, the implementation of Occupational Health Surveillance Programme was seen in 179 projects. The condition was not applicable in 10 projects as the project had not yet been operationalized or were defunct. In case of 30 projects, the records/information were not furnished by the PP. Occupational Health Surveillance Programme was not found to be implemented in 29 projects (12 *per cent*). We found cases where periodical medical examination was not done, health records not maintained, personal protections not used by the personnel in dusty and risk prone areas, first aid room not provided at the project site etc.

A few illustrative cases are given below:

In case of **Expansion of Manal Lime Stone Mining Project by M/s Cement Corporation of India Ltd, Himachal Pradesh**, EC stipulated that occupational health surveillance programme of the workers was to be undertaken periodically and personnel working in dusty areas should wear protective respiratory devices. However, during the physical

verification, we noticed that the workers were not wearing personal protection equipment.



**Workers working without personal protection equipments  
in Manal Lime Stone Mining Project, Himachal Pradesh**

In case of **Kagmadar Soapstone Mining Project, Rajsamand of M/s Apec Mineral Industry, Rajasthan**, EC stipulated that personnel working in industry areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed. However, at the time of physical verification, we observed that no systematic records were being maintained as desired in EC.

MoEF&CC stated (October 2016) that to improve the compliance, the observations would be forwarded to Statutory Authorities of the concerned State Governments.

#### **4.8 Non-construction of rain water harvesting structures**

The EC letters of 289 projects stipulated that the PP shall implement suitable conservation measures including suitable rain water harvesting measures to augment Ground water resources in the area in consultation with the Regional Director, Central Ground Water Board and submit a copy of the same to the MoEF&CC and its ROs. In 32 projects, the condition stipulated that oil and Grease trap shall be provided to remove oil and grease from the surface run off and suspended matter shall be removed in a settling tank before its utilization for rainwater harvesting.

We found that out of the 289 cases where this condition was stipulated, the rainwater harvesting structures was found constructed in 186 projects. In case of six projects, the records were not furnished by PP and in 14 projects, this condition was not applicable as the projects were under construction. Rainwater harvesting structures were not found constructed in case of 83 projects which was essential for enriching the Ground water table and which also helps in reducing the reliance on other naturally available sources.

A few illustrative cases are given below:

In case of **Portland Pozzolona Cement Unit of M/s Eco Cement Ltd, Bihar**, the EC stipulated that efforts should be made to make use of rain water harvesting, if needed, capacity of the reservoir should be enhanced to meet the maximum water requirement.

Only balance water requirement should be met from other sources. We observed that a pit was shown as the rainwater harvesting structures which was dry and filled with grass. Further, the pit structure was not in conformity with the design as in the EMP.

In another case of **Imported Coal Based CPP of M/s NR Agarwal Industries Ltd, Gujarat**, the EC stipulated that the PP should undertake rain water harvesting measures and should develop water storage for use in operation of the plant. Rain water harvesting system should be put in place which should comprise of rain water collection from the built up and open area in the plant premises. Action plan for implementation should be submitted to the RO of the MoEF&CC. We observed that the Company had not taken rain water harvesting measures and not developed water storage system to use in operation of the plant and not submitted the action plan to MoEF&CC.

MoEF&CC stated (October 2016) that CGWA and the concerned RO of MoEF&CC would be advised to ensure compliance.

#### 4.9 Non-construction of residential facilities for labourers

Labour welfare is a vital part of business organizations and managements needed to attach more importance to the human angle. Providing residential facility is one of the primary welfare measures which induce a sense of belonging to the labourer thereby increasing the productivity, as well as efficiency of the workers.

MoEF&CC vide OM dated 22 September 2008 had made it mandatory to stipulate a condition regarding providing of housing for construction labour with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche, etc in all the projects while granting ECs.

We observed that out of 352 sampled projects, no condition to this effect was stipulated in 115 (33 *per cent*) projects and was found mentioned only in 166 (47 *per cent*) projects. Compliance could not be verified in 71 (20 *per cent*) projects as either the construction phase of the project was already over/not started or necessary information was not available.

Out of 166 projects, the PPs did not provide residential facilities to the labourers during construction work in 25 (15 *per cent*) projects (including 17 projects where the PP stated that the same was not done as the labour was from nearby areas) though there was a condition to this effect in their ECs.

A few illustrative cases are given below:

In case of **Collection of Minor minerals from River Kosi, Nainital of Forest Development Corporation of Uttarakhand**, EC stipulated providing of housing for construction labour with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche, etc. We observed that no housing or other infrastructure facilities were provided by the PP.

In case of **Yanakandla Limestone Mine of M/s Shree Jayajyothi Cements Ltd, Andhra Pradesh**, the EC stipulated for provision of residential facilities for labourers. However, we observed that such facility was not provided by the PP.

MoEF&CC stated (October 2016) that it had made it mandatory in September 2008 to stipulate this condition in all the ECs. However, the fact remained that inspite of making the condition mandatory, we found non-compliance in providing of residential facilities in 25 cases.

#### **4.10 Irregularities in Relief and Rehabilitation**

Relief and Rehabilitation (R&R) of the project affected people assumes prime importance as the displacement process often poses problems that make it difficult for the affected persons to continue their earlier livelihood activities after resettlement.

Generally, the conditions stipulated in EC state that R&R plan for the Project Affected Population (PAP) including tribals shall be implemented as per the policy of the State Government; a monitoring committee for R&R should be constituted which must include representative of project affected persons from SC & ST category and women beneficiary; and the compensation to be paid to the land loser shall not be less than norms as per the policy on National Resettlement and Rehabilitation Rules, 2007.

We observed that out of 352 sampled projects, in 294 projects, condition of R&R plan was either not specified in the EC letter or not applicable for R&R. In 23 projects, the PPs did not furnish the details of R&R.

In remaining 35 projects, 22 projects had implemented the R&R activities. In seven projects, PPs did not implement the R&R at all and in six projects it was partially implemented. Conditions like resettlement Project Affected Families (PAFs), transfer of money for land acquisition, payment of compensation to PAFs, etc were not fully implemented by the PPs.

In case of **Sonepur Bazari OCP of M/s Eastern Coalfields Ltd, West Bengal**, as per EC condition, R&R involving the 12 villages comprising 2,284 PAFs was to be implemented within a specified time frame. As per project report, there were initially 2,284 PAFs which increased to 3,765 PAFs. However, it was observed that only 441 PAFs were rehabilitated till June 2016 and 3,324 PAFs were still to be rehabilitated.

MoEF&CC did not offer any comments on the issue.

#### **4.11 Violation in handling of hazardous waste materials**

The EC letters of 189 projects stipulated that the PPs shall obtain authorization for collection, storage and disposal of hazardous waste under Hazardous Waste (Management, Handling and Trans boundary Movement) Rules 2008, as amended time to time for management of hazardous waste and prior permission from SPCB shall be obtained for disposal of solid/hazardous waste in the Treatment, Storage and Disposal Facility (TSDF).

We found that out of the 189 cases where this condition was stipulated, compliance was observed in 106 projects. In case of six projects, the records were not furnished by PP and in 38 projects; this condition was not applicable as no hazardous waste was generated. Violation in handling of hazardous waste materials was observed in case of 39 projects which may lead to contamination of water courses and dump sites.

A few illustrative cases are given below:

In case of, **Expansion of Steel Plant at Kutch of M/s Jindal Saw Ltd, Gujarat**, the EC stipulated that spent/used oil and lubricants shall be sold to the registered recyclers as per the Hazardous Waste (Management & Handling) Rules, 1989 and subsequent amendments. However, we observed that old barrels filled with waste/contaminated oil and lubricants were stocked and there was leakage of such waste oil on open ground. One such sample was collected by the GPCB officials and analysed in GPCB laboratory. Test report was found positive.

In case of **Expansion of Ferro Alloy Plant at Bankura of M/s Cosmic Ferro Alloys Ltd, West Bengal**, the EC stipulated that the hazardous slag generated from the furnace shall be disposed of in accordance with the Hazardous waste (M&H) Rule 2003. Audit observed that the testing of slag to ascertain the nature of slag was not done by the PP. Hazardous waste authorisation was not obtained from WBPCB. It was also seen that huge quantities of slag were dumped in a haphazard manner all around the premises without any plan for safe disposal.

MoEF&CC stated (October 2016) that non-obtaining hazardous waste authorisation was a serious violation which should be evaluated by concerned SPCBs which are delegated with powers to issue such authorisations. PCBs would be directed not to delay issue of authorisation after obtaining application from the projects.

#### 4.12 Non-obtaining of clearance for the handling of explosive materials

As per the conditions of the EC clearance, handling of explosive materials needs to be done in a systematic and scientific manner with the consent of the authorities concerned.

Out of the 352 sampled projects pertaining to various sectors, the EC letter had stipulated such condition in 85 construction/infrastructure projects. We found violation of EC conditions in 12 projects (14 per cent).

A few illustrative cases are given below:

In case of **Pride Soft City Project of M/s Pride Builders Pvt Ltd, Maharashtra**, the EC stipulated that all other statutory clearances such as the approvals for storage of diesel should be taken from Chief Controller of Explosives. However, the PP could not furnish the clearance obtained from the Chief Controller of Explosives.

In case of **Shopping Mall cum Multiplex and Hotel, Haridwar of M/s Lotus Infra Project Pvt Ltd, Uttarakhand**, the EC stipulated that the diesel required for operating DG Set should be stored in underground tanks and if required, clearance from the Chief Controller of Explosives should be taken. Audit observed that this condition was not complied with by the PP.

MoEF&CC replied (October 2016) that the condition mostly relates to construction projects. In case there was no storage of explosive materials underground and diesel was purchased from the market, permission may not be required. However, such projects should have applied for modification of the stipulations.

#### 4.13 Improper storage of fly ash in Thermal Power Projects

As per commitments made in EIA report and conditions stipulated in EC, Thermal Power Plants (TPP) need to store fly ash in dry form in silos and slurry form in specially constructed ash ponds. Regular monitoring of heavy metals at the base of the ash pond also had to be ensured.

Disposal of ash produced from coal based plant poses a serious threat to environment hence safe practices need to be implemented for proper utilization of the ash. Environmentally safe practices include but are not limited to collection of ash in dry form and storage in silos, disposal of remaining ash in ash ponds in form of slurry and continuous monitoring of the ash pond to check possible seepage of heavy metals into the ground.

We verified the storage of the fly ash in 24 out of 43 sampled TPP. In the remaining 19 projects the plants were yet to be operational or no information was received.

In these 24 projects, 16 projects were found to be in adherence to laid down conditions. Out of remaining eight projects, in one<sup>22</sup> project in Punjab, none of the EC conditions were followed and in seven projects, there was non-compliance of certain conditions as detailed in the Table 4.2.

**Table 4.2: Details of non-compliance conditions relating to storage of fly ash**

State	Project Proponent	EC condition	Our observations
1. Chhattisgarh	M/s Jindal Power Ltd.	Fly Ash shall be collected in dry form and storage facility (Silos) shall be provided. Unutilised fly ash shall be disposed of in the ash pond in the form of slurry. Mercury and other heavy metals (Arsenic, Mercury, Chromium, Lead	Checking of heavy metals in the bottom ash of the ash pond was not done.
2. Rajasthan	M/s Adani Power Rajasthan Ltd		During the year 2014-15 14,420 tonnes of fly ash was disposed of in low lying area.
3. Uttar Pradesh	National Thermal Power Corporation Ltd		Checking of heavy metals in the bottom of the ash pond was not being done. Fly ash was also being disposed of in low lying area.

<sup>22</sup> 6MW Cogen Power Project of M/s Nector Life Science Ltd.

State	Project Proponent	EC condition	Our observations
4. West Bengal	M/s West Bengal Power Dev. Corp Ltd.	etc) will be checked in the bottom of ash pond. No ash shall be disposed of in the low lying area.	Checking of heavy metals in the bottom of the ash pond was not being done.
5. Madhya Pradesh	M/s Sasan Power Ltd. Singrauli, M.P.		It was observed that fly ash was disposed of in low lying area.
6. Bihar	M/s Kanti Bijlee Utpadan Nigam Ltd.		Approximately 20 <i>per cent</i> of fly ash was collected in dry form and distributed to agencies free of cost. 80 <i>per cent</i> fly ash generated from Stage-I was collected and disposed of in wet form in a river lagoon 80% of the fly ash generated was disposed of in a low lying area in wet form. No ash dyke was constructed.
7. Gujarat	M/s N R Agarwal Industries Limited		Checking of heavy metals was not done.

The non-compliances included non-monitoring of heavy metals in bottom ash, disposal of fly ash in low lying areas and non-creation of ash ponds for disposal of ash in slurry form thereby posing a serious risk to environment.

#### 4.14 Utilisation of coal of more than permitted ash content in Thermal Power Projects

As per commitments made in EIA report and conditions stipulated in EC, PPs were to procure and utilize coal from designated mines. ECs also include conditions related to maximum permissible ash content in the coal to be procured.

Higher ash content in coal indicates low calorific value and thus poor quality of the fuel. In turn, it impacts environment indirectly as relatively higher quantity of fuel is required for the same output, due to lower efficiency of fuel.

We observed that in four projects, there was no specific EC condition with regards to permissible ash content. Further, in another four projects, higher percentage of ash content in coal against the levels permitted through EC condition was noticed.

We scrutinized the issue of ash content in the coal being utilized and found that in four (nine *per cent*) out of 43 sampled TPP, the ash content was higher than the permissible levels hence defeating the very purpose of environmental clearances i.e. to keep a check on quality of environment.

In case of remaining 35 projects, we found that either they were complying with the laid out conditions or the plants were yet to be operational.

A few illustrative cases are given below:

In case of **M/s Talwandi Sabo Power Ltd, Punjab** the percentage of ash content in coal being utilized was 39.63 *per cent* against the mandated 34 *per cent* in EC. Similarly, in another project of **M/s Jindal Power Ltd, Chhattisgarh** it was observed that ash content in utilized coal was 44 to 49 *per cent* as against mandated 34 *per cent* in EC.

#### 4.15 Improper control of fugitive emission of fly ash in Thermal Power Projects

Fugitive emission<sup>23</sup> poses a health hazard due to adverse impact of particulate matters (PM) on general health, therefore due measures need to be taken for control of fugitive emissions.

As per EIA report and conditions prescribed in EC, PPs are to commit effective measures for proper control of fugitive emission of fly ash in case of TPPs.

We scrutinized the issue of proper control of fugitive emission of fly ash in 43 sampled TPPs. In case of 13 projects, we found it to be in compliance. In 20 projects, we found that either the plants were yet to be operational or did not furnish information.

In remaining 10 projects, we observed that in eight projects, EC did not contain any specific condition for proper control of fugitive emissions by PPs. In two projects, one each in Bihar and Maharashtra, though EC mandated relevant conditions compliance was nil. In case of Maharashtra, a formal complaint was received from a farmer about **M/s Adani Power Maharashtra Ltd**, which was dumping ash in land outside the premises.

#### 4.16 Non utilization of fly ash generated in Thermal Power Projects

As per commitments made in EIA report and conditions stipulated by EC, PPs were to utilize 100 *per cent* fly ash from 4<sup>th</sup> year of operation of their projects.

We scrutinized the utilization of the fly ash in 43 sampled TPPs. There were 23 projects which were yet to enter the fourth year of commencement or information was not furnished.

In remaining 20 projects, we found that 11 projects (55 *per cent*) were in compliance of stated conditions. In nine projects, non-utilization of fly ash to the extent committed in EC was observed as detailed in Table 4.3. Though show cause notices were issued in two cases but no penal action was taken in any of these cases. In one case in Haryana, variation in EC conditions was noticed, as usually EC mandates for 100 *per cent* utilization of fly ash from fourth year of operation, however, in this project, EC mandated compliance by the ninth year of operation. Thus, it indicates that in 45 *per cent* of the projects examined, satisfactory utilization of ash for brick making did not exist and no definite punitive action was taken against defaulters.

<sup>23</sup> Fugitive Emissions are emissions of gases or vapors from pressurized equipment due to leak and other unintended or irregular releases of gases, mostly from industrial activities.

**Table 4.3: Non-utilisation of fly ash generated in Thermal Power Projects**

	State	Project Proponent	Our Observations
1	Bihar	Kanti Bijlee Utpadan Nigam Ltd.	80 <i>per cent</i> of the fly ash generated in the Stage-I had been disposed of in the lagoon of Budhi Gandak river. Show cause notice was issued by the Bihar SPCB.
2	Haryana	Haryana Power Generation Corporation Ltd	EC in this case allowed upto Ninth <sup>th</sup> year of operation for utilization of fly ash, which was in variation with EC granted in all other cases.
3	Jharkhand	Usha Martin, Ranchi	Only 81 <i>per cent</i> disposal in fourth year of operation.
4	Punjab	Nectar Life Science, Saidpura	Utilisation of ash was nil in violation of EC condition. However no penal action was taken for non-utilization.
5		Talwandi Sabo Power Ltd, Banawala	2,94,808.32 MT (2014-15) and 8,17,755.25 MT (2015-16) fly ash was generated out of which 15,457.88 MT and 2,08,160.49 MT was utilized during 2014-15 and 2015-16 respectively. No penal action was taken for non-utilization.
6		BCL Industries and Infrastructure Ltd, Bathinda	Utilisation of ash was nil in violation of EC condition. However no penal action was taken for non-utilization.
7	Uttar Pradesh	NTPC Rihand Super TPP Stage-III	Utilisation of ash was nil in violation of EC condition. However no penal action was taken for non-utilization.
8		Rosa Power Supply Company Ltd, Sahajahanpur	Utilisation of ash was nil in violation of EC condition. However no penal action was taken for non-utilization.
9	West Bengal	West Bengal Power Development Corp Ltd, Bakreswar	In response to a show cause notice issued by NGT for polluting a nearby river Chandrabhaga, thermal power station incurred an expenditure of ₹4.64 crore to clean up the river.

MoEF&CC recognised (October 2016) the unsatisfactory compliance by coal based TPP in respect of management of ash and assured better compliance by end of December 2017 in the wake of its recent notification of January 2016 which mandated that all construction and mining activities are to utilize fly ash within a radius of 300 kilometers from the TPPs.

#### **4.17 Non-consolidation and non-compilation of muck in the designated muck dumping sites in case of River Valley and Hydro Electric Power projects**

Huge quantity of stones/muck is generated at various points in River Valley and Hydro Electric power projects which, if not properly disposed of, would invariably slide down into the river and would lead to adverse impacts on the performance of the project and development of the aquatic life present. Thus, a Muck Disposal Plan was needed in River Valley and Hydro Electric power projects. In this plan quantity of muck generated during the dam construction and allied activities is estimated and measures for its proper disposal at certain identified areas are suggested. The excavated material needed to be relocated and dumped according to the muck disposal plan so that it does not impose any negative impact on terrestrial and aquatic environment.

We observed that out of nine River Valley and Hydro Electric power projects, there was no condition of consolidation and compilation of the muck at the designated dumping sites in three (33 *per cent*) projects. In two projects, the condition could not be verified as information was not made available. The condition was complied with in one project of **Sri Rameshwara Lift Irrigation Scheme of Karnataka Neeravari Nigam Limited** since entire muck was utilised in the project itself, hence, dumping of muck was not required.

In three projects, the condition was not being complied with and the same was not ensured by MoEF&CC.

A few illustrative cases are given below:

In case of **Sainj HEP Project at Kullu of Himachal Pradesh Power Corporation Ltd** in Himachal Pradesh, during physical verification, we noticed that out of seven muck dumping sites, the muck was stacked at five dumping sites. The protection walls of dumping sites number 2 and 7 were found damaged and the muck was directly flowing into the river. Resultantly, the SPCB had not given renewal of CTE for the project.



**Muck overflowing to the river due to damaged muck site in Sainj Hydroelectric Power Project, Kullu, Himachal Pradesh**

Similarly, in **Dikchu HEP (96 MW) project of M/s Sneha Kinetic Power Projects Ltd in Sikkim**, we observed that the EC had wrongly said that the muck was to be disposed at six dumping sites in North and South districts but as per the EMP, muck was to be disposed at four sites in North and East Districts. Muck was disposed at three sites near (Power house, Surge shaft and Dam site). The muck dumping site near the Power house (East District) was yet to be landscaped/protected. The muck dumping site near the surge shaft was stated to have been landscaped and plantation was being done.



**Dumping site at Lingdok, Sikkim**



**Muck dumping site at Dikchu, Sikkim**

Thus, non-incorporation of the condition in the ECs as to the consolidation and compilation of the muck at the designated dumping sites and improper disposal of the muck may lead to adverse impacts on terrestrial and aquatic environment around the project areas.

MoEF&CC stated (October 2016) that the delay in stabilization and reclamation of muck dumping areas had also been a cause of concern as observed by the Ministry through the monitoring reports of ROs.

#### **4.18 Non maintenance of minimum environmental flow of discharge**

Environmental Flows (EF) are the flows of water in rivers that are necessary to maintain aquatic ecosystems. In other words, a flow regime in the river, capable of sustaining a complex set of aquatic habitats and ecosystem processes are referred to as EF. The EF is designed to maintain or upgrade a river in desired, agreed or pre-determined status.

We observed that out of nine River Valley and Hydro Electric power projects no condition as to minimum EF was stipulated in six (67 *per cent*) projects. The condition could not be verified in two projects as the projects were yet to be made operational. Compliance was seen in case of Kelo Major Irrigation Project, Chhattisgarh.

Non-incorporation of a condition as to the minimum environmental flow to be maintained in six projects may lead to adverse impact on aquatic ecosystems around the areas where the projects are situated.

MoEF&CC stated (October 2016) that it would review to ascertain the impact to stipulate additional condition, if required.

#### **4.19 Non implementation of the Fishery Conservation and Management Plan**

A water resources project may have adverse or beneficial effects on the fish fauna, depending upon the particular situation and the fish fauna inhabiting the concerned river. Similarly, it has various impacts on the people, the livelihood of which depends on the fish. The construction of the dam leads to fragmentation of habitat, modification in hydrologic regime and may have adverse effects on the indigenous and migratory fish.

Hence, Fishery Conservation and Management Plan (FCMP) in case of River Valley and Hydro Electric power projects is necessary.

We observed that out of nine River Valley and Hydro Electric power projects, no condition as to implementation of FCMP was stipulated in five (56 *per cent*) projects. Out of the remaining four projects where such a condition was mentioned in the EC, the condition was being complied in one project viz Kelo Major Irrigation Project, Chhattisgarh. FCMP was not found implemented in Krishna Delta Modernization Project, Andhra Pradesh, Sainj HEP Project (100 MW), Himachal Pradesh and Dikchu HEP (96 MW), Sikkim.

Non-incorporation of condition for implementation of FCMP in five projects and non-implementation of the plan in three projects may have adverse impact on the fish fauna and the fishermen dependent on them.

MoEF&CC stated (October 2016) that in most of the cases the projects had deposited the money to the concerned Department of the State Government but the implementation had been delayed. The concerned State Authorities will be issued necessary direction to achieve satisfactory compliance.

#### 4.20 Non implementation of the Catchment Area Treatment Plans

Soil erosion in the catchment areas of reservoirs and transport of detached material through the drainage network gives rise to a series of problems like siltation, depletion of flow capacity, steady loss of storage capacity, consistent drop in hydro-electric power generation and frequent floods. A well-designed Catchment Area Treatment (CAT) Plan is essential to ameliorate the adverse process of soil erosion in the catchment area.

We observed that out of nine River Valley and Hydro Electric power projects, condition as regards to CAT Plan was not stipulated in four (44 *per cent*) projects. In the other five projects the CAT Plan was not found implemented by the PPs (**Kelo Major Irrigation Project, Chhattisgarh, Sainj HEP Project (100 MW), Himachal Pradesh, Sri Rameshwara Lift Irrigation Scheme, Belgaum, Karnataka, Lower Goi Irrigation Project, Barwani, Madhya Pradesh and Dikchu HEP (96 MW), Sikkim**).



**Ecological damage in the Sainj Hydroelectric project area Kullu, Himachal Pradesh due to non-treatment of Catchment Area**

In the absence of any condition regarding implementation of CAT plan in four projects and of non-implementation of CAT plan as per the EIA/EMP report in five projects, effective control of erosion in the catchment area around these projects may get impacted. Erosion may cause the removal of top soil which may adversely impact the agriculture production and have a serious effect on the life span of the reservoir as the life of the reservoir depends on the nature of the catchment, underlying rock/soil type, vegetation type, drainage pattern, etc.

MoEF&CC stated (October 2016) that in most of the cases the projects had deposited the money to the concerned Department of the State Government but the implementation had been delayed. The concerned State authorities will be issued necessary direction to achieve satisfactory compliance.

#### **4.21 Conclusion**

MoEF&CC had stipulated certain specific conditions in the EC either relating to sectors or to the project which were to be followed by PPs. It was observed that the monitoring agencies were not able to ensure compliance to the EC conditions. PPs had not prepared and implemented the Emergency Preparedness Plan (EPP) after assessing the risks at the project sites.

The topsoil excavated during construction activities was not stored for use in horticulture/landscape development within the project sites as per the requirements of the ECs. In case of coal/non-coal mining sectors the overburden dumps created during such mining operations were not scientifically vegetated with suitable native species to prevent erosion and surface run off and in critical areas, geotextiles were not used to stabilize the dumps. PPs had not prepared and allocated funds for Action plan for conservation of flora and fauna and implemented it in consultation with the State Forest and Wildlife Department. Due to non-installation of ETPs and STPs at project premises, untreated waste water was being discharged through drains thereby contaminating the surface/ground water. Non-implementation of Occupational Health Surveillance programme and non-utilisation of protective respiratory devices and personal protection equipment may lead to breathing problems/respiratory illnesses among the personnel working in and around the project site.

Rainwater harvesting had not been taken up. Residential facilities were not provided to the labourers during construction phase. There were cases of violation in handling of hazardous waste materials by the PPs which lead to contamination of water courses and dump sites and prior permission from the concerned authority was not taken for handling of explosive material. Relief and Rehabilitation plan was either not implemented or partially implemented.

In Thermal Power Plants, environmentally safe practices of storage of fly ash were not adhered to, coal of more than permitted ash content was being used, fugitive emission

of fly ash was not properly controlled and the fly ash generated was not being fully utilised as per the EC conditions.

In River Valley and Hydro Electric power projects, consolidation and compilation of the muck at the designated dumping sites and proper disposal of the muck was not being done, minimum environmental flow of discharge was not being maintained, Fishery Conservation and Management plan and Catchment Area Treatment Plans were not being implemented.

#### **4.22 Recommendations**

- i. MoEF&CC should work out strategies in co-ordination among ROs, CPCB, SPCBs/UTPCCs and other Departments of State Governments to strictly monitor the compliance of conditions mentioned in the EC periodically.

(Paragraphs 4.2 to 4.20)

- ii. MoEF&CC and SPCBs may consider adopting risk based approach to monitor the conditions stipulated in the ECs of the project and devise schedule for percentage check of six-monthly compliance reports and environment statements.

(Paragraphs 4.2 to 4.20)

**CHAPTER**

**5**



# Monitoring of Environmental Parameters by Project Proponents

## 5.1 Introduction

Environmental Clearance (EC) is issued to Project Proponents (PPs) subject to general and specific conditions as per EIA Notification, 2006. MoEF&CC has set up Regional Offices (ROs) across the country to monitor the compliance of EC conditions. After EC is issued, it is the duty of PP to implement the project and follow the compliance of the EC conditions. Environmental Impact Assessment (EIA)/Environment Management Plan (EMP) reports and EC conditions provide tools for monitoring various environmental parameters by PPs themselves. The audit findings on monitoring of environmental parameters by PPs are discussed in this chapter.

## 5.2 Non setting up of separate Monitoring Cell with adequate manpower

EIA/EMP reports provided for a full-fledged Environmental Monitoring Cell with necessary infrastructure comprising experienced and qualified personnel, to be developed at proposed project by every PP for environmental performance and monitoring of environmental quality. Conditions to this effect are either contained in the EC or committed in EIA report.

In the selected 352 projects, information in respect of only 274 projects was received and position could not be assessed in remaining 88 projects, due to non-availability of records.

Of these 274 projects, we found that 176 projects were in adherence to conditions laid out in EC/EIA report about setting up of a separate monitoring Cell. Observations related to remaining 98 (36 *per cent*) projects are as under:

- a. **Absence of specific conditions for setting up of monitoring cell:** A total of 47 projects had no specific condition in their respective ECs or EIA reports about setting up of a separate monitoring cell with necessary infrastructure. In absence of any mandate stipulated in EC or EIA report on project proponent for setting up a monitoring cell, adherence to environmental parameters committed by PP could not be possibly monitored. In case of Assam, Himachal Pradesh, Mizoram, Sikkim and Daman & Diu, none of the sampled projects had the condition of creating a monitoring cell.
- b. **Non setting up of monitoring cell:** In 40 projects, it was observed that though EC/EIA report mandated setting up a separate monitoring cell with sufficient infrastructure, PPs failed to adhere to these conditions, as no such cell was found to have been established. These 40 projects were primarily found to be in States

of Karnataka, Uttar Pradesh, Haryana, Punjab, Jharkhand, Bihar, Gujarat and Uttarakhand.

- c. Incomplete adherence to conditions of EC:** In 11 projects, even though a separate monitoring cell was created, in terms of deployment of manpower against the commitment, achievement was only partial.

Non-establishment of monitoring cells, laboratory facility and inadequate deployment of manpower by PPs indicates that PPs were not serious about monitoring the environmental parameters as stipulated in EC. In absence of necessary manpower for monitoring, it could not have been possible to continuously monitor the impact of the project on various environmental parameters such as air quality, surface and ground water quality, noise and soil quality.

MoEF&CC proposed (October 2016) that the post of Environmental Officer in projects would be included as statutory requirement under the Environment Protection Act to improve compliance relating to environment monitoring.

### 5.3 Shortfall in installation and non-functionality of monitoring systems

As per the conditions of the EC and also commitments made in the EIA reports, every proponent was to install sufficient infrastructure to monitor the quality of air, surface and ground water, noise, effluent treatment and certain other committed infrastructure.

Of the 352 sampled projects, we received information on 277 projects on installation of equipment and their operational status. We noticed that only 50 projects (18 *per cent*) were in broad compliance to mandated conditions. 176 projects did not have any specific provision in the EC for installation of necessary monitoring equipment. Absence of even a provision in EC for installing monitoring stations diluted their liability towards environmental commitments.

In the remaining 51 projects, as against the EC provisions, a shortfall ranging from 20 to 100 *per cent* was observed in installation of necessary infrastructure. There were 39 projects (76 *per cent*) where shortfall in installation was 100 *per cent*. Most of these projects, where shortfall was 100 *per cent* were found in Gujarat (12), West Bengal (7), Rajasthan (4) and Odisha (5).

Non installation of monitoring systems indicated that PPs were not self-compliant through automatic monitoring and surveillance systems and thereby not serious in bringing transparency in their compliance to the environment conditions.

MoEF&CC in its reply (October 2016) recognized this issue and stated that continuous monitoring had been made mandatory for highly polluting categories of industry and that the air quality and stack emission data will also be displayed on public domain at permanent place near the main gate and in real time.

#### 5.4 Shortfall in monitoring of environmental parameters

Every PP was required to monitor various environmental parameters in respect of air, surface water, ground water, noise etc. in the core zone (main center of activity) and the buffer zone (nearby villages which has the potential to be affected) on regular intervals as per the commitment made in the EIA Report.

Of the 352 sampled projects, we received information in respect of 217 projects on the extent of testing and reporting of environmental parameters in respect of air, surface and ground water, soil, noise and stack emissions. We found that 146 projects (42 per cent) were in broad compliance to mandated conditions.

Out of remaining 71 projects, we observed the followings:

- a. 100 per cent shortfall in respect of air quality testing was observed in 21 projects and partial compliance was noted in case of 37 projects.
- b. For water quality testing, a total of 28 projects indicated 100 per cent shortfall, whereas 21 projects indicated partial compliance.
- c. For noise testing and reporting, a total of 21 projects indicated 100 per cent shortfall, whereas 18 projects indicated partial compliance.
- d. For stack emission testing, 14 projects indicated 100 per cent shortfall and five projects indicated partial compliances.
- e. 16 projects indicated 100 per cent shortfall in soil testing and reporting.

Air, water and noise are crucial environment indicators. Shortfall or absence of monitoring of these environmental parameters indicated that PPs had scant regard for ensuring the prevention of environmental pollution.

MoEF&CC in its reply (October 2016) stated that it had taken these issues as serious violation and had made it mandatory for online monitoring through installation of online monitoring systems with real time data transfer to SPCB and CPCB.

#### 5.5 Monitoring by Private agency/Third party

As per commitments made in EIA report or EC conditions, PPs need to involve third party for independent monitoring of various environmental parameters and benchmark those against the thresholds committed. Further, for quality monitoring, these third parties should be accredited with National Accreditation Board for Education and Training (NABET).

Out of 352 sampled projects, we received information on 270 projects on the status of monitoring of environmental parameters through private agencies and regular submission of such reports. Of these, 69 projects were found to be in broad compliance. The observations on remaining 201 projects are as under:

- a. **Non monitoring of environmental parameters by private agencies:** We observed that in 31 projects spread across 12 States/UTs (Andaman & Nicobar Islands, Bihar, Haryana, Karnataka, Tamil Nadu, Meghalaya, Delhi, Madhya

Pradesh, Jharkhand, Gujarat, Kerala and Sikkim), PPs did not engage any third party mechanism for monitoring.

- b. Non submission of monitoring report at regular intervals:** We observed that in eight projects spread across six States/UTs (Himachal Pradesh, Madhya Pradesh, Goa, Gujarat, Dadra & Nagar Haveli and Maharashtra), even though private agencies were monitoring the environmental parameters, their reports were not being submitted regularly. Thus, PPs did not ensure that monitoring by private agencies was done in the frequency prescribed in the EC conditions/EIA reports.
- c. Variations in monitoring data of private agency and Government agency:** We observed that in nine projects spread across four States/UTs (Punjab, Goa, Mizoram and Dadra & Nagar Haveli), there were variations in monitoring data submitted by private agency and Government agency, even though the data set pertained to same time period. Majority (five) of these cases were observed in Goa.

In Dadra & Nagar Haveli and Daman & Diu, on the basis of a complaint received, samples were re-tested and huge variation in reported data was observed. However, no action was taken against the private agency.

In view of the variations, soundness of monitoring of environmental parameters by the private agencies engaged by the PPs remained in doubt.

- d. Absence of comparable reports from private/Government agencies:** We observed that in 158 projects, comparison of data in different reports of Government and private agencies was not possible because of the fact that reports from private agencies and Government agencies did not pertain to same time period.
- e. Non accredited agencies:** We observed that in four projects in Bihar and Gujarat, non-accredited private agencies or laboratories were assigned the task of environmental monitoring, which was against the general EC conditions. The reliability of data submitted by these agencies could not be ascertained in audit.

In Dadra & Nagar Haveli, **M/s Unistar Environment and Research Laboratory, Vapi** was the private agency for testing of environmental parameters and it submitted test reports of the samples taken on 16 February 2015, which were within permissible levels. Pollution Control Committee conducted surprise check of water samples on 20 February 2015 and the test was re-conducted. The report indicated much higher levels of environmental parameter. No action was taken against **M/s Unistar** for the huge variation on the tested results within a span of 5 days.

In a project in Goa, wide variation in the environmental parameters like NO<sub>x</sub><sup>24</sup>, PM10 and PM2.5<sup>25</sup> were noticed in the independent sample test results of Goa SPCB as compared to the report submitted by PP.

<sup>24</sup> NO<sub>x</sub> is a term used to describe a mixture of nitric oxide (NO) and nitrogen dioxide (NO<sub>2</sub>).

<sup>25</sup> PM10 and PM2.5 are particles fractions of particulates in air of size less than 10 µm and 2.5 µm respectively.

Failure of PPs to engage private agencies for carrying out monitoring of environmental parameters and ensure that the same was conducted at the prescribed frequency and reports submitted timely was in contravention to EC conditions. Variation in monitoring data of private agency and Government agency and absence of comparable reports raises question on quality of monitoring data gathered by PPs. Further, monitoring by non-accredited agencies was a serious violation of EC conditions.

MoEF&CC in its reply (October 2016) stated that it had recognized the importance of moving away from regulatory monitoring to self-monitoring and had developed a protocol for the same.

### **5.6 Non display of the environmental parameters**

As per the conditions stipulated in the EC, the critical parameters of the Ambient Air such as NO<sub>x</sub>, PM10 and PM2.5 within the impact zone and within the buffer zone was to be monitored periodically. Further, the quality of the discharged water was also required to be monitored. The monitored data was to be exhibited on a display board at the project site at a suitable location in public domain.

Of the 352 sampled projects, we received information related to 265 projects on whether monitored data was displayed in public domain. The condition was not stipulated in 135 cases. In 130 cases in which the condition was stipulated we observed non-compliance in 28 cases spread across 13 States/UTs (Assam, Bihar, Goa, Gujarat, Haryana, Jammu & Kashmir, Kerala, Madhya Pradesh, Manipur, Meghalaya, Mizoram, Tamil Nadu and Uttarakhand).

MoEF&CC stated (October 2016) that this lacuna of non-inclusion of the condition in EC had now been rectified. Further display of data was said to be integrated with online monitoring system.

### **5.7 Conclusion**

Environmental Impact Assessment (EIA) /Environment Management Plan (EMP) reports and EC conditions provide tools for compliance of various environmental parameters by PPs. In spite of the conditions mentioned in the EC, the PPs showed poor monitoring of environmental parameters. There was lack of compliance with regard to deployment of sufficient manpower, installation of necessary infrastructure and engagement of third party agencies for independent monitoring. The information regarding the environmental data was also not displayed at the project sites.

## **5.8 Recommendations**

We recommend that,

- i. MoEF&CC may consider bringing suitable condition by mentioning the name and number of post/posts to be engaged by the proponent for implementation and monitoring of environmental parameters.

(Paragraph 5.2)

- ii. MoEF&CC may consider bringing the mandatory EC conditions on installation of monitoring stations and frequency of monitoring of various environmental parameters in respect of air, surface water, ground water, noise, etc.

(Paragraphs 5.3 and 5.4)

- iii. MoEF&CC may, in consultation with SPCBs, introduce a system of surprise check by the SPCBs at premise of PPs to verify the third party testing of environmental parameters.

(Paragraph 5.5)

**CHAPTER**

**6**



# Monitoring of projects in Critically Polluted Areas

## 6.1 Introduction

CPCB in collaboration with Indian Institute of Technology, Delhi, (IIT) had carried out comprehensive environmental assessment in 88 prominent industrial clusters during 2009-10 based on the Comprehensive Environmental Pollution Index (CEPI)<sup>26</sup> criteria. Out of these 88 industrial clusters, 43 industrial clusters with CEPI score 70 and above on a scale of 0 to 100 were identified as Critically Polluted Areas (CPAs). We selected a sample of 352 projects granted EC during 2008-12, out of which 22 projects pertained to CPAs in 16 States. Audit findings with regards to CPAs are as under:

## 6.2 Imposition of Moratorium

During the period 2010-2014, MoEF&CC/CPCB took the following actions to restore the environmental quality in 43 CPAs:

1. MoEF&CC imposed (January 2010) a moratorium on grant of EC for projects in all the 43 CPAs. In September 2013, MoEF&CC permitted projects / activities of modernization of existing project or activity not resulting in increase in pollution load and physical infrastructure like highways, aerial ropeways, Common Effluent Treatment Plants and Common Solid Waste Management Facility in the CPAs where moratorium was in-force. While imposing moratorium, MoEF&CC defined the potential impact zones in the industrial clusters.
2. CPCB carried out environmental quality monitoring during 2011 and 2013 and CEPI was assessed based on the recorded monitoring data in the 43 CPAs. Meanwhile, during October 2010 to September 2013, MoEF&CC decided to lift the moratorium on the basis of statements furnished by SPCBs, to the effect that some ground work had been initiated in line with the submitted action plans. Accordingly, the moratorium was lifted from 26 CPAs as detailed in Table 6.1.

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<sup>26</sup> CEPI is a rational number to characterize the environmental quality at a given location following the algorithm of source, pathway and receptor.

**Table 6.1: Details of lifting of moratorium**

Date of lifting of moratorium	CPAs
<b>26 Oct 2010</b>	Patancheru-Bollaram - Andhra Pradesh, Mandi Govindgarh -Punjab, Vapi - Gujarat, Coimbatore – Tamil Nadu and Tarapur –Maharashtra
<b>15 Feb 2011</b>	Navi Mumbai, Dombivali and Aurangabad - Maharashtra, Ludhiana – Punjab, Agra and Varanasi - Mirzapur- Uttar Pradesh, Cuddalore-Tamil Nadu and Bhavnagar-Gujarat
<b>31 Mar 2011</b>	Indore –Madhya Pradesh, Angul-Talcher - Odisha , Faridabad and Panipat – Haryana, Ghaziabad and Noida –Uttar Pradesh, Junagadh -Gujarat
<b>23 May 2011</b>	Bhadravati and Mangalore -Karnataka, Greater Kochi-Kerala
<b>05 July 2011</b>	Ib Valley, Jharsuguda –Odisha, Singrauli –Uttar Pradesh and Madhya Pradesh part
<b>17 Sept 2013</b>	Kanpur- Uttar Pradesh, Asansole, Haldia and Howrah- West Bengal, Dhanbad-Jharkhand, Korba-Chhattisgarh, Ahmedabad-Gujarat, Visakhapatnam- Andhra Pradesh, Manali- Tamil Nadu and Bhiwadi- Rajasthan

Subsequently, in September 2013, MoEF&CC lifted the moratorium in 10 more CPAs and also re-imposed the moratorium in eight CPAs namely Ghaziabad (UP), Indore (MP), Jharsuguda (Odisha), Ludhiana (Punjab), Panipat (Haryana), Pattancheru-Bollaram (AP), Singrauli (MP and UP) and Vapi (Gujarat). However, in June 2014, the re-imposition of moratorium on these eight CPAs was kept in abeyance.

3. MoEF&CC directed (September 2013) CPCB to undertake environmental quality monitoring in CPAs through a third party on biennial basis (once in two years) for computing CEPI.

We observed that CPCB did not finalise the firms through which the environment quality monitoring was to be done till May 2016, although the work was to be completed in the year 2015. Thus, the increase or decrease in CEPI score could not be assessed within time frame of two years in the CPAs.

Further, the imposing of moratorium in CPAs having CEPI score of 70 or more and lifting of moratorium in CPAs with CEPI score of less than 70 also remained unassessed. CPCB stated (May 2016) that the environmental quality monitoring in 43 CPAs would be undertaken by CPCB during 2016-17.

While accepting the audit observation, MoEF&CC stated (October 2016) that due to paucity of funds and other administrative difficulties, the third party monitoring could not be performed by CPCB in 2015. The finalization of zone wise monitoring agency was in process and CEPI score was expected to be evaluated in 2016-17.

### 6.3 Preparation of action plans

Our scrutiny revealed that out of 16 States where CPAs fall, the SPCBs of 12 States (Andhra Pradesh, Chhattisgarh, Haryana, Kerala, Karnataka, Madhya Pradesh, Odisha, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal) prepared the Action Plans. In three States (Gujarat, Jharkhand and Maharashtra) the position of preparation of action plan could not be ascertained. In case of Delhi, it was stated to be 'not applicable' although Nazafgarh Drain Basin including Anand Parvat, Naraina, Okhla and Wazirpur were identified as CPA by CPCB.

MoEF&CC (October 2016) accepted the audit observation stated that the action plan of Nazafgarh Drain Basin, Delhi was in the draft stage.

#### **6.4 Display of approved action plan on the websites of SPCBs/UTPCC**

Scrutiny of records revealed that out of 16 States, only in five States (Andhra Pradesh, Chhattisgarh, Karnataka, Odisha and Punjab) the action plans were displayed on the website of the SPCBs whereas in six States (Jharkhand, Haryana, Madhya Pradesh, Rajasthan, Uttar Pradesh and West Bengal) action plans were not displayed on the website of the SPCBs.

No information provided by SPCBs of four States (Delhi, Gujarat, Kerala, and Maharashtra).

While accepting audit observation, MoEF&CC stated (October 2016) that all the 16 SPCBs have been directed to upload the action plan on their websites.

#### **6.5 Non monitoring of implementation of action plan**

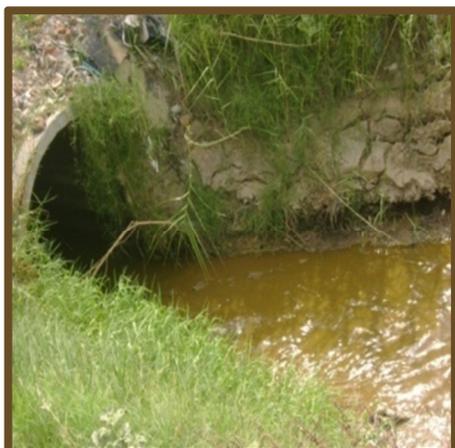
In nine States (Andhra Pradesh, Chhattisgarh, Kerala, Odisha, Madhya Pradesh, Punjab, Rajasthan, Tamil Nadu and West Bengal) the implementation of action plan was monitored by SPCBs where as it was not monitored in six States (Gujarat, Haryana, Jharkhand, Karnataka, Maharashtra and Uttar Pradesh) by SPCBs and in case of Delhi, it was stated as not applicable.

While accepting audit observation, MoEF&CC stated (October 2016) stated that the local level committees in 35 CPAs have been constituted for monitoring the implementation of action plans. In respect of remaining eight CPAs, the committees have not been formed and SPCBs were monitoring the progress.

Illustrative cases of lack of implementation of action plan in Punjab and Chhattisgarh are given below:

In case of Ludhiana CPA, it was observed that sewer lines were not completed, scattered dairies which had to be shifted upto December 2010 were not shifted and biogas plant was also to be constructed. The Municipal Corporation of Ludhiana was to install integrated municipal solid waste management facility by 31 March 2014, however, the solid waste was being collected in only 40 *per cent* of the city. Common Effluent Treatment Plants (CETP) for Dyeing industries were to be installed, which was not done. The CEPI was 81.66 when moratorium was imposed (February 2011). However, as per CPCB, the CEPI was 75.72 and 63.35 during 2013 and 2014 which showed a decreasing trend. The CEPI for the current year was not available.

### Dairy waste discharge at Budha Nallah, Ludhiana, Punjab



Similarly, in case of **Mandi Gobindgarh CPA**, the ETPs were not installed. The industries located in non-designated area were required to be shifted; however, it was not done. The CEPI of **Mandi Gobindgarh** was 75.08 in 2010; current level of CEPI was not available.

MoEF&CC stated (October 2016) that the implementation of action plans was in progress, laying of sewer, etc. was not within mandate of CPCB/SPCBs. The reply was silent on the installation of municipal solid waste management facility and installation of CETPs for Dyeing industries. In case of **Mandi Gobindgarh**, it stated that implementation of action plan was in progress and all the industries have installed ETPs. However, fact remains that the industries located in non-designated areas were not shifted.

In case of **Korba CPA**, Chhattisgarh Environment Conservation Board, along with CPCB, prepared a remedial action plan called Korba Action Plan. The status of remedial action suggested and its achievement as on January 2015 is given in Table 6.2.

**Table 6.2: Status of non-installation of Electro Static Precipitator (ESP) by power plants**

Name of Industry	Target date	Status on January 2015
1. Korba Super Thermal Power Station, M/s NTPC Ltd, Jamnipali, Korba (2600 MW)	October 2009; revised to February 2016	Work order issued in December 2012, work not yet completed.
2. Hasdeo Thermal Power Station, M/s CSEB, Korba (West), Korba (840 MW)	October 2009; revised to December 2015	Detailed proposal yet to be submitted.
3. Korba Thermal Power Station, M/s CSEB, Korba (East), Korba (440 MW)	October 2009; revised to December 2011	No proposal submitted for upgradation.
4. Bharat Aluminum Company Limited, M/s Balco captive power plant, Jamnipali (270 MW)	October 2009; revised to August 2015	Upgradation work was stated to be in progress.

The above table shows that though industries took steps to control the environment pollution, none of the industries had installed the ESPs essential for reducing quantum of the particulate matter causing air pollution.

We also noticed that the power plants were required to ensure 100 *per cent* utilisation of the fly ash generated by the plants, however no industry achieved the target, as their fly ash utilisation ranged between nine and 56 *per cent* in 2014. **M/s Bharat Aluminum Co Ltd, Korba (Aluminum Smelter plant)** was required to ensure Spent Pot Liner<sup>27</sup> utilisation, treatment and recovery of Aluminum Fluoride and was to install Continuous Ambient Air Quality Monitoring Station (CAAQMS) by December 2011; however, the industry did not comply with the same.

Further, Municipal Corporation and Chhattisgarh State Power Generation Company, Korba failed to install the Sewerage Treatment Plant (STP) due to which the entire untreated waste was discharged into the Hasdeo River causing water pollution. **South Eastern Coal Fields Ltd (SECL), Korba** was required to set up the coal washeries by December 2012, but this was not done by the industry despite lapse of more than three years. The industries had also not set up the CAAQMS stations in desired quantity to monitor the quality of air in Korba city.

The MoEF&CC stated (October 2016) that ESPs have been installed in all the TPPs since their inception. The renovation of ESPs was continuous process and takes place from time to time depending on the availability of funds. It further stated that except CSEB(East) the renovation work of ESPs had been either completed or was in progress. Regarding utilization of fly ash it stated that in Korba it was around upto 60 *per cent* and directions were issued by Ministry for 100 *per cent* utilization.

#### 6.6 Non submission of the monitoring report to CPCB

SPCBs were to submit yearly monitoring report of CPAs to CPCB. Our scrutiny revealed that during 2011 to 2015, eight States (Andhra Pradesh, Karnataka, Madhya Pradesh, Punjab, Rajasthan, Odisha, Tamil Nadu and West Bengal) submitted the monitoring reports to CPCB regularly whereas seven States (Chhattisgarh, Delhi, Gujarat, Haryana, Jharkhand, Kerala and Maharashtra) did not submit the monitoring report to CPCB. In case of Uttar Pradesh, the reports were submitted intermittently.

Only six States (Andhra Pradesh, Karnataka, Madhya Pradesh, Punjab, Tamil Nadu and Uttar Pradesh) brought the increase in pollution level into the notice of CPCB as well as MoEF&CC, while the other States did not monitor the pollution level.

#### 6.7 Non Monitoring of the implementation of action plan by the third party

The concerned SPCBs were directed by CPCB (April 2016) to conduct the third party monitoring bi-annually. The third party monitoring was done by five States (Andhra Pradesh, Madhya Pradesh, Odisha, Punjab and West Bengal) and in case of Karnataka, one project i.e. MRPL was monitored out of two projects. In remaining 10 States, monitoring of implementation of action plan by the third party was not done.

<sup>27</sup> Technology that treats and stabilizes the waste (rendering the waste harmless) and enables landfilling of the stabilized waste and making products out of the waste.

While accepting the audit observation, MoEF&CC stated (October 2016) that all the SPCBs had been directed to undertake the third party monitoring in CPAs on regular basis.

### **6.8 Conclusion**

MoEF&CC/CPCB had not undertaken environmental quality monitoring in all the 43 CPAs due to non-finalization of the firms for the same. SPCBs/UTPCCs did not display the action plans approved by the CPCB on their websites. SPCBs/UTPCCs did not monitor the implementation of action plans. Monitoring of the implementation action plan by the third party was also not undertaken by the SPCBs/UTPCCs.

### **6.9 Recommendation**

We recommend that,

- i. MoEF&CC may issue advisory to the State Government regarding implementation and monitoring of the action plan of critically polluted areas at regular intervals.

(Paragraph 6.3)

**CHAPTER**

**7**



# Post Environment Clearance Monitoring by Regional Offices

## 7.1 Introduction

Environmental Clearance (EC) is accorded along with conditions to be complied with by the PPs. The monitoring of the EC conditions is required to be done by the Regional Offices (ROs) of MoEF&CC to ensure adequacy of the suggested safeguards and also to undertake mid-course corrections required, if any.

MoEF&CC had set up five ROs in 1986 at Bengaluru, Bhopal, Bhubaneswar, Lucknow and Shillong with a Headquarter unit at New Delhi to monitor and evaluate ongoing forestry development projects. In view of the increasing work relating to all aspects of environmental management including pollution control and environmental management of projects, the ROs were further strengthened in 1988 by opening the sixth Regional Office at Chandigarh.

In the case of Lafarge Umiam Mining (August 2011), the Hon'ble Supreme Court of India directed the Central Government to increase the number of ROs from six to 10 to facilitate more frequent inspections and in-depth scrutiny and appraisal of the proposals. In compliance, four new ROs were opened (March 2013) at Chennai, Dehradun, Nagpur and Ranchi.

The monitoring cell of MoEF&CC at New Delhi is responsible for supervision and coordination of all the functions assigned to the ROs.

## 7.2 Mandate of ROs

MoEF&CC's resolution (January 2014) regarding the mandate of the ROs for Environmental Management and Pollution Control functions, *inter alia*, contains following functions:

- a. To follow up implementation of conditions and safeguards laid down for projects when environmental clearance was given;
- b. To examine and analyse the six monthly progress reports received from the PPs;
- c. To undertake surprise and random checks/verifications of EC conditions of various projects by site visits;
- d. To collect and furnish information relating to environmental impact assessment of projects, pollution control measures, methodology and status, legal and enforcement measures, environmental protection for special conservation areas like wetlands, mangroves and biosphere reserves;
- e. To maintain liaison and provide linkage with the State Governments and other stakeholders.

### 7.3 Non-submission of half yearly compliance report by PPs

As per EIA Notification 2006, PPs were to submit half-yearly compliance reports in respect of the stipulated EC conditions in hard and soft copies to the ROs/SPCBs concerned on 1<sup>st</sup> June and 1<sup>st</sup> December of each calendar year. In the event of non-submission of six monthly compliance reports by PPs, MoEF&CC could take action as deemed fit under the provisions of the Environment Protection Act, 1986.

The RO wise details of half yearly reports due and submitted by PP, out of the 352 projects selected in audit is given in Table 7.1.

**Table 7.1: Submission of half yearly Compliance Report (CR)**

Regional office	1st Jun 2011		1st Dec 2011		1st Jun 2012		1st Dec 2012		1st Jun 2013		1st Dec 2013		1st Jun 2014		1st Dec 2014		1st Jun 2015		1st Dec 2015*	
	D	R	D	R	D	R	D	R	D	R	D	R	D	R	D	R	D	R	D	R
1. Bengaluru	29	6	30	3	31	7	32	7	32	7	33	10	33	10	33	8	33	12	33	10
2. Bhopal	Out of 48, in 22 cases CR not received even once, in 26 case CRs were received for intermittent period.																			
3. Bhubaneswar	37	13	41	16	45	21	47	22	48	27	48	26	48	28	48	25	48	27	48	0
4. Chennai	39	2	39	1	39	4	39	5	39	3	39	11	39	9	39	1	39	9	39	4
5. Chandigarh	26	6	29	7	29	12	30	10	30	13	30	13	30	13	30	13	30	11	30	7
6. Dehradun	11	2	13	6	14	7	14	6	15	9	15	7	15	9	15	6	15	8	15	8
7. Lucknow	21	9	21	9	25	11	29	12	30	9	32	13	32	13	32	11	32	10	32	11
8. Nagpur	Out of 46, in 15 cases CR not received even once, in 31 case CRs were received for intermittent period.																			
9. Ranchi	19	7	24	6	27	12	31	14	31	17	31	14	31	14	31	16	31	15	31	0
10. Shillong	20	10	23	5	24	8	28	14	30	16	30	22	30	21	30	16	30	17	30	19

(D)- Half yearly reports due, (R) Half yearly reports received, \* the position of half yearly report received has been shown at the time of audit (December 2015)

The above table shows that there was shortfall of 43<sup>28</sup> to 78<sup>29</sup> per cent (with reference to compliance reports of June 2015) in submission of half yearly compliance reports. Further, it was observed in audit that most of the PPs did not submit half yearly compliance reports timely and regularly and there was delay ranging from one month to 48 months in submission of the compliance reports.

We noticed that the ROs did not issue reminders regularly for submission of compliance report to PPs. Also, no action was taken by the MoEF&CC against the PPs under the provisions of the Environment Protection Act, 1986 for non-submission of compliance report by PPs.

While accepting the audit observation, MoEF&CC stated (October 2016) that there was increasing trend of receiving the compliance report in these years and reminders were being issued from the ROs.

However, the fact remains that all the PPs did not submit half yearly compliance reports and the reminders were not issued regularly.

<sup>28</sup> RO Shillong:  $(30-17)/30 \times 100 = 43$  per cent.

<sup>29</sup> RO Chennai:  $(39-9)/39 \times 100 = 78$  per cent.

#### 7.4 Non uploading of half yearly compliance report on website of the Project Proponents

As per MoEF&CC circular (June 2009), the PPs had to submit hard copy and soft copy of the half yearly compliance reports to the concerned ROs/SPCBs and had to be posted on the website of the company.

Out of 352 projects, we test checked 25 ECs with regard to uploading of the reports. We observed that in 10 cases, the Ministry had not incorporated the condition for the PP to upload the compliance report on their website. Of the remaining 15 cases in which the EC condition was stipulated, none of the PPs had uploaded the compliance reports on their website.

MoEF&CC (October 2016) remained silent on the audit observation.

#### 7.5 Shortage of scientists in the environment wing of Regional Offices

As per the details provided by MoEF&CC, the combined total number of sanctioned posts of scientists in all the ROs was 41 against which 15 scientists were in position as of 31<sup>st</sup> March 2015.

Thus, there was wide gap between the sanctioned strength and men in position in all the ROs. In the Environment Wing of four ROs, only one scientist was in position against the sanctioned strength of four each in Bengaluru, Chandigarh and Dehradun and five in Shillong. MoEF&CC had not taken sufficient efforts to fill up the gap by deputing the appropriate number of scientific staff in the Environment wing.

While accepting the audit observation, MoEF&CC stated (October 2016) that it had taken appropriate action to appoint the scientists which will help taking up more projects for monitoring and follow up of the projects.

#### 7.6 Monitoring of projects by ROs

As per the information provided by MoEF&CC and its ROs, a total 9,878 Category A projects and 12,657 Category B projects were to be monitored by the ROs which had been given ECs since the inception of the EIA process, following the notification of 1994.

Of these, we verified 352 projects which had been given ECs during 2008-12 with regard to monitoring done by ROs. The details are given in Table 7.2.

**Table 7.2: Regional Office-wise sampling of half yearly reports**

Regional Offices	Category A projects	Category B projects	Projects sampled for audit
1. Bengaluru	1,364	Not available in RO	33
2. Bhopal & Nagpur	1,748	1,813	94 (48+46)
3. Bhubaneswar	960	721	48
4. Chennai	2,439	5,045	39
5. Chandigarh	868	1,303	30
6. Dehradun	250	1,250	15
7. Lucknow	1,516	2,483	32

Regional Offices	Category A projects	Category B projects	Projects sampled for audit
8. Ranchi	393	7	31
9. Shillong	340	35	30
<b>Total</b>	<b>9,878</b>	<b>12,657</b>	<b>352</b>

Our scrutiny revealed that out of 352 projects selected in audit, only 147 projects were monitored by ROs. Audit examined the monitoring reports of ROs which indicated that the PPs did not follow all the general as well as specific environmental conditions during implementation of project and violated the EC conditions. The details are given in the **Annexure VI**. We also observed that, no powers had been given to the ROs to take action for violation of EC conditions by the PPs.

### 7.7 Unrealistic fixation of monitoring targets

As per MoEF&CC norms (July 2015) each scientist was to monitor at least five projects per month. Therefore, minimum 60 projects were to be monitored every year by each scientist.

Details of the targets fixed by the MoEF&CC to ROs for monitoring of projects and actual number of projects monitored by each RO for last five years are given in Table 7.3.

**Table 7.3: Monitoring targets fixed by MoEF&CC**

Regional Offices	2011-12		2012-13		2013-14		2014-15		2015-16	
	T	A	T	A	T	A	T	A	T	A
1. Bengaluru	200	351	180	379	230	272	230	166	240	97
2. Bhopal	180	73	220	73	220	126	220	128	220	206
3. Bhubaneswar	110	111	110	107	120	109	120	115	120	124
4. Chennai	-	-	-	-	-	-	-	224		301
5. Chandigarh	190	180	230	182	230	218	230	204	280	173
6. Dehradun	-	-	-	-	-	-	10	10	41	41
7. Lucknow	200	299	200	301	240	324	240	273	220	224
8. Nagpur	Position merged with Bhopal as shown above.									
9. Ranchi	--	--	--	--	--	--	--	--	55	11
10. Shillong	40	52	80	77	90	89	75	69	40	40
<b>Total</b>	<b>920</b>	<b>1,066</b>	<b>1,020</b>	<b>1,119</b>	<b>1,130</b>	<b>1,138</b>	<b>1,125</b>	<b>1,189</b>	<b>1,216</b>	<b>1,217</b>

T- Target, A- Achievement

The men-in-position of scientists was 15 as of 31<sup>st</sup> March 2015, thus, as per MoEF&CC norms around 900 projects could have been monitored in a year with the present men in position.

Our scrutiny showed the following:

- a. As of 31<sup>st</sup> March 2015, only one scientist was posted at Bengaluru and Chandigarh each and achievement of these ROs have been reported as 166 and 204 respectively, which was 277 *per cent* and 340 *per cent* against the norm of at least 60 projects per scientist per year.
- b. There was one scientist posted at RO Chandigarh and three scientists at RO Lucknow but the targets of monitoring of projects were almost the same.

It is evident from the above that the targets for monitoring of the implementation of the projects were not fixed realistically with reference to the manpower and quantum of work besides the size/approachability of the area and the complexity of the projects.

While accepting the audit observation, MoEF&CC stated (October 2016) that the appointment of scientists would help taking up of more projects for monitoring. However, Ministry remained silent on fixing of target with reference to manpower and quantum of work.

It is evident from the above table that the overall monitoring targets were achieved except for RO Bhopal, Chandigarh, Ranchi and Shillong. On correlating the figures with the position in Table 7.2 it may be seen that MoEF&CC/ROs would not be able to monitor all projects under their jurisdiction even in a period of five years.

### 7.8 Action taken for violation of EC conditions

As per the Environment (Protection) Act 1986, for violation of the ECs, MoEF&CC had the power to direct (a) the closure, prohibition or regulation of any industry, operation or process; or (b) stoppage or regulation of the supply of electricity or water or any other service.

In reply to a Parliament question, the Ministry submitted (July 2016) that no penalty was imposed by the MoEF&CC for violating conditions of EC in the last two years.

We observed that MoEF&CC did not have a compiled database of cases/projects received by it from the ROs where the violations were reported by ROs after their monitoring/inspection. Data register with year wise breakup of such cases was also not maintained.

Audit forwarded a list of selected projects to MoEF&CC for furnishing the files of monitoring reports and action taken by the Ministry on the reports. MoEF&CC could not furnish records of the selected projects except for five cases.

Audit scrutiny of these five cases revealed that in respect of three cases, no action was taken by MoEF&CC based on the reply given by the PPs. In case of, **M/s Nirani Sugar Ltd, Karnataka**, MoEF&CC asked the PP to furnish the compliance to violation to EC conditions in October 2015 but the PP had not replied/complied till July 2016.

In another case of **M/s Kailashpati Cement (P) Ltd**, did not submit compliance to specific and general conditions such as feasibility for full utilization of gases generated from the kiln, regular monitoring of influent and effluent surface, non-development of prescribed 33 *per cent* of green belt, non-earmarking of five *per cent* towards activities under ESR, lapse of CTO, etc. Although the case was put up for issuing Show Cause Notice in December 2015, the same was withheld by MoEF&CC. No further action was taken by MoEF&CC.

Further, MoEF&CC on its own furnished 13 files where the Show Cause Notices were issued between August 2015 and December 2015. Scrutiny of these files revealed that in

eight cases no reply was received in MoEF&CC till 15 July 2016 and no reminders were issued by MoEF&CC to the defaulting PPs. In two cases, **M/s MIDC Tarapur, Maharashtra** and **M/s Gallant Metal Ltd, Gujarat**, the compliance report/reply furnished by the PPs were not verified by the MoEF&CC/ROs. In another case of **M/s Rowale Bauxite Mine, Ropali Ratnagiri**, the reply furnished by the PP was termed unsatisfactory but no directions were issued by the MoEF&CC.

While accepting the audit observation, MoEF&CC stated (October 2016) that reminder had been issued to **M/s Nirani Sugar Ltd, Karnataka** and in case of **M/s Kailashpati Cement (P) Ltd** the RO was being requested for fresh site inspection. Further, in respect of **M/s MIDC Tarapur, Maharashtra** and **M/s Gallant Metal Ltd Gujarat**, it stated that the submission given by the PPs were found satisfactory hence were not verified with ROs.

## 7.9 Conclusion

ROs were not ensuring that the PPs submitted half yearly compliance reports timely and regularly. PPs were also not uploading half yearly compliance report on their website.

There was wide gap between the sanctioned strength *vis a vis* men in position of scientists in all the ROs. Consequently, MoEF&CC/ROs would not be able to monitor all projects under their jurisdiction even in a period of five years.

No power was delegated to ROs to take action against the defaulting PPs and they had to report the violations of the EC conditions to the Ministry. The Ministry did not have a database of cases received where the violations were reported by ROs. No penalty was imposed by the MoEF&CC for violating conditions of EC in the last two years.

## 7.10 Recommendations

We recommend that,

- i. MoEF&CC may put in place a mechanism to ensure that the compliance reports are regularly and timely received and uploaded by PPs and the Ministry on their websites.  
(Paragraph 7.3 and 7.4)
- ii. MoEF&CC may take expeditious measures to have the requisite number of scientists in place in the respective ROs.  
(Paragraph 7.5)
- iii. MoEF&CC should evolve a system by delegating powers to ROs for taking action against the defaulting PPs.  
(Paragraph 7.6)
- iv. MoEF&CC should have a system in place where the reports of violation received from ROs are compiled and constantly monitored in coordination with the ROs for ensuring that the PPs comply with EC conditions and take action as per law.  
(Paragraph 7.8)

**CHAPTER**

**8**



# Monitoring by State Pollution Control Board

## 8.1 Introduction

State Pollution Control Boards (SPCBs) are responsible for implementing environmental legislations in the State, such as Water (Prevention and Control of Pollution) Act, 1974, Air (Prevention and Control of Pollution) Act, 1981, Water (Cess) Act, 1977 and some of the provisions under Environmental (Protection) Act, 1986 and the rules framed there under like, Biomedical Waste (M&H) Rules, 1998, Hazardous Waste (M&H) Rules, 2000, Municipal Solid Waste Rules, 2000, etc.

Under Section 25/26 of Water (Prevention and Control of Pollution) Act, 1974 as amended and under Section 21 of Air (Prevention and Control of Pollution) Act, 1981 as amended, the PPs are required to obtain the Consent to Establish (CTE) and Consent to Operate (CTO) for the project from the SPCB/UTPCC. The SPCBs regulate industries, municipalities, industrial processes, etc. through the mechanism of consent management. While granting consent, SPCBs also integrate the stipulations for abatement of water and air pollution in the ECs. The SPCBs regularly monitor compliance by these industrial/project units/entities. Under the Acts, SPCBs have power to obtain information, take samples, enter and inspect, power to restrain/punish polluters through courts, power to give directions for stoppage/closure/disconnection of electricity, etc.

## 8.2 Ambiguous responsibility of SPCB/UTPCCs under EIA Notification 2006

We observed that there were no clear cut responsibilities assigned to State Pollution Control Boards/Union Territory Pollution Control Committees (SPCB/UTPCCs) under EIA Notification 2006 regarding post EC monitoring.

EC is granted by MoEF&CC on the recommendations of EAC after scrutiny of the EIA report which includes public consultation and also various mitigation measures and commitments made by the PP. MoEF&CC while granting EC to PPs, marks copy to SPCBs, however the exact role of SPCBs was not specified in the EC letter.

MoEF&CC also had the power under Section 23 of the Environmental (Protection) Act, 1986 to delegate its powers to the State Governments and/or SPCBs by issuing notifications. MoEF&CC had not delegated the SPCB/PCCs with the responsibilities and powers for monitoring of EC conditions and hence compliance to various mitigation measures proposed by the PPs in the EIA/EC was not checked by SPCBs. In reply to a Lok Sabha, Unstarred Question No. 1555 (08 Dec 2015), MoEF&CC stated that compliance of

environmental safeguard conditions was monitored regularly through the ROs and SPCBs.

MoEF&CC stated (October 2016) that SPCB/PCCs had very clear defined roles with regard to their regulatory functions, monitoring, enforcement and compliance under the Water Act and Air Act. The SPCB/PCCs are not in a position to monitor the stipulations relating to forest, plantation, activities under ESR, health, etc. due to the reason that these stipulations do not fall under the mandate envisaged in the Water Act and the Air Act as well as delegations made under the Environmental (Protection) Act, 1986.

However, we observed that most of the SPCBs/UTPCCs expressed that compliance of EC conditions was to be done by the concerned ROs of MoEF&CC. Our observations relating to shortfall in monitoring by ROs are discussed in Chapter 7 of this report.

Our observations regarding role of SPCBs/UTPCCs are as follows:

### 8.3 Shortfall in carrying out the verification of compliance to the EC conditions

One of the conditions in the ECs issued by MoEF&CC was that the EC conditions were to be enforced, *inter-alia* under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Water Pollution) Act, 1981, the Environment (Protection) Act, 1986 etc. The power to enforce these Acts lies with the State Government.

EC letter, issued by MoEF&CC are also marked to ROs, MoEF&CC/CPCB/SPCBs. PPs are required to submit six monthly compliance reports and the monitored data alongwith statistical interpretation regularly. Also, PP was required to submit periodical reports pertaining to status of compliance of EC conditions, Annual Environmental Statement in Form V, Reports on soil test and ground water samples, ambient air quality, fugitive or stack emissions, noise levels, compliance to emission norms, etc. to ROs, MoEF&CC/CPCB/SPCBs.

Our findings in respect of the system in place in SPCBs to oversee the compliance of these EC conditions is briefly as under:

- a. 26<sup>30</sup> SPCBs/UTPCCs stated that they issued CTE and CTO with conditions and monitor compliance to those conditions. The SPCBs/UTPCCs stated that the EC conditions were not monitored by them.
- b. Andaman & Nicobar Islands PCC stated that no such delegation had been done for monitoring and ensuring the compliance of conditions stipulated under EC. Manipur SPCB in their report stated that it had been carrying out the

<sup>30</sup> Assam, Andhra Pradesh, Bihar, Chandigarh, Chhattisgarh, Delhi, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Meghalaya, Odisha, Punjab, Rajasthan, Sikkim, Tamil Nadu, Telengana, Uttar Pradesh, Uttarakhand and West Bengal.

responsibility of verification of compliance to the EC conditions that are relevant to Manipur SPCB only.

- c. Tripura State Pollution Control Board stated that the officials from Zonal Office of CPCB as well as MoEF&CC alongwith Board officials jointly visit the sites to oversee the compliance of EC conditions.
- d. Mizoram Board stated that it checks compliance of certain EC conditions which are within its capacity. However, the Board was unaware of its responsibility to check the compliance as no direction was received by them.
- e. Information was not available in respect of Daman & Diu and Dadra and Nagar Haveli, Puducherry.

Thus, there was no uniform system for monitoring compliance to EC conditions. MoEF&CC replied (October 2016) that SPCBs/ PCCs have been adequately empowered under the Water Act and the Air Act for ensuring effective compliance including monitoring of the stipulations made while granting consent which inter-alia include integration of stipulations made during the grant of EC. Further, MoEF&CC proposed that during the ensuing annual conference proposed to be held in November 2016, all the Chairmen and Member Secretaries of SPCBs/PCCs may be asked to ensure compliance of the EC and consent conditions, specifically related to pollution and different types of waste.

However, in spite of the reply of SPCBs that monitoring was done for compliance of conditions that were linked to CTE/CTO, we observed instances where projects were operating without CTE/CTO, which are discussed in the next para.

#### **8.4 Projects operating without Consent to Establish and Consent to Operate**

All the industries/local bodies discharging any domestic sewage or trade effluent into water, stream, well sewer or on land, which are covered under the provisions of Water (Prevention & control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 are required to obtain CTE for establishment of any new unit or before carrying out expansion/modernization of any existing unit.

These units after establishment are required to obtain CTO before commencing commercial production. CTO is also required for all the existing units which are covered under the provisions of Water (Prevention & control of Pollution) Act, 1974 and Air (Prevention & control of Pollution) Act, 1981.

Thus, CTE is required only at the time of establishment of new unit or before carrying out expansion /modernization in the existing unit whereas CTO is granted for a specific period and needs to be got renewed every time after expiry. The consent was to be granted within four months from the date of application, failing which it would be treated as a deemed consent unless consent is granted or refuse earlier.

We observed several issues relating to projects operating without CTE/CTO and renewal of CTE/CTO, which are discussed in succeeding paragraphs.

- (i) **Projects operating without CTE:** We observed that out of 352 projects, in 117 projects such separate condition was not specified in the EC letter. Out of remaining 235 projects, 162 had obtained the CTE and non compliance of this condition was observed in 10 projects. In 63 projects information was either not available or not applicable.

The details of 10 projects where the CTE was not obtained are given in Table 8.1.

**Table 8.1: Projects operating without Consent to Establish**

	State/UT	Project
1.	Andhra Pradesh	Saripalli Sand Mine, M/s Rashtriya Ispat Nigam
2.	Chandigarh	Rehabilitation scheme and General Housing scheme at village Dhanas, M/s Chandigarh Housing Board
3.	Jammu & Kashmir	Khrew Limestone of M/s Jammu & Kashmir Cement Ltd.
4.	Madhya Pradesh	Rehabilitation & Upgrading of 2 lanes with Paved Shoulders Configuration of Amarwara – Umranala including bypass by NHAI, Chhindwara
5.		Upgradation of Chhindwara/Chourai/Seoni section by NHAI, Chhindwara
6.		Ambara Opencast Batches Coal Mine Project by M/s WCL, Chhindwara
7.		Bhadanpur Limestone Mine Project by M/s Maiher Cement, Satna
8.	Punjab	Metropolitan Mall (commercial complex project), M/s MGF Developments Ltd.
9.	Uttar Pradesh	Municipal Solid Waste Landfill at Mirzapur
10.	Uttarakhand	Collection of Minor minerals from River Kosi, Ramnagar

- (ii) **Projects operating without CTO:** Our scrutiny revealed that out of 352 projects, in 118 projects such separate condition was not specified in the EC letter. Out of remaining 234 projects, 175 had obtained the CTO and in 55 projects information was either not available or not applicable.

CTO was not obtained in the remaining four projects, details of which are given in Table 8.2.

**Table 8.2: Projects operating without Consent to Operate**

State/UT	Project
1. Chandigarh	Rehabilitation scheme and General Housing scheme at village Dhanas, Chandigarh by Chandigarh Housing Board
2. Jammu & Kashmir	Khrew Limestone of M/s Jammu & Kashmir Cement Ltd
3. Jharkhand	Open cast Coal Mines Project, Central Coal Field Ltd
4. Tamil Nadu	Construction of a Group housing complex 'Metropolis', M/s. Akshaya JMB Properties

- (iii) **Delay in renewal of grant of CTO:** We observed that no proper system was evolved to commence and complete the process of renewal of the CTO before expiry of the current CTO by SPCBs. Our scrutiny revealed that out of 352 projects, in 34 projects there were delays ranging between 11 days to six and half years<sup>31</sup> during which the proponents were operating their plants without proper CTO from SPCBs.
- (iv) **Non obtaining the renewal of CTO:** Our scrutiny revealed that out of 352 projects, 25 projects were initially granted CTO, but the PPs did not show any record of having renewal of CTO.

MoEF&CC stated (October 2016) that it had got a generic software for online consent management by SPCBs/PCCs which has been adopted by 18 SPCBs and other remaining Boards are being persuaded to adopt the software. The implementation of the online consent management will minimise the interface between the regulator (SPCB/PCC) and regulate (industry) and bring efficiency, transparency as well as ease of doing business and avoid delays in granting CTE and CTO and renewal of grant of CTO.

### 8.5 Non-submission of half yearly compliance reports to SPCBs/UTPCCs

The PPs were to submit six monthly compliance reports to their respective SPCBs/UTPCCs on 1<sup>st</sup> June and 1<sup>st</sup> December of each calendar year.

Total 352 projects with ECs granted between 2008 and 2012 were selected for audit scrutiny. In 259 cases for which information was made available by the SPCBs/PPs, audit observed that compliance reports were not submitted even once in 53 cases. In three cases it was submitted once, in 113 cases the reports were submitted intermittently and only in 90 cases the reports were submitted regularly. The State/UT wise position is given in **Annexure VII**.

Thus, due to non-submission of half yearly compliance reports, the SPCBs/UTPCCs remained unaware of the compliance of conditions given in the ECs.

<sup>31</sup> CTO in respect of Mohanpur Open Cast Coal Mine, M/s ECL, West Bengal had expired in July 2007. The PP applied for renewal of CTO in October 2012 and the same was renewed in April 2014.

## 8.6 Insufficient infrastructure and manpower at SPCBs/ UTPCCs

The SPCBs/UTPCCs need to have adequate infrastructure, expertise, stability of institutional arrangements, so that they can perform their duties satisfactorily. The infrastructure includes well equipped laboratories and expertise includes sufficient number of technical manpower.

Our observations are as summarised follows:

a. 24 SPCBs/UTPCCs (Andaman & Nicobar Islands, Bihar, Chandigarh, Chhattisgarh, Daman & Diu and Dadra & Nagar Haveli, Delhi, Gujarat, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Meghalaya, Mizoram, Puducherry, Punjab, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttar Pradesh, Uttarakhand and West Bengal) did not have infrastructure and expertise and there was shortage of laboratories and manpower. Out of 24 SPCBs/UTPCCs, only 11 SPCBs/UTPCCs, had indicated actual shortfall of manpower which is detailed in the Table 8.3 below.

**Table 8.3: Shortage of manpower in SPCBs/UTPCCs**

SPCB/UTPCC	Sanctioned Strength	Persons in position	Percentage shortfall
1. Bihar*	193	63	67
2. Delhi <sup>†</sup>	131	34	74
3. Himachal Pradesh <sup>†</sup>	83	39	53
4. Jharkhand*	271	73	73
5. Karnataka*	409	232	43
6. Madhya Pradesh <sup>†</sup>	358	209	42
7. Puducherry <sup>†</sup>	8	2	75
8. Punjab*	665	427	36
9. Rajasthan*	387	261	33
10. Uttarakhand <sup>†</sup>	69	22	68
11. West Bengal <sup>†</sup>	197	107	46
<b>*Total Manpower, <sup>†</sup>Scientific and Technical Manpower</b>			

b. Three SPCBs (Assam, Goa, Manipur) stated that they had adequate infrastructure and expertise

c. Five SPCBs (Andhra Pradesh, Haryana, Maharashtra, Odisha and Telangana) did not furnish specific reply to Audit.

As such, with the limited infrastructure and expertise including well equipped laboratory and technical manpower, most of the SPCBs/UTPCCs were also not in a position to properly monitor the projects for which ECs had been accorded.

MoEF&CC replied (October 2016) that it was a fact that many of the SPCBs/PCCs are not adequately equipped with infrastructure, trained staff and law enforcers particularly of North Eastern States. Under the scheme of “Assistance for Abatement of Pollution”,

MoEF&CC provides financial assistance to SPCBs of NE States as well as PCCs. Moreover, the State Governments were required to provide adequate funds for strengthening their Boards. This issue had been discussed in various meetings and annual conferences of the Chairmen and Member Secretaries and will be taken up again in the proposed conference in November 2016.

### 8.7 Financial position of the SPCBs/UTPCCs

The SPCBs/UTPCCs need to have adequate financial resources, so that they can carry out their functions satisfactorily. We observed that the SPCBs/UTPCCs had sufficient cash balance (including fixed deposits and bank balance) as mentioned below:

- a. 11 SPCBs/UTPCCs (Andhra Pradesh, Delhi, Himachal Pradesh, Karnataka, Kerala, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttarakhand and West Bengal) had cash balances of more than ₹ 100 crore,
- b. Four SPCBs/UTPCCs (Assam, Daman & Diu and Dadra & Nagar Haveli, Gujarat and Uttar Pradesh) had cash balances of between ₹ 50 crore to ₹ 100 crore,
- c. Four SPCBs (Goa, Jammu & Kashmir, Maharashtra and Meghalaya) had cash balances of between ₹ 10 crore to ₹ 50 crore,
- d. Seven SPCBs/UTPCCs (Bihar, Chandigarh, Jharkhand, Madhya Pradesh, Mizoram, Puducherry and Sikkim) had cash balances of less than ₹ 10 crore,
- e. Six SPCBs (Andaman & Nicobar Islands, Chhattisgarh, Haryana, Manipur, Odisha and Tripura) did not give information regarding their financial position.

Thus, SPCBs were having sufficient funds but lacked manpower and infrastructure and coupled with these were the ambiguity in mandate for monitoring of EC conditions.

MoEF&CC replied (October 2016) that the Boards are finding it difficult to effectively implement the Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Water Pollution) Act, 1981 due to lack of adequate infrastructure and trained manpower. MoEF&CC as well as CPCB are requesting the State Governments to extend the financial assistance to these State Boards.

### 8.8 Conclusion

SPCBs/UTPCCs had not been carrying out post EC monitoring due to lack of clear cut responsibility assigned to them under EIA Notification 2006. Therefore, compliance to various mitigation measures proposed by the PPs in the EIA/EC were not checked by SPCBs.

SPCBs/UTPCCs were not able to ensure that projects were running with valid CTE and CTO. There was lack of infrastructure and manpower at SPCBs/UTPCCs despite having sufficient funds.

## 8.9 Recommendations

We recommend that,

- i. MoEF&CC may issue directive to the State Government to frame modalities clearly delegating responsibility of monitoring the compliance to EC letter and commitments made in the EIA reports.  
(Paragraph 8.2)
- ii. MoEF&CC may issue advisory to SPCBs/UTPCCs for periodical monitoring after grant of CTE and CTO to Project Proponents.  
(Paragraph 8.3)
- iii. MoEF&CC may advise the State Governments to strengthen the infrastructure and manpower of SPCBs so that they properly monitor the EC conditions of the projects running in their jurisdictions.  
(Paragraph 8.6)

New Delhi  
Dated: 22 December 2016

  
(MANISH KUMAR)  
Principal Director of Audit  
Scientific Departments

Countersigned

New Delhi  
Dated: 26 December 2016

  
(SHASHI KANT SHARMA)  
Comptroller and Auditor General of India

# ANNEXURES



**Annexure I**  
**(Paragraph reference: 1.2)**

**Process, stages and timelines of granting Environmental Clearance**

An application seeking prior EC in all cases has to be made in the prescribed Form 1 and Supplementary Form 1A, if applicable<sup>32</sup>, after the identification of prospective site(s) for the project and/or activities to which the application relates, before commencing any construction activity, or preparation of land, at the site by the applicant. The applicant has to furnish, along with the application, a copy of the pre-feasibility project report or conceptual plan, as applicable.

The EC process comprise of a maximum of four stages, all of which may not apply to a particular case. These four stages in sequential order are Stage 1: Screening (Only for Category 'B' projects and activities); Stage 2: Scoping; Stage 3: Public Consultation and Stage 4: Appraisal.

**Stage 1: Screening**

In case of Category 'B' projects or activities, this stage entails the scrutiny of an application seeking prior EC made in Form 1, by the concerned SEAC, for determining whether or not the project or activity requires further environmental studies for preparation of an EIA, for its appraisal, prior to the grant of EC depending up on the nature and location specific of the project. The projects requiring an EIA report are termed Category 'B1' and remaining projects are termed Category 'B2' and do not require an EIA report. For categorization of projects into B1 or B2, MoEF&CC issues appropriate guidelines from time to time.

**Stage 2: Scoping**

Scoping refers to the process by which the EACs/SEACs in the case of Category 'A'/'B' projects or activities<sup>33</sup> respectively, determine detailed and comprehensive Terms of Reference (TOR), addressing all relevant environmental concerns, for the preparation of an EIA Report in respect of the project or activity for which prior EC is sought. The EAC/SEAC concerned determine the TOR on the basis of the information furnished in the prescribed application Form 1/Form 1A including TOR proposed/ suggested by the applicant, a site visit by a sub- group of EAC/SEAC concerned (only if considered necessary by the EAC/SEAC concerned) and other information that may be available with the EAC/SEAC concerned.

All projects and activities listed as Category 'B' in item 8 of the Schedule (Construction/Township/Commercial Complexes /Housing) do not require Scoping and are appraised on the basis of Form 1/ Form 1A and the conceptual plan.

<sup>32</sup> For building construction projects.

<sup>33</sup> including applications for expansion and/or modernization and/or change in product mix of existing projects or activities.

The TOR has to be conveyed to the applicant by the EAC/SEAC as concerned within sixty days of the receipt of Form 1. The approved TOR shall be displayed on the website of the MoEF&CC and the concerned SEIAA.

### **Stage 3: Public Consultation**

Public Consultation refers to the process by which the concerns of local affected persons and others who have plausible stake in the environmental impacts of the project or activity are ascertained with a view to taking into account all the material concerns in the project or activity design as appropriate. All Category 'A' and Category 'B1' projects or activities (except few as listed in Para 7(i), sub-para III, clause (i) of the EIA Notification) undertake Public Consultation.

The Public Consultation ordinarily has to have two components comprising of the followings:

- a. a public hearing at the site or in its close proximity- district wise, to be carried out in the manner prescribed in Appendix IV of EIA Notification (amended in 2009), for ascertaining concerns of local affected persons; and
- b. obtain responses in writing from other concerned persons having a plausible stake in the environmental aspects of the project or activity.

The public hearing at, or in close proximity to, the site(s) in all cases has to be conducted by SPCB or UTPCC concerned in the specified manner and forward the proceedings to the regulatory authority concerned within forty five days of a request to the effect from the applicant. After completion of the public consultation, the applicant has to address all the material environmental concerns expressed during this process, and make appropriate changes in the draft EIA and Environment Management Plan (EMP).

For obtaining responses in writing from other concerned persons having a plausible stake in the environmental aspects of the project or activity, the concerned regulatory authority and SPCB or UTPCC shall invite responses from such concerned persons by placing on their website the Summary EIA report prepared in the format given in Appendix IIIA by the applicant along with a copy of the application in the prescribed form, within seven days of the receipt of a written request for arranging the public hearing.

The final EIA report, so prepared, has to be submitted by the applicant to the concerned regulatory authority for appraisal. The applicant may alternatively submit a supplementary report to draft EIA and EMP addressing all the concerns expressed during the public consultation.

### **Stage 4: Appraisal**

Appraisal means the detailed scrutiny by the EAC or SEAC of the application and other documents like the Final EIA report, outcome of the public consultations including public hearing proceedings, submitted by the applicant to the regulatory authority concerned

for grant of EC. On conclusion of this proceeding, the EAC or SEAC concerned has to make categorical recommendations to the regulatory authority concerned either for grant of prior EC on stipulated terms and conditions, or rejection of the application for prior EC, together with reasons for the same.

The appraisal of an application has to be completed by the EAC or SEAC concerned within sixty days of the receipt of the final EIA report. The recommendations of the EAC or SEAC have to be placed before the competent authority for a final decision within the next fifteen days.

The prescribed procedure for appraisal is given in Appendix V of EIA notification. The regulatory authority has to consider the recommendations of the EAC or SEAC concerned and convey its decision to the applicant within forty five days of the receipt of the recommendations of the EAC or SEAC concerned or in other words within one hundred and five days of the receipt of the final EIA Report.

**Annexure II**  
**(Paragraph reference: 1.9)**  
**Sample for Audit Objective 1**

EAC/Sector	2011	2012	2013	2014	2015 <sup>34</sup>	Total Projects	Sample Percentage	Sample Size <sup>35</sup>
Coal Mining Projects	25	25	45	43	39	177	20	45
Industrial Projects	219	265	233	143	171	1,031	5	47
Infrastructure and Miscellaneous Projects & CRZ	80	123	102	62	84	451	5	44
Mining Projects (Non coal)	58	69	87	225	89	528	10	45
New Construction and Industrial Estate Project	63	81	209	108	70	531	5	20
River Valley and Hydroelectric Projects	11	4	10	3	8	36	10 (maximum 1 project)	7
Thermal Power Projects	48	46	15	17	13	139	Minimum 2 <sup>36</sup> projects and maximum 3 projects	41
<b>Total</b>	<b>504</b>	<b>613</b>	<b>701</b>	<b>601</b>	<b>474</b>	<b>2,893</b>		<b>249</b>

**Sample for Audit Objective 2**

EAC/Sector	2008	2009	2010	2011	2012	Total Projects	Sample Percentage	Sample Size
Coal Mining Projects	73	60	33	25	25	216	20	43
Industrial Projects	785	539	295	219	265	2,103	5	118
Infrastructure and Miscellaneous Projects & CRZ	184	110	99	80	123	596	5	37
Mining Projects (Non coal)	199	180	85	58	69	591	10	48
New Construction and Industrial Estate Project	580	252	139	63	81	1,115	5	54
River Valley and Hydroelectric Projects	11	11	10	11	4	47	10 (maximum 1 project)	9
Thermal Power Projects	83	69	75	48	46	321	Minimum 2 <sup>37</sup> projects and maximum 3 projects	43
<b>Total</b>	<b>1,915</b>	<b>1,221</b>	<b>736</b>	<b>504</b>	<b>613</b>	<b>4,989</b>		<b>352</b>

Note: The 352 projects also include 22 projects in critically polluting areas in 16 States.

<sup>34</sup> upto July 2015.

<sup>35</sup> Sample size is not the exact percentage of the total projects because of rounding off for each State.

<sup>36</sup> Minimum 2 (where project is more than 1).

<sup>37</sup> Minimum 2 (where project is more than 1).

**Annexure III**  
**(Paragraph reference: 1.9)**

**Response of the Management/Ministry to Audit Recommendations**

S.No	Recommendations	Management/Ministry's reply	Audit's further remarks
1.	MoEF&CC may take suitable action in consultation with NIC for revalidation of database and arrive at correct picture of the projects which have been granted EC by the Ministry. (Paragraph 2.2)	The figures appearing in the Audit Report do not match with the data made available to Ministry by the NIC.	The sector wise EC granted by MoEF&CC for Category A projects during the calendar years 2008 to 2015 (upto July 2015) were provided by the National Informatics Centre (NIC) Cell of MoEF&CC (August 2015). MoEF&CC had been repeatedly requested to confirm the figures of projects granted EC. Despite this, Ministry did not provide year wise and sector wise figures of projects granted EC (November 2016).
2.	In order to increase transparency and fairness in grant of EC, MoEF&CC may streamline the processes including adhering to the timeliness as per the EIA Notification. (Paragraph 2.3)	Ministry introduced the online application system for EC which has led to drastic improvement in the entire process of appraisal and EC. The steps taken for streamlining the process of EC had increased transparency, predictability, and enabled tracking of proposals by the project proponents. These steps had also delegated more powers to the States. That the shortage of manpower need to be addressed on priority to ensure strict adherence to time line prescribed in the EIA Notification, 2006.	However, audit noticed that the average days taken for processing the EC has increased in case of offline projects in the last two years.
3.	MoEF&CC, while scrutinising the EIA reports, may ensure that they are as per the ToR, comply with the generic structure, baseline data is accurate and concerns raised during the public hearing are adequately addressed. (Paragraph 2.5)	Consultants also certify that the EIA is as per the ToR, and it has covered all the topics prescribed in ToR; the same is also examined by the EAC while appraising the projects. Baseline data is collected by the Consultants by carrying on study at the site.	Ministry has just explained the procedures of scrutinizing the EIA report. However, the fact remains that there have been shortcomings noticed in audit.
4.	MoEF&CC may evaluate the entire process of EIA by involving all stakeholders, following legal processes and make suitable amendments in	The office memoranda are issued to prescribe office procedure and clarify the process or any issue which is not explicitly mentioned in the Notification.	The OMs should not dilute the provisions of the original EIA Notification.

S.No	Recommendations	Management/Ministry's reply	Audit's further remarks
	EIA Notification 2006 rather than resorting to Office Memorandums. (Paragraph 2.7)		
5.	MoEF&CC may grant fresh EC to the PPs only after verifying the compliance to the earlier EC conditions. (Paragraph 2.8)	The established process that the project which comes for expansion, the certified copy of last monitoring report is submitted and examined. If the monitoring report is old, the Regional Office is asked to monitor the project and send report on the current status of compliance of environmental clearance conditions. Recently an order has been issued to all the Member Secretaries to clearly mention about this in the note sheet submitted for approval of EC	Ministry did not offer specific comments on the cases mentioned by Audit. As such the fact remains that Audit pointed out instances where fresh EC was issued without verifying the compliance to the earlier EC conditions.
6.	MoEF&CC may adhere to its circular of 2010 on EC of coal linked mine for Thermal and Metallurgical projects so that firm coal linkage is available and the status of environment and forestry clearance of the coal sources i.e. the linked coal mine/coal block is known. (Paragraph 2.9)	Such precise linkage with any particular coal mine was not required, if a coal PSU prescribes coal linkage from a group of mine of a particular area. The coal was imported in the case the project proponent files a copy of the MoU entered for imports and that if coal was purchased in e-auction then also no specific linkage was required.	Ministry must ensure that the PP uses coal from the block/mine as per the EC.
7.	MoEF&CC may consider bringing conditions of EC compatible with the nature and type of project in order to avoid non-uniformity in similar kind of projects. (Paragraph 2.13)	We have standardized the Terms of Reference, and was considering the standardization of environmental conditions in different sectors without compromising with the rigor of the process.	No further remarks
8.	The EIA reports/EC letters should clearly mention cost of activities under EMP and ESR along with the timelines for their implementation. (Paragraph 3.2 and 3.4)	This point has been noted and directions on this input will be issued	No further remarks
9.	MoEF&CC may consider making EMP/EC condition(s) more specific on the area to be developed under green belt and species to be planted in consultation with Forest/Agriculture Department along with post EC Third Party evaluation. (Paragraph 3.3)	It may not be advisable to go into more details on the subject of types of species in EC as it becomes too prescriptive.	Ministry should specify the area to be covered by green belt along with density.
10.	MoEF&CC may consider endorsing copy of EC letter issued to each project to the Central Ground Water	A copy of EC would be sent to Ground Water Board authorities.	No further remarks

S.No	Recommendations	Management/Ministry's reply	Audit's further remarks
	Board/State Agencies to ensure monitoring of Ground Water extraction. (Paragraph 3.6)		
11.	MoEF&CC should work out strategies in co-ordination among ROs, CPCB, SPCBs/UTPCCs and other Departments of State Governments to strictly monitor the compliance of condition mentioned in the EC periodically. (Paragraphs 4.2 to 4.20)	Recommendation has been noted	No further remarks.
12.	MoEF&CC and SPCBs may consider adopting risk based approach to monitor the conditions stipulated in the ECs of the project and devise schedule for percentage check of six-monthly compliance reports and environment statements. (Paragraphs 4.2 to 4.20)	Recommendation has been noted	No further remarks.
13.	MoEF&CC may consider bringing suitable condition by mentioning the name and number of post/posts to be engaged by the proponent for implementation and monitoring of environmental parameters. (Paragraph 5.2)	Recommendation has been noted for compliance.	No further remarks
14.	MoEF&CC may consider bringing the mandatory EC conditions on installation of monitoring stations and frequency of monitoring of various environment parameters in respect of air, surface water, ground water, noise etc. (Paragraphs 5.3 and 5.4)	The project proponent is asked to submit six monthly report on compliance of environmental conditions.	Ministry may ensure the compliance of EC conditions.
15.	MoEF&CC may in consultation with SPCBs introduce a system of surprise check by the SPCBs at premise of PPs to verify the third party testing of environmental parameters. (Paragraph 5.5)	Third party testing is introduced to increase transparency and objectivity as CPCB and SPCB are not able to handle monitoring so getting the work of third party verified by SPCB may create a vicious cycle.	Ministry should develop a mechanism to verify the testing done by third party as per the conditions stipulated in the EC as third party is appointed by PPs themselves and poses a conflict of interest.
16.	MoEF&CC may issue advisory to the State Government regarding implementation and monitoring	Recommendation has been noted.	No further remarks.

S.No	Recommendations	Management/Ministry's reply	Audit's further remarks
	of the action plan of critically polluted area at regular intervals. (Paragraph 6.3)		
17.	MoEF&CC may put in place mechanism to ensure that the compliance reports are regularly and timely received and uploaded by PPs and the Ministry on their websites. (Paragraphs 7.3 and 7.4)	Recommendation has been noted	No further remarks.
18.	MoEF&CC may take expeditious measure to have the requisite number of scientists in place in the respective ROs. (Paragraph 7.5)	Special drive to fill the vacancies has been undertaken in the last two years.	No further remarks.
19.	MoEF&CC should evolve a system by delegating powers to ROs for taking action against the defaulting PPs. (Paragraph 7.6)	Amendments in Act are being considered to incorporate deterrent level of civil monetary penalties provision to deal with cases of non-compliance of EC conditions.	Ministry may take time bound action to incorporate suitable amendments in the Act.
20.	MoEF&CC should have a system in place where the reports of violation received from ROs are compiled and constantly monitored in coordination with the ROs for ensuring that the PPs comply with EC conditions and take action as per law. (Paragraph 7.8)	No replies were furnished for the specific observations pertaining to this recommendation.	No further remarks.
21.	MoEF&CC may issue directive to the State Government to frame modalities clearly delegating responsibility of monitoring the compliance to EC letter and commitments made in the EIA reports. (Paragraph 8.2)	Recommendation has been noted	No further remarks.
22.	MoEF&CC may issue advisory to SPCBs/UTPCCs for periodical monitoring after grant of CTE and CTO to Project Proponents. (Paragraph 8.3)	Recommendation has been noted	No further remarks.
23.	MoEF&CC may advise the State Governments to strengthen the infrastructure and manpower of SPCBs so that they properly monitor the EC conditions of the project running in their jurisdictions. (Paragraph 8.6)	Recommendation has been noted	No further remarks.

**Annexure IV**  
**(Paragraph reference 2.2)**  
**Adherence with the timelines of EIA process**

**Delay in grant of Terms of Reference**

**Table 1: Delay in grant of Terms of Reference**

EAC <sup>38</sup>	Projects granted ToR within the prescribed time limit of 60 days	Projects with delay of 0- 30 days	Projects with delay of 31- 90 days	Projects with delay of 91- 180 days	Projects with delay of 181- 365 days
1. Coal Mining	10	9	10	3	0
2. Industry	4	9	10	7	4
3. Non Coal Mining	8	5	8	8	5
4. Construction	ToR was not applicable in this case.				
5. Infrastructure Development	2	10	14	6	1
6. River Valley and Hydro Electric	1	3	0	1	1
7. Thermal Power	3	11	18	8	1
<b>Total</b>	<b>28</b>	<b>47</b>	<b>60</b>	<b>33</b>	<b>12</b>
<b>% of selected cases</b>	<b>18</b>	<b>22</b>	<b>28</b>	<b>15</b>	<b>6</b>

**Table 2: Delay in scrutiny of Final EIA Report**

EAC <sup>39</sup>	Projects where the scrutiny of the Final EIA Report was done within the prescribed time limit of 30 days	Projects with delay of 0- 30 days	Projects with delay of 31- 90 days	Projects with delay of 91- 180 days	Projects with delay of 181- 365 days	Projects with delay beyond 365 days
1. Coal Mining	9	4	3	4	1	1
2. Industry	9	11	6	1	0	0
3. Non Coal Mining	3	8	17	1	0	0
4. Building/ Construction	6	2	10	2	0	0
5. Infrastructure Development	8	8	7	0	0	0
6. River Valley and Hydro Electric	1	1	3	1	0	0

<sup>38</sup> 7 Coal Mining were exempted for ToR as these were expansion projects. The delay in respect of 3 Non Coal Mining, 5 Infrastructure and 1 River Valley could not be calculated as the files for ToR were not traceable.

<sup>39</sup> The delay in respect of 17 Coal Mining, 8 Non Coal Mining, 7 Industrial, 15 Infrastructure and 1 River Valley projects could not be calculated as the date of communication of Final EIA Report and the other relevant documents to the Members of the EAC was not found in the file.

<b>EAC<sup>39</sup></b>	<b>Projects where the scrutiny of the Final EIA Report was done within the prescribed time limit of 30 days</b>	<b>Projects with delay of 0- 30 days</b>	<b>Projects with delay of 31- 90 days</b>	<b>Projects with delay of 91- 180 days</b>	<b>Projects with delay of 181- 365 days</b>	<b>Projects with delay beyond 365 days</b>
<b>7. Thermal Power</b>	38	3	0	0	0	0
<b>Total</b>	<b>74</b>	<b>37</b>	<b>46</b>	<b>9</b>	<b>1</b>	<b>1</b>
<b>% of selected cases</b>	<b>34</b>	<b>17</b>	<b>21</b>	<b>4</b>	<b>1</b>	<b>1</b>

**Table 3: Delay in appraisal of the application by the EAC**

<b>EAC<sup>40</sup></b>	<b>Projects where appraisal of the application by the EAC was done within the prescribed time limit of 60 days</b>	<b>Projects with delay of 0- 30 days</b>	<b>Projects with delay of 31- 90 days</b>	<b>Projects with delay of 91- 180 days</b>	<b>Projects with delay of 181- 365 days</b>	<b>Projects with delay beyond 365 days</b>
<b>1. Coal Mining</b>	7	2	5	9	9	7
<b>2. Industry</b>	12	5	8	3	4	2
<b>3. Non Coal Mining</b>	7	3	13	3	8	1
<b>4. Building/ Construction</b>	12	2	0	4	2	0
<b>5. Infrastructure Development</b>	9	2	8	2	4	2
<b>6. River Valley and Hydro Electric</b>	2	0	1	0	1	2
<b>7. Thermal Power</b>	33	2	2	4	0	0
<b>Total</b>	<b>82</b>	<b>16</b>	<b>37</b>	<b>25</b>	<b>28</b>	<b>14</b>
<b>% of selected cases</b>	<b>40</b>	<b>7</b>	<b>17</b>	<b>12</b>	<b>13</b>	<b>6</b>

<sup>40</sup> In two Non coal, 11 Infrastructure and 1 River Valley project delay could not be ascertained as concerned documents were not available in the files.

**Table 4: Delay in placing recommendations of EAC before the Competent Authority**

EAC <sup>41</sup>	Projects where recommendations of the EAC were placed before the competent authority for a final decision within the prescribed time limit of 15 days	Projects with delay of 0- 30 days	Projects with delay of 31- 90 days	Projects with delay of 91- 180 days	Projects with delay of 181- 365 days	Projects with delay beyond 365 days
1 Coal Mining	5	11	16	6	1	0
2 Industry	0	22	10	2	0	0
3 Non Coal Mining	0	5	10	10	7	1
4 Building/ Construction	4	4	10	2	0	0
5 Infrastructure Development	0	7	21	6	0	0
6 River Valley and Hydro Electric	0	0	2	3	1	0
7 Thermal Power	5	5	19	9	2	1
<b>Total</b>	<b>14</b>	<b>54</b>	<b>88</b>	<b>38</b>	<b>11</b>	<b>2</b>
<b>% of selected cases</b>	<b>6</b>	<b>25</b>	<b>41</b>	<b>18</b>	<b>5</b>	<b>1</b>

**Table 5: Delay in receipt of the recommendations of EAC and conveying it decision to the applicant**

EAC <sup>42</sup>	Projects where recommendations of EAC and the decision of the MoEF&CC was conveyed to the applicant within the prescribed time limit of 45 days	Projects with delay of 0- 30 days	Projects with delay of 31- 90 days	Projects with delay of 91- 180 days	Projects with delay of 181- 365 days	Projects with delay beyond 365 days
1. Coal Mining	11	9	13	5	1	0
2. Industry	5	8	16	4	1	0
3. Non Coal Mining	2	5	11	8	8	2
4. Building/ Construction	5	4	6	3	1	1
5. Infrastructure Development	1	10	12	11	0	0
6. River Valley and Hydro Electric	0	0	3	0	3	0

<sup>41</sup> In 4 Non coal, 4 Infrastructure and 1 River Valley project, delay could not be ascertained as concerned documents were not available in the files.

<sup>42</sup> In 1 Non coal, 3 Infrastructure and 1 River Valley project, delay could not be ascertained as concerned documents were not available in the files.

EAC <sup>42</sup>	Projects where recommendations of EAC and the decision of the MoEF&CC was conveyed to the applicant within the prescribed time limit of 45 days	Projects with delay of 0- 30 days	Projects with delay of 31- 90 days	Projects with delay of 91- 180 days	Projects with delay of 181- 365 days	Projects with delay beyond 365 days
7. Thermal Power	13	8	11	5	3	1
<b>Total</b>	<b>37</b>	<b>44</b>	<b>72</b>	<b>36</b>	<b>17</b>	<b>4</b>
<b>% of selected cases</b>	<b>17</b>	<b>20</b>	<b>33</b>	<b>17</b>	<b>8</b>	<b>2</b>

**Table 6: Delay in conveying the EC to the Applicants**

EAC <sup>43</sup>	Projects where the EC was conveyed to the applicant within the prescribed time limit of 105 days	Projects with delay 0-30 days	Projects with delay of 31-90 days	Projects with delay of 91-180 days	Projects with delay of 181-365 days	Projects with delay beyond 365 days
1. Coal Mining	4	1	5	7	13	8
2. Industry	4	3	13	7	5	2
3. Non Coal Mining	1	0	4	10	10	9
4. Building/ Construction	1	3	4	7	3	2
5. Infrastructure Development	4	2	6	12	7	4
6. River Valley and Hydro Electric	0	0	0	2	2	2
7. Thermal Power	9	3	6	11	7	5
<b>Total</b>	<b>23</b>	<b>12</b>	<b>38</b>	<b>56</b>	<b>47</b>	<b>32</b>
<b>% of selected cases</b>	<b>11</b>	<b>6</b>	<b>18</b>	<b>26</b>	<b>22</b>	<b>15</b>

<sup>43</sup> In 1 coal, 3 Non coal, 3 Infrastructure and 1 River Valley project, delay could not be ascertained as concerned documents were not available in the files.

**Annexure V**  
**(Paragraph reference: 2.13)**  
**Non uniformity of EC conditions**

Cases of improbable/non-implementable conditions are highlighted below:

**1. Bihar:**

Thermal Sector		
Standard Condition	Nabinagar STPP of M/s Nabinagar power Generation Company Ltd	Coal based Thermal Power Plant of M/s Kanti Bijlee Utpadan Nigam Ltd
<b>Ash content in coal will be maximum 34% and Sulphur content 0.5% (maximum).</b>	As per EC, ash content in coal will be maximum 34% and Sulphur content 0.5 % (maximum).	As per EC, Ash content in coal will be about 41% and sulphur content 0.15%.
<b>Particulate emission does not exceed 50 mg/Nm<sup>3</sup>.</b>	As per specific condition no (iv), High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 50 mg/Nm <sup>3</sup> .	As per specific condition no (iv), High Efficiency Electrostatic Precipitators (ESPs) shall be installed to ensure that particulate emission does not exceed 100 mg/Nm <sup>3</sup> .

**2. Chandigarh:**

	Construction		Infrastructure		Construction	
Condition	Integrated commercial complex of M/s CSJ Infrastructure Pvt Ltd	Rehabilitation scheme and General Housing scheme of Chandigarh Housing Board	Construction of City Emporia Mall of M/s Real Tech Constructions Pvt Ltd	Construction of new Passenger Terminal building at Chandigarh airport of Airport Authority of India	Construction of office of IT/ Telecom Services of M/s Bharti Airtel Pvt Ltd	Construction of DLF hotel cum convention centre of M/s Kujjal Builders Pvt Ltd
<b>Uploading the EC conditions and its display on the project premises (ambient air quality data)</b>	Not specified in the EC of this project	Not specified in the EC of this project	Condition specified in the EC letter	Not specified in the EC of this project	Not specified in the EC of this project	Not specified in the EC of this project
<b>Condition of construction phase regarding width of internal roads</b>	NA	Not specified in the EC of this project	Not specified in the EC of this project	NA	Provided in the EC.	Provided in the EC.

### 3. Jharkhand:

Coal mining				
<b>Condition</b>	<b>120 MW COAL based PP EXP Units of Tata Power</b>	<b>Topa Opencast Coal Mines Project of Central Coal Field Ltd</b>	<b>Extension Open cast Coal Mines Project, (Sikni) of Jharkhand State Mineral Development Corp. Ltd</b>	<b>Ashoka Open cast Coal Mines Project of Central Coal Field Ltd</b>
<b>Submission of environment statement, rainwater harvesting and non-display of pollutant levels</b>	No condition in the EC	No condition in the EC	No condition in the EC	No condition in the EC

### 4. Maharashtra:

Industry			
<b>Conditions</b>	<b>De-bottlenecking of Thal Ammonia Plants (M/s Rashtriya Chemicals and Fertilizers Ltd)</b>	<b>Expansion of Cement Plant and Captive Power Plant (M/s Manikgarh Cement)</b>	<b>Visaka Industries</b>
<b>To obtain CTO/CTE</b>	No condition	No condition	Condition specified
<b>Display of environmental parameters at the entry gate</b>	Condition specified	No condition	Condition specified
<b>Consultation with forest department for plantation works</b>	No condition	No condition	Condition specified
<b>Domestic effluent would be treated in septic tank followed by soak pit</b>	Condition specified	Condition specified	No condition

Coal Mining			
<b>Conditions</b>	<b>Niljal Opencast Coal Mine Expansion Project (M/s Western Coal Fields Ltd.)</b>	<b>Naigaon Opencast Coal Mine Expansion Project (M/s Western Coal Fields Ltd.)</b>	<b>Gouri Deep Open Cast Coal Mine Expansion Project (M/s Western Coal Fields Ltd.)</b>
<b>Regular monitoring of groundwater level and quality shall be carried out by establishing a network of existing wells and construction of new peizometers</b>	No condition in the EC	Condition specified.	Condition specified.
<b>Artificial groundwater recharge measures for augmentation of groundwater resource in case monitoring indicates a decline in water table</b>	No condition in the EC	Condition specified.	Condition specified.
<b>Crushers at the CHP of adequate capacity 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.</b>	Condition specified.	Condition specified.	No condition in the EC

	Construction			
Condition	Pride Soft City Project (M/s Pride Builders Pvt Ltd.)	Relene Private IT Park (M/s Relene Petrochemicals Ltd)	Lavasa City (M/s Lavasa Corporation Ltd)	Lavasa
Activities under ESR/expenditure, Keeping of separate account	No condition in the EC	No condition in the EC	No condition in the EC	

### 5. Meghalaya:

	Industry	Industry	Construction	Thermal	Infrastructure	Non-coal Mining
Conditions	Ferro Silicon Plant	Ferro Alloy plant	Shillong Hotel	Thermal Power Plant	4/6 –laning of NH 44 and Sanitary Landfill	Mawmluh Limestone Mine
Separate account to be kept for funds earmarked towards environment protection measures	Not stipulated in the EC.	Condition stipulated.	Not stipulated in the EC.	Not stipulated in the EC.	Not stipulated in the EC.	Condition stipulated.
Provision funds for environment protection measures	Condition stipulated.	Condition stipulated.	No condition was stipulated	No condition was stipulated	Condition stipulated.	No condition was stipulated
Display of critical pollutant levels at a convenient location in the public domain	Condition stipulated.	Condition stipulated.	Condition stipulated.	Condition stipulated.	not stipulated in the EC	was not stipulated in the EC
Zero effluent discharge and protection of the plant from the flood hazard	Condition stipulated in this EC	Conditions not stipulated in the EC	NA	NA	NA	NA

### 6. Mizoram:

	Industry	
Conditions	Exploratory drilling of Oil India Ltd	Exploratory Drilling for Oil and Gas in NELP-III of Oil and Natural Gas Corporation Ltd
Removal of top soil and its stacking	Not included in this EC.	Included in EC.

### 7. Rajasthan:

	Non-coal Mining	Non-coal Mining	Non-coal Mining	Non-coal Mining
<b>Condition</b>	Kagmadar Soapstone Mining Project (Rajsamand) of M/s Apec Mineral Industry	Sonaria Soapstone Mining Project (Udaipur) of M/s Mr Rajendra Prasad Gupta	Sandstone Mine of M/s Thekeder Ravinder Bhardwaj	Sandstone Mine of M/s Thekadar Sunena Sharma
<b>Implementation of rainwater harvesting measures</b>	Not included in this EC.	Included in this EC.	Not included in this EC.	Included in this EC.
<b>Non-inclusion of conditions in r/o submission of policy towards Corporate Environment Responsibility to the Board of Directors of the company</b>	Not included in this EC.	Not included in this EC.	Included in this EC.	Not included in this EC.

### 8. Karnataka:

Conditions	Integrated Municipal Solid Waste Project of M/s Ramky Enviro Engineers Ltd	Construction of residential apartment of M/s Paramount Vijetha Holdings	Bulk drug and intermediate Manufacturing unit of M/s Sai Amrutha Pharma	Sponge Iron plant of M/s. Sunvik Steels	4/6 laning of Kundapura/ Surathkal stretch of NH-17 of M/s NHA I
<b>Maintenance of separate account for EMP</b>	Not specified in this EC	Not specified in this EC	Not specified in this EC	Not specified in this EC	Not specified in this EC

Conditions	Expansion of Sugar plant of M/s NSSK, Bijapur	Neralakere dolomite mines of M/s. MML, Bagalkote	Cement plant of M/s Vicat Sagar	Molasses based distillery unit of M/s Nirani Sugars	Bulk drug and intermediate Manufacturing unit of M/s Sai Amrutha Pharma	M/s Shri Rameshwara Lift Irrigation Scheme of M/s. KNNL, Belgaum	Expansion by adding Poly Propylene plant of M/s MRPL	4/6 laning of Kundapura/ Surathkal stretch of NH-17 of M/s NHA I
<b>Non-specification of ESR Cost</b>	Not specified in this EC	Not specified in this EC	Not specified in this EC	Not specified in this EC	Not specified in this EC	Not specified in this EC	Not specified in this EC	Not specified in this EC

Conditions	Expansion of Sugar plant of M/s NSSK, Bijapur	Integrated Municipal Solid Waste Project of M/s Ramky Enviro Engineers Ltd	Pig iron plant along with Sinter plant of M/s. SLR Metaliks, Bellary	Shri. Rameshwara Lift Irrigation Scheme of M/s. KNNL, Belgaum	4/6 laning of Kundapura/ Surathkal stretch of NH-17 of M/s NHA1
Installation of Rainwater Harvesting Structures	Not specified in this EC	Not specified in this EC	Not specified in this EC	Not specified in this EC	Not specified in this EC

### 9. West Bengal:

	Coal Mining	Coal Mining	Coal Mining	Coal Mining
Condition	Shankarpur U/G Coal mine project	Bansra Coal Mine	SonepurBazari OCP	Mohanpur OCP
Subsidence prediction modelling	Included in this EC.	Not included in this EC.	Not included in this EC.	Not included in this EC.
Monitoring data on heavy metals	Not included in this EC.	Not included in this EC.	Not included in this EC.	-
Ultimate slope of OB dump	NA	NA	Not included in this EC.	Included in this EC.
Provision for ground water monitoring	Included in this EC.	Included in this EC.	Included in this EC.	Not included in this EC.

**Annexure VI**  
**(Paragraph reference: 7.6)**  
**Non compliance noticed by the ROs**

Specific Conditions	General Conditions
<ul style="list-style-type: none"> <li>• Year wise details of utilization of fly ash were not maintained and non- using of fly ash bricks.</li> <li>• Details about plan for developing rain water harvesting and recharge system were not established</li> <li>• Approval/extension of Central Ground Water Board for extraction of water from ground was not taken besides testing of ground water quality.</li> <li>• Detailed plan of artificial groundwater recharge measures was not implemented.</li> <li>• Clearance/approval from statutory authorities' including NOC from SPCBs not taken.</li> <li>• Licence from chief controller of explosive.</li> <li>• Non-submission of information about diversion of forest land.</li> <li>• Necessary approval from National Board for wild life not taken.</li> <li>• Non-furnishing of information on the periodical health checks up of workers and the occupational health surveillance programme. No record about labour welfare measures being extended to the workers.</li> <li>• Surface water quality monitoring from the river as well as adjoining villages of the mining was not initiated.</li> <li>• Alternate land to displaced population was not given.</li> <li>• Long-term monitoring on the impacts of simultaneous operation of large opencast mines and the source apportionment study were yet to be carried out.</li> <li>• Submission of photograph of mined and reclaimed areas.</li> <li>• Details of check dams and garland drains.</li> <li>• Generation and disposal of Hazardous waste.</li> <li>• Separation of grey and black water.</li> <li>• Comprehensive upper areas catchment treatment study, implementation of water conservation measures.</li> <li>• Action plan for flora and fauna.</li> <li>• Identification of degraded forest area, monitoring of ground water level, provision of mobile toilets, STP, siltation study etc.</li> <li>• Cultivable wasteland was not identified and fodder forming or other suitable productive use of waste land was not taken up.</li> <li>• Dust suppression in the truck /lorry Parking area was inadequate, and the parking also was not cemented.</li> <li>• Top soil management was unsatisfactory.</li> <li>• Information on place of disposal of the muck/excavated soil was not provided.</li> <li>• Non-installation of SCADA system with dedicated optical fiber based telecommunication link for safe operation of pipeline and Leak Detection System.</li> <li>• Details of area backfilled were not maintained.</li> <li>• Heavy metals like Hg, Pb, Cr and As were not analysed as stipulated.</li> </ul>	<ul style="list-style-type: none"> <li>• Areas of green belt developed seem to be much smaller than the stipulated 33 per cent and Development of green belt/ plantation details were not maintained.</li> <li>• Non-display of SO<sub>x</sub> and NO<sub>x</sub> data on the main gate of power plant.</li> <li>• STP outlet and noise level.</li> <li>• Physical and financial of activities under ESR</li> <li>• Project cost and component wise expenditure, non-renewal of consent to operate.</li> <li>• Action plan for use of solar energy lighting.</li> <li>• Insurance policy under public liability insurance Act 1991.</li> <li>• Connection with sewer line of Government.</li> <li>• Schedule for establishment of CETP.</li> <li>• Collection of solid waste.</li> <li>• Prevention of odour problems from solid waste and STP plant etc.</li> <li>• Date of financial closure and final approval.</li> <li>• The housekeeping needed lot of improvement.</li> <li>• Safety aspects at site were grossly neglected.</li> <li>• Changes in the built-up area were noticed.</li> <li>• Expenditure incurred/allocated on EMP/ activities under ESR was not submitted with reference to specific condition of EC.</li> <li>• Report on the energy conservation measures confirming to energy conservation norms finalise by Bureau of Energy Efficiency was not prepared.</li> <li>• Establishment of ambient air quality monitoring station was not done.</li> <li>• Soil quality and drinking water quality.</li> <li>• Non-submission of latest stack emission monitoring, ambient air quality, Hazardous waste, Ground water analysis and Soil sample analysis reports by approved private lab.</li> <li>• Details of solid waste generation and dumped with dumping site.</li> <li>• The "Consent for Establishment" and "Consent to Operate" from Pollution Control Boards were not renewed and even obtained in some cases.</li> <li>• Dry fogging system/mist spray arrangements were not installed as stipulated.</li> <li>• Non -conducting of study on seismic hazard as stipulated.</li> </ul>

**Annexure VII**  
**(Paragraph Reference: 8.5)**

**Non submission of half yearly reports to SPCBs**

State	Our observations
1. <b>Andhra Pradesh</b>	Three project proponents did not submit the six monthly compliance reports even once and one project proponent expansion of fertilizer plant submitted report only once.
2. <b>Assam</b>	In one project M/s Kailashpati Cement (P), six monthly compliance was submitted only upto March 2014.
3. <b>Bihar</b>	Our scrutiny revealed that M/s Balajee and M/s NHAH had not submitted any six monthly compliance reports. Other six proponents had submitted the compliance report ranging from one to eight times against the requirement of ten during the period from 1 July 2011 to 31 December 2015.
4. <b>Chandigarh</b>	Chandigarh Housing Board, M/s Real Tech Construction Private Limited, Airport Authority of India, Mohali, M/s Bharti Airtel Private Limited and M/s Kujjal Builders had not submitted six monthly compliance reports regularly. However, no action was taken by the concerned authorities against PPs for not submitting compliance reports.
5. <b>Dadar &amp; Nagar Haveli and Daman &amp; Diu</b>	Four of the five projects (M/s Alok, M/s JBF, M/s PCL & M/s Sanathan) had submitted half yearly compliance report to the relevant office for all the years. One project (M/s Perfect filament Ltd) had not submitted any of the six monthly compliance reports for the period from June 2011 to December 2015.
6. <b>Gujarat</b>	We observed that M/s N R Agarwal Industries Limited, Gujarat Eco-Textile Park, M/s M/s Guru Nanak chemicals Industries, M/s J.K papers ltd M/s Savla Chemeicals ltd M/s Shanku's Pharmaceuticals ,M/s Gujarat Ambuja Exports ltd and M/s Metenere ltd did not submit half yearly compliance.
7. <b>Haryana</b>	In five cases (Installation of Emulsion Styrene Rubber at Panipat Refinery by IOCL, Dadupur-Nalvi Irrigation Project, Lead Processing Unit at Rohtak, Garment Leather Dyeing and Finishing unit Bahadurgarh, Distt. jhajjar, Expansion of Footwear Manufacturing Unit Gharaunda, Karnal) six monthly compliance reports was not submitted even once to SPCB, CPCB and its Regional Offices. 12 PPs had not submitted six monthly compliance reports regularly on prescribed dates.
8. <b>Himachal Pradesh</b>	Six monthly compliance reports were not submitted by the PPs of the sampled projects as per prescribed schedule. The Gee City Group Housing Project had not submitted any report during above period as the project was held up since August 2010. In the exit conference, the Principal Secretary stated that the PPs would be asked to submit the reports in future
9. <b>Jammu &amp; Kashmir</b>	One PP (IOCL) had never submitted six monthly compliance reports to SPCB, Regional Offices of MoEF&CC, Khrew Limestone Mine of JK Cement, Saifco Cement Pvt Limited and Trambooc Cement Industries had submitted one six monthly compliance report.
10. <b>Jharkhand</b>	One project (Sikni coal mine) submitted six-monthly compliance reports only once in January 2014 during 2012-15 against required six reports during the same period.
11. <b>Kerala</b>	Of the ten half yearly compliance reports due from each proponent during the above period, M/s. Puravankara filed five reports, M/s. Heera filed two reports and M/s Infosys filed seven reports. Remaining five projects did not furnish any compliance reports. Further. The period of Half yearly compliance in respect of M/s. Puravankara and M/s. Heera was not mentioned.
12. <b>Madhya Pradesh</b>	One project proponent M/s Aryavrat housing Construction Pvt Ltd, did not submit the report not even once. Two Project proponents Ambara opencast and Jharna underground exp project of M/s WCL, Chhindwara submitted their report with delay ranging from 24 to 48 months, in other ten cases delay ranging from one to four months. In nine cases the submission were intermittent.
13. <b>Maharashtra</b>	Six monthly reports were not furnished to any of the authorities for three out of 26 projects (Kirlosker Ferrous Industries, Lloyds Coal Washery and Patgowari Dolomite Mine).

State	Our observations
14. <b>Meghalaya</b>	In case of four projects viz Shillong Hotel, Sanitary Landfill, Ferro Silicon plant and Mawmluh Limestone Mine, the compliance reports were submitted for the period ending April to September and October to March and not as on 1st June and 1st December as provided in the Notification which was irregular. No action was taken by MoEF&CC, RO to ensure that the PPs submitted the report as stipulated. In the case of two projects (Meghalaya Power Ltd, PP and Sanitary Landfill) instead of ten compliance reports, the PPs submitted only three reports. MoEF&CC did not take any action on the irregular submission of the Compliance Reports.
15. <b>Odisha</b>	One projects Laning of Sambalpur Bargarh- section of NH-6 did not submit six monthly compliance reports. Whereas in case project Residential housing complex Shankarpur , the project proponent did not submit any report.
16. <b>Punjab</b>	Only two PPs (Talwandi Sabo power ltd Mansa and Distillery unit at Bhatinda) submitted half yearly compliance reports regularly. In five projects, the reports were not submitted regularly and there was shortfall ranging between two and six reports. One PP (Amritsar Airport) had not submitted any report to the MoEF&CC whereas the EC was issued in March 2008.
17. <b>Rajasthan</b>	Scrutiny of information/records submitted by the PPs revealed that out of 18 selected projects, in six projects, reports were not sent and in two projects, six monthly compliance reports were not sent regularly.
18. <b>Tamil Nadu</b>	Five PPs had submitted their returns timely, two PPs submitted the same intermittently and not for all half yearly periods. Whereas, seven other PPs had not submitted their returns periodically. In respect of one PP though it was stated that the returns were submitted, copies were not available with TNPCB or its field office.
19. <b>Telangana</b>	All four PPs had not submitted report regularly.
20. <b>Uttar Pradesh</b>	Out of 11 projects, four project proponents did not submit the compliance report even once In two other cases (Molasses based 75 KLPD and M/s Parsvnath planet) the PPs were irregular in submitting compliance report.
21. <b>Uttarakhand</b>	Collection of Minor minerals from River Kosi, Ramnagar, Jakhan-2, Bharat Oil and Waste Management Ltd, M/s Lotus Infra Project Pvt. Ltd, M/s Omaxe limited of Kalkaji, New Delhi and M/s Gama Infra prop Pvt. Ltd. the PPs did not submit six monthly compliance reports regularly and timely.

## Abbreviations

Abbreviation	Full Form
<b>BOD</b>	Biochemical Oxygen Demand
<b>CAT</b>	Catchment Area Treatment
<b>CBD</b>	Convention on Biological Diversity
<b>CEPI</b>	Comprehensive Environmental Pollution Index
<b>CGWA</b>	Central Ground Water Authority
<b>CGWB</b>	Central Ground Water Board
<b>CHP</b>	Combined Heat and Power
<b>COD</b>	Chemical Oxygen Demand
<b>CPA</b>	Critically Polluted Area
<b>CPCB</b>	Central Pollution Control Board
<b>CPP</b>	Co-generation Power Plant
<b>CRZ</b>	Coastal Regulation Zone
<b>CSR</b>	Corporate Social Responsibility
<b>CTE</b>	Consent to Establish
<b>CTO</b>	Consent to Operate
<b>DFO</b>	District Forest Officer
<b>EAC</b>	Expert Appraisal Committee
<b>EC</b>	Environmental Clearance
<b>EF</b>	Environmental Flows
<b>EIA</b>	Environment Impact Assessment
<b>EMP</b>	Environment Management Plan
<b>ESR</b>	Enterprise Social Responsibility
<b>ETP</b>	Effluent Treatment Plant
<b>FSI</b>	Forest Survey on India
<b>GoI</b>	Government of India
<b>GPP</b>	Gas Processing Plant
<b>IIT</b>	Indian Institute of Technology
<b>KLPD</b>	Kiloliters Per Day
<b>KVA</b>	Kilovolt Ampere
<b>MoEF&amp;CC</b>	Ministry of Environment, Forest and Climate Change
<b>MOU</b>	Memorandum of Understanding
<b>MT</b>	Metric Ton
<b>MTPA</b>	Million Tons Per Annum
<b>MTPM</b>	Million Tons Per Month
<b>MW</b>	Mega Watt
<b>NABET</b>	National Accreditation Board for Education and Training
<b>NEMA</b>	National Environment Management Authority

<b>NHAI</b>	National Highways Authority of India
<b>NIC</b>	National Informatics Center
<b>NOC</b>	No Objection Certificate
<b>NTPC</b>	National Thermal Power Corporation Limited
<b>OB</b>	Overburden
<b>OCP</b>	Open Cast Mine
<b>OHS</b>	Occupational Health Surveillance
<b>PP</b>	Project Proponent
<b>QCI</b>	Quality Control of India
<b>R&amp;R</b>	Relief and Rehabilitation
<b>RO</b>	Regional Office
<b>SEAC</b>	State Level Expert Appraisal Committee
<b>SEIAA</b>	State Environment Impact Assessment Authority
<b>SEMA</b>	State Environment Management Authority
<b>SGWB</b>	State Ground Water Board
<b>SPCB</b>	State Pollution Control Board
<b>STP</b>	Sewage Treatment Plant
<b>TDSF</b>	Treatment, Storage and Disposal Facility
<b>TOR</b>	Terms of Reference
<b>TPD</b>	Tons per Day
<b>TPP</b>	Thermal Power Plant
<b>UT</b>	Union Territory
<b>UTPCC</b>	Union Territory Pollution Control Committee
<b>WQM</b>	Water Quality Monitoring
<b>ZSI</b>	Zoological Survey of India



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