

2.3 Steps in EIA process

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EIA involves the steps mentioned below. However, EIA process is cyclical with interaction between the various steps.

Screening: The project plan is screened for scale of investment, location and type of development and if the project needs statutory clearance.

Scoping: The project's potential impacts, zone of impacts, mitigation possibilities and need for monitoring. The EIA agency has to follow the published guidelines by the Ministry of Environment and Forest (MoEF) of government of India.

Collection of baseline data: Baseline data is the environmental status of study area.

Impact prediction: Positive and negative, reversible and irreversible and temporary and permanent impacts need to be predicted which presupposes a good understanding of the project by the assessment agency.

Mitigation measures and EIA report: The EIA report should include the actions and steps for preventing, minimizing or by passing the impacts or else the level of compensation for probable environmental damage or loss.

Public hearing: On completion of the EIA report, public and environmental groups living close to project site may be informed and consulted.

Decision making: Impact Assessment (IA) Authority along with the experts consult the project-in-charge along with consultant to take the final decision,

keeping mind EIA and EMP (Environment Management Plan).

Monitoring and implementation of environmental management plan: The various phases of implementation of the project are monitored.

Risk assessment: Inventory analysis and hazard probability and index also form part of EIA procedures.

2.4 Identification of impacts on the environment

Sl.No	Component	Important considerations
1	Air	Type of emissions released and the extent, creation of excess noise, Degradation.
2	Water	Availability, use and quality of water, effects on the aesthetics and aquaculture
3	Vegetation	Destruction of forest cover, depletion of cultivable land, changes in biological productivity, changes in the species diversity and hastening the disappearance of important species
4	Processes	Floods Droughts Erosion Earth quakes Land slides

Sl.No	Component	Important considerations
5	Solid waste	Excess generation of solid waste, Effects on environment
6	Soils and geology	Effects on physio-chemical characteristics of soils Effects on stability/instability of soils
7	Cultural status	Employment situation, life style of people Health services
8	Ecological relationships	Food chain Diseases Spreading of virus
9	Man made facilities and activities	Structures Utility networks Transportation Waste disposal

Impact on the Air Quality

During construction phase, dust will be the main pollutant, which will be generated from the site development activities and vehicular movement on the road. Further, concentration of NO_x and CO may slightly increase due to increased vehicular traffic movement. However, change in ambient concentrations of air

quality will be insignificant. As most of the construction equipment will be mobile, the emissions are likely to be fugitive. The dust generated will also be fugitive in nature, which shall be controlled by sprinkling of water. The impacts will be localized in nature and the areas outside the project boundary are not likely to have any significant adverse impact. Ambient air levels of SO₂ and NO_x are expected to increase due to operation of construction machinery such as bulldozers, pay loaders, trucks etc. These levels are expected to be insignificant as these machines will be operated intermittently. More over most of these will be movable. Hence, there will not be any concentration of emissions at any single point.

Impact on Noise Levels

The major sources of noise during the construction phase are vehicular traffic, construction equipment like dozers, scrapers, concrete mixers, cranes, pumps, compressors, pneumatic tools, saws, vibrators etc. The operation of these equipments will generate noise ranging between 85-90 dB (A) near the source. These noises will be generated within the plant boundary and will be temporary in nature.

Impact on Water Quality

The water requirement during construction period will be met from the nearby surface water available. The wastewater generation during the construction period will be from the sanitary units provided to the workers. This waste will be treated in packaged STP or soak pit. Hence, there will not be any impact on the water regime due to discharge of treated wastewater.

Impact on Land Environment

The construction activities will result in loss of topsoil to some extent in the plant area and waste disposal area. The topsoil requires proper handling like separate stacking so that it can be used for green belt development. No significant adverse impact on soil in the surrounding area is anticipated only temporary impact will be observed due to the construction activities.

Impact on Ecology

The proposed site is devoid of any major vegetation. A good green belt will be developed within the plant premises. This will result in the positive shift in the ecological status of the area.

Impact on Socio-Economic

Environment Local laborers particularly unskilled labours will be offered employment during construction activities. In addition to the opportunity of getting employment as construction laborers, the local population would also have employment opportunities based on the educational qualification like petty commercial establishments, small contracts/sub-contracts and supply of construction materials for buildings and ancillary infrastructures etc.

Impact on Terrestrial Ecology

The flora and fauna of an area shows a certain affinity to the existing environmental setting. Due to the proposed facility, there could probably be a change in the environmental surroundings for a short duration due to the construction phase and for a long term due to the operation of the project activities. Thus, in order to predict the ecological impacts from the project site, it is necessary to detail the

baseline data. The potential impacts on the ecology of the study area are discussed below:

As no wastewater from the plant site is discharged outside the premises, there is no impact as the ecology due to wastewater.

The flora and fauna of the area could be disturbed if the various air pollutants discharged from the facility would not be maintained within specified permissible limits.

Other emissions such as Particulate Matter, Sulphur Dioxide and Nitrogen Oxides are kept below the prescribed permissible limits. Thus, the potential impact of air emission can be rated as marginal impact.

The Company will adopt adequate pollution reduction measures for water, air and solid waste for effective protection of the environment. Thus, it could be concluded that the potential impact of solid wastes is insignificant.

Solid Waste Generation

The wastes generated from the plant are segregated into Non Hazardous and Hazardous wastes as detailed below:

Non hazardous waste Cement Dust & HDPE Bags

The main solid waste generated from the cement plant is cement dust collected from various pollution control devices. This generated cement dust is recycled to the process. Hence no solid waste for disposal is available in the cement plant.

Domestic Waste

The generated solid wastes are segregated in biodegradable parts.

The biodegradable waste will be composted and used as manure.

Incinerable non-biodegradable waste will be burnt in incinerator.

Other non-biodegradable waste will be sent to landfill.

Sludge generated from the STP shall be used as manure for plantation

Hazardous waste

Used lubricating oil is used for scraper/screw conveyors internally and the balance quantity will be sold to PCB / MoEF authorized recyclers.

Waste grease is sold to the PCB's approved recyclers

Lead acid batteries are exchanged with OEMs

