

METHODOLOGY

4.1 Component and Methodology

All components (Compost Plant, Landfill, Transfer station) which are likely to be impacted due to proposed project are covered in this chapter which is mentioned subsequently. Suitable methodology was adopted to accomplish the study. As the first step, project scoping exercise was undertaken identifying the parameters needed to be considered for the study and to outline the activities for collecting data on each parameter. Data pertaining to all facets of environment viz. physical, ecological and socio-economic environment both through primary and secondary sources were collected.

Environmental Impact Assessment has been carried out, in accordance with given terms of reference, the requirements of the Govt. of India guidelines. The study methodology has been adopted with an aim to ensure that environmental concerns are given adequate weightage in the design options for the proposed improvements. The study in this project employs an iterative approach in which potential environmental issues have been examined at successive levels in detail.

The Environmental assessment is based on the information collected from secondary as well as primary sources on various environmental attributes. Monitoring of air, water, noise and soil were also carried out in the project area and significant issues were examined during field survey to determine the magnitude of significant environmental impacts. The major steps in the EA process for the project were as follows:

4.2 Reconnaissance Survey

The methodology consists of a preliminary environmental reconnaissance survey followed by detailed investigations including environmental surveys. This reconnaissance survey has led to the design of the nature of the screening survey that was required for the project. The reconnaissance survey and the screening surveys together revealed the various data requirements and the nature of environmental

studies required at different stages. Further, secondary data was collected from various Government and non-Governmental agencies and other stakeholders.

4.3 Secondary Data Collection

Secondary data collected from the following sources:

- State Pollution Control Board (SPCB)
- Central Pollution Control Board (CPCB)
- Forest Department
- India Metrological Department (IMD)
- Central Ground Water Board (CGWB)
- Local Administration Department (LDA)
- Survey of Indian Maps
- Aizawl Municipal Council (AMC)

4.4 Primary Data Collection

Primary data have been generated on air, water and noise, soil quality around the proposed project site at critical locations. The study was supported by the engineering team on site condition, utilities. Digital and an along photographs have been used to generate primary data in the form of photographs for Illustrations. The data sources both primary and secondary have been summarised below in Table 4.1.

Table 4.1: Key sources for Primary and Secondary Information

Environmental Parameters	Information Sources
Project objectives, Technical information , features and proposed rehabilitation work	SIPMIU and Design Team
Inventorisation of site features; viz.	Ground Physical surveys

Environmental Parameters	Information Sources
water Bodies, Community structures, environmentally sensitive locations areas, congested locations etc.	
Climatic Condition	IMD, State of Environment report, other secondary sources.
Geology, Seismicity, Soil and Topography	State of Environment report, websites, Survey of India map and primary data collection
Land Use/ Land Cover	Survey of India (SoI) Toposheet, Observation during survey, Google earth
Drainage Pattern	Survey of India Toposheet and field observation
Status of forest areas. Compensatory afforestation norms etc.	Divisional Forest Office, Envis centre and Government websites and field survey
Status of Fishing Activity	District Fisheries offices and local community
Air quality ,Noise, Soil and Water	Onsite monitoring and Analysis of Field samples
Borrow Areas, Quarries and other construction material source	Design consultant, MPCB and public consultation during field visit
River geo-morphology, hydrology, drainage, flood patterns,	SOI Map and field observations
Socio-economic Environment	Different Govt. agencies/civic bodies, Official websites maintained by state Govt., census of India 2001 and Public Consultation during the Field survey and consultant’s baseline survey.

4.4.1 Establishing Base line Environmental Conditions

With the collection and compilation of primary and secondary data, the baseline environmental conditions have been established. Based on which impacts have been addressed vis-à-vis proposed project activities.

4.4.2 Assessment of Potential Impacts

Potential significant impacts were identified on the basis of analytical review of baseline data; review of environmental conditions at site; and analytical review of the underlying socio-economic conditions with the project influence area.

4.4.3 Mitigation /Environmental Enhancement Measurement

Positive actions not only to avoid adverse impacts, but also to capitalize on opportunities to mitigate environmental degradation or improve environmental conditions were determined. Environmental enhancement plans are prepared for environmental features such as plantation and landscaping within the project site.

4.4.4 Preparation of the Environment Management Plan

An EMP for the project is prepared to specify the steps required to ensure that the necessary measures have been and will be taken. This includes the monitoring plan giving details of the resources budgeted and the implementation arrangements.

4.5 Environmental baseline conditions

Baseline environmental conditions about all facet of environment viz. physical, biological and socio-economic have been established using both primary and secondary sources. Efforts have been made to collect the latest information of the study area (within 10 km) as well as local level especially along the project corridor. This will help to predict likely changes in the environment due to the project and will serve as performance indicators for various components.

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