

Proposed Terms of Reference for EIA/EMP Studies

A. Project (Proposed Civil Enclave) Description

Design details of the taxiway, apron, proposed terminal buildings, HVAC systems details, power requirements, parking facilities, water requirement and sources, drainage and sewage disposal system, storm water drainage system, horticulture and landscaping, energy conservation measures, intelligent fire detection and alarm system, etc.

B. Description of the Environment

The Study Area: The study area will cover 10 km area around the proposed Civil Enclave.

Topography: Topography, ground conditions, slope, etc.

Soil and Geology: Soil type and its characteristics, geology of the area.

Ground & Surface Water Hydrology: Ground water table, rainfall, surface water bodies in the area.

Drainage Patterns: Drainage pattern, runoff flow direction

Water Quality: Quality of ground water resources.

Meteorology and Climatology: Meteorology and climatological conditions including temperature, relative humidity, wind direction and wind speed, etc.

Ambient Air Quality: Ambient air quality monitoring at and around the Civil Enclave.

Noise Environment: Noise level measurements at and around the Civil Enclave.

Flora and Fauna: Common trees, shrubs, other vegetation, common fauna, rare and endangered flora and fauna species, sensitive locations, wildlife animals and avifauna.

Socio-economic Details: The demographic details including population, schedule cast, schedule tribe, literacy, occupational pattern, economic and social conditions, employment and skills in the settlement within the 10 km radius area around the Civil Enclave.

C. Anticipated Environmental Impacts and Mitigation Measures

The environmental impact assessment will be carried out in accordance with the requirement of MOEF&CC norms and guidelines. Impact assessment will be carried out after establishing the baseline status of the study and analysis of the project data/activities. Wherever practicable, a quantitative analysis would be performed. Suitable computer models, if applicable, would be used; otherwise, the impact assessment would be quantified through mathematical computations. The projects activities will be linked with the existing baseline environmental conditions in order to short list the affected environmental parameters and assess the likely impacts on such parameters. Compliance of the proposed project with national standards will be duly checked.

During construction and operation phase of Civil Enclave at the Kanpur Airport, environmental impacts on various environmental parameters will be identified and evaluated as given below:

- Impact on water resources
- Impact in ambient air quality
- Impact on noise baseline levels
- Impact on soil characteristics
- Nature, quantity and disposal of construction spoils and solid waste
- Sewage generation and disposal
- Solid Waste Management Plan
- Parking and traffic management
- Impact on flora and fauna
- Socio-economic impacts on the area and region

D. Environmental Monitoring Program

Environmental monitoring plan for construction and post construction phases of the project will be formulated to ensure effectiveness of implemented environmental mitigation measures.

E. Environment Management Plan

Environmental Management Plan (EMP) is the key to ensure a safe and clean environment during construction and operation phase. The EMP envisages the plans for the proper implementation of mitigation measures to reduce the adverse environmental impacts arising out of the project activities during construction and operation phase. The following issues will be addressed in the EMP:

- Details of the Sewage Treatment Plant (STP) for treatment of sewage and recycling and reuse of treated waste water.
- Environmental management measures for ambient air quality
- Details of noise mitigative measures to be taken to minimize noise at the nearby areas.
- Details of waste segregation and disposal of waste, including vermi composting
- Details of energy saving system to be installed and incorporated in the plan and design.
- Parking facilities for vehicles
- Details of the construction materials and its transportation to site
- Details of greenbelt development along with the area/cost earmarked for the project.
- Rainwater Harvesting System
- Details of fuel storage and safety measures.
- Details of Environment Cell and EMP.
- Expenditures & budget for environmental protection measures and implementation of the EMP.
- Details of the emergency response plan