

# **ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA) REPORT FOR**

## **IMARAT RESIDENCIES**

**A Proposed Project of M/S Imarat Developers  
Private Limited**



**Submitted to:**

**Pakistan Environmental Protection Agency Islamabad**

**Plot No. 42, St 2, Sector H8/2**

**Islamabad Capital Territory (ICT)**

# EXECUTIVE SUMMARY

This report presents key findings of the Environmental Impact Assessment (EIA) carried out by the team of experts, hereafter referred to as “the Consultant”, on behalf of the M/s Imarat Developers (client) of the proposed project titled Imarat Residencies, Apartments near Capital Enclave, Zone-5, Islamabad.

The proposed project is planned for an area of 33,969 sqyrd which is situated near Capital Enclave Zone-5 Islamabad. Imarat Residencies location is unique in a way that it can be reached from all the areas of Rawalpindi & Islamabad. From main Islamabad Highway, it is abutting to the service road east of Islamabad Expressway, right in front of Soan Gardens Housing Society, Mouza Lohi Bher Eastern Side, Zone-5 Islamabad. The project is an apartment building, is in the planning phase with G+ 17 floors along with 2 basements. In order to cater the parking problem on site, these basements are dedicated for parking.

Destined to deliver excellence, Imarat Residencies offers a unique living experience in the locality. Imarat Residencies promise to deliver the best to its residents. With contemporary luxury apartments featuring family club, infinity pool, emergency response facilities and shopping centers. Imarat Residencies ensures grandeur lifestyle. To top it off, benefit from Sauna, Gym, Tennis Courts, Squash Courts, Span and Saloon to enjoy the most unique living standards offered in the country. The details of the project are given below:

*Table 1 Details of the Project*

Parameter	Details
Total area of the project	33,696.38 Sqyrd / 303267.42 sqft
Total Covered Area	1,516,337 Sqft
Ground Coverage as per CDA Bylaws	50%
No. of Floors	Ground+17 Floors
No. of Basements	2
Green Area	50%

The building has been designed in compliance to the conformity with the “Building Control Regulations, 2020” issued by Capital Development Authority (CDA).

Environmental Impact Assessment will be needed to assist the implementation of sustainable development in a practical way. In addition, EIA is fundamentally a process to achieve protection and management of the environment and the maintenance and enhancement of environmental quality.

The specific objectives of this EIA Report are as follows:

- ✓ To prepare an EIA Report for submission to the Pakistan Environmental Protection Agency (Pak-EPA) for review, scrutiny and obtaining the NOC for execution of the project.
- ✓ To ensure that decisions are made on a timely basis and on sound environmental advice.
- ✓ To encourage and provide opportunities for public participation in environmental matters before decisions are taken.

- ✓ To ensure that proponent take primary responsibility for the protection of the environment relating to proposed project.
- ✓ To facilitate environmentally sound proposals by minimizing adverse impacts and maximizing benefits to the environment.
- ✓ Report and assess the existing environmental and socioeconomic conditions in the project area to develop baseline conditions.
- ✓ To identify the likely impacts of the proposed activities on the natural and socioeconomic environment, predict and evaluate those quantitatively, wherever possible, and determine their significance in light of the technical and regulatory concerns, as well as those related to public perceptions.
- ✓ To propose appropriate mitigation and monitoring measures that can be incorporated into the design of the project and thereby any damaging effects or lasting negative consequences identified by the assessment.
- ✓ Determine pre-project state of affair to assess post-project condition if they have changed for better or worse.
- ✓ Document all the resources likely to be affected due to the implementation of the proposed project
- ✓ Provide maximum information to the Government Regulatory Authorities and other stakeholder about the exiting environmental conditions and the implication of the proposed project.
- ✓ Allow planners to alleviate potential impacts of the proposed project on different environmental condition such as physical environment, biological environment, and socio-economic environment.

## A. DESCRIPTIONS OF THE ENVIRONMENT

- a. **Land use:** The satellite image analysis and information gathered from the residents of nearby project site revealed that the land is covered by shrubs and barren. The residents of nearby villages were used this area for grazing of sheep and cattle's.
- b. **Soils:** The results of soil analysis reveal that all the soils are loam, silty loam, sandy loam, and loamy sand nature. These soils are medium to lose in texture and have high water percolation rate. The samples exhibit no problem of salinity as the pH and salt contents are within safe limits. The soil is deficient in organic matter (OM), Nitrogen (N), Phosphorus (P), and Potassium (K).
- c. **Surface Water:** The major surface water resources in this area is Soan River which drains much of surface water to Potohar. The Islamabad highway near the famous Kak Pul crosses this stream. However, the source of the Water for the proposed project has been provided by the Municipal authorities. By comparing surface water quality results with the standards set by EPA, the results of all parameters were found within the required water quality standards.
- d. **Groundwater Resources:** Sweet ground water is found in the command area. As the population of the project area continues to grow, it is expected that, in future, the availability of groundwater resources shall continue to decline as further abstractions are made for irrigation and drinking water purposes.

- e. **Salinity and Water Logging:** The project area has no water logging and salinity problem and most of the land in the command area is cultivated and fallow land.
- f. **Air Quality:** Ambient air monitoring were carried out within the project area and NOX, SO<sub>2</sub>, CO, PM (PM<sub>2.5</sub>, PM<sub>10</sub> and TSP, SPM were found to be within the permissible limit.
- g. **Noise Level:** The noise level was also analyzed at the location and baseline noise level was within the permissible limit of NEQS standards.
- h. **Protected Sites:** During the baseline surveys it was noticed that there are no protected sites and protected forests within or close to the potential impact zone
- i. **Tree Removal and Tree Inventory:** Notwithstanding that there are only herbs and shrubs were within the proposed site. No tree and Plants removal and cutting take place.
- j. **Archaeology and Cultural Heritage:** Sites of importance in regard to cultural heritage are not reported from the specific area of the project.

## B. SIGNIFICANT FINDINGS

- a. **Potential Impacts and Mitigation-** To formulate practical safeguards environmental impacts were identified in the EIA process. A summary of the environmental impacts and Mitigation measures which are discussed in Environmental Management and Monitoring Plan (EMMP) at Chapter 7 of the EIA.
- b. **Ambient Air Quality:** Air quality may decrease because of the project interventions. Construction machinery, diesel generators and project vehicles will release exhaust emissions containing carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), oxides of nitrogen (NOX), and particulate matter (PM). These emissions can deteriorate the ambient air quality in the project site and along the road leading to it. Furthermore, fuel combustion will release smoke emissions.  
**Mitigation:** A mitigation regime containing 3 stipulations is proposed for mitigation of air quality deterioration.
- c. **Noise and Vibration:** Sources of noise during construction will be generators, concrete batching plants etc. Increased noise and vibration levels during construction activities can be a source of nuisance for locals and a source of disturbance to wildlife.  
**Mitigation:** Although there are no sensitive receptors close to the construction sites mitigation action has been proposed to monitor and control emanation of high noise. Timing the construction activities in the vicinity of site has been proposed to avoid impact on the natural environment.
- d. **Surface water:** Improper disposal of solid waste or washout from concrete batching plants may contaminate the perennial sources of water. Additionally, other impurities such as oil spills from operational equipment may contaminate surrounding surface water including ponds and the Nullhas, which may affect aquatic organisms and the surrounding ecosystem. Contaminated surface water also holds potential health hazards if the contaminated water is used for drinking purposes.
- e. **Dust Emission:** Concentrations of airborne particulate matter will result from the earthwork, lining of canal, construction of canal road, trench excavation and installation of the pressure pipes. Generation of dust from these activities is likely to be significant given the prevailing wind direction from the north-to-north-east.

**Mitigation:** A series of mitigation measures has been recommended in Chapter 7 to minimize the impact of dust emission.

- f. **Waste Management:** It is expected that large quantities of solid waste including domestic waste, food waste, sewage (waste water), workshop waste, medical waste, packing waste, demolition material (concrete, masonry and steel gates), debris from construction sites (excess aggregate, sand etc.) and excavated material unsuitable for earth fill will be generated during construction.

**Mitigation:** Mitigation measures have been proposed considering the relevant guidelines from PEPA, 1997 and other relevant laws, guidelines etc.

- g. **Occupational Health and Safety:** The construction activities will involve operations which pose risks to the health and safety of the contractor's staff as well as the surrounding communities.

**Mitigation:** Occupational health and safety issues to be included in contraction specifications and other location specific action has been specified as mitigation.

- h. **Induced Economic Development:** It is anticipated that the influx of a migrant workforce will induce a degree of economic development. As a result of the influx of a workforce, there would be a higher demand for locally produced food, goods and services benefiting local farmers, producers, traders including small businesses within project site, such as hotels, restaurants, shops, fruit sellers, tea stalls and poultry stalls.

- i. **Employment Generation:** During the peak of works, it is estimated that approximately 250 skilled, semi-skilled and unskilled personnel will be engaged on site. It is anticipated that the project will be able to draw a large part of the unskilled workforce from within the project area. This shall depend in part on the extent to which the contractors will engage external workers. Temporary employment within the area has the potential to contribute to a reduction in local poverty.

- j. **Stakeholder Consultation:** Two rounds of public/stakeholder consultation were carried out during the preparation of the EIA. The consultations assisted in dissemination of project information among the project stakeholders and obtain their feedback with local knowledge on baseline, mitigation measures, and perception of the impact's significance and their views on project interventions.

### C. RECOMMENDATIONS

**Environmental Monitoring & Management Plan (EMMP):** The Environmental Monitoring & Management Plan (EMMP) for Imarat Residencies Project has been prepared keeping in view the anticipated environmental impacts during pre-construction, construction and operational stages of the project on the existing environmental conditions including air, soil, water, land, biodiversity and socio economic condition of the project area, and suggests appropriate measures to mitigate the potential adverse impacts and enhance the positive impacts. The compliance monitoring of mitigation measure implementation would be ensured through the implementation of the Environmental Monitoring Plan included in the EMMP. The EMMP will be included in the contract under specific conditions making it obligatory for the contractor to carry out the works assigned in the EMMP. The EMMP consists of the following sections:

- ✓ Legislations, Guidelines, and Environmental Standards

- ✓ Organizational structure and roles and responsibilities
- ✓ Mitigation Management Matrix (MMM)
- ✓ Environmental monitoring program
- ✓ Communication and documentation
- ✓ Change Management Plan
- ✓ Training program

Based on the findings, an environmental mitigation management plan and a comprehensive monitoring program has been proposed. Monitoring protocol provides details of parameters to be monitored, frequency, and location of sampling and monitoring points for ambient air stack emissions, soil contamination, surface-water, wastewater, and groundwater. The environmental monitoring at Planning, Construction and Post Construction with in-house monitoring to be carried out by the Contractor(s) will be the part of contract agreement.

The main conclusions of the EIA study include solid waste and wastewater management. Pollution of existing surface water resources and disruption to infrastructure facilities. Quality of life will be improved due to improved socioeconomic conditions in the project area. The moderate impact will be on land and due to generation of dust and exhaust gases and generation of high noise levels during the project construction and operation.

**Grievance Redressal Mechanism (GRM):**

A GRM has been proposed to receive, evaluate, and facilitate the resolution of affected people's concerns, complaints, and grievances. The GRM will provide a time bound and transparent mechanism to voice out and resolve social and environmental concerns linked to the project.