



Meezan Bank
The Premier Islamic Bank



Environmental Impact Assessment of Meezan Bank Regional Office Building Project, Islamabad

Final Report

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Executive Summary

Title of the Project

This report presents the findings of "Environmental Impact Assessment (EIA) of Meezan Bank Regional Office Building Project Islamabad".

The EIA study aims at the identification of the possible environmental and social impacts of the proposed project on its immediate surroundings on both short and long-term basis, suggesting mitigation measures and identifying the responsible agencies to implement those measures.

Location of the Project

The project site is located at Jinnah Avenue, G-8, Blue Area Islamabad. The proposed site is accessible via Jinnah Avenue through Service road in the north and Ibn-e-Sina road in the south.

Name of Proponent and Organization preparing the report

Meezan Bank Limited, Karachi is the proponent of the project.

M/s Project Procurement International, an Environmental and Management Consultancy Firm, Islamabad has prepared Environmental Impact Assessment of Meezan Bank Regional Office Building Project.

Outline of the Project

The objective of the project is to provide regional office building for the Meezan Bank Limited, and office facility for the business and corporate sector in the capital city of Islamabad.

The project site is located on plot no. 3 at the southern side of Blue Area (G-8), Islamabad, on a 200 ft. X 120 ft. plot. Meezan Bank Regional Office Building will have 23 floors above ground level and five basement levels. The proposed building height is 334 ft. Meezan Bank will keep five stories (Ground + four levels) for its Regional office, and rest of the floors is intended for rent to corporate and business sector.

The Meezan Bank Regional Office Building Project will be completed in 3 years, and the total estimated cost of Meezan Bank Regional Office Building Project is Rs. 2,824.931 million.

Environmental Baseline Conditions

In order to assess and evaluate the impacts and related mitigation measures, in the project area, existing conditions of physical, biological and the socio-economic environment were studied as under:

Physical Environment

Topography: Islamabad is located at 33.43°N 73.04°E at the northern edge of the Potohar Plateau and at the foot of the Margalla Hills in Islamabad Capital Territory.

The Potohar Plateau has an uneven table and land is gradually rising in elevation from 500 to 600 meters above the sea level, and the highest point is 1,600 meters above mean sea level. The land gradually slopes towards the South. The land is



composed either of alluvium (clay or silt) or of gravel caps. The plains are formed of alluvial deposits laid by the past and the present river systems of varying thickness. A large part of the area is undulating, and at various places, it is badly dissected by gullies and ravines. The Korang stream has been dammed at a place named Rawal to form the Rawal Lake. Another dam has been built on the Soan River to form the Simly Lake.

The Potohar plateau is a well-defined physiographic unit of Pakistan between the Indus basin plain and the foothills of Himalayas. It covers about 11,200 km² area bounded by Kala Chitta and Margalla hills in the North and the Salt Range in the South, Indus River in the West and Jhelum River in the East.

Geology and Soil: The soil in Potohar region are shallow clayey of low productivity. Mostly, on the Southern and Western aspects of the Potohar plateau, the soil is thin and infertile. Streams and ravines cut the loose plain, affected by gully erosion and steep slopes. Such land is unsuitable for cultivation. However, large patches of deep, fertile soil are found in the depressions and sheltered localities supporting quality small forests (Rakh), and rain-fed agriculture.

The soil of the project area is composed of clay/silt formed of alluvial deposits laid by the past and present river system in varying thickness. A large part of the area is undulating, and at various places, it is dissected by gullies and ravines.

Surface Water: Rawal Lake is a man-made water reservoir, located across Korang River at a distance of about 10 km from Rawalpindi. The Soan and Korang Rivers are the main streams draining in Islamabad area. Their primary tributaries are the Ling River, draining northwestward into the Soan; Gumreh Kas, draining westward into the Korang from the area between the Korang and Soan, and Lei Nullah, draining southward into the Soan from the mountain front and urban areas.

The Korang and Soan Rivers are dammed at Rawal and Simly Lakes, respectively, to supply water for the urban area. There is Nullah passing through Jinnah Avenue at the north-west of the project site.

Ground Water: The groundwater level ranges from approximately 65-85 ft. However, the main source of water supply is from CDA.

Land Use: Natural vegetation includes scrub, forest, and plantation which are about 38.15% in Islamabad in the year 2016. Bare soil covers more than 46%. The built-up area covers 15.14% of the total while water is only 0.44%.

Seismic Risk: Islamabad region can be divided into three major structural zones. Islamabad lies just at the edge of Hazara Fault Zone that consists of an arc of thrust and folded rocks about 25km wide and 150 km long that is convex to the south and extends west-southward away from the Himalayan syntaxes.

There are many thrust sheets in Islamabad area, some of these thrust faults are in front of Margalla Hills which extends north of Fetejjang and form Kala Chitta Range.

Climate: Islamabad has distinct seasons marked by the wide variation in temperature. The climate remains very salubrious from April to October, but the winters get very cold due to snowfall. The coldest months are December, January and February. The hottest months are June and July. Rainfall in April and May is occasional, but the heaviest rain is in July and August.



The temperature of capital territory Islamabad ranges between -1°C to 46°C . The coldest month is January when the mean maximum temperature is 18.3°C and mean minimum is 3.8°C .

From February to May the temperature rises at the rate of 5.0°C per month. The highest temperature reached in May when the mean maximum temperature remains 39.1°C .

Air Quality: A major anthropogenic source of air pollution in the project area is moderate to high traffic at Jinnah Avenue and Ibn-e-Sina road.

An ambient air quality monitoring was carried out at the project site for 24 hours. The time-averaged (24h) concentrations of SO_2 , NO , NO_2 , CO , O_3 , $\text{PM}_{2.5}$, PM_{10} and SPM were found to be $10.76\ \mu\text{g}/\text{m}^3$, $7.46\ \mu\text{g}/\text{m}^3$, $22.62\ \mu\text{g}/\text{m}^3$, $0.72\ \text{mg}/\text{m}^3$, $6.68\ \mu\text{g}/\text{m}^3$, $29.34\ \mu\text{g}/\text{m}^3$, $95.04\ \mu\text{g}/\text{m}^3$ and $304.12\ \mu\text{g}/\text{m}^3$ respectively. The ambient air quality for all the parameters monitored at the project site meets the NEQS limits.

Noise and Vibration: There is moderate to high traffic at Jinnah Avenue and Ibn-e-Sina road. The noise level data at the project site for daytime was $54.95\ \text{dB(A)}$ and $48.07\ \text{dB(A)}$ at night time. The average sound level was noted as $51.51\ \text{dB}$ for the 24 hours period. The Noise level measured at the project site was within commercial zone standards of NEQS.

Ecological Environment

Flora

The vegetation of Islamabad is a representative of Dry Subtropical Scrub Forest which is dominated by *Acacia modesta* (Phulai), *Ziziphus mauritiana* (Ber); *Ziziphus nummularia* (Mullah), etc. Other associates existing in varying proportions include *Prosopis cineraria* (Jand), *Melia azadirachta* (Dharek); *Morus alba* (Mulberry-Shahtoot); *Dalbergia sissoo* (Tahli-Shisham); *Acacia nilotica* (Kiker). In the undergrowth *Cannabis sativa* (Bhang), *Calotropis procera* (Desi Ak), *Parthenium hysterophorous* (Gandi Booti) and *Ocimum bacilicum* (Niazbo) are predominant.

There are only 4 trees (2 are of *Morus alba*, and 2 are *Dalbergia sissoo* trees) at the project site.

Fauna

In its original form, the Dry Subtropical Scrub Forest constituted the habitat of wild fauna consisting of a host of animals and birds. As the disturbance increased to a maximum level with complete inhabitation, wildlife abundance and diversity decreased to a minimum degree. Mammals commonly found in the project area are Rat, Wild boar and Pocopine, birds include Quail, House Sparrow and House Crow and reptiles common in the area are Monitor Lizard, and Spin tailed lizard.

Protected Areas/National Sanctuaries

Located in the north of the project site, at a distance of about 4 km is the Margalla Hills National Park which is the only *Protected Area*, in the vicinity.

Margalla Hills National Park is rich in biodiversity, and many plants and animals are remnants of the community from the great Himalayan ecosystem comprising Subtropical Chir Pine Forest type and Dry-Subtropical Semi-evergreen Scrub Forest type.



Socio-Economic and Cultural Environment

The socio-cultural and socio-economic conditions of the local community in the project area namely F-8/4, G-7/1, G-8/3 and G-7/2 are described in the report. This area may get direct positive or negative impacts from the construction of Meezan Bank Regional Office Building Project.

Public Consultation

During the public consultation, meetings were held with the concern officials at CDA, IESCO, the Centaurus Mall, PIMS hospitals, local vendors and business owners and community living around the project site. The project activities impact the physical, biological, and socio-economic environment of the project area were highlighted to them. Stakeholders concerns regarding various aspect, existing environment, and impacts of the project were noted, and mitigation measures are proposed in the EIA report.

Much of the public consultation process has revolved around concerns for the mitigation of construction stage and operational stage impacts. The information obtained from the community was used to identify concerns and issues that have been subsequently mentioned and addressed in the EIA report.

Major Impacts and Recommended Mitigation Measures

Physical Environment

Impacts: The soil-related issues include soil erosion, slope stability, and soil contamination. The land clearing, levelling and grading, excavation and filling, construction activities and maintenance of equipment/vehicles may cause these issues. The quality of soil would be affected, as soil contamination would occur because of disposal of untreated wastewater or direct disposal of chemical and onsite preparation of materials. Oils, chemical spills and waste from campsites may also deteriorate the quality of the soil.

Dumping of construction wastes/excavated material, in the surrounding area, may limit the use of land in the project area. The solid waste may be generated due to different construction activities, and it will mainly include surplus excavated and construction material.

Land use change is expected during the construction phase, one at the burrow areas and other where the spoil or mucking material will be disposed of.

Construction machinery and project vehicles will release exhaust emissions, containing Carbon Monoxide (CO), Oxides of Sulfur (SO_x), Oxides of Nitrogen (NO_x), and Particulate Matter (PM). In addition, various burning activities involved in roads construction will also cause air pollution.

These emissions can deteriorate the ambient air quality in the immediate vicinity of the project site. Furthermore, construction activities such as excavation, land levelling, filling and vehicular movement on unpaved tracks may also cause fugitive dust emissions.

Noise and vibration will be generated by construction machinery and vehicles.

The quality of water may deteriorate in the area. During the deep excavation, the aquifer may be hit, and quality of water will be depleted. Because of preparation of



construction material on site, leachate may be produced and percolated through the soil. It may then reach the water table and contaminate the water that may be consumed by the local people.

Meezan Bank Regional Office Building Project is being developed in an area with a commercial setting. There is very limited vegetation on project site, but still, there is a need to maintain much of its existing landscape and vegetation.

The project is 23 story above the ground level so, the sun rises during the morning will cast low shadows, but with time, the shadow of the proposed building would increase and will fall on the buildings towards the northwest and on Jinnah Avenue. The green belt would be under the continuous effect of the shadow from the Meezan Bank Regional Office Building Project.

Mitigations: Soil erosion can be minimized by appropriate land clearing, levelling and grading. Excavated slopes will not be left untreated/unattended for long durations, and appropriate slope stabilization measures will be taken as per the design.

For the domestic sewage from the contractor's camp, a septic tank with soaking pit will be constructed having adequate capacity. Waste oils will be collected in drums and sold to the recycling contractor.

The recyclable waste from the project site (such as cardboard, drums, broken/used parts, etc.) will be sold to recycling contractors, or where appropriate to reuse/recycle it. The hazardous waste will be kept separate and handled according to the nature of the waste. While storing, hazardous waste will be marked.

Shade-loving plants will be planted to reduce the impacts of the shadows on the plants.

Ecological Environment

Impacts: The project area has a limited natural vegetation cover. The site preparation and construction activities may necessitate removal of the natural vegetation. Damage and/or loss of vegetation and clearing of other indigenous and introduced species, as well as undergrowth species which comprising bushes, grass, etc. will also lose.

The project site is located in a commercial area of Islamabad, which provides less and minor habitat for wildlife. The loss of natural vegetation and other project activities will potentially have adverse impacts on the local fauna and habitats of the area as well. Smoke, chemicals, dust particles, and noise generated by heavy machinery are a scaring factor for wildlife. Rodents, hedgehogs, porcupines would lose their abode. Similarly, natural population of wild boar, also considered a pest, is maximum due to lack of predators in the project area.

Mitigations: Endeavors will be made to compensate for the loss by enhancing the environment, through a plantation of trees and ornamental plants. A plantation plan for Meezan Bank Regional Office Building Project has been prepared. The plan has a mix of appropriate trees/bushes which will be raised within the available open spaces within the premises of Meezan Bank Regional Office Building Project. All preventive measures will be adopted to control the spill-over of chemicals and other effluents on the ground to protect soil fauna and ensure microbial activity according to the NEQS. A record will be maintained for any tree cutting. The construction crew



will be provided with LPG as cooking (and heating, if required) fuel. Use of fuelwood will not be allowed at the contractor camp.

Environmental Management Plan and Proposed Monitoring

The purpose of the Environmental Mitigation Plan (EMP) is to minimize the potential environmental impacts due to the project. The EMP reflects the commitment of Meezan Bank Limited to safeguard the environment as well as the surrounding population.

The EMP provides a delivery mechanism to address the adverse environmental impacts, to enhance the project's benefits and to introduce standards of best practices to be adopted for all phases of the project.

The contractor will prepare a Quarterly Environmental Monitoring Report of project activities carried out during the construction phase of the project. These reports will be submitted to Pakistan Environmental Protection Agency for their review and consideration. The total Environmental Mitigation & Monitoring Cost is Rs. 3.54 million.

Conclusion and Recommendations

On the basis of the overall impact assessment, more specifically, nature and magnitude of the residual environmental impacts identified during the present EIA, it is concluded that Meezan Bank Regional Office Building Project is likely to cause environmental impacts during its constructional phase. However, these impacts can be mitigated provided that the proposed project activities are carried out as mentioned in the report, and the mitigation measures included in this report are completely and effectively implemented.

There are no remaining issues that warrant further investigation. This EIA is considered adequate for the environmental and social justification of the project.

