

# ENVIRONMENTAL IMPACT ASSESSMENT

MOIZ CHEMICALS (PVT.) LIMITED

708 Sunder Industrial Estate

## EXECUTIVE SUMMARY

This executive summary presents an overview of the main findings of the Environmental Impact Assessment Report for establishing Industrial Warehouse under the name of Moiz Chemicals (Pvt.) Limited of 1 Kanals of area, located at 708, Sunder Industrial Estate. The main goal of this project is to provide better quality services for distribution of industrial chemicals to local customers.

### 1. Introduction

The proposed project involved in construction of Industrial warehouse for storage of different industrial chemicals for distribution to different local manufacturers. Thus, an EIA Report is being prepared and submitted accordingly for environmental approval.

The estimated project cost is **20 Million PKR.**

### 2. Project Description

The Project comprise of construction of Industrial Warehouse for storage of industrial chemicals especially Food Emulsifier. Hence, the EIA of Moiz Chemicals (Pvt.) Limited is being submitted for environmental approval.

#### Salient Features of Project

Sr#	Project Salient Features	
1	Project Title	Moiz Chemicals (Pvt.) Limited
2	Purpose of Project	<b>Construction of Industrial Warehouse</b>
3	Total Area of Project	<b>1 Kanal</b>
4	Cost of the Project	<b>20 Million PKR</b>

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<b>5</b>	Proponent Name	<b><i>Bilal Amin S/o Safdar Amin</i></b>
<b>6</b>	Tree Planation	<b><i>At Designated Green Areas</i></b>
<b>7</b>	Water Source	<b><i>Sunder Industrial Estate Connection</i></b>
<b>8</b>	Source of Power	<b><i>Sunder Industrial Estate</i></b>

### 3. Impacts and Recommended Mitigation Measures

Environmental Parameters	Impact Assessment during Different Phases	
	Construction	Operational
<b>A: Physical</b>		
<b>Land Resources</b>		
Soil Erosion and Contamination	NA	NA
Transportation	-1t	-1t
Solid Waste and By-Products	NA	NA
Land Use	NA	NA
<b>Air Resources</b>		
Noise Pollution	-1t	NA
Air Emission	-1t	NA

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Dust	-1t	NA
Odor	NA	NA
<b>Water Resources</b>		
Ground Water	NA	NA

In order to identify all the impacts associated with the project during construction and operational activity with potential to cause adverse environmental impacts, a thorough review has been conducted. Although, there is very low chances of any adverse impact occurrence on the surrounding environment. However, in case of impact arises from the project activity possible necessary measures will be adopted to control the same. Overall the project has positive social impacts specifically on the local population and generally contributes in Pakistan's GDP. The project may have some adverse environmental impacts of minor to moderate magnitude which will be controlled through mitigation measures proposed in Environmental Management and Monitoring Plan (EMMP). Environmental impacts have been identified and mitigation measures are recommended within the Project Area of Influence; which lies within 1.0 km boundary of the proposed project facilities. The major impacts on physical, biological and social environments are described as under:

## Impact Summary

Surface Water	NA	NA
Wastewater	NA	NA
<b>B : Ecological</b>		
<b>Flora</b>		
Tree Cutting	-1p	+1p
<b>Fauna</b>		

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Terrestrial Fauna	-1p	+1p
<b>C: Socio-Economic</b>		
Employment Opportunities	+1t	+1p
<b>D: Hazards</b>		
Biological Hazards	NA	NA
Chemical Hazards	NA	NA
Health and Safety	-1t	-1p
Legends: 1= Low; 2= Medium; 3= High; 4= Extremely High; NA= Not Applicable; t= Temporary; p= Permanent; app= Applicable; 0= Negligible		

## 4. Environmental and Social Monitoring Plan

Environmental Management and Monitoring Plan (EMMP) were developed for effective implementation of the recommended mitigation measures. The EMMP includes check and balance to control and minimize the identified impacts and monitoring programs to oversee residual impacts, if any, during the operational phase. The EMMP describes procedures to be followed throughout the construction and operation of the project. It also identifies the roles and responsibilities of all concerned personnel, including the persons reporting during the different project phases. Mitigations for physical, biological and socio-economic parameters will be measured to determine compliance with standards established in EMMP. The Monitoring Plan will record the inputs provided by various participants in the environmental and social management process. It will also check whether the prescribed national and provincial guidelines and plans are being followed and that the required mitigation measures and activities are being accomplished in time.

## 5. Monitoring Plans

During operational phase, monitoring is required to be carried out at least once in a month during rainy season to check surface water level/condition. Moreover, periodic monitoring should also be carried out regarding ambient air quality, noise and dust level and worker safety. A detailed site monitoring plan has been developed and given in Chapter-6 of this EIA Report.

## 6. Conclusion

The findings of EIA Report showed that although the Construction of Industrial Warehouse is expected to have minor to moderate negative impacts on the environment during the construction but these impacts can be reduced significantly by adopting EMMP. These impacts were assessed by frequent site visits.

## 7. Recommendations

During construction of Industrial warehouse proper labor law with respect to safety should be followed:

- ⊙ Proper PPEs including gloves, face masks, head gear etc. will be provided to labor
- ⊙ No compromise on public health and environment should be allowed.
- ⊙ Water should be sprinkled regularly to avoid dust pollution during movement of vehicles.
- ⊙ In order to control noise pollution during construction of industrial warehouse working hour of labor should be limited.
- ⊙ Fire drill, First Aid should be available at sight.
- ⊙ A proper tree plantation plan should also be developed in order to make the process environment friendly
- ⊙ Small domestic waste storage bins should be placed at different locations for proper collection and disposal of the solid waste
- ⊙ It is recommended that the Proponent should obtain an Environmental Approval (NOC) from the Punjab-EPA before proceeding further

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## **GLOSSARY**

### **Environmental Management System (EMS):**

A set of management process and procedure that allows an organization to analyses and reduce the environmental impacts of its activities. Environmental Monitoring Systematic, geo-referenced observations of the environment essential to detecting changes in ecosystems over time. Environmental Protection Plan (EPP) a practical tool that describes the actions required to minimize environmental effects before, during and after project implementation. The plan may include details about the implementation of the mitigation measures identified in the environmental assessment, such as who is responsible for implementation, where the measures are intended to be implemented, and within what timeframe.

## **1 INTRODUCTION**

### **1.1 Project Background**

Pakistan being a developing country, many manufacturers of Pakistan are developing products which are being exporting to different countries, such export help in increasing the foreign reserve of Pakistan, we, Moiz chemicals (Pvt.) Limited imported the good quality raw material being used in different industries for manufacturing of good for local market & export. That's why we are constructing industrial warehouse for storage in order to supply timely.

### **1.2 Project Nature and Size**

The proposed project will involve manufacturing of Industrial warehouse for storage of different industrial chemicals for local manufacturers. Following are the sectors for which industrial chemicals can be stored for local manufacturer.

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Sr#	Target Industry	Specification
1.	Dairy Industry	Emulsifier & Texturing System
2.	Shoe Industry	PU for Shoe Sole
3.	Chocolate Industry	Cocoa Powder
4.	Refrigeration Industry	PU Insulation
5.	Plastic Industry	Polyethylene
6.	Leather Industry	Polyvinyl Chloride
7.	Cosmetics	Silicones

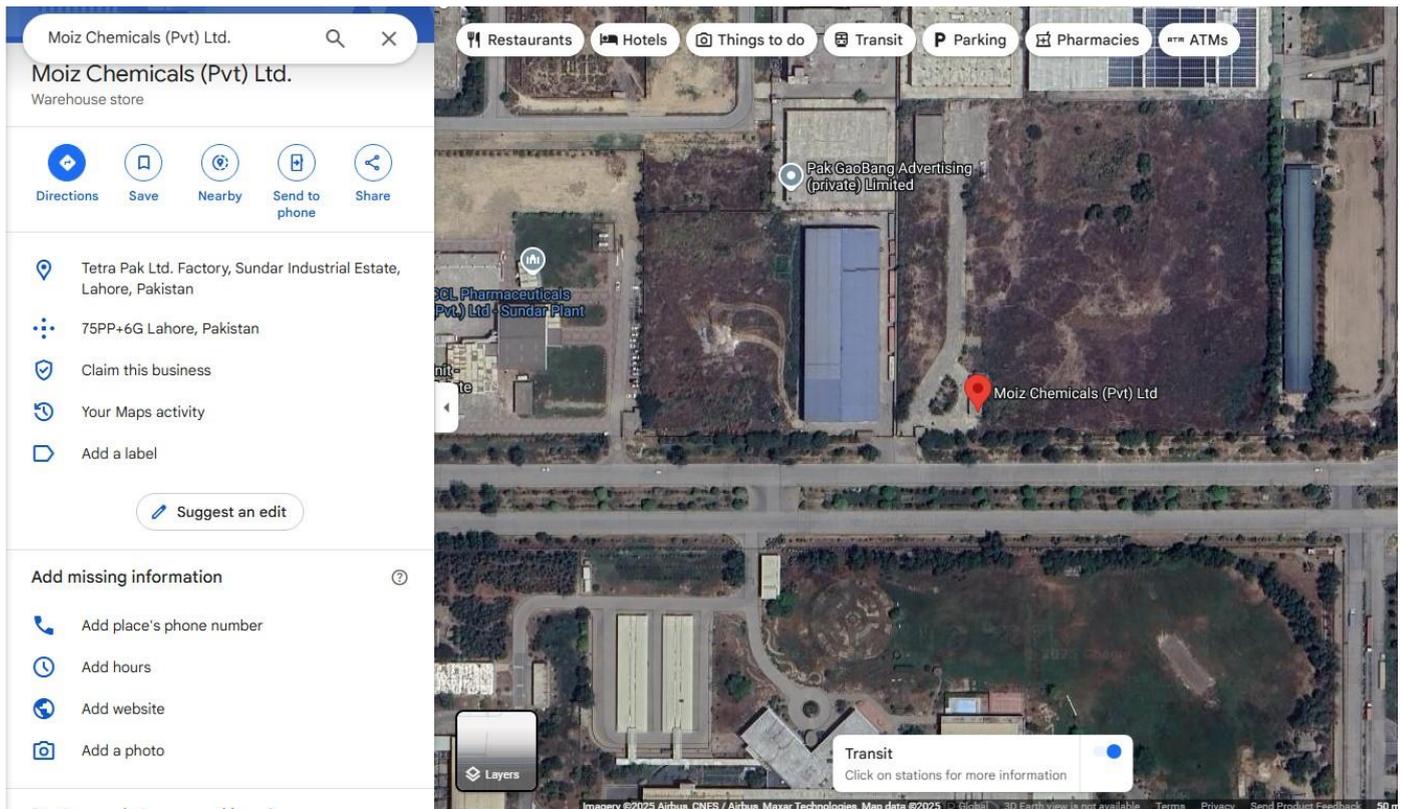
## 1.3 Project Location

The proposed location for construction of Industrial warehouse of Moiz Chemicals (Pvt.) Limited is 708-Sunder industrial estate. The geographical location of the proposed area is as follow:

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**Figure 1: Area of Moiz Chemicals (Pvt.) Limited**

## 1.4 Regulatory Compliance

As per IEE/EIA Regulations 2000, it is mandatory for the proponent of any development project to obtain Environmental Approval (NOC) from EPA by filing an IEE or EIA as the case may be. The said project is proposed by the proponent to meet the ever-increasing demand of raw material for the development projects. The purpose of this study is to identify the environmental and social baseline of the project and study area i.e., physical, biological, socio-economic, cultural changes and to assess all possible impacts anticipated during the installation and operation phases of the proposed project with the aim to find out appropriate mitigation measures to either eliminate those impacts or to bring them to

acceptable level as well as to formulate Environmental Management and Monitoring Plan (EMMP) for implementation in sustainable manner. This EIA Report provides relevant

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information as required under the officially approved format, to help the decision makers i.e., EPA Punjab before issuing for the Environmental Approval.

Following rules, regulations and acts are considered for the commencement of the proposed project:

- ⇒ Punjab Environmental Protection Act, 1997 (Amended 2012)
- ⇒ Punjab Environmental Quality Standards (PEQS)
- ⇒ Self-Monitoring and Reporting Rules (SMART)
- ⇒ Environmental, Health and Safety Guidelines

## 1.5 **The Proponent**

The details of the proponent of the proposed project are given below:

**Table 2 Details of Proponent**

1	<b>Name</b>	<b>Bilal Amin S/o Safdar Amin</b>
2	Company	Moiz Chemicals (Pvt.) Limited
3	Address	708, Sunder Industrial Estate

## 1.6 **Purpose of Report**

The main objectives of this EIA Study were:

- ⊙ To determine and record the state of the environment of the project area to establish a baseline in order to assess the suitability of the project in that proposed area
- ⊙ To identify pre-construction/design, construction and operation activities and to assess their impacts on environment
- ⊙ Provide assistance to the proponent for planning, designing and implementing the project in a way that would eliminate or minimize the negative impact on the biophysical and socio-economic environment and maximizing the benefits to all parties

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in the cost-effective manner

- ⊙ To present mitigation and monitoring plan for smooth implementation of the suggested mitigation measures and supervise their efficiency and effectiveness
- ⊙ To provide opportunity to the public for understanding the project and its impacts on the community and their environment in the context of sustainable development
- Prepare an EIA Report for submission to the EPA, Punjab for Environmental Approval (NOC).

## **2 Screening and Scoping**

### **2.1 Alternatives**

The details of the site alternatives are discussed below:

#### **2.1.1 Site Alternatives**

No other site alternative was available to be considered as feasible option for the construction of Industrial warehouse as the land is owned by the proponent. The proposed site was selected because of the following reasons;

- The Proponent purchase the land in Sunder industrial estate so that business should be established in industrial area.
- By contracting industrial ware house in the industrial area helps to avoid the agricultural land to be purchased.
- All the facilities required by the industry is being provided by sunder industrial estate.
- The site is well connected to the other parts of the country through main ring road.
- No human settlements displacement or relocation associated with the project development and operation.

## **3 PROJECT DESCRIPTION**

This section of the study concentrates on details of the project and its salient features; such as its location, site layout, objectives, selection of alternative sites and technology, cost and magnitude of operation at various phases and process employed for the construction of

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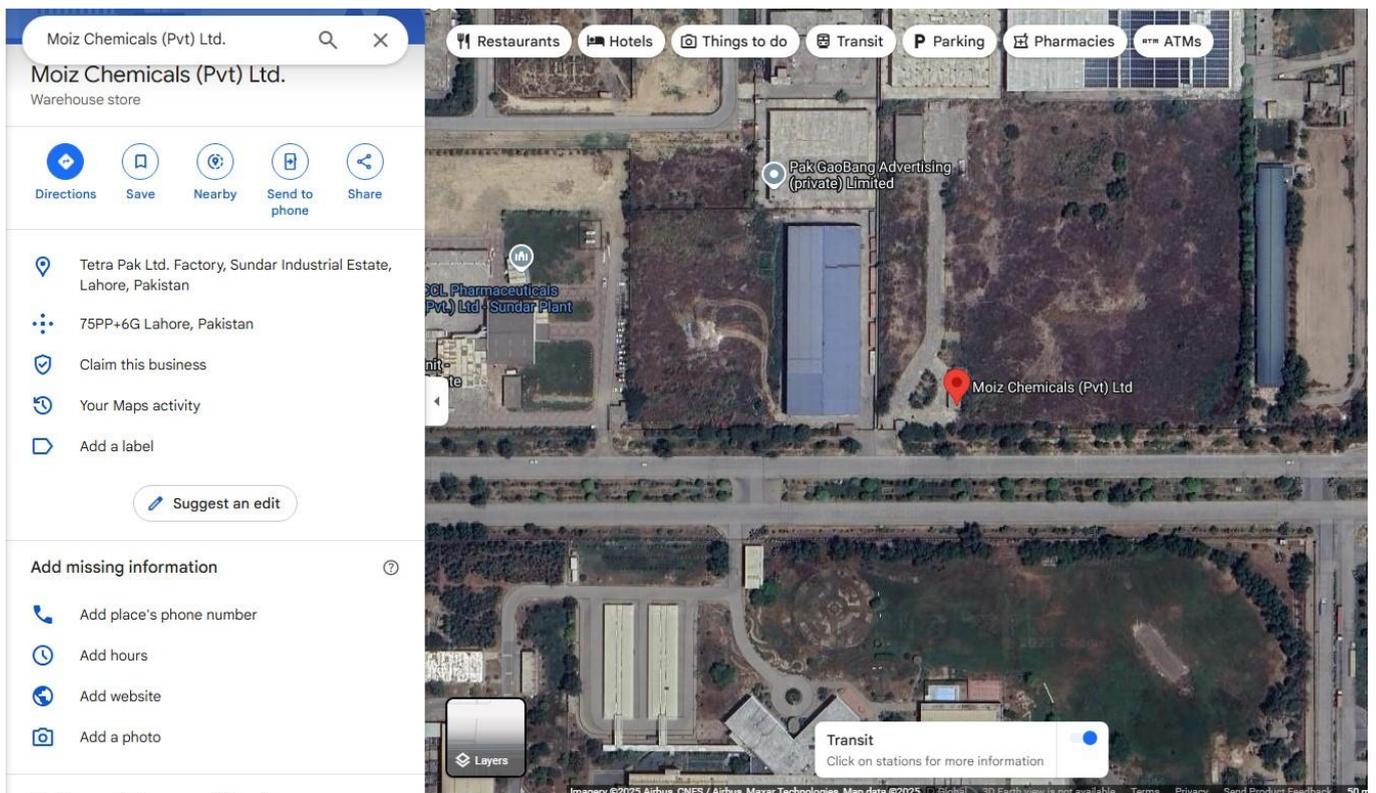
Industrial warehouse.

## 3.1 Objectives of Project

The overall aim of the project is to construct the industrial warehouse at Sunder Industrial Estate.

## 3.2 Location and Layout of Project

The proposed location for the construction of proposed project of Moiz Chemicals (Pvt.) Limited is located at 708, Sunder Industrial Estate.



**Table 5: Distance of Project Area from Sensitive Receptors**

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### 3.3 Land Use on Site

The proposed project is use the land of sunder industrial estate.

### 3.4 Road Access

Project site is linked to Multan Road & Ring Road.

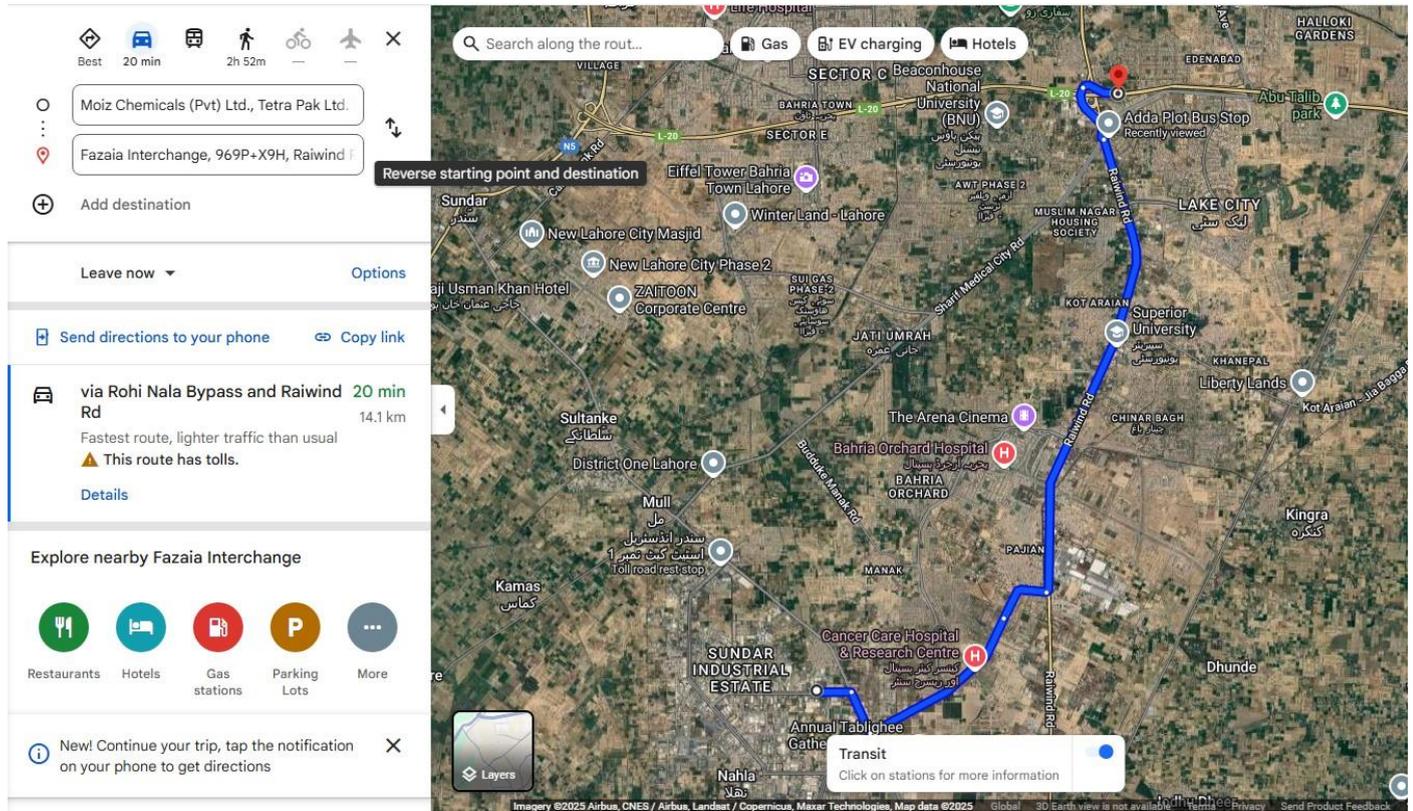
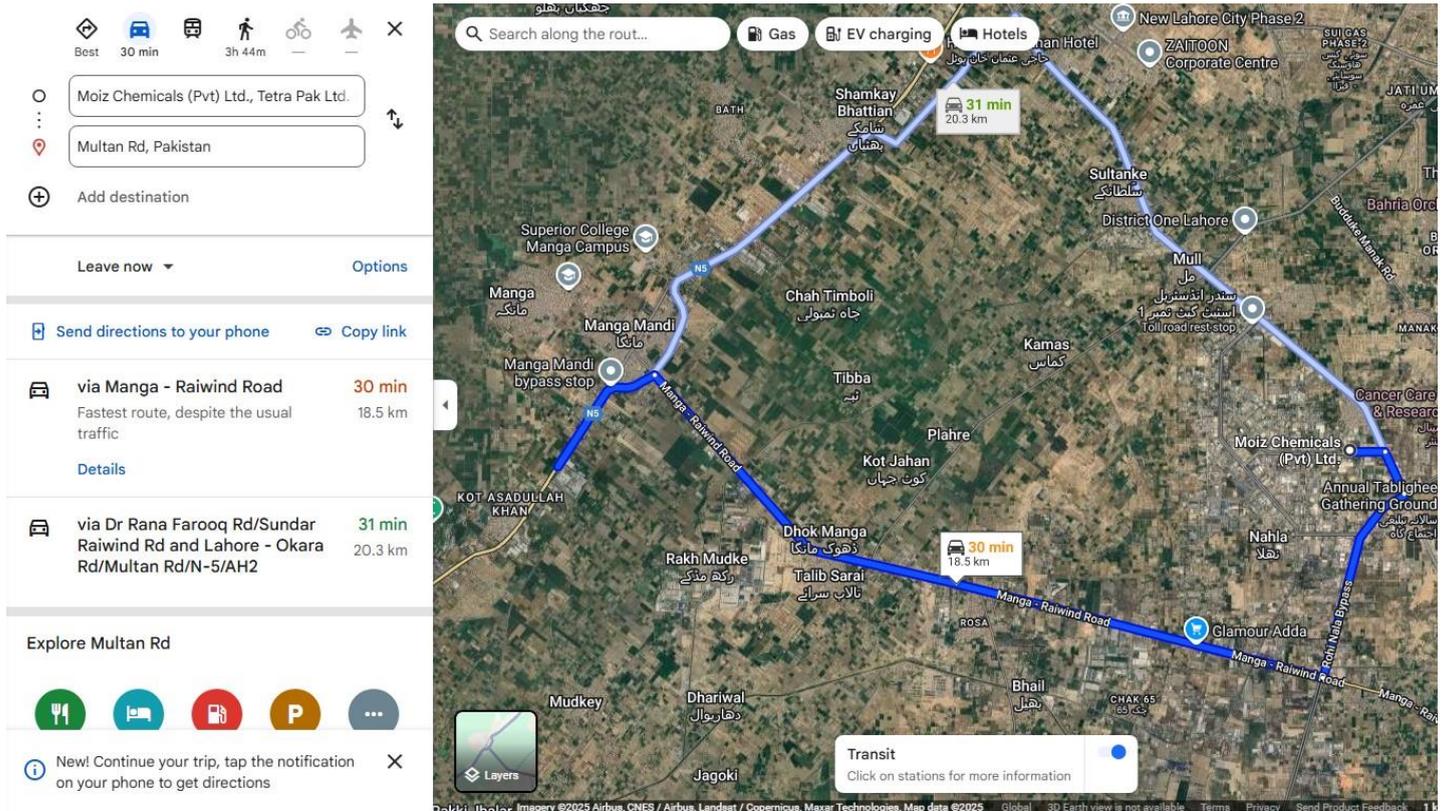


Figure: Road Access Plan to Ring Road

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**Figure: Road Access Plan to Multan Road**

## 3.5 Vegetative Features

The area around the project area is agricultural cum industrial. The main crops grown around the project area includes; rice, cotton and maize whereas, the vegetative features of the area include; safeda, bari, neem and kikar.

**Table 7: Vegetative Features of the Project Area**

Sr.#	Local Name	Type	Biological Name
1	Kikar	Throne Tree	Prosopis juliflora

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2	Safeda	Tree	Eucalyptus
3	Sheesham	Tree	Dalbergia sissoo
4	Peepal	Tropical Tree	Ficus religiosa
5	Wild Grasses	Grass	--

## Electricity

Electricity will be purchased from Sunder Industrial Estate.

### 3.5.1 Ground Water Resource

During operational phase ground water will be consumed. There is no water bore & water connection will be taken from Sunder Industrial Estate.

## 3.6 Management Plans

Following management plans will be employed to reduce the impact of the proposed activity

### 3.6.1 Air Emissions

Particulate dust will be generated during construction phase there will be no air pollutants emissions during the operational phase. For safety purpose the workers dealing with the

process activities will be provided with masks, safety shoes and all other necessary PPEs. To reduce the public nuisance native trees will be planted on the boundary to reduce the nuisance and to reclaim the disturbed soil effectively.

**3.6.2 Waste Management**

The solid waste will be generated during the worker’s mess and other domestic activities. The amount of the solid waste generated will be quite low, which will be disposed off, by using sustainable practices of the compost manufacturing. The generated waste will be collected in the bins and at the end of the day it will be dumped in the ground. The generated compost will be used for the horticultural practices at site.

No hazardous waste will be generated in the process activity. Regular training will be given to the workers dealing with the waste management it will include identification, segregation and management of waste.

**3.7 Staff/Manpower**

Around 10 workers will be required during construction of warehouse. The breakdown of the workers employed is given below:

**Table 9: Details of the Officers**

<b>Sr#</b>	<b>Designation</b>	<b>No.</b>
1	Site Manager	01
2	Labor including Mansion	05
3	Guard	02
4	Warehouse worker	02
<b>Total Manpower</b>		<b>10</b>

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## **Emergency Preparedness**

The company has to install fire alarm system & Fire extinguisher at sight for safe guard of worker.

### **3.7.1 Use of Drugs and Narcotics**

Drugs and narcotics are strictly prohibited during working hours in working area. Smoking will be only allowed during rest timings at properly isolated places.

### **3.7.2 Personal Protective Equipment's**

Following Personal Protective Equipment (PPEs) will be provided to the workers during construction:

- ✓ Safety Helmet
- ✓ Safety Shoes/Dry Shoes
- ✓ Dust Mask
- ✓ Safety Gloves
- ✓ Safety Jackets
- ✓ Earmuffs
- ✓ Insulating Gloves and Suits

## **3.8 Cost and Magnitude of Operation**

The proposed project includes the construction of warehouse. The cost of the project is appox. 20 million.

### **3.9 Relocation and Rehabilitation Plan**

No structure of any significance stands at the site is proposed to be relocated or dismantled. The project area is owned by the proponent. So, no restoration and rehabilitation is required

### **3.10 Land ownership Documents**

Land ownership documents have been attached, which clearly shows that the selected area for the construction of Industrial ware house has been owned by the proponent.

### **3.11 Schedule of implementation**

The completion duration of industrial warehouse is 6-9 months. There will be a symmetrical process. The process is divided in to 3 phases

#### ***Preconstruction phase***

This phase includes:

- Site investigation & Evaluation
- Budgeting
- Design
- Schedules of working
- Obtaining all relevant NOC

#### ***Construction phase***

This phase includes:

- Management team & Construction Crew
- Excavation
- Construction of building
- Provision of allied facilities
- Mitigation process

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- Managing safety
- Monitoring & Evaluation

## ***Operational phase***

This phase includes:

- Implementation of fire safety, emergency evacuation plans
- Security management

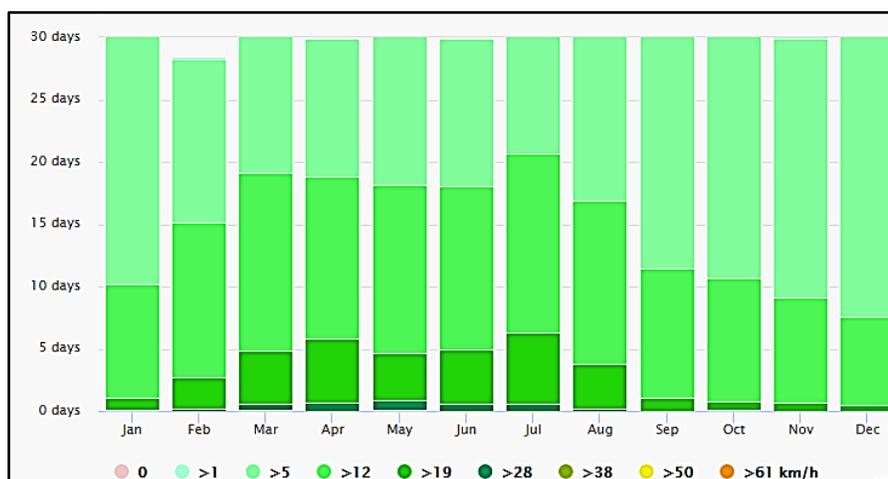
### **3.12 Government Approvals**

Moiz Chemicals (Pvt.) Limited is seeking for environmental approval from EPA Punjab.

#### **Following are the factors also kept in study for NOC**

#### **Wind**

The region experiences westerly and north westerly winds during the winter and spring seasons, known usually as the dry stable times of year and southerly and south easterly winds during summer and monsoons. Wind speeds are low during winter picking up during spring season and peaking during the summer months. The prevalent wind speed ranges from 10-25 km/h, however on some days, there appear storms of 60 km/h.

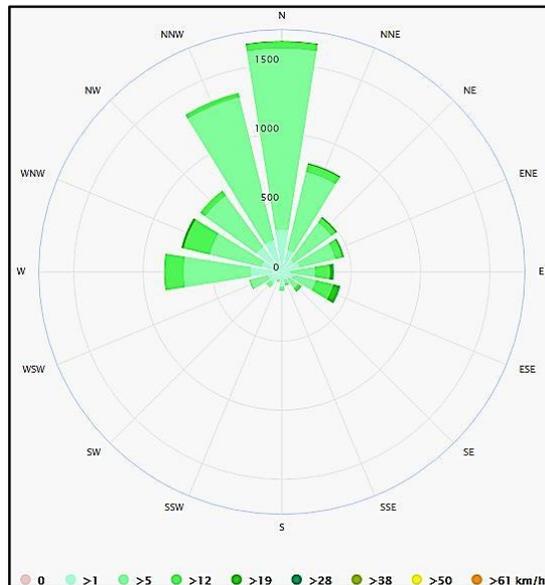


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## Annual average wind speed in Lahore



**Wind Rose diagram of Lahore**

### **Project Site:**

Wind direction observed at site was NW and speed was 10 km/H.

### **Noise Level**

Noise is described as an unwanted sound emitted from un-avoidable sources of anthropogenic activities. Daily based natural induced sources of noise are rare to none but human induced noise sources are plenty and un-avoidable. Physically, there is no distinction between sound and noise. Sound is a sensory perception and the complex pattern of sound waves is labelled noise, music, speech, low altitude aero plane flying etc.

Environmental noise is a common cause of hearing loss of people indulged in industrial activities. Noise pollution in the city is on the rise with most residents complaining that

the noise is becoming a public nuisance.

## **Ambient Air Quality**

The degradation of air quality in all the large cities is a major environmental concern these days. Air pollution levels in urban centers have either crossed safe limits given in the PEQS or have reached the threshold values.

About 60 to 70 % of the deterioration in the air quality is due to the vehicular emissions. The parameters which have proved to be the major threat are particulate matter and concentration of oxides of nitrogen that are relatively higher in all the large cities of Punjab.

Atmospheric pollution particularly in urban area has a strong impact upon daily life. Lahore is the main city of Pakistan. Its economic growth, industrial progression & transport have risen to grounds responsible for growing energy consumption leading ultimately to the consequences of increase in air pollution.

## **Project Site:**

Ambient air quality was monitored during field survey of site.

## **BIOLOGICAL ENVIRONMENT**

Lahore is enriched with the presence of natural flora and fauna, although with the growing population and development activities, the presence of the sum has been somewhat affected.

There are however no significant or well-shaped trees and shrubs on the project site. There are some trees only along the main roads.

## **Flora**

Trees, also called the 'lungs' of the earth, are important for the restoration of the

ecosystem. People can benefit incalculably from their survival and existence. Trees have also been a source of medicine for thousands of years and a refuge for various species of birds.

Project Site:

No threatened or endangered species and medicinal plants are present in the project area. No vegetation or plants will be removed due to commencement of project as the site was clear and no flora existed there.

However proper tree plantation and green belts are planned by the proponent. Greenery and trees are present in surroundings of site too.

## **Fauna**

With an increase in the rate of urbanization, the ecology of Lahore has been considerably affected but there is no threatened or endangered species found in the project site. No wildlife was present there. Only cats, dogs, sparrows and crows passed by temporarily. No permanent habitat of any fauna was found.

## **MEASURE**

This Chapter identifies the potential impacts (positive and adverse) on the physical, biological and socio-economic environment of project area due to construction of Industrial Warehouse.

### **7.1 Impact Evaluation**

Impact screening checklist and project impact evaluation matrix have been developed to evaluate the potential impacts of construction of Industrial Warehouse on the basis

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of set procedures as given in the environmental guidelines by Punjab EPA.

## **7.1.1 Methodology for Impact Evaluation**

These tools have been used to identify the significance and magnitude of the impact as well as the nature, reversibility and extent:

1. An Impact Screening Checklist
2. Project Impact Evaluation Matrix

Following is given a brief description of assessment tools:

### **a) Impact Screening Checklist**

The impact screening checklist is developed to screen out the potentially insignificant environmental and social impacts from the potentially significant adverse environmental and social impacts during planning & designing, construction and operational phases of the project. The objective of the impact screening process is to assess the significance of the issues related to the air, water, noise, soil, transportation, communication, the hazards and external constraints. The positive and adverse impacts of the project during planning & designing, construction and operational phases are identified based on their duration,

location, frequency, extent, significance and reversibility. Each activity impacts on various environmental parameters are given below:

### **b) Project Impact Evaluation Matrix**

The Project Impact Evaluation Matrix was developed by placing different environmental parameters that are likely to be affected by the proposed project actions, grouped into categories i.e., physical, ecological and socio-economic environment. For the impact assessment risk assessment methodology was used. Moreover, the risk assessment was

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done on the basis of project phases (planning & designing, construction and operation).

A Project Impact Evaluation Matrix is attached as Table below:

**Table 12: Impact Evaluation Matrix**

<b>Environmental Parameters</b>	<b>Impact Assessment during operational Phase</b>
<b>A: Physical</b>	
<b>Land Resources</b>	
Soil Erosion and Contamination	NA
Transportation	-1t
Solid Waste and By-Products	NA
<b>Air Resources (Only during Construction)</b>	
Noise Pollution	-1t
Air Pollution	-1t
Dust Emissions	-1t
<b>Water Resources</b>	
Ground Water	-1p
Surface Water	NA
<b>B : Ecological</b>	
<b>Flora</b>	

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Tree Cutting	NA
<b>Fauna</b>	
Terrestrial Fauna	NA
<b>C: Socio-Economic</b>	
Employment Opportunities	+2p
Land Value Appreciation	+2t
Availability of Local Raw-Material	+2p
<b>D: Hazards</b>	
Physical Hazards	-1p
Health and Safety	-1p
Legends: 1= Low; 2= Medium; 3= High; 4= Extremely High; NA= Not Applicable; t= Temporary; p= Permanent; app= Applicable; 0= Negligible	

## 7.2 Impact and Mitigation Management

Purpose of mitigation is to evade, reduce or balance the expected antagonistic effects in suitable way and to integrate these for devising environmental management strategy or plan. At every stage of the project, mitigation plan for all the adverse impacts should be predicted to find out the best alternative. The objectives of mitigation are to:

- ★ Invention of best substitution, better alternatives and ways to reduce the adverse environmental and social impacts on the surroundings

- ★ To improve the environmental and societal payback of the project
- ★ To prevaricate, remedy or reduce, pro-vocative impacts
- ★ To certify that remaining negative influences are kept within permissible limits

In this part of the EIA Report, several complications including cleanliness, environmental health and safety, societal and environmental managing and inspection, industrial vulnerability, tools and apparatuses and during operational activities, influx of workers and procurement of land have been deeply elaborated.

### **7.3 Expected Positive Impacts**

Following are the expected outcome of construction of industrial warehouse.

#### **7.3.1 Increase in Employment Opportunities**

Due to the establishment of industrial warehouse the employment opportunity will be enhanced. During construction phase 10 workers will work and during operational phase the manpower number may be up to 10. It will include technical and non-technical staff.

#### **7.3.2 Economic Uplift of the Area**

In addition to all these benefits, the project will result in the general economic and social uplift in the areas of the Punjab Province as it will provide raw material to different industrial manufacturer.

#### **7.3.3 Raw-Material Availability**

Industrial warehouse helps to store the different industrial chemicals along with timely supply to industrial manufacturers.

#### **Location**

The project is proposed to be installed in sunder industrial estate. No residential

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community is located There is no human settlement, heritage building, social structure, grassland or preserved area in the project vicinity that could be damaged, dislocated or dismantled due to the project activity in the proposed area.

## **Nature of Impact**

The nature of the proposed impact will be direct, low, short-term and hence in-significant.

## Mitigation

Following mitigations measures will be adopted to reduce the land use impact:

- ★ Unnecessary up-rooting and disturbance to the native vegetation should be avoided up to the extent possible
- ★ The designated green area will be vegetated and native vegetation present on-site will be preserved
- ★ It is suggested that a green area should be defined and thick trees plantation should be carried out along the boundaries of the project area to decrease the rate of soil erosion
- ★ Preferably trees and other vegetation should be planted extensively so that a buffer zone around project area can be created
- ★ Vegetation will not only enhance the aesthetic outlook of the area but it will also absorb pollution from the atmosphere

## **7.3.4 Impacts and Mitigations during Construction Phase**

Following impacts are anticipated to occur and affect the nearby communities due to the establishment of fertilizer unit:

### **i. Impacts of Dust and Exhaust Emissions**

Air quality is expected to deteriorate locally due to mainly fugitive dust emission and exhaust emission from vehicles, which will have short-term but moderate impacts on local environment. Soil erosion may occur in small areas and they may be prone to open space for wind to pick up dust particles. This impact is considered to be negative of minor magnitude. The effect due to construction is however, of temporary nature and will have no permanent impact on environment.

### **Nature of Impact**

The nature of the proposed impact will be direct, medium, short-term and hence significant.

### **Mitigation**

Dust control measures are important in the project area; as the area is semi-arid having dry soil conditions and its vulnerable to spread by high winds. Following mitigation measures will be adopted to mitigate the anticipated impact:

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- Ensure that the trucks carrying the raw material should be covered by tarpaulin to reduce fugitive dust emissions
- Water spraying/sprinkling should be done on the regular basis
- Ensure that all equipment and vehicles, used during the construction phase, are properly tuned and maintained in good working condition, in order to minimize the exhaust emissions and it will be regulated by the concerned authority
- Ensure that high quality fuel having low sulphur contents will be used
- Ensure that dust emission generated due to vehicular movement is minimized by restricted speed limit and vehicular movement impacts which will be minimized through good traffic management at site
- Ensure that dust emission during the construction phase will be minimized by implementing best management practices
- In order to reduce the fugitive dust emissions, avoid excavation activities during the windy days.

## **9 CONCLUSION AND RECOMMENDATIONS**

The conclusion of this report is that although the impact of construction of industrial ware on environment is very low during the construction phase, but this can be reduced by following:

<b>Impact</b>	<b>Mitigation Strategy</b>
Dust	Water sprinkling, dust covers
Noise	Limit working hours, sound barriers
Traffic congestion	Schedule truck movements, widen access roads
Waste	Segregate and recycle, regular disposal contracts

All the above impact & their mitigation measure has been described in detail above in report, but there is zero impact after construction of Industrial warehouse. Furthermore, after construction of this industrial warehouse, as the employment opportunities are arisen but also the greenery impact will be increased, which add value to nature.

### **9.1 Merits and Demerits**

The major positive impacts include;

- ⊙ Increased job opportunities,
- ⊙ Business opportunities,
- ⊙ Environmental enhancement through tree planation.

The project will raise the income of the persons directly associated with project as well as it will also improve the socio-economic status of the area. The project is expected to stimulate the local economies of the community as the majority of the people living in the nearby areas are associated with the labor related activities.

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**File Tracking No.**  
**CHECKLIST (EIA)**  
**PAK EPA GUIDELINES FOR PREPARATION AND REVIEW OF ENVIRONMENTAL**  
**REPORTS, 1997**

Required Content	EIA Report		
	PAGE NO.	REMARKS (If Any)	LACKING
<b>Executive summary:</b>			
1. Title and location of project	01		
2. Name of the proponent	02		
3. Name of the organization preparing the report	02		
4. A brief outline of the proposal (type, process, technology and land requirement)	01		
5. The major impacts	02		
6. Recommendations for mitigation measures	04		
7. Proposed monitoring	03		
<b>Introduction:</b>			
1. Purpose of report	12		
2. Identification of project and proponent	12		
4. Brief description of nature, size, and location of project	12		
<b>Screening:</b>			
Whether the Project requires IEE or EIA as	13		

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per Regulations			
<b>Consideration of Alternatives</b>			
1. Site alternatives, their selection and rejection criteria	13		
<b>Description of the project:</b>			
1. Objectives of Project	14		
2. Location and Site Layout of the project	14		
3. Land use on the site	15		
4. Road access	16		
5. Vegetation features of the site	16		
6. Cost and Magnitude of operation	20		
7. Schedule of implementation	20		
9. Restoration and rehabilitation plans	20		
<b>Description of Environment:</b>			
Clear-cut picture of existing environmental resources:			
1. Baseline Physical Environment	21		
2. Baseline Ecological Environment	22		
3. Baseline Socioeconomic Environment	23		

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4. Lab reports of environmental analyses (along with soil tests)	--	<b>Report attached herewith</b>	
<b>Impact Assessment</b>			
1. Methodologies for impact identifications (One/more)			
✓ Checklists	25		
✓ Matrices	26		
✓ Networks			
✓ Overlays			
2. Characteristics of impacts (nature, magnitude, extent and location, timing, duration, reversibility, risk)	29		
<b>Screening of potential Environmental Impacts and mitigation measures on/during:</b>			
1. Project location	28		
2. Design			
3. Construction phase	30		
4. Operational phase			
5. Potential Environmental Enhancement Measures	27		
<b>Environmental management and monitoring program</b>			

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i. Description of proposed mitigation actions along with:	30		
ii. Schedule for implementation and Environmental budget			
iii. Environmental Management Team along with their Roles and responsibilities (by name or position)			
iv. Proposed monitoring program to assess performance or output of EMP			
v. Proposed EMP reporting and reviewing procedures			
vi. Any training needs required to ensure implementation of EMP and Monitoring plans			
<b>Required Content</b>	<b>EIA Report</b>		
	<b>PAGE NO.</b>	<b>REMARKS (If Any)</b>	<b>LACKING</b>
<b>Stakeholders Consultation:</b> Communicate the possible impacts and concerns to the following to assist further analysis and decision making:			
i. Proponent's Environment Management Team			
ii. The responsible authority			

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iii. Other departments and agencies			
iv. Environmental practitioners and experts			
v. Affected and wider community			
<b>Appendices</b>			
1. Glossary	9		
2. List of abbreviations	6		
3. Lists of individuals and organizations consulted along with their written feedback			
4. Sources of data and a full list of all reference material used			
5. Terms of references of environmental reports and those given to individual specialists			
6. List of names, qualifications and roles of team members carrying out the IEE/EIA study			
7. Approvals from other concerned departments		Will be provided after obtaining NOC from EPA	