



ALI MURTAZA
ASSOCIATES
SINCE 1986

2023

ENVIRONMENTAL IMPACT ASSESSMENT REPORT

BY

**M/S ALI MURTAZA
ASSOCIATES (PVT.) LTD.**

Prepared by:
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EXECUTIVE SUMMARY

Title & Location of the project

Subject project for which this Environmental Impact assessment study has been conducted is proposed for establishment/ installation of cut to pack unit of garments and dyeing process under the name of M/S Ali Murtaza Associates Pvt. Ltd. located at 6-Km Off Ferozepur Road Deo Pul Rohinala Lahore. The capacity of the proposed Cut to pack unit of garments is 800000 garments per month approximately. Total area of the factory is 850887 SQF. Total Covered area is 79666 SQF. Overall cost of the project will be approx. 320 million rupees.

The proposed project falls under Schedule II, Category B, clause 6 of Punjab Environmental Protection (Review of IEE and EIA Regulations), 2022. TORs of the study under clause 5 (f) of policy and procedure for the filing, review and approval of environmental assessment are annexed as **Annexure – A**.

Background of the Project:

The site for this proposed project is an already constructed building which is purchased by the proponent including rooms, halls, ETP and other utilities. The land purchasing documents are attached as **Annexure-C**, and the layout map of the effluent treatment plants as **Annexure-H** with this report. The proponent is intended to do minor construction/ alteration for this proposed project of establishment/ installation of cut to pack unit of garments by M/S Ali Murtaza Associates Private Limited.

Location

Subject proposed project is located at 6-Km Off Ferozepur Road Deo Pul Rohinala Lahore having coordinates:

- 31°24'21.7"N
- 74°25'20.6"E

East..... Open Plot

West..... Open Plot

North..... Open plot

South..... Open Plot

Google map of site proposed for the establishment of the subject project

Google map of site: For further details, layout map of the project is attached as **Annexure-B** and **Google Earth Map** as **Annexure-G** with the report



Name of the proponent:

Name	Mr. Shahid Iqbal Khan Lodhi
CNIC	38403-1396198-1
Mailing Address	6-Km Off Ferozepur Road Deo Pul Rohinala Lahore

Detail of Proponent

For further details CNIC of the proponent and other relevant documents are attached as **Annexure-C** with this report.

Name of organization preparing the report:

Pak Green Enviro-Engineering (Pvt.) Ltd, as independent consultants, has been appointed by the proponent to conduct Environmental Impact Assessment (EIA) report.

Company office address: 46-M, Gulberg III, Lahore

Contact: 042-35441444, 0303-4442335.

For detail company profile see the Chapter # 1 “Introduction”

Authority letter in the favor of the consultant is attached as **Annexure-C** with the report.

A brief outline of the proposal

Name of the project:	Subject project will be proposed establishment/ installation of cut to pack unit of garments including dyeing, under the name of M/S Ali Murtaza Associates Pvt. Ltd.
Location of the project:	6-Km Off Ferozepur Road Deo Pul Rohinala Lahore
Proposed Area:	Total area of the factory is 850887 SQF. Total Covered area is 79666 SQF.
Nature of Project:	Nature of the project is proposed and construction will be started after getting the environmental approval.
Cost of the project:	Overall cost of the project will be approx. 320 million rupees
Project process:	Process will include production of garments including dayeing.
Raw materials	Fabric, Dyes, cutting accessories and packaging materials
Production capacity	The capacity of the proposed Cut to pack unit of garments is 800000 garments per month approximately.
Power Requirement:	1500 KW from WAPDA
Labor/ Workforce:	During construction: 50-80

	During Operation: 150-200
Water Requirement:	During Construction: approximately 50 cubic meter per day for constructional and domestic uses. During Operation: maximum 50 cubic meter/d for domestic use and for industrial purposes 533.3 Cubic Mtr per day
Solid waste:	During Construction: 90-120 kg/day construction and domestic waste During operation: 30-40 kg/day domestic and project related waste

The major impacts

In order to identify all the activities associated with the project during construction and operation phase with potential to cause adverse environmental impacts and harm a thorough review has been conducted. Project will not have any significant adverse impacts on the nearby community and on environment. Overall the project will have positive impacts on the local population and country as a whole.

Table: Summary of Environmental and social impacts of the project during the construction phase and mitigation measures suggested:

Potential Impact	Criteria for determining Significance	Key Mitigation Measures
Dust Emissions —Particulate matter emitted during construction activities and gaseous emissions from transportation vehicles can result in deterioration of ambient air quality in the vicinity of the project site, and be a nuisance to the surrounding workers.	An increase in visible dust beyond the boundaries of the construction site; or Concentration of PM ₁₀ in excess of 150 µg/m ³ PEQS for Ambient Air.	Sprinkling of water on unsealed surfaces is recommended Vehicle speed restrictions should be applied in the project area; Raw materials should be transported in covered trucks. Ensuring that no stockpile is within 250 m of the community.
Construction Noise - Disturbance to surrounding communities due to operation of construction machinery at the project site.	PEQS for Noise OSHA standards	Noise monitoring has been conducted at the project site before starting the construction activity. Reduce noise at source; Take noise levels in consideration during detailed design and construction planning; Reduce traffic noise.
Solid waste Management — Improper waste management may generate health and aesthetic issues	Generation of excessive waste; Recyclable waste and reusable waste is discarded; Improper disposal.	Development of a waste management plan; Constructional waste should be utilized for road filling and maintenance. Domestic waste should be disposed of properly, handed over to contractors, placed in bins.

Vegetation Loss/ Soil erosion —Loss of vegetation as a result of land clearance for the construction purposes	Unnecessary or excessive removal of trees and shrubs.	Preparation of a Reinstatement Plan; Minimization of the felling of trees and clearing of vegetation; and avoidance of the use of fuel wood
Water Resources — The extraction of water for the project construction activities can affect the groundwater availability for the project area communities	Water extracted for the project can directly affected the ability of the community to meet their water needs	No impact on the community groundwater needs is envisaged as a result of the project.
Soil Contamination —Oil can contaminate the soil	Presence of visible amount of hydrocarbon in soil	Provision of spill prevention and control kits; Use of impermeable surfaces in workshops, and storage areas
Socioeconomic Issues Workers Safety — Safety hazards associated with the construction activity, particularly with the increase in traffic at the project site.	No specific guidelines exist. A significant impact will be interpreted if there are complaints from the community or the occurrence of any injury or loss	Speed limit of 10 km/h will be maintained on the access road; Traffic controller will be stationed on the access road; night driving will be kept to a minimum
Project and Community Interface —Inter-cultural differences between the project staff from other areas and the local community	No community complaints	Training of the non-local project staff on local culture and norms; Avoidance of unnecessary interaction of local population with the non-local project staff

Table: Summary of Environmental impacts of the project during the operation phase and their mitigation measures:

Potential Impact	Criteria for determining Significance	Key Mitigation Measures
Machinery Noise- Working of machinery can be a nuisance for the workers in the working area.	OSHA Standards	PPEs i.e. ear muffs should be provided to workers in case of high noise.
Health & Safety Issues- Health and Safety issues e.g. Cuts and Injuries may be caused during the machinery handling.	OSHA Standards	Proper training of the staff should be conducted to avoid the accidents. First aid measures should be provided at the workplace.
Solid waste management- Improper solid waste management may cause health problems and aesthetic issues	Exposure to potentially hazardous waste; Generation of excessive waste; Recyclable waste and reusable waste is discarded; Improper disposal.	Waste bins should be placed at suitable places. Domestic and process related waste should be handed over to contractors.
Groundwater —The increased withdrawal of groundwater for the project will affect the groundwater resources of the project area	Water extracted for the project can directly affected the ability of the community to meet their water needs	No impact on the community groundwater needs is envisaged as a result of the project.

Proposed Environmental Monitoring

To oversee the environmental performance of the project through its lifecycle enforcing the PEQS an Environmental Monitoring Program should be formulated which ensures effective surveillance of the environmental parameters at various stages of the project development and compliances with PEQS and legal obligations. Monitoring for following Environmental Parameters is recommended:

- **Ambient Air**

Monitoring for ambient air should be conducted on regular basis during construction and operation phases of the project and report should be submitted to EPA Punjab.

- **Noise**

Regular monitoring for noise level should be maintained periodically during construction and operation phases of the project and report should be submitted to EPA Punjab.

- **Water quality**

Regular monitoring of water quality should be conducted on regular basis during construction and operation phases of the project and report should be submitted to EPA Punjab.

Recommendation: Environmental Monitoring data log book should be maintained by the project proponent.

Proposed Environmental Monitoring Program:

Sr. No.	Parameters	Monitoring Schedules During Construction	Monitoring Schedules During Operation	Monitoring Duration
1	Stack Emission Analysis	Quarterly	Quarterly	As per PEQ's
1	Ambient Air Monitoring (NO _x , CO ₂ , SO ₂ , PM ₁₀)	Quarterly	Quarterly	As per PEQ's
2	Noise Level	Quarterly	Quarterly	As per PEQ's
4	Drinking water quality	Quarterly	Quarterly	Some parameters on site Others in lab
5	Waste Water	Quarterly	Quarterly	Some Parameters on Site Others in Lab

CHAPTER # 1

1. INTRODUCTION

This Section of the report provides an overview of the rational of the Project, objective of project, requirement of the project, purpose of the report and approach adopted to conduct the Environmental Impact Assessment (EIA).

1.1. Purpose of the report

Environmental Impact Assessment (EIA) report is being submitted to the Environmental Protection Agency (EPA), Government of the Punjab, Lahore for the compliance of Section 12 of Punjab Environment Protection Act-1997 (Amended 2012) for obtaining No Objection Certificate (NOC) before starting the construction activity at the project site. The other relevant regulations and guidelines considered while preparing this EIA report include:

- Policy and procedures for filing, review and approval of environmental assessments.
- Guidelines for the preparation and review of environmental reports.
- Guidelines for public participation.
- Guidelines for sensitive and critical areas.
- Detailed sectoral guidelines

Various aspects like environmental, social, physical and other aspects of the project both during construction and its regular occupancy are highlighted in this EIA report. Measures necessary to be adopted to mitigate any environmental impacts on any part of the environment around are also described. All the important information is also provided as described under the format used to help decision makers, EPA Punjab in the present case, before issuing the desired Environmental Approval.

1.2. Identification of the project and proponent

Schedule II, Category B, clause 6 of Punjab Environmental Protection (Review of IEE and EIA Regulations), 2022.

1.2.1. Proponent:

Name	Mr. Shahid Iqbal Khan Lodhi
CNIC	38403-1396198-1
Mailing Address	6-Km Off Ferozepur Road Deo Pul Rohinala Lahore

For further details CNIC of the proponent and other relevant documents are attached as **Annexure-C** with this report.

1.3. Details of Consultant

Pak Green Enviro-Engineering (Pvt.) Ltd is an independent company, who conducts IEE, EIA, EMP and other environmental investigations through its panel of environmental consultants, public participation practitioners and experienced environmental managers. The company has its own recommended instruments to check the baseline environmental data/PEQS and lab analysis facility for water, waste water priority parameters.

Contact: Pak Green Enviro-Engineering (Pvt.) Ltd.

Office No. 46 M, Gullberg III, Lahore

Tel: 042-35441444, 03034442335

Email: info@pakgreen.pk; pak.green@hotmail.com

The current study was carried out by the following professionals:

Abdul Hafeez Nasir	PhD Scholar Environmental Management
Iftikhar Ahmed	Environmental Specialist
Hassan Afzal	Environmental Specialist
Umair Rasheed	Environmentalist
Muhammad Imran	Environmental Engineer
Nageen Quyyum	Environmentalist
Sabeera Tauheed	Environmentalist

1.4. Brief description of Nature, Size and Location of Project

Subject project for which this Initial Environmental Examination study has been conducted is proposed for construction of cut to pack unit of garments, under the name of M/S Ali Murtaza Associates Pvt. Ltd. located at 6-Km Off Ferozepur Road Deo Pul Rohinala Lahore. The capacity of the proposed Cut to pack unit of garments is 800000 garments per month approximately. Total area of the factory is 850887 SQF. Total Covered area is 79666 SQF. Overall cost of the project will be approx. 320 million rupees.

Name of the project:	Subject project will be proposed establishment/installation of cut to pack unit of garments, under the name of M/S Ali Murtaza Associates Pvt. Ltd.
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Location of the project:	6-Km Off Ferozepur Road Deo Pul Rohinala Lahore
Proposed Area:	Total area of the factory is 850887 SQF. Total Covered area is 79666 SQF
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Project process:	Process will include production of woven garments
Raw materials	Fabric, Dyes, cutting accessories and packaging materials
Production capacity	The capacity of the proposed Cut to pack unit of garments is 800000 garemnts per month approximately.
Power Requirement:	1500 KW from WAPDA
Labor/ Workforce:	During construction: 50-80 During Operation: 150-200
Water Requirement:	During Construction: approximately 50 cubic meter per day for constructional and domestic uses. In operation for industrial purposes 533.3 cubic meter per day
Solid waste:	During Construction: 90-120 kg/day construction and domestic waste During operation: 30-40 kg/day domestic and project related waste

1.4.1. Location

Subject proposed project is located at 6-Km Off Ferozepur Road Deo Pul Rohinala Lahore having coordinates:

- 31°24'21.7"N
- 74°25'20.6"E

East..... Open Plot

West..... Open Plot

North..... Open plot

South..... Open Plot

Google map of site proposed for the establishment/ installation of the subject project



For further details, layout map of the project is attached as **Annexure-B** and Google Earth Map as **Annexure-G** with the report.

1.5. Screening

Schedule II, Category B, clause 6 of Punjab Environmental Protection (Review of IEE and EIA Regulations), 2022.

CHAPTER # 2

2. DESCRIPTION OF THE PROJECT

2.1. Type and Category of the Project:

Subject project for which this Initial Environmental Examination study has been conducted is proposed for establishment/installation of cut to pack unit of garments, under the name of M/S Ali Murtaza Associates Pvt. Ltd. at 6-Km Off Ferozepur Road Deo Pul Rohinala Lahore. The capacity of the proposed Cut to pack unit of garments is 800000 garments per month approximately. Total area of the factory is 850887 SQF. Total Covered area is 79666 SQF. Overall cost of the project will be approx. 320 million rupees.

Schedule II, Category B, clause 6 of Punjab Environmental Protection (Review of IEE and EIA Regulations), 2022.

2.2. Objectives of the Project

Objectives of the establishment of the subject project are:

- To meet the increasing market demands of apparel.
- To enhance the business of the proponent.
- Contribution to the national economy.
- Compensate to help poverty by providing employment.

2.3. Alternative Considerations and Reasons for their Rejection:

2.3.1. Location alternatives:

To fulfill the commercial aspects of the project under reference of this EIA Report, it is to be sited at a place where commercial processing activity is either already going on or there are bright prospects of the same. The current project is proposed for establishment/ installation of subject Cut to pack unit of garments including dyeing, it must also meet the legal requirements of the Punjab Environmental Protection Act, 1997 (Amended 2012). Availability of land at the best convenient place is equally important among other considerations for the site selection. Availability of access roads, communication facilities, electricity, basic infrastructure, sewerage etc. is yet the other necessary requirements.

Obviously, environmentally sound, neat and clean environment are the other considerations for site selection. The project will also facilitate the people of the area with increasing the opportunity of employment, and other related facilities.

Keeping these requirements and their feasibility and other basic infrastructural requirements, the selected site is ideally suited for Construction of the subject Cut to pack unit of garments.

2.4. Location and site layout of the project:

Subject proposed project is located at 6-Km Off Ferozepur Road Deo Pul Rohinala Lahore having coordinates:

- 31°24'21.7"N
- 74°25'20.6"E

East..... Open Plot

West..... Open Plot

North..... Open plot

South..... Open Plot



For further details, layout map of the project is attached as **Annexure-B** and Google Earth Map as **Annexure-G** with the report.

Fig: Google map of site proposed for the installation/establishment of subject project

2.5. Land Use on site

Site proposed for the establishment/ installation of the subject project is an empty plot and it is the property of the proponent, reserved by the proponent for the establishment/ installation of the subject project.

2.6. Road Access

Paved road at the front side of the project site connects it directly with the Manga Raiwind Road.

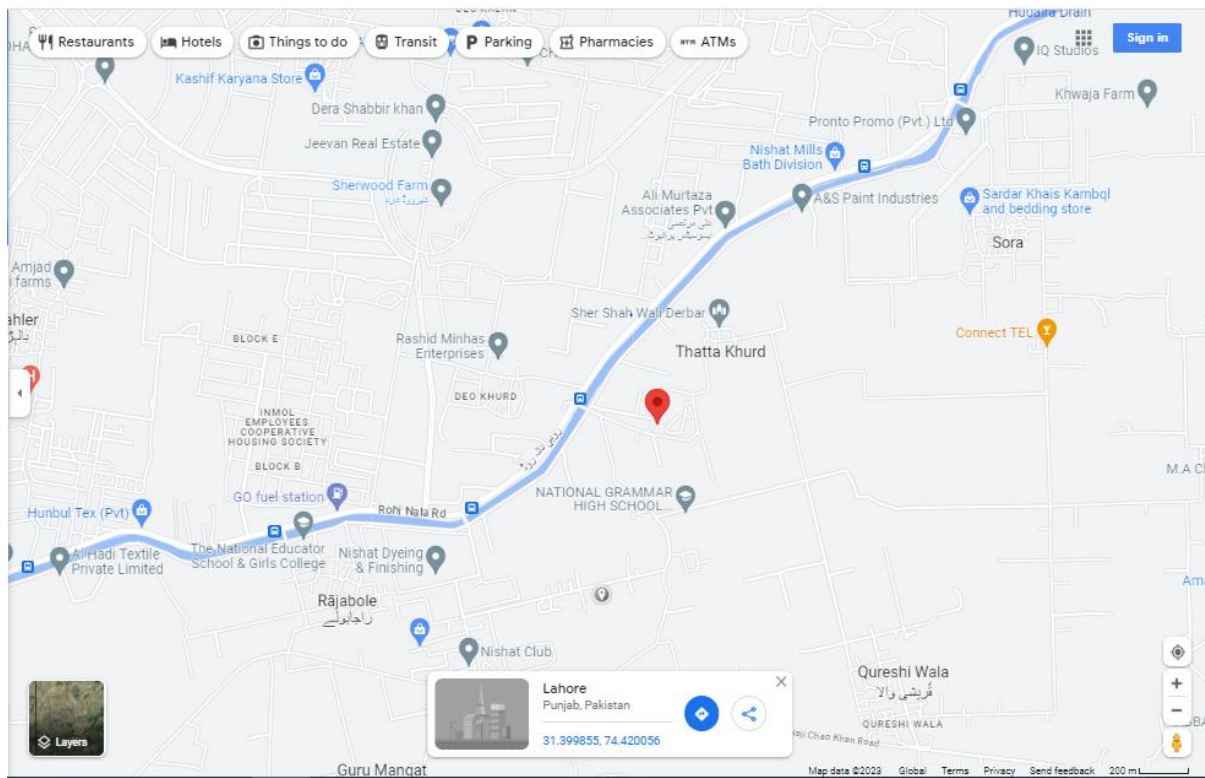


Fig: Access Road at the front side of the project site

2.7. Vegetation features of the project

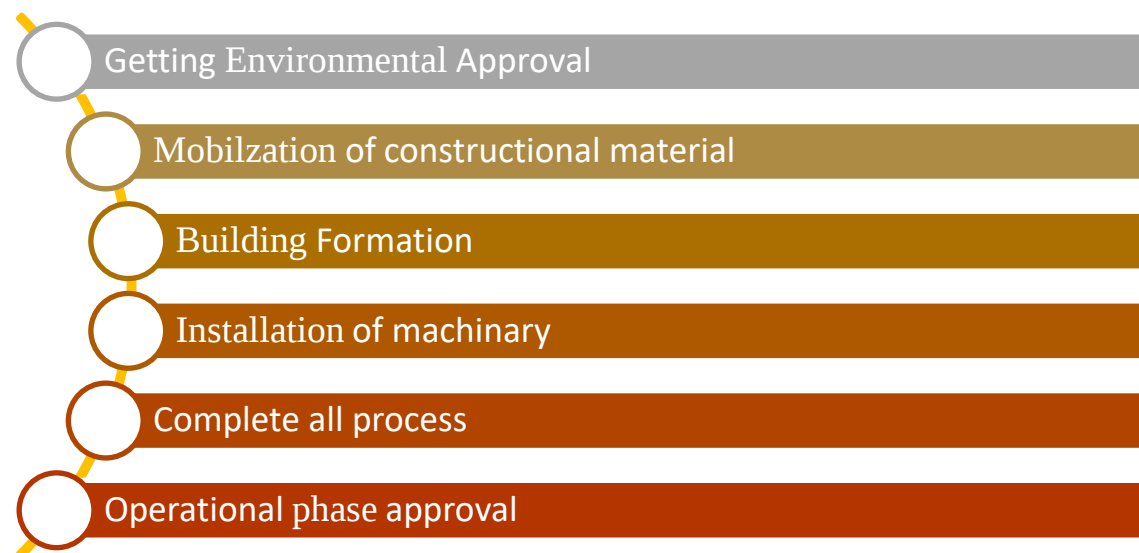
Land proposed for the subject project is clear and free of dense vegetation, only shrubs like Few and scattered amount of vegetation will help to avoid land clearing at the project site.

2.8. Cost and magnitude of the operation

Subject project will be proposed establishment/ installation of cut to pack unit of garments including dyeing. The capacity of the proposed Cut to pack unit of garments is 800000 garemnts per month approximately. Total area of the factory is 850887 SQF. Total Covered area is 79666 SQF. Overall cost of the project will be approx. 320 million rupees.

2.9. Schedule of Implementation

Detailed feasibility studies and designing of the project have been completed. Necessary legal, administrative and financial formalities are being finalized. The project is expected to be completed within 10-12 months from the date of environmental approval. Subsequently the operational and maintenance aspects of the project will be undertaken by the proponent.



2.10. Description of the project:

Subject project for which this Initial Environmental Examination study has been conducted is proposed for establishment/ installation of cut to pack unit of garments, under the name of M/S Ali Murtaza Associates Pvt. Ltd. at 6-Km Off Ferozepur Road Deo Pul Rohinala Lahore. The capacity of the proposed Cut to pack unit of garments is 800,000 garments per month approximately. Total area of the factory is 850887 SQF. Total Covered area is 79666 SQF. Overall cost of the project will be approx. 320 million rupees.

Name of the project:	Subject project will be proposed establishment/ installation of cut to pack unit of garments, under the name of M/S Ali Murtaza Associates Pvt. Ltd.
Location of the project:	6-Km Off Ferozepur Road Deo Pul Rohinala Lahore
Proposed Area:	Total area of the factory is 850887 SQF. Total Covered area is 79666 SQF
Nature of Project:	Nature of the project is proposed and installation will be started after getting the environmental approval.
Cost of the project:	Overall cost of the project will be approx. 320 million rupees

Project process:	Process will include production of woven garments
Raw materials	Fabric, Dyes, cutting accessories and packaging materials
Production capacity	The capacity of the proposed Cut to pack unit of garments is 800000 garments per month approximately.
Power Requirement:	1500 KW from WAPDA
Labor/ Workforce:	During construction: 50-80 During Operation: 150-200
Water Requirement:	During Construction: approximately 50 cubic meter per day for constructional and domestic uses. In operation for industrial purposes 533.3 Cubic Mtr per day
Solid waste:	During Construction: 90-120 kg/day construction and domestic waste During operation: 30-40 kg/day domestic and project related waste

2.11. ACTIVITIES OF THE PROJECT

2.11.1. Raw Materials Purchase & Storage

Raw material will include Fabric, Dyes, cutting accessories and packaging materials. Fabric and other raw materials required for the production will be obtained through the Suppliers in the local market as well as from international dealers.

2.11.2. Cutting

Cutting department will receive the fabric and work internally. Cutting will be done through auto as well as manual process in which machine will cut the fabric layers with respect to design. Re- Bundling will be done and processed pieces are attached to bundles. Inspection will be made before final record making.

2.11.3. Stitching

After cutting, pieces move to stitching unit where all these cut pieces assemble together under machines. These pieces come out in proper jeans shape in different sizes on which quality audit perform and move to next department.

2.11.4. Washing/ Laundry

Washing is the most important process, and it has innumerable variants now. Industrial washing machines play an important role, and depending on the market requirements, these machines can develop uniform color fading or appearance effects.

2.11.5. Butting/ Revert/ Bar Take Process

Buttons, reverts, and embellishments are done in this process

2.11.6. Pressing

After buttoning process, pressing of garments using steam irons.

2.11.7. Finishing/ Packing

After stone washing, garments are placed to dry and provide required finishing look as per requirement. After this, the garments will be packed in the specified cartons through different processes such as taping, labeling, tagging etc.

2.11.8. Shipment Store:

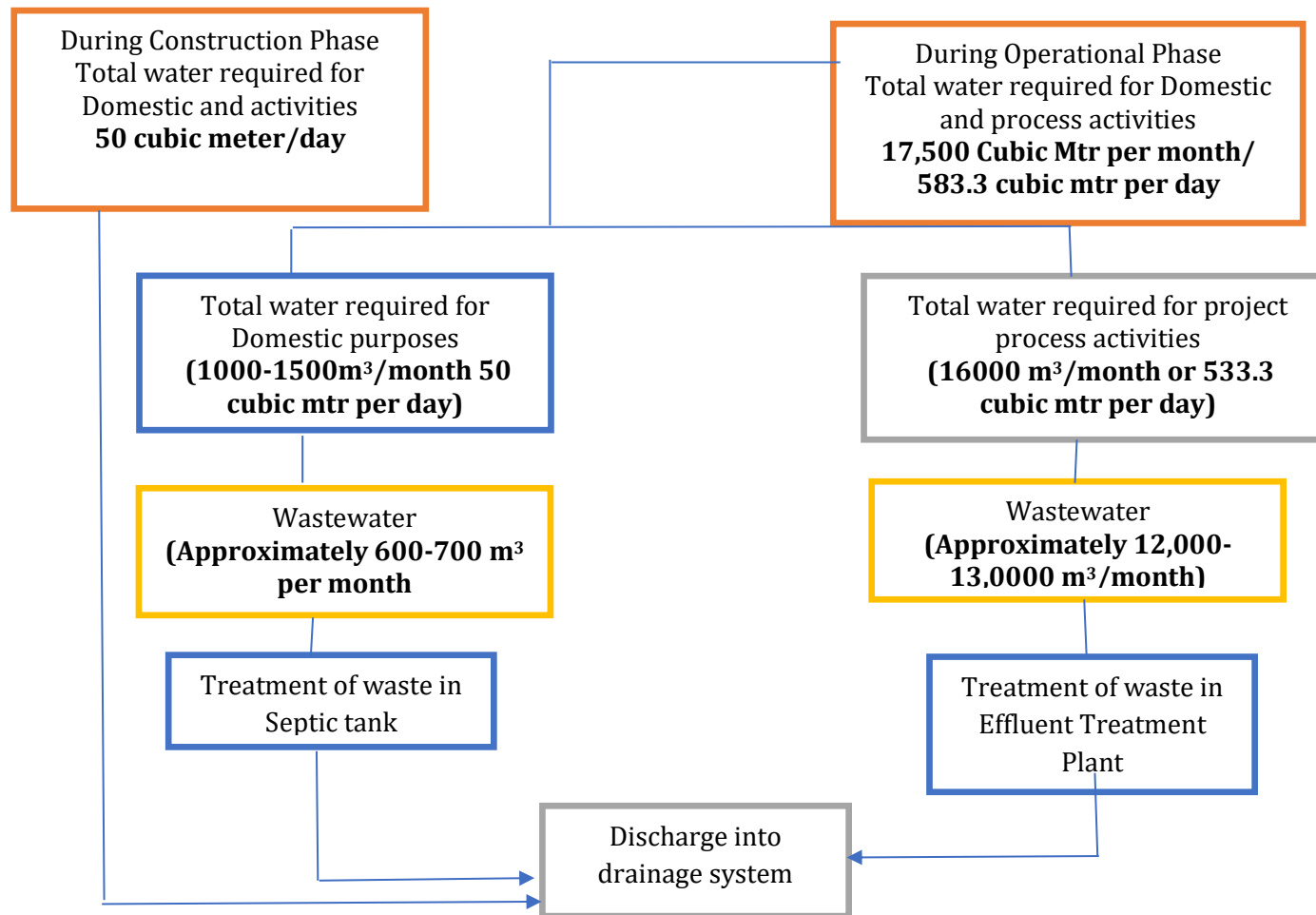
After finishing and packing of garments these are dispatched to the garment store or to the local buyers.

Note: The process flow diagram is attached herewith as Annexure-I

2.12. Water requirements:

During the construction phase of the project estimated 50 cubic meter/day of water will be required for constructional and domestic purposes while during the operational phase of the project, according to an estimate, 533.3 Cubic Mtr per day will be used. Ground water will be used as a source of water to fulfill the water requirements during the construction and operation phases of the project.

2.12.1. Estimated Water Balance



2.13. Waste water treatment:

60-70% of the used water for domestic purposes will be the waste water which will be produced during the operation phase of the project. The generated wastewater will be treated in treatment facility (Septic Tank) of unit. Water after treatment will be disposed of in the nearby drain, For industrial wastewater, effluent treatment plant is already present in the purchased facility. The layout map of the effluent treatment plant is attached herewith as **Annexure-H**

2.14. Solid waste:

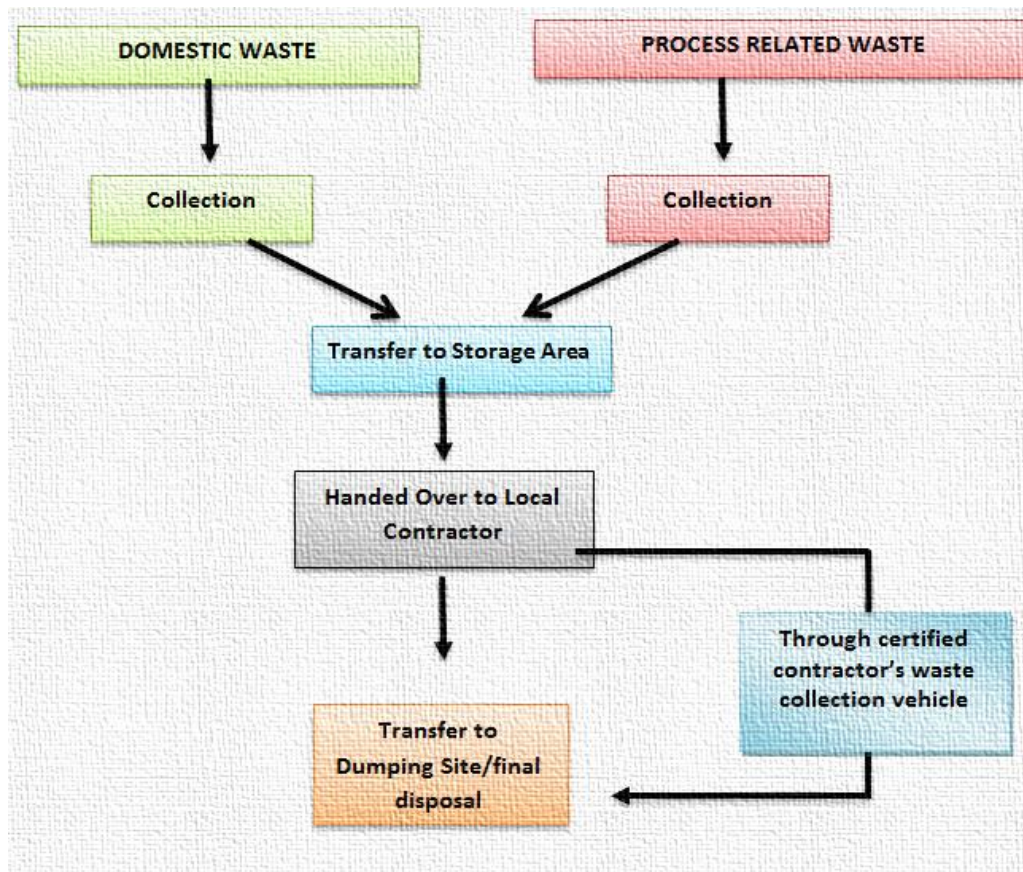
During the construction phase of the project, 120 kg/day construction and domestic waste will be produced. Constructional waste will be recycled during the constructional activities for road filling and maintenance purposes. According to an estimate, 40-50 kg/day domestic and project related solid waste will be produced during the operation phase of the project (based on solid waste generation rates of 0.45 kg/capita/day urban waste generation). Project related waste will include fabric, threads etc., which will be handed over to the certified contractors.

2.14.1. Solid waste management system/practices

The Solid waste will be managed in proper way by following operations:

1. Placement of separate waste bins for domestic and project related waste in all working halls and designated points.
2. Collection of waste from all the working halls at one designated point by the sanitary workers on daily basis.
3. Collected waste will be handed over to the solid waste contractors for its final disposal, from this point.

2.14.2. Flow chart of solid waste management plan:



2.15. Plantation

Area for plantation will be reserved within the premises of the project and plantation will be done within, outside and at the boundary wall of the unit.

2.16. Parking Area

Parking area will be made available within the unit for cars, motorcycles, trucks etc.

2.17. Fire Protection System

An addressable fire protection system with detection and alarm annunciation and other installations etc. would be provided to protect against any fire hazards. Fire buckets and fire extinguishers will be installed at all sensitive places within the unit.

2.18. Emergency Exits:

Emergency exit points will be made available for easy evacuation in case of any emergency.

2.19. Personal protective equipment:

Workers will be provided with Gloves, Masks & other personal protective equipment during the working hours to ensure personnel health & safety. Implementation of PPEs will be ensured by the proponent for the proposed project also.

2.20. Power sources and transmission:

The power requirements will be fulfilled by WAPDA. However, a diesel fired stand by generator (if needed) will also be used for emergency situations only.

2.21. Available Facilities

Available facilities at the proposed project site include:

- Electric supply from WAPDA
- Solid Management (SWM), Water supply, sewerage disposal and drainage systems
- Line and cellular telephone facilities

2.22. Restoration / Rehabilitation Plan

All possible precautions will be taken to prevent an untoward incident in terms of life and property losses. The demolition materials will possibly be reused and recycled. All excavated surfaces will be termite proofed.

One completion of the project, the debris will be removed from the site in order to maintain aesthetics of the project. All measures will be undertaken for ensuring occupational safety, security and clean environment in the project area. Ornamental trees and flower plants will be planted on inside peripheral of the unit premises to restore the land.

2.23. Government approvals required by the project:

All the approvals will be obtained by the project proponent and will be submitted to EPA at the time of operation.

CHAPTER # 3

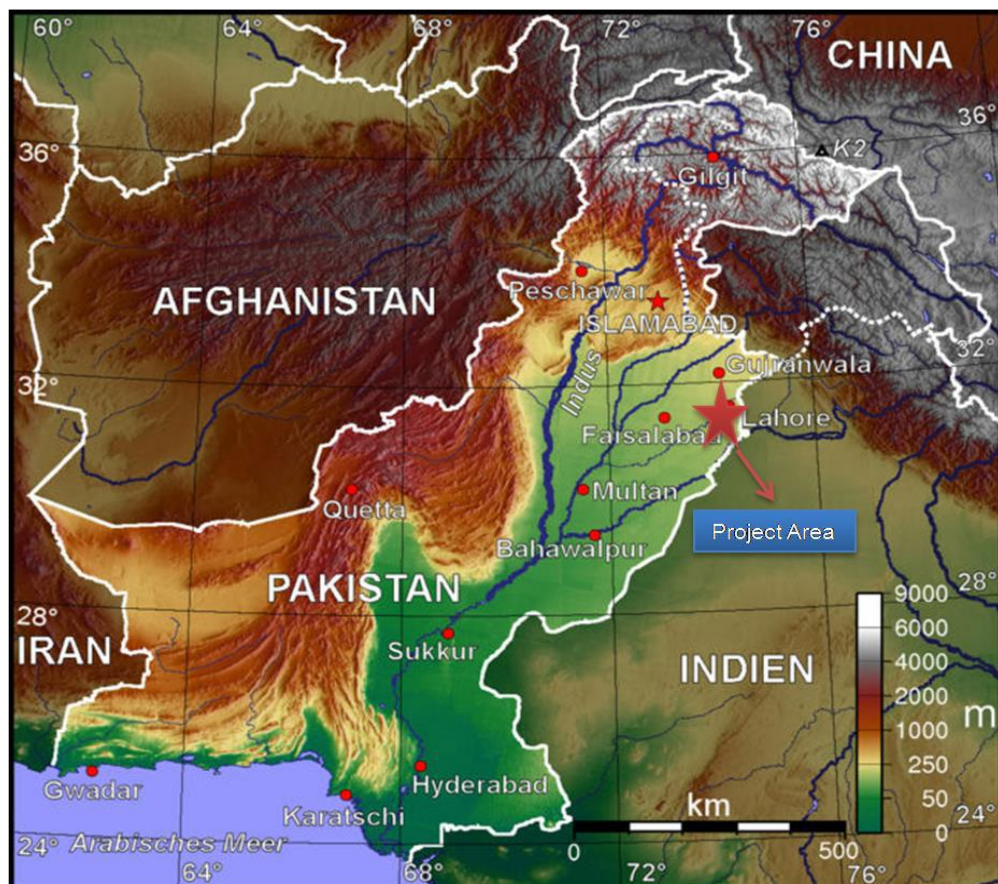
3. DESCRIPTION OF ENVIRONMENT

This section describes the baseline conditions, which cover the existing Physical, ecological and socio-economic environment of the project as well as study area. Data was collected by reviewing secondary data and field survey.

3.1. Physical Environment/ Resources

3.1.1. Topography:

The topography of the project area is flat. The General height of the area is approximately 220 meters above the Mean Sea Level (MSL). The district Lahore is divided into two parts. The low lying alluvial soil is along the Ravi River, and the upland in the east. Upland is a plain slope from north-east to south-west. The lowlands are generally inundated during the monsoon season by Ravi River, flowing in the west of district along its boundary with district Sheikhupura. Below figure is showing the topography of the area.



3.1.2. Soil:

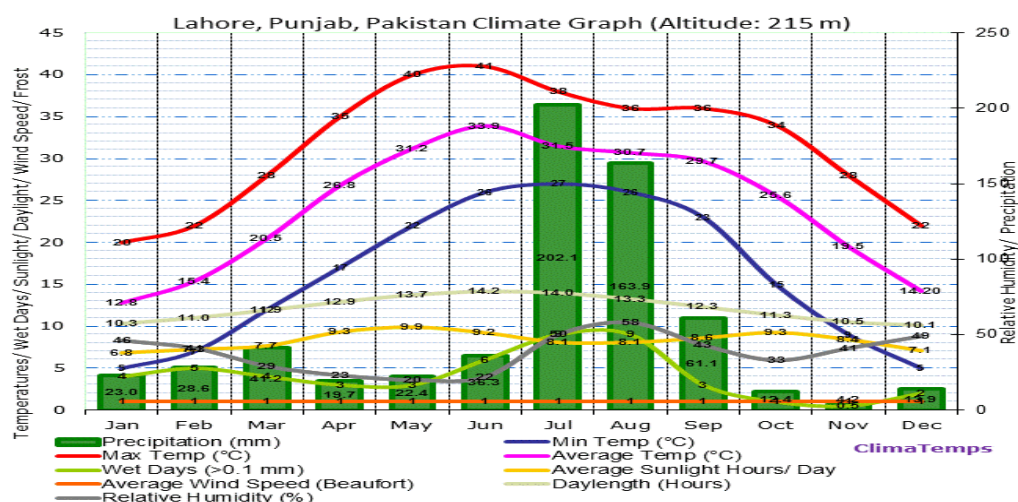
The soil in the Project Area is cohesion less and is of alluvial type. Various soil layers below the ground level includes: silt, silty clay, silty sand, poorly graded sand with silt, lean clay etc. The soil is different in character and generally inclined to be dry. However, it is rich in potential plant nutrients.

3.2. Climate and metrology:

Seasonal climatic conditions must be considered for the design and execution of Project. The climate including air, temperature, precipitation, humidity and evaporation is an influencing factor, affecting the construction of project and other engineering structures. However, to determine the overall effect of the climatic stresses, daily and seasonal temperature changes, site altitude, direct solar radiation, and precipitation must be considered. The Project Area has extreme climate: it has hot summer and cold winters. The summer starts from April and lasts till September. May, June, and July are the hottest months. The mean maximum and minimum temperature ranges from 40.4 °C and 27.3 °C respectively for these months.

The winter seasons lasts from November to March. December, January and February are the coldest months. The mean maximum and mean minimum temperature ranges from 19.8°C to 5.9°C in January. Temperatures in the Project Area vary from 5.9 °C to 40.4 °C.

The project area receives rains in all the seasons but monsoon rain is pronounced and constitutes a definite rainy season between the month of July and September. The average rainfall is about 629 millimeters per year. Below figures showing the temperature, precipitation, and relative humidity trends in the study area.



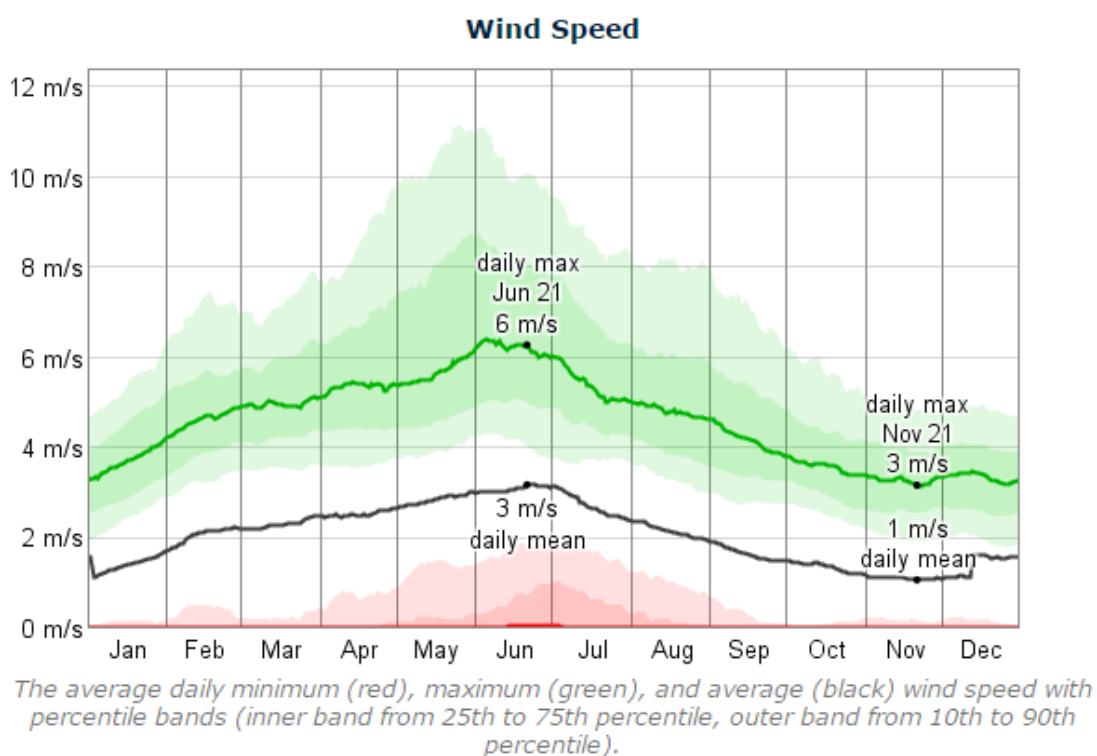
3.3. Wind:

3.3.1. Wind speed in the project area:

Over the course of the year typical wind speeds vary from 0 m/s to 6 m/s (calm to moderate breeze), rarely exceeding 11 m/s (strong breeze).

The highest average wind speed of 3 m/s (light breeze) occurs around June 21, at which time the average daily maximum wind speed is 6 m/s (moderate breeze).

The lowest average wind speed of 1 m/s (light air) occurs around November 21, at which time the average daily maximum wind speed is 3 m/s (light breeze).

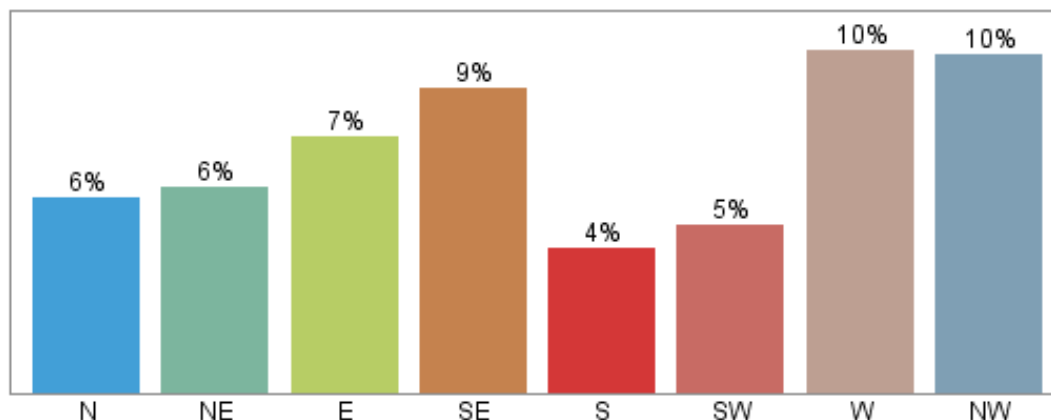


Reference: <https://weatherspark.com/averages/32865/Lahore-Punjab-Pakistan>

3.3.2. Wind direction in the project area:

The wind direction is highly variable and is not predominantly from any single direction. The wind is least often out of the south (4% of the time) and south west (5% of the time).

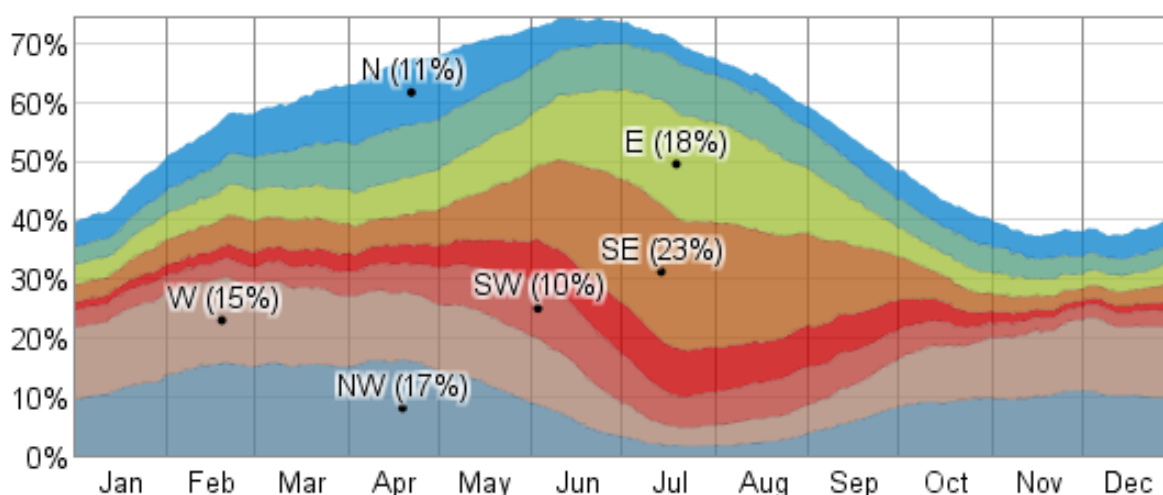
Wind Directions Over the Entire Year



The fraction of time spent with the wind blowing from the various directions over the entire year. Values do not sum to 100% because the wind direction is undefined when the wind speed is zero.

Reference: <https://weatherspark.com/averages/32865/Lahore-Punjab-Pakistan>

Fraction of Time Spent with Various Wind Directions



The fraction of time spent with the wind blowing from the various directions on a daily basis. Stacked values do not always sum to 100% because the wind direction is undefined when the wind speed is zero.

3.4. Ambient Air Quality:

Atmospheric pollution, particularly in urban areas like Lahore, has a strong impact on daily life. Project site is located at Manga Raiwind Road, Lahore. Motor vehicles are a major source of air pollution in the project area. Monitoring was conducted at the project site by using Fine Dust Sampler IPM-FDS 2.5/10 μ and Ambient Air Analyzer.

To record the baseline ambient air quality of the project area, monitoring was conducted at advised locations to assess the concentration of priority pollutants (Carbon monoxide, Nitrogen

dioxide, Sulphur dioxide and PM₁₀) in the air. Lab reports of Ambient Air Monitoring are attached as **Annexure-D** with the EIA report.

3.5. Noise Level Monitoring:

3.5.1. Basic Environmental conditions:

During the measurement following conditions were prevailed on workplace:

3.5.2. Metrological Conditions:

During the noise level monitoring weather was dry and sky was clear. Air was blowing at normal speed

3.5.3. Monitoring Instrument:

The description of the instrument used for the noise level monitoring is given below:

Name: Digital sound level meter

Model: AR824

Company: Intel Instruments plus



3.5.4. Methodology adopted:

Noise level was monitored at four points; lab results are attached as **Annexure-D**.

3.6. Ground water:

The underground water will be used as a source of water at the project site. Sample was taken from the tube well near the project area to test its parameters. Lab results are attached as **Annexure-D**.

3.7. Ecological Resources

As climate of Lahore is semi-arid and subtropical, the vegetation of the district falls under scrub, dry, tropical thorn forest type as per phyto-geographical classification of the area but this vegetation is confined to the graveyards in the Lahore city and the project site is free from such type of vegetation.

3.7.1. Flora:

There are small grasses and shrubs present at the project site. Some native trees were observed in the surrounding areas. Native trees and plants of 6 feet height will be planted within the premises of the project by the project proponent with the consultation of concerned authority

3.7.2. Fauna:

Different birds were observed at the project site during the site visit including sparrow, crow, pigeon and dove etc. Other than that no fauna was observed at the site during the site visit.

3.8. Socioeconomic Environment:

Socioeconomic environment of district Lahore has been studied through secondary sources and a brief introduction has been given below:

3.9. Demographic Characteristics of the Project Area

The total population of Lahore District has crossed 13 million.

3.9.1. Religion

The population of the district is predominantly Muslims i.e. approx. 95 percent, other minorities like Christians, Sikhs and Hindus etc. are approx. 5 percent.

3.9.2. Education

Lahore is known as Pakistan's education capital, with more colleges and universities than any other city in the country. Lahore is Pakistan's largest producer of professionals in the fields of science, technology, IT, engineering, medicine, nuclear sciences, pharmacology, telecommunication, biotechnology and microelectronics. Most of the reputable universities are public, but in recent years there has also been an upsurge in the number of private universities. The current literacy rate of Lahore is 74%. Lahore hosts some of Pakistan's oldest educational institutes: Government College Lahore (now Government College University), established in 1864; Forman Christian College, a chartered university established in 1864; University of the Punjab, established in 1882; Kinnaid College, established in 1913; and University of Engineering and Technology, Lahore (UET Lahore), established in 1921. UET is also Pakistan's oldest technical degree-awarding institute and its first university in the field of engineering and technology.

Lahore's institutes in the fields of computer science, IT, and engineering include the National University of Computer and Emerging Sciences (NUCES or FAST-NU) and Punjab University College of Information Technology. Notable architecture schools include Beaconhouse National University, COMSATS Institute of Information Technology, University of South Asia, National College of Arts and University of Engineering and Technology, Lahore. Notable business schools include the Lahore University of Management Sciences (LUMS), Lahore School of Economics, Forman Christian College, and University of Management and

Technology. University of Education, established in 2002, is Pakistan's first specialized university in the field of education.

Lahore also provides education in many fields of health sciences. Notable medical colleges offering MBBS degrees include Allama Iqbal Medical College, Fatima Jinnah Medical College, King Edward Medical University, Lahore Medical and Dental College, Services Institute of Medical Sciences, Shaikh Khalifa Bin Zayed Al-Nahyan Medical and Dental College and Shalamar Medical and Dental College. Important postgraduate institutes are Punjab Institute of Cardiology and University of Health Sciences, Lahore. University of Veterinary and Animal Sciences is the only college in Lahore providing education in the field of veterinary medicine. De'Montmorency College of Dentistry is an important college of dentistry. There are many institutes offering education in fields of nursing and pharmacy as well.

Notable schools include Aitchison College, St. Anthony's College, Lahore College of Arts and Sciences, Lahore Grammar School and Salamat School System. AghazScool System is present near the subject project.

3.9.3. Health Facilities

Ample medical and health facilities are available in the Lahore Metropolitan Corporation area and its suburbs. ShaukatKhanam Hospital is the latest addition in the medical care facilities in Lahore for the most dangerous disease in the country. i.e. Cancer. There are also other hospitals of voluntary organizations which provide health cover to the general public. King Zaid Bin Sultan Hospital is also a very advanced addition in the medical care for Lahore. Among the prominent hospitals are General Hospital, Lady Willington Hospital, Mayo Hospital, Fatima Jinnah Hospital, The Children Hospital, Services Hospital, and Ganga Ram Hospital etc. Besides, a number of private medical practitioners, Hakims and homeopathic doctors are also practicing in the city. Some famous Health facilities located in the Project vicinity are Hameed Latif Hospital, Wapda Hospital and Lady Willington.

3.10. Quality of Life Values

All classes of people are present in Lahore City; People lead lives according to their income.

3.11. Civic Amenities

Civic amenities like potable drinking water, dispensary and rest area are available near the project site.

3.12. Games:

Cricket, Football, badminton, Hockey, Volleyball, Kabbadi and Kushti are major sports of Lahore District.

3.13. Welfare of Employees

Management of project is mindful of the fact that the satisfied employees will deliver better output.

3.14. Historical buildings near the project site:

Pakistan Radio, Agriculture department, Punjab Public Service Commission are the historical buildings near the project site.

3.15. Aesthetic Values:

Like the general trend among the citizens of area, most of the people have low awareness about environment. Even then, some people take cleanliness and neatness of the environment lightly. Some people throw municipal solid wastes (MSWs) on the streets. Sense of personal responsibility to keep the environment clean as good citizens is even now lacking among a few people.

CHAPTER # 4

4. CONSIDERATION OF ALTERNATIVES

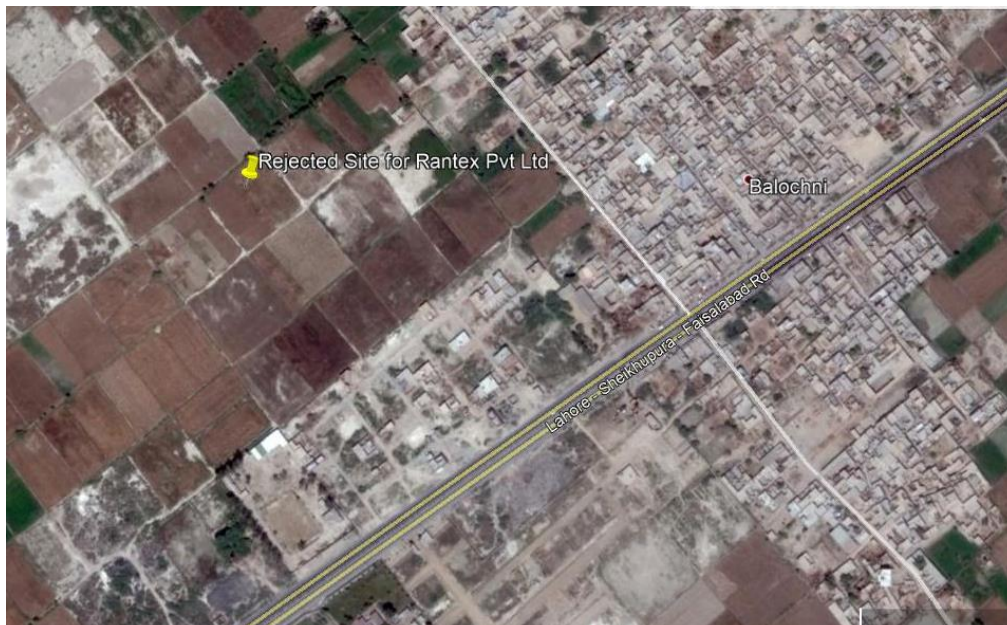
4.1. Site alternatives:

To fulfill the commercial aspects of the project under reference of this EIA Report, it is to be sited at a place where commercial processing activity is either already going on or there are bright prospects of the same. Concurrently, it must also meet the legal requirements of the Punjab Environmental Protection Act, 1997 (Amended 2012). Availability of land at the best convenient place is equally important among other considerations for the site selection. Availability of access roads, communication facilities, electricity, basic infrastructure, sewerage etc. is yet the other necessary requirements.

Obviously, environmentally sound, neat and clean environment are the other considerations for site selection. The project will also facilitate the people of the area with increasing the opportunity of employment, and other related facilities.

Keeping these requirements and their feasibility and other basic infrastructural requirements, the selected site is ideally suited

Alternative Site: Near Balochni



Alternative Site: Near Chak 60RB Mogi



Alternative site considered for the subject project

Before the consideration of subject project site, project proponent had considered other sites at/ near the Chak 60 and Balochni, but later it was rejected due to some reasons.

4.1.1. Reasons of Rejection

The reasons of rejection of this site are:

- High cost of land
- Nearby human settlements
- Due to the ownership conflict of surrounding land
- No proper communication facility
- Fauna & Floral Species are present at this site in abundance.

4.2. Technology Alternatives:

The proposed development will be constructed using modern, locally and internationally accepted technology and materials to achieve public health, safety, security and environmental aesthetic requirements. Equipment that saves energy will be given first priority without compromising on cost or availability factors.

M/s Ali Murtaza Associates Pvt. Ltd is an Environmental conscious company which intends to use modern and state of art machinery with minimum impacts on Environment.

4.3. Environmental alternative

The project is located in the outskirts of Lahore District. The site is located in an Industrial Area. Various industries have already been constructed on the industrial estate that are complying with the PEQS standards by installing various pollution control devices. Establishment/installation of this project in this area will have minimal impact on the daily life of people living in Lahore. The project proponent is recommended to make sure the regular maintenance of ETP during the project operations to keep the effluent within the PEQS limits. The Proponent has ensured that regular maintenance will be done to control water pollution impact. Also, the proponent ensured that project vehicles related to dyeing unit operation will be maintained so they don't cause any vehicular emissions.

4.4. Economic Alternatives

The project proponent intends to establish a cut to pack unit of garments and dyeing process.

The installation of this project will lead to the project towards sustainability as the project will not release any untreated wastewater into the drains. This will improve the project brand in the international market and attract international investment. This project will provide employment during construction phase and managerial staff at operation phase as laborer's workers and managerial staff. This project will accelerate the economic development of the district Lahore and in turn Pakistan.

CHAPTER # 5

5. SCREENING OF POTENTIAL ENVIRONMENTAL IMPACTS & THEIR MITIGATION MEASURES

5.1. Environmental Impacts due to project location

Project is present in the industrial area of the District Lahore. No nearby human settlement exists within the radius of 500 meter. The site does not fall in the category of sensitive area and no environmentally sensitive localities exist within radius of study area. The only issue which can arise due to the location of the subject project could be the issue of traffic congestion due to transportation of the construction material at the project site. If the project proponent maintain HSE conditions and comply with the PEQS limits than, there will not be any significant impacts of the project on the environment.

If the mitigation measures are effectively implemented, the residual impact of the Subject project activities on the area's geophysical environment is expected to be insignificant.

Impact significance: Low or may be positive

Nature of impact: Direct

Duration: Long-term

Timing: construction phase

Reversibility: NA

Likelihood: Low (unlikely),

Consequences: Mild or may be positive

5.2. Mitigation Measures for location phase impacts

- Project site should have good road infrastructure and efficient road infrastructure already exists there that is used currently to access the site and there is no issue of the road congestion due to the wide, good and paved road named Raiwind Road Lahore.
- Location can be considered as the positive impacts due to utilization of the product in the same District.
- The project will provide the jobs to the local residents as well as to those from the suburban areas.

5.3. Environmental Impacts due to the project design

Subject project for which this Environmental Impact Assessment study has been conducted is proposed establishment/ installation of cut to pack unit of garments including dyeing, under

the name of M/S Ali Murtaza Associates Pvt. Ltd. at 6-Km Off Ferozepur Road Deo Pul Rohinala Lahore.

Firefighting plan, health & safety plan, tree plantation plan, emergency response plan will be incorporated during the design phase of the project. The subject project will consist of;

- Office building
- Fabric Store
- Cutting area
- Stitiching Area
- Washing area
- Finsihiing area
- Packaging area
- Quality Assurance office
- Separate water storage taken for the firefighting and domestic purposes
- Firefighting instrument room
- Parking area

Following are the major Environmental impacts due to the development related to the design:

- Structural stability of the proposed project.
- Soil structure and soil bearing capacity
- Road infrastructure design
- Emergency exit in the proposed project
- Firefighting system
- Rain water harvesting capacity of the drainage system
- Electricity hazards

Impact significance: moderate to high or may be negative

Nature of impact: direct

Duration: Long-term

Timing: Constructional phase & Operation phase

Reversibility: NA

Likelihood: moderate to high

Consequences: moderate to high or may be negative

5.4. Mitigation measures and recommendations

Following are the mitigation measures and recommendations to minimize the anticipated impacts:

- Emergency exit points should be marked within the project building.
- Firefighting system should be designed for the emergency situations.
- Electricity system should be design safe and sound.
- Electricity wires should be covered by thick plastic/electricity resistant covers.

5.5. Environmental Impacts during the construction phase

Impacts related to the construction phase of the subject project are discussed below:

- **Grubbing and stripping**

Grubbing and stripping may be a minor and short term impact on the physical environment during the construction phase. It may also be a health and safety hazard for the people at or near the project site.

- **Leveling and compaction of the land**

Leveling and compaction of the land is also a short term and minor impact on the physical environment and it may also be a health and safety hazard for the workers.

- **Demarcation of project building and other facilities**

It may also be a minor impact on the physical environment due to the subject project.

- **Generation of dust during loading and unloading of construction materials**

It is also a minor and short term impact on the physical environment and also for health and safety, which may arise during the construction phase.

- **Generation of noise on account of vehicular use and construction activities**

It is also a minor and short term impact on the physical environment and also for health and safety, which may arise during the construction phase.

- **Gaseous emission due to the vehicles and stand by generator (if any)**

It may also be a minor impact on the physical environment during the construction phase, if vehicles and generators are not properly tuned.

- **Local flooding due to over-use of water and leakage of pipes**

It may be a minor and short-term impact on the physical environment if precautionary measures have not been taken.

- **Safety of construction workers, people in the surroundings and passersby**

Health and safety issues may arise during the construction phase if proper precautionary measures will not be taken.

- **Any outbreak of fire due to electrical and other failures**

This issue may arise due to carelessness or improper management, and it may be a serious hazard which may affect the environment or may also cause the loss of property or life.

- **Solid waste generation due to domestic and construction activities**

Solid waste generation due to domestic and construction activities may be a negative impact on environment if not managed properly.

- **Wastewater generation from the domestic and constructional activities**

Wastewater generation due to domestic and construction activities may be a negative impact on environment if proper wastewater treatment and management system will not be implemented.

- **Ground water quality**

Ground water quality may be affected by the development if proper mitigation measures will not be implemented.

- **Impacts on Fauna and Flora**

Construction will impact the flora/ vegetative cover and fauna present at the project site.

- **Security threat**

Security issue is a major socioeconomic impact which may arise during the construction phase.

- **Impact on land value**

Construction of the subject project may cause positive or negative impact on the land value.

- **Dislocation of the people**

Construction of the subject project may cause the dislocation of the local people if any, which is a negative impact on the socioeconomic environment.

- **Loss of public and private infrastructure**

Construction of the subject project may cause loss of public and private infrastructure if any, which is also a negative impact on the socioeconomic environment.

Impact significance: moderate to high or may be negative

Nature of impact: direct

Duration: Short Term

Timing: Construction phase

Reversibility: NA

Likelihood: moderate

Consequences: moderate

5.6. Mitigation Measures and Recommendations

- Precautionary measures should be adopted to save the environment from the impacts of grubbing, stripping, leveling and compaction and health and safety of workers should be ensured during the construction phase.
- Demarcation of the project building and other facilities should be according to the laws and regulations.
- Sprinkling of water on dusty tracks is recommended to avoid the generation of dust on dusty tracks.
- Vehicles should be properly tuned to reduce the impacts of dust and noise.
- Mitigation measures should be taken to meet the PEQS at the stack of generators.
- Proper mitigation measures should be taken to reduce the noise generation during the construction activities.
- PPEs i.e. ear muffs, helmets and masks etc. should be provided to workers to ensure their health and safety during the construction activities.
- Precautionary measures should be taken to reduce the local flooding due to over-use or leakage of pipes.
- Health and safety of construction workers, people in the surroundings and passersby must be ensured.
- Precautionary measures should be taken to avoid any outbreak of fire due to electrical and other failures.
- Constructional waste should be used for landfilling purposes.
- Domestic solid waste should be kept in dust bins and should be handed over to local contractors.
- Add more vegetation to restore the land by more plantations.
- Essential services like water supply, sewerage disposal and solid waste management must be in working condition.
- Construction timings should be scheduled to cause minimum disturbance to neighbors.
- Because of presence of security guards round the clock the security at the project site will be improved as well as in its vicinity. Impact will be moderate positive.
- Land value in the surrounding area will increase due to completion of the present project. Impact will be moderate positive.
- The project does not involve dislocation of the people. There is no requirement of resettling a single person. Impact is nil.

- No movable or immovable property and infrastructure of public and private sectors will be lost or damaged during construction and operation stages. Impact will be nil.

5.7. Environmental Impacts during Operation Stage

Main environmental issues associated with Project operation are as follows.

- Health and safety issues for workers may arise during the project process e.g. Particulate matter may be generated during the cutting of the fabric, which may cause the health issues for the workers and noise of machinery can also be a negative impact on the health of workers.
- Waste water due to domestic and process activities.
- Fire due to short circuits and other activities.
- Solid waste generation due to domestic and project related activities.
- Noise pollution from generator and other machinery.
- Health hazards including the electricity hazards.
- Vehicle access is required especially for transportation. The site is well served with the road network. Heavy traffic will be allowed only during night time during operational phase. The traffic issues at any stage of project life cycle will not arise.

Impact significance: moderate to high or may be negative

Nature of impact: direct

Duration: Long-term

Timing: operational phase

Reversibility: NA

Likelihood: moderate to high

Consequences: moderate to high or may be negative

5.8. Recommendations

- Safety of workers should be ensured through proper training and PPEs must be ensured during the working hours.
- A well design firefighting system will be constructed to cope with fire situations in the subject project.
- Solid waste bins should be installed at designated processes and Installed Solid waste bins should regularly cleaned and solid waste must be handed over to the EPA Approved contractor.
- Noise levels should not exceed the PEQS.

- Project proponent should submit all the monitoring report in the EPA Punjab Office for the compliance of the PEQS.

5.9. Potential Environmental Enhancement Measures

The proposed project will be installed with all precautionary measures to enhance and safe the environment. Following necessary measures will be adopted during construction and operation:

- Sprinkling of water will be done on dusty roads and tracks.
- PPEs will be provided during construction activity.
- Constructional waste and domestic solid waste will be disposed-off or utilized properly.
- Local people will be informed in advance when work is about to start in an area.
- Machinery will never be left unattended.
- Efforts should also be made to discuss traffic conditions so that regular traffic is not disturbed. Transporters engaged for the project would be forced to adhere to the load specifications of the access road. No overloading would be allowed in any case.
- Safety signs and boards will be placed during construction.
- Air pollution controlling devices must be installed within the project during operation.
- Machinery will be kept maintained.
- Waste water will be treated through waste treatment facility (septic Tank) that will be installed within the premises of the subject project.
- Proper SOPs will be followed with proper schedule along with the HSE conditions.
- Area will be restored with native plants. A proper tree plantation plan will be formulated to save the environment.
- Solid waste will be handed over to contractors and agreement will be made.
- Noise will be controlled by adopting proper measures.
- PPEs will be provided to workers during working.
- Firefighting equipment's and system will be installed.
- Safety signs will be placed at all locations where required.
- Hygienic conditions will be ensured and proper quality will be maintained by quality control testing.
- First aid facilities will be made available.

5.10. Purpose of Mitigation measures

Purpose of mitigation measures should include:

- What is the problem i.e. in terms of “major environmental impacts” which may arise by the subject project activity?
- When the problem will occur and when it should be addressed?
- Where the problem should be addressed?
- And how the problem should be addressed?

The major impacts may arise by the subject project, particulate matter, dust, noise, odor and solid waste. Other impacts are of minor importance. These impacts will arise during construction and operation but precautionary measures will be adopted prior to start the activity, during the activity and post activity.

Any impact that would arise due to the subject project activity will be addressed on site. Trainings will be conducted onsite prior to start work while other precautionary measures will also be adopted to make the project safe and environmental friendly.

HSE manager/environmental manager along with site manager will be appointed to assess any impact that could be arisen during both phases. He would be responsible to address the problem and to mitigate it.

5.11. Ways of achieving mitigation measures

By adopting proper mitigation measures, any anticipated major or minor environmental impacts could be controlled or mitigated. The details of impacts and mitigation measures have been discussed in previous chapters.

Management of M/S Ali Murtaza Associates Pvt. Ltd. shall take appropriate measures to provide pollution free and safe environment during the proposed project activity by implementing improved management practices and monitoring techniques suggested in EMP. M/S Ali Murtaza Associates Pvt. Ltd. will adopt such plan that will assure the minimum impact on the environment and health by implementing proper mitigation measures. Design of the project will assure the structure stability and project life in a long run.

M/S Ali Murtaza Associates Pvt. Ltd. will develop Restoration/ reclamation or tree plantation plan to restore the project area. Maximum Plantation will be done with native species within the unit, along the boundary wall and along the roadside if directed by EPA. Also, in-front of main area, horticulture plan will be formulated and area for this will be kept reserved.

CHAPTER # 6

6. ENVIRONMENTAL MANAGEMENT AND MONITORING PROGRAM

6.1. Purpose and Objectives of the EMP:

The primary objectives of the EMP are to:

- Facilitate the implementation of the mitigation measures identified in the EIA.
- Define the responsibilities of the project proponent.
- Define a monitoring mechanism and identify monitoring parameters in order to:
 1. Ensure the complete implementation of all mitigation measures.
 2. Ensure the effectiveness of the mitigation measures.
 3. Provide a mechanism for taking timely action in the face of unanticipated environmental situations
 4. Identify training requirements at various levels.

6.2. Management Approach:

The overall responsibility for compliance with the environmental management plan rests with the project proponent.

A certain degree of redundancy is inevitable across all management levels, but this is in order to ensure that compliance with the environmental management plan is crosschecked.

6.3. Institutional Capacity

Following functionaries will be involved in the implementation of EMP:

- Project Proponent
- HSE/Project Manager
- In-Charge Administration
- Supervisor of project
- Environmental Engineer

6.4. Training Schedules

Training for the management/contractors/engineers and workers on environmental aspects of the project will be arranged. It will be imparted by a team of experienced trainers.

6.5. Training of building contractor

Training of building contractor & workers will be the part of the TORs regarding the construction of the scheme. The provisions given in EIA Report Chapter 5 Screening of Potential Environmental Impacts & Their Mitigation Measures will be followed.

TORs will be including the training and submission of reports in the following area:

1. Handling of Machineries in a safe way
2. Use of PPEs
3. Maintenance of vehicles and submission of Environmental Monitoring Reports
4. Maintenance of Water Consumption records
5. Testing of water and waste water and submission of Environmental Monitoring Reports.
6. Placement of safety signs/boards during construction
7. Sprinkling of water on the roads and dusty tracks
8. Monitoring of generator emissions

Training regarding all other aspects of HSE will be ensured by the contractor during the construction phase.

6.6. Responsibility of EMP

Overall responsibility for implementation of EMP will be that of project proponent. He will appoint a HSE/Project Manager of relevant qualification. HSE/Project Manager will act as Environmental Manager and will manage the all HSE condition at the PEQS.

Summary of impacts and their mitigation measures

Serial	Environmental Issues/ Impacts	Mitigation Measures
PLANNING, SITE SELECTION AND DESIGN STAGE		
1	Observance of administrative and legal formalities	It is recommended for obtaining of approval from other relevant departments.
2	Acquisition of land	The proposed land is the property of the project proponent.
3	Loss of environmentally sensitive areas	There is not any sensitive area near the project site however the project proponent will achieve the PEQS at the boundary wall of the subject project to avoid the environmental impacts on the nearby industrial unit.
4	Changes in traffic pattern	There is no need to change the traffic pattern due the development of the subject project because no. of industries have been developed at the same link road only few vehicles will visit the project on daily basis.
5	Potential conflicts with stakeholders	There is not any conflict at the current stage of the project. Neighboring industries were visited regarding their concerns. They have no objection regarding development of the subject project as per proposed design.
6	Resettlement issues	No resettlement issues
7	Project Design	Provision of Emergency Exits, Assembly Points, firefighting arrangements, water storage for firefighting should be incorporated in the design. Installation of Dust/flue gases/odor controlling devices should be incorporated in the design. Project proponent is committed to provide all these provision in the design of the project.
SITE DEVELOPMENT STAGE		

1	Erosion due to stripping and site clearance.	Sprinkling of water on road sides or dusty tracks.
2	Generation of dust	Careful loading and unloading of construction materials is recommended. Sprinkling of water on construction site and surrounding areas is recommended.
3	Generation of noise	• Avoid use of horns at the site. • Do not throw heavy equipment and construction materials in haphazard manner.
4	Local flooding/ponding	Immediate repair and maintenance of water supply pipes and sewers in case of any defect will be undertaken.
5	Outbreak of fire	Firefighting equipment must be maintained at the site in good working condition.
6	Safety	Safety of the workers and others must be ensured. Privacy of the neighbors must not be disturbed.
7	Labor issues	Employ the local labor as far as possible Wages of the labor should be as per Government policy
CONSTRUCTION STAGE		
1	Minor erosion of land	There are two types of erosions: 1. Wind Erosion 2. Water erosion • It is recommended to construct the boundary wall first that will reduce the soil erosion due to wind and chances of water erosion due to water flow from the adjacent will be reduced also. • Clearing of land should be step wise; vegetation should be removed only from the area where main building will be developed. • Add more vegetation, restore the land by more plantation

		Sprinkle water on dusty tracks is recommended
2	Contamination of land and water	Hazardous substances like oil, fuel, etc. should be kept on concreted surface. Essential services like water supply, sewerage disposal and solid waste management must be in working condition.
3	Impacts of dust, noise and flue gases on neighbors	Sprinkling of water on dusty tracks is recommended. Avoid use of horns at the site. Do not throw heavy equipment and construction materials in haphazard manner. Proper tunings of vehicles and machinery must be ensured. Schedule construction timings should be implemented for minimum disturbance to neighbors. Continuous Environmental monitoring must be ensured as per proposed monitoring plan.
OPERATION STAGE		
1	Contamination of land and water sources	Continuous vigilance on maintenance of services. Tarpaulin sheets must be placed to avoid leaching of oil into ground.
2	Fire breakouts	Training of workers regarding flammable substances will be ensured. SOPs of fire prevention will be adopted like forbidden of smoking, regular testing of electricity infrastructures and regular testing of gas supply system to the industry. Firefighting equipment must be kept in working condition at site.
3	Safety/security concerns	Safety of the workers and others will be ensured. Privacy of the neighbors will not be disturbed.
4	Malfunction of utilities	It is proposed to appoint maintenance engineer with technicians like plumber and electrician for smooth operation of utility services.

5	Occupational Health, Safety and Environment	- Regular medical check-ups must be ensured to improve the working condition and efficiency of workers. - Safety of management, workers and visitors must be ensured. - Observance construction and safety codes must be ensured. - Provision of emergency exits must be ensured.
6	Production of Solid Waste	Area for solid waste must be reserved within the subject project. The solid waste must be managed on regular basis. The domestic waste will be disposed-off in environment friendly way.

6.7. Equipment Maintenance Detail

The subject project is the establishment/ installation of cut to pack unit of garments including dyeing under the name of M/S Ali Murtaza Associates Pvt. Ltd.. The company will maintain the records for Health Safety & Environment and will hire HSE manager to check and deal with the HSE issues. The company shall maintain PPEs, medical facilities, firefighting Equipment's as fire buckets, fire hydrants and fire extinguishers and records for their periodic fillings or replacement. HSE policy is attached in **Annexure-E**.

6.8. Environmental Budget

The cost which is required to effectively implement the mitigation measures is important for the sustainability of the Project in operation stage of the Project.

Company has allocated the Environmental Budget is 3-5 million Rs. out of total capital cost for the Training, maintenance and management of Environment that will include filling and maintenance of equipment's, restoration, plantation, and availability of PPEs, strategic planning to cope with any emergency situation and formulate the disaster management plan to cope with natural disaster. Any equipment or devices failure or replacement will not be included in this budget.

6.9. ENVIRONMENTAL MANAGEMENT PLAN FOR MANUFACTURING UNIT OF M/S ALI MURTAZA ASSOCIATES PVT. LTD.

Serial No.	Environmental Parameter/ Element	Mitigation measure to be taken during construction stage		
		Construction	Regular operations	Responsibilities
1.	Gaseous/ Dust emissions	1- Construction materials i.e. sand, clay shall be transported to the project site during night time and will be stored away from the road or foot path. They will be kept under cover to avoid any fugitive dust.	Management will ensure that PPEs i.e. masks will be provided to workers during the working hours.	HSE/Environment Manager
		2- The site proposed for the construction of Manufacturing Unit is located away from human settlements.	Vehicles to use for the transportation of raw materials Manufacturing Unit, should be properly tuned.	
		3- All equipment, generators, and vehicles used during the project will be properly tuned and maintained in good working condition in order to minimize exhaust emissions.	One diesel fired generator shall cater for emergency situation only. Their exhaust will be emitted through an adequately fabricated stack. It will also be kept in mind that the generators will	

			only function during emergency condition for limited period.	
		4- All project vehicles will be checked regularly to ensure that engines are in sound working condition and are not emitting smoke.	Monitoring should be conducted on Monthly basis as per EPA PEQS Rules.	
2.	Noise	1- All activities will be under PEQS level of noise during construction phase.	All activities will be under PEQS level of noise during operation phase.	HSE/Environment Manager
		2- Ear plugs will be provided & implemented (ensured by the management of Ali Murtaza Associates Pvt. Ltd	PPEs i.e. ear muffs should be provided to workers in case of high noise.	
3.	Health & safety	1- Local people will be informed in advance when work is about to start in an area. This may result in people keeping young children away from work areas. 2- Machinery will never be left unattended.	1- The EMP guidelines will be followed strictly (committed by the management). 2- Training of workers will be conducted regarding health and safety.	HSE/Environment Manager

		3- Safe driving practices will be adopted, particularly while passing through settlements. 4- Basic health facilities will be provided to workers. 5- PPEs will be provided & implemented. 6- Electrical wires, D.Bs will be kept covered to avoid electrical hazards.	3- PPEs will be provided and implemented. 4- First aid measures will be provided to workers. 5- Shift Rotation, proper ventilation will be provided to workers in case of thermal stress. 6- Safety signs, safety boards, exit arrows etc. will be placed on site. 7- An Assembling point will be kept to gather in case of emergency situation such as fire hazards. 8- Floors will be kept clean without slippery to avoid any hazard. 9- Firefighting system will be installed to avoid any health hazards.	
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			10- Electrical wires, D.Bs will be kept covered to avoid electrical hazards. 11- Machinery will never be left in running condition.	
4.	Generation of domestic & project process related solid waste.	Construction Solid waste will be stored in solid waste bins and will be reused for land filling and maintenance purposes and domestic waste will be handed over to the certified contractors.	Domestic, process related solid waste and sludge will be stored in solid waste bins and will be handed over to certified contractors.	HSE/Environment Manager
5.	Waste effluents	Wastewater must be treated	The sewage to be generated shall be treated in current treatment facility of unit & then will be drained out in the nearby Sundar Industrial Estate drain.	HSE/Environment Manager
6.	Water supply	It shall be ensured that no activity tempers with the water supply system and water availability	It shall be ensured that no activity tempers with the water supply system and water availability	HSE/Environment Manager
7.	Soil erosion	The clearing of vegetation along proposed site will be minimized as far as possible.	Plants will be planted during operation phase of the subject Division.	HSE/Environment Manager

8.	Enhancement of aesthetic beauty of the building and the area.	---	1- Flower pots containing flowers and plants will be provided in front of the building to add to the improvement of the environment around. 2- All other necessary measures will be taken to maintain standards of cleanliness so that the building may add to the scenic/aesthetic beauty of the area around.	HSE/Environment Manager
9.	Staff for catering the Environmental Management Plan	---	1- Special staff will be recruited to implement this Environmental Management Plan on regular basis.	HSE/Environment Manager
10.	Sludge from Effluent treatment plant	----	Sludge will be handle properly and after successful removal from tanks It will hand over to contractors	HSE/Environment Manager

CHAPTER # 7

7. STAKEHOLDERS PARTICIPATION

Social acceptability of the project and the area is a key to success. Consultation with the stakeholders is a tool for managing two-way communication between the project proponent and the affected public. Its goal is to improve decision making and built understanding by actively involving individuals, groups and organizations, which have stake in the project. This involvement increases project's long term viability and enhances its benefits to locally affected people and other stakeholders.

In order to evaluate the socioeconomic and environmental impacts, filed surveys are extremely essential. In addition to the surveys at the preliminary stage, consultation with the community and their active participation plays a vital role in successful implementation of the project. To identity the different types of stakeholders and ascertain their perceptions about the project, an initial environmental examination was conducted. Informal group discussions were also held as an additional tool for obtaining feedback from the stakeholders that are being discussed in the following pages.

7.1. Objectives of Consultation

Public consultation plays a vital role in studying the effects of the project on the stakeholders and in the successful implementation and execution of the proposed project. Public involvement is a compulsory feature of environmental assessment, which leads to better and more acceptable decision making. The objective of the consultation with stakeholders is to help verify the environmental and social issues that have been presumed to arise and to identify those which are not known or are unique to the establishment/ installation of the proposed unit.

The important general objectives of the consultation process are:

- Information dissemination, education and liaison;
- Identification of problems and needs;
- Collaborative problem solving;
- Reaction, comment and feedback on proposed project;
- Documenting mitigation measures proposed by the stakeholders;

7.2. Methodology of consultation:

The EIA team carried out public consultations at various locations around the Project Site. The stakeholder's consultation during this phase of the work targeted the project area, administrative and private offices, Govt. offices, shops, etc. near the Project area:

- Selection of the stakeholders for consultation, reconnaissance of the proposed project site and initial discussions with the neighboring factory workers, villagers, shopkeepers, drivers etc.
- Environmental consultants and social specialists and documenting the opinions of the stakeholders expressed during the meetings etc.

7.3. Proponent

Possible impacts and mitigation measures related to the subject project were discussed with the project proponent and management. They assured to take all suggested mitigation measures to control any discrepancy arose by the project and to make the project environmental friendly.

7.4. Responsible Authority

Management of M/S Ali Murtaza Associates Pvt. Ltd. is the responsible authority to take all measures prior to start the activity.

7.5. Other departments and agencies

For the impact analysis detailed meetings were held with the management of M/S Ali Murtaza Associates Pvt. Ltd. local community, education institutes, health institutes, hospital and NGOs. Issues were discussed that may affect the environment and also the implementation of proposed project. All possible mitigation measures were considered and incorporated in the Environmental Management Plan.

Scoping sessions, focused group discussion and way side consultations were held with the relevant stakeholders in the area. The purpose of such consultations is to obtain the feedback from the relevant persons.

7.6. Affected & Wider Community

There is no affected community present in the radius of our study area. PGEE team has consulted with the inhabitants of the different villages. They provided positive remarks regarding the subject project and in the favor of the subject activity for the proposed plant. Stakeholders participation Performa's and socioeconomic questionnaire were get filled by the

inhabitants to evaluate the project socio-economic impacts. List of respondents and socioeconomic questionnaires are attached as **Annexure-F** with the report.

7.7. Categories of stakeholders interviewed in the project area:

Sr. No.	Stakeholder Category
1.	Neighboring factory workers.
2.	Nearby residents
3.	Shopkeepers.
4.	Drivers.

7.8. Issues Discussed:

Following issues were discussed during the stakeholder consultation:

- Overall activities of the project;
- Possible impacts on natural vegetation, air, land and properties;
- Possible mitigation measures;
- Benefits of the project specifically for the local people.

7.9. Findings of the Overall Discussion:

- After the completion of the proposed project the site will be used for industrial activities.
- It will enhance the socio-economic conditions/values of the area.
- Project will increase revenue generation for the Government.
- It will create employment opportunities.
- Local people will be given preference for employment in the proposed project.
- Establishment/ installation of the proposed project will be completed in the designated timeframe to limit adverse impacts of construction.
- There will be no significant additional load on the existing infrastructure i.e. utilities of water, telephone, electricity etc. due to the development of the proposed project.

Majority of people favored the proposed project in a sense that the construction of the said project will generate employment opportunities for local people and revenue for the government, will enhance the socioeconomic conditions of the area and automatically will contribute to the national economy of the country.

CHAPTER # 8

8. CONCLUSION AND RECOMMENDATIONS

Based on the study conducted for Environmental Impact Assessment (EIA) for the subject project, the following conclusions are made:

8.1. CONCLUSIONS

- The EIA study reveals that the project is economically viable, socially acceptable and environment friendly.
- It will generate additional jobs during construction and operation phases.
- The proponent has committed to implement the project in the environment friendly manner.
- M/S Ali Murtaza Associates Pvt. Ltd. intends to register the project with local Government.
- M/S Ali Murtaza Associates Pvt. Ltd. has prepared and implemented very comprehensive Emergency Preparedness and Response Standard Operating Procedures.
- M/S Ali Murtaza Associates Pvt. Ltd. has prepared and implemented very comprehensive Security and Fire Fighting Standards Operating Procedures.

8.2. RECOMMENDATIONS

- In view of the comprehensive screening process and findings of the present study there is no need of conducting further investigations.
- Tree plantation inside the unit and near the unit is recommended.
- The untreated wastewater will not be reused for irrigating the vegetation and lawns.
- High standards of bio-security and safety will be enforced during operation stage. Safety of the workers will be top priority for the management.
- The management of M/S Ali Murtaza Associates Pvt. Ltd. will continue to assist the local communities as a corporate/social responsibility. The present EIA report is enough to meet the administrative and legal framework. Therefore, the environmental approval may be accorded for the present project.