SARENA
TEXTILE INDUSTRIES

ENVIRONMENTAL IMPACT ASSESSMENT REPORT

2025

PAK GREEN ENVIRO-ENGINEERING PVT. LTD

46-M, GULBERG III, LAHORE

0092 303 4442334

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LIST OF ABBREVIATIONS

EIA	Environmental Impact Assessment
PEPA	Pakistan Environmental Protection Act
PEPA	Punjab Environmental Protection Act
NEQS	National Environmental Quality Standards
WAPDA	Water And Power Development Authority
WASA	Water and sanitation authority
EMP	Environmental Management plan
EMC	Environmental Monitoring Cell
WWTF	Wastewater Treatment Facility
NOC	No Objection Certificate
NCS	National Conservation Strategy
LAA	Land Acquisition Act
Pak-EPA	Pakistan Environmental Protection Agency
W.H.O	World Health Organization
LESCO	Lahore Electric Supply Company
SWM	Solid Waste Management
CSR	Corporate Social Responsibility

MSWs	Municipal Solid Wastes
TMA	Town Municipal Authority
dB (A)	Decibel
PPM	Part per million
$\mu g/m^3$	Microgram per cubic meter
KVA	Kilo Volt Ampere
PPEs	Personal protective equipment's
TDS	Total dissolve solid
TSS	Total suspended solid
SS	Suspended solid
COD	Chemical oxygen demand
BOD	Biological oxygen demand
HC	Hydrocarbons
PM	Particulate matter

EXECUTIVE SUMMARY

Title & Location of the project

It is the intention of **Mr. Syed Javed Akhtar Shah, S/o Syed Ahmad Shah**, the proponent of **Sarena Textile Industries (Pvt.) Limited**, to obtain **environmental approval** by submitting the **Environmental Impact Assessment (EIA)** for the **proposed extension** of **Sarena Textile Industries (Pvt.) Limited**. The project involves the expansion of the existing textile processing unit, including **yarn dyeing, weaving, dyeing, printing, finishing, apparel manufacturing**, and the establishment of an **Effluent Treatment Plant (ETP)**. The project site is located at **22 KM, Lahore-Sheikhupura Road, District Sheikhupura**. The production capacities for various processes are as follows:

- **Yarn Dyeing**: 4,197,500 KG per annum
- **Weaving**: 36,066,380 meters per annum
- **Dyeing, Finishing & Printing**: 1,080,000,000 meters per annum
- **Apparel (Cutting, Stitching, Laundry)**: 5,100,000 pieces per annum

The total covered area of the project site is **2,000,402 SFT**, with a total estimated cost of **PKR 11,573 million**. This EIA is being submitted in compliance with **Section 12 of the Pakistan Environmental Protection Act (PEPA), 1997 (Amended 2012)**, to ensure that the expansion is carried out in an environmentally responsible and sustainable manner.

Location

The Subject project is located at 22 KM, Lahore Sheikhupura Road, District Sheikhupura.
Project land coordinates are as follows:

- 31° 39' 57.77" N
- 74° 8' 33.24" E

North ----------Open Area

South ----------Covered Area

East ---------- Industrial Unit

West ----------Kot Pindi Das Road

For further details, layout map of the project is attached as ***Annexure-B*** with the report.

Figure 1: Google map of the project area M/s Sarena Textile Industries (Pvt) Limited

Name of the proponent

Name: Mr. Syed Javed Akhtar Shah S/o Syed Ahmad Shah

Address: Makan no.162, Street No.04, Muhala Faisal Colony, Pattoki, District Kausur

Designation: GM Administration & IR

CNIC: 35103-1376697-9

For further details CNIC of the proponent and other relevant documents are attached as 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 Study (EIA).

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

Contact: 042-35441444, 0303-4442335.

For detail company profile see the *Chapter # 1 "Introduction"*

A brief outline of the proposal

Title of the Project	Proposed Extension of Sarena Textile Industries (Pvt) Limited
Location of the Project	22 KM, Lahore-Sheikhupura Road, District Sheikhupura
Name of the Proponent	Mr. Syed Javed Akhtar
Cost of the Project	Total estimated cost of the project is **Rs. 11,573 million**
Project Description	Sarena Textile Industries (Pvt) Limited is undertaking an expansion project to enhance its production capacity and improve operational efficiency. The proposed extension includes the addition of **yarn dyeing, weaving, dyeing, printing, finishing, and apparel manufacturing facilities**. Furthermore, the project entails the **capacity enhancement of the Effluent Treatment Plant (ETP)** and

	the **installation of new boilers, generators, and steam turbines**. The project spans a **total area of 2,000,402 square feet**.
Raw Materials	Raw materials include **gray cloth, dyes, and textile chemicals** required for fabric processing.
Production Capacity	The expansion project includes the following production capacities: **Yarn Dyeing** – 4,197,500 KG per annum **Weaving** – 36,066,380 meters per annum **Dyeing, Finishing & Printing** – 1,080,000,000 meters per annum **Apparel (Cutting, Stitching, Laundry)** – 5,100,000 pieces per annum **Boilers** – 30 TPH, 35 TPH, 20 TPH **Steam Turbines** – 10 MW **Effluent Treatment Plant (ETP)** – 6,000 m^3/day
Power Requirement	Power requirements will be fulfilled by the **National Grid/WAPDA**.
Labor/Workforce	**During Construction:** 20-25 persons
Water Requirement	**During operation:** Approximately **80 gallons per year** for industrial processes and domestic purposes.
Solid Waste	**During operation:** Domestic waste generation of **0.75 kg/capita/day per person**, which will be **handed over to a contractor**. Project-related waste will include **physical dry waste in solid form**, which will be **baled using a baling press for reuse by other mills**.

The major impacts

In order to identify all the activities associated with the project during 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. Moreover, area for plantation is also reserved for air purification within the project vicinity.

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

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 $\mu g/m^3$ 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	OSHA Standards	Proper training of the staff should be

Injuries may be caused during the machinery handling.		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 quarterly basis during operational phase of the project and report should be submitted to EPA Punjab.

- **Noise**

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

- **Water quality**

Regular monitoring of water quality should be conducted on monthly basis during operation phases of the project and report should be submitted to EPA Punjab. Record should be maintained regarding the underground water pump and consumption.

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

CHAPTER # 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 Study.

Purpose of the report

Environmental Impact Assessment 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 2022) for obtaining No Objection Certificate (NOC)

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 sectorial guidelines

Various aspects like environmental, social, physical and other aspects of the project 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.

Identification of the project and proponent

The proposed project falls under Clause 6 of Category B of Schedule II of the Review of IEE and EIA Regulations, 2022.

Proponent:

Name: Mr. Syed Javed Akhtar Shah S/o Syed Ahmad Shah

Address: Makan no.162, Street No.04, Muhala Faisal Colony, Pattoki, District Kausur

Designation: GM Administration & IR

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Details of Consultant

Pak Green Enviro-Engineering (Pvt.) Ltd is an independent company, who conducts EIA, 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, wastewater 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:

Sr. No.	Designation	Name/Qualification	Experience
1.	Chief Environmentalist/ Lead Environmental Professional	Abdul Hafeez Nasir PhD Scholar Environmental Management	Ten Years' Experience as Environmentalist
2.	Senior Environmentalist/ Environmental Professional	Iftikhar Ahmed M. Phil Environmental Sciences	Seven Years' Experience as Environmentalist
3.	Associate Environmental Professional	Nageen Quyyum BS Environmental Science, PU	3 Year experience
4.	Associate Environmental Professional	Muhammad Ahmad BS Environmental Science, QAU	1 Years' Experience

Brief description of Nature, Size and Location of Project

Sarena Textile Industries (Pvt) Limited is undertaking an expansion project to enhance its production capacity and improve operational efficiency. The proposed extension includes the

addition of yarn dyeing, weaving, dyeing, printing, finishing, and apparel manufacturing facilities. Furthermore, the project entails the capacity enhancement of the Effluent Treatment Plant (ETP) and the installation of new boilers, generators, and steam turbines.

The project is located at **22 KM, Lahore-Sheikhupura Road, District Sheikhupura** and spans a **total area of 2,000,402 square feet**. The total estimated cost of the project is **Rs. 11,573 million**.

Project Capacities

The expansion project includes the following capacities across various processes and utilities:

Sr#	Process / Machines	Capacity
1	Yarn Dyeing	4,197,500 KG per annum
2	Weaving	36,066,380 meters per annum
3	Dyeing, Finishing & Printing	1,080,000,000 meters per annum
4	Apparel (Cutting, Stitching, Laundry)	5,100,000 pieces per annum
5	Boilers	30 TPH, 35 TPH, 20 TPH
6	Steam Turbines	10 MW
7	Effluent Treatment Plant (ETP)	6,000 m^3/day

The expansion aims to enhance the company's production capabilities while ensuring environmental compliance through improved wastewater treatment capacity. The installation of high-efficiency boilers and steam turbines will contribute to energy optimization, thereby supporting sustainable industrial growth.

This development will strengthen Sarena Textile Industries' position in the textile sector, enabling it to meet growing market demands while maintaining high-quality production standards.

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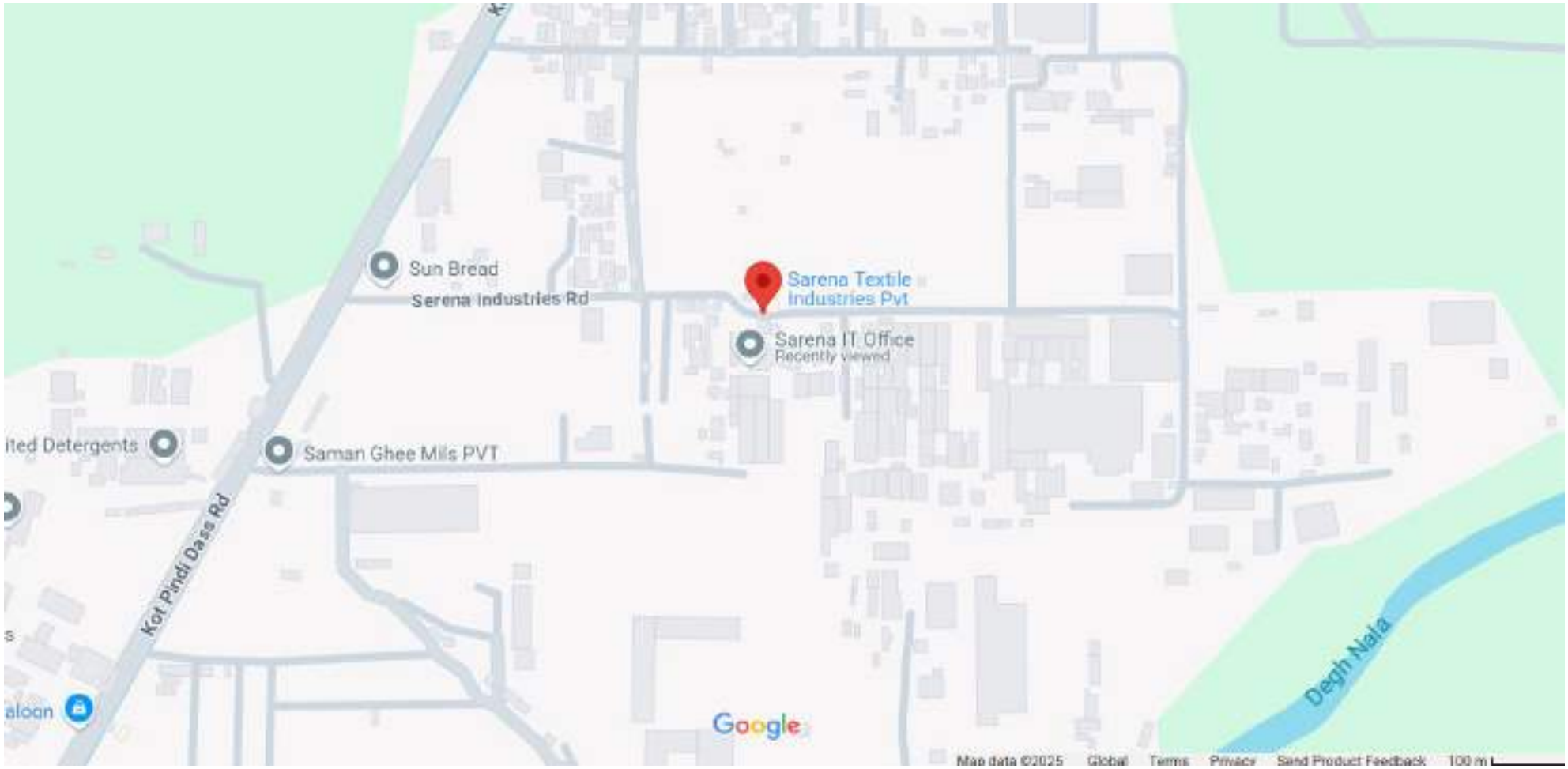

Figure: Road Network of M/S Sarena Textile Industries (Pvt) Limited

Figure: Google Earth Map of M/S Sarena Textile Industries (Pvt) Limited

For further details, layout map of the project is attached as ***Annexure-B*** with the report.

Screening:

Subject project is the proposed extension of the textile unit under the name of M/s Sarena Textile Industries (Pvt) Limited at 22 KM, Lahore Sheikhupura Road, District Sheikhupura.

Project falls under Schedule II, Clause 6 of Review of IEE and EIA Regulations, 2000. (Amended 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.***

Scoping

Spatial and Temporal Boundaries of Environmental Assessment

This project spans at the area of **2,000,402 square feet**. The existing land use is industrial as the project lies in an Industrial area in District Sheikhupura. The surrounding plots are either a property of farmers with agricultural lands and will most probably be sold to industries in future, so currently they are open plots and industrial units. The main road along with the project site is Industrial Road. The following map shows the spatial and temporal boundaries of the project. For further details Google earth map of the project on A3 page is attached as ***Annexure- B*** with the report.

Important issues and concerns raised during consultation

Important issue and concerns raised by the community during consultation include the impact of untreated wastewater released from the dyeing that may be discharged into the drinking water supply. The Proponent ensured that to treat the wastewater coming out from the industry before final disposal into the nearby drain. The community was also concerned about employment to local people. The proponent ensured that maximum job opportunities will be given to residents of the area.

Significant Impacts to be determined

The expansion of Sarena Textile Industries (Pvt) Limited, including yarn dyeing, weaving, dyeing, printing, finishing, and apparel manufacturing, may have significant environmental impacts. **Water consumption and wastewater generation** from dyeing and finishing processes can lead to water resource depletion and pollution if not properly managed. **Air emissions** from boilers and steam turbines, including particulate matter and greenhouse gases, may contribute to air pollution. **Solid and hazardous waste** from fabric processing, dyes, and chemicals can pose disposal challenges. **Noise pollution** from machinery and generators may impact workers and nearby communities. **Increased energy consumption** could strain the power supply and contribute to a larger carbon footprint.

To mitigate these impacts, the proponent has ensured the implementation of several measures. The **Effluent Treatment Plant (ETP)** has been upgraded to efficiently treat and recycle wastewater, reducing water consumption and preventing pollution. To control air emissions, the proponent has installed **low-emission boilers** and **energy-efficient steam turbines**, minimizing particulate matter and greenhouse gases. In terms of waste management, **proper waste segregation and disposal practices** have been adopted to ensure compliance with environmental standards for handling solid and hazardous waste, including dyes and chemicals. Noise pollution has been addressed through the installation of **soundproofing measures** and regular **maintenance of machinery** to minimize its impact on workers and the surrounding community. Additionally, the proponent has focused on **renewable energy sources** and energy-efficient processes to reduce overall energy consumption and minimize the carbon footprint of the project.

CHAPTER # 2

DESCRIPTION OF THE PROJECT

Title of the Project

Proposed extension of Sarena Textile Industries (Pvt) Limited.

Objectives of the Project

Objectives of the subject project are:

- To establish a state-of-the-art, environment-friendly, clean & green textile manufacturing industry
- To contribute to the national economy of the country.
- Compensate to help poverty by providing employment.

Location and Site layout of the project

Location

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Land Use on site

The land is designated as an Industrial area.

Road Access

Main Road is present at the side of the project which provides access to the project area/ unit.

Vegetation features of the project

There is no dense vegetation are present within the vicinity of the current porject.

Cost and magnitude of the operation

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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 11-12 months from the date of environmental approval. Subsequently the operational and maintenance aspects of the project is undertaken by the proponent.

Description of the project:

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Project Activities and Key Components

Raw Materials

The project utilizes various raw materials across different manufacturing segments, ensuring the necessary inputs for efficient production.

- **Fabric Dyeing Segment**: The raw materials used include **greige fabric**, which is the unfinished fabric ready for dyeing, **dyes and chemicals** for coloring the fabric, and **packing materials** for packaging the final dyed product.
- **Weaving Segment**: The main raw materials include **yarn** for weaving the fabric and **packing materials** for packaging the woven fabric.
- **Yarn Dyeing Segment**: The primary raw materials include **dyes and chemicals** used to color the yarn before it is woven into fabric.
- **Apparel Segment**: The raw materials in this segment include **fabric** for garment production, **accessories** such as buttons, zippers, and trims, and **packing materials** for the final packaged apparel.

These raw materials are carefully sourced and managed to support the efficiency and quality of production while minimizing environmental impact.

Boiler Fuels

To power the boilers used in various processes, the project relies on **biomass fuels** and **fossil fuels** for energy generation.

- **Baggase**: A byproduct of sugarcane processing, bagasse is utilized as a renewable energy source in the boilers.
- **Rice Husk**: Another renewable fuel source, rice husk is used in boilers to generate heat and power for textile processes.

These fuels are chosen for their availability and potential to reduce reliance on traditional fossil fuels, contributing to a more sustainable energy mix.

Fuel for Generators

The power requirements of the facility are met using **natural gas** and **diesel** for the generators. These fuels are critical for ensuring a stable and reliable power supply to keep the facility running smoothly, especially during peak production times or in cases of grid power failure.

Air Pollution Control Devices

To address air pollution from various machines and boilers, the proponent has installed several **air pollution control devices** across different segments of the project.

- **Boiler 5**: Equipped with **4 dust collectors** and **3 multi-cyclones** to capture particulate matter and ensure the emission levels meet environmental standards.
- **Boiler 6**: Includes **14 dust collectors** and **3 wet scrubbers** to control both particulate emissions and gaseous pollutants, ensuring cleaner air release from the system.
- **Boiler 7**: Equipped with **1 multi-cyclone**, **2 dust collectors**, and **1 wet scrubber** to efficiently manage emissions.
- **Singeing Machines**: All singeing machines are fitted with **4 scrubbers** to reduce the amount of particulate matter and other airborne contaminants generated during the process.
- **Proban Machines**: These machines are equipped with **1 scrubber** to handle the emissions produced during the fabric treatment process.

These devices collectively ensure compliance with air quality standards, minimizing the environmental impact of the facility's operations.

Process flow diagram

1. **Yarn Preparation**
    - Yarn Receiving → Yarn Inspection → Soft Winding → Yarn Drying → Hard Winding → Scouring → Washing → Bleaching → Washing → Printing → Finishing
2. **Fabric Processing**
    - Weaving → Fabric Inspection → Desizing → Washing → Fabric Surfing → Neutralization → Washing → Mercerization → Washing → Drying → Fabric Inspection
3. **Garment Production**
    - Cutting → Stitching → Quality Check → Finishing → Laundry → Quality Check
4. **Packing and Quality Assurance**
    - Trimming → Sanding/Brushing → Fabric Packing → Quality Check
5. **Final Dispatch**
    - Final Checking → Packing → Dispatch

Water requirements:

During construction phase 80 gallons/day/hr. of water will be used per day.

Wastewater treatment:

60-70% of the used water will be the wastewater from the fabric processing and other related activities- washing, dyeing etc., this will be treated in the proposed wastewater treatment plant on site and then discharged in the industrial drain after the treatment in the premises of industrial area. Design of wastewater treatment plant is attached with this report as **Annexure-F**.

Wastewater Drain:

Industrial drain is present near the project site, in which wastewater will be disposed of after treatment, it will be ensured that no wastewater will be disposed of without having been treated in ETP (wastewater treatment plant) throughout the project activities.

Solid waste:

The project related solid waste will be produced during the operation phase of the project.

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. Any waste generated will be segregated
2. Collection of waste from all the working halls at one designated point by the sanitary workers on daily basis.
3. Careful collection of waste on regular basis and temporary storage at designated point.
4. Collection of waste from designated area and handling to the solid waste contractors for its final disposal.

All these measures will ensure the PEQS compliance of generators and emissions will not exceed the limits.

Plantation

Planation will be done within and outside the unit.

Parking Area:

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

Occupational Health and Safety:

All the methods and procedures for machinery handling will be displayed and implemented at the project site. Health and safety rules for workers has been maintained.

Personal Protective Equipment:

Following PPEs is available for the workers in the proposed unit:

- Ear Plugs
- Ear muffs
- Safety Boots
- Safety Gloves
- Safety Belt
- Helmet
- Goggles

Types of PPEs used during operational phase and Operational activities.

Protection	Occupational Hazards	PPEs
Head Protection	Falling objects, inadequate height clearance, and overhead power cords	Helmets with or without electrical protection
Hand protection	Hazardous material, cuts or lacerations, vibrations, extreme temperatures	Synthetic or Rubber gloves, leather, insulating material etc.

Eye and face protection	Flying particles, molten metal, liquid chemicals, gases or vapors, light radiation	Glasses, shield protective, etc.
Hearing protection	Noise, ultra sound	Hearing protectors like ear plugs, ear muffs
Respiratory protection	Dust, fogs, fumes, gases, smokes, vapors, oxygen deficiency	Facemasks or air supply
Body protection	Extreme temperatures, hazardous materials, biological agents, cutting and laceration	Aprons, insulating clothing etc. of appropriate materials

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.

Emergency Exits:

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

Security:

The proposed unit/ industry will be constructed along with the presence of security guards round the clock which will improve the security of the project site and also in its vicinity.

Personal protective equipment:

Workers will be provided with dust mask, ear plug, ear muffs, safety boots, safety gloves, safety belt, helmet and goggles etc. during the working hours to ensure personnel health & safety. Implementation of PPEs will be ensured by the proponent for the proposed project also.

Power sources and transmission:

Power requirements for the project will be fulfilled by the National grid/WAPDA.

Restoration / Rehabilitation Plan

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

On completion of the project, the debris will be removed from the site in order to maintain aesthetics of the project. All measures are 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.

Government approvals required by the project:

All the approvals from concerned departments will be obtained after getting the approval from EPA Punjab.

CHAPTER # 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.

Physical Environment/ Resources

History:

Sheikhupura also known as Qila Sheikhupura is a city in the Pakistani province of Punjab. Founded by the Mughal Emperor Jehangir in 1607, Sheikhupura is now the 16th largest city in Pakistan, and is the headquarters of Sheikhupura District. Sheikhupura is also the headquarters of Sheikhupura Division. The city is an industrial center, and satellite town, located about 38 km northwest of Lahore. According to the 2017 Census of Pakistan, its population is 473,129.

The region around Sheikhupura was previous known as Virk Garh, or "Virk Fort", in reference to the Jat tribe that inhabited the area. The city, founded in 1607, was named by Mughal Emperor Jehangir himself - the city's first name is recorded in the Emperor's autobiography, the Tuzk-e-Jahangiri, in which he refers to the town as Jehangirabad. The city then came to be known by its current name, which derives from Jehangir's nickname Shekhu that was given to him by his mother, wife of Akbar the Great.

Mughal:

Mughal Emperor Jahangir laid the foundations of Sheikhupura in 1607 near the older town of Jandiala Sher Khan, an important provincial town during the early to middle Mughal era. He also erected the nearby Hiran Minar, Sheikhpura's most renowned site, between 1607 and 1620 as a monument to his beloved pet deer, Mansiraj, at a time when the area served as a royal hunting ground for the Mughal Emperor. Jehangir laid the foundation of the Sheikhupura Fort in 1607, which is situated in the city's centre.

Sikh

Following the collapse of Mughal authority, the city came under the control of the Bhatti tribe. The tribe struggled to maintain control of the area, as bandits and Sikhs began encroaching upon the area. In 1797, the Durrani king Shah Zaman briefly seized the city and fortress during his campaign to capture Lahore. The city's fort then was captured by the Sikh bandit, Inder Singh.

Sheikhupura was then captured from the Bhattis by the forces of Lehna Singh in 1799. Sheikhupura thus came under the rule of the Sikh Sukherchakia Misl state under Lehna Singh's ally, Ranjit Singh, forcing the Bhatti tribe to retreat to Pindi Bhattian and Jalalpur. Sheikhupura then changed hands several more times, before finally being captured by Ranjit Singh in 1808.

Sheikhupura remained under suzerainty of the Sikh Empire until 1847, when the British seized control of the area. The British imprisoned the last Queen of the Sikh Empire, Maharani Jind Kaur, at the Sheikhpura Fort for ten months until 1848 before ultimately condemning her to exile abroad.

British

Following establishment of British colonial rule, Bhatti possessions that had been seized by the Sikhs were restored. The large area between the Chenab and Ravi rivers were initially consolidated into a single district with Sheikhupura serving as its first headquarters, until 1851. The area around Sheikhupura attained District status in 1919, with M.M.L. Karry serving as its first administrator.

Partition

On the eve of the Partition of British India, Sikhs made up 19% of the district's population. Despite the area's Muslim majority, Sikhs had hoped that the boundary commission would award the area to India, given the proximity of Sheikhupura to the city of Nankana Sahib - revered as the birthplace of the founder of Sikhism, Guru Nanak. The city was spared the large-scale rioting that engulfed Lahore earlier in 1947, and the city's Sikh population did not shift to India before the Radcliffe Line that demarcated the border of the newly independent states of Pakistan and India was announced.

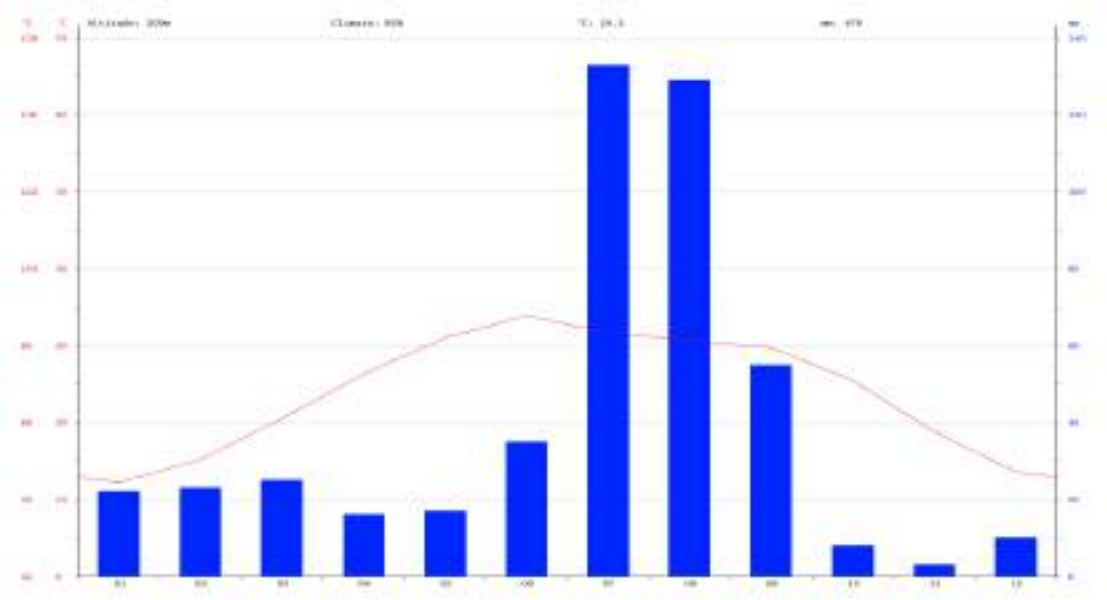
The Sikh population had not made arrangements to leave and remained trapped in the city until 31 August 1947. The city's Sacha Sauda refugee camp hosted upwards of 100,000 Sikh refugees who had come to the city after fleeing nearby Gujranwala and other surrounding areas earlier that year. Fierce violence erupted in the city, and an estimated 10,000 people were killed in Sheikhupura between 16 August and 31 August in communal rioting between Sikhs and Muslims. Large numbers of Sikh women were killed by Sikh men in an attempt to prevent Muslim rioters from reaching them.

Geography and Climate

Sheikhupura is situated at a distance of about 36 Km from Lahore, the provincial headquarters. Sheikhupura lies 31°42'51.16"N latitude and 73°59'3.49"E longitude. The city is well connected with its surrounding big urban centres like Faisalabad 94 Km, Sargodha 143 Km and Gujranwala 54 Km. Sheikhupura is also a railway junction. Sheikhupura is bounded by 6 other districts of Pakistani Punjab namely: Lahore, Nankana Sahib, Narowal, Hafizabad, and Gujranwala. The Bar jungle has almost disappeared owing to colonization and extension of canal irrigation.

Climate:

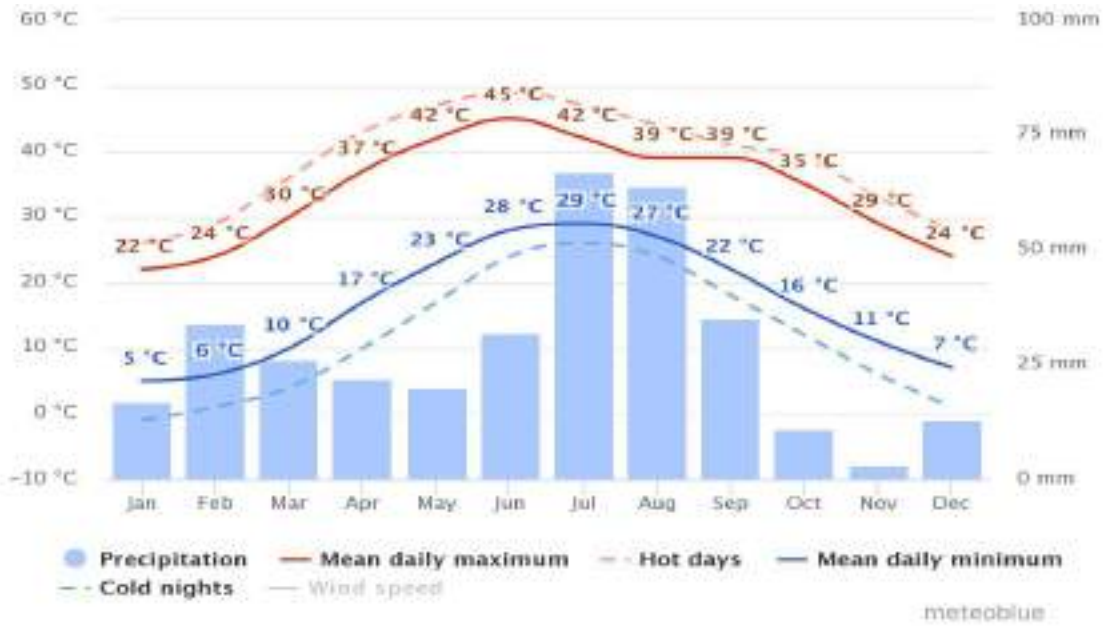
The climate here is considered to be a local steppe climate. In Sheikhupura, there is little rainfall throughout the year. This climate is considered to be BSh according to the Köppen-Geiger climate classification. The temperature here averages 24.1 °C. Precipitation here averages 476 mm. The driest month is November, with 3 mm of rain. With an average of 133 mm, the most precipitation falls in July. June is the warmest month of the year. The temperature in June averages 33.9 °C. January has the lowest average temperature of the year. It is 12.2 °C. There is a difference of 130 mm of precipitation between the driest and wettest months. During the year, the average temperatures vary by 21.7 °C.



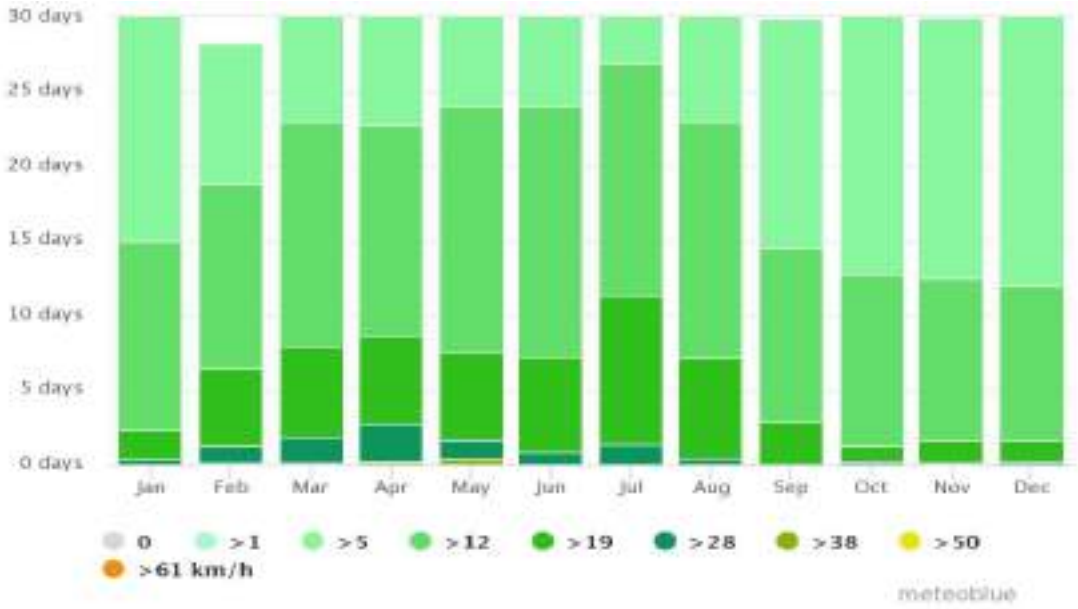
Source: https://en.climate-data.org/asia/pakistan/punjab/sheikhupura-3511/

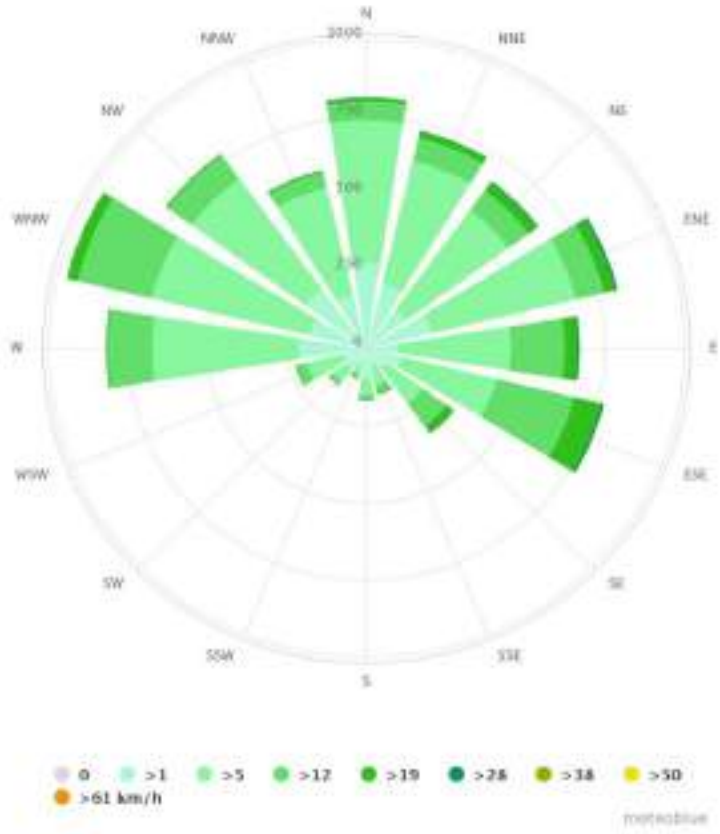
Muridke Climate:

The "mean daily maximum" (solid red line) shows the maximum temperature of an average day for every month for Muridke. Likewise, "mean daily minimum" (solid blue line) shows the average minimum temperature. Hot days and cold nights (dashed red and blue lines) show the average of the hottest day and coldest night of each month of the last 30 years.



Graphical representation of weather conditions of the area





Source:
https://www.meteoblue.com/en/weather/historyclimate/climatemodelled/muridke_pakistan_1169692

Topography

Topography of Sheikhupura District is plain. The area is a part of Rechna Doab and consists of Sub-recent sediments brought by spill channel from the Chenab River. There are some old channel levees remnants and old basins filled up with clay materials. The material is probably of Late Pleistocene age derived from mixed calcareous sedimentary and metamorphic rocks of Lower Himalayas. Seepage from the canals in the Area has considerably raised the water table resulting in water logging and salinity.

Soils:

These are river transported deposits (alluvium), which are quite thick and fairly homogeneous in extent. The top soil consists of brown, soft to firm clayey silt / silty clay having slight plasticity and contents of dissolved salts. The top layer is likely to extend about 3 to 6 meter below natural ground, where it is underlain by silty fine sand/fine sand. This layer generally continues to deeper depths. These layers of silty clay and sandy gravel may also exist below 10 meter depth.

Air Quality:

Ambient air monitoring at the project site was conducted by the team of Pak Green Laboratories. Lab reports are annexed as **annexure-D.**

Noise Level:

Major source of noise generation is vehicular traffic (particular loaded and unloaded truck, van) along the main road. Noise levels were monitored at different location of the project site.

Lab reports are annexed as **annexure-D.**

Noise Level Monitoring:

Basic Environmental conditions:

During the measurement following conditions were prevailed on workplace:

Metrological Conditions:

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

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

Frequency Range: 31.5 Hz to 8 kHz

Methodology adopted:

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

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.**

Ecological Resources

Fisheries:

The project area is almost free from any commercial fishing activity. There are no lakes, even natural water ponds in the vicinity. Therefore, Fishery or any worth mentioning aquatic biology in this area is out of question.

Biodiversity:

Natural capital of a country mainly includes all of the country's wilderness areas and scenic landscapes, including also with their associated flora and fauna. Pakistan has a total of nine major ecological zones. The contribution of the "Natural Capital" is recognized at three distinct levels: species, genera, and communities (habitat and ecosystem) both collectively and within each level, the range or variety of the resources are referred to as the "Biological Diversity". The term has relevance for each of Pakistan's administrative units district, province, and particularly country. The more the number of species, genera, and habitats and ecosystems present within these units, the greater is said to be the Biodiversity. The biodiversity of the area, with this background, is discussed as under.

Flora:

Project site is free from any protected species.

Fauna:

Project site is free from any protected species.

Rare or endangered species:

There are no game reserves or protected lands/areas or endangered or rare species either in the area in the range of 5km from the project site.

Social and Cultural Study

Demographics

Muridke is a city and headquarters of Muridke Tehsil in Sheikhupura District of Punjab, Pakistan. It is the 2nd largest city in Sheikhupura Division. It is situated near the city of Lahore, at an elevation of 205 m (675 ft) and is situated on the Grand Trunk Road. In 2005 Muridke became the headquarters of the newly created Muridke Tehsil of Sheikhupura District. According to the 2017 Census of Pakistan, its population is 166,652. It is ranked 53rd in the List of most populous cities in Pakistan. Chand Bagh School is situated on the Muridke-Sheikhupura road.

Industries:

A variety of important industrial units are operating in district Sheikhupura including leather tanneries, rice mills, fertilizer, chemicals, polyester fibre/yarn and rayon yarn, tractor and motor cycle assembling, electric domestic appliances, tyres and tubes (trucks, buses, cars and light vehicles), jute products, ceramics, electrical goods, pharmaceutical, cotton/woolen textile, etc. Paper and paper board industry is also concentrated in district Sheikhupura.

Demand Based Industries:

District Sheikhupura is one of the major industrially developed districts of the country. It possesses requisite physical/social infrastructure facilities and developed industrial base. Therefore, in view of overall provincial/national requirements and export potential, there exists good prospects for pharmaceutical, cosmetics, disposable syringes, glass ampoules, artificial leather, fibre glass,

boilers, pumps and compressors, ball bearing, generators, foundry and forging, automobile transmission, etc.

List of Identified Projects:

The following industrial units have been identified for investment in district Sheikhupura

- Auto Parts
- Artificial Leather
- Automobile Transmission
- Corn Oil
- Cosmetics
- Furniture
- Fertilizer
- Fiber Glass
- Foundry and Forging
- Leather Products
- Packaging Unit
- Pharmaceutical
- Wood Pulp for Paper Industry

Livestock:

There are 28 tanneries, one milk processing unit, one ice cream unit, 11 leather products units and 5 leather shoes units already operating in the district. In view of the above, there exist good prospects for dairy farms, cattle/goat/sheep fattening farms, leather garments, leather products, etc.

Agriculture:

Major crops and fruit of district Sheikhupura are sugarcane, wheat, rice and guava. A variety of vegetables are also grown in the district. There are 23 flour mills, 93 rice mills, 4 fruit juices, 4 solvent extraction units and 15 vegetable ghee/cooking oil units already operating in the district. In view of the availability of various raw-materials and existing industries, there exist little

additional scope for flour mills and rice husking units. However, there exist good prospects for fructose from rice bran, rice husk briquettes, corn oil, furfural from maize cobs, fruit juice/pickles/squashes and vegetables dehydration units.

Education:

Chand Bagh School is an independent boarding school for boys at Muridke in Sheikhupura District, Punjab, Pakistan, approximately 40 km north of Lahore. The school opened in September 1998, having been conceived as a Pakistani version of The Doon School of India. The name "Chand Bagh" refers to the Doon School's estate at Dehradun, India. The origins of the school lie in the independence of Pakistan in 1947 and the series of Indo-Pakistani wars and conflicts which have since followed. In 1985 a group of Pakistan's "Ex-Doscos", alumni of the Doon School, who had attended it in the days of British India, travelled to Dehradun in India to attend the school's 50th anniversary celebrations. On their return they formed a Doon School Society of Pakistan, which aimed to create a Pakistani version of their old school. After many years in gestation, the school was finally founded by Lieutenant General Ghulam Jilani Khan, a former Governor of the Punjab Province, himself a Dosco, and ten fellow-trustees. In many respects Chand Bagh is modelled on Doon School, Dehradun.

The name "Chand Bagh" means "moon garden" and was chosen in memory of the original Doon School, which had been established in 1935 on the Chand Bagh estate at Dehradun, now in the Indian state of Uttarakhand.

The principal architect of the new buildings, which have Romanesque influences, was Kamil Khan Mumtaz. The school opened its doors in September 1998 and occupies a campus of some 190 acres. Around the campus are the Chand Bagh Farms, a further 270 acres.

Archaeological sites of the District:

Sheikhupura, on the outskirts of Lahore, derived its name from a nickname for Prince Jahangir. It was one of Jahangir's princely dominions during his father Akbar's reign, just north of Sheikhupura town lies a hunting complex known as the Hiran Minar. Hunting grounds were an important part

of the physical environment of Mughal emperors, and the Hiran Minar is one of the best known and most beautiful of such sites. Sheikhupura has a number of historical places in the city which attracts visitors to the city:

- Hiran Minar
- Sheikhupura Fort (Qila Sheikhupura)
- Company Bagh
- Shrine of Shah Jamal
- Muqadssa-e-Mariam
- Sacha Sodha
- Tomb of Mian Sher Muhammad Sharaqpuri

Notable persons:

Aaqib Javed; played as fast bowler for Pakistan cricket team.

Anjum Saeed; played one Olympics for Pakistan hockey team.

Anzhelika Tahir; Miss Pakistan World 2015, a beauty queen from Pakistan.

Ghulam Jilani Khan; the founder of the Chand Bagh School

Kulwant Singh Virk; author

Mohammad Asif; a right arm medium fast bowler in cricket

Muhammad Javed Butta; a former justice of Supreme Court of Pakistan

Nawab Kapur Singh; one of the pivotal figures of the Sikh Confederacy and founder of the Singhpuria Misl.

Rana Naved-ul-Hasan; player for the Pakistan National Cricket Team

Rana Tanveer Hussain; Federal Minister

Saeed Anwar; played three Olympics for Pakistan hockey team.

Sheikh Salim Chishti; Sufi saint of the Chishti Order during the Mughal Empire

Waris Shah; A Great Punjabi Sufi Poet

Zaka Ullah Bhangoo; Pakistani army aviator

Zia Ullah Khan; attributed with major contributions in the military such as serving as Corps Commander of XII Corps Quetta<ref>'XII Corps (Pakistan)'

Quality of Life Values:

Recreational Resources and Development:

The project area has not any private recreational facilities.

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.

Archaeological and Historical Treasures:

Archaeological or historical treasures within the project area are not available.

CHAPTER # 4

Consideration of the Alternatives

Site alternatives, their selection and rejection criteria

Rejected sites

Since this project is focused on **capacity enhancement and extension** of the existing Sarena Textile Industries (Pvt) Limited, **no new sites** were considered. The decision to proceed with the current location was made because constructing a new facility from the beginning would be inefficient and costly. The proposed extension of the textile processing unit, which includes yarn dyeing, weaving, dyeing, printing, finishing, apparel manufacturing, and an effluent treatment plant, can be seamlessly integrated into the already established infrastructure. This makes the existing site the most feasible option.

Selected Site

The selected site for the proposed extension of Sarena Textile Industries (Pvt) Limited is located at **22 KM, Lahore-Sheikhupura Road, District Sheikhupura**. This site has been chosen for the expansion of the textile processing unit under the name of **Sarena Textile Industries (Pvt) Limited**, focusing on world-class manufacturing for fashion goods, including dyeing, printing, washing, home textiles, apparel cut to pack, and wastewater treatment.

Reason for Selecting the Existing Site:

- **Easy Access to Road, Power Supply, and Other Basic Facilities**: The site is strategically located with convenient access to key transportation routes, ensuring efficient distribution and supply chain management. Additionally, it is connected to reliable power sources and other essential utilities.

- **Economically Feasible**: Expanding at the existing site is cost-effective since the infrastructure is already in place, minimizing the need for significant new investments in land acquisition and site development.
- **No Vegetation Clearance**: The site is located on land that does not require clearing of vegetation, reducing the environmental impact of land preparation.
- **Plain Land**: The topography of the site is suitable for industrial construction, ensuring ease of development and minimal construction challenges.
- **Abundant Water Availability**: The site has access to sufficient water resources to support the operational requirements of the textile processing unit and the effluent treatment plant, ensuring the project's sustainability.

In conclusion, the **existing site** was selected as it aligns with both the operational requirements and the economic feasibility of expanding the existing Sarena Textile Industries, making it the most practical choice for the proposed project.

Design/Technology alternatives, their selection and rejection criteria

While **traditional textile processing methods** (dyeing, printing, and washing) are commonly used in the industry, these methods can have certain environmental limitations, such as the release of harmful chemicals and excessive water consumption. As part of the project, preference will be given to **advanced and eco-friendly technologies** across all processes to ensure a reduced environmental impact. State-of-the-art technology will be implemented to minimize the release of harmful emissions and chemicals. This will include **environmentally friendly dyeing techniques**, **water-saving printing technologies**, and **clean washing methods**, ensuring the final product is produced sustainably while maintaining high quality.

The selection of these technologies is based on their ability to minimize environmental impact, enhance operational efficiency, and comply with the strict environmental regulations governing the textile industry. More traditional, environmentally damaging methods were rejected in favor of greener alternatives to meet sustainability goals.

Environmental alternatives, their selection and rejection criteria

The **site** for the proposed project is located on the **outskirts of Sheikhupura District**, within an established **industrial zone**. The location is ideal because it minimizes disruption to the surrounding residential areas and local communities, ensuring that the daily lives of people in Sheikhupura are not impacted significantly. The site is well-connected to transportation routes, utilities, and other necessary infrastructure, which further supports the project's successful implementation.

Regarding environmental considerations, the project proponent has ensured that the environmental impacts are minimized by adopting best practices in wastewater treatment and emission control. **Effluent Treatment Plant (ETP)** will be installed to treat wastewater generated from the textile processing activities, ensuring that the water released back into the environment meets the required **Pakistan Environmental Quality Standards (PEQS)**. Emission levels will be carefully monitored to ensure that all pollutants produced during the project's operations are within permissible limits, preventing any negative impact on air quality.

Additionally, the project will make use of **advanced pollution control technologies** to minimize emissions, noise, and solid waste generation during the operational phase. Sites with higher environmental risks or that did not provide adequate pollution control mechanisms were rejected, and this location was selected for its minimal impact on the surrounding environment.

Economic alternative, their selection and rejection criteria

The proponent of the project, **Sarena Textile Industries (Pvt) Limited**, aims to enhance its textile processing capacity, which will result in significant **economic benefits** for the district of Sheikhupura and the broader region. The project will **generate employment** for approximately **200 workers during the construction phase**, and **300 workers** and **managerial staff** during the operational phase, providing a significant boost to the local economy.

The expansion of the textile processing unit will contribute to the economic development of the region by providing stable employment opportunities and creating a platform for local businesses to thrive. It will also contribute to the national economy by increasing textile production capacity,

contributing to exports, and improving the competitiveness of Pakistan's textile industry in the global market.

The site for the project was selected based on the availability of skilled labor, established infrastructure, and economic incentives for local development. Alternative locations that did not offer similar economic benefits or adequate workforce availability were rejected in favor of this site, ensuring that the project delivers both economic growth and local employment opportunities. In conclusion, the project is designed to align with the proponent's goals of sustainability, minimal environmental impact, and significant economic contribution to the region.

Chapter # 5

Screening of Potential Environmental Impacts & Their Mitigation Measures

Assessing Impacts

The following chapter describes the overall possible impacts of project on the physical, biological and socioeconomic environment because of operation phases and mitigation measures to minimize the significance of the possible impacts up to an acceptable level. The anticipated impacts related to operation of the said project have been assessed and mitigation measures have been suggested in this report.

Methodology for Impact Evaluation:

The methodology adopted for impact evaluation includes the Modified Leopold Matrix.

Leopold Matrix

The analysis is performed with the Leopold Matrix (LM). This matrix has

1. On the horizontal axis, the actions which cause environmental impact, and
2. On the vertical axis, the existing environmental conditions which may be affected by those actions.

This provides a format for comprehensive review of the interactions between proposed actions and environmental factors.

The most important blocks marked are evaluated individually, and a number between 0 and 10 is placed in the upper left-hand corner to indicate the relative magnitude of the impact (0 represents the least magnitude, and 10 the greatest). Likewise, a number between 0 and 10 is placed in the lower right-hand corner to indicate the relative importance of the impact (again, 0 represents the least magnitude and 10 the greatest).

Scale Table of Importance & Magnitude

Sr. No.	Type of Impact	Scale of Magnitude (0 – 10)	Scale of Importance (0 – 10)
1	No Impact	0	0
2	Low Impact	1 – 4	1 – 4
3	Medium Impact	5 – 6	5 – 6
4	High Impact	7– 10	7– 10

Construction Phase															
Magnitude / Importance			Actions											Total Score of Impact	Average Score of Impact
			Transportation of raw material	Construction Activities	Operation of generators	Water consumption	Wastewater generation	Storage of raw materials	Social activities	Public welfare	Economic activities	Employment	Infrastructure improvement		
PHYSICAL ENVIRONMENT	Soil	Soil Quality	2 / 1	3 / 2	0 / 0	1 / 1	5 / 2	4 / 4	1 / 1	0 / 1	1 / 1	1 / 3	4 / 6	22 / 22	2 / 2
		Erosion	2 / 1	6 / 6	0 / 0	0 / 0	2 / 2	1 / 1	2 / 1	0 / 0	1 / 1	1 / 1	3 / 4	18 / 17	1.6 / 1.5
		Geomorphology	0 / 0	5 / 5	0 / 0	4 / 2	5 / 3	2 / 1	0 / 0	0 / 0	1 / 1	2 / 1	4 / 6	23 / 19	2.09 / 1.7
	Water	River	0 / 0	0 / 0	0 / 0	6 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	6 / 0	0.5 / 0
		Coastal Zone	0 / 0	0 / 0	0 / 0	6 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	6 / 0	0.5 / 0
		Subsurface Water	1 / 2	1 / 1	0 / 0	7 / 8	5 / 7	1 / 1	0 / 0	0 / 0	1 / 1	0 / 0	2 / 2	18 / 22	1.6 / 2
		Sea Quality	0 / 0	0 / 0	0 / 0	3 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	3 / 0	0.2 / 0
	Air	Air Quality	5 / 5	8 / 8	7 / 7	6 / 1	5 / 4	4 / 4	5 / 5	1 / 1	6 / 4	4 / 6	8 / 8	54 / 53	4.9 / 4.8
		Odors	1 / 1	1 / 1	3 / 3	0 / 0	5 / 7	4 / 6	1 / 1	0 / 1	0 / 1	1 / 1	1 / 1	17 / 23	1.5 / 2.0
		Noise	5 / 6	9 / 10	7 / 8	0 / 0	5 / 4	2 / 2	5 / 6	0 / 1	5 / 6	4 / 6	4 / 6	46 / 55	4.1 / 5
	Total Score of Impact		16 / 16	33 / 33	17 / 18	33 / 12	32 / 29	18 / 19	14 / 14	1 / 4	15 / 15	14 / 18	26 / 33	-	-

	Average Score of Impact	1.6 / 1.6	3.3 / 3.3	1.7 / 1.8	3.3 / 1.2	3.2 / 2.9	1.8 / 1.9	1.4 / 1.4	0.1 / 0.4	1.5 / 1.5	1.4 / 1.8	2.6 / 3.3	-	-

Construction phase

Magnitude / Importance			Actions											Total Score of Impact	Average Score of Impact
			Transportation of raw material	Construction Activities	Operation of generators	Water consumption	Wastewater generation	Storage of raw materials	Social activities	Public welfare	Economic activities	Employment	Infrastructure improvement		
BIOLOGICAL EVIRONMENT	Flora	Forest	2 / 1	3 / 5	2 / 2	5 / 1	5 / 1	2 / 0	3 / 1	0 / 1	3 / 1	4 / 1	1 / 2	30 / 16	2.7 / 1.5
		Crops	2 / 2	5 / 6	3 / 2	0 / 0	4 / 6	2 / 2	2 / 3	4 / 3	5 / 7	3 / 3	3 / 3	33 / 37	3 / 3.3
		Wetlands	0 / 0	0 / 0	0 / 0	3 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0
		Sea Grasses	0 / 0	0 / 0	0 / 0	3 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	3 / 0	0.5 / 0
		River Flora	0 / 0	0 / 0	0 / 0	3 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	3 / 0	0.5 / 0
	Fauna	Mammals	5 / 4	6 / 7	2 / 2	2 / 1	4 / 3	2 / 1	3 / 3	0 / 0	4 / 3	3 / 4	3 / 3	34 / 31	3.3 / 2.8
		Birds	2 / 2	7 / 7	5 / 5	2 / 1	4 / 4	1 / 1	5 / 4	0 / 0	5 / 5	3 / 4	4 / 4	34 / 37	3.4 / 3.3
		Fishes	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0
		Other Vertebrates	5 / 4	6 / 7	2 / 2	2 / 1	4 / 3	2 / 1	3 / 3	0 / 0	4 / 3	3 / 4	3 / 3	34 / 31	3 / 2.8
		Invertebrates	6 / 6	6 / 7	2 / 2	4 / 3	5 / 4	4 / 3	4 / 4	1 / 1	4 / 3	3 / 4	3 / 3	42 / 40	3.8 / 3.6
	Ecosystem	Ecosystem Quality	2 / 1	5 / 6	5 / 5	5 / 5	5 / 6	4 / 4	5 / 5	1 / 1	4 / 5	3 / 3	2 / 2	41 / 43	3.7 / 3.9
		Ecosystem Destruction	2 / 2	5 / 6	4 / 4	2 / 2	5 / 6	2 / 2	4 / 4	0 / 0	4 / 5	3 / 3	2 / 2	33 / 36	3 / 3.2
	Total Score of Impact		26 / 22	43 / 51	29 / 24	28 / 14	36 / 33	21 / 2	29 / 27	6 / 6	33 / 32	25 / 26	21 / 22		

	Average Score of Impact	2.1 / 1.8	3.5 / 4.2	2.4 / 2	2.3 / 1.1	3 / 2.8	1.75 / 2	2.4 / 2.2	0.5 / 0.5	2.7 / 2.6	2 / 3.1	1.7 / 1.8		

Construction Phase

Magnitude / Importance			Actions											Total Score of Impact	Average Score of Impact
			Transportation of raw material	Construction Activities	Operation of generators	Water consumption	Wastewater generation	Storage of raw materials	Social activities	Public welfare	Economic activities	Employment	Infrastructure improvement		
SOCIO-ECONOMIC EVIRONMENT	Land Use	Rural	2 / 1	5 / 6	5 / 5	5 / 4	5 / 7	2 / 3	5 / 4	5 / 6	4 / 5	7 / 8	7 / 7	52 / 56	4.7 / 5
		Fisheries	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	6 / 7	0 / 0	0 / 0
		Urban	3 / 4	6 / 6	7 / 7	5 / 5	7 / 8	5 / 5	6 / 5	4 / 4	5 / 6	7 / 8	6 / 7	61 / 65	5.5 / 5.9
		Industrial	5 / 6	7 / 7	5 / 5	4 / 6	6 / 7	4 / 5	6 / 6	5 / 6	8 / 8	9 / 9	7 / 7	66 / 72	6 / 6.5
		Recreational Use	2 / 3	3 / 4	2 / 3	3 / 3	3 / 3	1 / 1	3 / 4	4 / 5	4 / 5	2 / 1	4 / 3	31 / 35	2.8 / 3.1
	Patrimony	Landscape	3 / 3	6 / 7	1 / 1	4 / 3	5 / 5	4 / 2	3 / 3	3 / 3	6 / 6	3 / 2	4 / 4	42 / 39	3.8 / 3.5
		Historical / Cultural	2 / 2	7 / 7	2 / 2	2 / 1	4 / 4	1 / 1	5 / 4	4 / 4	5 / 5	3 / 4	4 / 4	39 / 38	3.5 / 3.4
		Heritage	2 / 2	7 / 7	2 / 2	2 / 1	4 / 4	1 / 1	5 / 4	4 / 4	5 / 5	3 / 4	4 / 4	39 / 38	3.5 / 3.4
		Wilderness Quality	2 / 2	2 / 1	2 / 2	2 / 1	4 / 3	1 / 1	3 / 3	1 / 1	4 / 3	1 / 1	2 / 2	24 / 20	2.1 / 1.8
	Social	Population Density	5 / 4	6 / 7	4 / 4	5 / 4	4 / 3	2 / 1	5 / 5	3 / 3	4 / 3	5 / 4	6 / 7	49 / 45	4.5 / 4.1
		Employment	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0

		Hazards	5 / 4	6 / 7	2 / 2	2 / 1	4 / 3	2 / 1	3 / 3	1 / 1	4 / 3	5 / 4	4 / 5	38 / 34	3.4 / 3.1
	Total Score of Impact		31 / 35	55 / 59	38 / 35	36 / 29	46 / 44	23 / 21	44 / 41	34 / 37	49 / 49	42 / 44	50 / 57		
	Average Score of Impact		2.8 / 3.1	5 / 5.36	3.4 / 3.1	3.2 / 2.6	4.1 / 4.4	2.1 / 1.9	4 / 3.7	3.1 / 3.4	4.5 / 3	3.8 / 4	4.5 / 5.1		

Operational Phase																
Magnitude / **Importance**			**Actions**											**Total Score of Impact**	**Average Score of Impact**	
			Transportation of raw material	Production Activities	Operation of generators	Water consumption	Wastewater generation	Storage of raw materials	Social activities	Public welfare	Economic activities	Employment	Infrastructure improvement			
PHYSICAL	Soil	Soil Quality	2 / 1	3 / 2	0 / 0	1 / 1	5 / 2	4 / 4	1 / 1	0 / 1	1 / 1	1 / 3	4 / 6	22 / 22	2 / 2	
		Erosion	2 / 1	6 / 6	0 / 0	0 / 0	2 / 2	1 / 1	2 / 1	0 / 0	1 / 1	1 / 1	3 / 4	18 / 17	1.6 / 1.5	
		Geomorphology	0 / 0	5 / 5	0 / 0	4 / 2	5 / 3	2 / 1	0 / 0	0 / 0	1 / 1	2 / 1	4 / 6	23 / 19	2.09 / 1.7	
	Water	Surface Water	0 / 0	0 / 0	0 / 0	6 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	6 / 0	0.5 / 0	
		Subsurface Water	1 / 2	1 / 1	0 / 0	7 / 8	5 / 7	1 / 1	0 / 0	0 / 0	1 / 1	0 / 0	2 / 2	18 / 22	1.6 / 2	
	Air	Air Quality	2 / 1	6 / 6	0 / 0	0 / 0	2 / 2	1 / 1	2 / 1	0 / 0	1 / 1	1 / 1	3 / 4	18 / 17	1.6 / 1.5	
		Odors	1 / 1	1 / 1	3 / 3	0 / 0	5 / 7	4 / 6	1 / 1	0 / 1	0 / 1	1 / 1	1 / 1	17 / 23	1.5 / 2.0	
		Noise	5 / 6	9 / 10	7 / 8	0 / 0	5 / 4	2 / 2	5	0 / 1	5 / 6	4 / 6	4 / 6	46 / 55	4.1 / 5	
BIOL	Fa un	Crops	2 / 2	5 / 6	3 / 2	0 / 0	4 / 6	2 / 2	2 / 3	4 / 3	5 / 7	3 / 3	3 / 3	33 / 37	3 / 3.3	

		Birds	2/2	7/7	5/5	2/1	4/4	1/1	5/4	0/0	5/5	3/4	4/4	34/37	3.4/3.3
		Mammals	5/4	6/7	2/2	2/1	4/3	2/1	3/3	0/0	4/3	3/4	3/3	34/31	3.3/2.8
SOCIO-ECONOMIC	Social	Industrial	5/6	7/7	5/5	4/6	6/7	4/5	6/6	5/6	8/8	9/9	7/7	66/72	6/6.5
		Recreational Use	2/3	3/4	2/3	3/3	3/3	1/1	3/4	4/5	4/5	2/1	4/3	31/35	2.8/3.1
		Historical / Cultural	2/2	7/7	2/2	2/1	4/4	1/1	5/4	4/4	5/5	3/4	4/4	39/38	3.5/3.4

Overall, the impact of project is positive in term of employment and infrastructure improvement. Mostly the average values are falling in 0.2-6.5 range which means the overall impact will be low to moderate. Due to the construction activities dust and gases will generate which may affect ambient air quality, the biological environment will disturb at low level and socio-economic environment will disturb at low moderate level At operation phase any impacts will be managed through control technologies . To counter with the negative impacts Environmental Management plan is formulated which will be ensured by the project proponent. Beside this Environmental monitoring plan is also formulated for Environmental monitoring of various parameters which will be also implemented by the proponent.

Impact analysis and prediction:

In order to evaluate the socioeconomic and environmental impacts, filed surveys are extremely essential. In addition to the surveys, consultation with the community and their active participation plays a vital role in successful implementation of the project. For the impact analysis and predictions following methods were adopted:

Consultations/ case studies:

To study the impacts of the project on physical and biological environment, site visits were conducted by the environmental practitioners and experts and possible physical and biological impacts which may arise due to the subject project were identified through consultations and case studies and their mitigation measures were suggested accordingly.

Meetings:

For the identification of the social impacts of the project, meetings and group discussions were held with the local people, stakeholders, nearby residents and passerby because 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.

To identity the different types of stakeholders and ascertain their perceptions about the project. Informal group discussions were also held as an additional tool for obtaining feedback from the stakeholders that are being discussed in the following.

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 said 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.

Characteristics of impacts:

Impact assessment criteria:

The impacts were assessed in the light of criteria given as under: -

- Magnitude or degree of impact
- Time and duration of impact
- Likelihood of impact occurrence
- Sensitivity of impact
- Risk related to impact

Environmental Parameters:

Environmental Impacts due to Project Location:

Project is present in the area of the District Sheikhupura. This unit is being constructed in already allocated industrial area. The project is proposed construction of Textile processing unit; the site does not fall in the category of sensitive area and no environmentally sensitive localities exist within radius of study area. Access road network is available at the project site. If the project

proponent maintains 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 to moderate

Nature of impact: Direct

Duration: Long-term

Timing: Construction & Operation phase

Reversibility: NA

Likelihood: Low

Consequences: Mild or may be positive

Mitigation Measures

- Project site will have good and efficient road infrastructure that already exists there at the project site.
- Location can be considered as the positive impacts due to enhanced infrastructure.
- The project will also have positive socioeconomic impacts because of provision of jobs to the local residents of the area.
- No human settlement within the radius of the study area
- There would be no issue of congestion of traffic due to presence of good road network in the area.
- Provision of embankments, designed by considering the Geotechnical investigation studies. Due consideration should be given to aesthetic improvement during the design phase.

Land Acquisition Resettlement:

One of the major impacts may include acquisition of land from the land owners and the resulting displacement of their families and disturbances in the livelihood of the affected persons (AP) in the project area. But present project land is ownership of M/S Sarena Textile Industries (Pvt) Limited and will not involve any type of land acquisition and resettlement activity.

Nature of impact: direct

Timing: Planning stage

Duration: not applicable

Likelihood: Nil

Consequences: no change

Impact significance: Not significant

Mitigation measures:

No resettlement will be involved.

Environmental Impacts due to the Project Design

Subject project is proposed Construction of Fabric Processing unit under the name of M/s Sarena Textile Industries (Pvt) Limited. Area for parking, wastewater treatment facility and solid waste management will be reserved within industry. Firefighting plan, health & safety plan, tree plantation plan, emergency response plan will be incorporated during the design phase of the project.

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

- Low utilization of available space
- Soil structure and soil bearing capacity
- Improper road infrastructure design

- Emergency exit in the proposed project
- Firefighting system
- Wastewater disposal system design
- Rain water harvesting capacity of the drainage system
- Electricity hazards
- Low social acceptability & functionality of design

Impact significance: moderate to high

Nature of impact: direct

Duration: Long-term

Timing: Constructional phase & Operation phase

Reversibility: NA

Likelihood: moderate to high

Consequences: moderate to high

Mitigation measures and recommendations

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

- Industrial unit will incorporate all HSE measures regarding the design of project.
- Structure stability of the building should be ensured.
- Emergency exist points should be marked within the project building and in overall plan.
- 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.
- Design should be professional which accommodate the maximum space and has high social acceptability & functionality

Environmental Impacts during Construction Phase:

Impacts on Physical Environment

Topography

Project has plan land and some digs. In the proposed area there are little trees and excavation and leveling is involved in this construction.

Impact:

- Change in topography due to excavation
- Land filling of the area
- Construction of roads

Impact significance: Low

Nature of impact: Direct

Duration: Short-term

Timing: Constructional phase

Reversibility: NA

Likelihood: moderate

Consequences: Very Low

Mitigation:

- Cuttings of trees will be avoided
- Use of existing paved tracks as many as possible.
- Working should be in such a way that minimum excavation is involved

Air Quality:

Air quality will be affected by fugitive dust emissions from construction machinery; dust from the unpaved surface and construction vehicles. The critical sources of dust pollution during the construction phase will be;

- Unpaved road surface

- Transportation of materials and other construction activities that create dust emissions

Impact significance: Low

Nature of impact: Direct

Duration: Short-term

Timing: Constructional phase

Reversibility: NA

Likelihood: moderate

Consequences: Very Low

Impact:
Air quality deterioration, particulate matter/dust emissions due to construction activities; stand by generator (if any), equipment's and vehicle.

Mitigation:

- Sprinkling of water on track will reduce dust pollution
- Provision of dust masks for workers.
- Air quality monitoring is recommended on regular base
- Proper paved road infrastructure is recommended
- All vehicles, machinery, equipment and generators used during construction activities should be kept in good working condition and be properly tuned and maintained in order to minimize the exhaust emissions
- Blowing of dust and particulate matter from stockpiled loose materials (e.g., sand, soil) should be avoided either by sheeting them with tarpaulin or plastic sheets or by sprinkling them with light shower of water
- Open burning of solid waste from the Contractor's should be strictly banned;

Noise
Noise is a by-product of human activity, and area of exposure increases as function of mobility and construction activities. Sources of noise during construction are heavy machinery such as

bulldozers, excavators, stabilizers and other equipment. Noise generated by construction machinery is likely to affect sensitive receptors located within 50 meters of the proposed Project.

Impact

- Persistently higher noise levels can produce psychological effects of distraction of attention, irritation and short temperedness in the exposed persons
- Noisy settings and higher background levels can cause temporary threshold shift and the consequent habit of speaking loudly, which may cause damage to vocal cords in the persons exposed
- Noise produced from moving construction vehicles and blowing of pressure horns, at times, could be intolerable particularly during quiet hours of night

Impact significance: Low

Nature of impact: Direct

Duration: Short-term

Timing: Constructional phase

Reversibility: NA

Likelihood: moderate

Consequences: Low

Mitigation:

- Selection of up-to-date and well-maintained plant or equipment with reduced noise levels ensured by suitable in-built damping techniques or appropriate muffling devices
- Confining excessively noisy work to normal working hours in the day, as far as possible
- Providing the construction workers with suitable hearing protection like ear cap, or earmuffs and training them in their use
- Preferably, restricting construction vehicles movement during night time

- Vehicles and equipment used should be fitted, as applicable, with silencers and properly maintained
- Use of low noise machinery, or machinery with noise shielding and absorption
- Contractors should comply with submitted work schedule, keeping noisy operations away from sensitive points; implement regular maintenance and repairs; and employ strict implementation of operation procedures

Water Resources

There will be no significant surface water resource of the project area so there will be no impact on surface water quality during the construction of the project area. Persistent and prolonged withdrawal of groundwater higher than the safe yield limits of the aquifer can initiate early depletion of aquifer. This situation can result in reduced water supplies for other users who share the same groundwater resource. Abstraction of the groundwater over and above the safe yield limit can produce serious hydrological and environmental consequences.

Impact:

- Early depletion of the aquifer resources
- Persistent lowering of the water table
- Reduced availability or non-availability of the groundwater to the neighboring communities sharing the same aquifer

These impacts are temporary and minor negative in nature

Impact significance: Low

Nature of impact: Direct

Duration: Short-term

Timing: Constructional phase

Reversibility: NA

Likelihood: moderate

Consequences: Low

Mitigation:

- Water required for construction will be obtained in such a way that the water availability and supply to nearby communities remain unaffected
- Regular water quality monitoring according to determined sampling schedule
- Prohibit washing of machinery and vehicles in surface waters, provide sealed washing basins and collect wastewater in sedimentation/retention pond
- Continuous withdrawal and over pumping of groundwater should be avoided. Instead, intermittent pumping be carried out to conserve the groundwater resources
- Take precautions construct temporary or permanent devices to prevent water pollution due to increased siltation

Soil

The project area is open land with no paved area. Soil erosion and contamination may occur on site due to the following likely impacts:

Impact:

- Excavation of earth/cutting operations
- Land leveling activities
- If the excavated area will be left unfilled for long, which may lead to rainfall induced soil erosion;
- The unspent materials and debris produced from consumed up materials, if left as such and allowed to mix with soil underneath, can degrade the quality of receiving soils and may render them unfit for plantation later on
- Leakages of oils, lubricants, chemicals, and other similar substances from their storage sites and from engines of the generators, machines, equipment and vehicles can spoil the receiving soils and may undermine ability of the spoiled soils to support growth of vegetation and plants (if any)

- Non-provision of septic tanks with the temporary worksite toilets, constructed for the labor and others, can contaminate the effluent receiving soils because of raw nature of the effluents
- Washing of the gadgets, machinery and equipment without proper drainage of the washout water can adversely affect the soil quality. This impact is, however, temporary.
- Onsite storage of the construction materials such as sand, aggregate, crushed stone, cement, bricks, lubricants, fuels and iron bars on the land without an intervening barrier, can degrade soil quality and may smear them with fine particulates of the dumped material

Impact significance: Low to Moderate

Nature of impact: Direct

Duration: Short-term

Timing: Constructional phase

Reversibility: NA

Likelihood: moderate

Consequences: Low

Mitigation:

- Non-bituminous wastes from construction activities will be dumped in approved sites, in line with the legal prescriptions for dumpsites, and covered
- As applicable and needed, plantation of grasses and shrubs will be done at appropriate place where required
- Unnecessary excavations should be avoided
- Oils, lubricants, chemicals, and other listed hazardous materials should be stored safely at their designated spots, enclosures or store rooms, which should be safe from rainfall and away from any potential source of fire
- Septic tanks of adequate capacities should be constructed for receiving and treating wastewater from all temporary worksite toilets and at the temporary container

offices, if any. The toilet wastewater should not be discharged untreated onto the adjacent lands

- All machineries and materials should be stored at the designated areas and compounds
- All the unspent and left-over materials should be completely removed offsite upon completion of construction
- Washout from washing of equipment and gadgets should be drained into either a septic tank or a sand-gravel bed for removal of the grit and contaminants

Wastewater

Impact:

Wastewater generation due to construction activities. Sources of wastewater during construction include;

- Construction site surface runoff
- Wastewater from vehicle washing
- Wastewater from boring works

Mitigation:

- Wastewater generated during construction and domestic activities will be stored temporarily in septic systems comprising of septic tanks from where it will be routed to local drain/ nallah present near the project.
- Waste segregation measures will be employed to minimize entry of solid waste into the wastewater stream.
- An appropriately designed septic tank will be used to treat sewage/wastewater to achieve PEQS
- Periodic cleaning of the septic tank is recommended.

Solid Waste

Due to construction activities waste will be generated at construction and contractors camp site. The construction waste will include wastewater, oil spillage from machinery, domestic waste and solid waste etc. The handling and storage of oil, asphalt/bitumen may be a source of environmental pollution as a hazardous waste. This will result in unhygienic conditions, health risk to work force and public at the camp site.

Impact

- Insecure and unhygienic disposal of the solid wastes generated at the worksite, particularly garbage and trash may cause degradation of soil and land
- Insecurely disposed off heaps of wastes containing kitchen garbage and food waste can serve as breeding grounds for the disease spreading vectors and rodents
- Throwing away of solid wastes into water channels and the wastewater network can result into choking of the latter.

Impact significance: Low

Nature of impact: Direct

Duration: Short-term

Timing: Constructional phase

Reversibility: NA

Likelihood: moderate

Consequences: Moderate

Mitigation:

- An efficient and responsive solid waste management system should be devised for the entire duration of the construction phase. Such a system should provide for separate collection of different categories of constructional wastes. The wastes which will be reusable/recyclable (iron bars, aluminum) should be sold to waste vendors and those which cannot be sold out (brick pieces) may be used as a filling material for leveling the depressions, subject to technical feasibility
- Training of working force in the storage and handling of materials and chemicals that can potentially cause soil contamination
- Solid waste generated during construction and camp sites will be safely disposed in demarcated waste disposal sites or handed over to the contractor

Health and Safety

Health risks and work safety problems may result at the workplace if the working conditions provide unsafe and/or unfavorable working environment and due to storage, handling and transport of hazardous construction material. Workers should be provided with safe and healthy working environment taking into account risks inherent to the particular sector and specific classes of hazards in project area. Mitigation measures will include:

Impact significance: Low to Moderate

Nature of impact: Direct

Duration: Short-term

Timing: Constructional phase

Reversibility: NA

Likelihood: moderate

Consequences: Moderate

Mitigation:

- Providing basic medical training to specified work staff and basic medical service and supplies to workers
- Layout plan for site, indicating safety measures taken by the contractor, e.g., firefighting equipment, safe storage of hazardous material, first aid, security, fencing, and contingency measures in case of accidents
- Work safety measures and good workmanship practices are to be followed by the contractor to ensure no health risks for laborer's
- Protection devices (ear muffs) should be provided to the workers doing job in the vicinity of high noise generating machines
- Provision of adequate sanitation, washing, cooking and dormitory facilities including light up to satisfaction

- Provision of protective clothing for laborers handling hazardous materials, e.g., helmet, adequate footwear for bituminous pavement works, protective goggles, gloves etc.
- Ensure strict use of wearing these protective clothing during work activities
- Instruct foremen to strictly enforce the keeping out of non-working persons, particularly children, off work sites
- Adequate signage, lightning devices, barriers, yellow tape and persons with flags during construction to manage traffic at construction sites, haulage and access roads.

Impact on Biological Environment

There is no any fauna or flora is present on the proposed project site. Few trees are there. On their behalf a complete plantation plan has been provided.

Impact on Socio-economic Environment

Economic Activity

Due to the construction of the proposed Project, economic activity will be generated in the project area as the laborers and semi-skilled staff will have an opportunity to work for the construction of the proposed project. This will help in developing their skills and capacities. This is a moderate positive impact.

Lifestyle and Culture

There are chances of arising of issues related to cultural differences/conflict between the Contractor's workforce and the local inhabitants, conflicts arising due to the mix of local and migratory job seekers as the use of local resources and products will be increased. In this situation, local residents may resist contractor's workforce attitudes, cultural clashes particularly when local/international contractors are engaged, social disturbance and dissatisfaction with employing outsiders may arise. This impact is temporary and minor negative in nature.

Mitigation

- Timely public notification and announcement of mobilizing equipment
- Local labor should be employed for construction works

Analysis of Impacts and Recommended Mitigations

Impacts during Operational Phase:

The positive and negative impacts of subject project, during its operation are discussed below:

Impacts on Physical Environments

Solid waste/ sludge management:

In the operation of said project proper solid waste management system will be adopted for the prompt, timely and efficient disposal of solid waste & sludge for the reduction of its impacts. Impacts due to solid waste & sludge may be temporary and minor in nature.

Nature of impact: Direct

Duration: Short term

Timing: operation

Reversibility: Not applicable

Likelihood: Low (unlikely) if mitigation measures are being ensured that Solid waste management in efficient way.

Consequences: Mild, as removed from site within few hours

Impact significance: Low, based upon low likelihood and mild to moderate consequence.

Mitigation measures: Devise plan & develop guidelines for the safe handling, storage & disposal;

- Sludge is placed at the site after cleaning of wastewater treatment facility;
- PPEs are strongly recommended for workers for the handling of sludge;
- Separate bins at various places must be present for solid waste collection and segregation;
- Process Waste will be handed over to Local waste contractor;
- Packaging waste will be recycled within the factory;

- Industrial ecology practices will be implemented wherever possible;

Wastewater

Wastewater produced only from domestic activities.

Nature of impact: Direct

Duration: Short term

Timing: Operation

Reversibility: Not applicable

Likelihood: Low

Consequences: Mild

Impact significance: Low.

Mitigation measure

- Wastewater that is finally disposed off, will be in limits of PEQS
- Septic tanks will be available.
- Water conservation approaches will be followed by industry to reduce its wastewater

Gaseous Emissions:

Emissions can be produced by boilers, generators, vehicles and equipment, similar to those produced by generators (if any) in terms of the resulting pollutants (SO_2, NO_X, PM, etc.). However, the extent to which they can produce should keep considerably lower, since much smaller engines will be used in vehicles.

Nature of impact: Direct

Duration: long term

Timing: operation

Reversibility: irreversible

Likelihood: moderate if mitigation measures are being ensured.

Consequences: moderate, if pollutants level in the ambient air will be controlled within acceptable limits by adopting proper mitigations.

Impact significance: moderate, based upon low likelihood and mild to moderate consequence.

Mitigation Measures

- None of the potential effects discussed will exceed to acceptable limits.
- The mitigation measures given below used to reduce their impact, and ensure that they remain within acceptable limits.
- All equipment and vehicles during the operation of project will be properly tuned and maintained in good working condition in order to minimize exhaust emissions.
- Speed limits will be imposed and encourage more efficient journey management worked to reduce the dust emissions produce by vehicular traffic. Water sprinkling will be done where necessary.
- The Industrial Unit will have proper ventilation system incorporated in their layout in order to mitigate indoor pollution like VOCs.
- PPEs will be provided to worker and shit rotation will be ensured to reduce exposure
- Management will make sure that process will be environment friendly

Dust/particulate matter

Particulate/Dust emission can be a major issue during the process of carding and roving which can be a cause of indoor air pollution.

Nature of impact: Direct

Duration: long term

Timing: operation

Reversibility: irreversible

Likelihood: moderate if mitigation measures are being ensured.

Consequences: moderate, if pollutants level in the ambient air will be controlled within acceptable limits by adopting proper mitigations.

Impact significance: moderate, based upon low likelihood and mild to moderate consequence.

Mitigation measures

- The Industrial Unit will have proper ventilation system incorporated in their layout in order to mitigate indoor pollution like dust and particulate matter
- PPEs will be provided to worker and shit rotation will be ensured to reduce exposure

Energy Requirement

Energy consumption in industrial area is usually very high. Machinery work runs all day in different industries. Energy conservation technique should be in mind.

Mitigation measures

- Do not waste the energy/electricity when there is no need of it.
- Use energy efficient machinery and equipment
- Use energy saving products
- Conduct and maintain records for energy audits
- Do not leave the machinery in running form when there is no working being done
- Machinery must never be left unattended

Noise level:

Noise will be the major concern during the operation phase. It can be generated from the traffic on the road and from the machinery used for operations.

Nature of impact: Direct

Duration: long term

Timing: operation

Reversibility: Not applicable

Likelihood: low

Consequences: slightly significant

Impact significance: moderate, based upon low likelihood and mild to moderate consequence.

Mitigation measures:

- Machinery and vehicles will be tuned and maintained
- Limits will be imposed on unnecessary use of horns
- Safety signs will be displayed. public & drivers will be aware of them

Employment opportunities:

Subject project will help in generating new jobs for the local population. The requirement of Managers, Engineers, Workers, technicians, skilled and unskilled labor etc. About 25-30 persons will be employed during operations phase. Hence, there will be large number of employment opportunities especially for the locals of District Faisalabad.

Potential Environmental Enhancement Measures

Following necessary measures should be adopted during operational phase of the project and most of them are being adopted:

- Sprinkling of water will be done on dusty roads and tracks.
- Machinery should 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 should be allowed in any case.
- Machinery will be kept maintained.
- Wastewater will be treated through septic tanks that were installed within the premises of the subject project.
- Proper SOPs are being followed with proper schedule along with the HSE conditions.
- A proper tree plantation plan will be formulated to save the environment.
- Solid waste will be handed over to local contractors.
- Noise will be controlled by adopting proper measures.
- PPEs will be provided to workers during working.

- Hygienic conditions will be ensured and proper quality will be maintained by quality control testing.

Purpose of Mitigation measures

What is the problem i.e., in terms of "major environmental impacts" which may arise by the subject project activity?

The major impacts which may arise by the subject project can be air, water and noise pollution. Other impacts are of minor importance. These impacts may arise during operational phase of the project, during the operational phase of the subject project, it will be ensured that precautionary measures are being adopted, during the activity and post activity to cause minimum impacts to the environment.

When the problem will occur and when it should be addressed?

Negative impacts may arise during the operational phase of the project if proper precautionary measures and procedures will not be followed. If proper precautionary measures and procedures will be i.e., implemented, there should not be any major problem. If any impact would arise due to the subject project activity, it will be addressed on site. Trainings will be conducted on site while other precautionary measures will also be adopted to make the project safe and environmentally friendly.

Where and how the problem should be addressed?

The problem should be address at the site and immediate response should be provided to address the problem which may arise. Institutional capacity responsible for the implementation of EMMP is responsible for addressing such problems if arise.

Whys of achieving mitigation measures

Improved monitoring and management practices:

Management of M/S Sapphire Textile Mills Ltd. will take appropriate measures to provide pollution free and safe environment during the said project activity by implementing improved management practices and monitoring techniques suggested in EMP.

Chapter # 6

Environmental Management and Monitoring Program

The primary objectives of the EMMP are to:

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

Institutional Capacity

The overall responsibility for compliance with the environmental management plan rests with the project proponent. He will appoint an HSE/Project Manager of relevant qualification. HSE/Project Manager will be acting as Environmental Manager and is managing all HSE conditions at the PEQS at current stage of the project.

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.

Following functionaries will be involved in the implementation of EMP:

- Project Proponent
- HSE Officer
- In-Charge Administration
- Supervisor of project

Organogram of authorities involved in the implementation of EMP.

Training Schedule

Training for the management and workers on environmental aspects of the project will be arranged during the operational phase of the project.

Figure 8: Institutional Capacity for the Implementation of EMP

Management of Textile Spinning unit will be hiring or appointing HSE officer. HSE officer will be responsible for conducting the training of the labor, which will be organized either by the management of Textile Spinning unit. Following schedules of training will be implemented:

Table 7: Training Programs

Sr. No.	Description of program	Labor/ Personnel involved	Time/ duration
1)	General HSE Training	Trainers and whole labor	Quarterly for 1 hour
2)	Instrument use/ workplace specific items	Trainers and whole labor	Quarterly for 1 hour

3)	PPEs use and safe work practices at work site.	Trainers and whole labor	Quarterly for 1 hour
4)	Reporting and investigating accidents/ incidents	Trainers and whole labor	Quarterly for 1 hour
5)	Emergency procedures	Trainers and whole labor	Quarterly for 1 hour
6)	Medical and first aid	Trainers and whole labor	Quarterly for 1 hour
7)	Health and safety promotion	Trainers and whole labor	Quarterly for 1 hour

In order to raise the level of professional and managerial staff, there is a need to upgrade their knowledge in the related areas. HSE/Project Manager should play a key role in this respect and arrange the training programs. HSE/Project Manager will provide training to staff and workers about the best environmental management practices. The training modules will include air, noise and water pollution monitoring, social awareness, Environmental Laws, Punjab Environmental Quality Standards (PEQS), Usage of personal protection equipment's, and health and safety related issues on the Project site.

The HSE/Project Manager will train all workers & staff in basic sanitation and health care issues (e.g., how to avoid malaria and transmission of Sexually Transmitted Infections (STI) HIV/AIDS and in general health and safety matters, and on the specific hazards of their work. Training should also consist of basic hazard awareness, site specific hazards, safe work practices, and emergency procedures for fire, evacuation.

HSE/Project Manager will be conducted Training on quarterly basis regarding health & safety, hygiene, firefighting and first aid

Equipment Maintenance Detail

Subject project is Proposed construction of Textile processing Unit under the name of M/s Sapphire textile Mills Ltd.

The Company should maintain the records for Health, Safety & Environment and hiring HSE manager to check and deal with the HSE issues. The company is maintaining PPEs, medical facilities, firefighting Equipment's as fire buckets, fire hydrants and fire extinguishers and records for their periodic fillings or replacement.

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. Proponent is allocating a specific amount of total cost of the project as Environmental Budget for meeting the following purposes:

Table 8: Allocation of Environmental Budget

HSE training	On quarterly basis
Maintenance and management of environment	On regular basis
Maintenance of equipment	On regular basis
Restoration	As per requirement
Plantation	During the operation phase
Strategic planning to cope with any emergency situation	As per policy
Formulate the disaster management plan to cope with natural disaster	As per policy

Implementation of all these parameters will be included in the environmental budget. Any equipment failure will not be included in this budget.

ENVIRONMENTAL MANAGEMENT PLAN OF M/s SARENA TEXTILE INDUSTRIES (PVT) LIMITED

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 Textile 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	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	

		condition in order to minimize exhaust emissions.	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 Sarena Textile Industries (Pvt) Limited.	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.	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**

		2- Machinery will never be left unattended. 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. 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**

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 quarterly basis during operational phase of the project and report should be submitted to EPA Punjab.

- **Noise**

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

- **Water quality**

Regular monitoring of water quality should be conducted on monthly basis during operation phases of the project and report should be submitted to EPA Punjab. Record should be maintained regarding the underground water pump and consumption.

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

Sr. No.	Parameters	Monitoring Schedules	Sample Size (No. of Sample ×Frequency× Year)	Monitoring Duration
1	Ambient Air Monitoring (NO, NO_2 CO, SO_2, $PM_{2.5}$, PM_{10})	Annually	**1×1×1= 1**	24 Hours
2	Noise Level	Quarterly	**1×4×1= 4**	24 hours

3	Flue Gases (vehicular)	Quarterly	**1×4×1= 4**	15 min/sample
4	Drinking water quality	Quarterly	**1×4×1= 4**	Some parameters on site Others in lab
5	Waste Water	Quarterly	**1×2×1= 2**	Some Parameters on Site Others in Lab

Proposed EMP Reporting and Reviewing Procedures

To oversee the environmental performance of the project through its lifecycle to 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.

HSE manager is responsible for reviewing the performance of the project with respect to the guidelines mentioned in EMP related to following aspects:

- Health and safety
- fire safety arrangements,
- emergency evacuation plan
- emergency preparedness response
- provision of PPEs to workers

Internal audits should be done on biannual basis to check to the project performance with respect to the guideline proposed in EMP.

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

CHAPTER # 7

STAKEHOLDERS PARTICIPATION

Introduction

Stakeholder consultation is a critical part of the Environmental Impact Assessment (EIA) process for any project. For the proposed project by **M/s Sarena Textile Industries (Pvt) Limited**, a series of consultations were held with various stakeholders from the local community and other relevant groups to gather their feedback on the project's potential social, economic, and environmental impacts. The consultations aimed to provide a platform for stakeholders to voice their concerns, suggestions, and expectations regarding the project.

Methodology of Consultation

The EIA team conducted public consultations through group meetings and individual discussions. A Comprehensive questionnaire attached as **Annexure-G** was developed in order to conduct the survey. The primary focus was to engage local communities and gather their perspectives on the proposed construction of the facility, its potential benefits, and any concerns related to environmental impacts. The consultations targeted stakeholders including local residents, government officials, and business owners from the surrounding area. Public discussions were held at various locations near the project site, and stakeholders from local communities, educational and health institutions, shops, and other facilities were consulted. The team also made initial visits to the project site and held reconnaissance meetings to understand the local context better.

Stakeholder Identification

A three-tier approach was adopted for stakeholder identification, which considered the various levels at which stakeholders could be impacted by the project. The stakeholders were classified at the provincial level (e.g., Environmental Protection Agency (EPA), Agriculture Department, Wildlife Department), district level (e.g., local government bodies), and village level (e.g., local residents, shopkeepers, school representatives, etc.). The consultations continued throughout the project lifecycle, ensuring that feedback was integrated into the environmental management plan. Regular engagement with these stakeholders is crucial to maintain transparency and responsiveness to their concerns.

Proponent's Environmental Management Team

M/s Sarena Textile Industries (Pvt) Limited management assured that all necessary mitigation measures would be implemented to minimize any potential environmental impacts during the construction and operation phases of the project. The proponent's Environmental Management Team will oversee the adoption of these measures, including maintaining the aesthetics of the area and addressing concerns related to environmental degradation.

Responsible Authority

The responsibility for overseeing the implementation of the proposed mitigation measures lies with the management of M/s Sarena Textile Industries (Pvt) Limited. The company is committed to adhering to all environmental regulations and ensuring that the project's impact on the surrounding community and the environment is minimized.

Other Departments and Agencies

For the impact analysis, detailed meetings were held with local community leaders, educational institutions, health facilities, and NGOs. These discussions helped identify key issues related to the project and its potential effects. All relevant concerns were incorporated into the Environmental Management Plan to ensure a holistic approach to mitigating the project's impacts.

Environmental Practitioners and Experts

The team of environmental consultants from M/s Pak Green Enviro-Engineering (Pvt.) Ltd. conducted site visits and consultations with stakeholders from nearby villages. They gathered information on the socio-economic impacts of the project and incorporated feedback from different professionals, including local business owners, farmers, teachers, and health professionals. The consultations with women were also conducted, although some hesitated to provide personal information due to social constraints.

Affected and Wider Community

No specific community was found to be directly affected by the project within the study area. The consultations with the local population revealed a general positive response toward the project. Stakeholders emphasized that the project could bring tangible benefits, such as job

creation and local development, while ensuring that mitigation measures were taken to preserve the environment.

Consultation Findings

The results from the consultation meetings with stakeholders indicate a strong overall support for the project. The local community members expressed positive feedback regarding the project's potential to bring socio-economic benefits to the area, particularly in terms of employment opportunities and business growth. Many respondents felt that the construction of the project would improve the local infrastructure, contribute to social mobility, and increase the importance of the area.

However, there were also concerns raised regarding the potential environmental impacts, especially in relation to the potential effects on the area's aesthetic value and the environment. Some participants were worried about the impact on the scenic beauty of the area, but the project proponents assured that mitigation measures, such as land reclamation and maintaining the aesthetics of the area, would be implemented to address these concerns.

Stakeholder Feedback

The responses from stakeholders, summarized below, provide a more detailed picture of their views:

Sample Size

20 sample size was selected by the Team of consultants for conducting the socioeconomic survey. Women were also consulted for the said survey; some of their names are mentioned in the above list of respondents while most of them were not willing to give personal information.

Statistical Analysis

Two Different statistical software excel and SPSS have been used for the statistical analysis of the data collected during the visit of study site villages through questionnaires.

Results and Discussion

Gender

The consultations involved 20 respondents, including both 11 male and 9 female participants.

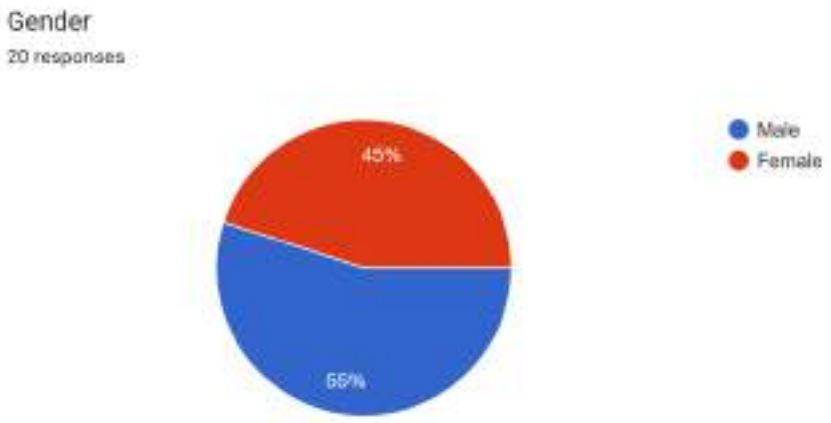


Figure 2: Gender of the Respondents

Project Support and Importance

The majority of the respondents (11), both male and female, expressed strong support for the proposed project. Most (9) agreed that the construction of the facility would increase the importance of the area, contributing to its overall growth and development. Participants were optimistic about the project's potential to raise the profile of the local community and enhance its standing within the region. The support for the project reflected a shared belief that it would bring significant benefits to the community.

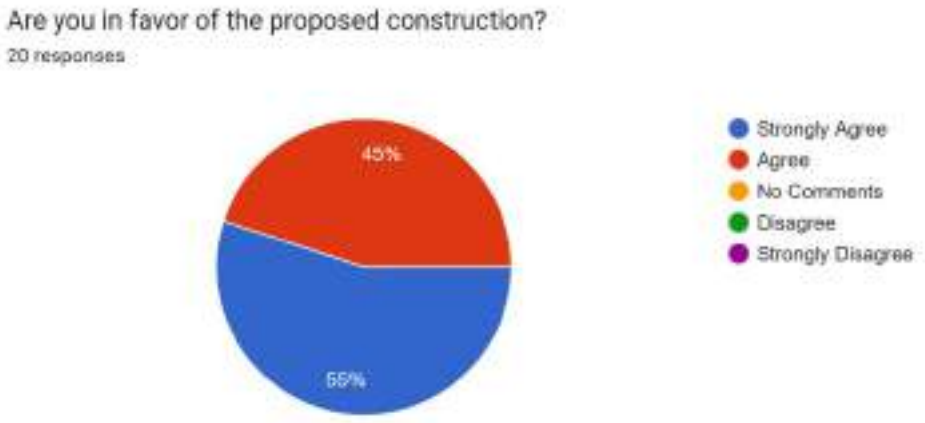


Figure 3: Respondents in favor of the Project

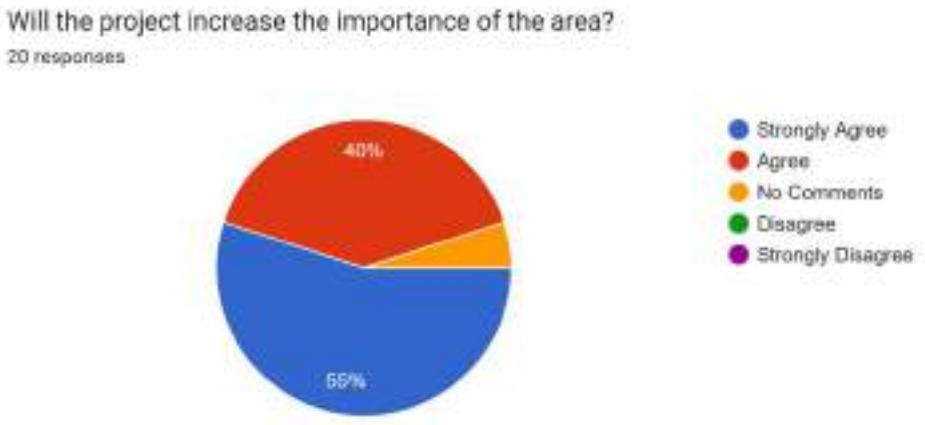


Figure 4: Respondents' Views on the Impact of the Project on the Importance of the Area

Improvement of Living Standards

While many respondents believed that the project would improve the living standards of the area, a few raised concerns. Approximately, 17 respondents strongly agreed or agreed that the project would result in better infrastructure, more employment opportunities, and improved services, which could enhance the overall quality of life. However, 3 individuals disagreed, possibly due to concerns over potential negative environmental impacts or uncertainties about the project's long-term benefits. Despite these reservations, the majority of the community seemed confident that the project would lead to better economic prospects.

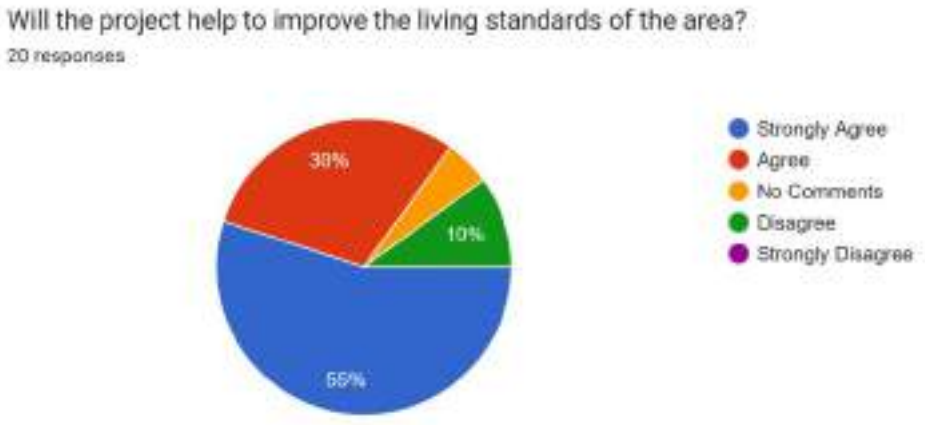


Figure 5: Respondents' Views on the Impact of the Project on the living standards of Area

Environmental Impact Concerns

When asked about the environmental impact of the project, responses were varied. 14 respondents strongly disagreed and 3 disagreed that the project would have any negative effect on the environment, 1 showed concern regarding its potential to disrupt area's aesthetic value. 2 responders were neutral and given no comments.

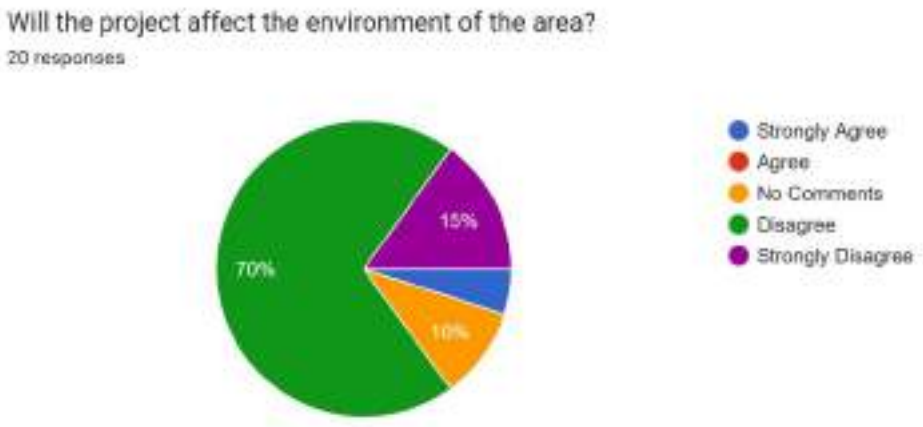


Figure 6: Respondents' Views on the Impact of the Project on the Environment of Area

Satisfaction with the Project

In terms of satisfaction, a substantial number of participants expressed their contentment with the project and its potential benefits. 18 respondents indicated their approval, citing the job creation and economic growth the project would bring. Their positive outlook on the project reflected their anticipation of tangible improvements in their community. However, 2 individuals, were neutral regarding the project satisfaction.

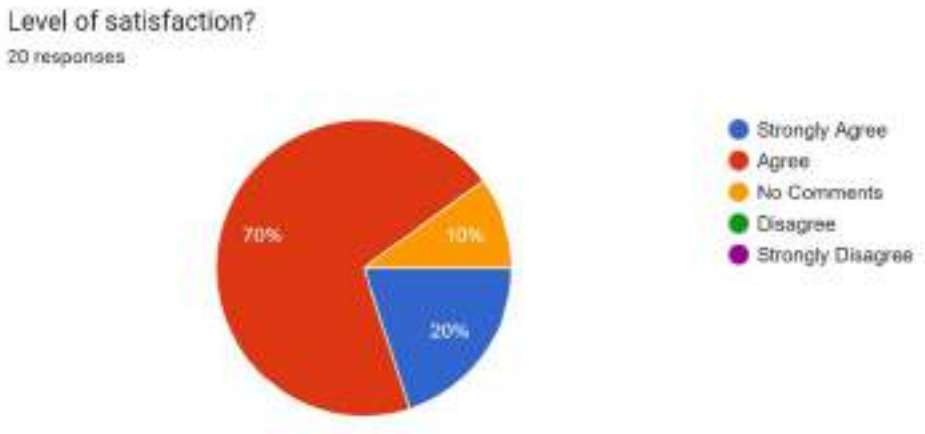


Figure 7: Respondents' Level of Satisfaction Regarding the Proposed Project

Conclusion

The stakeholder consultation process for the M/s Sarena Textile Industries (Pvt) Limited project demonstrated strong support for the initiative from the local community, with a clear recognition of its potential to boost the area's economic development. While environmental concerns were noted, the project proponents have committed to implementing mitigation measures to address these issues and maintain local aesthetic and environmental values. Continuous engagement with stakeholders throughout the project's lifecycle is crucial to ensure that any emerging concerns are promptly addressed.

CHAPTER # 8

CONCLUSION AND RECOMMENDATIONS

Based on the **Environmental Impact Assessment (EIA)** conducted for the **expansion of Sarena Textile Industries (Pvt) Limited**, the following conclusions and recommendations are made:

Conclusions

- The project has been found to be **economically viable**, **socially acceptable**, and **environmentally friendly**.
- The proposed expansion will generate **additional employment** during the operational phase, benefiting the local workforce and contributing to the economic growth of the region.
- The proponent, **Sarena Textile Industries (Pvt) Limited**, is committed to implementing the project in an environmentally responsible manner, adhering to best practices in sustainability and minimizing the project's ecological footprint.
- **Sarena Textile Industries (Pvt) Limited** (Textile Processing Unit) intends to **register the project** with the local government to ensure compliance with all legal and regulatory requirements.
- The company will develop and implement **comprehensive Emergency Preparedness and Response Standard Operating Procedures (SOPs)** to ensure the safety and well-being of workers and the surrounding community.
- **Sarena Textile Industries (Pvt) Limited** will also establish robust **Security and Fire Fighting Standard Operating Procedures (SOPs)** to safeguard the facility and its personnel.

Recommendations

- Based on the thorough screening and findings from the Environmental Impact Assessment, there is **no need for further investigations** as the project complies with environmental standards.

- It is recommended to implement **tree plantation** both inside and around the project site to enhance the greenery and offset carbon emissions associated with the expansion.
- The **untreated wastewater** should **not be reused** for irrigation of vegetation or lawns to prevent potential contamination and ensure that all water discharged complies with regulatory standards.
- During the operational phase, the project will enforce **high standards of bio-security and safety**, with the safety and well-being of workers being the top priority for management.
- The management of **Sarena Textile Industries (Pvt) Limited** will continue to contribute to the **local community** as part of its corporate social responsibility, fostering positive relations and supporting local development initiatives.

These conclusions and recommendations are aligned with the commitment of Sarena Textile Industries to run a sustainable and responsible business, contributing to both the local and national economy while maintaining high environmental and safety standards.

Annexure – A

TOR's

TERM OF REFERENCES (TORS)

TO CONDUCT THE ENVIRONMENTAL IMPACT ASSESSMENT STUDY FOR

M/S Sarena Textile Industries (Pvt) Limited

LOCATED AT

22 KM, Lahore Sheikhupura Road,

District Sheikhupura

TERM OF REFERNCES

These terms of references are being submitted for the subject EIA study under 5 (f) of policy and procedure for the filing, review and approval of environmental assessment. These TORs of EIA have been prepared by the environmental consultants, in consultation with the project proponent.

INTRODUCTION OF PROJECT:

The Subject project **proposed extension** of **Sarena Textile Industries (Pvt.) Limited**. The project involves the expansion of the existing textile processing unit, including **yarn dyeing, weaving, dyeing, printing, finishing, apparel manufacturing**, and the establishment of an **Effluent Treatment Plant (ETP)**. The project site is located at **22 KM, Lahore-Sheikhupura Road, District Sheikhupura**. The production capacities for various processes are as follows:

- **Yarn Dyeing**: 4,197,500 KG per annum
- **Weaving**: 36,066,380 meters per annum
- **Dyeing, Finishing & Printing**: 1,080,000,000 meters per annum
- **Apparel (Cutting, Stitching, Laundry)**: 5,100,000 pieces per annum

The total covered area of the project site is **2,000,402 SFT**, with a total estimated cost of **PKR 11,573 million**. This EIA is being submitted in compliance with **Section 12 of the Pakistan Environmental Protection Act (PEPA), 1997 (Amended 2012)**, to ensure that the expansion is carried out in an environmentally responsible and sustainable manner.

Name & Address of proponent

- **Name:** Mr. Syed Javed Akhtar Shah S/o Syed Ahmad Shah
- **Address:** Makan no.162, Street No.04, Muhala Faisal Colony, Pattoki, District Kausur
- **Designation:** GM Administration & IR
- **CNIC:** 35103-1376697-9

M/S **Sarena Textile Industries (Pvt.) Limited** has appointed the Pak Green Enviro-Engineering (Pvt) Ltd as the Consultant for the subject project to conduct the EIA. M/S Pak

Green Enviro Engineering (Pvt) Ltd will be called as "Consultant" **M/S Sarena Textile Industries (Pvt.) Limited** as the "Client".

Objective of the EIA study

The Objective of study includes Compliance of section 12 of PEPA 1997 (Amended 2012) & IEE/EIA PEQs

Purpose of the EIA

The key objectives of the EIA are to:

- Document the ecological and socioeconomic baseline conditions of the study area and the affected communities
- Inform and obtain input from stakeholders, (e.g., governmental authorities, the public, and indigenous communities) and capture their relevant issues and concerns
- Assess in detail the environmental, social, and health impacts that would result from the Project
- Identify environmental and social mitigation measures to address the impacts identified
- Develop the EMPs as discussed above, based on the mitigation measures developed in the EIA
- Meet the requirements or recommendations of the applicable national Environmental Laws and Guidelines

Scope of Services

1. Review of existing regulatory framework
    - 1.1 Laws and Regulations
    - 1.2 National and International Guidelines and Policy
    - 1.3 Guidelines of Labor & Human Resource Department
    - 1.4 Punjab Local Government Ordinance
2. Methodology for carrying out this study
    - 2.1 Project Description
        - 2.2 Site Selection
        - 2.3 Project Alternatives
3. Process Description
    - 3.1 Detailed review of the processes
    - 3.2 Design Parameters
    - 3.3 Details related to Plant and Equipment's

4 Environmental profile of the environmental study area

4.1 Climatology

4.2 Geographical features

4.3 Geological and Hydrological features

3.5.4 Historical review

3.5.5 Land Use

3.5.6 Ecology, i.e. Flora and Fauna etc.

3.6 Analysis of EPA required environmental parameters

3.6.1 Sampling for Air, Water, and Noise Level

3.7 Investigate Socio-Economic and Socio-Environmental aspects and cultural values within and around the operating facility

3.7.2 Cultural and Social Values

3.7.3 Interviews from different groups

3.8 Development activities and Waste Management

3.9 Identify and evaluate major environmental impacts

3.10 Identify mitigation measures and develop Environmental Management and Monitoring plan

3.11 Conclusions based on the study conducted for this EIA

3.12 1-2 Site Visits for data acquisition

3.13 Environmental Monitoring plan

3.14 Preparation of Lab Analysis Report

3.15 Preparation of Environmental Management Plan EMP

3.16 Briefing & Presentation to the Expert Committee in the EPA Punjab.

3.17 Reply to technical Environmental Objections/Review

3.18 Presentation in the office of DG EPA, Punjab (if required)

CLIENT RESPONSIBILITY

- Proponent will be responsible to nominate a senior officer as Coordinator who will be responsible for all coordination activities as required by the Consultants and to whom the Consultants will refer for information and assistance. All correspondence between the Consultants and the CLIENT will be routed through the coordinator
- Consultants will require free access to all relevant information available with the Client
- The report developed for the CLIENT shall be the property of the CLIENT and the Consultants shall adhere to confidentiality morally as well as legally.
- Client will provide relevant documents as:
    - Signed application on company letter head
    - Pay Order in favor of DG EPA as review fee 30,000/-
    - Undertaking on Stamp Paper as per EPA Format
    - Affidavit on Stamp Paper as per EPA Format
    - Copy of NIC of proponent
    - Dually filled and Sign Schedule IV
    - Details of firefighting Equipment's
    - Layout Maps of the project
    - Other NOCS/Certificates from other concerned departments (if any)
    - Any other relevant documents/details required by the consultant.

Signatures:

Environmental Consultant

Pak Green Enviro-Engineering Pvt. Ltd.

Signatures:

Client: Syed Javed Akhtar Shah

Syed Javed Akhtar Shah
Executive Administration & HR
Sarena Textile Industries (Pvt.) Limited

M/S Sarena Textile Industries (Pvt.) Limited

Annexure – B

Layout plan & Google earth map of the project

B 028575

SECURITIES AND EXCHANGE COMMISSION OF PAKISTAN

Company Registration Office

LAHORE

CERTIFICATE OF INCORPORATION ON CHANGE OF NAME

[Under section 13 of the Companies Act, 2017 (XIX of 2017)]

Corporate Universal Identification No. 0032546

I hereby certify that pursuant to the provisions of section 12 of the Companies Act, 2017 (XIX of 2017), the name of

"SAPENA INDUSTRIES AND EMBROIDERY MILLS (PRIVATE) LIMITED"

has been changed to

"SARENA TEXTILE INDUSTRIES (PRIVATE) LIMITED"

and that the said company has been duly incorporated as a company limited by shares under the provisions of the said Act.

This change is subject to the condition that for a period of ninety days from the date of issue of this certificate, the company shall continue to mention its former name along with its new name and incorporation number on the outside of the registered office and every office or place in which its business is carried on and in every document or notice referred to in clauses (a) to (d) of section 22 of the Companies Act, 2017.

Given under my hand at Lahore this 29th day of June, Two Thousand and Eighteen.

Fee Rs.2,500/

CERTIFIED TO BE TRUE COPY

29/10/2018

ADDITIONAL JOINT REGISTRAR OF COMPANIES
COMPANY REGISTRATION OFFICE
LAHORE

(SYED IFTIKHAR UL HASAN NAQVI)
Additional Registrar of Companies

Company Registration Office Lahore — Securities and Exchange Commission of Pakistan

No. ARL/ 5965 Dated: 29/6/18

Syed Javed Akhtar Shah
GM Administration & HR
Sarena Textile Industries (Pvt) Ltd.

08/03/2024

Form-A

THE COMPANIES ACT, 2017
THE COMPANIES REGULATIONS, 2024
[Section 130(1), 130(2), 424(5) read with Regulations 62 & 30]

ANNUAL RETURN OF A COMPANY

PART-I

(Please complete in bold capital letters)

1.1 CUIN (Registration Number) | 0 | 0 | 3 | 2 | 5 | 4 | 6 |

1.2 Name of the Company: SARENA TEXTILE INDUSTRIES (PRIVATE) LIMITED

1.3 Fee Payment Details — 1.3.1 Challan No: 24013216 — 1.3.2 Amount: 1500

1.4 Particulars of—		Please tick the relevant box
Part-I	Annual Return of a company other than Inactive company	✓
Part-II	Annual Return of Inactive Company	

PART-II

(To be filled by an Active Company)

		dd	mm	yyyy
2.1	Annual General Meeting held on	24	02	2024
2.2	Form-A made up to (applicable in case no AGM was held/concluded during the year)	24	02	2024

2.3	Registered office address	21-Waris Road, Lahore, Punjab, Pakistan
2.4	Email Address	zia.rehman@sefam.com
2.5	Office Tel. No.	042-37426192
2.6	Mobile No. (Preferably WhatsApp enabled number) of authorized officer: (Chief Executive/ Director/ Company Secretary/ Chief Financial Officer)	0322-4331142

Page 1 of 5

Syed Javed Akhtar Shah
GM Administration & IR
Sarena Textile Industries (Pvt) Ltd.

2.10 List of Directors as on the date up to which this Form is made.

S#	Name	Residential Address	Nationality	CNIC No. for Pakistanis, or NICOP No. for Overseas Pakistanis, or Passport No. for foreigners	Date of appointment or election	Name of member or creditor nominating or appointing the director
1	Hamid Zaman	House No.41 Street No.2 Cavalry Ground Lahore Cantt, Pakistan	Pakistani	35201-9514303-5	28-12-2022	-
2	Tariq Zaman	White House Lane No. 1 Sundar das Road, Lahore, Pakistan,	Pakistani	35202-7675306-1	28-12-2022	-

27/1/25

Syed Javed Akhtar Shah
GM Administration & HR
Sarena Textile Industries (Pvt) Ltd.

2.12 Transfer of shares/ debentures since last Form-A was made (Applicable for companies having share capital)

Sr#	Name of Transferor	Name of Transferee	Number of shares transferred	Date of registration of transfer
1	Seema Aziz	Hamid Zaman	231,697,913	27-01-2024
-	-	-	-	-

Declaration:

3.5 I do hereby solemnly and sincerely declare that the information provided in the form and the enclosures is:

(i) true and correct to the best of my knowledge, in consonance with the record as maintained by the company and nothing has been concealed; and

(ii) hereby reported after complying with and fulfilling all requirements under the relevant provisions of law, rules, regulations, directives, circulars and notifications whichever is applicable.

3.6 Name of Authorized Officer with designation/Authorized Intermediary (if appointed)	HAMID ZAMAN	Chief Executive /Director
3.7 Signatures		
3.8 Registration No of Authorized Intermediary (if applicable)		
3.9 Date	Day: 0 6	Month: 0 3 / Year: 2 0 2 4

CERTIFIED TO BE TRUE COPY OF THE DOCUMENT FILED BY THE COMPANY HOWEVER THIS OFFICE ACCEPTS NO RESPONSIBILITY AS TO THE CORRECTNESS OF THE DETAILS GIVEN IN THE DOCUMENT
ASSISTANT REGISTRAR OF COMPANIES
COMPANY REGISTRATION OFFICE
LAHORE

Syed Javed Akhtar Shah
GM Administration & IR
Sarena Textile Industries (Pvt) Ltd.

E-STAMP

ID :	PB-SKP-2014E9A91CD1A1D1
Type :	Low Denomination
Amount :	Rs 100/-
Description :	CERTIFICATE OR OTHER DOCUMENT - 19
Applicant :	MUHAMMAD SAJID ABBAS [35404-0375208-0]
S/O :	ABBAS ALI
Agent :	Self
Address :	SHEIKHUPURA
Issue Date :	10-Jan-2025 12:56:12 PM
Delisted On/Validity :	17-Jan-2025
Amount in Words :	One Hundred Rupees Only
Reason :	FOR OTHER DOCUMENT
Vendor Information :	Muhammad Waseem [PB-SKP-163] Sheikhupura Courts

Scan for online verification

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Type "eStamp <16 digit eStamp Number>" send to 8100

Advocate High Court — Oath Commissioner — Sheikhupura

This agreement is made on for 1st July 2024 to 30th June 2025 between the Government of Punjab acting through the Executive Engineer Rachna Drainage Division, Sheikhupura, Govt. of Punjab, Irrigation and Power Department which expression shall include his successor in office assigns (hereinafter referred to as "Government" which expression shall include its successor in office and assigns.)

AND

Sarena Textile Industries Pvt. Ltd. on the right bank of Main Daik Drain 42 two situated at Mouza Lalu Sattar Shah Sheikhupura with the direction to comply with the terms and Conditions as in vogue in the Department which expression shall include its successors, interest and assigns (hereinafter referred to as the "Company" which expression shall include its successor-in-office and assign).

WHEREAS the "Rachna Drainage Division, Sheikhupura" is owner and exclusively responsible for maintaining Main Daik Drain (hereinafter referred to as the "Drain").

WHEREAS the company to dispose the effluent of industry "C" Building, the request of NOC Main Daik applied to the Government "Rachna Drainage Division Sheikhupura".

WHEREAS the "Company" is prepared to treat the effluent if required prior to its discharge into the "Drain" as per the terms and conditions.

AND WHEREAS the "Government" has accepted the application of the "Company" on the terms and conditions hereinafter set forth.

NOW, THEREFORE, THIS AGREEMENT WITNESSNTH AS FOLLOWS:

1. Discharge of the effluent water through Main Daik Drain shall be maximum up to 2.0 cusec, for any increase in the effluent water prior permission to be taken by Government.
2. The "Company" will ensure that resultant quality of the effluent, at any time remain within the prescribed limits and is not injurious to human/ animal life.
3. The "Company" will design, construct and maintain at its own expense and to the satisfaction of the Government such works as effluent, channel, cross Irrigation / Drainage works, outfall structure, silting tank or any other appurtenant works as may be necessary properly to treat and safely discharge the effluent into the "Drainage" without causing and obstruction to the flow in the drain"
4. The "Company" will at its cost, get the chemical analysis of the effluent done on yearly basis from the Directorate of Land Reclamation of the Government for reviews by the latter.
5. The land for the construction of effluent channel connection the outfall into "Design" shall be acquired by "Company" at their own cost.
6. A silting tank shall be constructed by the "Company" at the own cost I order to [illegible] before effluent water is allowed to pass through the effluent channel.

Syed Javed Akhtar Shah
GM Administration & IR
Sarena Textile Industries (Pvt) Ltd

OATH COMMISSIONER
SHEIKHUPURA

7 The "Government" may at any stage direct the "Company" to clear of the channel or bed from silt and such a clearance shall be carried out at the expense of the "Company". In case the company fails to avoid by this condition, the Government shall be at the liberty to interference with or stop the effluent water from entering in the "Drain" Ager living notice of 30-days to the "Company".

8 Under no circumstances the effluent channel shall hamper the other existing projects of Irrigation Department.

9 The "Company" will have to be paid to the "Government @ 35000/- per cusec per annum and Discharge calculated jointly with the G.M Administration of Sarena Textile Industries Pvt. Ltd. as well as Sub Engineer concerned with comes as 2.0 Cusec so annual charges of effluent comes Rs. 70,000/- (Rupees Seventy Thousand Only) for One year.

10 The "Company" will not change the maximum discharge of effluent and its quality without prior approval arrangements as may be deemed necessary by the "Government" so as the control safe disposal and bring quality of the effluent within acceptable limits.

11 This agreement shall remain in force for a period up to 30th June, 2025 commencing from 1st July 2024 to agreement may also be renewed with mutual agreement of the parties before 30th June 2025 on such terms and condition as may be mutually agree upon between the parties.

12 The "Company" shall be responsible to abide by all the laws / rules of the Government for the time being in force for the purpose of controlling pollution of water of natural / artificial streams, Nallahs, drain etc.

13 In case of "Company" fails to comply with any terms and condition of this agreement the agreement will be stand struck off.

14 Government after such failure and in any event the "Company" will not be entitled to any compensation or claim damage whatsoever from the Government.

15 This agreement may also be terminated by any party giving 30 days prior notice in writing to the other.

16 In case of any dispute or difference of opinion in respect of this agreement, or any matter relating thereto, arise between the parties, it shall be resolved by arbitration in accordance with the Arbitration Act 1940 (as amended. The venue of the arbitration will be office of the Superintending Engineer, Lahore Drainage Circle Lahore.

17 This agreement shall be governed by and constructed under the laws of Pakistan without regard to its conflict of laws principals and the courts of Lahore shall have exclusive jurisdiction in regard thereto.

IN WITNESS WHEREOF the parties hereto have put their hand and seals on this agreement today on

13/1/25

FOR AND ON BEHALF OF
GOVERNMENT

Witness No. 01
Mohsin Fareed
Sub Engineer

Executive Engineer
Kachna Drainage Division
Sheikhupura.

FOR AND BEHALF OF COMPANY
Mr. Syed Javed Akhtar
(G.M Administration)

(CNIC No. 35103-1176692-9)
Witness No. 02
Muhammad Naeem
Manager Admin
(CNIC No. 35202-7303536-1)

Syed Javed Akhtar
GM Administration
Sarena Textile Industries (P

OFFICE OF THE
DISTRICT COUNCIL
SHEIKHUPURA

No: DO-DC-SKP/ 30

Dated: 25 / 3 /2019

To

MR. HAMID S/O J.A ZAMAN OF SARENA INDUSTRIES & EMBROIDERY MILLS (PVT) LTD 22 KM SHEIKHUPURA LAHORE ROAD MOUZA KHAN PUR NABI FEROZEWALA DISTRICT SHEIKHUPURA

SANCTION OF BUILDING PLAN

The Building Plan No. 14 Dated 25-2 of site Address [illegible], as enclosed with your application has been scrutinized under the provisions of Bye- laws. Tehsil Municipal Administration is pleased to accord sanction of the plan subject to the following conditions.

1. The plan has been sanctioned without structural design.
2. The complete safety at site and stability of the building / structure is entire responsibility of the owner / applicant and District Council shall not be held responsible for any mishap.
3. The owner / applicant shall not object the inspection, with or without Notice, made by DC at any time during the construction and after the completion.
4. The sanction for erection or re-erection of building shall be valid up to 25-3-2[illegible]
5. The construction of the building shall be completed within **ONE YEAR** after commencement.
6. The date of completion of building shall be intimated to DC in writing along with Completion Plan as per site within 30 days of the completion.
7. If after sanction of the plan, owner / applicant intend to alter or make construction in addition to the sanctioned plan, the same shall be undertaken after getting sanction of Addition / Alteration Plan.
8. The owner / applicant shall not construct any unauthorized projection / opening and encroach upon any Government or public or private land / property or road / street.
9. The owner / applicant shall bring the construction in conformity with the sanctioned plan, if any such construction made at site prior to the sanction of plan.
10. The building shall be used for the purpose of **INDUSTRIAL** as sanctioned.
11. The area designated as parking or set back in the plan shall only be used for parking facilities.
12. If at any stage it is proved that documents and plans submitted by the owner / applicant were incorrect or forged or bogus, DC shall have the right to modify, suspend, cease, withdraw or cancel the sanction of building plan, at any time and to initiate legal proceedings against Builder / owner.
13. Any oversight in the scrutiny of the documents, plans etc. does not vest any right of violation of the Byelaws to the owner / applicant.
14. The sanction of the plan does not confirm, authenticate, entitle the applicant, the ownership of the property and is only for the construction of the building.
15. This plan has been passed with consideration of the approved master plan of LDA and this plan has been approved without dealing with the issue of CONVERSION as this lies with LDA Lahore.
16. This Building Plan is liable to be canceled if at any stage the matter of conversion is not settled with the concerned department without assigning any reason and building will be liable to be demolished subsequently.

DISTRICT OFFICER (PLANNING)
DISTRICT COUNCIL SHEIKHUPURA

C.C.

1. The Chairman, District Council Sheikhupura
2. Chief Officer, District Council Sheikhupura
3. Concerned Enforcement Inspector

Syed Javed Akhter Shah
G.M. Administration & HR
Sarena Textile Industries (Pvt) Ltd.

OFFICE OF THE
DISTRICT COUNCIL
SHEIKHUPURA

No: DO-DC-SKP/ 1-0

Dated: 5/4/2018

To

MR. HAMID ZAMAN S/O JALINUES AHMAD ZAMAN
SARENA INDUSTRIAL & EMBROIDERY MILLS (PVT) LTD
(APPAREL UNIT) 22 KM SHEIKHUPURA ROAD LAHORE
DISTRICT SHEIKHUPURA.

SANCTION OF BUILDING PLAN

The Building Plan No. 26 Dated: 27-3-18 of site Address [illegible], as enclosed with your application has been scrutinized under the provisions of Bye- laws. Tehsil Municipal Administration is pleased to accord sanction of the plan subject to the following conditions.

1. The plan has been sanctioned without structural design.
2. The complete safety at site and stability of the building / structure is entire responsibility of the owner / applicant and District Council shall not be held responsible for any mishap.
3. The owner / applicant shall not object the inspection, with or without Notice, made by DC at any time during the construction and after the completion.
4. The sanction for erection or re-erection of building shall be valid up to 5-4-19
5. The construction of the building shall be completed within ONE YEAR after commencement.
6. The date of completion of building shall be intimated to DC in writing along with Completion Plan as per site within 30 days of the completion.
7. If after sanction of the plan, owner / applicant intend to alter or make construction in addition to the sanctioned plan, the same shall be undertaken after getting sanction of Addition / Alteration Plan.
8. The owner / applicant shall not construct any unauthorized projection / opening and encroach upon any Government or public or private land / property or road / street.
9. The owner / applicant shall bring the construction in conformity with the sanctioned plan, if any such construction made at site prior to the sanction of plan.
10. The building shall be used for the purpose of INDUSTRY as sanctioned.
11. The area designated as parking or set back in the plan shall only be used for parking facilities.
12. If at any stage it is proved that documents and plans submitted by the owner / applicant were incorrect or forged or bogus, District Council shall have the right to modify, suspend, cease, withdraw or cancel the sanction of building plan, at any time and to initiate legal proceedings against Builder / owner.
13. Any oversight in the scrutiny of the documents, plans etc. does not vest any right of violation of the Byelaws to the owner / applicant.

OFFICE OF THE
DISTRICT COUNCIL
SHEIKHUPURA

No: DO-DC-SKP/ 100

Dated: 5 / 4 /2018

To

MR. HAMID ZAMAN S/O JALINUES AHMAD ZAMAN
SARENA INDUSTRIAL & EMBROIDERY MILLS (PVT) LTD
(APPAREL UNIT) 22 KM SHEIKHUPURA ROAD LAHORE
DISTRICT SHEIKHUPURA.

SANCTION OF BUILDING PLAN

The Building Plan No. 36 Dated 27-3-18 of site Address 22-KM [illegible], as enclosed with your application has been scrutinized under the provisions of Bye- laws, Tehsil Municipal Administration is pleased to accord sanction of the plan subject to the following conditions.

1. The plan has been sanctioned without structural design.
2. The complete safety at site and stability of the building / structure is entire responsibility of the owner / applicant and District Council shall not be held responsible for any mishap.
3. The owner / applicant shall not object the inspection, with or without Notice, made by DC at any time during the construction and after the completion.
4. The sanction for erection or re-erection of building shall be valid up to 5-4-19
5. The construction of the building shall be completed within ONE YEAR after commencement.
6. The date of completion of building shall be intimated to DC in writing along with Completion Plan as per site within 30 days of the completion.
7. If after sanction of the plan, owner / applicant intend to alter or make construction in addition to the sanctioned plan, the same shall be undertaken after getting sanction of Addition / Alteration Plan.
8. The owner / applicant shall not construct any unauthorized projection / opening and encroach upon any Government or public or private land / property or road / street.
9. The owner / applicant shall bring the construction in conformity with the sanctioned plan, if any such construction made at site prior to the sanction of plan.
10. The building shall be used for the purpose of INDUSTRY as sanctioned.
11. The area designated as parking or set back in the plan shall only be used for parking facilities.
12. If at any stage it is proved that documents and plans submitted by the owner / applicant were incorrect or forged or bogus, District Council shall have the right to modify, suspend, cease, withdraw or cancel the sanction of building plan, at any time and to initiate legal proceedings against Builder / owner.
13. Any oversight in the scrutiny of the documents, plans etc. does not vest any right of violation of the Byelaws to the owner / applicant.
14. The sanction of the plan does not confirm, authenticate, entitle the applicant, the ownership of the property and is only for the construction of the building.
15. This plan has been passed with consideration of the approved master plan of LDA and subsequently if at any stage some encumbrance is found it has to be settled accordingly.
16. This Building Plan is liable to be canceled if at any stage any misrepresentation is found from the owner side, also any violation of building byelaws or any deviance from the instruction of government orders is found the concerned department without assigning any reason will be liable to demolish the construction subsequently.

DISTRICT OFFICER (PLANNING)
DISTRICT COUNCIL SHEIKHUPURA

C.C

1. The Chairman, District Council Sheikhupura
2. Chief Officer, District Council Sheikhupura
3. Concerned Enforcement Inspector

Syed Javed Akhtar Shah
GM Administration & IR
Sarena Textile Industries (Pvt) Ltd.

TEHSIL MUNICIPAL ADMINISTRATION

Ferozewala, District Sheikhupura.
Tel: 042-37978558, 37921680
Fax: [illegible]

To,

Mr. Hamid Zaman S/o Lahoori Ahmad Zaman
[illegible], Lahore [illegible]

[illegible]

Dated: [illegible]

SANCTION OF BUILDING PLAN

[illegible] Dated: 30-06-2015 [illegible], Mouza Khan Pur Bahi Pur, [illegible] Ferozewala [illegible] No. 41, Mouza Khan Pur Bahi Pur [illegible] your application has been considered [illegible] [illegible] for the construction of the [illegible]

1. The plan has been sanctioned without structural design.
2. The complete technical [illegible] Stability of the building / structure is entire responsibility of the [illegible], and [illegible] any mishap.
3. [illegible] shall not object the [illegible] with or without Notice, made by [illegible] the construction.
4. [illegible] of building shall be valid up to **One Year**.
5. [illegible] of the building shall be completed within 01 Year after [illegible].
6. The date of completion of building shall be intimated to TMA in writing along with [illegible] within 30 days of the completion.
7. [illegible] applicant intend to alter or make construction in [illegible] plan, the same shall be carried out after getting sanction of [illegible].
8. The owner / applicant shall not construct any unauthorized projection / opening and [illegible] on public or private land / property [illegible].
9. [illegible] the construction in conformity with the sanction plan / [illegible].
10. The building shall be used for the purpose of **Industry** [illegible].
11. [illegible] in the [illegible] shall be used for parking purpose.
12. [illegible] documents and plans [illegible] by the owner / applicant [illegible] of Building Plan [illegible] legal [illegible].
13. [illegible] owner / applicant.
14. [illegible] the construction of the building.

TEHSIL OFFICER (P&C)
TEHSIL MUNICIPAL ADMINISTRATION
FEROZEWALA

Syed Javed Akhtar Shah
[illegible] Administration & [illegible]
[illegible]

C.C.

1. [illegible]
2. [illegible] Ferozewala.
3. [illegible] Ferozewala [illegible]

نقل عکس مشجره [illegible]
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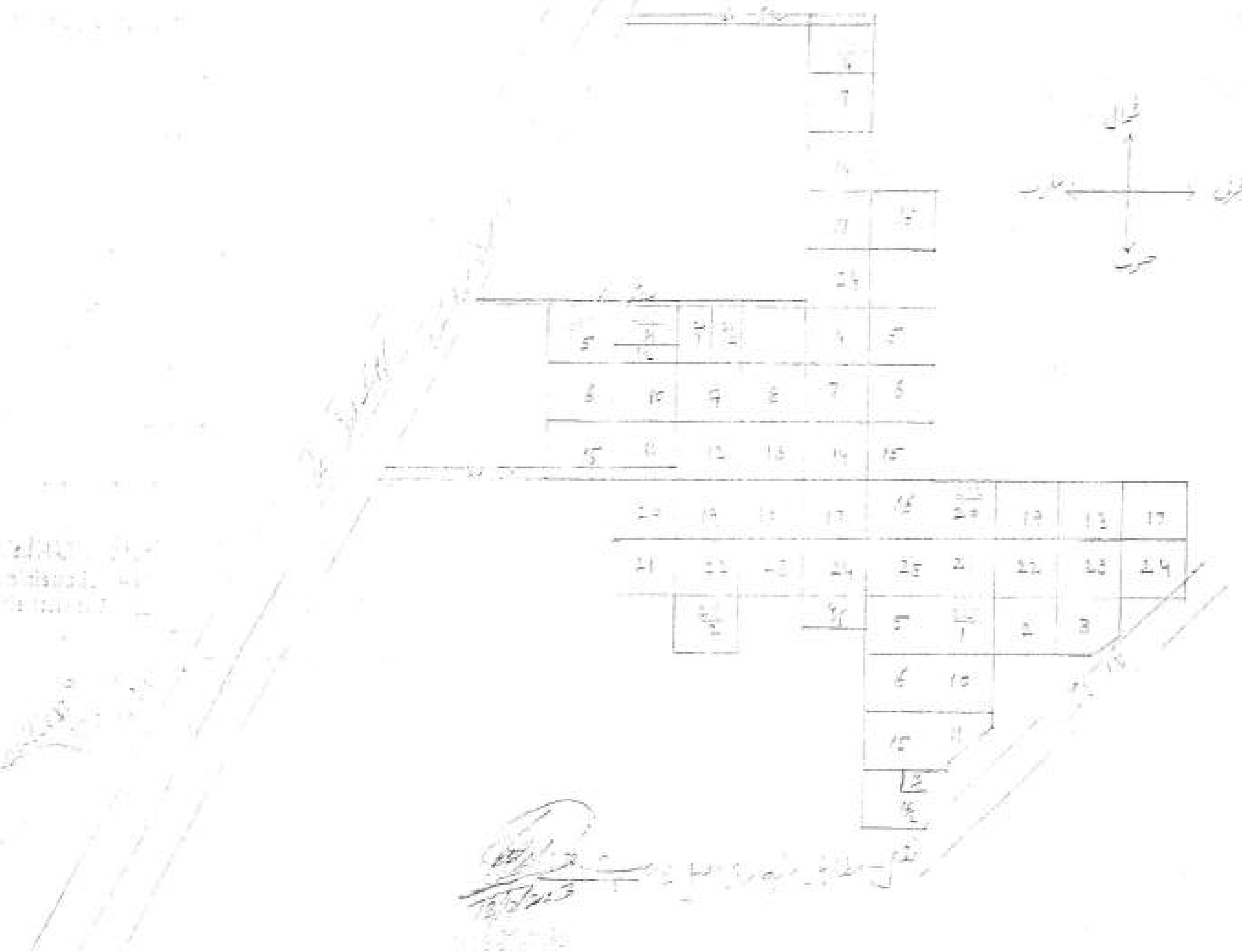

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Syed Javed Akhter Shah
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[illegible] Textile Industries Pvt Ltd

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Syed Umal Akhtar Shah
DM Administration & IB
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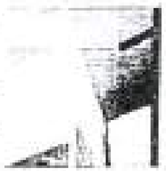

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Syed Javed Akhtar Shah
GM Administration & IR
[illegible] Textile Industries Pvt Ltd

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Syed Javed Akhtar Shah

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								39-0-0	39/40		35201-4514303-6		
								39-0-0	20/40		[illegible]		

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نقل رجسٹر حقداران زمین (مسل حقیت)

[illegible] 35 [illegible] 2019-20 سال | ضلع [illegible] | تحصیل [illegible] | [illegible]

۱۰	۹	۸	۷	۶	۵	۴	۳ (ہ)	۳ (د)	۳ (ج)	۳ (ب)	۳ (الف)	۲	۱
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]				[illegible] 8-0-0 [illegible]	[illegible] 1	[illegible]		0-0-0	32940/43920	[illegible]	[illegible]	266	137 / 144
								[illegible] 6-0-0	[illegible] 34		[illegible] 35201-6514303-5		
								[illegible]	[illegible]		[illegible]		

0-00-00-284-00-00-00-0023576671 [illegible] | [illegible] | [illegible] | [illegible]

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04/01/2025 14:24:26 [illegible] | 1069 [illegible]

Syed [illegible] Ahsan Shah
[illegible] Administration & HR
[illegible] Industries [illegible]

۱	۲	۳ (الف)	۳ (ب)	۳ (ج)	۳ (د)
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
284/4	525	[illegible]	[illegible]	127024/127024	23-7-0
		[illegible] 35201-5514303-5		1/1	23-7-0
		[illegible]		1/1	23-7-0

[illegible]

35401-17845339

Syed Javed Akhter Shah
G.M. Administration & HR
[illegible]

نقل رجسٹر حقداران زمین (مسل حقیت)

49 | 88 | 2019-20 سال | ضلع شیخوپورہ | تحصیل | [illegible]

۱۰	۹	۸	۷	۶	۵	۴	۳ (ہ)	۳ (د)	۳ (ج)	۳ (ب)	۳ (الف)	۲	۱
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	831	[illegible]
[illegible]				23-7-0	3	[illegible]		23-7-0	127024/127024	[illegible]	[illegible]	825	2844
								23-7-0	1/1		35201-9514309-5		
								23-7-0	1/1				
			23-1-0	23-7-0	3	[illegible]							

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Syed Javed Akhtar Shah
[illegible] Administration & IT
[illegible]

2019-20

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1004 تا 1008						[illegible]	30	214-12-0	25-16-0 188-16-0		

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Syed Javed Akhtar Shah
GM Administration & IR
[illegible] Textile Industries (Pvt) Ltd.

نقل رجسٹر حقداران زمین (مسل حقیت)

سال 2019-20 | 65 / 64

۱۰	۹	۸	۷	۶	۵	۴	۳ (ر)	۳ (د)	۳ (ج)	۳ (ب)	۳ (الف)	۲	۱
[illegible]				8-0-0	1	[illegible]		7-18-0	42432/43520	[illegible]	[illegible]	407	203 / 207
								7-16-0	39/40		35201-8814303-5		
								7-15-0	39/40		[illegible]		

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Syed Javed Akhtar Shah
CM Administration & IT

نقل رجسٹر حقداران زمین (مسل حقیت)

موضع [illegible] حد بست [illegible] تحصیل [illegible] ضلع [illegible]

نمبر کھیوٹ	نمبر کھتونی	نام مالک معہ ولدیت، قومیت، سکونت	نوعیت حقوق ملکیت	حصہ	رقبہ	[illegible]	کیفیت	[illegible]
1	2	3 (الف)	3 (ب)	3 (ج)	3 (د)	3 (ہ)	4	5
197 201	399 تا 401	[illegible]	مالک	79160/87040	14-0-0		[illegible]	2
		35201-9514303-5		7/8	14-0-0			
		[illegible]		1/3 7/8	14-0-0			

نقل مطابق اصل ہے [illegible]   [illegible]

[illegible]   08/01/2025 12:19:00

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Syed Jared Akhtar Shah
GM Administration & IR
[illegible] Textile Industries Pvt Ltd

[illegible] (CR) [illegible]

07 | 95 | [illegible] | 2019-20 | [illegible]

10	9	8	7	6	5	4	3 (د)	3 (ج)	3 (ب)	3 (الف)	2	1
[illegible]				15-0-0	2	[illegible]		14-0-0	76160/87040	[illegible]	399 - 401	197 / 201
								14-0-0	7/8	35201-9514303-5		
								14-0-0	1/8	[illegible]		

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Syed Fawad Abbas Shah
GM Administration & HR
Sitara Textile Industries Ltd.

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[illegible] 2019-20 [illegible] 39 / 35 [illegible]

۱۰	۹	۸	۷	۶	۵	۴	۳ (ز)	۳ (ہ)	۳ (د)	۳ (ج)	۳ (الف)	۲	۱
			[illegible] 0-12-0 [illegible] 14-0-0 [illegible] 1-3-0	16-0-0 [illegible]	[illegible] 2	[illegible]						398 تا 401 [illegible]	197 [illegible]

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… Akhter Shah
GM Administration …
… Punjab

نقل رجسٹر حقداران زمین (مسل حقیت)

71 : 65 نمبر ورق | 2019-20 سال | ضلع [illegible] | تحصیل [illegible] | [illegible]

۱ نمبر کھیوٹ	۲ نمبر کھتونی	۳ (الف) نام مالک معہ تفصیل	۳ (ب)	۳ (ج) حصہ	۳ (د) رقبہ	۳ (ہ)	۴	۵	۶	۷	۸	۹	۱۰ کیفیت
195 199	391 تا 397	[illegible]	مالک	6/3155	0-6-0		[illegible]	22	157-15-0 [illegible]				[illegible] 157-15-0 139 3/11 [illegible]
		[illegible]		[illegible] 3/3155	[illegible] 0-6-0								
		[illegible]	مالک	64/631	16-0-0								
		[illegible]		[illegible] 64/631	[illegible] 16-0-0								
		[illegible]	مالک	634/3155	31-14-0								
		[illegible] 35201-8514303-5		[illegible] 634/3155	[illegible] 31-14-0								

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نقل رجسٹر حقداران زمین (مسل حقیت)

89 | 2019-20 | ضلع | تحصیل | موضع

12	11	10	9	8	7	6	5	4	3 (ہ)	3 (د)	3 (ج)	3 (ب)	3 (الف)	2	1
					8-0-0	1			6-6-190	17231/21760			35201-9514303-5	405	201/205
									6-6-190	17231/21760					
									1-7-82	3713/21760			35201-9514303-5		
									1-7-82	3713/21760					
			8-0-0	8-0-0		1									

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78 / 85 2019-20

[illegible]	[illegible]	[illegible]	خسرہ نمبرات	[illegible]	[illegible]
[illegible]	[illegible]	266,200	14, 15/1, 16/3, 17/1/2, 6/2, 7, 8/1	102	135
[illegible]	[illegible]	6,655,000	18	137	135
[illegible]	[illegible]	3,993,000	15, 16, 17, 18, 19, 22, 23, 24, 25	145	135
[illegible]	[illegible]	3,993,000	10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 7, 20, 21, 22, 23, 24, 25/2, 25/3, 3, 7, 8, 9	146	135
[illegible]	[illegible]	3,993,000	11	154	135
[illegible]	[illegible]	6,655,000	1, 10, 12, 18/1, 2, 3, 4, 5, 8, 9	184	135
[illegible]	[illegible]	3,993,000	4, 5	185	135
[illegible]	[illegible]	6,655,000	17, 18, 23, 24	202	135
[illegible]	[illegible]	3,993,000	24, 25	203	135
[illegible]	[illegible]	6,655,000	1, 11, 2, 20/2	204	135

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نقل رجسٹر حقداران زمین (مسل حقیت)

79 / 85 — 2019-20

[illegible]	[illegible]	[illegible]	نمبر خسرہ	نمبر کھتونی	نمبر کھیوٹ
[illegible]	[illegible]	3,993,000	18/1	210	135
[illegible]	[illegible]	13,310,000	1, 10, 11, 20/2, 21, 3, 4	220	135
[illegible]	[illegible]	13,310,000	2	220	137
[illegible]	[illegible]	6,555,300	15, 17/2, 24, 25/2	114	141
[illegible]	[illegible]	266,200	1/2, 10/2	135	141
[illegible]	[illegible]	3,993,000	11, 23	135	141
[illegible]	[illegible]	6,655,000	1, 14, 16, 18/2, 19/2, 19/3, 21, 22, 23, 6/1	136	141
[illegible]	[illegible]	266,200	20/2, 9	137	141
[illegible]	[illegible]	6,655,000	12, 13, 14, 16, 17, 2/2, 21/1, 24, 6/2	137	141
[illegible]	[illegible]	3,993,000	5	152	141
[illegible]	[illegible]	6,855,000	6/2	153	141

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Syed Javed Akhter Shah

CM Administration & IR

Senior Punjab ... Jhelum

نقل رجسٹر حقداران زمین (مسل میعادی)

80 / 88 — 2019-20

نمبر کھیوٹ	نمبر کھتونی	نمبر خسرہ	رقبہ	[illegible]	قسم
141	153	3/1, 5	3,993,000	[illegible]	[illegible]
141	153	1, 10, 12, 13, 16/1, 19, 2, 9/1, 9/2	931,700	[illegible]	[illegible]
141	154	17	3,993,000	[illegible]	[illegible]
141	187	4/2	3,993,000	[illegible]	[illegible]
141	189	25	931,700	[illegible]	[illegible]
141	195	1, 10, 11, 12, 13, 14/1, 15, 18, 2, 20, 21, 22, 23, 3, 4/1, 4/2, 7, 8, 9	3,993,000	[illegible]	[illegible]
141	218	20/2, 21, 22	3,993,000	[illegible]	[illegible]
141	216	25	931,700	[illegible]	[illegible]
141	219	15, 16/2, 25, 4/1, 5, 6/1	266,200	[illegible]	[illegible]
141	225	3	3,993,000	[illegible]	[illegible]

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31 / 88 2019-20

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
187	164	20/2, 21	256,200	[illegible]	[illegible]
187	168	1	3,993,000	[illegible]	[illegible]
187	169	12, 19, 20/1, 21/2, 3, 4/2, 4/3, 7, 8, 9/1	3,993,000	[illegible]	[illegible]
187	195	14/4/1, 5/2	3,993,000	[illegible]	[illegible]
187	196	1/1, 18, 22/1, 23, 24	3,993,000	[illegible]	[illegible]
187	198	13	3,993,000	[illegible]	[illegible]
187	199	13/1	3,993,000	[illegible]	[illegible]
187	203	2/2/1, 3/1, 3/2	3,993,000	[illegible]	[illegible]
187	94	2	6,655,000	[illegible]	[illegible]
188	203	16, 17, 18, 19, 20	3,993,000	[illegible]	[illegible]
190	220	9	13,310,000	[illegible]	[illegible]

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Syed Javed Akhtar Shah
GM Administration & IR

نقل رجسٹر حقداران زمین (مسل معاملات)

02 / 85 — 2019-20

نمبر کھیوٹ	نمبر کھتونی	نمبر خسرہ	رقبہ	قسم زمین	کیفیت
195	118	1/2	3,655,000	[illegible]	[illegible]
195	132	10	266,200	[illegible]	[illegible]
195	156	5	3,993,000	[illegible]	[illegible]
195	157	1/3	3,993,000	[illegible]	[illegible]
195	203	10, 11, 12, 13, 14, 15, 8, 9	3,993,000	[illegible]	[illegible]
195	204	15	3,993,000	[illegible]	[illegible]
195	217	14/2, 17/1	931,700	[illegible]	[illegible]
195	218	1/1, 2	266,200	[illegible]	[illegible]
195	94	16, 18, 23	6,666,000	[illegible]	[illegible]
195	95	18	6,666,000	[illegible]	[illegible]
197	202	19, 20	6,665,000	[illegible]	[illegible]

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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
200	95	17, 23/1	8,855,000	[illegible]	[illegible]
201	204	5	8,855,000	[illegible]	[illegible]
202	202	11	8,855,000	[illegible]	[illegible]
202	203	21, 22, 23	3,333,000	[illegible]	[illegible]
202	219	2	266,200	[illegible]	[illegible]
203	202	22	8,855,000	[illegible]	[illegible]
284/4	196	14, 4, 7	3,993,300	[illegible]	[illegible]
569	132	11	284,200	[illegible]	[illegible]
569	153	11	931,700	[illegible]	[illegible]
569	156	6/1	3,993,000	[illegible]	[illegible]
569	157	10, 9	3,993,000	[illegible]	[illegible]

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نقل رجسٹر حقداران زمین

83 / 85 — 2019-20

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
198	203	4, 3, 6, 7	3,993,000	[illegible]	[illegible]
200	117	11	6,555,000	[illegible]	[illegible]
200	132	20, 21, 22	268,200	[illegible]	[illegible]
200	133	25	6,655,000	[illegible]	[illegible]
200	196	11, 12, 19, 20, 8	3,993,000	[illegible]	[illegible]
200	203	1/1, 2/2, 10, 2/1	3,993,000	[illegible]	[illegible]
200	204	5	6,655,000	[illegible]	[illegible]
200	224	8/2, 9/1, 9/2	931,700	[illegible]	[illegible]
200	80	17/1, 17/2, 4/1, 4/2, 5/1	6,655,000	[illegible]	[illegible]
200	93	1	6,655,000	[illegible]	[illegible]
200	94	5/2	6,655,000	[illegible]	[illegible]

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Syed Javed Ahsan Shah
GM Administration & IR

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نقل رجسٹر حقداران زمین (مسل میعادی)

85 / 89 ورق نمبر — 2019-20 سال — ضلع [illegible] — تحصیل [illegible] — [illegible]

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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

نمبر کھیوٹ	نمبر کھتونی	نمبر خسرہ	مساحت	[illegible]	[illegible]
569	163	16/2	266,200	[illegible]	[illegible]
569	169	16/3	3,993,000	[illegible]	[illegible]
569	196	13, 16, 17	3,993,000	[illegible]	[illegible]
569	197	12, 13, 14, 15, 16, 17, 18, 2, 24, 25, 3, 4, 5	3,993,000	[illegible]	[illegible]
569	198	1, 11, 12, 2, 20, 21	3,993,000	[illegible]	[illegible]
569	87	15/2	6,655,000	[illegible]	[illegible]

[illegible] 1,312,298,503.00

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2019-20

۱	۲	۳ (الف)	۳ (ب)	۳ (ج)	۳ (د)	۳ (ر)	۴	۵	۶	۷	۸	۹	۱۰
135	257 ت 284	[illegible]	[illegible]	705/4532	6-16-0		[illegible]	70	453-4-0				[illegible]
		[illegible] 35201-9514303-5		705/4532	6-16-0								
		[illegible]	[illegible]	298656/246544 08	54-16-0								
		[illegible] 35201-9514303-5		349/4532	54-16-0								
		[illegible]		61-206	61-12-0								

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Syed Javed Akhtar Shah
Cit. Administration & M
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Annexure – D

Lab Monitoring Reports

ENVIRONMENTAL PROTECTION AGENCY
GOVERNMENT OF THE PUNJAB
National Hockey Stadium, Gate No. 08
Gaddafi Stadium Complex, Lahore

Validation for Wastewater & Drinking Water

Facility /Project Name & Address Phone	Sarena Textile Industries (Pvt.) Ltd.	**Sampling Point**	ETP Inlet, Outlet, RO Water
	22-Km Off Sheikhupura Road, Qila Sattar Shah, Lahore		

Waste Water (WW) Treatment facility
Primary Secondary Tertiary NA

Drinking Water (W) Treatment Facility

Total WW collected Sample 02

Total Collected Drinking water samples.....01

Sample Tag for testing parameter is assigned on sample container	Yes✓	NO	NA
Sample is preserved properly for each testing parameter	Yes✓	NO	NA
Sample size is adequate for testing the target parameters	Yes✓	NO	NA
Wastewater Flow Measurement performed to ensure sample representativeness	Yes	NO✓	NA

No. of Waste Water outlets	Waste Water Flow m^3/hr from each outlet (Optional)	Water intake m^3/hr (Optional)	Water Mass balance complied during sampling (Optional)	Sample Type
	NA	NA	Yes No	Grab✓ Composite

Parameter	Matrix W	Matrix WW	Container	Sample Size	Preservation	Yes	NO	NA
Coliform, Total or Fecal	✓		Sterile Container	100 mL	Refrigerate 6 C	✓		
Coliform, Total or Fecal, Chlorinated Water	✓		Sterile Container	100 mL	0.008% Thiosulphate & cooled 6 C	✓		
Color, Turbidity	✓		P,G	500 mL	Cool 6 C	✓		
Hardness, Total	✓		P,G	500ml	HNO3 to pH<2	✓		
Nitrogen, Nitrate + Nitrite , Phenolic Compounds, Oil & Grease, COD, NH3		✓	P,G	2000 mL	H2SO4 to pH < 2, Cool 6C	✓		
Metals, General	✓	✓	P,G Rinsed 1:1 HNO3	500 mL	HNO3 to pH < 2	✓		
Cyanide, Total		✓	P,G	500 mL	NaOH to pH > 12, Cool 6C	✓		
Pesticides, General			Glass	1 Liter	Cool 6 C			

Field Parameters*

Field parameter		pH meter, Model Make	Measurement Method	Calibrated in Field	Measured value
pH		AS 218	APHA 4500 B	Yes✓ NO	
Temp					
Cl					

M-Shoaib - Pak Green Lab
Dated: 18-12-2024
Signature:

ENVIRONMENTAL PROTECTION AGENCY
GOVERNMENT OF THE PUNJAB
National Hockey Stadium, Gate No. 08
Gaddafi Stadium Complex, Lahore

Validation for Stack & Ambient Monitoring / Sampling

Emission Monitoring under CTM-34 or OTM-39				
Facility Name & Address Phone	Sarena Textile Industries (Pvt.) Ltd.	SE 2-Generators-Diesel & Natural Gass 2-Boilers-Biomass & Natural Gas		
	22-Km Off Sheikhupura Road, Qila Sattar Shah, Lahore			
Industry Category	Textile Mill			
Analyzer Model & Make : Testo 350				
Average stack emission Values of CO, NOx (in mg/nM3)				
Excess Air / Excess Oxygen (%age):-				
Analyzer exposed for Ramp-Up phase to the sample gas for 5 minutes		Yes✓	NO	NA
Analyzer flow rate and EC temperature monitored during calibration and testing		Yes✓	No	NA
Test Data Phase of sample gas recorded with 15 second interval		Yes✓	No	NA
All key requirements to ensure QA/QC complied for said EPA approved Method		Yes	No✓	NA
Particulate Matter (PM) Monitoring / Sampling under USEPA Method 5 / 17				
Model & Make of Iso-kinetic PM Assembly				
The PM sampling train is complete as per Method 5 & 17		Yes	No	NA✓
Leak Test performed prior to sampling		Yes	No	NA✓
Field data Sheet for PM Sampling filled during PM sampling		Yes	No	NA✓
Data for determining of "K" factor & DGM "Y" Factor filled during sampling		Yes	No	NA✓
All method key requirements during sampling were compiled to ensure QA/QC		Yes	No	NA✓
Filter of Particulate matter is suitable for metal Testing		Yes	No	NA✓
SOx sampling as per Method 8 (Thorin Indicator Method)				
The right absorbent solution are available for SOx Sampling		Yes✓	No	NA
The equipment is capable to maintain flow rate @ 2.0LPM or as per method 8 requirement		Yes✓	No	NA
Sampling for SOx is performed as per method		Yes✓	No	NA
Ambient Air Quality Monitoring by Automatic Monitors for CO, O3, SO2, NOx, PM2.5 & PM10				
In case of continuous monitoring at a site, One Point QC Check Single analyzer & Zero/span check is performed every 14 days.		Yes	No	NA✓
The CE of NOx analyzer is ensured to be maintained within 96% - 104.1%		Yes	No	NA✓
Zero/span check is performed prior to starting ambient monitoring		Yes	No	NA✓
All key requirements for Critical & Operational Criteria for ambient air monitoring by automatic monitors were compiled during monitoring		Yes	No	NA✓
The measuring techniques of monitors comply PEQS		Yes	No	NA✓
Ambient Air Sampling of SPM, PM10, Pb by High Volume Sampler				
In case of Sampling for SPM through samplers, the flow rate of sampler comply PEQS (1.1m3/min).		Yes	No	NA✓
Calibration of Sampler performed prior to sampling		Yes	No	NA✓
Vehicular Emissions & Noise Measurement				
Sampling of Vehicle emissions and noise measurement have been performed as per method and SOPs		Yes	No	NA✓

M-Shoaib - Pak Green Lab
Dated: 18-12-2024
Signature

PAK GREEN ENVIRO-ENGINEERING (Pvt.) Ltd.

(Environmental Laboratories Division)

ISO/IEC 17025:2017 Accredited Testing Lab, ISO 9001:2015, ISO 14001:2015, ISO 45001:2018

Head Office: 46-M, Gulberg III, Lahore-Pakistan. Ph: +92-42-35441444 Cell: 0303-4442334

EPA Certified

PGG/IMS/FF/063	Rev.#02	Rev date: 04-09-23

TEST REPORT

Ref #: PGG/LAB/2025-359/NL

Issue date: 21-Jan-25

Name of Industry/Client: M/s Sarena Textile Industries (Pvt.) Limited
Site Location: 22-Km Off Sheikhupura Road, Qila Sattar Shah, Lahore
Nature of Monitoring: Noise Level
Monitoring Time: Real Time
Monitoring Instrument: Land TEK SL 5868-P
Monitoring Date: 15-Jan-25
Validated by EPA Representative: Mr. Zahid Mahmood, RA, EPA(Lab), Sheikhupura

Results:

Sr. No.	Locations	Equivalent Noise Level dB (A)
1.	Point-01: East Side	60.3
2.	Point-02: West Side	62.7
3.	Point-03: North Side	61.3
4.	Point-04: South Side	59.2
PEQS (Day Time Industrial Area)		75 dB(A)

End of Report

PEQS: Punjab Environmental Quality Standards
Remarks: Noise level at all points are in compliance with PEQs Limit.
Terms & Conditions:

- Analysis was conducted on the request of project proponent for IEE/EIA Baseline study.
- Report cannot be used regarding compliance of any complaint, EPO or any other court case.
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- The left-over sample (if so available) shall be retained for fifteen days after the issuance of the report unless otherwise negotiated between the client and the laboratory.
- The report is not valid for any negotiations.

Field. Analyst	Chief Analyst	Laboratory Incharge

info@pakgreen.pk www.pakgreen.pk

PAK GREEN ENVIRO-ENGINEERING (Pvt.) Ltd

(Environmental Laboratories Division)

ISO/IEC 17025:2017 Accredited Testing Lab, ISO 9001:2015, ISO 14001:2015, ISO 45001:2018

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PGG/IMS/PF/003	Rev.#02	Rev date: 04-09-23

TEST REPORT

Ref. #: PGG/LAB/2025-358/AA

Issue date: 21-Jan-25

Name of Industry/Client: M/s Sarena Textile Industries (Pvt.) Limited
Site Location: 22-Km Off Sheikhupura Road, Qila Sattar Shah, Lahore
Nature of Monitoring: Ambient Air
Monitoring Instrument: AQMS
Monitoring Date: 15-Jan-25 to 16-Jan-25
Monitoring Validated By: Mr. Zahid Mahmood, RA, EPA(Lab), Sheikhupura

Results:

Parameters	CO	NO	NO_2	SO_2	PM_{10}	$PM_{2.5}$
	mg/m³	µg/m³	µg/m³	µg/m³	ug/m³	ug/m³
Methodology	Non-Dispersive Infrared Absorption (NDIR)	Reduced Pressure Chemiluminescence (CLD)	Reduced Pressure Chemiluminescence (CLD)	UV fluorescence (UVF)	Integrated Sampling Technique	Integrated Sampling Technique
Results	2.582	21.29	46.35	36.98	162.7*	57.6*
PEQS for Ambient Air	05 8-Hrs	40 24-Hrs	80 24-Hrs	120 24-Hrs	150 24-Hrs	35 24-Hrs

End of Report

PEQS: Punjab Environmental Quality Standards

Remarks: Parameters with * are not in compliance with the PEQS Limit.

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Field Analyst	Chief Analyst	Laboratory Incharge

PAK GREEN ENVIRO-ENGINEERING (Pvt.) Ltd.

(Environmental Laboratories Division)

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EPA Certified

PGG/IMS/FP/139	Rev.#00	Rev date: 04-09-23

TEST REPORT

Ref #: PGL/LAB/2025-357/C.A

Issue date: 21-Jan-25

Name of Industry/Client:	M/s Saeena Textile Industries (Pvt.) Limited
Site Location	22-Km Off Sheikhupura Road, Qila Sattar Shah, Lahore
Nature of Sample:	Ground Water
Sampling By:	Pak Green Laboratories
Sample Source:	Tap water
Date of sampling:	15-Jan-25
Sample Receiving Date:	15-Jan-25
Testing Facility:	Pak Green Laboratories
Testing Date:	15-Jan-25 to 21-Jan-25
Validated by EPA Representative:	Mr. Zahid Mahmood, RA, EPA(Lab), Sheikhupura

Results:

Sr. No.	Parameters	Unit	WHO	PEQS	Method / Technique	Results
1.	Taste	-	Non-Objectionable / Acceptable	Non-Objectionable / Acceptable	APHA-2160 C	Non-Objectionable
2.	Odor	-	Non-Objectionable / Acceptable	Non-Objectionable / Acceptable	APHA-2150 B	Non-Objectionable
3.	Color	TCU	≤ 15	≤ 15	APHA-2160 C	0.000
4.	Turbidity	NTU	< 5	< 5	APHA-2130 B	0.28
5.	Total Hardness^	mg/L	-	<500	APHA-2340 C	135
6.	Total Dissolved Solid^	mg/L	< 1000	< 1000	APHA-2540 C	620
7.	pH^	-	6.5-8.5	6.5-8.5	APHA-4500-H+ B	7.772 at 23.0°C
8.	Chloride (Cl^-) ^	mg/L	250	< 250	APHA-4500-Cl⁻B	73
9.	Electrical Conductivity (EC)^	µS/cm	-	-	APHA-2510 B	1020
10.	Sodium (Na)^	mg/L	-	-	APHA-3111 B	77.9032

End of Report

PEQS: Punjab Environmental Quality Standards WHO: World Health Organization ^PNAC Accredited

Remarks: All Parameters are in compliance with the PEQS Limit.

Terms & Conditions:

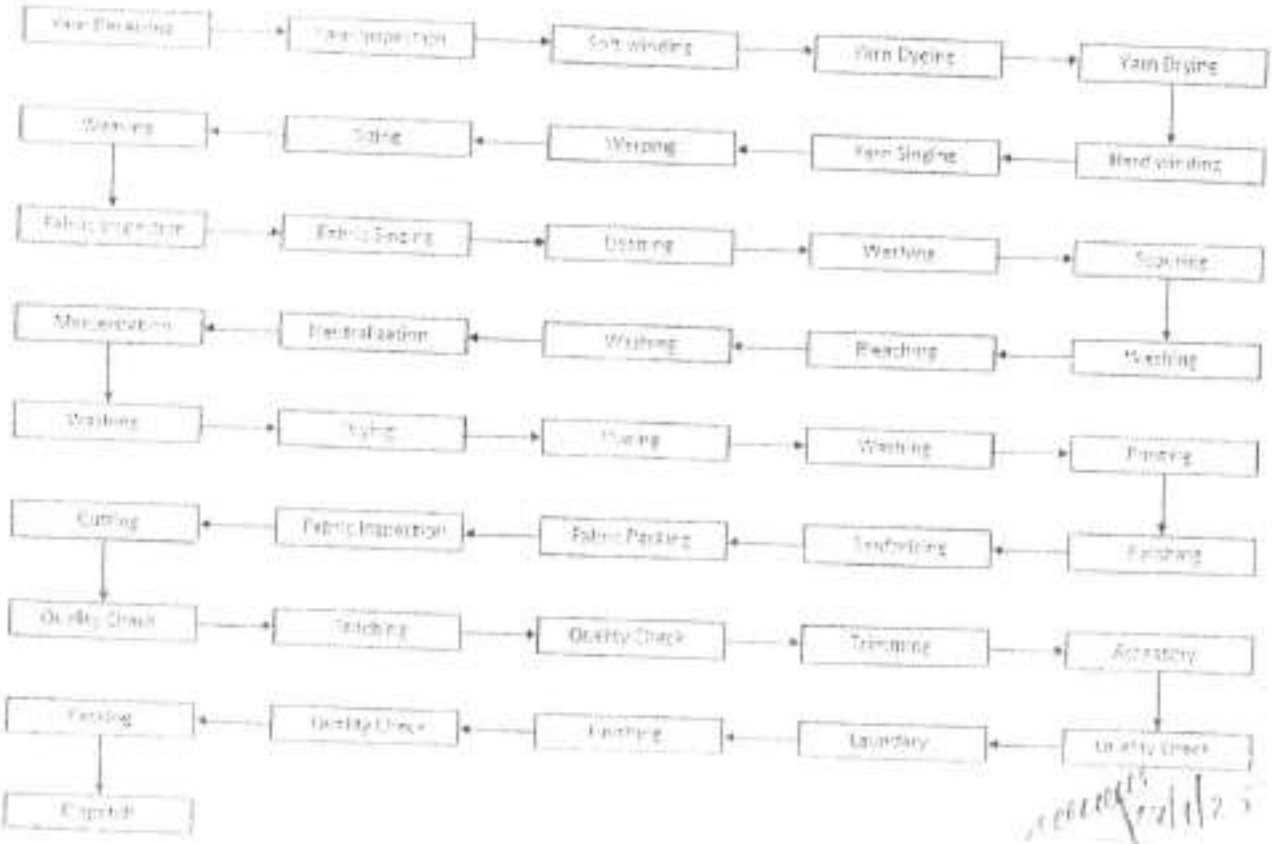
- Analysis was conducted on the request of project proponent for IEE/EIA Baseline study.
- Report cannot be used to comply with any complaint, EPO, or other court case.
- This report should be reproduced as a whole and not in parts.
- The values represent the sample conditions when sampling/monitoring was carried out.
- The Environmental Conditions while performing testing activities are (Temp=22.0-23.8°C) and (RH=52.9-56.9%)
- The Sampling was done as per the sampling and preservation protocol method APHA 1060 B&C
- The responsibility of the ethical use of the results reported in this report lies with the client.
- The leftover sample (if so available) shall be retained for fifteen days after the issuance of the report unless otherwise negotiated between the client and the laboratory.
- The report is not valid for any negotiations.
- Dually calibrated instruments were used during monitoring and testing activities.

Lab. Analyst	Chief Analyst	Laboratory Incharge

Annexure – E

Process Flow Chart

Process Flow Chart:



Waheed Akhter Shah
Administration & HR
Sarena Textile Industries (Pvt) Ltd.

Annexure – F

Waste Water Treatment Plant Design