EIA/2024

PACKAGING INDUSTRIES (PVT.) LTD.

OASIS

Establishment of Packaging Unit

By

M/s OASIS Packaging Industries Pvt. Limited

Plot 7-A Quaid-E-Azam Business Park, Sheikhupura

Client

Aleem Ahmed
(Proponent)

Consultants

ECOGREEN

Environmental Lawyers, Engineers & Consultants

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LIST OF ABBREVIATIONS

CO_2	**Carbon dioxide**
dB(A)	A weighted decibel scale
EIA	Environmental Impact Assessment
EMP	Environmental Management Program
Engr.	Engineer
EPA	Environmental Protection Agency
ESPAK	Environmental Services Pakistan
ETP	Effluent Treatment Plant
IEE	Initial Environmental Examination
Ltd.	Limited
M/S	Messrs
m^3	Cubic meter
m^3/h	Cubic meter per hour
No.	Number
NOC	No Objection Certificate
NO_x	Oxides of Nitrogen
PEPA, 2012	Punjab Environmental Protection (Amendment) Act, 2012
PEQS	Punjab Environmental Quality Standards
PKR	Pakistani Rupees
PM	Particulate Matter
PPEs	Personal Protective Equipment
Pvt.	Private
SOPs	Standard Operating Procedures
SO_x	Oxides of Sulfur
WAPDA	Water and Power Development Authority
WWTP	Wastewater Treatment Plant

EXECUTIVE SUMMARY

1.1 Title and Location of Project

This executive summary presents an overview of the main findings of the Environmental Impact Assessment (EIA) Report for establishment of an integrated composite Packaging Unit under the name of M/s Oasis Packaging Industries Pvt. Limited at Plot 7-A Quaid-E-Azam Business Park Sheikupura. The coordinates of the site are: **Latitude 31°74196.8" North** and **Longitude 74°04'228.59" East.** The main goal of this project is to provide quality products to customers and explore new markets to promote sales of the Company through good governance. In this project polyethylene is the basic raw material, and final products include Lamination films, Shrink films, Polyethylene films, Poly bags, Printed & Unprinted Shopping bags, Bread bags & bags for Industrial consumption.

Name of the Proponent

The details of the proponent are as follow:

Proponent Details	
Name	Aleem Ahmed
Designation	*Director/Chief Executive Officer*
Company	M/s Oasis Packaging Industries Pvt. Limited
Address	Plot 7-A Quaid-E-Azam Business Park Sheikupura

Copy of CNIC of proponent is attached as **Annexure A**

1.2 Name of Consultant

M/s Ecogreen Company (Pvt.) Limited has been engaged for conducting EIA Study of the above stated project. The main objectives of the said project are to establish baseline environmental conditions, identify potential environmental impacts and to suggest suitable mitigation measures accordingly.

1.3 A brief outline of the proposal (type, process, technology and land requirement)

As per Punjab Environmental Protection Act 1997 (amended 2012) and Punjab Environmental Protection Review of Initial Environmental Examination and Environmental Impact Assessment 2022 said project falls under **Category B Manufacturing & Processing** of the projects mentioned in **Schedule II.**

Establishment of Packaging Unit by Oasis Packaging Industries Pvt. Limited is proposed in designated industrial area. All types of Flexible Packaging Material will be manufacture at instant project. Main aim of Establishment of Plastic Packaging unit by M/s Oasis Packaging Industries is to continuously adopt and engage the newest

technological advancements in the field of plastics for development of materials, design, and process. This in turn automatically translates into a competitive advantage for their customers, leading packaging unit in country. The total project cost is **PKR 462 Million PKR**.

1.4 Salient Features of Project

Project Title	Establishment of Packaging Unit under the name of M/s Oasis Packaging Industries Pvt. Limited.
Purpose of Project	To provide good quality packaging material to customers and explore new markets to promote/expand sales of the Company through good governance
Site Coordinates	**Latitude 31°74196.8″ North** and **Longitude 74°04′228.59″ East**
Total Area of Project	4.16 Acres
Raw material	i. LDPE ii. HDPE iii. PP iv. Inks
Cost of the Project	462 Million PKR
Environmental Budget	2 million
Proponent Name	Mr. Aleem Ahmed
Consultant Name	Ecogreen Company (Pvt.) Ltd.
Tree Planation	Trees will be planted in surrounding open spaces, lawns and along the boundary of Project Area.
Water Source	Groundwater,
Water Requirement	Water requirement will be fulfilled through Estate as instant project will be established in designated Industrial Estate/ Business Park.
RO	An RO Plant having 400 Litters capacity per hour will be installed at instant unit.
Wastewater	It has been ensured by Management that no wastewater will be disposed into industrial drain without being treated.
Power Requirement	990 KW fulfilled through WAPDA
Project Capacity	600 Tons
Manpower/Staff	10-15 Construction phase, 120 approximately Operation Phase

1.5 Major Impacts and Recommended Mitigation Measures

In order to identify all the impacts associated with the project with potential to cause adverse environmental impacts, a thorough review has been conducted. Although, there are no chances of any adverse impacts on the surrounding environment if unit is installed as planned, however, in case of any impacts arises during construction possible necessary mitigation measures will be adopted to control the same. Overall, the project has positive social impacts. The project may also have some adverse environmental impacts of minor to moderate magnitude which will be controlled through mitigation measures, proposed in Environmental Management and Monitoring Plan (EMMP). Moreover, no vegetation clearance during construction phase will be done as said project will be constructed within approved designated industrial area. However, plantation will be done at specified green areas of the unit.

1.6 Proposed Impacts and their Mitigation Measures

Environmental Parameters	Impact Assessment during Different Phases		Mitigation Measures
	Installation	Operational	
Planning and Designing			
Location	**+1p**	**+2p**	Instant project will be installed within approved designated Industrial area (Business Park). ❖ Generated sewage will be treated through septic tank and will be disposed of into nearest drain in compliance with PEQS. ❖ The generated solid waste will be disposed of as per area practice. ❖ It is envisaged that no land use change, tree cutting or deterioration of soil and environment will take place and no further mitigation measures will require as the project will be established within approved designated business Park.

Design	**+1t**	**+2p**	No mitigation measures will berequired as the project is designed according to the principle of sustainable development; ❖ For instant project good quality raw-material will be used. ❖ Through the modern machinery high quality of packaging will be made. ❖ The generated sewage will be treated in septic tank prior to disposal into Industrial drain.
A: Physical			
1. Land Resources			
Soil Erosion and Contamination	**-1t**	**-1p**	Following mitigation measures will be adopted to protect the soil from erosion and contamination: ❖ During civil work mainly herbs and shrubs causing soilexposure will be re-vegetated quickly and compensatory plantation be carried out as soon as possible ❖ It will be ensured that fast-growing trees will be planted in the designated green areas. ❖ Spill prevention and response plan for storage, usage and transfer of fuel should be prepared (if used on site) and implemented. ❖ Workers should be trained on spill prevention and response plan. ❖ Maintenance and washing of vehicles as well as equipment will be carried out at designatedareas within the facility ❖ Any hard impermeable covering or tarpaulin should be spread on area to prevent soil contamination.

Solid Waste and By Products	**-2t**	**-1p**	General waste management practices will be adopted which will include: ❖ During construction the recyclable and reusable waste will be sold to the contractor. ❖ During operation phase Waste bins will be placed in the facility at the strategic position for the collection of solid waste, from where it will be disposed of as per area practice. ❖ Record of all generated waste during the project activity should be maintained on the regular basis.
Land Use	**NA**	**+1p**	Establishment of Packaging Unit will be done within approved designated Business Park, Sheikhupura. Hence, no impact due to the land use change is being envisaged. Following mitigations measures will be adopted to reduce the land use impact: ❖ Unnecessary up-rooting and disturbance to the native vegetation should be avoided up to the extent possible ❖ The designated green area will be vegetated and vegetation present on-site will be preserved as far as practically possible.
2. Air Resources			
	-1t	**-1p**	Following measures will be adopted: ❖ Workers will be given PPEs suchas ear plugs and muffles. ❖ Proper tuning of the machineswill be done in order to control the noise. ❖ There is no boiler installation, so there will be no air emission source from instant project.

Dust and Exhaust Emissions	**-2t**	**-1t**	Following mitigation measures will be adopted to mitigate the anticipated impact: ❖ Ensure that the trucks carryingthe raw-material should be covered by tarpaulin to reduce fugitive dust emissions ❖ Water spraying/sprinkling on tracks shouldbe done on the regular basis. ❖ Ensure that all equipment and vehicles, used during the construction phase, are properly tuned and maintained in good working condition, in order to minimize the exhaust emissions and it will be regulated by the concerned authority ❖ Ensure that high quality fuel having low sulfur contents will be used in the vehicles engaged in the project activity ❖ Ensure that dust emission generated due to vehicular movement is minimized by restricted speed limit and vehicular movement impacts which will be minimized through good traffic management at site ❖ Ensure that dust emission during the project activities will be minimized by implementing best management practices.
3. Water Resources			
			Following mitigation measures will be adopted: ❖ Water conservation techniques should be adopted to ensure sustainable consumption. ❖ As per design the instant project

Ground Water	**-1p**	**-1p**	included state-of-the-art machinery. ❖ Reuse of treated waste water will be preferred where possible. ❖ Monitoring of sewage shall be carried out as per provision of(SMART) Rules to ensure compliance with the PEQS ❖ It will be ensured that no solid waste will be mixed in the wastewater. There is no surface water body present in the project proximity that could be impacted. ❖ Proper monitoring of the wastewater will be carried out on regular basis.
Surface Water	**0**	**NA**	No mitigation measures are required to be discussed as the project does not extract from any surface water body neither is there any surface water body in close proximity of the project site which is vulnerable to be affected by the construction or operation of the instant project.
Wastewater	**-1p**	**-2p**	Following mitigation measures will be adopted: ❖ Water conservation techniques should be adopted to ensure sustainable development. ❖ Monitoring of sewage shall be carried out as per requirement of Self-Monitoring and Reporting Rules (SMART) to ensure compliance with the PEQS ❖ It will be ensured that no solid waste will be entered in the wastewater ❖ There is no surface water body present in the project proximity that could be impacted

			❖ The wastewater will be treated through septic tank prior to the disposal into nearest drain.
B : Ecological			
Flora			
Tree Cutting	**NA**	**+1p**	Following mitigation measures will be adopted: ❖ Avoid un-necessary disturbance and removal of the tree at any stage of the project. ❖ The designated green area will be vegetated and native vegetation present on-site will be preserved.
Fauna			
Terrestrial Fauna	**NA**	**NA**	The instant project is located in industrial area with huge cluster of industries on both sides of selected site and there is no sensitive or protected area in proximity which may be affected. Hence no mitigation measures will be required as no impact on fauna is being envisaged.
C: Socio-Economic			
Employment Opportunities	**+1t**	**+2p**	It will be ensured that preference will be given to the locals during construction and operation of the instant project.
D: Hazards			
	NA	**-1p**	The following mitigation measures are suggested that could be applied to reduce the risk of health and safety: ❖ Spillage prevention plan should be adopted and it should be implemented effectively (if needed) ❖ Floor surfaces shall be maintained and

Physical Hazards			cleaned on regular basis ❖ Floor should be kept clean and free of oil spills, other slippery fluids or materials and obstructions. ❖ The effective use of hearing- protection devices shall be ensured. ❖ Protective measures and emergency rescue procedures should be followed strictly. ❖ Unloading of the raw-material and flow of the final products should be controlled, supervised, slow and smooth.
Health and Safety	**-1t**	**-1p**	The following mitigation measures are suggested that could be applied to reduce the risk of health and safety: ❖ Floor surfaces shall be maintained and cleaned on regular basis ❖ The effective use of hearing- protection devices shall be ensured. Protective measures and emergency rescue procedures should be followed strictly ❖ Only authorized persons shall be allowed in the processing areas. ❖ Adequate PPEs shall be provided to the workers during construction and operation ❖ First Aid boxes shall be placed at different locations within the production hall ❖ Proper Firefighting and emergency evacuation plans will be developed ❖ Emergency exits and assembly areas will be clearly marked.

			❖ Safety instructions will be displayed at conspicuous locations within the production area.
Legends: 1= Low; 2= Medium; 3= High; 4= Extremely High; NA= Not Applicable; t=Temporary; p= Permanent; A= Applicable; 0= Negligible			

1.7 Proposed Monitoring

During construction & operation, monitoring will be carried out to check compliance of PEQS. Moreover, periodic monitoring should also be carried out regarding ambient air monitoring, noise pollution, wastewater & worker safety. A detailed site monitoring plan has been developed and given in **Chapter-09** of this EIA Report.

CHAPTER 1: INTRODUCTION

2.1 Purpose of Report

As per Punjab Environmental Protection Act, 1997 (Amended 2012) and the Punjab Environmental Protection Review of Initial Environmental Examination and Environmental Impact Assessment 2022 it is mandatory for the proponent of any development project to obtain Environmental Approval/NOC before commencing construction from EPA Punjab by filing an IEE or EIA as the case may be, before the Agency. This Study presents the Environmental Impact Assessment (EIA) Study for Packaging Unit by M/s Oasis Packaging Industries Pvt. Limited present in industrial area as many other industries are present near the project. For this purpose, the proponent has engaged environmental consultant: M/s Ecogreen Company (Pvt.) Limited.

The purpose of this study is to identify the environmental baseline i.e. physical, biological and socio-economic/cultural conditions and assess all possible impacts arising during the construction and operation of the said project with the aim to find out appropriate measures for their mitigation, to either eliminate those impacts or to bring them to acceptable level and formulate Environmental Management and Monitoring Plan (EMMP) for implementation of the project in environment-friendly manner. This EIA Report provides relevant information, as required under the officially approved format, to facilitate the decision makers i.e. EPA Punjab for the issuance of Environmental Approval/NOC. The main objectives of this EIA Study are:

- To determine and document the state of environment of the project area to establish a baseline environmental condition in order to assess the suitability of said project in respective area.
- To identify the impacts during construction & operation activities
- Provide assistance to the proponent for planning, designing and implementing the project in a way that would strengthen environment, improve ecological resilience, eliminate or minimize the negative impact on the bio-physical and socio-economic environment and maximizing the benefits to all parties in cost effective manner.
- To present Mitigation and Monitoring Plan to smoothly implement the suggested mitigation measures and supervise their efficiency and effectiveness.
- To provide opportunity to the public for understanding the project and its impacts on the community and their environment in the context of sustainable development.
- Prepare an EIA Report for submittal to the Environmental Protection Agency, Punjab for according Environmental Approval.

2.2 The Project

This EIA study represents establishment of Packaging Unit under the name of M/s Oasis Packaging Industries Pvt. Limited at Plot 7-A, Quaid-E-Azam Business Park, Sheikhupura.

2.3 The Proponent

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

Table 1: Details of the Proponent

Proponent Details	
Name	Aleem Ahmed
Designation	*Director/ Chief Executive Officer*
Company	M/s Oasis Packaging Industries Pvt. Limited
Address	17 Old FCC, Ferozpur Road, Gulberg III, Lahore

2.4 Details of Consultant

The proponent of said project engaged M/s Ecogreen Company (Pvt.) Limited to carry out the environmental impact assessment study of aforesaid project in accordance with EPA, Punjab guidelines. For this purpose, the company nominated the team of professionals which comprises of Environmental Scientists and Environmental Engineers. The details of the consultant are given below:

Table 2: Consultant Details

Consultant Details	
Consultant	**M/s Ecogreen Company (Pvt) Limited**
Address	Plot#2, A-Block Commercial Area near Gate#1, Canal View Society, Lahore
Contact No.	042-35294297
Focal Person	
Name	Kiran Irshad
Designation	*Lead Environmental Professional*
Contact No.	0320-0800221

To prepare an EIA Report of the respective project the company engaged the following experts. The details of the experts are given below;

Table 3: List of Experts

Sr. #	Name	Qualification
Team Leader		
i.	Miss. Kiran Irshad	M.Phil. Environmental Sciences
Environmental Scientist		
ii.	Dr. Areej Tahir	P.H.D Environmental Sciences

2.5 Project Nature, Size & Location

The instant project is establishment of Packaging Unit under the name of **M/s Oasis Packaging Industries Pvt. Limited"**. The estimated cost of project is **PKR 462 Million PKR**. The geographical location of the project is **Latitude 31°74196.8'' North** and **Longitude 74°04'228.59" East**. The location of the project is shown in **Figure 1**:

Figure 1: Unit Location

CHAPTER 2: SCREENING

Section 12 of Punjab Environmental Protection Act (PEPA), 1997 (Amended 2012) states:

"No proponent of a project shall commence construction or operation unless he has filed with the Government Agency designated by Federal Environmental Protection Agency or Provincial Environmental Protection Agencies, as the case may be, or, where the project is likely to cause an adverse environmental effect an Environmental Impact Assessment (EIA), and has obtained from the Government Agency approval in respect thereof."

As per Punjab Environmental Protection Review of Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA) Regulations, 2022 under Section 12 of Punjab Environmental Protection Act, 1997 (Amended 2012), instant project i.e., Packaging Unit which falls under Schedule II **Category B. Manufacturing & Processing**

CHAPTER 3: SCOPING

3.1. Spatial and Temporal Boundaries of Environmental Assessment

Instant project is establishment of packaging unit within designated/ approved Industrial Estate/ Business Park. By the implementation of said project, the gap between demand and supply of packaging material will be reduced significantly in the local and international markets. This site is selected because other industries are present, It is also at safe distance from the residential areas as depicted in the google earth map attached below. The raw materials can be easily transported to the site as it is accessible through metaled road network. Moreover, following facilities are available on-site: electricity supply, water supply, sewer collection & disposal system and hence ensuring the smooth operation of the said facility.

The simple and efficient operation of the industrial unit will make sure to not disturb the ecosystem at any level and if there are any impacts, the proper remedial measures will be taken. The operation of said project employment opportunities for the locals will be increased and so will the GDP and exports of the country. The process itself has negligible impact on the environment. Raw materials will be purchased from the local market as per demand/ requirement and good packaging items will be manufactured as per international standards. The Google Earth Map (**Figure 2**) attached below shows the various residential and industrial facilities within 01-02km aerial distance of project site. Overall, no significant impacts can be seen over the longer run as proper management plan has been devised and will be implemented to cope up with any adverse effect.

3.2.Important issues and concern raised during consultation

During consultation it was observed that majority of the respondents were in favor of said project. The other related issues and concerns raised by general public are discussed in detail in **Chapter 10** (Stakeholder Consultation). However, during the social survey following concerns of the local community were noted:

- Nuisance must be controlled at source.
- Latest/State of the art technology must be installed instead of the used ones.
- Locals should be preferred for the job opportunities.
- Environmental monitoring should be done on regular basis as per SMART Rules.
- Solid waste should be managed effectively by adopting the standard practices of the area.
- Cleanliness of the area should be maintained.

- An effective EMMP should be designed and enforced with true spirit.
- Health and safety of the workers should be ensured.
- Proper disposal of sewage should be ensured.

3.3. Significant Impacts and Factors to be Determined

Main impacts and factors to be determined are;

- Occupational Health and safety
- Site Security
- Traffic Management
- Job opportunities for locals
- Energy efficient techniques must be adopted
- Proper site restoration after Establishment
- Tree plantation at designated green areas
- Emergency preparedness

CHAPTER 4: CONSIDERATION OF ALTERNATIVES

4.1 Site Alternatives, their selection and rejection criteria

Other alternatives were considered by the proponent but were later rejected due to presence of residential areas close by or due to lack of facilities, utilities, road access or other environmental concerns. Management of M/s Oasis Packaging Industries Pvt. Limited has selected site present in designated area. Due to implementation of said project no land use change is being foreseen as the Oasis Packaging Industries Pvt. Limited is located in industrial area. The site is suitable for implementation of said project owning to the following characteristics:

- Selected site is present in Industrial Area.
- The site is accessible through metaled road network
- The site is located at the safe distance from sensitive receptors (residential area & protected area).
- The selected land is owned by M/s Oasis Packaging Industries Pvt. Limited
- No land use change is being foreseen due to implementation of said project.

4.1. Design/technology alternatives, their selection and rejection criteria

For the packaging machines will be used which is almost the same around the world. State of the art technology/ procedure will be used at M/s Oasis Packaging Industries Pvt. Limited which will reduce the usage of resources. The process is pretty much uniform, regardless of production quality. The considerations are made to choose the raw materials that are ecofriendly and efficient as well.

4.2. Environmental Alternatives, their selection and rejection criteria

The selected processes are environmentally friendly and it is selected based on environmental alternatives.

4.3.Economic Alternatives, their Selection and Rejection Criteria

Instant project involves more than one process, and it's been ensured by management that process and raw material will be economically more stable.

CHAPTER 5: DESCRIPTION OF PROJECT

5.1 General

This section of the study concentrates on details of the project and its salient features; such as; location, site layout, objectives, cost and magnitude of operation and various phases, inputs and discharges relevant to different phases of the project (groundwater, electricity, materials, etc.) have also been examined as a response to possible environmental concerns.

5.2 Project Objectives

The overall aim of instant project is to made/ manufacture packaging material/items Following are the objectives of said project implementation:

- Creation of new job opportunities and promoting income prospects for those engaged in the allied activities associated with operation of project is considered as indirect objectives of the project.
- Increasing demand of local and cost effective plastic packaging in local market.
- To produce good quality product to be used in packing of goods and materials.
- To Increase GDP for Proponent.

5.3 Location and Site layout of Project

The selected site is located at Plot 7-A, Quaid-E-Azam Business Park, Sheikhupura. The coordinates of the site are; **Latitude 31°74196.8'' North** and **Longitude 74°04'228.59" East.** The site layout is attached herewith as **Annex-C**. However, the Google Earth Map showing the project location and its distance from nearby sensitive receptors is shown in previous chapter.

5.4 Land Use On-Site

The selected site is located along the Motorway Road and has industrial establishments on both sides of the project site as shown in Google Earth map attached below;

Figure 2: Nearby Industries

5.5 Road Access

The site is approachable via Motorway, as mentioned in map below:

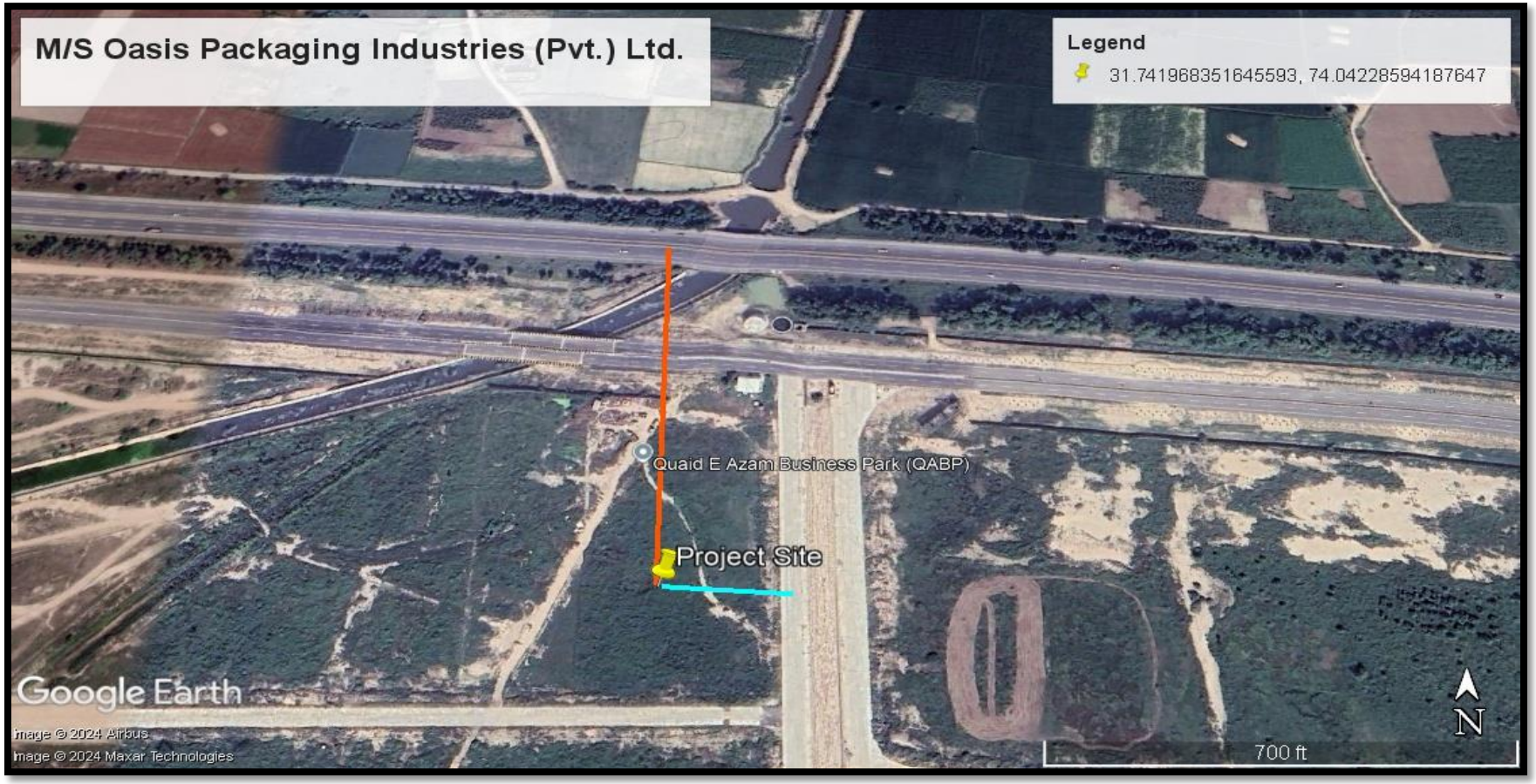

Figure 3: Road Access Map

5.6 Vegetation Features

The topography of the project area is flat and it is open land with herbs & shrubs species. Instant project does not involve any herbs, shrubs or tree cutting as constructed building has been taken on lease to establish said project. Moreover, tree plantation will be done along boundary & in all open spaces after completion of installation.

5.7 Cost and Magnitude of Operation

The cost of the said project is **PKR 462 Million PKR** it includes; Land Cost, Civil Work, Raw Material, purchase of machinery & installation of machinery. The magnitude of operation includes:

- Civil work
- Purchase of machinery & equipment
- Testing and commissioning of operation
- Plantation of various ecologically important species on the designated green space.

5.8 Schedule of Implementation

The tentative schedule for said project implementation is approximately **06 months** and the detail timeline of the construction period is given in **Table 04:**

Table 4: Timeline for Project Development

Sr#	Activities	6 Month			6Month		
		4W	*6W*	*14W*	*8W*	*10W*	*6W*
1	Detailed Designing						
2	Mobilization of Contractors						
3	Civil Work						
4	Site Restoration & Rehabilitation						
5	Plantation at Site						
6	Commissioning						
W=Weeks							

5.9 Description of Project

The said project is establishment of Packaging Unit under the name of M/s Oasis Packaging Industries Pvt. Limited. The Machinery selected for instant project processes will be latest, most recommended, efficient and economical technology available. Plastic Packaging material will be made according to demand of customers. For the manufacturing of plastic packaging material the first step will be the extrusion and then slitting will be done.

Printing will be done according to demand of customer and then bags of different sizes will be made as per requirement. The production capacity of instant project will be 600 Tons.

Its description is given below:

5.9.1 Raw-Material

Good quality polyethylene will be used that sourced from top quality suppliers in the Middle East and take pride in ensuring that only pure materials will be used.

5.9.2 Extrusion

Extrusion is considered as major backbone and made major investments will be concentrated in this segment. A number of multilayer extruders will be operated and both LDPE (Low Density Poly Ethylene) and HDPE (High Density Poly Ethylene) films will be manufactured. All food grade and industrial grade films will be produced in this process.

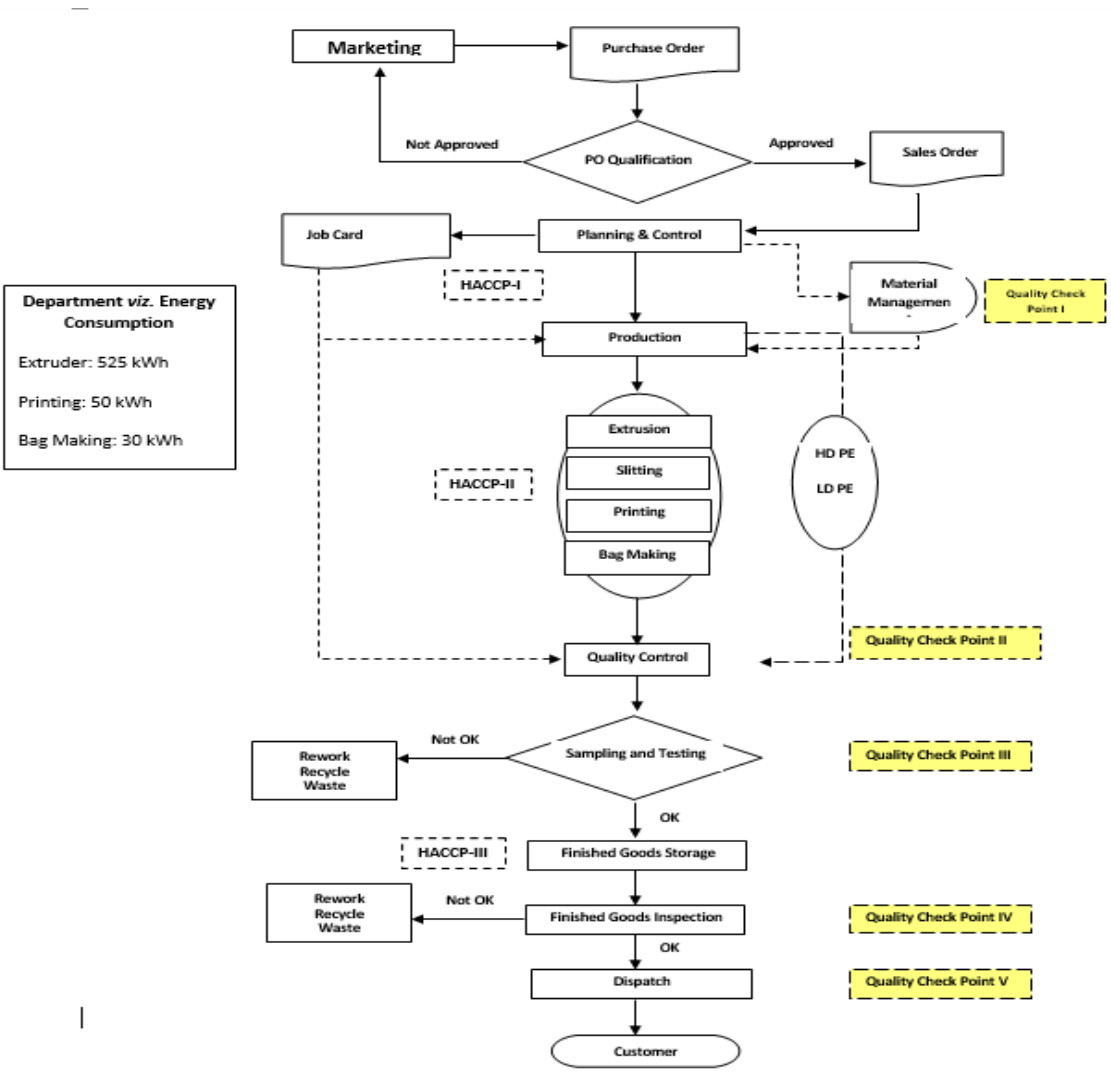

Figure 4: Process Flow Diagram

b. Printing

Oasis Packaging industries will offer up to 6-color flexographic printing. Machines are able to produce large volume runs; also have the flexibility & the commitment to accommodate all types of work. Depending on volumes, turn around can be quick as 24hours

c. Cutting

Branding is a decisive element, As pouches of various sizes offer a different dimension to branding, pouching facilities can make customized pouches such as Side Sealed, Side Gusset, In-flap, Top - seal, Reusable and Pouches with Zip Lock, Hanger Hole and Loop Handles.

d. Packing

After cutting in appropriate sizes according to customer demand bags will be packed properly

5. 10 List of Machinery/Equipment

The list of machinery for M/s Oasis Packaging Industries Pvt. Limited is given below:

Sr. #	Department:	Extrusion							
	Machine Name	Function	M/c #	Make	Specifications				
					Manu: Year	Prd. Year	Prd. Cap. (Kgs/Hr.)	Deckle (Inches)	Type
1	Blown Film Extrusion	PE LD Mono Layer	2	Sohail Qamar Eng, PK	2012	2012	60	6" - 35"	Man
2	Blown Film Extrusion	PE LD Mono Layer	3	Sohail Qamar Eng, PK	2012	2012	57	6" - 35"	Man
3	Blown Film Extrusion	PE LD Mono Layer	4	Sohail Qamar Eng, PK	2013	2013	32	6" - 35"	Man
4	Blown Film Extrusion	PE LD Mono Layer	5	Sohail Qamar Eng, PK	2012	2012	54	6" - 35"	Man
5	Blown Film Extrusion	PE LD Mono Layer	6	Sohail Qamar Eng, PK	2015	2015	32	6" - 35"	Man
6	Blown Film Extrusion	PE HD	7	RAJA, PK	2017	2017	32	7" - 30"	Man
7	Blown Film Extrusion	PE HD	9	RAJA, PK	2017	2017	28	7" - 30"	Man
8	Blown Film Extrusion	PE HD	11	RAJA, PK	2017	2017	40	6" - 26"	Man
9	Blown Film Extrusion	ABA	12	RAJA, PK	2018	2018	80	8" - 40"	Man
10	Blown Film Extrusion	ABA	13	RAJA, PK	2018	2018	80	8" - 40"	Man
11	Blown Film Extrusion	ABA	14	RAJA, PAK	2018	2018	80	8" - 40"	Man
12	Blown Film Extrusion	ABA	15	RAJA, PAK	2018	2018	80	8" - 40"	Man
14	Blown Film Extrusion	3-Layer	1	JM, CHN	2017	2018	280	40" - 70"	Auto

15	Blown Film Extrusion	3-Layer	16	JM, CHN	2019	2020	380	34" - 63"	Auto

Sr. #	Department:	Extrusion						
	Machine Name	Function	M/c #	Make	Specifications			
					Manu: Year	Prd. Year	Prd. Cap. (Kgs/Hr.)	Type
16	Mixer	Mixing and Blending	1	RAJA, PK	2012	2012	500	*
17	Mixer	Mixing and Blending	2	RAJA, PK	2017	2017	700	*
18	Mixer	Mixing and Blending	3	RAJA, PK	2019	2019	700	*
19	Mixer	Mixing and Blending	4	RAJA, PK	2020	2020	700	*
20	Mixer	Mixing and Blending	5	RAJA, PK	2020	2020	700	*
21	Mixer	Mixing and Blending	6	RAJA, PK	2020	2020	700	*

Sr. #	Department:	Printing							
	Machine Name	Function	M/c #	Make	Specifications				
					Manu: Year	Prd. Year	Prd. Cap. (Kgs/Hr.)	Deckle (Inches)	Type
22	Flexo	Printing	1	HonJin, CHN	2012	2012	40	36	Semi
23	Flexo	Printing	2	Leewin, CHN	2016	2016	40	40	Semi
24	Flexo	Printing	3	HonJin, CHN	2017	2017	40	40	Semi

Sr. #	Department:	Cutting and Bag Making							
	Machine Name	Function	M/c #	Make	Specifications				
					Manu: Year	Prd. Year	Prd. Cap. (Kgs/Hr.)	Deckle (Inches)	Type
25	Bag Making	Side Seal	1	Zain Ali Engg., PK	2012	2012	30	30	Man
26	Bag Making	Side Seal	2	Zain Ali Engg., PK	2012	2012	20	22	Man
27	Bag Making	Side Seal	3	Zubair Machinary, PK	2013	2013	20	22	Man
28	Bag Making	Side Seal	4	Zubair Machinary, PK	2013	2013	20	22	Man
29	Bag Making	Side Seal	5	CHN	2017	2017	30	40	Man
30	Bag Making	Side Seal	6	Zain Ali Engg., PK	2017	2017	20	26	Man
31	Bag Making	Side Seal	7	Zain Ali Engg., PK	2020	2020	20	30	Man
32	Bag Making	Bottom Seal	1	Zain Ali Engg., PK	2013	2013	50	30	Man
33	Bag Making	Bottom Seal	2	Zain Ali Engg., PK	2017	2017	42	40	Man
34	Bag Making	Bottom Seal	3	Zain Ali Engg., PK	2020	2020	20	26	Man

35	Bag Making	Bottom Seal	4	Zain Ali Engg., PK	2021	2021	30	30	Man
36	Bag Making	Bottom Seal	5	Zain Ali Engg., PK	2021	2021	20	26	Man
37	Bag Making	Roll & Bag	1	Zain Ali Engg., PK	2022	2022	30	22	Man
38	Bag Making	T- Shirt	1	CHN	2016	2016	42	22	Man
39	Bag Making	T- Shirt	2	CHN	2017	2017	42	22	Man
40	Bag Making	Press 1	1	Local	2014	2014	*	30	Man
41	Bag Making	Press 2	2	Local	2019	2019	*	30	Man
42	Bag Making	Loop & Handle	1	CHN	2017	2017	16800	14	Man

Sr. #	**Department:**	**Slitter**							
	Machine Name	**Function**	**M/c #**	**Make**	**Specifications**				
					Manu: Year	**Prd. Year**	**Prd. Cap. (Kgs/Hr.)**	**Deckle (Inches)**	**Type**
43	Slitter	Slitter	1	Local	2014	2014	*	40	Man
44	Slitter	Slitter	2	Local	2014	2014	*	38	Man
45	Slitter	Slitter	3	Local	2014	2014	*	36	Man
46	Slitter	Slitter	4	Local	2015	2015	*	44	Man

Sr. #	**Department:**	**Utility**						
	Machine Name	**Function**	**M/c #**	**Make**	**Specifications**			
					Manu: Year	**Capacity**		**Type**
47	RO Plant	RO	1	Chemical Kinetics, PK	2017	400	Lit./Hr.	
48	Compressor	Air Compressor	1	Renner, Gmy	2017	30	kW	
49	Chiller	Chiller	1	Italy		100	Tons	
50	Cooling Tower	Cooling Tower	1	PK		60	Tons	
51	Generator	Diesel	1	MQ Power Co., USA		180	KVA	
53	Exhaust Fans	Air Exhaust	1	Bilal Engg., PK	*	1400	rpm	*
54	Exhaust Fans	Air Exhaust	2	Bilal Engg., PK	*	1400	rpm	*
55	Exhaust Fans	Air Exhaust	3	Bilal Engg., PK	*	1400	rpm	*
56	Exhaust Fans	Air Exhaust	4	Bilal Engg., PK	*	1400	rpm	*
57	Exhaust Fans	Air Exhaust	5	Bilal Engg., PK	*	1400	rpm	*
58	Exhaust Fans	Air Exhaust	6	Bilal Engg., PK	*	1400	rpm	*
59	Exhaust Fans	Air Exhaust	7	Bilal Engg., PK	*	1400	rpm	*
60	Exhaust Fans	Air Exhaust	8	Bilal Engg., PK	*	1400	rpm	*

5.11 Supplies

Following supplies will be utilized for the construction and operation of instant project.

5.11.1 Manpower (Direct & Indirect)

During construction phase 10-15 workers will be involved. During the operation phase of the project, the total manpower requirement is estimated to be 120 approximately comprises of; administrative, engineers, supervisors, machine operators, shift in charge, computer operators and non-technical persons/workers. All recruited staff will be given appropriate training in order to educate them on the specific job tasks to be performed; safety procedures and monitoring parameters.

5.11.2 Amenities

Following amenities will be used during operation of said project

i. Electricity/ Power Supply

Power requirement for instant project will be 990KW and fulfilled by WAPDA.

ii. Wastewater Management

There will be no usage of water during project process activities, only domestic wastewater will be generated. Generated sewage water will be treated in septic tank. No wastewater will be discharge into any drain without treatment.

iii. Noise

Noise may be generated from operation of machinery to be installed and to control that noise proper mitigation measures will be adopted. Operations will be carried out in properly enclosed production halls with adequate Ventilation and lightning. Proper lubrication of machinery will be done and PPE's will be provided to workers. Residential areas are at safe distance from project site. Moreover, regular monitoring by using digital sound meter will be conducted to comply with PEQS as per SMART Rules.

5.11.3 Emergency Response System

The system covers the emergency response system in case of inefficient working of said facility and to remove any mechanical fault. Emergency response team will be designated the relevant tasks and trained them how to respond in such situation.

5.12 Restoration and Rehabilitation Plan

After completion of construction/ Installation site will be restored and leveling. Leftover constructional material will be removed from site and it will be reused in other activities. Renovation/repairing of machines done whenever required however, at the expiration of the useful life of the project; adequate arrangements will be made to remove all movable assets. The materials capable of recycling/reuse will be either sold in the market or to be reused for other suitable purposes.

Safety measures as desired under the code of demolition will be adopted to avoid any harm to humans, property around, or the environment in the project area. Generated dust will be minimized by sprinkling water on regular basis. After completion; all construction matrix, debris and garbage will be removed off immediately from the site within the minimum possible time under safe conditions. Any minor spillover of these materials will be cleared adequately.

CHAPTER 6: DESCRIPTION OF ENVIRONMENT

This section describes the baseline conditions, which shows the clear-cut picture of existing environmental resources; physical, ecological and socio-economic environment of the Project Area. Information on these aspects has been derived from field visits to the project area as well as information obtained through visits to the Government departments and other relevant agencies. The primary data was collected by surveying the project area and its nearby vicinity. The secondary data regarding physical parameters (topography, geology, seismology, hydrology and climatology) was obtained by visiting relevant departments and their official websites. The biological parameters (flora and fauna) were also studied in the project area. The vegetation of project area was studied by preparing a floristic list based on visual observation. The species were recorded with reference to their historical existence in the project area.

Information on wildlife fauna species (mammals, amphibians, reptiles, birds, etc.) in the assessment area was compiled based on opportunistic observation, gathering the existing information and consultation with local experts, community members and government departments. The socio-economic aspects were studied and analyzed by conducting detailed socio-economic surveys.

6.1. Baseline Physical Environment

In this section, physical resources such as; topography, soil, climate, surface as well as ground water resources and its quality, ambient air quality and geology of not only the project site but also the city as a whole to assess whether the project under assessment can or does have any impacts on any of these parameters. The description of physical environment of the project site is present in the following sub sections

6.1.1. Topography & Geology

Sheikhupura, located in the fertile plains of Punjab, Pakistan, features predominantly flat terrain shaped by the extensive alluvial deposits of the Indus River system. The region is irrigated by a network of canals, including the Lower Chenab Canal, supporting its agricultural prominence. Geologically, it consists of Quaternary alluvial sediments of sand, silt, and clay, underlain by deep Precambrian and Cambrian rock formations. The soils are fertile, with loamy and clayey textures ideal for crops like wheat, rice, and sugarcane. While Sheikhupura lies in a low to moderate seismic zone, it lacks significant mineral resources, relying instead on its rich agricultural landscape for economic sustenance. The site is located at Plot 7-A, Quaid-E-Azam Business Park, Sheikhupura and the coordinates of the selected site are **Latitude 31°74196.8'' North** and **Longitude 74°04'228.59" East**.

6.1.2. Seismicity

According to Seismic Zoning of Pakistan, the project area lies in Zone 2A and represents in to moderate damage due to earthquakes. The seismic zoning of Pakistan is given below in Figure:

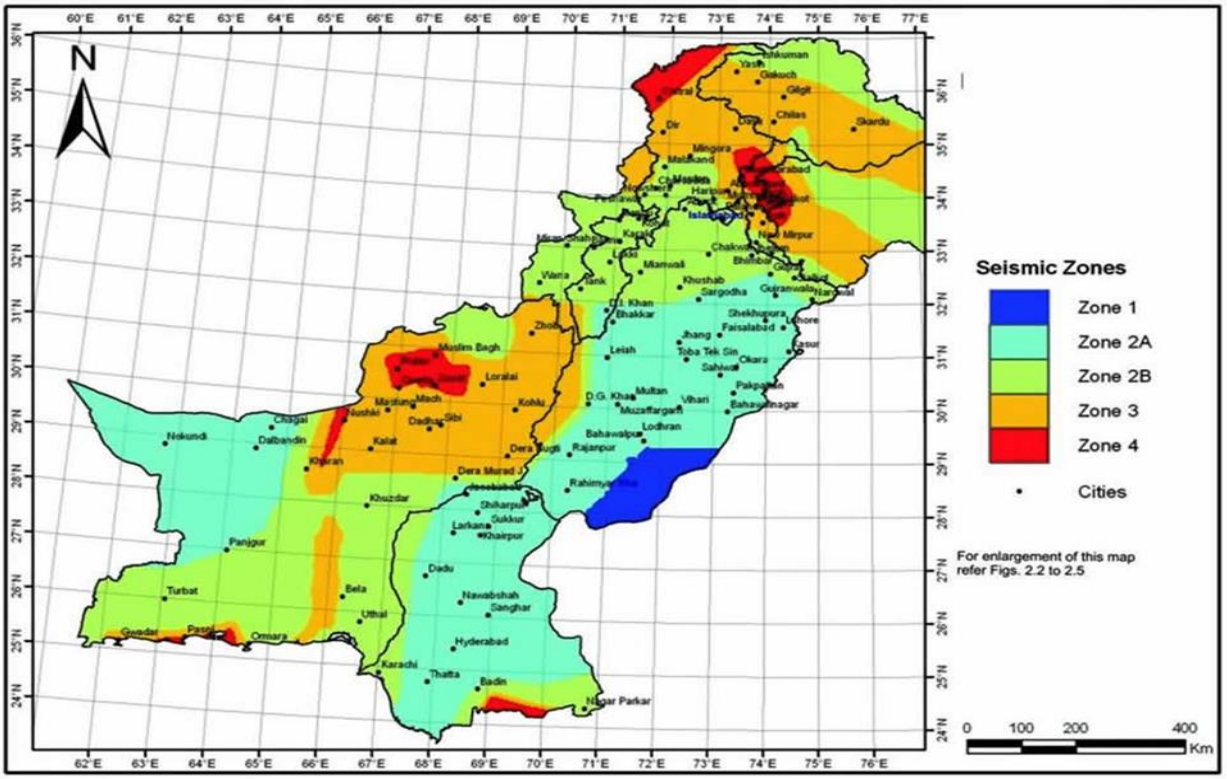

Figure 5: Seismic Zoning of Pakistan

6.1.3. Climate

Sheikhupura, Pakistan, has a semi-arid climate with hot summers, mild winters, and distinct seasonal variations. Summers, from May to September, are intense, with temperatures often exceeding 40°C, while winters, from November to February, are mild, with temperatures ranging between 5°C and 20°C. The region receives most of its annual rainfall, averaging 500-700 mm, during the monsoon season (July to September), while the rest of the year remains predominantly dry. Brief spring and autumn periods bring moderate temperatures, making these transitional seasons the most pleasant. The dust storms occur occasionally during the hot season, June, July and August.)[1].

[1] https://en.climate-data.org/asia/pakistan/punjab/Kasur-1897/

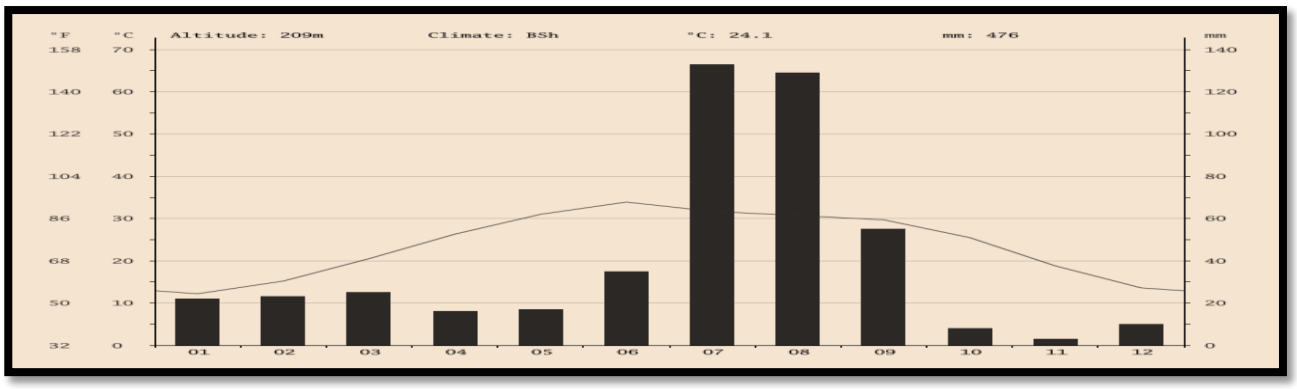

Figure 6: Temperature Graph

Figure 7: Rate of Precipitation

6.1.4. Ambient Air Quality

The primary air pollutants are; carbon monoxide (CO), oxides of nitrogen (NOx), sulfur dioxide (SO_2), and particulate matter (PM). In order to determine the air quality of the area, environmental monitoring was carried out by Green Crescent being EPA certified Laboratory and having the requisite sampling device and expertise for collection of samples. To determine the air quality of the area ambient air monitoring was carried out and following results were obtained:

Table 5: Air Quality Monitoring Results

S#	Monitoring Source	CO	NO	NO_2	SO_2	O_3	$PM_{2.5}$	PM_{10}
PEQs		mg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³	µg/m³
		10	40	80	120	130	35	150
1	Midpoint	1.62	18.42	40.23	20.54	17.86	28.29	138.25

6.1.5. Ambient Noise

Noise level measurements had been carried out within the selected site. This analysis showed that values are much below the limit prescribed under the Punjab Environmental Quality Standards (PEQS). Monitoring reports are attached as **Annex E.**

Table 6: Ambient Noise Monitoring Results

S. No.	Monitoring source	Unit	PEQs	Conc.	M. Point
1	Midpoint	dB (A) Leq	75	75	55 Day time 65 Night Time

6.1.6. Groundwater Quality

Groundwater quality results of project area are given below:

Table 7: Ground water Analysis Results

Sr#	Parameters	Unit	Drinking Water PEQS	Conc.
1	pH value	---	6.5-8.5	7.29
2	TDS	mg/l	<1000	232
3	Color	TCU	≤15.0	ND
4	Taste	---	Not objectionable	Acceptable
5	Odor	----	Not objectionable	Acceptable
6	Turbidity	NTU	5	<0.1
7	Total Hardness as $CaCO_3$	mg/l	<500.0	292.0

6.2 Baseline Biological Environment

District Sheikhupura is not rich with biological and ecological resources. However, the flora and fauna of the district includes; shrubs, herbs, mammals, birds, reptiles, amphibians and insects are found. In sub-sections below biological features are discussed below:

6.2.1 Flora

The flora of Sheikhupura district is typical of the fertile plains of Punjab, with vegetation largely shaped by its semi-arid climate and extensive agricultural activity. Native trees such as Shisham (Dalbergia sissoo), Kikar (Acacia nilotica), and Beri (Ziziphus mauritiana) are common, especially along roadsides and in rural areas. Cultivated crops dominate the landscape, with wheat, rice, sugarcane, and fodder grasses being the primary vegetation due to the district's fertile soils and irrigation system. Orchards featuring mango, guava, and citrus trees also contribute to the region's flora. Shrubs and grasses adapted to dry

conditions grow in less-cultivated areas, while the monsoon season briefly brings a burst of greenery and seasonal flowers.

The selected site is present in designated Industrial area, So no impact on local flora is being envisaged. After, completion of construction/ Installation trees will be planted in open green spaces.

6.2.2 Fauna

The fauna of Sheikhupura district reflects its agricultural landscape and semi-arid climate, with a mix of domestic, wild, and migratory species. Common mammals include jackals, mongoose, and small rodents, while livestock like buffaloes, cattle, and goats dominate rural areas. Bird species such as crows, pigeons, sparrows, and parakeets are abundant, with seasonal migratory birds, including ducks and cranes, visiting wetlands during the winter. Reptiles like lizards and snakes are also present, particularly in uncultivated areas. Aquatic life thrives in rivers and canals, with species such as catfish and rohu being common. The fauna is closely tied to the district's agricultural practices and natural habitats, though increasing urbanization poses challenges to wildlife. During site visit near site no such fauna was noticed that could be impacted due to construction of aforementioned project as the selected site is location in industrial area.

6.2.3 Archaeological Sites or Wetlands

It is envisaged that no building of archaeological, cultural and historical importance will not be damaged at the time of construction M/s Oasis Packaging Industries Pvt. Limited. Moreover, there is no wetland or surface water body reported to be affected due to the construction of the aforesaid project.

6.2.4 Endangered Species

There is no floral or faunal species inhabiting the project area that are included in the Red Data Book of IUCN. The populations of birds are reported to be reduced over time due to excessive pesticide sprays in agricultural crops and loss of habitat.

6.3 Baseline Socio-Economic Environment

Socio-economic environment is represented by the human and economic development and quality of life values. For the study of socio-economic environment of the project area, field surveys were conducted and interviews were held with the various stakeholders. The socioeconomic conditions of the project area are as follow:

6.3.1 Industry

Above said Packaging Unit will be established at Plot 7-A, Quaid-E-Azam Business Park, Sheikhupura. The project site is also surrounded by various other industrial activities nearby industries are mentioned in below map:

Figure 8: Industries Located in Project Area Vicinity

6.3.2 Health Facilities

Healthcare services are provided to the citizens by both public and private sector hospitals. The nearest hospital is; Al-Fajar Eye Hospital is present at the distance of 4.73km. and Al-Shifa hospital is present at the distance of 5.43km. Moreover, there are a number of private hospitals, clinics and laboratories in the city.

Figure 9: Nearby Health Facilities

6.3.3 Educational Facilities

Education up to higher secondary is present in project area.

Figure 10: Nearest Educational Facilities

6.4 Lab Reports of Environmental Analysis

Testing of different parameters was carried out from EPA certified laboratory i.e. Green Crescent to check the quality of different environmental parameters. The copy of the lab reports of these parameters (ambient air analysis, ground water quality analysis and noise) are attached herewith as **Annex-E**

6.5 Suitability of the Site

As the project site is located in industrial area. The site does no fall in environmental sensitive area and all commodities are at a suitable distance from project site as they will not impacted by the construction and operational activities even locals will get more benefits and job opportunities. No replacement, relocation and rehabilitation are required for the development of proposed project.

CHAPTER 7: IMPACT ASSESSMENT & SCREENING PROCESS

This section discusses the potential environmental impact of instant project, methodologies for impact identifications and characteristics of impacts including nature, magnitude, extent, location, timing, duration, reversibility and risk. The assessment carried out in this Section is based on potential impacts on overall environmental receptors within the project area.

7.1 Methodologies for Impact Identification

During construction phase, adverse environmental & social impacts were depending on the resources and receptors involved along with other parameters such as; geographical scope (magnitude and extent), temporal scope (duration) and reversibility. But for establishment of instant project constructed industrial building has been taken on lease and it has been anticipated that this project will have beneficial social impacts, it will bridge the gap between supply & demand, employment opportunity will be increases for which locals will be preferred and socio-economic uplift of the proponent. Having identified and characterized the potential significant impacts during design, construction/ installation and operation phase of project an Environmental Impact Severity Matrix & //checklist to summarize all the identified impacts as mentioned below in tables.

Table 8: Impact Significance Criteria

Impact	Criteria
No Impact	When the said activity will have no impact
Long Term	When the impact is of high intensity with high spread and high duration or of high intensity with medium spread and medium duration
Moderate Term	When the impact is of moderate intensity with high spread and high duration or of high intensity with low/ moderate spread and low
Short Term	When the impact is of low intensity but with moderate spread and moderate duration or of moderate intensity
Insignificant	When the impact is of low intensity, low spread and low duration
Adverse	When the impact is of large intensity, spread easily and long-term
Beneficial	When the impacts are positive and improve the environmental conditions

Table 9: Impact Matrix Checklist for Construction/ Installation Phase

Environmental Sensitivities	Intensity of Impact						Impact Nature		Impact Significance				
	Low Intensity	Moderate Intensity	High Intensity	Local	Moderate	Regional	Beneficial	Adverse	Insignificant	No Impact	Short Term	Moderate	Long Term
Physical Parameters													
Air Quality	✓											✓	
Noise		✓										✓	
Water Quality		✓										✓	
Biological Parameters													
Land Environment													
Flora													
Fauna													
Physical Parameters													
Local Economy	✓												
Social Impacts	✓												
Health & Safety	✓												

Table 10: Impact Matrix Checklist for Operational Phase

Environmental Sensitivities	Intensity of Impact						Impact Nature		Impact Significance				
	Low Intensity	Moderate Intensity	High Intensity	Local	Moderate	Regional	Beneficial	Adverse	Insignificant	No Impact	Short Term	Moderate	Long Term
Physical Parameters													
Noise		✓											
Water Quality		✓											
Air Emissions	✓												
Biological Parameters													
Land Environment													
Flora													
Fauna													
Physical Parameters													
Local Economy													
Social Impacts													
Health & Safety													

7.2 Characteristics of Impacts

The impact characteristics are identified to screen out potentially insignificant environmental and social impacts from potentially significant adverse environmental and social impacts during planning & designing, construction/ installation and operational phases of the project. The objective of impact screening process is to assess the significance of issues related to the air, water, noise, soil,

transportation, civil work, communication, the hazards and external constraints. The beneficial and adverse impacts of project during planning & designing, construction/ installation and operational phases are identified based on their duration, location, frequency, extent, significance and reversibility. The impact of each activity on various environmental parameters is given below:

Table 11: Impacts Characteristics

Sr#	Environmental Component	Impact Characteristics												
		Duration		Location		Frequency		Extent		Significance			Reversibility	
		Long	Short	Direct	Indirect	Cont.	Intermittent	Wide	Local	Large	Moderate	Minor	Rev.	Irrev.
Beneficial Impacts														
1	Employment	◙		◙		◙			◙		◙		◙	
2	Solid Waste Management	◙		◙		◙			◙		◙		◙	
3	Land Value	◙			◙	◙			◙			◙		◙
4	Tree Plantation	◙		◙		◙			◙		◙			◙
Adverse Impacts														
1	Solid Waste	●		●		●			●			●	●	
2	Health and Safety		●		●		●		●			●		●
3	Physical Hazards		●	●			●		●			●		●
4	Security Risks		●	●			●		●			●	●	
5	Wastewater		●	●		●			●			●	●	
6	Air Emissions	●		●		●			●		●			●

CHAPTER 8: SCREENING POTENTIAL ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

This Chapter identifies the potential impacts (positive and adverse) on the physical, biological and socio-economic environment of project area due to instant project. It also identifies measures that will help to mitigate the adverse environmental and social impacts (if any) and it will enhance positive impacts of the project. Impacts are assessed by analyzing their magnitude and sensitivity, which is a legal requirement.

8.1 Project Location

The instant project is establishment of Packaging Unit under the name of M/s Oasis Packaging Industries Pvt. Limited many other industries are present near the project site. There is no human settlement, heritage building, social structure, grassland or preserved area in the project vicinity that could be damaged, dislocated or dismantled due to the project activity in said area. The selected building has been leased by management of M/s Oasis Packaging Industries Pvt. Limited and the land lease documents are attached herewith as **Annex-B**.

Nature of Impact

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

Mitigation Measures

No mitigation measure will be adopted as the industrial building has been leased by management of M/s Oasis Packaging Industries Pvt. Limited.

8.2 Design

The said project is designed for manufacturing of packaging item with production capacity of 600 tons. However, in designing phase a management system should be devised & implemented to control the anticipated environmental impacts. The design of the instant project will adhere to all standard technical requirements in order to avoid adverse impacts on socio-environmental aspect.

Nature of Impact

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

Mitigation Measures

Following mitigation measures will be adopted while designing the foresaid project:

- Packaging item will be done and it will be sale out to local market
- The process employed for the manufacturing is simple & environmentally friendly.
- The project is design to minimize the air & water pollution in-check.
- On-site training safety training will be given to the workers.
- Fire-fighting equipment will be installed on-site.

8.3 Impacts and Mitigation Measures during Construction Phase

During the construction phase following activities will be carried out on-site; civil structures work and building services. It would bring in immediate but short-term changes on various components of environment near the project site. This section explains how aforesaid project will affect different environmental aspects and its mitigation measures to manage the impact. The anticipated impacts will be temporary and localized in nature. Even though, the measures are proposed to minimize such impacts.

8.3.1 Soil Contamination

During constructional activities the chances of soil erosion and contamination are less, as no major constructional activities will be involved in said project. There are low chances of land contamination due to release/spill of lubricants, oil and other materials as no major construction is involved. The impact will be short term, localized and can be controlled through immediate appropriate management and mitigation measures. This impact is considered negative of minor magnitude. Hence, the impact is in-significant.

Nature of Impact

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

Mitigations

Following mitigation measures will be adopted to protect the soil from erosion and contamination:

- Spill prevention and response plan for storage, usage and transfer of fuel should be prepared (if used on site) and implemented.
- Workers should be trained on spill prevention and response plan (if needed).
- Maintenance of vehicles as well as equipment will be carried out at designated areas within the facility.
- Any hard surface or tarpaulin should be spread on area to prevent soil contamination.
- Regular inspections should be carried out to detect leakages in construction vehicles and equipment.
- Machinery involved should be maintained properly to avoid leakages.
- The proponent will be required to instruct and train their workforce in storage and handling of materials that can potentially cause soil contamination.
- Solid waste generated during construction/installation will be properly and safely disposed of as per practices of area.

8.3.2 Air Emissions

The main source of air emission during said phase is dust. It will be generated due to movement of equipment at the site other constructional activities. Dust emissions are

expected to result in increased particulate matter thus affecting baseline air quality, primarily in working area for a short duration.

Nature of Impact

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

Mitigations

Following mitigation measures will be adopted:

- In order to reduce concentration of suspended dust particles & transport roads will be sprinkled with water on the regular basis.
- Construction activities causing dust should not be carried out on excessively windy days.
- Workers will be provided with masks for protection against the inhalation of dust and they should be trained for its use.
- Strict speed limit for the vehicle carrying the raw-material should be imposed.
- Emission of exhaust gases from vehicles used for construction should be controlled.

8.3.3 Impact on Water Environment

The constructional activities will be associated with mechanical fabrication, assembly and erection. These associated activities do not consume large quantities of water. Sanitation facility present in Business Park will be used by the work force. The overall impact on water environment due to aforesaid project activities are considered short-term and in-significant.

Nature of Impact

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

Mitigations

Following mitigation measures will be adopted:

- Water conservation techniques should be adopted to conserve water.
- Labor should be trained to conserve the water.

8.3.4 Impact on Flora & Fauna

No impact on the flora and fauna is being envisaged as said project will be established within designated industrial estate/ Business Park under the name of M/s Oasis Packaging Industries Pvt. Limited. No additional disturbance is being envisaged for implementation of said project.

Nature of Impact

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

Mitigations

Following mitigation measures will be adopted:

- After the completion of constructional phase trees will be planted in the designated green areas.
- For the management of landscape, local and native trees will be planted.
- Trees will be planted along the project area boundary.
- Unnecessary up-rooting of the trees and plants must be avoided.

8.3.5 Impact on Noise Environment

The noise produced during construction phase may not have significant impact on the existing ambient noise levels as all sensitive receptors are located at adequate distance. The activities like; foundation, infrastructure and plant are considered as the main source of noise generation. The major civil work will be carried out during the day hours only. The construction equipment may generate high noise which can affect the personnel operating the machines. Use of proper personnel protective equipment will mitigate any adverse impact of noise on the working population.

Nature of Impact

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

Mitigations

Following mitigation measures will be adopted:

- Selection of up to date and well-maintained equipment with reduced noise levels ensured by suitable in-built damping techniques or with appropriate muffling devices.
- Limiting noisy activities to the day hours, wherever possible.
- Providing the construction workers with suitable hearing protection like; ear cap, or earmuffs and training them how to use effectively.
- Use of low noise machinery, or machinery with noise shielding and absorption are the mitigation measures suggested for said project.

8.4 Socio-Economic Impacts

In project area, no significant changes are envisaged in traditional life style and occupation of local people residing in the nearby communities as it is being established at adequate distance from various sensitive receptors. The local people are rather benefited due to the provision of job opportunities. No impact is envisaged due to influx of workers as local will be preferred and hired for working. Social issues may arise which will cause minor negative impact on the social life style of people. Moreover, health and safety related issues may arise during the construction / Installation activities. These impacts are in-significant can be further reduced significantly by adopting best management practices.

Nature of Impact

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

Mitigation Measures

Following mitigation measures will be adopted to reduce the socio-economic impact on the community:

- Good relations with local communities will be promoted by encouraging Contractor to provide opportunities for skilled and un-skilled employment to the locals as well as on-job training.
- The contractor should prefer hiring local labor from adjacent community;
- The contractor will keep the copy of National Identity Card (CNIC) of his employees and will warn the workers not to involve in any anti-social activities otherwise they may face dire consequences.
- At the time of hiring the Contractor has to ensure that workers should be of good repute.
- First aid kits having all the necessary first aid stuff will be available at site.
- Routine medical check-ups of all the field staff including unskilled labor needs to be conducted by qualified physician and surgeon.
- Training of workers should be carried out for operating various constructional/ Installation machinery, safety procedures should be adopted, environmental awareness should be carried out, equip all workers with safety boots, helmets, gloves, protective masks and monitoring of their proper and sustained usage will be carried out. In case of accidents, contractor will provide free medical treatment to the community.
- The Contractor will be responsible for sensitivity towards the local customs and traditions.

8.5 Impacts and Mitigation Measures during Operational Phase

The following section describes the potential impacts which are associated with the operation of above stated project.

8.5.1 Noise

Noise pollution is not expected to occur beyond PEQS during the operational phase. The mechanical and electrical components of the proposed technology work within the permissible noise limit levels. Moreover, even if the noise level exceeds the allowable levels during unexpected conditions, this will have no significant impact since the nearby residential areas are found at the safe distance as shown in the Google Earth Maps attached in **Section 3.1** and **Section 5.3**.

Nature of impact

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

Mitigations

In general, the following methods will be adopted to control the noise pollution from the proposed unit:

- Personal protective equipment like; ear plugs and ear muffs should be provided to employees working in the noise prone areas.

- Time to time tuning and maintenance of machineries should be done.
- Ambient noise levels as mentioned in PEQS will be complied.
- Monitoring of the ambient noise level will be carried out on regular basis.
- A greenbelt will be developed all around the plant which will be act as noise barrier.
- Residential area is at safe distance from selected site.
- Proper encasement of noise generating sources will be done to control the noise levels within limits.
- The use of complete or partial enclosures as and if required.
- Attenuation by use of sound absorbents on walls and fixed or suspended ceilings
- All the workers will be provided with ear plugs. All the transporters will be vised to carry out regular maintenance of their vehicles

8.5.2 Ambient Air Quality

During operational phase of said unit there will be no source of air pollution during process activities. Only the dust can be generated from unloading or loading of raw material.

Mitigations

Following mitigation measure will be adopted to keep the ambient air quality of the area intact.

- PPEs along with the face mask will be provided to the workers and their regular usage will be ensured by the In-charge.
- Proper air circulation will be carried out to keep the indoor environment healthy.
- Company owned vehicles will be maintained on regular basis in order to avoid air emissions.
- Monitoring of the ambient air quality will be carried out on regular basis.
- Generators will be provided with proper enclosure, tuning and maintenance to control emissions (if any).

8.5.3 Water Resource

It is estimated that there will be no usage of water during any other project process activities. Wastewater will be generated from domestic activities during operational phase of the project, and generated sewage after treatment in septic tank will be disposed of into industrial drain or can be reused for horticultural purposes.

Nature of Impact

The nature of the impact will be direct, low, short-term and insignificant.

Mitigation

Following mitigation measures will be adopted to reduce the impacts on water resource

- The generated wastewater will be treated through septic tank.

- For recharging of the groundwater open green spaces will be left within the premises.
- Close the water tap when not in use to conserve the water resource.
- Provision of safe drinking water to the workers will be ensured.

8.5.4 Solid Waste Management

The solid waste generated from the production process will be disposed of as per area practice. Solid waste is not a prime issue in said case generated solid waste will be disposed of as per area practice. Improper disposal of the domestic solid waste can cause health issues or may cause public nuisances.

Nature of Impact

The nature of impact will be direct, medium, long-term and significant.

Mitigation

Following mitigations should be adopted to reduce the issues related to the solid waste:

- The reusable waste will be sold to the in the open market whereas the rest will be managed as per the municipal work practices being observed in the area.
- Recyclable material should be separated at source and will be sold in the open market or to vendor (if any).
- Domestic solid waste should be stored in the covered bins in order to avoid the growth of vectors and rodents as well as to control the odor and to reduce public nuisance. It should be collected and disposed of as per area practice.
- Appropriate in-housekeeping, sanitary and solid waste management practices should be adopted.
- Regular visual monitoring will be carried out to ensure good house-keeping practices.

8.6 Possible Emergencies and Plant Failure

Operational difficulties may be experienced at start-up or during periods when equipment malfunctions. For this purpose, vendor will train the team and that team will give trainings to the other team members.

Nature of impact

The nature of said impact will be direct, medium, long-term and hence significant.

Mitigations

- Equipment should be kept in good operating conditions to prevent equipment failure.
- Training program for operation and maintenance activities should be included as part of the project's technical assistance program.
- Regular inspection should be carried out.
- Engines and other machines should be maintained on regular basis.

8.7 Emergency Response

Emergency response preparedness committee will be formulated consisted of heads of departments. Project Manager/ HSE Manager will be the head of the team who will chair incident control. In the case of minor emergency, the first aid box will be provided. For incidents and accidents that may take place unexpectedly during project operations no matter how effective, strong and efficient the mitigation measures for all adverse impacts; especially the safety issues may be adopted. These may include; accident and natural disasters.

Nature of Impact

The nature of the said impact will be direct, low, long-term and hence significant.

Mitigation

- Workers should be given adequate training of handling machinery.
- Emergency call service must be made available 24/7.
- The drills to check the response of the workers against any emergency situation will be carried out on regular basis.
- Safety and hazards signs will be displayed within the facility to avoid any unfortunate incident.
- Only authorized persons will be allowed for the handling of the chemicals.

8.8 Potential Environmental Enhancement Measures

Following potential environmental enhancement measures will be adopted:

i. Enhancement in Employment Opportunities

During construction the employment opportunity will be enhanced. Workers will be hired from local community, include; skilled and un-skilled workers. During construction phase 10-15 workers will be hired and in operational phase approximately 120 workers will be employed. It will include technical and non-technical staff. Locals will also have the opportunity to diversify their income by being employed during various project phases. Hence, there will be an increased employment opportunity for the local people which will have a positive impact on the socio-economic status of the area.

ii. Tree Plantation

At the end of the establishment of packaging industrial unit landscape of the area will be enhanced by planting native and ornamental plants at the designated green areas. This will enhance the aesthetic beauty of the area.

CHAPTER 9: ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN

9.1 General

This chapter summarizes the various mitigation measures as outlined previously in this EIA Report that will be implemented during the designing, construction operational and decommissioning stages of project. It does not discuss further the mitigation measures which have been adopted within the design and planning of the project, as these are comprehensively covered in previous section of this EIA Report. Outline and key features of the EMMP for operations phase of the aforesaid project is presented in the sub-sections below. As per the environmental legislation in Pakistan, the compliance status of the conditions mentioned in the construction should be submitted along with other documents to the environmental protection agency to obtain confirmation for compliance and Environmental Approval for project operation. Even after implementation of the suggested mitigation measures, the impact may remain significant, and requires regular environmental monitoring.

9.2 Objectives.

An Environmental Monitoring Plan (EMP) was outlined alongside Environmental Management Plan to ensure all the corrective actions to counter adverse impacts which gives a detailed EMMP. The EMMP will serve as a principal execution module of the project that would not only mitigate adverse environmental impacts during the construction and the operational phase of the project but also ensures that environmental standards and good in-housekeeping are being practiced. Continuous environmental monitoring is exercised to ensure that preventive measures are in place and effective to sustain environmental integrity. The key objectives of EMMP are:

- To outline functions and responsibilities of persons associated with the commencement of the instant project.
- To state and implement standards and guidelines which are required under environmental legislations particular in context to the proposed project commencement.
- To facilitate the implementation of the mitigation measures by providing the technical details of each Project's impact and proposing implementation schedule of the proposed mitigation measures.
- Define a monitoring mechanism and identify monitoring parameters to ensure that all proposed mitigation measures are completely and effectively implemented.
- Identify the resources required to implement the EMMP and outline corresponding financing arrangements.

9.3 Proposed Mitigation Actions and Monitoring Program

It lists all the mitigation measures identified in the EIA and the associated environmental or social aspect in line during construction/Installation phase and operational phase with the administrative framework involving all the responsible implementing authorities who are required to take the planned actions/measures and monitor it accordingly. It enhances project benefits by reducing its impacts and making it environmentally friendly. The environmental management and monitoring plan is given below in Table 14.

Table 12: Environmental Management Plan

Project Activities	Type of Impact	Potential Impacts on Environment	Extent /Magnitude	Mitigation Measure	Monitoring	Responsibility
Construction & Machinery Installation Phase						
Land acquirement and land use	Physical, Social and Aesthetical	Positive use of land but proper planning will be required	low/adjacent area	• The site selected to establish said packaging unit i.e., M/s Oasis Packaging Industries Pvt. Limited is present within designated industrial area/ business park and is surrounded by many other industrial units. • The building will be used for industrial purposes. • The leftover constructional waste will be removed as soon as possible after completion of the constructional activities. • Visual monitoring will be carried out to keep in check the in-house keeping practices and other hazards in check.	Visual Monitoring	Proponent* Proponent may give responsibility to contractor
Use of local manpower	Social	Employment Generation	low/adjacent area	• Local people will be hired for less technical work or non-skilled work. • Locals will be preferred and will be involved at various stages of project development. • This will improve the socio-economic status of the people directly linked with the project.	Regular checking & inspection by HR Manager	Proponent*
Civil works	Physical, Social, & Aesthetical	Dust, Noise & Vibration, Employment, Health &	low/ adjacent area	• Water sprinkling will be done to reduce dust emissions. • Noise control measures will be implemented. • Safety of the workers should be protected where the physical activity is involved.	Visual Monitoring & Regular Inspection	Proponent*

		Safety of Workers		• PEPS will be provided to the workers and their usage will be ensured.	on daily basis	
Movement and fueling of vehicles	Physical & Aesthetical	Noise, dust	low/on-site	• Maintenance and inspection of vehicles should be carried out on regular basis. • Vehicles with leaks will not be operated. • All vehicles carrying raw material and equipment's will be maintained in good working condition.	Regular checking while entering and exit of the vehicles from the facility	Proponent*
Transportation of construction material	Bio-physical	Dust and Particulate, Noise Generation, Safety and Health Effects	low/ adjacent area	• Excessive use of horns will be avoided up to the extent possible. • PPE's will be provided to workers and their usage will be ensured. • Covering of raw-material transporting material trucks with tarpaulin. • Night time driving of project vehicles will be limited whenever possible. • Noise will be monitored on regular basis by using Digital Sound Meter.	Regular checking while entering and exit of the vehicles from the facility	Proponent*
OPERATION PHASE						
Manufacturing Process	Air Emissions	Ambient Air Quality of the area	low/on-site	• Ambient air monitoring will be carried out as per SMART Rules to comply with PEQS. • PPEs along with the face mask will be provided to the workers and their regular usage will be ensured by the In-charge. • Proper air circulation will be carried out to keep the indoor environment healthy.	Regular monitoring of the ambient air quality by EPA Certified Lab	Supervisor/ HSE Manager

				• Company owned vehicles will be maintained on regular basis in order to avoid air emissions. • After the completion of the construction trees will be planted in open green areas which will improve the aesthetics of the site and improve ambient air quality of the area.		
	Wastewater	Water quality	low/on-site	• Close the water tap when not in use to conserve the water resource. • Provision of safe drinking water to the workers will be ensured. • No wastewater will be disposed of into drain without being treated in septic tank. • The final sewage discharged from the unit will be monitored as per SMART Rules to comply with PEQS.	Wastewater will be monitored as per SMART Rules to comply with PEQS	Supervisor/ HSE Manager
	Solid waste	Land pollution & health impacts	Low and limited to said site	• Recyclable material should be separated at source and will be sold in the open market or to vendor. • Domestic solid waste should be stored in the covered bins in order to avoid the growth of vectors and rodents as well as to control the odor and to reduce public nuisance. It should be collected and disposed of as per area practice. • Good management practices should be adopted to avoid the spread of diseases among the locals. • Appropriate in-housekeeping, sanitary and solid waste management practices should be adopted. • Regular visual monitoring will be carried out to ensure good house-keeping practices.	Regular visual monitoring will be carried out to ensure good house-keeping practices	Housekeeping staff

9.4 Schedule for Implementation and Environmental Budget

The construction/ Installation will be completed within 3-6 months after getting Environmental Approval/NOC. The total cost of the project is **PKR 462 Million PKR approx.** which includes; the cost of civil work (if required) purchase of machinery and its installation, implementation of mitigation measures as suggested in EIA Report, site restoration, etc. Environmental budget of **PKR 5 million** will be allocated to protect the environment which will include; tree plantation, environmental monitoring as per SMART Rules, etc.

9.5 Environmental Management Team

The primary responsibility for implementing different aspects of the EMP within the company lies with the concerned departments of M/s Oasis Packaging Industries Pvt. Limited.

9.6 Proposed Monitoring program

Environmental monitoring is a vital component of the Environmental Management Plan. It is the mechanism through which the effectiveness of the EMP in protecting the environment is measured. The feedback provided by the environmental monitoring is instrumental in identifying any problem or lapse in the system under implementation and planning corrective actions. For domestic activities already constructed facilities will be used. Solid waste disposal will be according to standard practices of area. It should be noted that it is difficult to outline a formal monitoring protocol for specific environmental parameters and key impacts until detailed project design has been completed. A formal monitoring protocol will be included within the revised EMP once the detailed project design has been completed.

Table 13: Proposed Monitoring Program

Components	Parameter to be Monitored	Measurement	Frequency	Location	Responsibility
Land Resource	Soil quality	Regular visual monitoring and soil analysis	Daily	On-site	Project Manager
Noise Levels	Noise level on the site and adjacent area on dB(A) scale	Noise level reading will be measure on regular basis	Regularly	At all noisy locations within the facility	HSE Officer
Workers safety	Injuries and accidents	Recording injuries	Daily	On-site	HSE Officer

Wastewater	As per SMART Rules	Testing by EPA Certified Lab	Monthly	On-site	Environmental Manager, HSE Officer
Air Emissions	As per SMART Rules	Testing by EPA Certified Lab	Monthly	On-site	Environmental Manager, HSE Officer
Ecological Resource	Flora & Fauna of the area	Observation by conducting surveys	During Baseline Survey, once in a year and after the completion of the Project	Around project site	Project Manager/Environmental manager

9.7 Proposed EMP reporting and reviewing procedures

Following protocols will be adopted for reporting & reviewing EMP:

- During construction/ Installation EMP reporting and reviewing will be done by the contractor/HSE department. Regular monitoring will be done and reports will be submitted in EPA, Punjab as per condition of Environmental Approval of construction/Installation phase.
- Monitoring reports will be reviewed by Environmental Management Team and HSE Department of M/s Oasis Packaging Industries Pvt. Limited and then will be shared with EPA, Punjab.
- Photographic records will also be maintained on regular basis.
- Recorded data will be reviewed by supervisory contractor/proponent so that it can be further improved if required.

9.8 Environmental Training

M/s Oasis Packaging Industries Pvt. Limited will ensure in-house training for the project staff, labor and the supervisory staff through the provision of one day basic training and one day advanced training, covering environmental and social aspects of the projects in general and implementation requirements will emphasis on the development project in general, on the roles & responsibilities of the staff and the labor while executing the

environmental monitoring plan in particular. The training protocols will include the following aspects:

- Procedures for monitoring the air quality parameters and measures to be adopted for avoiding/minimizing air pollution, particularly from the transportation of raw material and final goods will be given to the Environmental Management Team.
- Safety measures against hazards for workforce and the local communities arising from the construction and installation activities.
- Emergency response trainings.
- Fire-fighting trainings and drills.
- Use of safety gadgets by the workforce.

CHAPTER 10: STAKEHOLDER CONSULTATION

10.1 General

Public consultation refers to the process by which the concerns of local affected persons and others who have plausible stake in impacts assessement of the project or activity are ascertained with a view to taking into account all the material concerns in the project or activity design as appropriate. According to the IEE and EIA Review Regulations, 2022 public consultation is mandatory for any socio-environmental study. For this purpose, assessment survey and public consultation sessions held with different stakeholder groups that may be impacted. The consultation process was carried out in accordance with the guidelines laid by EPA, Punjab. The objectives of this process were to:

- Share information with stakeholders on project construction and operation.
- To access the impacts on the physical, biological, and socio-economic environment.
- Understand stakeholder concerns regarding various aspects of the project.
- Understand the perceptions, assessment of social impacts and concerns of the communities of the project area.
- Find out the awareness level and situation of acceptability to identify any issues for the implementation of said project.
- To invite people to express their views about the positive/negative impacts on their life styles and environment.

This report includes all the comments, which were taken into account in preparing the definitive development concept for the installation of the purposed plant. Public consultation performas are attached herewith as **Annex-F.**

10.2 Consultation Mechanism

Primary stakeholders were consulted during informal and formal meetings. The consultation process was carried out in the Urdu language. During these meetings a simple, non-technical, description of the project was given, with an overview of the project's likely human and environmental impact. This was followed by an open discussion allowing participants to voice their concerns and opinions. In addition to providing communities with information on the proposed project, their feedback was documented during the primary stakeholder consultation. The issues and suggestions raised were recorded in field notes for analysis and interpretation.

By reaching out to a wider segment of the population and using various communication tools such as participatory needs assessment, community consultation meetings, focus group discussions, in-depth interviews, and participatory rural appraisal EIA involved the community in active decision-making. This process will continue even after this EIA has been submitted, as well as during future EIA in which similar tools will be used to create consensus among stakeholders on specific environmental and social issues.

Secondary stakeholder consultations were more formal as they involved government representatives and local organizations, consulted during face-to-face meetings. They were briefed on the EIA process, the project design, and the potential negative and positive impact of the project on the area's environment and communities. It was important not to raise community expectations unnecessarily or unrealistically during the stakeholder consultation meetings in order to avoid undue conflict with community's leaders or local administrators. The issues recorded in the consultation process were examined, validated, and addressed in the EIA Report.

This section involves communication of possible impacts and concers with

- ✓ Proponents Environmental Management Team
- ✓ The reponsible authority
- ✓ Other departrments and agencies
- ✓ Environmental Practisioners and experts
- ✓ Affected and wider community

10.3 Proponents Environmental Management Team

Consultation regarding M/s Oasis Packaging Industries Pvt. Limited was done with Proponent's Environmental Management Team and anticipated impacts were discussed. Concerns of locals, Environmental Practitioners & experts were discussed and asked to consider them while construction of above-said project. Locals will be preferred for employment after providing proper training. Mitigations measures mentioned in EMP will be truly implemented.

10.3.1 Responsible Authority

Overall responsibility for implementation of EMP will be that of project proponent. An HSE Manager/Asst. Manager of relevant qualification will be appointed. HSE Manager/Asst. Manager will act as Environmental Manager and will manage the all-safety related hazards, environmental issues and ensure the compliance of PEQS.

10.3.2 Other departments and agencies

Different departments were consulted regarding said project within study area of project area.

10.3.3 Consultation with Government Departments

Various departments were consulted by the socio-environmental team of the consultants and concerned details about the project were noted down through personal interviews, group meetings, etc., in their offices.

10.3.4 Environmental Practitioners and experts

Consultation with environmental practitioners and experts was noted and their comments and suggestions were observed and mentioned below.

Table 14: Consultation with Environmental Practitioners and Experts

Sr. No	Name	Qualification	Comments/Suggestions
1.	**Nimrah**	B.S Environmental Engineer	She said that: • Environmentally friendly operation of said facility should be ensured. Moreover, it will help to comply with PEQS. • Wastewater should be disposed of properly.
2.	**Salman**	BS Environmental Sciences	Following comments/suggests were noted: • He said that locals should be preferred for employment opportunity. • In case of outsider's residence must be provided within the facility or in its nearby vicinity. • Proper mitigation measures must be adopted during construction and operation of said project.
3.	**Farah**	B.S Environmental Engineer	• She said that in case of removal of vegetation trees must be planted after construction at designated green areas. • More water conservation strategies must

			be adopted. • Solid waste must be collected and dispose off properly by using standard practices of the area.
4.	**Tania**	B.S Environmental Engineer	• Proper leveling and commissioning must be done at the end of civil work. • Environmental manager must be hired to ensure the compliance of PEQS. • By installation of said project the impact due to the disposal of wastewater should be adopted as per standard practices of the area

10.4 Affected and Wider Community

Social survey was conducted to consult with local community. Their concerns were noticed and discussed with proponent and their team. Majority was in favor of project their details are given below in table

Table 15: Concerns Noted during Community Survey

Sr.#	Respondents	CNIC/Contact No.	Concerns
i.	**Abhinash Manzoor**	35102-2959371-3	During the survey in the study area following concerns of the local community were noted: ➢ During construction and operation locals should be preferred for the job opportunities. ➢ Solid waste should not be collected at site, it should be disposed of properly. ➢ Health and safety of
ii.	**Shahzad Ali**	30402-1033553-1	
iii.	**Muhammad Safdar**	35202-6186717-7	
iv.	**Ajmal Shah**	35101-2509804-5	
v.	**Shazia Ashraf**	35102-6733291-6	
vi.	**Saheen Shabir**	35201-844078-6	
vii.	**Muhammad Javaid**	35404-3622616-7	
viii.	**Shaista**	35201-	

		3236823-4	the workers should be ensured. ➢ Workers should be hired from local community. ➢ Indigenous trees around the project area should be planted to control air pollution. ➢ During construction phase dust emission should be controlled. ➢ An effective EMMP should be designed and enforced with true spirit.
ix.	**Nazia Bibi**	35101-3379008-6	
x.	**Muhammad Yasin**	35102-9264858-9	
xi.	**Tahir Maqsood**	35301-5814610-9	
xii.	**Rao Abdul Rasheed**	35102-0597328-7	
xiii.	**Asif Mashi**	35102-3522898-9	
Xiv	**Vishal Manzoor**	35102-9004606-7