



ENVIRONMENTAL ASSESSMENT REPORT

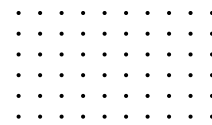
Executive Summary

Pharmaceutical in environment statement

www.donvallpharma.com

Submitted by:

Millennial Biz Hub



CONTENTS

I. COMPANY OVERVIEW

Message of CEO

What environmental sustainability means at Don Valley Pharma

About Us

Contribution to the Sustainable Governance

List of Abbreviations

II. ENVIRONMENTAL MANAGEMENT & MONITORING MEASURES

Official Documentation

Environmental Monitoring Reports

Social Economic Survey Forms

Waste Water Treatment Plan.

III. DESCRIPTION OF THE ENVIRONMENT

Physical Environment-(Soil Type)

Climate(Ambient Air Quality, Noise)

Biological Environment(Flora & Fauna)

Socioeconomic Environment(Quality of life Values)

Stakeholders Consultation(Objectives & methodology)

IV. POTENTIAL ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Identification of potential impacts

Impact Assessment

Environmental Impacts(Occupational health and safety)

V. ENVIRONMENTAL MANGEMENTAND MONITORING PLANS

Reporting and reviewing Procedures

Inhouse Training

Environmental Budge

Conclusion



DR SHAHLA JAVED AKRAM

**Founder President Women
Chamber Of commerce & Industry
Former Vice Chairperson FPCCI
Former Executive Member LCCI**

1.1-MESSAGE FROM THE CEO

I am proud to say that we, at Don Vally Phrma, have been making strides in the direction of environmental sustainability. We have invested in state-of-the-art technologies and processes that allow us to reduce our carbon emissions, minimize water usage, and decrease waste generation. By doing so, we not only fulfill our corporate social responsibility but also contribute to a healthier planet for future generations. Our commitment to environmental sustainability is not just a corporate directive; it is a responsibility we all share. I encourage every member of our team to consider the environmental impact of their actions, from product development to daily operations. We must all be mindful of reducing waste, conserving resources, and seeking eco-friendly solutions in our work. In the coming years, we will intensify our efforts to further integrate sustainability into every facet of our business. This will involve setting clear targets, monitoring our progress, and collaborating with suppliers and partners who share our commitment to a greener future. I urge each of you to embrace this mission and become champions of environmental sustainability within our company. Together, we can make a meaningful difference, not only in the pharmaceutical industry but also in the world at large.

**DR SHAHLA JAVED AKRAM
CEO
DON VALLY PHARMA**

1.2- WHAT ENVIRONMENTAL SUSTAINABILITY MEANS AT DON VALLEY PHARMA

As a responsible healthcare company, we are committed to the health and safety of our society and planet. We make it a priority to effectively manage the risks associated with pharmaceuticals in the environment



1.4- ABOUT US



Don Valley Pharma has manufactured and supplied quality healthcare products for over 25 years and is one of the fastest developing pharmaceutical companies in Pakistan, focused on the discovery, development, and commercialization of innovative therapies at affordable costs.



THE FEDERATION OF PAKISTAN
CHAMBERS OF COMMERCE & INDUSTRY



As a leading pharmaceuticals manufacturer in Pakistan, we never compromise on the quality of our medicines. Our state-of-the-art manufacturing facility located in Lahore, Pakistan is ISO 9001:2015, 14001:2015, 45001:2018 and 22000:2018 certified and is compliant with the latest cGMP and cGLP standards.



1.5- CONTRIBUTION TO THE SUSTAINABLE GOVERNANCE

Sustainable pharmaceutical governance is a critical aspect of ensuring that the pharmaceutical industry operates in a manner that is environmentally, socially, and economically responsible. Here are some contributions that can help advance sustainable pharmaceutical governance:

Environmental Stewardship: Pharmaceutical companies can contribute by implementing eco-friendly practices in their manufacturing processes. This includes reducing water and energy consumption, minimizing waste, and adopting green chemistry principles to reduce the environmental impact of drug production.

Research and Development for Sustainable Drugs: Encouraging the development of pharmaceuticals that are less harmful to the environment, such as those that degrade more easily in the environment, is essential. Additionally, supporting research into alternative, sustainable drug delivery methods, such as nanoparticles or biodegradable materials, can be part of this contribution.

Transparency and Ethical Marketing: Ensuring that pharmaceutical companies adhere to ethical marketing practices and disclose the potential environmental and health impacts of their products is crucial. This can involve strict regulations and oversight to prevent the promotion of unnecessary or harmful drugs.

Access to Medicines: Sustainable pharmaceutical governance should also encompass ensuring affordable access to essential medicines, particularly in low-income and underserved areas. Companies can contribute by offering fair pricing structures, especially for life-saving drugs.

Pharmacovigilance: Effective monitoring and reporting of adverse drug reactions and side effects are essential for patient safety and the environment. Contributing to robust pharmacovigilance systems helps identify and address issues promptly.

Collaboration with Regulatory Bodies: Collaboration with regulatory agencies is vital. Contributing to the development and adherence to stringent environmental regulations for pharmaceutical manufacturing can lead to more sustainable practices.

Research into Green Chemistry and Sustainable Technologies: Investing in research on green chemistry and sustainable manufacturing technologies can lead to innovations that minimize the environmental footprint of pharmaceuticals.

Reducing Antibiotic Resistance: Contributing to efforts to combat antibiotic resistance, such as responsible antibiotic use and the development of alternative treatments, is essential for both public health and environmental sustainability.

Supply Chain Sustainability: Ensuring that the entire pharmaceutical supply chain, from sourcing raw materials to distribution, is conducted in a sustainable and ethical manner is a significant contribution.

1.5- CONTRIBUTION TO THE SUSTAINABLE GOVERNANCE

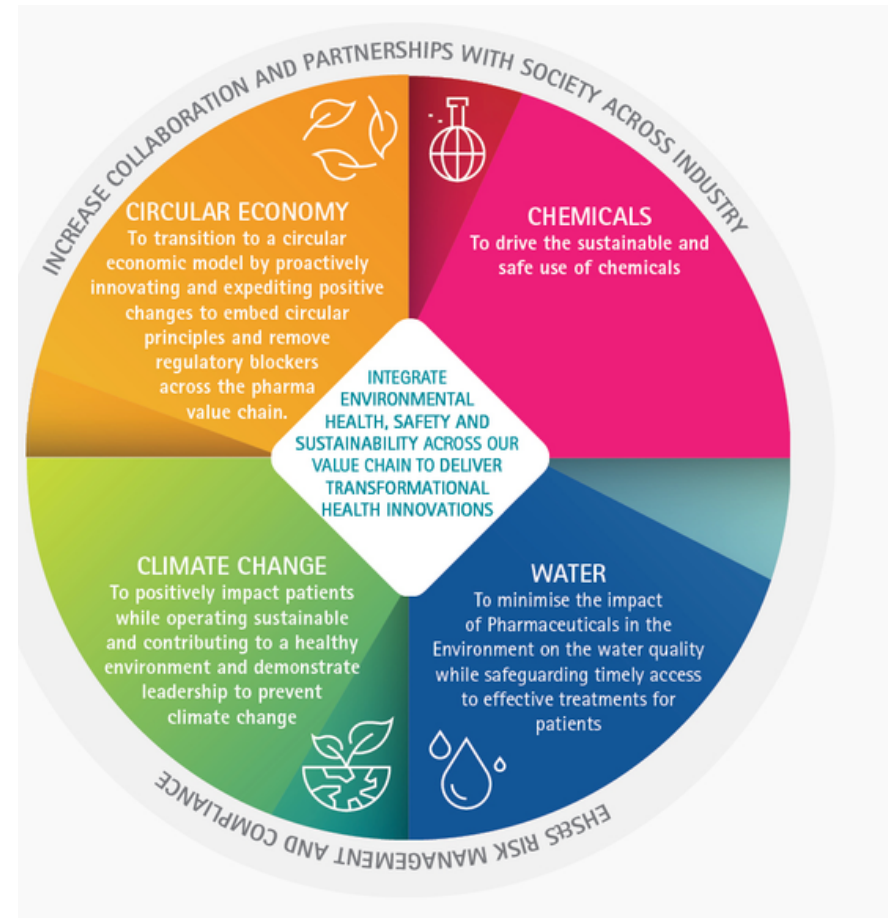
Corporate Social Responsibility (CSR): Engaging in CSR initiatives that benefit communities where pharmaceutical companies operate, such as providing healthcare or supporting education and environmental conservation efforts, can be part of a broader contribution to sustainable governance.

Advocating for Policy Changes: Pharmaceutical companies can use their influence to advocate for policies and regulations that promote sustainability in the industry.

Research on Drug Disposal: Contributing to research and initiatives for safe and responsible disposal of pharmaceutical waste can help prevent the contamination of water sources and ecosystems.

Promoting Sustainable Packaging: Reducing excessive packaging and adopting eco-friendly packaging materials can be a practical contribution to sustainability efforts.

Sustainable pharmaceutical governance is a multi-faceted challenge that requires collaboration between industry stakeholders, governments, regulatory agencies, and non-governmental organizations. Companies that take active steps to address environmental, social, and economic aspects of sustainability in the pharmaceutical industry can make a meaningful difference in creating a more responsible and sustainable sector.



1.6- LIST OF ABBRIATIONS

CO2	Carbon dioxide
dB(A)	A weighted decibel scale
EMMP	Environmental Management and Monitoring Plan
EMP	Environmental Management Plan
EPA	Environmental Protection Agency
EPD	Environmental Protection Department

1.6- LIST OF ABBRIATIONS

m ³	Cubic meter
m ³ /h	Cubic meter per hour
MW	Megawatt
NEQS	National Environmental Quality Standards
No.	Number
NOC	No Objection Certificate
NO _x	Oxides of Nitrogen

Site Location/ Details



Location

M/s Don Valley Pharmaceuticals Private Limited, is an active Pharmaceutical Ingredients, Intermediates and Specialty chemicals, herbal and natural products, specialty chemicals, organic chemicals & Formulation unit, situated 31-km, Main Lahore - Kasur Rd, Lahore .

POWER/ENERGY CONSUMPTION

Total need for this unit is 1500 kW. The required power connection is available from MSEDCL who will fulfill the need for the new unit power

Connected load: 300 KVA

Max. Demand: 600 KVA

Transformer capacity: 630 KVA

Sanctioned Load: 600 KVA

Three set of 250 KVA for emergency power will be required.

RENEWABLE ENERGY

**Capacity of Solar power production plant is
209 KW/Day**

Site Location/ Details

CONSUMPTION DETAILS: 9.5M3/Day

Source of use	Water (CMD)			Effluent (CMD)	
	Consumption	Losses	Additions	Domestic	Industrial
Domestic	0.60	0.10	0.00	0.5	-----
Industrial processing	3.00	0.10	0.50 for reaction	-----	0.35
Cooling water make up	2.50	0.34	0.00	-----	0.15
Boiler Feed	2.50	0.48	0.00	-----	0.24
Gardening	0.90	0.9	0.00	-----	-----
Total Water consumed	9.5	1.02	0.5	0.5	0.

**EFFLUENT SENT TO SEPTIC
TANK FOR TREATMENT**

WATER CONSUMED

The total water requirement for the unit is 2500 gallon/Day

This will be met by supply of fresh water.

Water Balance: 9.5 M3/Day

FUEL /STEAM CONSUMED

The details are as follows:

Fuel Diesel

Fuel quantity Generators: 2400litre / usage

Fuel quantity Boiler: 960litre/usage

A close-up photograph of a person's hands planting a small green seedling into the soil. The hands are positioned to support the plant as it is being placed into a hole in the dark brown earth. The background is slightly blurred, showing other people and a natural outdoor setting.

II. ENVIRONMENTAL MANAGEMENT & MONITORING MEASURES

2.1-Official Documentation

LIST OF ANNEXURE

**Following Documents are attached
as annexure.**

ANNEXURE I: PROPERTY DOCUMENTS

ANNEXURE II: PROPONENT CNIC

ANNEXURE III: LAYOUT MAP

ANNEXURE IV: GLOSSARY

ANNEXURE V: LIST OF NAMES AND

QUALIFICATION OF EXPERT TEAM MEMBERS

ANNEXURE VI:LIST OF INDIVIDUALS AND

ORGANIZATIONS CONSULTED

ANNEXURE VII:REFERENCES

**ANNEXUREVIII: AUTHORITY LETTER IN FAVOR OF
CONSULTANT**

**ANNEXUREIX:SOCIALECONOMIC
SURVEY FORMS**

ANNEXURE X: MATERIAL SAFETY DATA SHEET

2.2-Environmental Monitoring Reports



SOLUTION ENVIRONMENTAL & ANALYTICAL LABORATORY



WASTEWATER ANALYSIS REPORT

Client Name: Don Valley Pharmaceutical
Address: 31-Km Main Ferozpur Road, Lahore, Pakistan
Sampling Point: Final Outlet
Sampling Date: 20-10-2023
Sampling By: SEAL
Results: -

Nature of Sample: Waste Water
Reporting Date: 26-10-2023
Temp. & Humidity: 23-27 C° & 50-70 %
Sample ID: SEAL/LAB/2023/WW/499

Sr. No.	Parameters	Method	Parameter	Result	PEQS
1	pH	APHA 4500-H+ B	---	7.42	6-9
2	Chemical Oxygen Demand (COD)	APHA 5220 D	mg/l	234.46	150
3	Biochemical Oxygen Demand (BOD ₅)	APHA 5210 D	mg/l	118.5	80
4	Total Dissolved Solids (TDS)	APHA 2540 C	mg/l	532	3500
5	Total Suspended Solids (TSS)	APHA 2540 D	mg/l	104.67	200
6	Chloride	APHA 4500-Cl ⁻ B	mg/l	121.96	1000
7	Sulphate (SO ₄ ²⁻)	APHA 4500-SO ₄ ²⁻ C	mg/l	74.63	600
8	Arsenic	APHA 3114 C	mg/l	0.12	1.0

PEQS = Punjab Environmental Quality Standards

BDL (Below Detection Limit)

APHA = American Public Health Association

Note:

- Standard Method for the Examination of Water & Wastewater, 23rd Edition, 2017
- This report should be reproduced as a whole and not in parts.
- The responsibility of the ethical use of the results reported in this report lies with the client.
- Consequently, the laboratory is absolved of its responsibility for any claim that may result through the use by the client or others of the results appearing in this report.
- The left-over samples (if so available) shall be retained for 15 days after the issuance of the report unless otherwise negotiated between the client and the laboratory.
- The report is not valid for any negotiations.
- Total Toxic Metals (Cadmium, Lead, Mercury, Arsenic, Chromium, Copper, Nickel, Cobalt, Zinc and Barium).

ANALYZED BY	REVIEWED BY	APPROVED BY



SOLUTION ENVIRONMENTAL & ANALYTICAL LABORATORY



AMBIENT AIR MONITORING REPORT

Client Name: Don Valley Pharmaceutical
Address: 31-Km Main Ferozpur Road, Lahore, Pakistan
Monitoring Point: Near Main Gate
Reporting Date: 26-10-2023
Starting Date: 20-10-2023
Monitoring By: SEAL
Reference No.: SEAL/Lab/2023/AA/001
Results: -

Sr. No.	Parameter	Method	Unit	Results	PEQS
1	Particulate Matter (PM ₁₀)	40 CFR Part 50, App J (US-EPA)	µg/m ³	106.52	150
2	Particulate Matter (PM _{2.5})	40 CFR Part 50, App J (US-EPA)	µg/m ³	25.9	35
3	Carbon monoxide (CO)	40 CFR Part 50, App. C (US-EPA)	mg/m ³	2.6	10
4	Oxides of Nitrogen NOx (NO & NO ₂)	40 CFR Part 50, App F (US-EPA)	µg/m ³	34.86	120
5	Sulphur dioxide SOx(SO ₂)	EQSA-0197-114 (US-EPA)	µg/m ³	41.12	120



SOLUTION ENVIRONMENTAL & ANALYTICAL LABORATORY



NOISE LEVEL MONITORING REPORT

Client Name: Don Valley Pharmaceutical
Address: 31-Km Main Ferozpur Road, Lahore, Pakistan
Monitoring Date: 20-10-2023
Instrument Used: Digital Sound Level Meter T.M 102
Reporting Date: 26-10-2023
Monitoring By: SEAL
Reference No.: SEAL/Lab/2023/NM/001
Results: -

Sr. No.	Location	Min. dB(A)	Max. dB(A)	Average dB(A)
1.	North Boundary of Site	55.0	60.8	57.9
2.	South Boundary of Site	58.2	63.2	60.7
3.	East Boundary of Site	52.0	65.5	58.8
4.	West Boundary of Site	53.4	66.0	59.7
5.	Centre of Site	54.0	66.0	60.0
6.	Near Main Gate I (Ferozpur Road)	60.0	64.0	62.0

2.3-Social Economic Survey

Forms

Survey Area

A. ENVIRONMENTAL SUSTAINABILITY FRAMEWORK

What are the company's environmental policies?

- How are these policies implemented?

B. SUPPLIER Area

- Does the company require external suppliers to have environmental policies in place?
- How does the company verify that its suppliers' policies are being implemented?

C. ENVIRONMENTAL GOVERNANCE

- Is there a department in the company in charge of reducing its environmental footprint?
- What are the company's commitments in terms of reducing its environmental footprint?

D. TRANSPARENCY

- Does the company publicly report environmental monitoring data?

Is the list of the company's external suppliers publicly available

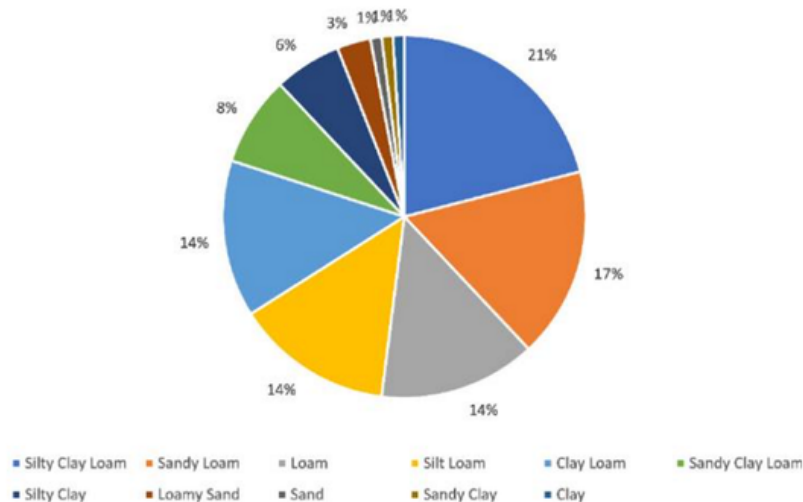


III. DESCRIPTION OF THE ENVIRONMENT

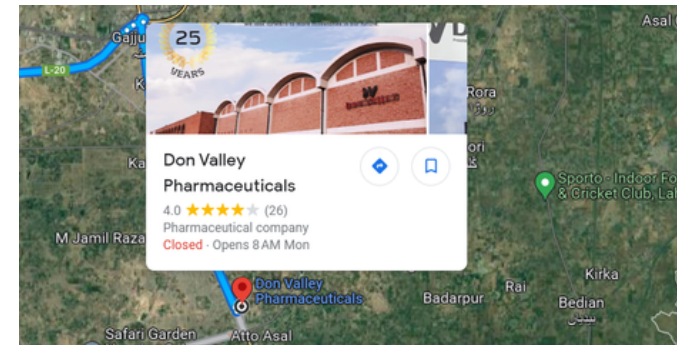
3.1-Physical Environment- (Soil Type)

Our factory area is under bari Doab is an area enclosed between Sutlej, Bias and Ravi Rivers, having an area of 29,649 km². Major districts of Bari Doab are Okara, Khanewal, Sahiwal, Multan, Lahore, and Kasur.

Frequency of soil classes in Doabs



3.2-Climate (Ambient Air Quality, Noise)



AMBIENT AIR MONITORING REPORT

Client Name: Don Valley Pharmaceutical
 Address: 31-Km Main Ferozpur Road, Lahore, Pakistan
 Monitoring Point: Near Main Gate
 Reporting Date: 26-10-2023
 Starting Date: 20-10-2023
 Monitoring By: SEAL
 Reference No.: SEAL/Lab/2023/AA/001

Sr. No.	Parameter	Method	Unit	Results	PEQS
1	Particulate Matter (PM ₁₀)	40 CFR Part 50, App J (US-EPA)	µg/m ³	106.52	150
2	Particulate Matter (PM _{2.5})	40 CFR Part 50, App J (US-EPA)	µg/m ³	25.9	35
3	Carbon monoxide (CO)	40 CFR Part 50, App C (US-EPA)	ppm	2.6	10
4	Oxides of Nitrogen (NO & NO ₂)	40 CFR Part 50, App F (US-EPA)	ppm	34.86	120
5	Sulphur dioxide (SO ₂)	EQSA-0197-114 (US-EPA)	ppm	41.12	120

PEQS: Punjab Environmental Quality Standards
 Note:
 • Quality was assured through self-calibration of the instrument.
 • The measurements were carried out on client request.
 • The client is responsible for lawful usage of reported data in future.

ANALYZED BY	REVIEWED BY	APPROVED BY
Lab Analyst	Assistant Lab Manager	Lab Manager

NOISE LEVEL MONITORING REPORT

Client Name: Don Valley Pharmaceutical
 Address: 31-Km Main Ferozpur Road, Lahore, Pakistan
 Monitoring Date: 20-10-2023
 Instrument Used: Digital Sound Level Meter T.M 102
 Reporting Date: 26-10-2023
 Monitoring By: SEAL
 Reference No.: SEAL/Lab/2023/NM/001

Sr. No.	Location	Min. dB(A)	Max. dB(A)	Average dB(A)
1.	North Boundary of Site	55.0	60.8	57.9
2.	South Boundary of Site	58.2	63.2	60.7
3.	East Boundary of Site	52.0	63.5	58.8
4.	West Boundary of Site	53.4	66.0	59.7
5.	Centre of Site	54.0	66.0	60.0
6.	Near Main Gate I (Ferozpur Road)	60.0	64.0	62.0
7.	Near Main Gate II	58.0	60.0	59.0
8.	Near Boiler Area	66.0	70.0	68.0
PEQS (Industrial Area Day Time)				65 dB (A)

PEQS: Punjab Environmental Quality Standards

Note:

- The average noise levels describe the overall ambient noise levels of the proposed site.
- Selected measurement units were dB(A) otherwise stated.
- Quality was assured through self-calibration of the instrument.
- The measurements were carried out on client request.
- The client is responsible for lawful usage of reported data in future.
- The report is not valid for any negotiations.

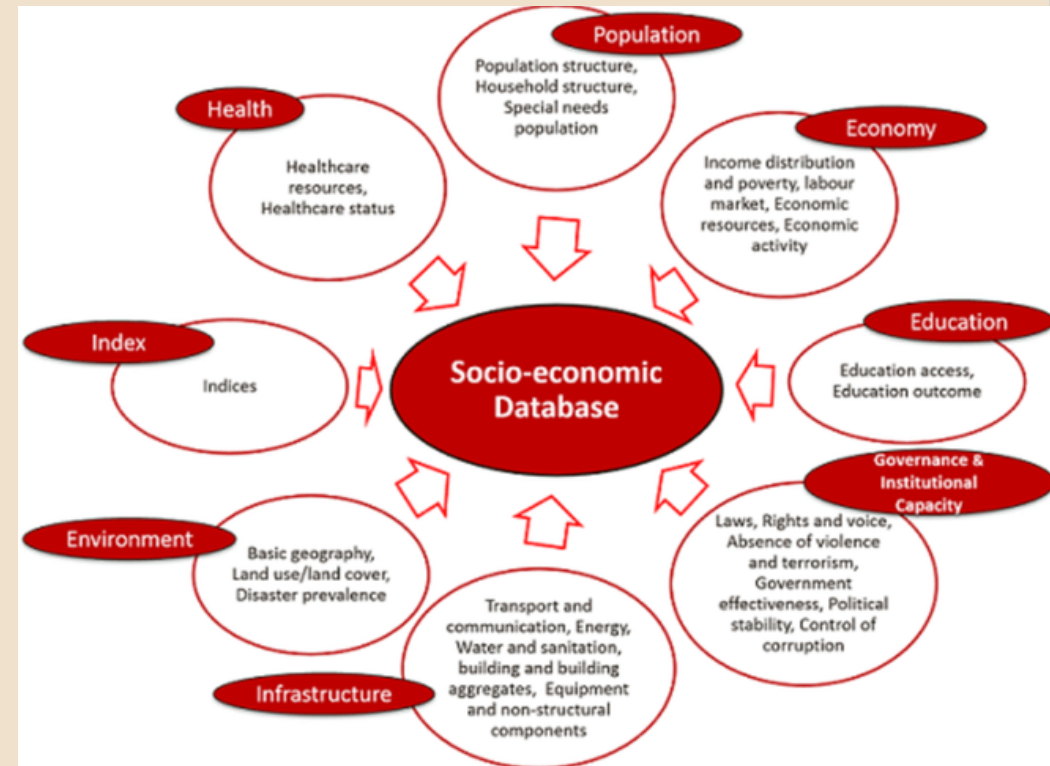
ANALYZED BY	REVIEWED BY	APPROVED BY
Lab Analyst	Assistant Lab Manager	Lab Manager

III. DESCRIPTION OF THE ENVIRONMENT

3.3-Biological Environment (Flora & Fauna)

Field survey was planned and undertaken. Vegetation diversity status of the site: Near the site the vegetation is dominated by avenue tree species. Faunal ecological and biodiversity status of the site: Characteristic of industrial habitat. No rare, endangered or legally protected species were found in 1 km range from the project site. Ecological richness and value of the actual project site location: Very low. Ecological richness of areas within 10 km range: Ecologically rich and fragmented areas. National parks and sanctuaries within 10 km: None. Ecologically rich areas within 10km. Residential areas like behria town and other, all of these areas are 8-10 km away from the project site and there is no chance of these getting affected by the proposed activity.,

3.4-Socioeconomic Environment (Quality of life Values)



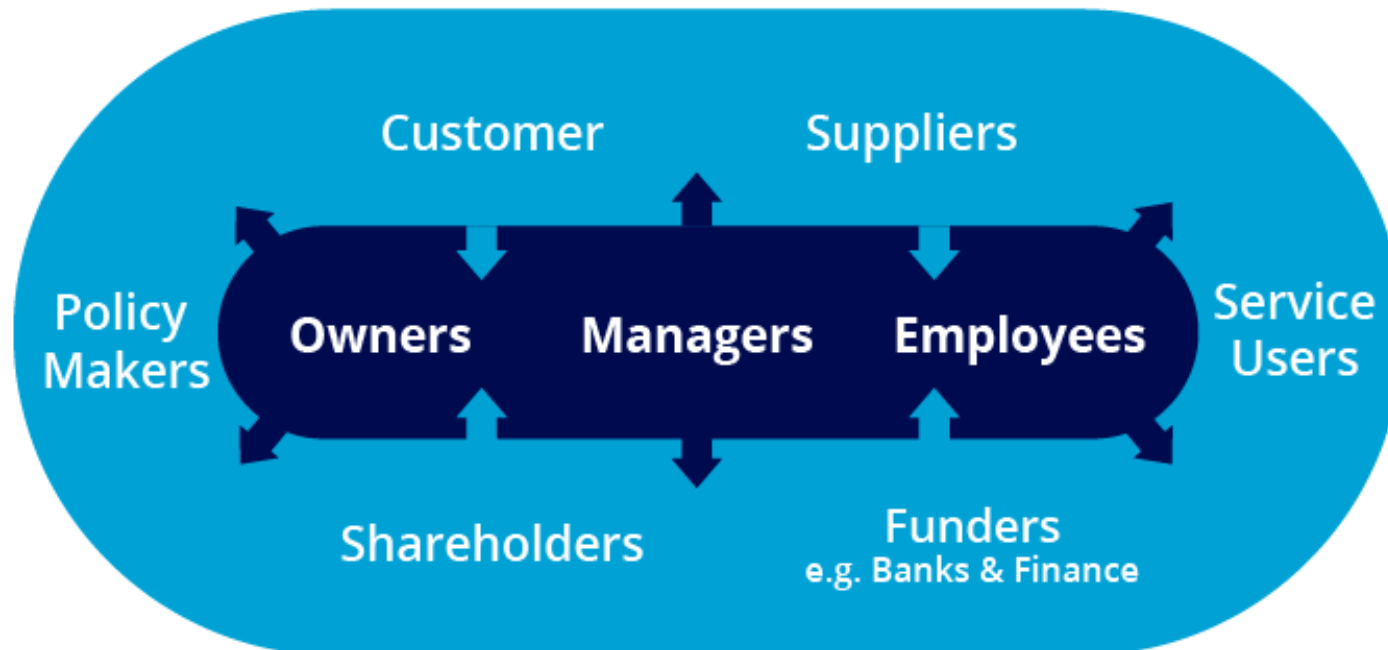
Socioeconomic status (SES) is an economic and sociological combined total measure of a surrounding of the organization focusing on above mentioned data.

III. DESCRIPTION OF THE ENVIRONMENT

3.5-Stakeholders Consultation

Impact assessment survey and consultation sessions held with different stakeholder groups that may be impacted by the said project development. The consultation process was carried out in accordance with the guidelines laid by EPA. The objectives of this process were to:

- Share information with stakeholders on said project installation and operation
- To assess the impacts on the physical, biological, and socio-economic environment
- Understand stakeholder concerns regarding various aspects of the project

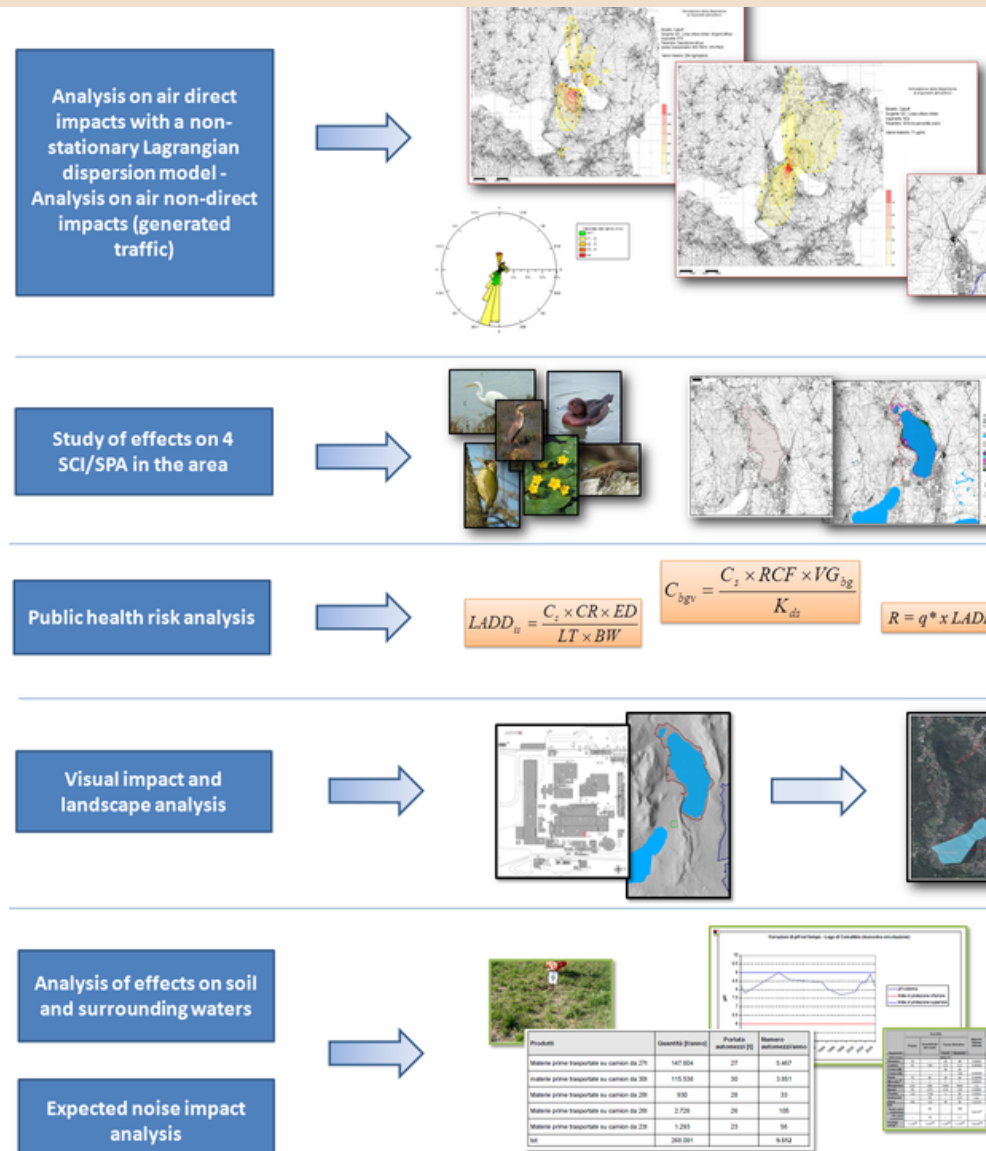


IV. POTENTIAL ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

4.1-Identification of potential impacts

Potential environmental impacts are also identified through discussion with project proponent, consultation with stakeholder and community to identify their concerns. The main aspects associated with potential impacts are as follows:

- Water resources
- Ambient Air Quality
- Waste discharges
- Noise pollution
- Ecology of the area, including flora and fauna
- Vehicle movement
- Socio-economic conditions
- Archaeology



IV. POTENTIAL ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

4.2-Impact Assessment

The prediction of impacts also includes the duration of impacts in terms of short-term or long-term, nature of impact, geographical location of the impact, reversibility of the impact.

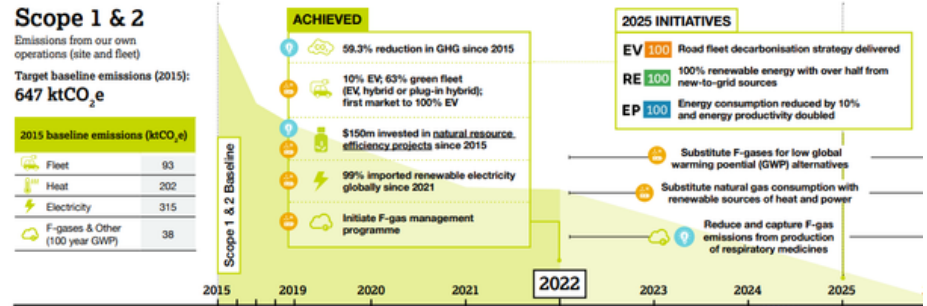


4.2-1: IMPACT ASSESSMENT AREAS

- GHG- reduction- Mitigation impact
- Carbon Capturing(CCUS) ,carbon capture, usage& storage- Adaptation Impact

Ambition Zero Carbon

We will follow the science and deliver absolute reductions in all our direct and indirect sources, of greenhouse gas (GHG) emissions across our value chain (Scopes 1, 2 and 3), doing our part to limit the impacts of climate change while unlocking opportunities to deliver improved healthcare in a low carbon economy.



4.3-Environmental Impacts(Occupational health and safety)





V. ENVIRONMENTAL MANAGEMENT AND MONITORING PLANS

An environmental management plan has been proposed to implement the mitigation measures. The plan will ensure that the adverse environmental impacts are minimized and the beneficial impacts are maximized.

5.1 Cooling tower and boiler

10 cooling towers with a circulation capacity 9.5 m³/hr. each will be required for the proposed project. 9.5 m³/day will be the expected blow down generated and will be taken to ETP.

5.2 Domestic sewage

The sewage will be treated in the Septic tanks. The overflow of the septic tanks will be pumped in the bioreactor of ETP.

5.3 Industrial effluent

Effluent generation from the proposed project is 20 KLD industrial and 3 KLD domestic. It will be given primary, secondary and tertiary treatment in the 100 KLD ETP before discharge to CETP

5.4 Air Pollution Management

The source of emission i.e. Flue Gas Emission is from industrial Boiler. The Flue gas emission will be released through fiber glass filter bags to contain particulate matter and then stack having adequate stack height.

5.5 Solid and Hazardous waste management

The Hazardous Wastes generated will be sent for further treatment and disposal .

5.6 Green Belt development

Green Belt development within the project premises is planned on 945 sq. m area. About 100 trees and shrubs of local variety will be planted.

5.7 Monitoring schedule

A detailed monitoring schedule has been prepared to ensure effectiveness of the environmental management plan.

5.8 Project cost and Expenditure for environmental activities

The total estimated gross capital investment is approximately Rs. 75.0 crores only

COST OF EMP

Cost of EMP

S. No.	Particulars	Capital cost (in lacs)	Recurring cost (in lacs/annum)
1	Air pollution control		
	Fuel burning Stack/chimneys	7.00	1.0
	Multicyclone / Dust Collector / Bag Filter	6.00	5.0
	Scrubbers	10.0	5.0
2	Water Pollution control		
	Process drains to ETP	10.0	0.1
	ETP	250.0	100.0
	RWH	5.0	0.50
	Waste minimization by effluent recycle	10.0	8.0
3	Noise pollution control		
	Acoustic encl./ Ant vibration pads	10.0	2.0
4	Env. Monitoring and management	0	5.0
5	Occupational health		
	Medical checkup	NIL	0.5
	Health insurance policy	NIL	2.5
	Medical staff charges	5.0	1.0
	First aid facilities consumables	2.0	0.50
	In-house first aid room	1.0	0.50
	Other infrastructure and Equipment	5.0	0.5
6	Green belt	6.0	2.0
7	Non-hazardous & Hazardous Waste Disposal	5.0	2.0
8	Hazardous waste storage (Fly Ash Storage)	5.0	0.50
	Total	337.0	136.6



CONCLUSION

It can be concluded that proposed p activity of DON VALLY Pharmaceuticals Ltd. is in the interest of common man, the society, the state and as the country as a whole.

- **The proposed project would provide a quality drugs product at lower cost to the users.**
- **There would be considerable saving in energy resources on account of transportation these drugs and formulations.**
- **Country will save valuable foreign exchange as import of these drugs will reduce by corresponding amount.**
- **These drugs also have export potential. Hence possibility of earning foreign exchange.**
- **The Flue gas emission from boiler will be left out through stack. The stack with adequate height as per EPA norms will be provided.**
- **Industrial waste water will be treated by ETP within the premises. The domestic waste water generated is being treated in scientifically designed septic tanks. .**

- **The noise generation will be reduced due to the measure provided in Environmental Management Plan.**
- **The risk associated is identified by conducting risk assessment, and recommendations of the same will be implemented.**

Moreover on site emergency plan will be prepared to tackle the emergency when it arises.

Thus it can be concluded on a positive note that after the implementation of the mitigation measures and Environmental Management Plan the normal operation of M/s DON VALLEY Pharmaceuticals Pvt. Ltd. will have negligible impact on environment and will benefit the local people.