

EXECUTIVE SUMMARY

**DRAFT ENVIRONMENTAL IMPACT ASSESSMENT
REPORT**

FOR

**PROPOSED EXPANSION OF SUGAR UNIT FROM 4900
TCD TO 15000 TCD, 22.5 MW TO 100 MW
COGENERATION PROJECT AND 60 KLPD TO 1100 KLPD
DISTILLERY PROJECT AT UPALAVE, TAL: PHALTAN,
DIST SATARA**

PROJECT PROPONENT

M/S. SWARAJ INDIA AGRO LTD. (SIAL)

**AT VILLAGE - UPALAVE, TAL – PHALTAN, DIST-
SATARA, MAHARASHTRA**

1.1 INTRODUCTION

M/s. Swaraj India Agro Ltd. (SIAL) located at Village - Upalave, Tal – Phaltan, Dist- Satara is registered under the Maharashtra Co-Operative Societies Act, 1960 having certificate of incorporation no. U01409PN2010PLC137013 of 13th July, 2010

Existing project of 19.5MW capacity bagasse based Co-gen power, 4400TCD Sugar project & 60KLPD molasses based distillery. The environment clearance for 19.5MW cogeneration unit has been received from Department of Environment, Government of Maharashtra vide letter SEAC -2013 /CR-548/TC-2 dated 1st April 2015. Environment clearance for 60KLPD distillery based on C- molasses and 19.5 22.5MW cogeneration has been obtained from MOEF&CC, New Delhi No. F.No.J-11011/91/2014-IA II (I) Dated 12th July 2016.

The sugar unit generates large quantities by-product's viz. Bagasse, molasses and press mud. To be economically and environmentally sustainable it is necessary for the sugar industries to convert these by-product's/waste products into high value products, and hence this is done.

The expansion will be in the same premises of the existing industry. The raw material, molasses/B- heavy/ syrup and Bagasse generated from the sugar plant will be utilized for proposed expansion.

Unit	Existing	Expansion	Total
Sugar	4900TCD	10100TCD	15000TCD
Cogeneration	22.5 MW	77.5MW	100MW
Distillery	60KLPD	1040KLPD	1100KLPD

As per EIA Notification S. on 14th September 2006 issued by Ministry of Environment & Forests, Govt. of India *vide* Gazette Notification No. S.O. 1533(E) dt: 14th Sep.'2006, and amended, the proposed expansion shall be treated as Category–A; Schedule 5 (g). Accordingly, the project proponent has submitted prescribed application along with pre-feasibility report to the MoEF&CC New Delhi. Terms of Reference has been approved by EAC vide letter No.**IA-j-11011/180/2021-IA-II(I) dated 14th May 2021**. Based on the approved TOR and standard TOR, Environmental Impact Assessment studies are carried out. Draft EIA and EMP report was prepared and submitting for public hearing.

There are no litigation pending against the project and/ or any direction / order passed are any court of law against the project.

Summary of Proposed Sugar Expansion, Cogeneration and Distillery Unit

1	Name and Address	M/s. Swaraj India Agro Limited.(SIAL)at Village-Upalave, Tal- Phaltan, Dist- Satara,
2	Area of the project	Existing <ul style="list-style-type: none"> - Total Plot Area-384300Sq.m - Sugar and Cogeneration: Existing:45000 Sq.M - Expansion;35000Sq.m - Distillery : Existing 10108 Sq.m & expansion: 50000Sq.m - Green Belt area – Existing 86790 Sq.m & Proposed 40029 Sq.m <p>Additional land will be acquired : 80000Sq.m(Forest land)</p>
3	Latitude & Longitude	Latitude:17°50'4.82"NLongitude:74°23'10.98"E
4	Plant Capacity	Expansion & Modernization of sugar unit from 4900TCD to 15000TCD Bagasse based Co generation-22.5 to 100MW Molasses/Cane Juice based Distillery Unit– 60KLPDto1100KLPD
5	Operational days	Sugar unit-160 days Co-gen unit-Season -160days Molasses based distillery – 300 days/annum
6	Proposed Project Cost	Sugar Expansion : 200 Cr Cogeneration : 250 Cr & Distillery : 500 Cr; total Expansion Cost : 950 Cr
7	Capacity of Boiler	–Existing: 110 TPH 87 ata,510 C boiler –Proposed Co gen boiler – 300 TPH, 87 ata,510 C –Existing Spent wash Incineration Boiler : 35 TPH 45 ata, 400 0C –Proposed Spent wash Incineration boiler- 75 TPH,45 ata, – 400 0C
8	Total water Requirement	Existing: -1047 CMD <ul style="list-style-type: none"> - Sugar Unit (4900 TCD) -130 CMD - Domestic- 20 CMD - Cogeneration: 509 CMD - Distillery : 388 CMD Proposed: - <ul style="list-style-type: none"> - Sugar Expansion: (15000 TCD) - 400 CMD - Cogeneration: 960 CMD - Distillery Unit - 3720 CMD - Domestic - 100 CMD Total - 5180 CMD
9	Waste water generation	
	Sugar & Cogeneration	Existing Effluent Treatment Plant upgraded to 1250 CMD
	Distillery	2200 M3 /day spent wash treated through MEE followed by 35 TPH & 75 TPH Incineration Boiler. 1760 m3/day Condensate from MEE will be treated in CPU havng capacity of 2000

		M3/day. .
10	Total Power Requirement	<ol style="list-style-type: none"> 1. Power consumption for the existing sugar factory (4900 TCD) & existing Boiler units as 4.5 MW 2. Power consumption 26 KWhr Per MT of Cane for 15000 TCD after expansion and TG set during season as 10MW 3. Power consumption for proposed distillery unit- <ul style="list-style-type: none"> – Existing: 60 KLPD :1.0 MW – For expansion: 1040 KLPD : 6.0 MW
11	Steam Requirement	<p>After expansion units</p> <ul style="list-style-type: none"> – After expansion of Sugar unit (15000 TCD)- 162 TPH – Distillery unit with incineration boiler: 90 TPH
12	Total Fuel Requirement	<p>Existing –</p> <ul style="list-style-type: none"> – Existing Boiler – 42.3.TPH Bagasse (1015 MT/day) – 35 TPH Boiler: 115 MT/day Slop and 26.4 MT/day Coal <p>Proposed –</p> <ul style="list-style-type: none"> – Proposed 300 TPH Boiler : 115.38 TPH (2770 MT/day) – 75 TPH Boiler : 246 MT/day Slop and 56.5 MT/day Coal
13	Manpower	<p>Total Manpower = 440 Nos.</p> <ul style="list-style-type: none"> – Existing: 240 <p>Proposed:</p> <ul style="list-style-type: none"> – Sugar: 100 Nos – Cogeneration: 50 Nos – Distillery : 50 Nos

1.2 BRIEF DESCRIPTION OF THE PROJECT

1.2.1 Nature of the Project

Swaraj India Agro Ltd. (SIAL) located at Village - Upalave, Tal – Phaltan, Dist- Satara has proposed expansion of existing Sugar, Co-gen & Distillery unit from 4900TCD to 12000TCD, 19.5MW to 100MW & 60KLPD to 1100KLPD capacity resp.

1.2.2 Screening Category

As per EIA Notification S. on 14th September 2006 issued by Ministry of Environment & Forests, Govt. of India vide Gazette Notification No. S.O. 1533(E) dt: 14th Sep.'2006, and amended, the proposed expansion shall be treated as Category–A; Schedule 1 (d), 5 (g)& 5(j). and will be appraised by EAC, MOEF & CC.

1.2.3 Size of the Project

Swaraj India Agro Ltd. (SIAL) located at Village - Upalave, Tal – Phaltan, Dist- Satara has proposed expansion of existing Sugar, Co-gen & Distillery unit from 4900TCD to 12000TCD, 19.5MW to 100MW & 60KLPD to 1100KLPD capacity resp. The total plot area

of the project is 384300m². Industry is considering 35000m² area for Sugar & cogeneration expansion, whereas 50000m² for Distillery expansion. Additional 80000m² Forest land shall be acquired for the Forest clearance is in process. The Capital cost for the proposed expansion will be Sugar expansion:200 Cr, Cogeneration: 250 Cr. & Distillery: 500 Cr.

1.2.4 Location of the Project

The site is located at Gut No.332A/332B Village – Upalve, Tal – Phaltan, Dist. Satara of Maharashtra State. The site is located 7.5 Km away from SH -146 (Pusegaon-Phaltan) road. Latitude 17°50'4.82"North & Longitude74°23'10.98"East. Site is located 724 meter above the MSL.

Project site is 15km far away from Phaltan. Site is approachable by NH-13,Pune –Phaltan Road. Pune is 125KM away and Satara is 44KM away. The nearest railway station is Phaltan Railway Station -5km away from the project site. The nearest state highway is SH- 146 (Paranda to Barshi) which is located at 7.5km away from the project site. The nearest airport is Pune which is 110 km away from the project site.



Project Location Map

1.3 BASIC REQUIREMENTS FOR THE PROJECT

1.3.1 Raw Material

Basic raw materials required for proposed units along with their quantities are listed below:-

Expansion Sugar -

The cane potential and irrigation facilities in the command area are adequate and will ensure sustained cane availability for the proposed Expansion project.

- Existing cane requirement is 784000 MT
- For expansion cane requirement will be 1616000 MT
- Total cane requirement after expansion: 2400000 MT

Expansion Cogeneration:

The proposed Cogen Project will be designed to produce surplus power after meeting the entire requirements of steam of the sugar mill, during season period. Steam requirement for the sugar crushing will be supplied by the existing 22.5 MW (19.5 MW bagasse based cogeneration & 3 MW incineration boiler) & Proposed 77.5 MW cogeneration plant.

Table 2.3 Brief Design Parameters for Power Generating Plant

	Existing	Proposed
Boiler capacity, TPH	1 x 110	300
Pressure, kg/cm ²	87	110
Temperature, °C	525	510
Turbine capacity, MW	19.5	77.5
Turbine type	Double Extraction cum condensing Type	Double Extraction cum condensing Type
Season operation, days	160	160
Fuels used for season operation	Bagasse	Bagasse
Fuels used for off season operation	Saved Bagasse	Saved Bagasse
Boiler efficiency, %		
- On bagasse / bio-mass / cane trash	70	70
Feed water temperature, °C	160	160
Captive power consumption, % of generation	9	9
Turbo-generator efficiency, %	96	96
Utilization level, %	80 in 1 st year, 85 in 2 nd year & 90 in 3 rd year and onward	80 in 1 st year, 85 in 2 nd year & 90 in 3 rd year and onward

Sr. No.	Item	Season
1	Crushing rate, TCH	625
2	Bagasse generation at 30% on cane, TPH	187.5
3	Bagacillo/handling loss at 0.80 % on cane, TPH	1.5
4	Bagasse available as fuel at 28.20% on cane, TPH (MT)	186
5	Bagasse consumed by Existing 110 TPH boiler, TPH (MT)	42.3 (162432)
6	Bagasse will be consumed by proposed 300 TPH boilers, TPH (MT)	115.38 (443059.2)
7	Total Bagasse will be consumed by boilers, TPH (MT)	157.68 (605491.2)
8	Bagasse saved / available for off season and incineration boiler	28.32 (108748.8)

Expansion of Distillery Plant:-

SIAL has proposes expansion 60 KLPD to 1100 KLPD molasses/ cane Juice based distillery unit at their existing sugar unit. Distillery unit will operate 300 days/annum. The basic raw material used is molasses (sugar) / cane juice..

Details	Existing	Proposed
Capacity of distillery KLPD	60	1040
Raw Material	C- Molasses	Juice/B heavy
Average yield of alcohol(lit./MT of C- molasses)	265	
Average yield of alcohol (lit./MT of cane)		80.78
Average yield of alcohol (lit./MT of B-heavy molasses)		310
Total C- molasses to be used (MT)	67924.5283	
Total cane required for Syrup (MT)		1931171
Total B-Heavy molasses to be used (MT)		503225

Additional bagasse will be procured from nearby industries. Bagasse yard would be provided with shelter and green belt plantation for dust attenuation. The bagasse is taken to boiler through belt-conveyor, which is covered properly to avoid fugitive emissions.

1.3.2 Land Requirement

Total land area acquired by the SIAL is 384300 sq.m. Out of this, Existing built up area under sugar factory, co-gen plant is 45000 Sq.M & 35000 Sq.m for expansion. Existing Distillery is 10108 Sq.m & expansion: 50000 Sq.m.& Greenbelt Existing 86790 Sq.m & Proposed 40029 Sq.m. Additional land will be acquired of 80000 Sq. m (Forest land).

1.3.3 Water requirement

Raw water requirement for sugar, cogeneration and distillery unit will be fulfill existing water reservoir within the premises of SIAL. Water storage facility available with the factory is 96800m³. Thus, sufficient quantity of water can be made available.

Existing:-1047CMD

- Sugar Unit (4900 TCD) -130 CMD
- Domestic -20CMD
- Cogeneration -509 CMD
- Distillery-388CMD

Proposed:- 5180CMD

- Sugar Expansion: (15000TCD) -400 CMD
- Cogeneration -960 CMD
- Distillery Unit - 3720 CMD

Domestic- 100CMD

1.3.4 Power requirement

SIAL has 2 Existing two boilers of 110TPH & 35 TPH capacity. 300 TPH boiler in proposed expansion. It will fulfill the steam requirement of distillery unit. For the distillery one additional boiler is proposed having 75 TPH. The fuel required for existing & proposed Boiler shall be 42.3TPH & 115.38TPH resp. An independent turbine generator of Double Extraction cum condensing type of 77.5MW shall be proposed to generate required power. The company has two nos. of D.G. of capacity 1000kVa sets as a standby facility.

1.3.5 Man power requirement

Taking existing manpower of 240 nos. into consideration, for proposed expansion total manpower requirement will be 200 persons. More than 85 % of the manpower requirement will be fulfilled by employing the local people. Man power requirement for construction work will be about 100. Construction workers will resident in nearby villages. Residential facility will not be required for the construction personnel.

1.4 BASELINE ENVIRONMENT STUDIES

To understand the present status of the environment near project site, Baseline Monitoring was schedule during period October 2020 to December 2020. Environmental parameters such as Ambient Air, Ambient Noise, Soil quality, Water Quality, Ecological study, Socio Economic survey were examined priory for the Impact Mitigation study. As per 2011 census data, about 122072 populations is recorded in the project site. It is necessary to evaluate the impacts of the project activities, so that the surrounding area and communities are as far as

feasible, insulated from the negative impacts. The primary study area is considered to be within 10 km radius of the project site for baseline environment monitoring.

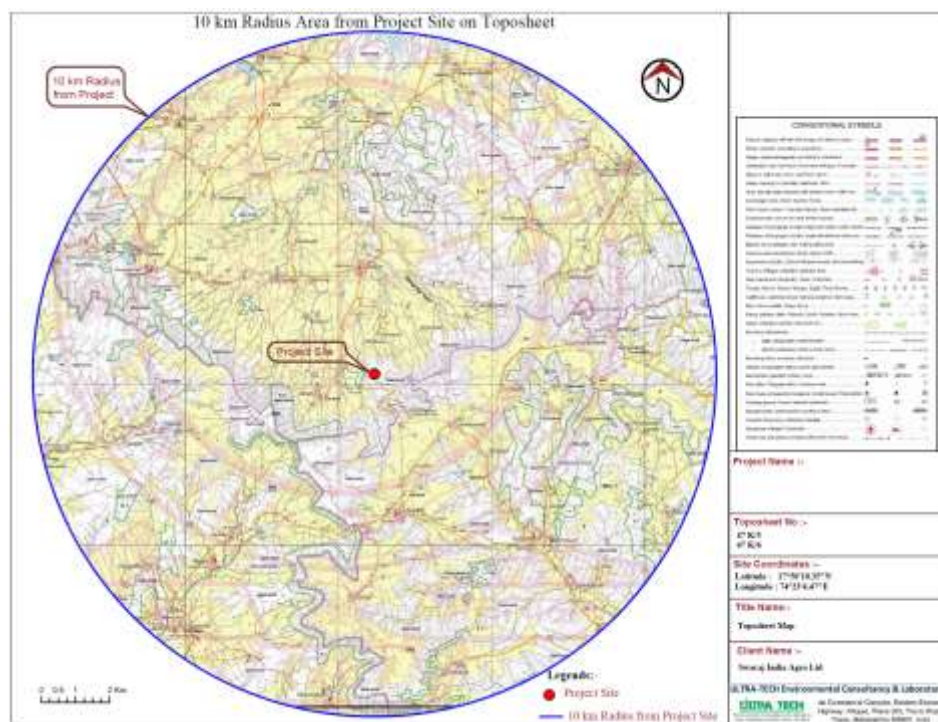
Topographical sheet (SOI) scale 1:50000 No. 47 K/5 & 47 K/6 were studied for spatial features, ground control points, latitude, longitude and geo-registration of the satellite imageries.

1.4.1 Meteorological data

Industry has assessed the microclimatic data of project site and collected data for the period of 1st October 2020 to 31st December 2020 to get a baseline profile of the Temperature, Relative Humidity (RH), Rainfall distribution, Wind Speed and Wind direction of the study area and obtained results are discussed further.

The temperature data collected at the site is presented as monthly maximum and minimum values. The average of monthly maximum and minimum temperature recorded during the study period was 32.8⁰C and 17.0⁰C, respectively. The climate is represents moderately warm at the day time and cold at the nights. Lowest temperatures are observed during November 13⁰C. Predominant wind direction during monitoring period was from West (W) to East (E) followed by West South West (WSW) to East North East (ENE).

It was observed that the average relative humidity during the study period was found to be approx. 31.5%.



Toposheet of the study area

Baseline monitoring was carried during the October 2020 to December 2020. Following Environmental parameters were monitored to understand baseline status.

1.4.2 Ambient Air Quality

Ambient Air Quality monitoring was carried out at eight locations within 10 km radius. From the analysis results it can be depicted that concentration of PM₁₀, PM_{2.5}, NO_x and SO₂ are within the permissible limit prescribed by CPCB. PM 10 concentration ranges from 44 to 74 µg/m³. Maximum PM recorded at project site (74 µg/m³) higher level mainly due to vehicular movement and partially industrial activities. PM 2.5 concentration ranges from 19 to 33 µg/m³. SO₂ concentration ranges from 10 to 26 µg/m³. NO_x concentration ranges from 15 to 31 µg/m³. NO_x emissions at all monitoring location are within the NAAQ standards. At project site it was found that higher values of NO_x as compared to other monitoring. CO concentration ranges from 0.5 to 2.3 mg/m³. The concentrations of PM₁₀, PM_{2.5}, SO₂, NO_x and CO were found within the National Ambient Air Quality Standards (NAAQ).

1.4.3 Ambient Noise quality

Noise monitoring was carried out at 8 different location with respect to Noise zone classification. From the monitoring results it can be depicted that noise levels are within prescribed limits. The maximum daytime Leq as well as night-time Leq values in Project Site. Levels recorded were 71.6dB and 62.9dB respectively. The maximum values may be attributed towards traffic movements and ancillary industries present in vicinity.

1.4.4 Water Environment

Ground water quality

The analysis results indicate that the pH ranges in between 7.3 to 8.2, which is well within the specified standard of 6.5 to 8.5. The minimum pH of 7.3 was observed at two locations i.e, Kokhade Village & Upalave Village and the maximum pH of 7.9 was observed at Tardafgaon. Chlorides were found to be in the range of 22 to 122 mg/l at all locations, the minimum concentration of chlorides (22 mg/l) was observed at Daryachiwadi whereas the maximum value of 122 mg/l was observed at Upalave Village.

Surface water quality:

Surface water samples were taken at 7 different locations. The analysis results indicates following observations;

- *pH- At all locations pH is in the range from 7.1 to 8.2*

- *DO- At all locations DO values are recorded in the range 5.6 to 5.9*
- *COD – At all locations COD values ranges from 12 -28*
- *BOD- At all locations BOD values are in the range Below Detectable Limit*
- *Total coliform Bacteria- At all locations Total coliform bacteria are recorded in between 4 to 500 MPN /100 ml*

As per CPCB standards water is classified in category B

1.4.5 Ecological status of the study area

Based on field survey and land use map, 7 location of vegetation viz, within project site (A) Near Project side pond (B), Near Rajapur dam (C), Near Banganga river (D), Near village shripanvan (E), Near reserve forest Uglechiwadi (F) & Towards north west Side Tardaf (G) were selected to evaluate the vegetations and animal studies within 10 km radius area from the project site contain most of the area is open, grassland, open scrub land & agricultural field. The study shows overall 69 plant species comprising of 38 trees, 4 Palms,14 shrubs, 5 herbs, 4 grasses and 4 climbers from 63 genera and 34 families .

1.4.6 Socio Economic status

While dealing study area (10 Km radius from project site) as per secondary data (Population Census 2011) the total population is 58233 in 12619 households. Male population is 29488 and female population is 28745.Highest population in study area is in Budh village (5828). There are 12619 households in the study area and the average size of household is 5 members per household in the study area

1.5 ANTICIPATED ENVIRONMENTAL IMPACT AND MITIGATION MEASURES

1.5.1 Water Pollution:

Sugar and Cogeneration: After expansion Effluent from sugar and cogeneration will be 1197 M3/day. Existing effluent treatment plant capacity is 700 M3/day and will be upgraded to 1250 M3/day. Treated effluent will be used for green belt.

Distillery: Distillery unit will be Zero Liquid Discharge unit. No water is discharged from the site to surrounding area. The effluent is given physico-chemical treatment. Then this water is combined with Moderate effluent which is treated with equalization, neutralization, aeration, secondary clarifier and tertiary treatment.

Spent wash generated 2200 M3/day after expansion will be concentrated at MEE, then condensate passed through CPU having capacity of 2000 M3/day and conc. Spent wash will be burned in existing 35 TPH and proposed 75 TPH Incineration boiler.

1.5.2 Air pollution:

Sr. No.	Area of Operation	Air Pollution Mitigation Measures
Stacks present at Existing Sugar Unit		
1.	110TPH Boiler	70m stack height & ESP has been provided as per CPCB Norms
2.	Distillery Boiler-35TPH	
3.	D.G.Sets (1000x 2 kVA)	6m stack height above the roof of the building, where it is installed, as per CPCB Norms
Stacks in proposed units		
1.	Proposed 300TPH Boiler	100m stack height will be provided as per CPCB Norms with ESP to achieve maximum collection of fly ash
2.	Proposed Distillery Boiler – 75TPH	85 m stack height will be provided as per CPCB Norms with ESP to achieve maximum collection of fly ash
3.	Co2	Fermentation process: Co2 plant

1.5.3 Solid Waste Management & its disposal :

No.	Type of waste	Waste & Quantity		Total	Unit	Treatment	Disposal
		Existing	Proposed				
Non-Hazardous							
1	Bagasse	235200	484800	720000	TPA		Used as fuel in cogeneration
3	Press Mud	31360	64640	96000	TPA	Compost	Sold to farmer
3	Bagasse Ash	4704	9696	14400	TPA	-	Will be sold to brick manufacturer
4	Slop fired Boiler Ash	7200	36252	43452	TPA	--	Will be sold to brick manufacturer
5	ETP Sludge	2	5	7	TPD	-	Used as soil conditioner
6	Yeast Sludge	5	80	85	TPD	-	Burnt in to incineration boiler
Hazardous Waste							
7	5.1-Used Oil	3	6	9	KL/Yr.	-	Burnt in Cogen Boiler

1.5.4 Noise

The noise control measures during the construction phase include provision of caps on the construction equipment and regular maintenance of the equipment. Equipments will be maintained appropriately to keep the noise level within 85 dB (A). Wherever possible, equipment will be provided with silencers and mufflers. High noise producing construction activities will be restricted to day time only. Greenbelt development will be undertaken from the construction stage itself. Further, workers deployed in high noise areas will be provided with necessary protective devices such as ear plug, ear-muffs etc.

1.5.5 Socio-Economic

The construction of the proposed project is expected to provide temporary indirect employment to a good number of skilled and unskilled workers. The project will contribute to the socio-economic development of the area at the local level in turn reducing migration for employment. Hence the proposed project will have positive impact on the socio-economic environment.

Likely impact of the project on air, water, land, flora-fauna and nearby population is kept very minimal. The emissions in air are controlled by air pollution control equipment like efficient ESP, dampers, ID Fans and tall Stack. Air modelling is done to study Ground Level

Concentration. The incremental concentration is very small and resultant concentration is well within limit. As this is ZLD, surface or ground water is not polluted. All waste water generated is treated and recycled. There are no endangered species of flora-fauna in study area. Monitoring will be done regularly to keep a watch.

In case of hazardous operation, safety systems are incorporated. There is risk of fire while preparation and storage of alcohol. The study is done for pool fire and appropriate fire fighting equipment is provided throughout the factory premises. Workers are trained for safety and emergency cases.

Identification of hazards in handling, processing and storage of hazardous material and safety system are provided to mitigate the risk. There is risk of fire while preparation and storage of alcohol. The study is carried out for pool fire and appropriate fire-fighting equipment are provided throughout the factory premises. Workers are trained for safety and emergency cases. Precautions suggested by Factory Inspectors, MPCB and Experts are taken into account while preparing the Disaster Management Plan for the factory. Bagasse storage is kept limited due to everyday consumption for own sugar plant.

Disaster management cell and plan is prepared to tackle man-made and natural disaster. People in this cell are trained to face emergency cases. Safety equipment are also provided to workers and installed in the premises. Workers are also trained to avoid accidents during operation

1.5.6 Biological Environment

- Construction activities needs to be restricted to day hours only and the movements of workers and vehicles should be completely banned during early morning and late evening when wildlife activities are at peak.
- Workers should be briefed about do's and don'ts like No hunting, vegetation burning, off-road driving, speeding, improper behaviour towards local residents

1.6 Corporate Environment Responsibility (CER) Plan:

The company has earmarked 0.5 % of the project cost for “Corporate Environment Responsibility” after taking into account the public consultation and public demand. The table below shows the allotment of funds. The total project cost is Rs.950 Crore 0.5% of the total cost it becomes Rs. crore approx. Company has proposed Rs. 4.75 crore as CER fund. These will be spent within first 5 years.

1.7 Budget for Environment Management Plan

Adequate budgetary provisions have been made by the Company for execution of Environment Management Plan. The Table below gives overall investment on the environmental safeguards and recurring expenditure for successful monitoring and implementation of the control measures.

Environmental Management Budget

S. No.	Environmental Aspect	Capital Expenditure	Recurring Expenditure Rs in lakh.(per annum)
		Rs in lakh	
Construction Phase			
1	Water sprinkling for dust suppression	-	2.0
2	Drinking water and Sanitation facility for workers	0	0.50
3	Monitoring of Ambient Air quality for PM ₁₀ , PM _{2.5} , SO ₂ and NO _x	-	0.50
4	Monitoring Noise level	-	0.25
5	Health Check-up of worker		0.25
		0	3.50
Operation Phase			
1	Air Emission Control		
	Stack	300	10
	ESP	250	10
	CO2 Plant	300	5
2	Water & Wastewater management		
	ETP up gradation	250	15
	MEE	500	10
	Condensate Polishing Unit (CPU)	300	10
3	Solid Waste Management	30	5
4	Green Belt Development	50	5
5	Environment Monitoring (stack, Ambient Air, Water and Soil and Noise) and meteorology	-	4.45
7	Rain Water Harvesting	50	2
9	Health & Safety	5	1
10	Online Monitoring System	15	2
	Total	2020	79.45