# **Executive Summary**

# ENVIRONMENTAL IMPACT ASSESSMENT STUDY FOR Proposed Expansion of Sugar 6000 TCD to 7500 TCD Sugar Plant and Molasses based Distillery 90 KLPD to 120 KLPD

At Gut No.99, Village-Alegaon, Taluka- Daund, District-Pune, State-Maharashtra – Pin code 413 801

> Project Proponent M/s. Daund Sugar Pvt Ltd.





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# **TABLE OF CONTENTS**

Sr. No.	Title	
		No.
1.0	Introduction	1
1.1	Plant Capacity and Project Cost	1
1.2	Screening Category	3
1.3	Project Location and Environmental Setting	3
1.4	Manufacturing Process of Sugar from Sugar cane	5
1.5	Manufacturing Process of Proposed Molasses based Distillery	6
1.6	Description of the Environment	10
1.7	Anticipated Environmental Impact and Mitigation Measures	12
1.8	Analysis of Alternative Site	15
1.9	Environmental Monitoring Plan (EMP)	15
1.10	Additional Studies	15
1.11	Manpower Requirements	15
1.12	Project Benefits	15
1.13	Environmental Cost Benefits	16
1.14	Environment Management Plan	17
1.15	Conclusion	17

# LIST OF TABLE

Table	Title	Page
No.		No.
1	List of Products and By-Product of Existing Sugar & Distillery	2
	unit	
2	List of Product & By- Product from Proposed Activity	3
3	Project and Environmental Settings	3
4	EMP Budget	15
5	CSR Budget Plan	17
6	CER Budget Plan	19

# LIST OF FIGURE

Figure	Title	Page
No.		No.
1	Sugar Manufacturing Process	6
2	Process Blow Diagram for Distillery	10
3	Molasses Based Operation of Distillery	9

#### **Executive Summary**

#### 1.0 Introduction

M/s Daund Sugar Pvt. Ltd. (DSPL) is an Existing Sugar with Distillery plant located at Village-Alegaon, Taluka - Daund, District - Pune in Maharashtra. It has decided to go for expansion of Sugar from (6000 TCD to 7500 TCD) producing 26,775 MT/month white crystalline sugar with byproducts such as molasses 10,050 MT/Month, Bagasse 63,000 MT/month and Filter Cake (press mud) 9000 MT/day as shown in the Table 1. The company has also setup a distillery plant expansion from 90 KLPD to 120 KLPD in the same premises of Sugar Plant which uses molasses as raw material generated as a byproduct of existing sugar plant. Bagasse generated from sugar mill is utilized to run cogeneration plant of capacity 18 MW.

Environmental clearanceJ-11011/212/2014-IA II (I) was granted on 22-03-2016 for expansion of sugar plant (from 2500 TPCD to 6000 TPCD), Molasses based distillery unit (from 45 KLPD to 90 KLPD) and installation of cogeneration power plant (18 MW) at Village-Alegaon, Taluka - Daund, District - Pune in Maharashtra.

The existing 6000 TPCD Sugar Plant with 18 MW cogeneration plant is put in use with latest Consent to Operate No. Format 1.0/BO/CAC-CELL/UAN No 0000009760/O&R/CAC-1610000965 under section 26 of Water Prevention & Control of Pollution Act 1974 & Under Section 21 Of Air Prevention & Control Of Pollution Act 1981 & Authorization under Rule 6 of Hazardous & other wastes (M.H. & T.M.) 2016 was granted on 07-07-2016. Existing Distillery Plant of Capacity 90 KLPD with Consent to Operate No. Format 1.0/BO/CAC-CELL/UAN No 000009816/R/CAC-1703002022 under section 26 of Water Prevention & Control of Pollution Act 1974 & under Section 21 Of Air Prevention & Control of Pollution Act 1981 & Authorization under rule 5 of Hazardous & Other Wastes (M. & T.M.) 2016 was granted for a period 08-07-2016.

#### 1.1 Plant Capacity and Project Cost

M/s Daund Sugar Pvt. Ltd. (DSPL) proposes to install Expansion of distillery from 90 KLD to 120 KLD and Expansion of Sugar from 6000 to 7500 TCD. Sugar mill being expanded from 7500 TPCD

producing 26,775 MT/month white crystalline sugar with by-products such as molasses 10,050 MT/Month, bagasse 63,000 MT/month and Filter Cake (press mud) 9,000 MT/day as shown in the Table 1. The company has also setup a distillery plant expansion from 90 KLPD to 120 KLPD in the same premises of Sugar Plant which uses molasses as raw material generated as a byproduct of existing sugar plant. Bagasse generated from sugar mill is utilized to run cogeneration plant of capacity 18 MW. The distillery plant will be designed keeping in view the CPCB's guidelines on Corporate Responsibility for Environmental Protection (CREP) where zero discharge in surface water / ground water has been stipulated. **Table 1** indicates the list of products and byproducts of the distillery.

Products	Capacity	
Major products		
Sugar	21,600	
	MT/Month	
Alcohol	RS/ENA = 84.6	
	Impure = 5.4	
(RS/ENA/AA)	AA = 90KLPD	
Electric Power	18 MW	
By-Products		
Bagasse	50,400MT/Month	
Filter Cake	7,200 MT/Month	
Molasses	8,100 MT/Month	

Table 1: list of Product and By-products of Existing Sugar & Distillery Unit

Products and by-products allowed to be produced as per the latest Consent to Operate issued with No. Format 1.0/BO/CAC-CELL/UAN No 0000009760/O&R/CAC-1610000965.

Products	Capacity
Sugar	1500 TPCD
Alcohol	RS/ENA = 28.2
	Impure = 1.8
(RS/ENA/AA)	AA = 30KLPD
By-Products	
Bagasse	12,600
	MT/Month
Filter Cake	1950 MT/Month
Molasses	1800 MT/Month

# **1.2 Screening Category**

The Ministry of Environment, Forest and Climate Change (MoEF &CC), Government of India has issued an EIA Notification No S.O. 1533 promulgated on 14 th September, 2006 amended on 1st December, 2009 vide S.O. No. 3067, under Environmental (Protection) Act, 1986. Prior Environmental Clearance (EC) from the EIA Authorities is mandatory for the establishment of projects/activities listed in the scheduled of above Notification. Sugar industry  $\geq$  5000 TCD cane crushing capacity is categorized under Category "B" of schedule 5(j) and 120 KLPD molasses based distillery is categorized under Category "A" of schedule 5(g).

Therefore, the Projects require prior Environmental Clearance from the Expert Appraisal Committee (EAC), New Delhi.

### 1.3 Project Location and Environmental Setting

The proposed plant site is located in Survey No. 99, near Village - Alegaon, Taluka-Daund Dist-Pune, and State-Maharashtra. Pune Railway Station is at a distance of 87 km from the plant site. Brief description about the nature, size and location of the project is given in **Table 3**.

1.	Nature and Size of the project	Proposed Expansion of Sugar from (6000 TCD to 7500 TCD) & Distillery from (90 KLD to 120 KLD) by M/s Daund Sugar Pvt. Ltd. (DSPL).		
2.	Location			
	Survey. No.	Gut No. 99		
	Village	Alegaon		
	Tehsil	Daund		
	District	Pune		
	State	Maharashtra		
	Latitude and Longitude	Latitude- 18°25′39.74″ N and Longitude – 74°37′59.44″ E		
	Toposheet No.	47J/10,47J/11 (1:25,000)		
3.	Area			
	Total Plot Area	141.78 acres		
	Existing Distillery Area	25.93 acres		
	Existing sugar & cogen	53.014 Acre		
	Area available for Expansion	0.18 acres		
4.	Environmental Setting Details (with approximate aerial distance and direction from the project site)			
	Nearest village	Alegaon – 2 km (North)		
	Nearest Highway	SH-67; 6.5 km (Pune-Solapur)		
	Nearest Railway Station	Daund railway station 10 km from site		
	Nearest Airport	Pune International Airport-93.8 km		
	National Parks/ Wild Life	There are no Reserve forest National Parks/Wild Life		
	Sanctuaries/Biosphere Reserves/RF and PF within 10km radius	Sanctuaries/Biosphere Reserves within 10 km radius area of		
	Nearest Water Bodies	Bhima River : 2.5 km		
5.	Project Cost			
	Existing Distillery	Rs. 86.95 Crores		
	Existing Sugar	Rs. 30.87Crores		
	Proposed Sugar & Distillery	Rs.19.92 Crores		
	Expansion			
6. Basic F	Requirements of the Project			
	Fresh Water (KLPD)	Sugar: Water Demand will be fulfilled by recycling Distillery Unit:: 603 KLPD		
	Fuel	High Speed Diesel (HSD)		
	Fuel Consumption	40.26 MT/Hr		

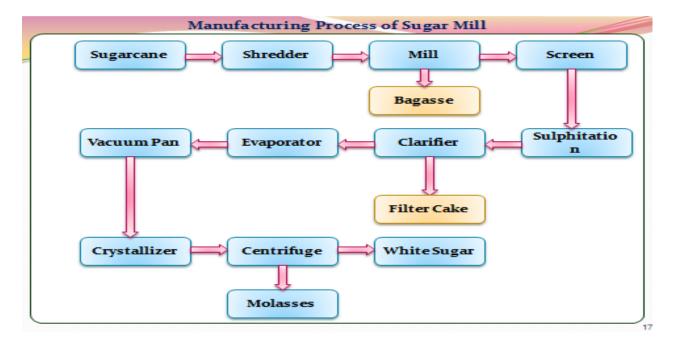
# Table 3: Project and Environmental Settings

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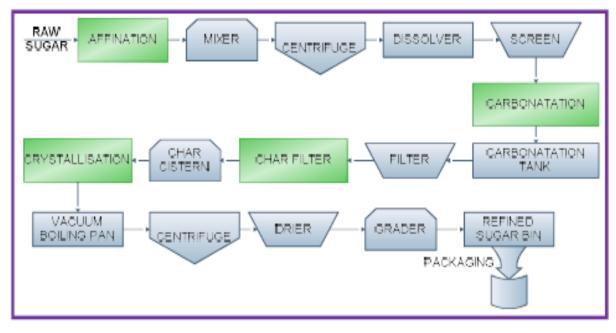
	Manpower Required	Existing Sugar Mill & Distillery: 577 Nos.
		Proposed expansion = 42 Nos.
		Total =619
	Boiler Capacity	Sugar + Cogen 100 TPH& 15 TPH
	Power requirement	Sugar: 14 MW, Grid: 11 MW, Use: 7 MW
		Sugar : Existing : 7.500MW Proposed: 1.50 MW
		Distillery: Existing: 2.40 MW Proposed: 2.40 MW
. Interli	nked Project	
	Product(Existing +Proposed )	Sugar –26, 775 MT/month
	By Product(Existing	Bagasse- 63000 MT/month
	+Proposed )	Filter Cake-9000 MT/month
		Molasses- 10050 MT/month

# 1.4 Manufacturing Process of Sugar from Sugar Cane

Sugarcane is weighed, washed, cut, shredded and fed to series of mills. Sugar cane juice is extracted and bagasse is separated. Juice is heated and clarified. Mud is separated out and clarified juice is subjected to multiple effect evaporators. Concentrated syrup is fed to vacuum pan where syrup gets super saturated and fine crystals start forming. Crystals and mother liquor are separated in centrifuges. Raw sugar is dumped on moving belt where it gets dried before moving to storage.



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# Fig .1: Sugar Manufacturing Process

**1.5 Manufacturing Process of Proposed Molasses based Distillery:** Proposed Distillery shall be set-up based on latest Design, Engineering and Supply technology for Molasses handling, Fermentation, Distillation, Molecular Sieve Dehydration, Evaporation and Biocomposting, Effluent Treatment in condensate polishing unit so as to have the Plant compliance to Zero Discharge.

- Latest Technology ensures incorporation of High efficiency Design, higher fermentation efficiency and effective heat integration in distillation and evaporation.
- The Process Technology adds value to overall plant engineering by incorporating global standards for Design, on safety norms and adherence to local design codes. The process will be of continuous fermentation.

### **Continuous Fermentation**

• Series of fomenters of identical size capacity will be provided equipped with agitators for mixing of fermenter mass and facilitate release of CO<sub>2</sub> produced.

- Molasses diluted with water to a desired concentration and fed continuously into Fermenter I.
- Additives like urea and de-foaming oil are also introduced in the Fermenter I.

# Fermentation

- Every kilogram of alcohol produced, generates about 290 Kcal of heat.
- This excess heat is removed by continuous circulation of the fermenting wash through an external plate heat exchanger called the Fermenter Cooler I.
- The Fermenter temperature is maintained between 32 and 34°C, optimum for efficient fermentation.
- The conversion of 80% sugar approximately in to ethanol is completed in Fermenter I.
- The fermenters are provided with a provision for stillage recycle for maintaining high dissolved solids concentration in the Fermenters
- The temperature in the Fermenters is maintained between 32 to 34°C for optimum fermentation. Conversion of sugar to ethanol is instantaneous, and the residual sugar concentration in Fermenters is maintained below 0.2 % w/w as glucose.
- This usually corresponds to a residual reducing substances concentration of 2.0 to 2.5% w/w in wash
- The yeast for the fermentation is initially (i.e. during start-up of the plant) developed in the propagation Section
- Once propagated, a viable cell population of about 300-500 million cells/ml is maintained by yeast recycling and continuous aeration of the fermenter.
- Fluctuations in the yeast count of ± 20% have little effect on the overall fermenter productivity.

- Yeast cell vitality which is usually above 70 % may, in times of stress (such as prolonged shut-downs) drop to 50% without affecting the fermentation.
- The aeration rate in both the Fermenters is adjusted for desired yeast cell vitality.
- All the nutrient elements necessary for yeast growth exist in adequate quantities as impurities in molasses.
- Occasionally, Nitrogen may have to be supplemented. De-foaming oil (DFO), say Turkey Red Oil is added to the fermenter by an automated DFO dosing system, to control foaming. Usually no other additives are required.
- Fermented wash from Fermenter II passes through a series of hydro-Cyclones, which remove grit, iron filings and heavy particulate matter.
- The overflow from the first set of hydro-cyclone is taken to Yeast Separator, which clarifies the wash.
- The hydro-cyclones protect the separator from erosion damage by removing grit and hard particles.
- The reject from 1st stage hydro-cyclone is fed to 2nd stage hydro-cyclone for further separation.
- The reject from 2nd stage hydro-cyclone containing sludge along with some wash, is fed to Decanter Centrifuge for separation of sludge which is sent to composting.
- The clear wash recovered from the Decanter Centrifuge is fed to wash column for alcohol recovery.
- The overflow from 2nd stage is recycled back to Fermenter I.

# Yeast recycling

- The yeast in the fermented wash is removed as 40%- 45 % v/v slurry, and is returned to the Fermenter I.
- This feature ensures a high yeast cell concentration is achieved and maintained in the fermenters.
- By re-circulating grown, active yeast, sugar that would have otherwise been consumed in yeast growth is made available for ethanol production, ensuring high process efficiency and extra alcohol yield.
- The clarified wash from separators is collected and sent to distillation section.

# Propagation

- The propagation section is a feeder unit to the fermenters. Yeast is grown in 3 stages.
- The first two stages are designed for aseptic growth.
- Propagation vessel III develops the inoculums using pasteurized molasses solution as the medium. Propagation is carried out only to start up the process initially or after very long shutdowns during which the fermenter is emptied

# CO<sub>2</sub> Scrubbing and recovery

- The carbon-dioxide produced during fermentation from fermenter I is scrubbed with water in sieve tray scrubber to recover alcohol from vent gases.
- The vent gases from Fermenter II mainly air and carbon dioxide are also scrubbed in sieve tray scrubber for alcohol recovery.
- The water from both the scrubber is returned to respective Fermenters.
- About 1% of the total alcohol production is saved by scrubbing the fermenter of gases.

- The CO<sub>2</sub> produced from fermenters after scrubbing will be bottled to avoid air pollution.
- There is an automatic foam level sensing and dosing system for de-foaming oil, in both the Fermenters.

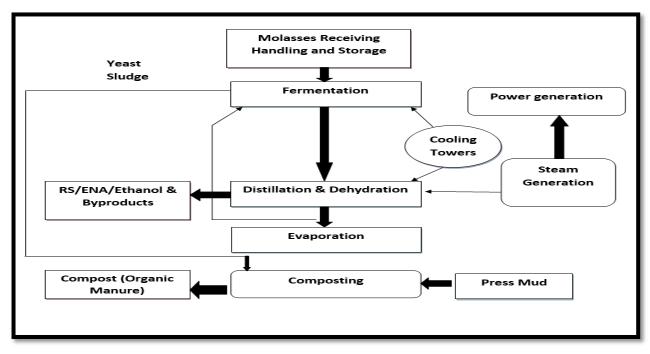


Fig. 2: Process Blow Diagram for Distillery

# **1.6** Description of the Environment

# Land use

The land use is changed to industrial use. The sugar and cogen project will require land for entire basic infrastructure, Plant equipments, storage of Plant inputs and finished products. Besides this Administrative Office, Security arrangements, Fire fighting arrangements etc. shall also have to be considered. The Existing Sugar and Cogen plant and proposed distillery is to be located at barren plot in the project site

### Meteorology

The wind-rose diagram indicates that the predominant winds are from E and ESE sectors with the dominant wind speed class of <1-9 m/s (Avg.1.9m/s) and calm condition of 40.7%. Local prevailing wind pattern during the study period was the conformity with the climatologically normal of the region. The data indicate that the minimum temperature varied in the range of

20.0°C to 22.8°Cat maximum 35.5°C to 38.6°C respectively. The relative humidity was reduce into range of 41.5%-43.81% respectively.

# **Ambient Air Quality**

The minimum and maximum range of  $PM_{10}$  was 17.70-72.45 µg/m<sup>3</sup>, range of  $PM_{2.5}$  was 8.10-32.60µg/m<sup>3</sup>, range of SO<sub>2</sub> was 7.30-36.70-µg/m<sup>3</sup>, NOx was 10.50-46.90µg/m<sup>3</sup> and the range of CO concentration was 0.00-0.17mg/m<sup>3</sup>.

### **Ambient Noise Quality**

Noise levels in around the project site (industrial zone) were observed between 71.1 dB(A) ) during day time while during night time62.3dB(A), Noise levels in residential site (villages) were observed between 51.2 dB(A) to 55.3 dB(A) during day time while during night time it was recorded 42.3 dB(A) to 44.8 dB(A).

# **Surface Water Quality**

The results of surface water viz. pH, Conductivity, total dissolved solids (TDS), Total suspended solids (TSS), during study period of surface water are found in the range of 7.03- 8.35, 300–604  $\mu$ Mho/cm, 194–468 mg/l and42.8-59.5mg/l respectively.

# **Ground Water Quality**

The ground water quality viz. H, Conductivity, total dissolved solids (TDS), Total suspended solids (TSS) are observed in the range of 7.64–8.33, 300-790  $\mu$ Mho/cm, 122-451 mg/l, and 12-28.2 mg/l respectively.

### Soil Quality

Soil pH in the study area is observed to be moderately alkaline in reaction ranged from 7.6 - 8.23 The EC of the soil analyzed and the results are in the range of 184-384  $\mu$ Mho/cm found to be below average. Bacteriological quality in ground water observed non-detectable limits. Land-use land cover classification indicates 68.4% highest area covered by scrub/wasteland followed by 68.41% agricultural land, 5.86% water bodies, dense forest, 1.05% build up area 5.11%

## **Ecology and Biodiversity**

A total of 112 plant species were recorded out of these 68 trees, 31 shrubs and herbs, 3 species of climbers and 10 species of grasses were recorded in the study area.

The mammals, reptiles and birds like *Cyanopterus spinx, Funambulus pennati, Herpestex edwardsi,Presbytis entellus, Rattus rattus, Suncus murinus, Acridotheres tristis, Amaurornis phoenicurous*were recorded under schedule II of Wildlife (Protection) Act, 1972.

#### Socio-economic

Demographic structure in the study area is Total population 91,572, out of which 46,893are male and 44,679 female. SC and ST populations are 18.67% and 2.60% respectively. Literacy rate are Total 73.48%, out of which 39.86%, male and 33.61%, female. The main workers are: 36.48%, marginal workers 4.71 % and 58.81%, are non-workers. Sex ratio was recorded 953 number of female per thousand of male in the study area.

### 1.7 Anticipated Environmental Impact and Mitigation Measures

# **Construction Phase**

This phase involves the activities like erection of civil structures, erection of new equipment and machinery, green belt development etc. Air, Noise and Land are likely to be effected by these activities, although aesthetics and socio-economic factors are also identified. But the impacts will be marginal and for short term only. The green belt development will have positive impacts.

#### **Operation Phase**

# **Air Pollution Control**

- Adequate stack height (70 & 81 mts.)will be provided for better dispersion of the air pollutants
- DSPL has installed the wet scrubber for control of particulate emission
- ESP will be Existing and Proposed from sugar/cogen plants
- The air quality monitoring will also be undertaken to ensure that the dust Pollution levels are within limits.
- Ventury scrubber will be installed on distillery boiler
- Ambient air quality and stack emission would be regularly monitored and effective control exercised, so that the stack emission load limits would be met at all the time.

- Green belt will be developed on 33% (194300m<sup>2</sup>)area of the total project area which will help in attenuating the pollutants emitted by the plant.
- Adequate measures for control of fugitive dust emissions will be taken.
- All the roads will be paved leveled, no undulation, no sharp curve, slow speed
- CO2Plant will be installed for collection of CO<sub>2</sub> released during the fermentation process. The CO<sub>2</sub> collected will be sold to various companies as it is food grade quality.

# Wastewater Treatment

- Fresh water requirement for Distillery expansion will be 603 m3 /day. However in others unit's fresh water requirement will be fulfilled by recovery from process and recycling of water.
- The proposed project would be based on "Zero Liquid Discharge (ZLD)".
- MEE system will be installed.
- The sewage generated from the sanitary blocks will be treated in STP and used for irrigation and greenbelt development.
- Rainwater harvesting will be done and the water will be discharge in ground water.
- Wastewater will be treated in ETP of capacity 750 KLD. Treated water will be used for greenbelt development for sugar and cogen plants.
- A duly lined storage lagoon of 7 days capacity shall be provided

# **Treatment of Effluent**

- Spent less from distillation column and process condensate will be recycled
- Spent wash is sent for anaerobic treatment and thus production of useful biogas (used as fuel in boiler), which will be followed by concentration in multi stage multi effect evaporator
- Wastewater will be treated in ETP. Treated effluent will be will be use for greenbelt development for sugar-cogen plants for distillery ZERO discharge.

### **Noise Management**

- Green belt development (plantation of dense trees across the boundary) will help in reducing noise levels in the plant as a result of attenuation of noise generated due to plant operations and transportation.
- Personal protective equipments like ear plugs and ear muffs will be provided to employees working in the noise prone areas.
- Time to time oiling and servicing and O and M of Machineries will be done.
- Acoustic enclosure for Turbine and D.G. sets would be used.

# Solid Waste Management

• During construction phase, solid waste such as excavated soil, debris, some metal waste will be generated.

# **Socio-Economic Environment**

- M/s Daund Sugar Pvt Ltd will actively contribute to improve the socio-economic conditions of the area and also will actively participate in various socio economic activities like; educational campaigns, health check-ups, training program etc (as per the need) which will lay stress on the overall development of the project site. Following points will be stressed upon:
- The industry on expansion will provide direct and indirect employment to many local rural people
- This industry activity will help in improving the socio-economic benefits like Communication, education, infrastructure, employment etc.
- No migration of inhabitants during the construction phase of proposed project
- During construction phase employees can be subjected to health and occupational safety risks
- Proposed projects will result in employment opportunities either directly or indirectly along with development in infrastructure facilities.
- Poor Sanitation facilities can result in health risks.
- Influx of workers can result in pressure on local infrastructures like water, electricity and health.

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# 1.8 Analysis of Alternative Site

 For the proposed project adequate land is already available with Daund Sugar Pvt. Ltd. (DSPL) which is more than sufficient to establish a well equipped Sugar and Distillery Plant hence, no alternate site has been Proposed Expansion of Sugar Mill from 6000 TCD to 7500 TCD and Distillery unit from 90 KLPD to 120 KLPD in existing Daund Sugar mills plants.

# **1.9** Environmental Monitoring Plan (EMP)

The attributes, which require regular monitoring, are specified underneath:

- Air quality
- Water and wastewater quality
- Noise levels
- Soil quality
- Afforestation
- Socio Economic aspects and community development.

# 1.10 Additional Studies

- Risk assessment studies for both phases i.e. construction and operational phase have been done and plant and personnel will be well protected.
- Public consultations will be done as per the CPCB guidelines
- Public hearing will also be conducted and public comments will be incorporated within the project.

# 1.11 Manpower Requirements

• The total manpower required for the proposed project is approximately 619 persons which include all categories including unskilled, semiskilled, skilled personnel and contract labor etc.

# 1.12 Project Benefits

- The industry on expansion will provide direct and indirect employment to many local rural people.
- This industry activity will help in improving the socio-economic benefits like employment, communication, education etc.
- Proposed expansion project shall definitely improve the environment of surrounding areas.

# 1.13 Environmental Cost Benefits

- Total cost of Existing Distillery plant is **Rs. 86.95 Crores**
- Total cost of Existing Sugar plant is Rs. 30.87 Crores
- The estimated project cost of Expansion of Sugar Mill and Distillery plant is

# Rs.19.92Crores.

• Out of which **709 lakhs** will be allotted as capital cost and **136 lakhs** will be allotted as annual recurring cost for Environmental Management Budget.

S. No.	Particulars	Capital cost	Annual Recurring cost	
		Rupees in Lakhs		
1.	ESP+ Coal Handling + Ash Handling	450	50	
2.	Multiple Effect Evaporator	180	24	
3.	Condensate Polishing Unit (CPU)	40	5	
4.	Sewage treatment plant	20	4	
5.	Monitoring of pollution parameters		7	
6.	Laboratory and chemicals	4	4	
7.	Safety and healthcare	5	1	
8	Salary of EMP staff		36	
9	Development of green belt	10	5	
	Total	709	136	

# Table 4: EMP Budget

# 1.14 Environment Management Plan

• An Environmental management cell will be formulated and all mitigation measures suggested in the report will be implemented.

# 1.15 Conclusion

The development to Proposed Expansion of Sugar from 6000 TCD to 7500 TCD and distilleries from 90 KLPD to 120 KLPD and 18 MW capacities at Alegaon area is technically and economically feasible and environmental friendly. The conclusions of the project report may be drawn from the following points:

- Baseline environmental status, anticipated environmental impacts and mitigation measures have been prepared and included in the report to ensure there is no damage to the existing environment.
- To check post project scenario a post project monitoring program is included in environment management plan.
- All the activities of proposed distillery along with expansion of Sugar units will be confined to the acquired area of DSPL; emissions will be restricted well within allowed limits. Thus, the environment will not be adversely affected in any way.
- Distillery operations from processes will be ZERO discharge projects. Thus there will not be any wastewater discharge in the environment.
- The by-products (Bagasse, Pressmud and Molasses) produced from sugar manufacturing process will be used in distillery process for manufacturing of Rectified spirit, Alcohol, Ethanol, Electrical Power, Biogas and Bio-compost etc.
- The development of 43,570 plantations as green belt (33% of total area) will help to increase the biodiversity of the area. It will effectively mitigate environmental pollution.
- Rain water harvesting, recycling of water, passive enclosures/dust suppression method for dust generating machines in project areas reduce demand of fresh water.

- The unit will generate power from renewable resources bagasse. It will generate power in excess of its own requirement and feed to state grid.
- Being agro based industry it will offer ready market for local sugar cane growers.
- Apart from selling their produce to factory farmers will get back bio compost from factory to enhance nutrient level of their farms.
- DSPL will deliver its obligations under corporate social responsibility (CSR). Under CSR
  policy it will ensure development of the surrounding villages and the area and Quality
  of Life of local people will be improved.

S. No.	Particulars	Social Benefits	Amount (lakhs)
1.	Education development	Providing scholarships and prize amounts for merit students Providing reimbursement of cost of uniform, notebooks for factory employee children's. Providing skill development trainings	80.00
2.	Rural Road Development	Provide Road infrastructure facilities from the factory connecting to nearby villages. Providing repairs for the damaged roads due to the vehicular movement.	95.00
3.	Drip Irrigation To save water, increase crop production Minimize use of water		60.00
4.	Rain water Harvesting	Water collection from factory terrace Rain water for reuse, landscape irrigation Greenbelt development	50.00
5.	Health Programme	Conducting frequent health Checkups for all the workers regularly. Providing Personnel Protective Equipment (PPE) for all the workers Providing safety training programs for all workers Providing safe drinking water with RO Treatment facility. Providing hygienic toilets to the workers and cane truck drivers.	50.00
6.		Supply of Bio-Fertilizer. Bio-compost distribution at the farmers and cane growers.	57.00
	Total fund for CSR Activity (2.5 % of total project cost)		

# Table 5: CSR Budget Plan

- Preference will be given to local population for employment as well as in awarding works contract to ensure small scale industries are promoted in the area
- DSPL will also a helping hand in improvement of infrastructural facilities like education, medical, transport etc.
- In view of such several advantages the management requested public to award their approval for the project.

	Corporate Environmental Responsibility Budget	(AIMS&R)
Sr.No.	Description of Activities/Objectives	Budget Provided for 2018-19
1	Environmental	
а	Malaria Prevention at One Locations @ Rs. 100000 per location	1,00,000
b	Water Provision Barren Land Plants at Summer Season @ 700 per Trip -250 Trips	1,75,000
С	Storm water Drain Cleaning- Pre-Monsoon	1,00,000
d	Medicinal Tree Plantation	50,000
е	Maintenance of Trees (cutting and brushing) @ as and when required	25,000
	A- Environmental Head	4,50,000
2	Community Education	
а	Education on Trees, Plants & Its Growth @50,000 at One locations	50,000
Sr.No.	Description of Activities/Objectives	Budget Provided for 2018-19
b	Education on Dengue, Malaria And other air borne diseases @100000 @Two Locations	2,00,000
С	Bird And its Survival growth on urban Area @35000 at One Locations	35,000
d	Environmental Education for Surrounding Societies like drawing competitions, brainstorming sessions etc.	50,000
е	Farmers camps regarding environmental education and awareness@50000 one Camps	50,000
	B- Community Education Head	3,85,000
3	Health & Environmental Promotional Activity	

# Table 5: CER Budget Plan

Mantras Green Resources Ltd, Nasik Environment Consultant

	TOTAL BUDGET PER YEAR	20,60,000
	D- Environmental Health Social Responsibility Head	9,25,000
g	Wheelchair distribution to handicapped @ 2500 per camps@ 40 numbers	1,00,000
f	Free OPD & Medicine distribution for poor patients below poverty line @ 50000 per camp@ 5 camps	2,50,000
Sr.No.	Description of Activities/Objectives	Budget Provided for 2018-19
е	Health Checkup for old age homes and orphanage home @ 5000 camps @ 10 camps	50,000
d	Free PAP SMEAR Camp @ 5000 per camp @ 9 camps for the females in the villages.	45,000
С	Free Angiography @5000 per camp @ 20 camps for farmer and labors working in the farms	1,00,000
b	Free Pediatric Cardiac Surgery Camp @100000 per camp @ 2 camps	2,00,000
а	Free Health Checkup Camps in periphery@ 20000 per camp @ 9 camps per year for the farmers of nearby villages	1,80,000
4	Health Social Responsibility	
	C- Health & Environmental Promotional Activity Head	3,00,000
h	World Water Day- 22nd March	35,714
g	Health Day- 7th April	35,714
f	Yoga Day - 21st June	35,714
е	Ozone Day- 16th September	35,714
d	Tabaco Day- 31st May	35,714
С	Earth Day 22nd April	35, 714
b	Environment Day- 5 June	35,716
а	Swachh Bharat Abhiyan Awareness Activities	50,000