# EXECUTIVE SUMMARY

# M/s-Gujarat Ambuja Exports Limited

## PROPOSED 120 KLPD MAIZE STARCH BASED DISTILLERY WITH CAPTIVE POWER PLANT OF 4 MW

**PLOT NO. A-4, A-4/1, VILLAGE- KHADKI, MIDC CHALISGAON TALUKA-CHALISGAON, DISTRICT-JALGAON,**

**Study period Nov.2019 to Jan.2020**


ENVIRONMENT CONSULTANT

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# EXECUTIVE SUMMARY

## A. BRIEF DESCRIPTION OF PROJECT

| Sr. No. | Particulars | Details | | |
|---|---|---|---|---|
| **A** | **PROJECT DETAILS** | | | |
| 1. | Name of Project | Proposed 120 KLPD Maize Starch based distillery with captive power plant 4 MW capacity | | |
| 2. | Location of Project | At Plot No. A-4 & A-4/1, Village-Khadki (Bk), MIDC- Chalisgaon, Taluka- Chalisgaon, District- Jalgaon, Maharashtra | | |
| 3. | Category as per EIA Notification 2006 | As per EIA Notification dated 14*th* September, 2006 and its amendment thereof, Category "B", 5 Activity (g). As per S. O.1960 Dated 13th June, 2019 | | |
| 4. | Project Proponent | M/s. Gujarat Ambuja Export Limited | | |
| 5. | Products | **Sr. No.** | **Product** | **Annual Capacity** |
| | | 1 | Extra Neutral Alcohol & Ethanol | 120 KLPD |
| | | 2 | Captive Power Plant | 4 MW |
| | | **Total** | | |
| 6. | Total Area | 368264 m2 | | |
| | Total Existing build up area | 121406 m2 | | |
| | Total proposed build up area | 60702.8 m2 | | |
| | Total green belt area | 165921 m2 | | |
| 7. | Water sources | MIDC Chalisgaon | | |
| 7. | Water Requirement | 2000 KLD | | |
| 8. | Power Requirement | Operation phase- (4.5 MVA + 1.9 MVA) = 6.4 MVA<br>1 Nos. of new DG sets of 750 KVA | | |
| 9. | Manpower Requirement | 100 nos. skilled and unskilled | | |
| 10. | Cost of Project | 100 Cr | | |
| **B** | **ENVIRONMENTAL SETTING** | | | |
| 11. | Latitude | 20°27'5.16"N | | |
| 12. | Longitude | 74°57'31.10"E | | |
| 13. | Elevation above MSL | 360 Meter from MSL | | |
| 14. | Toposheet No. | 47 P/2, 47 P/3, 46 L/14, 46 L/15 of Survey of India | | |
| 15. | Nearest Village | Village- Khadki (Approx. 1.0 Km in N Direction) | | |
| 16. | Nearest Town/City | Nearest Town- Chalisgaon (Approx. 6.67 Km NE Direction) | | |
| 17. | Nearest Railway Station | Chalisgaon railway station Approx: 4.40 km NE direction<br>Hirapur railway station Approx: 3.79 km SW direction | | |
| 18. | Nearest Highway | Nearest Highway- Dhule- Solapur Highway NH-211 (155 km SW direction) | | |
| 19. | Nearest Airport | Gondur Airport Dhule Approx: 57.83 Km NW direction<br>Jalgaon Air Port Approx :86.23 km NE direction | | |
| 20. | Nearest Water Body | Girna Dam : (Approx 25.68 Km west)direction from proposed project site | | |

| Sr. No. | Particulars | Details |
|---|---|---|
| 21. | Historical/ Archaeological Places | Not Present within 10 km radius |
| 22. | National Park/ Wild life Sanctuary | Not present within 10 km radius |
| 23. | Seismic Zone | Seismic Zone - III as per IS: 1893 (Part-I): 2002 |

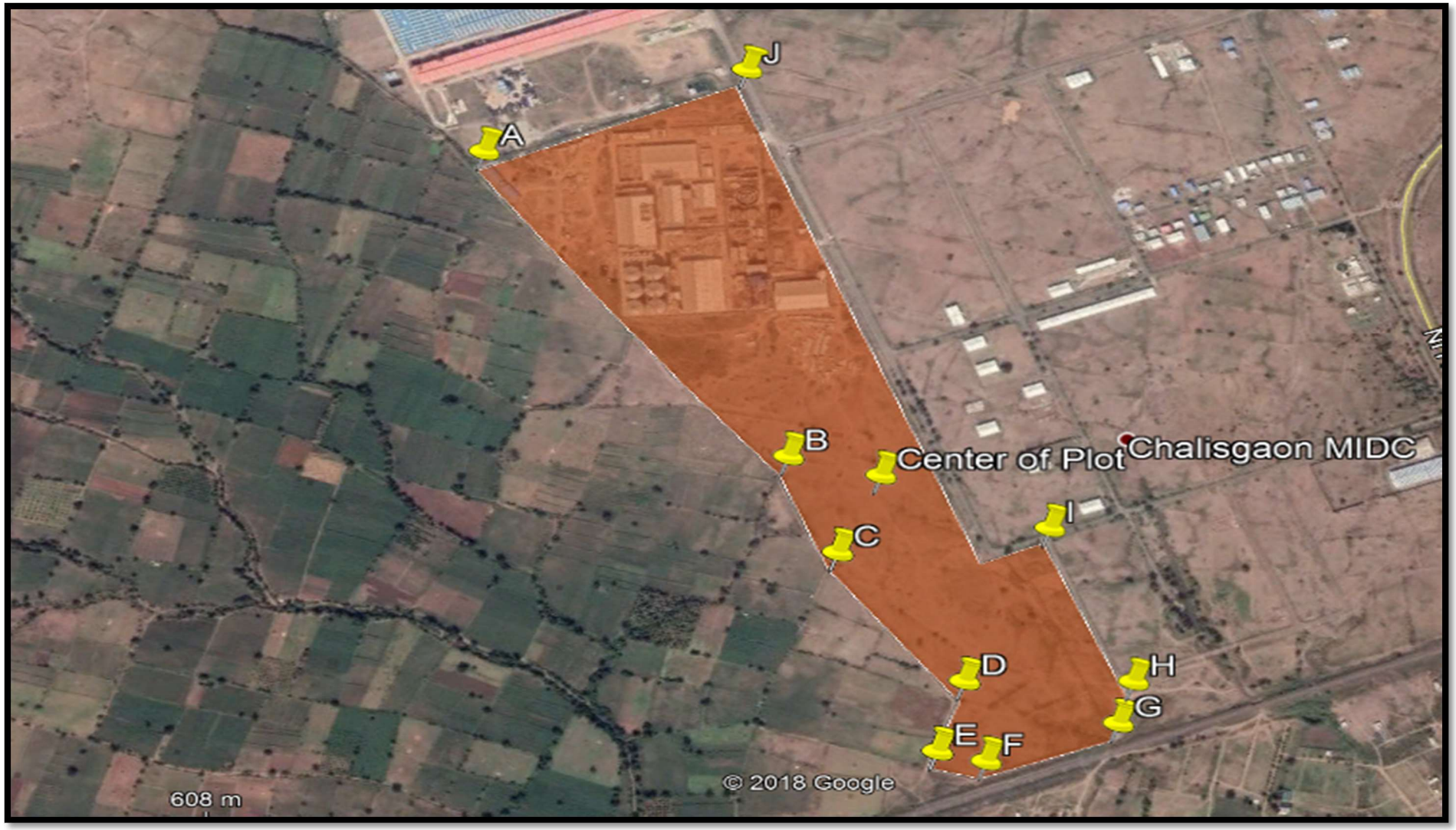
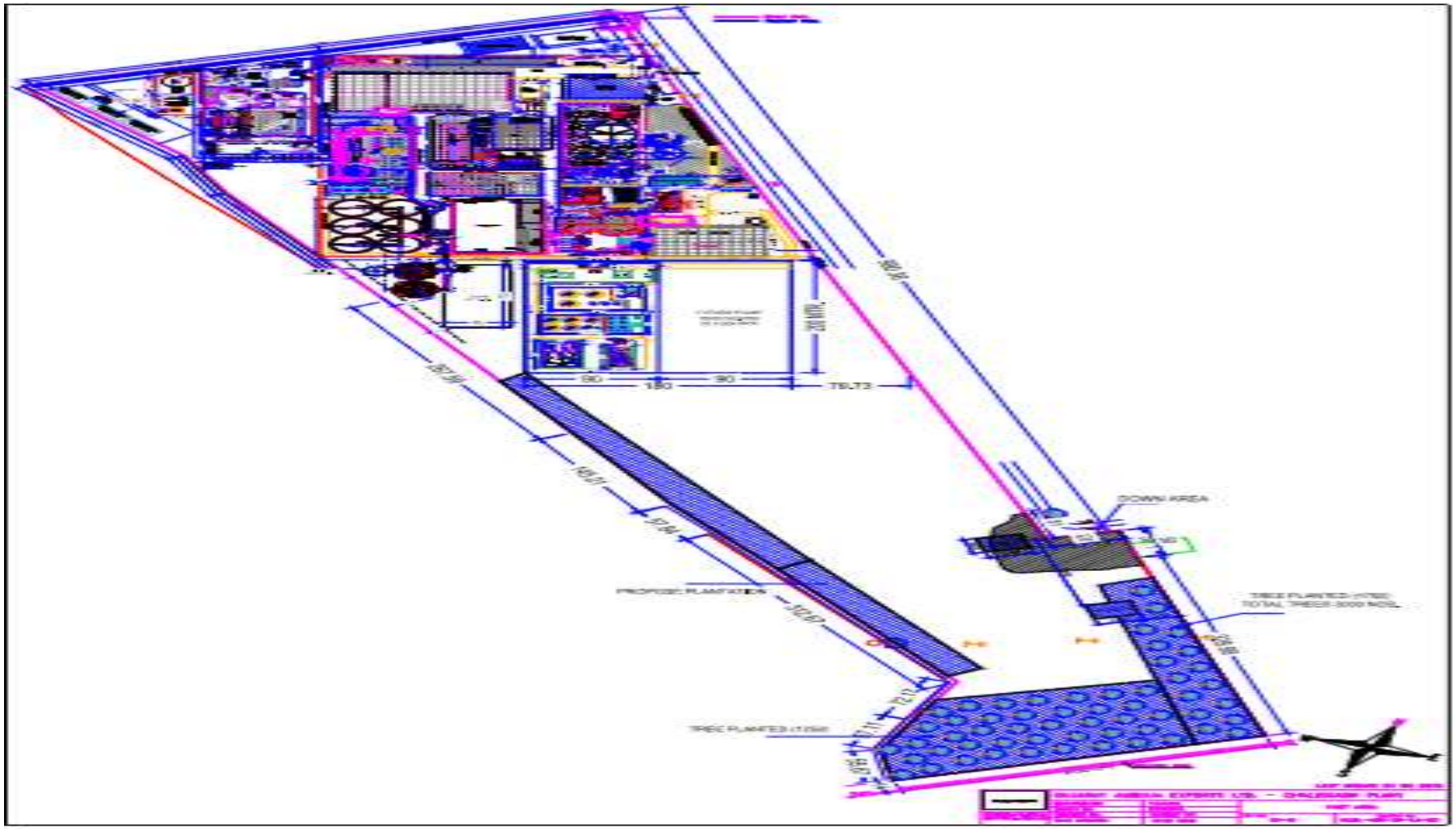



**Figure No.1: Project Location Map**

| | | |
|---|---|---|
| A | 20°27'4.15"N | 74°57'22.90"E |
| B | 20°27'4.05"N | 74°57'22.93"E |
| C | 20°26'48.60"N | 74°57'41.67"E |
| D | 20°26'43.50"N | 74°57'45.23"E |
| E | 20°26'36.59"N | 74°57'53.31"E |
| F | 20°26'32.49"N | 74°57'52.68"E |
| G | 20°26'32.28"N | 74°57'55.16"E |
| H | 20°26'35.59"N | 74°58'1.13"E |
| I | 20°26'38.28"N | 74°58'1.41"E |
| J | 20°26'46.75"N | 74°57'55.45"E |
| K | 20°27'11.76"N | 74°57'34.58"E |
| L | Center (20°26'50.40"N) | 74°57'44.54"E |

**Table no.2.5: Coordinates of Proposed project site**

**Figure No. 3: Proposed Layout Plant**



## B. PROPOSED PROJECT

**M/s Gujarat Abmuja Export Ltd.** is Proposed 120 KLPD Maize Starch based distillery with captive power plant 4 MW capacity at Plot No. A-4 & A-4/1, Village-Khadki (Bk), MIDC-Chalisgaon, Taluka- Chalisgaon, District- Jalgaon, Maharashtra. 91 Acer land in Chalisgaon MIDC area in which 15 acres land has been allotted for proposed project. The project location would be at the large maize growing areas in the state. Total cost of the project will be 100.00 Crore

## C. BASELINE ENVIRONMENTAL STUDIES

The studies conducted during the season of the Year (Nov-2019 to Jan-2020).

**Table No. 1: Summary of Baseline Environmental Studies**

| Parameter | Location | Results | Standards | | |
|---|---|---|---|---|---|
| Ambient Air Quality | 8 Location | PM2.5: 27.1 to 34.9 µg/m3<br>PM10: 47.5 to 57.3 µg/m3<br>SOx : 6.3 to 11.0 µg/m3<br>NOx: 11.3 to 17.8 µg/m3 | PM2.5:60µg/m3<br>PM10:100µg/m3<br>SO2 : 80 µg/m3<br>Nox : 80 µg/m3 | | |
| Noise Level | 8 Location | Day: 42.1-53.0 dB (A)<br>Night: 30.4-43.8 dB (A) | Industrial | Day: 75 dB(A) | Night: 70 dB(A) |
| | | | Residential | Day: 55 dB(A) | Night: 45 dB(A) |
| Water Quality | Ground Water: 9 Location | pH: 7.51 to 8.31<br>TDS: 256 to 980mg/l<br>TH: 94.12 to 213.74 mg/l | 6.5 to 8.5<br>≤500<br>≤200 | | |
| | Surface Water: 2 Location | pH: 7.90 to 8.35<br>TDS: 316 to 550 mg/lit.<br>TH:196.08 to 270.59mg/lit | | | |
| Soil Quality | 8 Location | pH is ranging from 7.43 to 7.93 which show soil is Slightly alkaline in nature. Total Kjeldhal nitrogen value is ranging from 256.0 to 716 mg/kg. Potassium value is ranging from 38.0 mg/lit to 98.5 mg/lit. Calcium value is ranging from 52.00 to 84.00 mg/kg. Total Organic carbon ranging from 1.53 % to 4.00 %. Conductivity value is ranging from 207.0 to 483 µmhos/cm. Heavy metal like Lead, Total Chromium, Cadmium are absent in all soil sample. Soil is good for agricultural field. | | | |

## D. ENVIRONMENTAL MANAGEMENT PLAN

**Water & Waste Water Management**

- Ground water sources & surface water (MIDC Chalisgaon) will be the main source of fresh water for different activities of the project during operation phase. Necessary permission for water extraction is available with the factory. GAEL is already installed rainwater collection system to the industrial shed.

- Wastewater from distillery unit will not have significant BOD/COD levels. All waste water will be collected in effluent treatment plant and treated water is used for green belt development /irrigation purpose.
- Sewage will be dispose through septic tank via soak pit.

**Air Pollution Management**

- Baseline ambient air quality monitoring has been carried out during the month of Nov 2019 to Jan 2020. It is observed that the concentrations of PM10, PM2.5, SO2 and NOx are well within the prescribed limits as per the National Ambient Air Quality Standards. The major sources of air emissions from the proposed projects include non-point and point source emissions.
- The major sources of air pollution from the proposed projects will be from flue gas emission, process emission and vehicular emissions.
- Electrostatic Precipitator will be provided as air pollution control equipment for proposed boiler. The emissions from the boiler are passed through ESP before releasing into atmosphere through the stacks. The proposed boiler stack heights of 69 m will be provided for proper dispersion of the air pollutants.
- Fly ash collection system will be installed with ESP. Bag filters/ dust collectors and proper ventilation will be installed wherever particulate matter emission is likely to be occurred.
- To control the vehicular pollution, control measures will be implemented such as periodical check of Vehicle for its fitness and PUC certificates. Observance of periodical maintenance schedule and its proper implementation.
- Factory is planning to installed CO2 recovery plant.

**Solid & Hazardous Waste Management**

- The zero discharge system will be implemented for proposed distillery plant.
- The solid waste generations from the proposed distillery unit are ash & ETP sludge are the major source of land pollution, however factory has provided proper shed to maize starch, ash storage area.
- Ash will be collected in ash silo and sale to brick manufacturer.
- Sludge from ETP can be used as manure.
- Discarded drums will be sold to authorized vendor.
- Spent oil will sold to authorize reprocessor

**Table no. 10.5: Quantification of Solid Waste**

| Sr.No | Type of waste | Quantity | Treatment & Disposal |
|---|---|---|---|
| 1. | ETP sludge | 4 MT/M | ❖ ETP Sludge used as Manure |
| 4. | Ash | Bottom ash & Fly ash : 900 MT/M | ❖ Fly ash sale to brick manufacturer or compost filler material. |
| 5. | Domestic | Negligible | ❖ Local waste collection system |
| 6. | Spent oil | 150 Lit/M | ❖ Sale to Authorized reprocessor |

**Odor Management Plan**

- Better house-keeping
- Whole process is work under closed conditions, close pipeline.
- Use of mill sanitation biocides to minimize the growth of aerobic /anaerobic micro–organisms.
- Regular use of bleaching powder in the drains to avoid generation of putrefying micro-organisms.
- ETP sludge will be used as manure.
- Steaming of major pipelines
- Proper operating condition will be maintained.
- Proper cleaning of drains.
- Efficient operation of ETP.
- Well planned Greenbelt will be developed in and around the plant premises to suppress the odor.

**Green Belt Development Plan**

Development of greenbelt in and around the industrial complex is an effective way to attenuate air pollution. The degree of pollution attenuation depends upon height, width, foliage, surface area of leaf and density of planted trees. Greenbelt will be developed as per CPCB guidelines. Gujarat Ambuja Export Limited is proposing development of a 165921 m2 (33% (368264 m2) of total plot area) of land and proposed to enhance green belt around the factory in future coming year by 1-2 acres

## E. PROJECT & EMP COST

The costs involved in environmental monitoring and management to mitigate the adverse effects will be put on account for the proposed project. The approximate cost for the EMP will be Rs. 841 Lakhs.

**Table no:2.31:- EMP Cost Bifurcation (Construction phase)**

| Sr.No | Description | Capital Cost (Rs. in lakhs) |
|---|---|---|
| 1 | Air Pollution Control | 9 |
| 2 | Water Pollution Control | 15 |
| 3 | Solid waste Management | 8 |
| 4 | Environmental Monitoring | 10 |
| 5 | Occupational Health | 10 |
| 6 | Green belt development | 25 |
| | Total | 77 Lakhs |

**Table no:2.32:- EMP Cost Bifurcation (Operation phase)**

| Sr.No | Description | Capital Cost (Rs. in lakhs) | Recurring Cost per annum(In Lakhs) |
|---|---|---|---|
| 1 | Air Pollution Control | 300 | 32 |
| 2 | Water Pollution Control | 95 | 20 |
| | Noise Pollution Control | 18 | 1.5 |
| 3 | Environment monitoring and Management | 15 | 4 |
| 4 | Occupational health | 5 | 3 |
| 5 | Green belt | 368 | 25 |
| 6 | Solid waste management | 10 | 5 |
| 7 | Rain Water harvesting | 30 | 0.5 |
| | Total | 841 | 91 |