

# EXECUTIVE SUMMARY

OF  
DRAFT ENVIRONMENTAL IMPACT ASSESSMENT REPORT  
FOR  
EXPANSION OF SYNTHETIC ORGANIC CHEMICALS  
MANUFACTURING UNIT

AT

Gut No /S .No 65, H. No 2 Paiki Village Gatesh Budruk, Talathi  
Saja Kone. Tal Wada, Dist, Palghar, Maharashtra- 421303

Total plot area: 14263.85 sqm

**Total Production after Expansion:** 7.50 TPA of EC Products & Non- EC Products:  
783.90 TPA

Category As per EIA Notification, 2006: S.No. 5(f) Cat "A" (applicability of General Conditions  
as ESZ of Tansa Wildlife Sanctuary-2.68 km East, 3.68km from Core Tansa Wildlife Boundary)

Total Cost of Project: INR 58.9 Crores (Existing: INR 49.15 Crores; Proposed: INR 9.75  
Crores)

Reference: TOR issued vide F. No. IA-J-11011/124/2022-IA-II(I) dated 20.04.2022

## PROJECT PROPONENT

**M/s SYNERGIA LIFE SCIENCES PRIVATE LIMITED**

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## ENVIRONMENTAL CONSULTANT

M/s PERFECT ENVIROSOLUTIONS PVT. LTD.

((NABET Registered vide list of accredited consultants organizations/  
NABET/EIA/1922/SA0143))

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July 2022

## 1.1. Introduction

M/s Synergia Life Sciences Pvt. Ltd. is proposing an expansion of a manufacturing unit with nutraceuticals/food supplements named “Expansion of Synthetic Organic Chemicals Manufacturing unit” located at Gut No /S .No 65, H. No 2 Paiki Village Gatesh Budruk, Talathi Saja Kone. Tal Wada, Dist, Palghar, Maharashtra.

The project is expansion of existing & currently operational industry with a valid CTO (latest CTO vide letter no. MPCB/22/2203000002 dated 03.03.2022 valid up to 31.05.2025 has been obtained for the existing project.)

Now, to meet the increase in market demand it is proposed to increase the production from 6.0 TPA to 7.50 TPA hence we are going for the expansion of the industry with a total production capacity of 7.50 TPA of EC Products & Non- EC Products: 783.90 TPA.

The land is owned by M/s Synergia Life Sciences Pvt. Ltd. through sales deeds & no additional land will be acquired for the proposed expansion. The copy of the sales deed is attached in Section D.

As the project is involved in the manufacturing of Synthetic organic chemicals the project falls under Schedule 5(f) under Category A of the EIA Notification 2006 and its subsequent amendment as the project falls outside the notified industrial area & also General Conditions is applicable to the project (ESZ of Tansa Wildlife Sanctuary is at a distance of 2.68 km East), the project is required to be appraised by Industry 3- EAC at MoEF&CC.

The project cost after expansion will be Rs 58.9 Cr (Existing- Rs 49.15 Cr, Proposed- Rs 9.75 Cr). Since the unit lies outside the notified industrial area, therefore the proposal will require Public Consultation as per clause 7 (i) (iii) stage (3)(i)(b) of EIA notification 2006 (as per OM J-11011/321/2016-IA. II(I) dated 27th April 2018).

The standard TOR was granted to the expansion of the project by the MoEF&CC **vide letter No. IA-J-11011/124/2022-IA-II(I) dated 20.04.2022**. As per the Standard TOR issued, an EIA study was undertaken during the period October-December 2021 and the report is compiled and is being submitted to MPCB towards conducting Public Hearing.

## 1.2. About the Project

M/s Synergia Life Sciences Pvt. Ltd. is a multifaceted techno-marketing organisation involved in the manufacturing, promotion, marketing and supply of innovative health and lifestyle solutions.

Synergia is the global leader in the manufacture and supply of MenaquinGold (Natural Vitamin K2-7) and microbiome therapeutics.

As the project is involved in the manufacturing of Synthetic organic chemicals the project falls under Schedule 5(f) under Category A of the EIA Notification 2006 and its subsequent amendment as the project falls outside the notified industrial area & also General Conditions is applicable to the project (ESZ of Tansa Wildlife Sanctuary is at a distance of 2.68 km East), the project is required to be appraised by Industry 3- EAC at MoEF&CC.

The proposal for the Terms of Reference was submitted online and accordingly the project was granted standard **Terms of Reference** by the MoEF&CC vide letter **vide letter No. IA-J-11011/124/2022-IA-II(I) dated 20.04.2022**. We are now submitting the EIA report along with compliance to the prescribed Terms of Reference conditions to Maharashtra Pollution Board for conducting the Public Hearing for the proposed project.

## 1.3. Location & Accessibility

**Location:** Gut No /S .No 65, H. No 2 Paiki Village Gatesh Budruk, Talathi Saja Kone. Tal Wada, Dist, Palghar, Maharashtra

**Latitude:** 19°37'13.20"N

**Longitude:** 73° 7'29.50"E.

**Elevation:** 47 m

## 1.4. Project Description

### Resource Requirements for the proposed Expansion

**Land:** Adequate land is available for expansion within the existing production plant, no additional land is required for the proposed expansion. The unit is already an operational Industrial Use land.

Expansion of Synthetic Organic Chemical Manufacturing Unit at Gut No /S .No 65, H. No 2 Paiki Village Gathesh Budruk, Talathi Saja Kone. Tal Wada, Dist, Palghar, Maharashtra by M/s Synergia Life Sciences Pvt. Ltd.

- **Water Requirement:** Total water requirement will be 98 KLD, out of which 57.5 KLD will be for Fresh water and rest 40.5KLD will be treated water. 8 KLD of wastewater will be generated from domestic use which will be treated in STP of 15 KLD & 42.9 KLD of effluent will be generated from utilities which will be treated in ETP followed by MEE & RO and treated water will be reused within the unit. Thus, it will be a Zero Liquid Discharge (ZLD) unit.
- **Source of fresh water:** Borewell
- **Power Requirement:** The total power requirement of the unit will be Installed load: 1200 kVA & Operating Power load: 700 kVA will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL)
- **DG Sets:** One DG set of 320 kVA is being used within the existing plant which will be dismantled and the 1x750 kVA will be installed for the standby requirements after expansion.
- **Fuel:** For DG set HSD fuel Diesel: 900 ltrs/day.
- **Manpower:** Approx. 147 No. of staff will be employed in the unit after expansion. Three shifts will be there -Total working hours will be 8 hours in each shift.
- **Operational Activities:** The project will be operational and involved in the manufacturing of total production capacity of 7.50 TPA of EC Products & Non-EC Products: 783.90 TPA. The activities involved will be transportation (as the raw materials will be sourced from local market/imports and transported by trucks/Ships), loading and unloading of raw material and processing of chemicals.
- **Pollution Sources & Mitigation measures:** Pollution sources from the project will be air & noise emission, wastewater generation and Solid & Hazardous waste. The following are envisaged under the project:
  - **Air Emissions will be from the Boiler, DG set.** To control emissions from the utilities unit, 2 stacks are provided. Boilers will be fitted with a wet scrubber with a stack height of 30 m to control emissions. High speed diesel will be used for DG sets to prevent emissions and 3.5 m stack height in accordance with CPCB norms will be provided.
  - **Noise Generation:** The main sources of noise generation from the unit will be DG sets, Boilers, pumps, operation machineries, etc. Adequate engineering control will be taken to minimise the noise level from operation of compressors, boilers, turbines etc.

- **Wastewater Generation:** After expansion, 8 KLD of wastewater will be generated from domestic use which will be treated in STP of 15 KLD & 42.9 KLD of effluent will be generated from utilities which will be treated in ETP followed by MEE & RO and treated water will be reused in cooling tower & boiler, scrubber & gardening within the unit. Thus, it will be a Zero Liquid Discharge (ZLD) unit
- **Solid Waste generation:** - After expansion, approx. 121 kg/day will be generated from the plant. Out of which, 22 kg/day of organic waste will be given to the approved vendor for disposal at the Solid Waste Disposal Site and 99 kg/day of non-biodegradable waste will be given to the authorised recycler.
- **Hazardous Waste generation:** After expansion, 3.0 TPA of ETP Sludge, 1.0 TPA of MEE Salt, 0.5 TPA Off Specification products, 0.30 TPA Date Expired Products, 2.40 TPA SPent Solvent, 0.10 Contaminated cotton rags & other cleaning materials, 0.25 TPA Spent Ion Exchange resins, 0.25 TPA Spent carbon/filter medium & 0.05 TPA Other Hazardous Wastes (Boiler Suit, Contaminated PPE, Spill Absorbent) will be disposed off at TSDF site (MIDC, Taloja) as per HoWM 2016, 3.0 TPA Empty Barrels/ Containers/ Liner Contaminated with Hz Chemicals/wastes will be sold to Authorized Party after /TSDF site, MIDC Taloja. Used oil of 0.20 TPA will be sent to the TSDF site or sold to authorized recyclers.

## 1.5. Description of Environment

The baseline data is generated through field study within the impact zone (Core Zone and Buffer Zone i.e., 10 Km from Project Boundary) for various components of the environment viz. Air, Noise, Water, Soil, Land, Traffic Ecology and Socioeconomic. The baseline environmental quality has been assessed for Winter Season **October-December 2021** (by NABL accredited laboratory M/s Perfact Researchers Pvt Ltd, New Delhi) in a study area of 10 Km radius from the project site. The baseline data obtained is summarised below:

### Ambient Air Quality:

#### Core Zone

The mean value of PM<sub>10</sub> ranges from 96.3 µg/m<sup>3</sup> to 103.5 µg/m<sup>3</sup> & PM<sub>2.5</sub> ranges from 63.80 µg/m<sup>3</sup> -69.40 µg/m<sup>3</sup>; SO<sub>2</sub> ranges from 9.30 µg/m<sup>3</sup> - 10.20 µg/m<sup>3</sup> and NO<sub>2</sub> ranges from 22.30 µg/m<sup>3</sup> - 24.10 µg/m<sup>3</sup>. The data shows that PM<sub>10</sub> & PM<sub>2.5</sub> values are slightly higher than

the limits of National Ambient Air Quality Standards (NAAQS). As per the Air Quality Index by CPCB, the air quality of the core zone is found to be Satisfactory to moderate.

#### **Buffer zone:**

From the above results shown in tables, the mean values of parameters varied as PM<sub>10</sub> (82.10 µg/m<sup>3</sup> – 91.30 µg/m<sup>3</sup>), PM<sub>2.5</sub> (44.50 µg/m<sup>3</sup> – 59.30 µg/m<sup>3</sup>), SO<sub>2</sub> ( 7.50 µg/m<sup>3</sup> – 8.30 µg/m<sup>3</sup>), NO<sub>2</sub> (18.40 µg/m<sup>3</sup> – 20.50 µg/m<sup>3</sup>) & CO (0.60 mg/m<sup>3</sup>- 0.79 mg/m<sup>3</sup>) in the buffer zone. The data shows that all the parameters in the buffer zone are within the National Ambient Air Quality Standards. As per the Air Quality Index by CPCB, the air quality of the buffer zone is found to be Satisfactory.

#### **Ambient Noise Quality:**

**Core Zone (Industrial Area): N1 & N2:** The ambient noise level during day time at the proposed project site varies from 57.5 dB (A) to 58.8 dB (A) which are within the day time standard limit of Industrial area ~75 dB (A). During night the noise level at the project site ranges from 48.6 dB (A) to 48.7 dB (A) which are within the night time standard limit of Industrial area 70.0 dB (A).

#### **Buffer Zone:**

##### **Residential Area:**

**N3:** The ambient noise level at **Gates Budruk** is 55.6 dB (A) which is slightly higher than the daytime noise standard limit of the Residential area of ~ 55.0 dB (A). During the night the noise level was recorded at 47.8 dB (A) which is higher than the night-time noise standard limit of ~ 45.0 dB (A). The increased noise level is due to residential activity & vehicular movement in the village.

**N4:** The noise level at **Kone** is 56.1 dB (A) which is higher than the day time noise standard limit of ~ 55 dB (A). During the night the noise level was recorded at 48.0 dB (A) which is higher than the night-time noise standard limit of ~ 45 dB (A). The increased noise level is due to vehicular movement in roads nearby the village.

**N5:** The ambient noise level at **Dhandela N** is 55.2 dB (A) which is within the daytime noise standard limit of the Residential area of ~55.0 dB (A). During the night the noise level was recorded at 46.4 dB (A) which is slightly higher than the night-time noise standard limit of ~45.0 dB (A). The increased noise level is due to vehicular movement on the village road.

**N6:** The ambient noise level at **Gates Khurd** is 55.7 dB (A) which is higher than the daytime noise standard limit of Residential area ~ 55.0 dB (A). During the night the

noise level was recorded at 47.5 dB (A) which is higher than the night-time noise standard limit of ~45.0 dB (A). The increased noise level is due to vehicular movement at the nearby road and residential activity.

**N7:** The noise level at **Duparyechpada** is 55.4 dB (A) which is slightly higher than the daytime noise within the standard limit of ~ 55 dB (A). During the night the noise level was recorded at 46.5 dB (A) which is slightly higher than the night-time noise standard limit of ~45 dB (A). The increased noise level is due to vehicular movement on the road near the village.

**N8:** The noise level at **Chikale** is 56.2 dB (A) which is slightly higher than the daytime noise within the standard limit of ~ 55 dB (A). During the night the noise level was recorded at 46.7 dB (A) which is slightly higher than the night-time noise standard limit of ~45 dB (A). The increased noise level is due to vehicular movement on the road near the village.

#### **Commercial Area:**

**N9:** The noise level at **Approach Road** is 62.4 dB (A) which is lower than the daytime noise standard limit of Commercial area of ~ 65.0 dB (A). During night the noise level is 56.8 dB (A) which is higher than the standard limit of Commercial area 55.0 dB (A). The increased noise level is due to vehicular movement in the industrial area.

**N10:** The noise level of **NH-848** is 73.2 dB (A) which is higher than the standard limit of commercial area of ~65 dB (A). During night the noise level is 67.3 dB (A) which is also higher than the standard limits of the commercial area ~55 dB (A). The increased noise level is due to vehicular movement on the National Highway.

#### **Groundwater Quality:**

**Core zone:** The water quality of the core zone shows that TDS, total hardness & iron are higher than the drinking water standards (IS:10500). Thus, the water quality of the core zone is not fit for consumption.

**Buffer zone:** The water quality of the buffer zone shows that

1. The Total Dissolved Solids (TDS) of the sampling locations ranges from 243 mg/l to 874 mg/l. The TDS of all sampling locations except **W3 & W6** are well within the standard i.e. 500 mg/l.
2. The Total Hardness of the sampling locations ranges from 90 mg/l to 260 mg/l. The hardness of all sampling locations except **W3** and **W6** are well within the standard i.e. 200 mg/l.

3. The Alkalinity of the sampling locations ranges from 108 mg/l to 276 mg/l. All sampling locations except **W4, & W8** are well within the standard i.e. 200 mg/l.
4. The Calcium Concentration of the sampling locations ranges from 25.0 mg/l to 65.0 mg/l. The Calcium levels are well within the standards for all the sampling locations i.e. 75 mg/l.
5. The Chloride Concentration of all the sampling locations ranges from 68 mg/l to 310 mg/l. All sampling locations except **W6** are well within the standards for all the sampling locations i.e. 250 mg/l.
6. The Chloride Concentration of all the sampling locations ranges from 13.4 mg/l to 34 mg/l. All sampling locations except **W3 & W6** are well within the standards for all the sampling locations i.e. 30 mg/l.

#### Surface water Quality:

- The Surface water quality of the surface water sampling locations SW1, SW5 & SW6 is meeting the criteria defined by class “D” as per the CPCB criteria. Thus it can be used for Propagation of Wildlife and Fisheries as per CPCB Designated-Best-Use criteria.
- The Surface water quality of the surface water sampling locations SW2, SW3 & SW4 is meeting the criteria defined by class “B” as per the CPCB criteria. Thus it can be used for Outdoor bathing (Organised) as per CPCB Designated-Best-Use criteria.

#### Soil Quality:

**Core Zone:** After analysing the samples collected from the site, it shows that the soil texture is silt loam, Colour is Brown, pH is 6.15. Amount of primary nutrients like Organic matter is 2.31%, the available nitrogen 47.6 mg/kg is low and available Potassium 29.6 mg/kg is low while the available Phosphorus 12.6 mg/kg is in a higher range. Thus, it can be concluded that soil is average fertile in the core Zone.

**Buffer Zone:** Color Brown, pH ranges from 6.02 to 6.65. Amount of primary nutrients like Organic matter 1.41 % to 2.74 %, the Available Nitrogen 54.6 mg/kg to 104.6 mg/kg is lower in range, the Available Phosphorus 5.4 mg/kg to 18.2 mg/kg is high in range, Available Potassium 4.99 mg/kg to 47.8 mg/kg is low in range, Primary nutrient profile shows that soil is average fertile.



## 1.6. Anticipated Environmental Impacts & Mitigation Measures

### Air environment

**During the construction phase**, impacts on ambient air would be mainly due to dust emissions and movement of vehicles. However, these impacts would be short term in nature and limited only to the construction period. Dust suppression systems (water spray) will be used. Construction materials shall be fully covered during transportation to the project site by road.

**During the operational phase**, The main sources of air emission from the facility area will be Combustion of fossil fuels from sources. LDO-based Boiler (2x2 TPH, HSD based 1 no. of generators (Existing: 320 kVA (to be dismantled), Proposed- 750 kVA). To prevent emissions, wet scrubber in the Boiler in the boiler area will be provided to arrest air emissions.

### Water Environment

**During the construction period**, Total water requirement of the project will be 12 KLD. Out of which, 7 KLD will be supplied by tankers for domestic purposes and the remaining 5 KLD water for construction purposes will be supplied from STP treated water tanker suppliers. 6 KLD wastewater will be disposed of to soak pit followed by septic tank.

**During the Operation Phase:** Total water requirement will be 98 KLD, out of which 57.5 KLD will be for Fresh water and rest 40.5KLD will be treated water. 8 KLD of wastewater will be generated from domestic use which will be treated in STP of 15 KLD & 42.9 KLD of effluent will be generated from utilities which will be treated in ETP followed by MEE & RO and treated water will be reused in cooling tower & boiler, scrubber & gardening within the unit. Thus, it will be a Zero Liquid Discharge (ZLD) unit.

### Land Use and Soil quality

The project site is located outside the notified industrial area. Hence, the land use pattern will not be changed due to the proposed expansion.

During the operational phase, procedures for maintenance of equipment would ensure that this risk is minimized and clean-up response is rapid if any spill occurs. The tankers, drums etc. would be ISO approved and as per the specifications of

internationally approved vendors so as to minimize any spillage etc. therefore there would be no impact on soil after this precaution is ensured. Containment such as proper slopes connected with the sump shall be provided in the stock yard where the storage shall be done, so that during spillage if any occurs, the spill can be collected and disposed off properly. In case of spills of chemicals, dry adsorbents/cotton should be used for cleaning instead of water. Spillage will be managed by detection of leaks in the first place from structures or vessels.

### **Noise Levels**

Some amount of noise will be generated from vehicular movement in the installation/construction. Green cover is developed within the project site which will act as a barrier to noise. Machines having high standards shall be deployed so that minimum levels of noise & vibrations are produced during the construction work with excavators having vibration isolators. Silencers provided in the machines to modulate the noise generated by machines will be regularly checked for its effectiveness. For noise pollution control, the D.G. sets will be kept in an acoustically treated room. Noise generating units like the machinery area, canteen etc. are well insulated with enclosed doors. Earmuffs will be used while in high noise areas. Stationary machinery and equipment will be properly enclosed by enclosures and vibration pads for minimizing noise generated due to vibration of machinery.

### **Solid and Hazardous Waste**

**During the construction phase:** Total 7.5 kg/day solid waste will be generated out of which 4.5 kg/day of Biodegradable waste which will be given to solid waste disposal site. Recyclable Waste of 3 kg/day will be given to the Authorised Recycler.

#### **During Operation Phase:**

**Solid Waste:** Total 121 kg/day Municipal solid waste will be generated out of which 22 kg/day of Biodegradable waste which will be given to solid waste disposal site. Recyclable Waste of 99 kg/day will be given to the Authorised Recycler.

#### **Hazardous Waste:**

After expansion, 3.0 TPA of ETP Sludge, 1.0 TPA of MEE Salt, 0.5 TPA Off Specification products, 0.30 TPA Date Expired Products, 2.40 TPA SPent Solvent, 0.10 Contaminated cotton rags & other cleaning materials, 0.25 TPA Spent Ion Exchange

resins, 0.25 TPA Spent carbon/filter medium & 0.05 TPA Other Hazardous Wastes (Boiler Suit, Contaminated PPE, Spill Absorbent) will be disposed off at TSDF site (MIDC, Taloja) as per HoWM 2016, 3.0 TPA Empty Barrels/ Containers/ Liner Contaminated with Hazardous Chemicals/wastes will be sold to Authorized Party after /TSDF site, MIDC Taloja. Used oil of 0.20 TPA will be sent to the TSDF site or sold to authorized recyclers.

**Flora and fauna:** We have earmarked 4836.16 m<sup>2</sup> (33.91% of total plot area) within the plot premises for green cover development. We have already planted 274 no of trees. Additional trees will be planted within the existing reserved green area without disturbing the existing plantation. Proper care will be taken during the development of additional plantation.

**Details of Trees are as follows:**

Number of Trees required =  $4836.16/5 \text{ m}^2 = 976 \text{ nos}$

Number of trees already planted= 274 nos.

Number of trees to be planted= 726 nos.

Total Number of Trees (Already planted + proposed ) = 1000 nos.

**Socio-economic environment:** No rehabilitation and resettlement are required. Employment opportunities will be generated for the local population during the construction/installation phase. Approx. 50 labourers shall be given employment. After expansion, employment opportunities for 147 will lead to a rise in income and improve standard of living. The expansion of existing industry would also generate jobs for the labourers during the construction phase as well as during the operation phase. It will provide direct and indirect employment to local youth.

## 1.7. Analysis of Alternatives (Technology & Site)

The proposed project is a brownfield site with the existing chemical manufacturing unit. The assessment for the site is presented below:

- **Land:** The land is available for expansion within the existing plant, no additional land is required for the proposed expansion.
- **Facilities & Utilities:** All the facilities like water supply, access to road, electricity supply, drainage system are available.
- Easy availability of raw materials and exporters of finished products are available nearby.

- The site is well connected with roads (NH-848) and railway networks.
- No rehabilitation and resettlement requirements.

Considering the above-mentioned advantages of the current project location and limited footprints and incremental impacts, the existing site has been considered for the following expansion. This would also give benefits in making use of the existing utilities and infrastructure within the project site to have minimal environmental and social footprints.

## **1.8. Environmental Monitoring Program**

The following monitoring programs are to be carried out at project in order to meet the above objectives:

- Ambient air and noise, water, soil quality
- Emission and discharge from the plant
- Greenbelt development & maintenance
- Social parameters
- HSE Audits
- Inspection of Pollution Prevention and Control Measures

## **1.9. Additional Studies**

### **Risk Assessment**

Risk Assessment is carried out in order to ensure effective management of any emergency situations that may arise from the failure of isolated storages and leakages of the underground tanks of flammable liquids & gases with respect to the proposed project. As it is a synthetic organic chemical manufacturing unit all the precaution measures while their handling and storage will be taken.

The project is situated in the Seismic zone-III area. For Chemical Manufacturing units, all practicable measures shall be taken to prevent outbreak of fire and its spread, both internally and externally. The chemicals shall be stored in a separate safety storage room, and shall be kept away from sources of ignition. All measures shall be taken as per law.

### **General safety measures**

- Occupational health surveillance programmes will be done six monthly & and their records will be well maintained.
- At the project site an occupational health centre will be provided. A room will be provided separately with provision of a bed and an experienced doctor.
- Health check-up camps will be organized on a regular basis at company dispensaries/nearby locations for workers to evaluate exposure of the workers to chemicals during pre-placement and periodic medical monitoring.
- Prior to working with chemicals, workers will be trained on its proper handling & storage and its MSDS.
- Proper medical facility arrangements will be provided in case of any accidental release.
- Label Precautions and First Aid facilities will be provided.
- Emergency plans will be prepared and a mock drill of the on-site emergency conducted.
- Employers and employees will be made aware of the hazardous properties of materials in their workplaces, and the degree of hazard each poses.
- Inspection of the industrial activity will be done at least once a year and an annual status report on compliance with the Rules will be submitted.
- An Environment, Health and Safety (EHS) Manager will be available, which handles all the safety issues related to man, machine & materials.
- Exterior refuge or safe areas include parking lots, open fields or streets which will be located away from the site of the emergency and which provide sufficient space to accommodate the employees.

### **1.10. Project Benefits**

- The industry will spend INR 48 Lakhs as Social welfare activities in the area.
- After expansion additional employment opportunities will lead to a rise in income and improve standard of living. The expansion of existing industry would also generate jobs for the labourers during the construction phase as well as during the operation phase. It will provide direct and indirect employment to local youth.
- In the operation phase, the proposed plant would require a significant workforce of nontechnical and technical persons. About 50 people will be deployed

temporarily during construction of the project and about 147 people will be employed during the operational stage of the project (direct or in direct).

### **1.11. Environmental Cost Benefit Analysis**

As per EIA Notification 2006, Environmental Cost Benefit Analysis has to be carried out if recommended at the Scoping Stage.

However, during the Scoping Stage, no such conditions are mentioned in the TOR letter.

### **1.12. Environment Management Plan**

#### **Air Quality Management Plan**

- The main sources of air emission from the facility area will be Combustion of fossil fuels from sources. LDO-based Boiler (2x2 TPH), 1 DG set (Existing: 320 KVA (will be dismantled after expansion), Proposed- 750 kVA). To prevent emissions, for proposed expansion, wet scrubbers in the Boiler will be provided to arrest air emissions.
- All vents from the plant will be connected to the common vent scrubber, vent gases will be absorbed in water & un-scrubbed gases vented to the atmosphere by a vent blower.
- Green area of 4836.16 m<sup>2</sup> (33.91% of total plot area) is reserved within the premises. We have already planted trees in the reserved green area Additional trees will be planted within the existing reserved green area. The plantation work for green belt development shall be carried out as per CPCB guidelines.

#### **Noise Level Management Plan**

- Noise generating units like machinery area, process etc. will be well insulated with enclosed doors. Earmuffs will be used while in high noise areas.
- Silencers of all the machineries and equipment will be checked and old worn out machineries will be replaced by new and less noisy machineries/equipment.
- Sufficient oiling and lubrication will be done to all the parts of the machineries to ensure that minimal noise is generated.

- Ambient Noise quality will be periodically monitored to ensure that ambient Noise quality standards and suggested limits will be met at all the time.
- Periodic health surveillance programs shall be organised to monitor the health of workers.

#### **Solid & Hazardous Waste Management plan**

- Construction waste will be disposed of in the designated waste disposal site through SPCB approved vendors.
- All the solid waste will be collected in a segregated manner. Biodegradable waste will be sent to solid waste disposal site and Non-Biodegradable waste will be given to authorised recyclers.
- Hazardous Wastes generated from the process will be disposed of at the approved TSDF site.
- Used oil and recyclable waste shall be stored in designated areas and periodically sent to the registered recyclers/facilities.

#### **Wastewater & Effluent Management Plan**

- All the effluent generated from the process will be treated in ETP of capacity 60 KLD ,followed by RO and MEE. Entire treated effluent will be reused within the facility. The proposed unit will be a ZLD unit.

#### **Occupational Health & Safety management plan**

- Occupational health surveillance programmes will be done six monthly & and their records will be well maintained.
- At the project site an occupational health centre will be provided. A room will be provided separately with provision of a bed and an experienced doctor.
- Health check-up camps will be organized on a regular basis at company dispensaries / nearby locations for workers to evaluate exposure of the workers to chemicals during pre-placement and periodic medical monitoring.
- Prior to working with chemicals, workers will be trained on its proper handling & storage and its MSDS.
- Proper medical facility arrangements will be provided in case of any accidental release.
- Label Precautions and First Aid facilities will be provided.

- Emergency plans will be prepared and a mock drill of the on-site emergency conducted.
- Employers and employees will be made aware of the hazardous properties of materials in their workplaces, and the degree of hazard each poses.
- Inspection of the industrial activity will be done at least once a year and an annual status report on compliance with the Rules will be submitted.
- An Environment, Health and Safety (EHS) Manager will be available, which handles all the safety issues related to man, machine & materials.
- Exterior refuge or safe areas include parking lots, open fields or streets which will be located away from the site of the emergency and which provide sufficient space to accommodate the employees.

#### **Biological Environment Management Plan**

- 4,836.16 m<sup>2</sup> (33.91% of total plot area) is reserved for green cover on the site. We have already planted trees in the reserved green area. Additional trees will be planted within the existing reserved green area .

#### **Socio Economic Environment management plan**

After expansion, the total Manpower will be 147. Employment preference will be given to the people from the adjoining areas according to the skills possessed.

- The proponent will spend INR 48 Lakhs for social activities.



Expansion of Synthetic Organic Chemical Manufacturing Unit at Gut No /S .No 65, H. No 2 Paiki Village Gatesh Budruk, Talathi Saja Kone. Tal Wada, Dist, Palghar, Maharashtra by M/s Synergia Life Sciences Pvt. Ltd.

**Cost Summary for Environment Management**

<b>Capital Expenditure</b>				
<b>S. No.</b>	<b>Particulars</b>	<b>Existing Unit (Lacs)</b>	<b>Proposed Unit (Lacs)</b>	<b>Total After Expansion (Lacs)</b>
1	Air management	6	4	10
2	Solid Waste management	8	3	11
3	Wastewater management	36	120	156
4	Landscaping/ plantation	5	0	5
5	Social Activities	0	48	48
	<b>Total</b>	<b>55</b>	<b>175</b>	<b>230</b>

<b>S. No.</b>	<b>Particulars</b>	<b>Existing Cost/year in lakhs</b>	<b>Proposed Recurring Cost/year in lakhs</b>	<b>Total after expansion (cost/year in Lakhs)</b>
1	Operation & Maintenance of Pollution Control System	9.5	22	31.5
2	Periodic health check-up First Aid facility Workers will be provided with PPE like masks, gloves & ear muffs. Health Safety provisions & fire safety provisions.	10	20	30.0
3	Air & water quality monitoring	6	8.5	14.5

Expansion of Synthetic Organic Chemical Manufacturing Unit at Gut No /S .No 65, H. No 2 Paiki Village Gatesh Budruk, Talathi Saja Kone. Tal Wada, Dist, Palghar, Maharashtra by M/s Synergia Life Sciences Pvt. Ltd.

4	Solid Waste management	7	10.5	17.5
5	Landscaping / plantation	9	12	21
	<b>Total</b>	<b>41.5 lacs/year</b>	<b>73 lacs/year</b>	<b>114.5 lacs/year</b>

### 1.13. Cost & EMP Implementation Budget

#### Total Project Cost:

Existing Project Cost - INR 49.15 Cr

Proposed Expansion Cost - INR 9.75 Cr

Project Cost after expansion - INR 58.9 Cr

#### Total EMP Implementation Budget:

For the proposed expansion, the proponent will spend INR **175.0 Lakhs** as capital cost & **INR 73 Lakhs/year** in addition to existing EMP Capital cost **INR 55 Lakhs** and **INR 41.5 Lakhs** as recurring cost for Environmental Management plan.