PRE-FEASIBILITY REPORT

for

PROPOSED PESTICIDE TECHNICAL (150 MT/MONTH) AND SPECIALTY CHEMICAL (100 MT/MONTH) IN EXISTING FORMULATION UNIT (4000 MT/MONTH)

of

M/s. NIYAM INDUSTRIES

PLOT NO. 409/B/1, GIDC PANOLI - 394115,

TAL: ANKLESHWAR, DIST: BHARUCH (GUJARAT)

PREPARED BY:

ACCREDITATION DETAILS

(NABET/QCI Accredited EIA Consultant):

NABET/EIA/2023/IA0062

(MoEF Accredited Testing Laboratory): 15018/24/2019-CPW

(NABL Accredited Testing Laboratory): TC - 7328

(GPCB Recognized Schedule-II Environmental Auditor)

ISO 9001: 2015 Certified Company

OHSAS 18001: 2007 Certified Company

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1.0 EXECUTIVE SUMMARY

1.1 Company Profile

M/s. Niyam Industries Proposed Pesticide Technical (150 MT/Month) and Specialty Chemical (100 MT/Month) in Existing Formulation Unit (4000 MT/Month) at Plot No. 409/B/1, GIDC Panoli - 394115, Tal: Ankleshwar, Dist: Bharuch (Gujarat).

1.2 Project Details

List of Products along with Production Capacity

Sr. No.	Products	CAS No.	LD50	QTY MT/MONTH			End Application
				Existing	Additional	Total after Proposed Expansion	
EXISTING (CCA Obtained Vide Order No. AWH-42570)							
FORMULATION							
1	"Formulation Packing & Repacking of various type of pesticides and fine chemicals (Liquid, Powder & Granules)"			**2500**	**---**	**2500**	**All products are Formulated Pesticides falling in different categories of Insecticide, Fungicide, Herbicides and are used in Crop Protection**
2	Acephate 75% SP	30560-19-1	700	**1500**	**---**	**1500**	
3	Acetamiprid 20% SP	135410-20-7	217				
4	Alphacypermethrin 5% EC	67375-30-8	1050				
5	Alphacypermethrin 10% EC	67375-30-8	1050				
6	Cartap Hydrochloride 4% Granules	15263-52-2	650				
7	Chlorpyriphos 20% EC	2921-88-2	490				
8	Chlorpyriphos 50% + Cypermethrin 5% EC	2921-88-25 2315-07-8	--				
9	Cypermethrin 10% EC	52315-07-8	575				
10	Cypermethrin 25% EC	52315-07-8	575				
11	DDVP 76% EC	62-73-7	100				
12	Deltamethrin 2.5% EC	52918-63-5	150				
13	Deltamethrin 2.5% SC	52918-63-5	150				
14	Fipronil 0.3% G R	120068-37-3	97				

15	Glyphosate 41% SL	38641-94-0	2000				
16	Hexaconazole 10% EC	79983-71-4	6071				
17	Hexaconazole 5% EC	79983-71-4	6071				
18	Imidacloprid 30.5% SC	138261-41-3	410				
19	Imidacloprid 17.8% SL	138261-41-3	410				
20	Lambda Cyhalothrin 2.5% EC	91465-08-6	612				
21	Lambda Cyhalothrin 5% EC	91465-08-6	612				
22	Mancozeb 64% + Metalaxyl 8% WP	8018-01-7 57837-19-1	--				
23	Mancozeb 75% WP	8018-01-7	5000				
24	Mancozeb 63% + Carbendezim 12% WP	8018-01-7 10605-21-7	--				
25	Monocrotophos 36% SL	6923-22-4	112				
26	Profenophos 50% EC	41198-08-7	620				
27	Pendimethalin 30% EC	40487-42-1	1050				
28	Tricyclazole 75% WP	41814-78-2	250				
	EXISTING TOTAL - A			**4000**	**--**	**4000**	
PROPOSED							
GROUP I: FUNGICIDE				---	**50**	**50**	1 to 5 are Fungicide Class Crop Care Chemical with varied application. No. 6 is Intermediate
1	Hexaconazole	79983-71-4	6071				
2	Tebuconazole	107534-96-3	1700				
3	Tricyclazole	41814-78-2	250				
4	Metalaxyl	57837-19-1	566				
5	Azoxystrobin	131860-33-8	5000				
6	1,2,4 Triazole	288-88-0	1750				
GROUP II - HERBICIDE				---	**50**	**50**	7 t o 10 are Herbicide Class Crop Care Chemical with varied application. No. 11 is Intermediate
7	Atrazine	1912-24-9	3090				
8	Metribuzin	21087-64-9	1100				
9	Pretilachlor	51218-49-6	2200				
10	Pendimethalin	40487-42-1	1050				
11	1, 2, 4 Triazinone	33509-43-2	2200				
GROUP III - INSECTICIDE				---	**50**	**50**	12 to 17 are

12	Acetamiprid	135410-20-7	217				Insecticide Class Crop Care Chemical with varied application. No. 18 is intermediate
13	Imidacloprid	138261-41-3	410				
14	Thiamethoxam	153719-23-4	1563				
15	Thiacloprid	111988-49-9	2000				
16	Netenpyram	150824-47-8	1680				
17	Buprofezin	69327-76-0	2198				
18	2-Chloro-5-(4hloromethyl)pyridine [CCMP]	70258-18-3	1200				
GROUP IV: SPECIALTY CHEMICALS				---	**100**	**100**	Raw Material for various dyes, pigments and Pharmaceuticals
19	2,3 Dichlorophenol	576-24-9	2376				
20	2,5 Dichlorophenol	583-78-8	1580				
21	3,5 Dichlorophenol	591-35-5	1250				
	PROPOSED TOTAL - B			**--**	**250**	**250**	
TOTAL (A + B)				**4000 MT/Month**	**250 MT/Month**	**4250 MT/Month**	

1.3 Raw Materials Consumption

Refer: Please refer EIA Report-Chapter 2-Section 2.8, Page No. 22.

1.4 Water Requirement, Waste Water Generation and Treatment

- Total water requirement will be 83.92 KL/Day (Fresh Water: 83.92KL/Day).
- Total 58.70 KL/Day (49.4 KL/Day: Industrial + 9.3 KL/Day: Domestic) of effluent shall be generated.
- **Stream-I: 49.4 KL/Day** (from Process, Boiler, Cooling, Washing and Scrubber) will be treated in ETP consist of primary treatment and then sent to CMEE for further Treatment and Disposal.
- 9.3 KL/day Domestic waste water will be sent to Septic Tank & Soak Pit.

1.5 Air Pollution Source and Control Management

Flue Gas Emission

SR. NO.	SOURCE OF EMISSION WITH CAPACITY	STACK HEIGHT (METER)	TYPE OF FUEL	QUANTITY OF FUEL MT/DAY	TYPE OF EMISSIONS I.E. AIR POLLUTANTS	AIR POLLUTION CONTROL MEASURES (APCM)

EXISTING						
1.	D. G. Set (175 KVA)	10	HSD	100 Lit/hr	SPM≤ 150 MG/NM3 SO_2≤ 262 MG/NM3 NOx≤ 94 MG/NM3	Adequate Stack Height
PROPOSED						
2.	Boiler (Capacity: 2 TPH)	30	Natural Gas	150 M^3/Hr	SPM≤ 150 MG/NM3 SO_2≤ 262 MG/NM3 NOx≤ 94 MG/NM3	Adequate Stack Height
3.	TFH (Capacity: 5 Lac Kcal/hr)	10	Natural Gas	75 M^3/Hr		Adequate Stack Height
4.	D. G. Set (125 KVA)	10	HSD	75 Lit/hr		Adequate Stack Height

Process Gas Emissions

No	SOURCE OF EMISSION	AIR POLLUTION CONTROL SYSTEM	STACK HEIGHT	PARAMETERS	
				POLLUTANTS	LIMITS
EXISTING					
1	Pulverizer	Bag Filter	Closed Loop	SPM	≤ 150 MG/NM3
PROPOSED					
2	Group I Plant **Drier**	Water Scrubber	10 Meters	SPM	≤ 150 MG/NM3
3	Group II Plant **Drier**	Water Scrubber	10 Meters		
4	Group III Plant **Drier**	Water Scrubber	10 Meters		
5	**Process Vent - 4**	Two Stage Water & Alkali Scrubber	10 Meters	HCl	≤ 20 MG/NM3
6	**Process Vent - 5**	Two Stage Alkali Scrubber	10 Meters	H_2S	≤ 45 MG/NM3
7	**Process Vent - 6**	Two Stage Alkali Scrubber	10 Meters	SO_2	≤ 40 MG/NM3

1.6 Hazardous/Solid Waste Generation and Disposal Mode

No	Name of waste	Specific Source of generation (Name of the Activity, Product etc.)	Category	Qty MT/Annum			Mode of Disposal
				Existing	Proposed	Total	
1	Used/Spent oil	Equipment &	SCH-I/	0.01	0.25 KL	0.26	Reused for Machine

		Machinery	5.1			KL	Lubrication / Given to GPCB registered reprocessor
2	Discarded Containers/ Barrels/ Liners	Raw Material and Storage	SCH-I/ 33.1	0.8	100	100.8	Sold to GPCB authorized dealer after Decontamination
3	Process wastes/ Laboratory waste containing Pesticides	Process	29.1	2.5	50	52.5	Collection, Storage transportation for co-processing in cement industry or incineration in common incineration facility.
4	Data expired or Off Specification Products	From mfg. Process (Batch failure)	SCH-I/ 29.3	2.5	25	25.2	
5	Used Filters/ Filter Cloths & Materials	Filter Press	SCH-I/ 29.1	--	0.50	0.50	
6	Spent Hy-Flow	Process	SCH-I/ 29.1	--	0.50	0.50	
7	Distillation Residue	Solvent Distillation Plant	SCH-I/ 29.1	--	264	264	
8	Spent Solvent	Process	SCH-I/ 29.4	--	18550	18550	Collection, Storage, Distill inhouse and Reuse within premises for same product.
9	Process Residue [Inorganic]	Process	SCH-I/ 29.1	--	2000	2000	Collection, Storage, Transportation and Disposal at TSDF site.
10	ETP Sludge	ETP	SCH-I/ 29.2	--	183	183	Collection, Storage, Transportation and Disposal at TSDF site.
11	Hydrochloric Acid Solution	Process (Product No:4, 9 & 18)	SCH-II/ B15	--	1546	1546	Collection, Storage, Transportation and sold to end user having permission under rule-9.
12	Spent Acid	Process (Product No:10, 18 & 21)	SCH-I/ 29.6	--	6069	6069	
13	Sodium Sulphite Solution [Na2SO3]	Process (Product No:18)	SCH-I/ 29.1	--	640	640	
14	Sodium Hydrogen Sulphide [NaSH]	Process (Product No:11 & 21)	SCH-I/ 29.1	--	787	787	
Remarks:							

1. For Land Fill and Incineration, common facility would be used.
2. All the hazardous waste generated would be segregated properly and stored properly in designated area prior to disposal to authorized agencies.

1.7 Green Belt

Total **11990 m^2** land area is available at site; out of this area about **4796 m^2 (40%)** area is covered as greenbelt and other forms of greenery.

1.8 Power & Fuel Requirements

- **Power Requirement**

Existing:

Power requirement: 250 KVA DGVCL

DG Set = 175 KVA from D.G. set (Emergency power back up)

Additional:

Power requirement: 250 KVA DGVCL

DG Set = 125 KVA from D.G. set (Emergency power back up)

Total after Expansion:

Power requirement: 500 KVA DGVCL

DG Set = 175 KVA*1 Nos. & 125 KVA*1 Nos. (Emergency power back up)

- **Fuel Requirement**

Sr. No.	Name Of Fuel	Existing	Additional	Total After Expansion
		Quantity		
1.	HSD	100 Lit/hr	75 Lit/hr	175 Lit/hr
2.	Natural Gas	--	225 M^3/hr	225 M^3/hr

2.0 INTRODUCTION OF THE PROJECT/BACKGROUND INFORMATION

2.1 Identification of the project and project proponent. In case of mining project, a copy of mining lease/letter of intent should be given.

- **Identification of the project**

Proposed Pesticide Technical (150 MT/Month) and Specialty Chemical (100 MT/Month) in Existing Formulation Unit (4000 MT/Month)

Identification of the project proponent

No.	Name	Designation	Qualification	Contact Details
1	Mr. Vinodkumar Joshi	Partner	Diploma – Civil	4-Ashrya Bunglows, Plot No. 2201 – 2202, Near Diamond Dye Chem Colony, GIDC, Ankleshwar, District: Bharuch Email: vinodjoshi6215@gmail.com Telephone: +91 9825684110
2	Mr. Narayanbhai Patel	Partner	Diploma in Auyurvedic Medicine	At – Dhamrod, Vill – Dhamrod, Tal. Mangrol, Dist. Surat Telephone: +91 9426853148
3	Mr. Dilip Aswar	General Manager	Diploma – Mechanical	105 – Khush Residency, Plot No. 730, GIDC, Ankleshwar, District: Bharuch Email: dilipaswar91@gmail.com Telephone: +91 9904709317

2.2 Brief description of nature of the Project

Proposed Pesticide Technical (150 MT/Month) and Specialty Chemical (100 MT/Month) in Existing Formulation Unit (4000 MT/Month)

2.3 Need for the project and its importance to the country and or region

The demand for products intended to be manufactured is increasing in domestic as well as in international market. To meet this demand, company proposes manufacturing unit. The project will also save forex as certain products import will be reduced. This will also generate direct and indirect employment opportunity for various levels of people.

2.4 Demands-Supply Gap

Based on our informal survey of the market with various manufacturers and traders, we have found that there is a big potential for the range of the products we are planning.

2.5 Imports vs. Indigenous production

Based on the current cost of indigenous raw materials and non availability of some materials, we will have to import some of raw materials as they are not available indigenously. This will

make us very competitive against imported finished products and we may export our finished products in the international market.

2.6 Export possibility

We shall explore possibility of export of our products.

2.7 Domestic/Export Markets

Our products have good demand in local & international markets. We shall explore possibility of export of our products.

2.8 Employment Generation (Direct and Indirect) due to project.

M/s. Niyam Industries will give 144 direct employment to local skilled and unskilled people based on qualification and requirement as per prevailing norms of state government in addition to direct employment, indirect employment shall generate ancillary business to some extent for the local population.

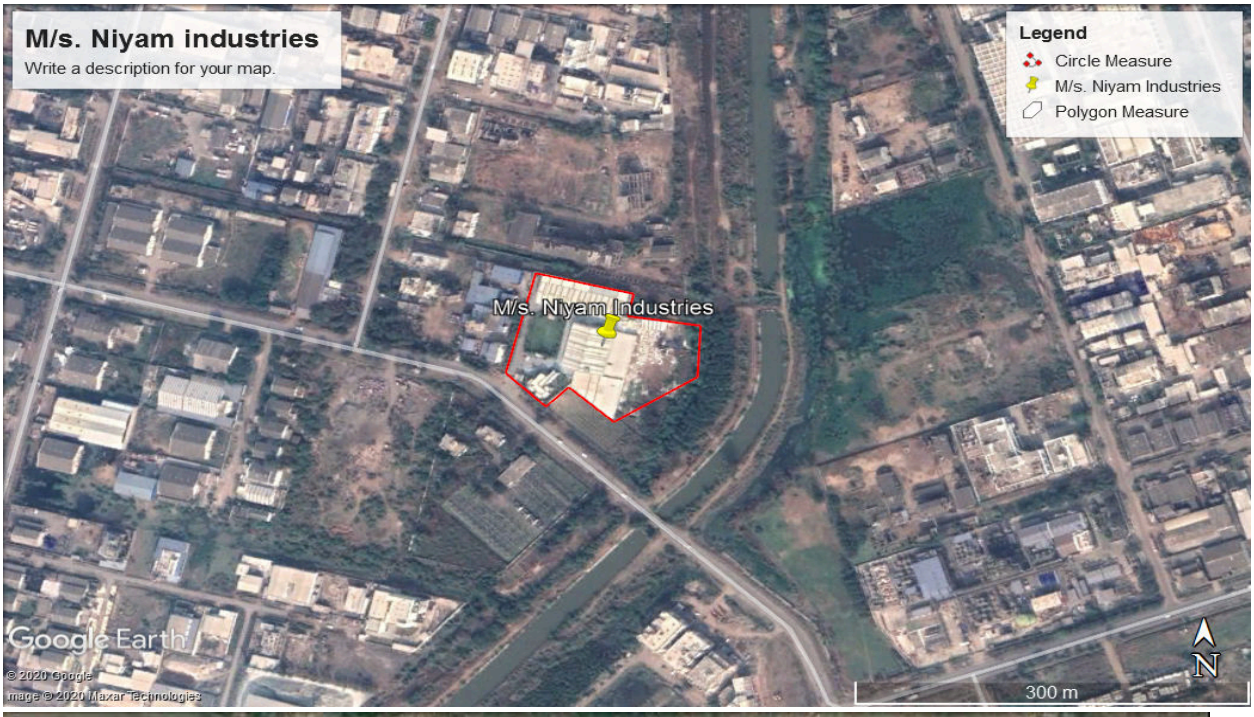
3.0 PROJECT DESCRIPTION

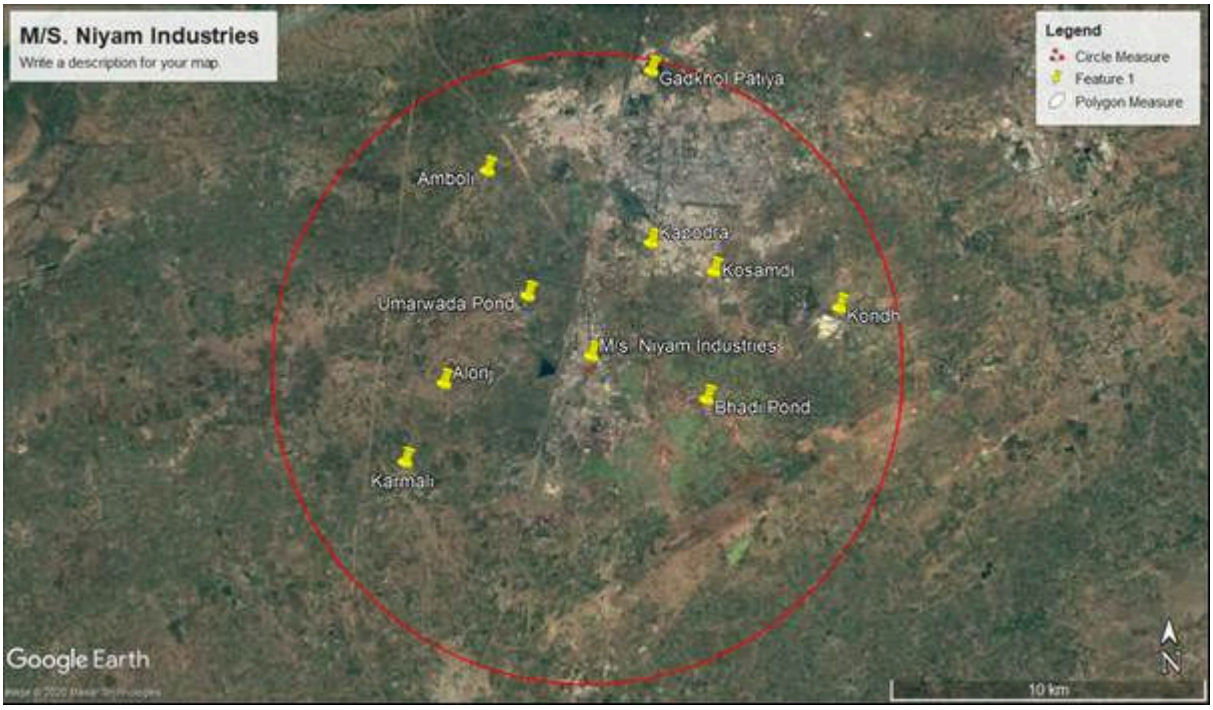
3.1 Type of Project including interlinked and interdependent projects, if any.

No interlinked project has been submitted.

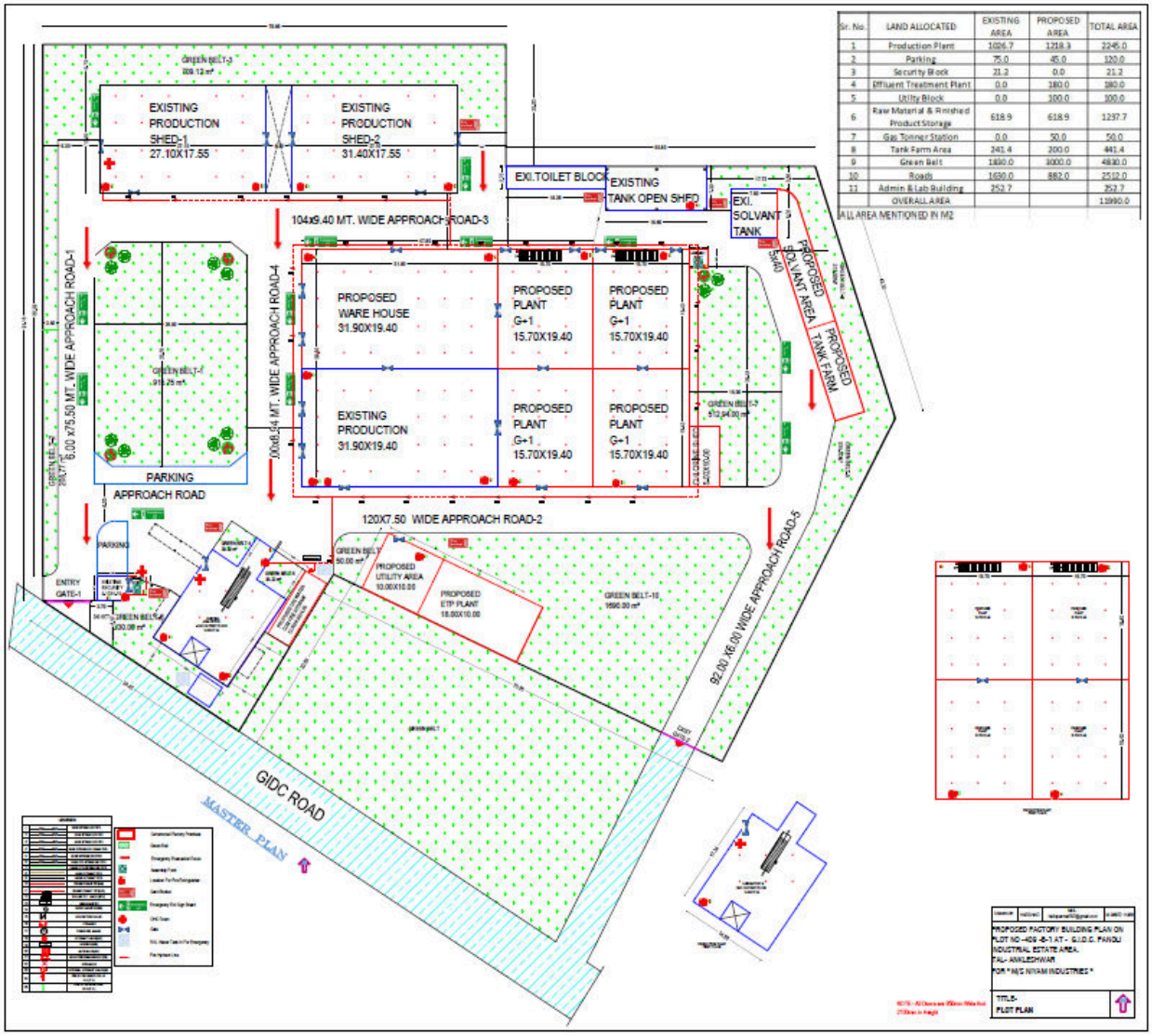
Location (map showing general location, specific location and project boundary & project site layout) with coordinates.

- Project Site Location (Google Map)





Plot Layout:



Sr. No.	LAND ALLOCATED	EXISTING AREA	PROPOSED AREA	TOTAL AREA
1	Production Plant	1026.7	1218.3	2245.0
2	Parking	75.0	45.0	120.0
3	Security Block	21.2	0.0	21.2
4	Effluent Treatment Plant	0.0	180.0	180.0
5	Utility Block	0.0	100.0	100.0
6	Raw Material & Finished Product Storage	618.9	618.9	1237.7
7	Gas Tanner Station	0.0	50.0	50.0
8	Tank Farm Area	241.4	200.0	441.4
9	Green Belt	1690.0	3000.0	4830.0
10	Roads	1630.0	882.0	2512.0
11	Admin & Lab Building	252.7		252.7
	OVERALL AREA			13990.0

ALL AREA MENTIONED IN M2

3.3 Details of alternate sites considered and the basis of selecting the proposed expansion site, particularly the environmental considerations gone into should be highlighted.

Looking to the international market demand of the products it was decided by M/s. Niyam Industries to set up a new facility at GIDC, Panoli

Proposed expansion activities will be carried out the existing premises, so alternate sites is not required.

3.4 Size or Magnitude of Operation

Refer: Section-1.0, Sub-section 1.2, Pages No. 2-18 of this report.

3.5 Project Description with process details (a schematic diagram/flow chart showing the project layout, components of the project, etc. should be given)

Refer: Form-1, Annexure-1, 2 & 3.

3.6 Raw Material required along with estimated quantity, likely source, marketing area of final product/s, mode of transport of raw material and Finished product.

- For raw materials along with consumption quantities - **Refer:** Form-I, Annexure-IV
- We will procure raw materials (as and when required) as much as possible from domestic market.

3.7 Resource optimization/recycling and reuse envisaged in the project, if any, should be briefly outlined.

Resource optimization/recycling and reuse shall be envisaged.

3.8 Availability of water, its source, energy/power requirement and source should be given.

Raw water requirement is met through GIDC water supply.

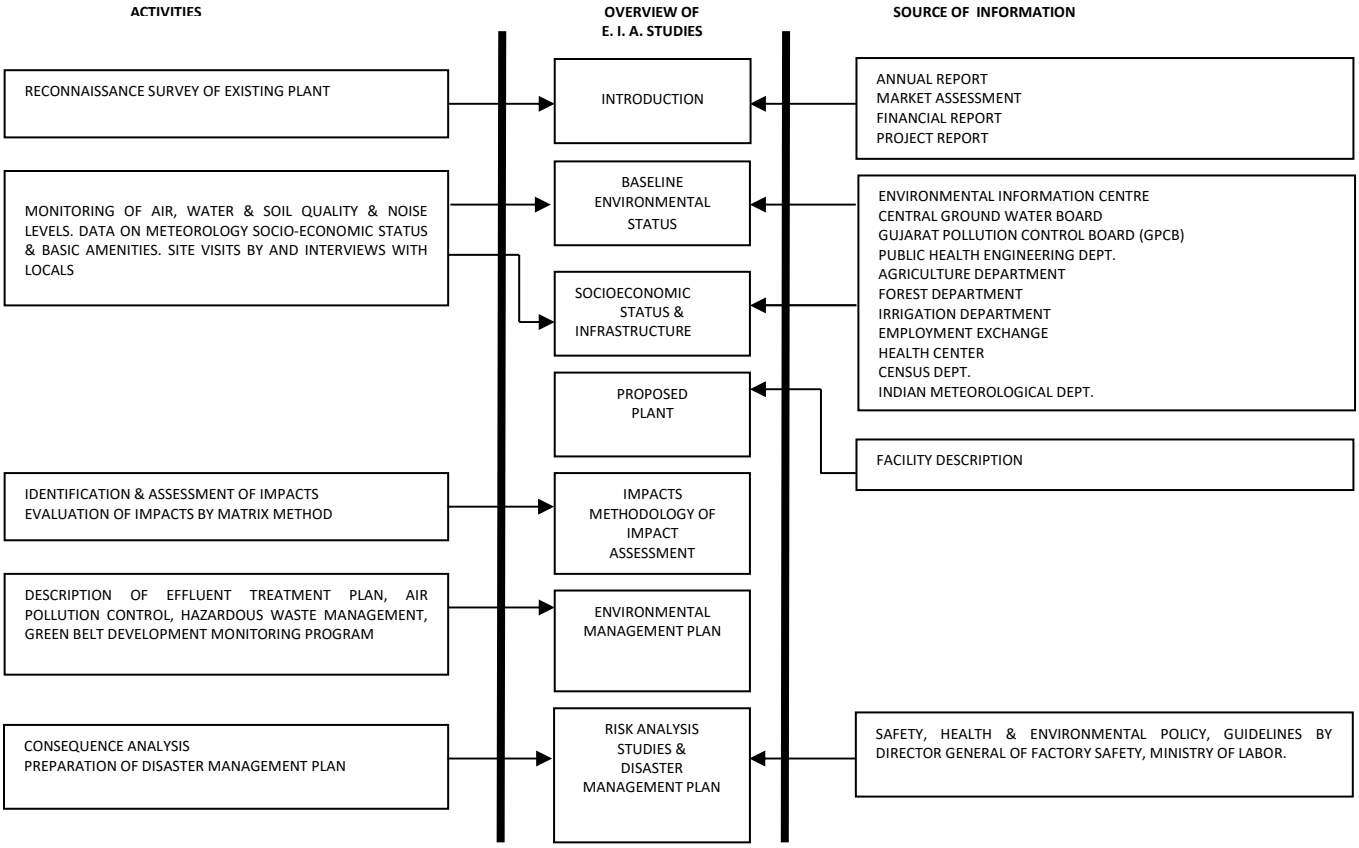
Power & Fuel Requirement

Refer: Section-1.0, Sub-section 1.8, Page No. 20 of this report.

3.9 Quantity of wastes to be generated (liquid and solid) and scheme for their management/disposal.

Refer: Form-I, Annexure-V, VI, VII & VIII.

3.10 Schematic representations of the feasibility drawing which give information of EIA purpose.



4.0 SITE ANALYSIS

4.1 Connectivity

- Site is very well connected by road and rail.
- Availability of water, power, etc.

4.2 Land Form, Land Use and Land Ownership

Land from and land use data will be incorporated in EIA Report.

4.3 Existing land use pattern (agriculture, non-agriculture, forest, water bodies (including area under CRZ)), shortest distances from the periphery of the project to periphery of the forests, national park, wild life sanctuary, eco sensitive areas, water bodies (distance from HFL of the river), CRZ. In case of the notified industrial area, a copy of the Gazette notification should be given.

Land Use Period for the study area will be incorporated in EIA.

4.4 Existing Infrastructure

- Site is very well connected by road and rail.
- Proximity to common hazardous/solid waste disposal facilities.
- Availability of sufficient land free from cultivation.
- Availability of water for industrial use.
- Availability of power evacuation facilities.
- Efficient transport facilities within the industrial estate and to & fro the city area.
- Environment-friendly zone.
- Uninterrupted power supply.

4.5 Soil Classification

Soil Characteristics data will be incorporated in EIA Report.

4.6 Climatic data from secondary sources.

Climatic data from primary & secondary sources will be incorporated in EIA Study.

4.7 Social infrastructure available.

Depending on the growth of the company the required social infrastructure will be provided.

5.0 PLANNING BRIEF

5.1 Planning Concept (type of industries, facilities, transportation etc.) Town and Country planning/Development authority classification.

Proposed Pesticide Technical (150 MT/Month) and Specialty Chemical (100 MT/Month) in Existing Formulation Unit (4000 MT/Month)

5.2 Population Projection

Data of population projection of the study area will be incorporated in EIA study.

5.3 Land use planning (breakup along with green belt etc.)

Sr. No.	LAND ALLOCATED	EXISTING AREA	PROPOSED AREA	TOTAL AREA
1	Production Plant	1026.7	1218.3	2245.0
2	Parking	75.0	45.0	120.0
3	Security Block	21.2	0.0	21.2
4	Effluent Treatment Plant	0.0	180.0	180.0
5	Utility Block	0.0	100.0	100.0
6	Raw Material & Finished Product Storage	618.9	618.8	1237.7
7	Gas Tonner Station	0.0	50.0	50.0
8	Tank Farm Area	241.4	200.0	441.4
9	Green Belt	1830.0	3000.0	4830.0
10	Roads	1630.0	882.0	2512.0
11	Admin & Lab Building	252.7	0.0	252.7
	TOTAL AREA	**5695.9**	**6294.1**	**11990.0**
ALL AREA MENTIONED IN M2				

5.4 Assessment of Infrastructure Demand (Physical & Social)

- Employment will be as per prevailing norms of state government for skilled and unskilled people.
- Social Welfare shall be done.
- Cordial relation with the industry shall be established and representation shall be made to villagers for help for creation of facilities related to health, education, etc.

5.5 Amenities/Facilities

Details of Amenities of the study area will be incorporated in EIA report.

6.0 Proposed Infrastructure

6.1 Industrial Area (Processing Area)

Processing Area (Plant facilities, R&D, ETP Area and Engineering/Utility Services) = 2525 m^2

6.2 Residential Area (Non Processing Area)

Non Processing Area (Green belt, Raw material storage area, finished storage area, Administration Building, Parking, road and open area) = 9465 m^2

6.3 Green Belt

Total 11990 m2 land area is available at site; out of this area about 4796 m2 (40%) area is covered as greenbelt and other forms of greenery.

6.4 Social Infrastructure

- Water Supply by GIDC.
- Power supply by DGVCL and D.G. Set (emergency standby)

6.5 Connectivity (Traffic and Transportation Road/ Rail/Metro/ Water ways etc.)

Major factors involved in the selection of site are listed below:

- Site is very well connected by road and rail
- Proximity to common hazardous/solid waste disposal facilities
- Availability of sufficient land free from cultivation
- Availability of water for industrial use
- Availability of power evacuation facilities
- Efficient transport facilities within the industrial estate and to & from the city area.
- Environment-friendly zone.
- Uninterrupted power supply.

6.6 Drinking water Management (Source & Supply of water)

Total water requirement is and shall be met through GIDC water.

6.7 Sewerage System

Sewage pipes will be laid in entire premises for the removal and disposal of mainly non-harmful liquid wastes from offices and domestic waste come from different sections of unit. These liquid wastes are sent to septic tank & soak pit/ETP. The same system will be followed after proposed expansion.

6.8 Solid Waste Management

Reference: Section-1.0, sub-section 1.6, Page No. 6-7 of this report.

6.9 Power Requirement & Supply/Source

Reference: Section-1.0, sub-section 1.8, Page No. 7 of this report.

7.0 REHABILITATION AND RESETTLEMENT (R & R) PLAN

7.1 Policy to be adopted (central/state) in respect of the project affected including home oustees, land oustees and landless laborers (a brief outline to be given)

Proposed activity will be carried out on land no habitation, so R & R policy is not applicable to this project. There shall not be displacement of any population in proposed expansion project. Proposed expansion project will likely boost the commercial and economical status of the locality up to some extent.

8.0 PROJECT SCHEDULE & COST ESTIMATES

8.1 Likely date of start of construction and likely date of completion (Time schedule for the project to be given).

We shall start construction after getting EC and shall start operation after applying for CCA.

8.2 Estimated Project cost along with analysis in terms of economic viability of the project.

Total costs of the project will Rs. 6.40 Crores (Existing Project Cost – Rs. 1.70 Crores + Proposed Project Cost – Rs. 4.70 Crores).

Sr. No.	Purpose	Existing (Rs. In Crore)	Proposed (Rs. In Crore)	Total (Rs. In Crore)
1	Total Cost of Project	1.50	4.05	5.55
2	Capital cost of air & water pollution control system and environmental monitoring equipments	0.15	0.45	0.60
3	Recurring Cost for EMS	0.05	0.20	0.25
	Total	**1.70**	**4.70**	**6.40**

9. Analysis of Proposal (Final Recommendations)

9.1 Financial and social benefits with special emphasis on the benefit to be local people including tribal population, if any, in the area.

- Employment will be as per prevailing norms of state government for skilled and unskilled people for the proposed project.
- Social Welfare shall be done.
- Cordial relation with the industry shall be established and representation shall be made to villagers for help for creation of facilities related to health, education, etc.