

PRE FEASIBILITY REPORT

OF

OCTANE CHEMICALS PVT. LTD.

Proposed Cetyl Chloride Manufacturing Unit

at

**SY No: 168/3, ANTHAMPALLY (V), BHIKNOOR (M),
NIZAMBAD (Dt), TELANGANA STATE.**

By

M/s. OCTANE CHEMICALS PVT. LTD.

**Plot No.95, Maruti Maithri Enclave, Yaparal Village,
Ranga Reddy District - 500087, Telangana State**

February, 2015

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1.0 EXECUTIVE SUMMARY

Octane Chemicals Pvt Ltd was incorporated in 2011 with registered address of Plot No.95, Maruti Maithri Enclave, Yaparal Village, Ranga Reddy District - 500087, Telangana State.

S. No	Parameter	Description
1	Project Location	Sy No: 168/3, Anthampally (V), Bhiknour (M), Nizambad (Dt), Telangana State
2	Category of Project as per EIA Notification & Amendments	5(f) "A"
3	Project cost	101.00 lakhs
4	Plot area	5.00 Acres
5	Proposed Products	40 Tonns/Month of Cetyl chloride
6	Resources	
	(I)Electricity Requirement	800 KVA
	Source of electricity	SPCPDCL
	D. G. Sets	125 KVA
	(II)Water consumption	13.50 KL/day
	Source of water	Ground Water Through Bore Well
	Waste water generation	7.52 KLD
	Mode of disposal	Scrubbed liquid is neutralised and sent to RO Plant for water Recovery/Reuse.
7	Solid waste generation	Mentioned in Para 3.3 of report
8	Nearest Highway	National Highway 7 – 0.50 KM
9	Nearest Railway Station	Talmadla Railway Station - 4.0 Kms Bhiknur Railway Station –5.8 KMs
10	Nearest Air Port	Rajiv Gandhi International Airport - 108.0 KMs

2.0 INTRODUCTION OF THE PROJECT

The objective of this pre- feasibility study is to provide information for the proposed synthetic organic chemical manufacturing unit of **M/s. Octane Chemicals Pvt Ltd** at Sy No: 168/3, Anthampally (V), Bhiknoor (M), Nizambad (Dt), Telangana State

2.1 Project Proponent

Mr. Tripuraneni Venkaiah Chowdary is the **Director** of the company. He has about 25 years' experience in various industries and he is also director for other three companies He is overall in-charge of the company.

Mrs. T. Malathi is the **Director** of the company. She has vast experience in various industries.

2.2 Brief description of nature of the project.

M/s.Octane Chemicals Pvt Ltd. is proposed to produce Cetyl Chloride by establishing manufacturing unit at Sy No: 168/3, Anthampally (V), Bhiknoor (M), Nizambad (Dt), Telangana State.

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

The unit proposed to manufacture Cetyl chloride by considering present market scenario and expertise of same product in terms technical with good market exposure. There will not be any major impacts on biotic environment from the proposed activities. As a result, it will become easier for the management to produce Cetyl chloride. There is ample market for National and International market. In view of the availability of scientific staff that able develop sustainable process are relatively low cost, and high demand of product in market, company has decided to produce Cetyl chloride

Promoters of Octane Chemicals Pvt. Ltd bring many years of technical experience to the business with a commitment to marketing and growth. The company believes that it is well positioned to capitalize on a very large, rapidly growing and lucrative market.

2.4 Demand-Supply Gap.

There is a quite considerable gap between supply and demand for Cetyl chloride. Very few players are in the market who can offer continuous supply. The company wants to bridge this gap between demand and supply by expanding the production capacity and thereby, making good business. Company's marketing edge comes from its direct and close contact with the customers. Their products are major strength of their customers.

2.5 Employment Generation (Direct and Indirect) due to the project

The unit has approximately 30 permanent and contractual employees. Apart from this there will be significant non estimated employment generation at the supplier firms and service industry providing services to the company. Company shall be giving preference to people from economically weaker sections for employment in various semi-skilled/unskilled jobs thereby contributing to their upliftment. The details of total employment in this unit shown in below Table2.1.

TABLE 2.1: TOTAL EMPLOYMENT

Particulars	No. of employees	Functional Area
Key managerial staff	2	Finance, Marketing, Production, Quality control, R&D, Logistics etc.
Administration	3	Office work
Skilled and semi skilled	25	Production Process, Maintenance, stores, Safety.& Un skilled workers
Total	30	

3.0 Project Description

M/s. Octane Chemicals Pvt Ltd is proposing to produce Cetyl chloride with production capacity of 40.00 Tonns /Month

The Location map is shown at **Figure -3.1** and Google earth map showing Octane Chemicals Pvt Ltd plant is shown at Figure -3.2 .

The site central coordinates are

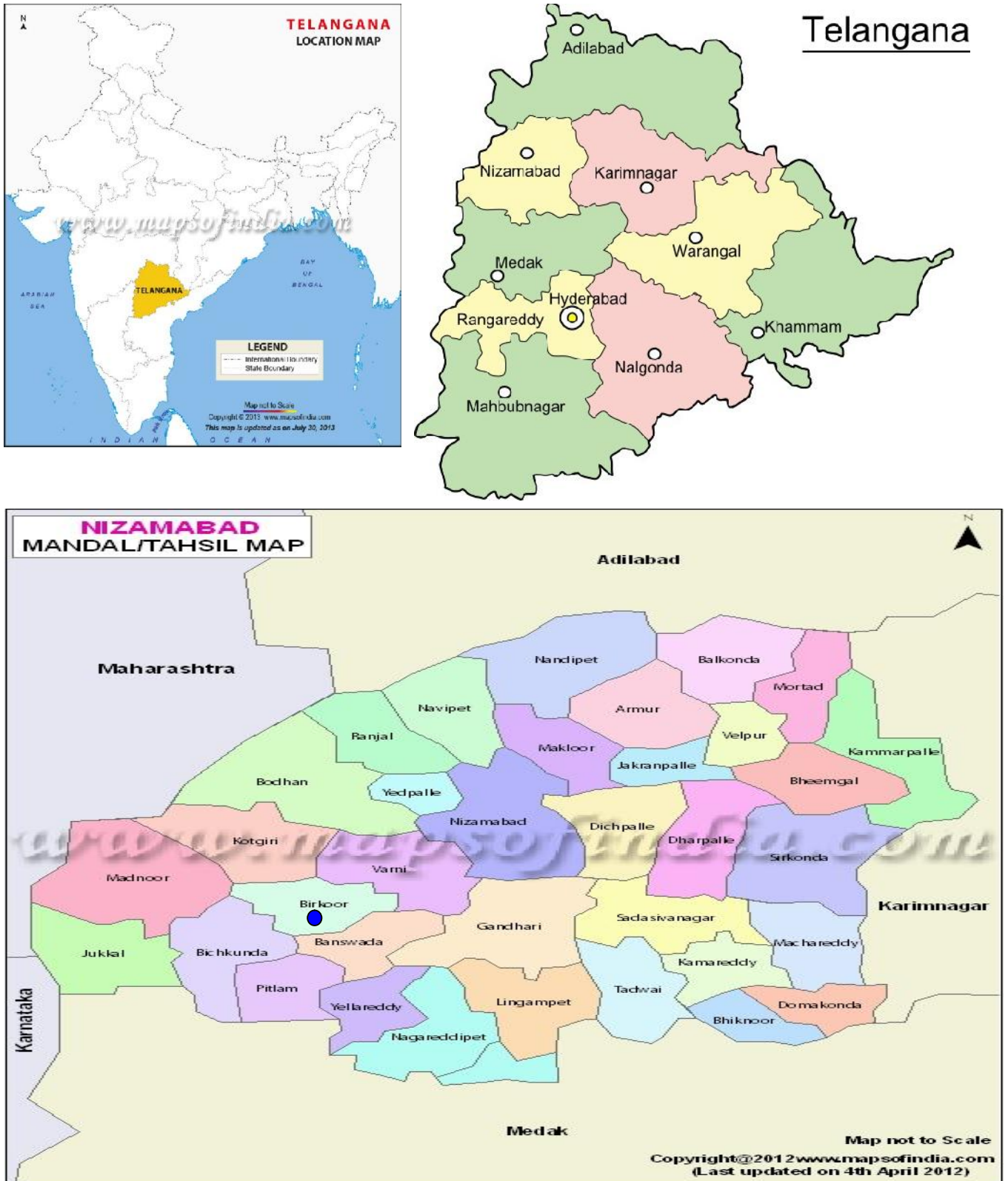
Latitude: 18°13'0.72"N

Longitude: 78°23'13.83"E

There are no archaeological, historical sites located nearby. Therefore, the project site does not offer any negative impact on the local area, but rather has a positive impact on socio economic conditions of the habitants around it.

The Octane Chemicals Pvt Ltd is 0.5 Kms away from National Highway No– 7 and 4.0 & 5.8 Kms from Railway Station at Talmadla & Bhiknur Respectively

FIGURE 1.1: LOCATION MAP



● Octane Chemicals Pvt Ltd
Sy No: 168/3, Anthampally (V), Bhiknoor (M),
Nizamabad (Dt), Telangana State

FIGURE 1.2: GOOGLE EARTH MAP SHOWING OCTANE CHEMICALS PVT LTD



3.1 Product and Production Capacity

M/s. Octane Chemicals Pvt Ltd is proposes to produce below mention products with Manufacturing Capacity 40 MT/Month and the list of product is shown in Table3.1.

Table3.1: Proposed Product and Quantity

S. No	Name of The Product	CAS No's	Therapeutic Category / Applications	Quantity MT/Month	Quantity MT/Day
1	Cetyl chloride	4860-03-1	Used as <ul style="list-style-type: none"> • solvent • Surfactants • Pharmaceuticals • Antibacterial spray 	40.00	1.33
Total				40.00	1.33

3.2 Raw materials required and Quantities

All the raw materials required for manufacturing of above products will be sourced from local market. The required raw materials and quantities are presented in the Table 3.2.

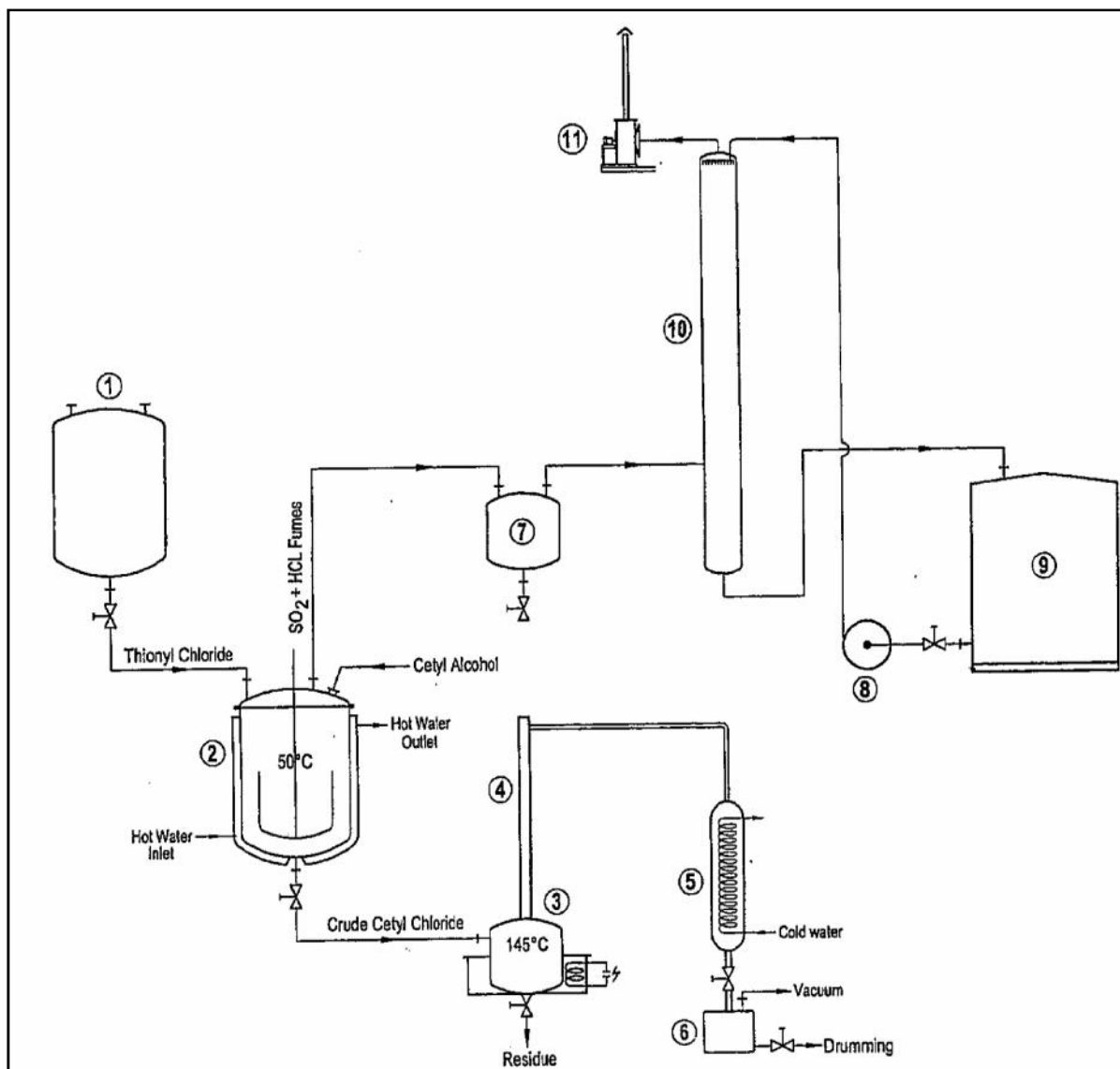
Table3.2: LIST OF RAW MATERIALS

S. No	List of Raw Materials	Quantity In MT/ Month	Quantity In MT/ Day
1	Cetyl alcohol	1.115	1.238
2	Thionyl chloride	0.732	0.813
3	Sodium hydroxide	0.709	0.787

3.3 Manufacturing Process

The manufacturing process of Cetyl Chloride consists of chemical synthesis extending to stages of processing involving different type of chemical reactions. The generalized Flow chart for Cetyl Chloride manufacturing is shown in **Flow chart 3.1**.

FLOW CHART 3.1: GENERALIZED FLOW CHART FOR CETYL CHLORIDE



EQPT. No.	DESCRIPTION
1	DOZING TANK
2	GLASS LINED REACTOR
3	GLASS DISTILLATION VESSEL
4	DISTILLATION COLUMN
5	CONDENSOR
6	CETYL CHLORIDE COLLECTION TANK
7	WATER TRAP
8	ALKALI PUMP
9	ALKALI SOLUTION TANK
10	SCRUBBER
11	I.D. FAN

3.4 Resource – Utilize & Recycling

3.4.1 Water

Water requirement of the project for domestic and industrial activity during operation phase will be 13.50 KLD. The water requirement will be met through bore well. The detailed water requirement shown in below Table 3.3.

Table 3.3: WATER REQUIREMENT DETAILS

S. No	Purpose	Water Consumption In KLD
1	Process	4.50
2	Washings	0.50
3	Domestic Usage	2.50
4	Gardening	6.00
	Total	13.50

3.4.2 Power Requirement

Power requirement of proposed project will be made available through SPCPDCL. The total power requirement for the unit is 800 KVA respectively. D.G. set of 125 KVA is proposed installed to meet the emergency power requirement of the plant.

3.5 Quantity of wastes to be generated

3.5.1 Waste Water Generation and utilization

Total effluent generated in the project is 7.52 KLD. The wastewater from washings and Scrubbed liquid are sent to neutralization tank and this wastewater sent to RO Plant for water Recovery/Reuse. and RO Permeate will be re-used back. RO reject will sent to TSDF for Secure land fill.

To treat the sewage generated due to domestic activities will be disposed through septic tank following by soak pit.

Table3.4: Wastewater generation and Treatment Method

S. No	Purpose	HTDS In KLD	LTDS In KLD	Effluent In KLD	Disposal Method
1	Scrubbing system	5.02	0.00	5.02	Scrubbed liquid is neutralised and sent to RO Plant for water Recovery/Reuse.
2	Washings	0.00	0.50	0.50	
3	Domestic	0.00	2.00	2.00	Septic tank followed by Soak pit
	Total	7.07	2.50	7.52	

3.5.2 Solid waste generation and Disposal

The types of Hazardous and non Hazardous wastes generated from the project, method of disposal is shown in below table3.5.

Table 3.5: Solid & Hazardous waste generation and Disposal

S. No	Description	Quantity In Kg/Day	Method Of Disposal
1	Inorganic Solid Waste	971.00	Sent to TSDF
2	RO Salts	425.00	Sent to TSDF
3	Waste oils & Grease	100 Litres/Annum	Shall be disposed to agencies authorized by TSPCB.
4	Container & Container Liner	150 No's /Month	Shall be detoxified within the premises and to recyclers.
5	Used Lead Acid Batteries	2 No's /Annum	Shall be Send back to suppliers.

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

The applicability of the S.O 1533 for the proposed project was explored by considering different possibilities & provision made in the said notification. Considering the products & project location of the proposed project it is noticed that the proposed project falls under Category 5 (f) "A" of the Schedule-I of EIA Notification SO 1533.

As per the provision of the SO 1533, it is necessary to get Environmental Clearance by applying to MoEF along with the Environmental Impacts Assessment Study Report for the proposed project prior to commissioning of the project activities. Therefore the EIA is required to conduct to comply with provisions of SO 1533 made for Category 5(f) "A" of schedule –I of the notification.

4.0 Site Analysis

4.1 Connectivity

Octane Chemicals Pvt Ltd is located at Sy No: 168/3, Anthampally (V), Bhiknoor (M), Nizambad (Dt), Telangana State

- The nearest habitation from the site is Anthampally (Village) at a distance of 1.7 Km(E).
- The nearest railway station is Talmadla Railway Station at a distance of 4.0 KMs from the site (NW).
- The nearest airport is Rajiv Gandhi International Airport at a distance of 108 KMs
- The Nearest road ways

National Highway No.7 – 0.5 Kms

4.2 Land Form, Land use and Land ownership.

The Current land use of the site is rain fed agricultural land and it is converted to Industrial purpose. The land use of the 5.00 Acres will be permanently changed to industrial purpose

4.3 Existing Infrastructure.

Proposed project is a located very nearer to National Highway (NH-0.5 Km) and Mandal Head Quarters (i.e Bhiknoor-2.8 Kms) and the basic infrastructure is already there. The plant well connected with Road and Railway facilities

4.4 Soil classification

The district is mainly covered by two types of soils i.e black and chalka (Sandy looms) covering 55% and 45% respectively of the total area.

4.5 Climatic data from secondary sources.

Temperature Maximum: 44.40° C

Minimum: 8.90 ° C

Normal annual rainfall **1078.7mm**

4.6 Social Infrastructure available.

Well developed social infrastructure facilities are available at nearby Habitations.

5.0 Planning Brief

Proposed plant activities will be started after getting statutory clearance form related authorities. The project will be completed within two years.

Further proposed project activities will take care of all the rules and regulation of statutory authority and provide the control measure and devices to achieve the standard norms

6.0 Proposed Infrastructure

6.1 Industrial Area

The infrastructure and other facilities are already well developed in nearby Mandal head quarter and other villages .

6.2 Residential Area

The employees who will work in the industry will be live in nearby villages or Bhiknoor mandal & no proposal for residential area for employees.

6.3 Green Belt:

Approximately 34 % of Green Belt (i.e 6879.62 M².) will develop and it will be maintained.

6.4 Social Infrastructure:

Facilities like road and communication are good..Banks, ATM's and medical facilities are also adequate.

Amenities:

Education- schools including middle, secondary and higher secondary schools, social welfare hostels.

Medical and Health- Community Health Centre, & Primary Health center Are available near villages

Power and water- All the villages are electrified and drinking water facilities are extended to all villages.

Rail and Road- The project site is very well connected by road through National Highway no. 7, Southern railways.

6.5 Water management

Water requirement will be met through ground water.

6.6 Sewerage System:

There will be no discharge of industrial effluent. The treated effluent will be reused. Domestic waste water will be disposed off through soak pit system.

6.7 Industrial Waste Management:

Due to proposed Proposal, the effluent from cooling and Plant/Equipment washing will be generated and treated in the well designed Effluent Treatment Plant. The treated effluent will be reused.

7.0 Rehabilitation and Resettlement (R & R) Plan

Rehabilitation & Resettlement (R&R) plan is not applicable to proposed project.

8.0 Project Schedule & Cost Estimates

Proposed project activities will be started after getting statutory clearance form related authorities. The project will be completed within two years.

Proposed activity will provide benefits to the local people in terms of financial and social welfare.

The project cost for proposed Project is 1.01 Crores will be used for constructing additional building, Equipments, Machinery and RO system.

TABLE 8.1: PROJECT COST

S. No	Particulars	Rs. Lakhs
1	Land	06.00
2	Buildings	25.00
3	Plant & Machinery	50.00
4	Working Capital Margin	20.00
	Total	101.00

9.0 Analysis of proposal (Final Recommendations)

- ❖ Local people will get direct financial benefit by way of employment.
- ❖ Local people will get some contracts of supply and services to get indirect income.
- ❖ Company will contribute in improving education and health facilities in nearby area