



Situation Analysis for SME
Sector



West Godavari / East
Godavari Cluster

Submitted to
TERI

By

 **ACNielsen ORG-MARG**

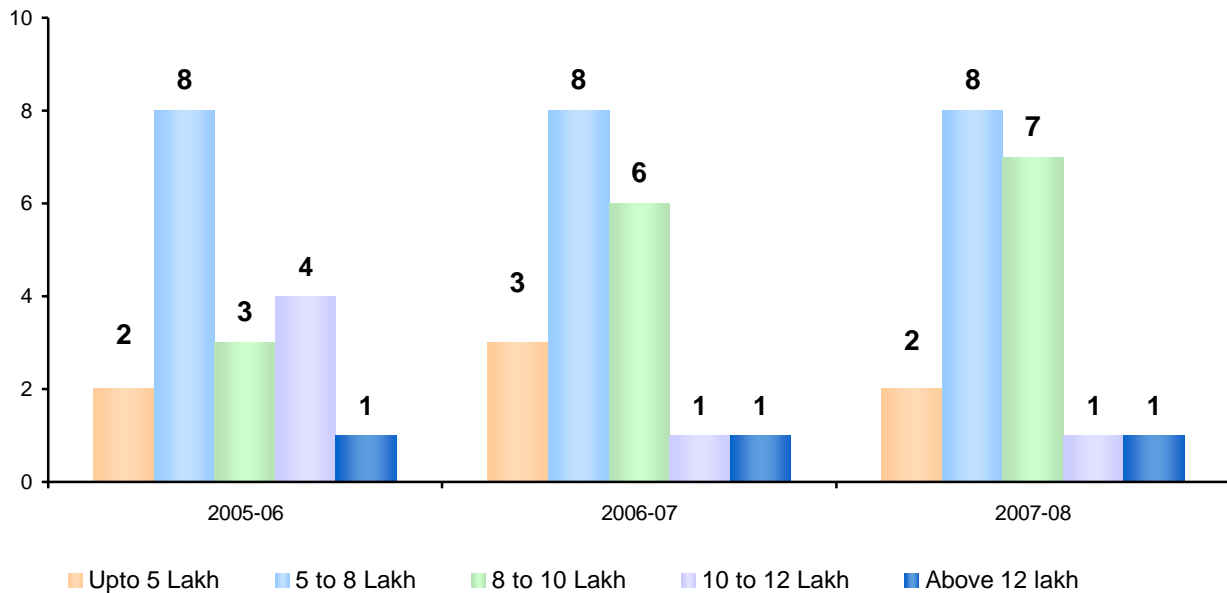
SUMMARY OF FINDINGS

West Godavari

- There are approximately 20 units in this cluster who are engaged in manufacture of various types of firebricks.

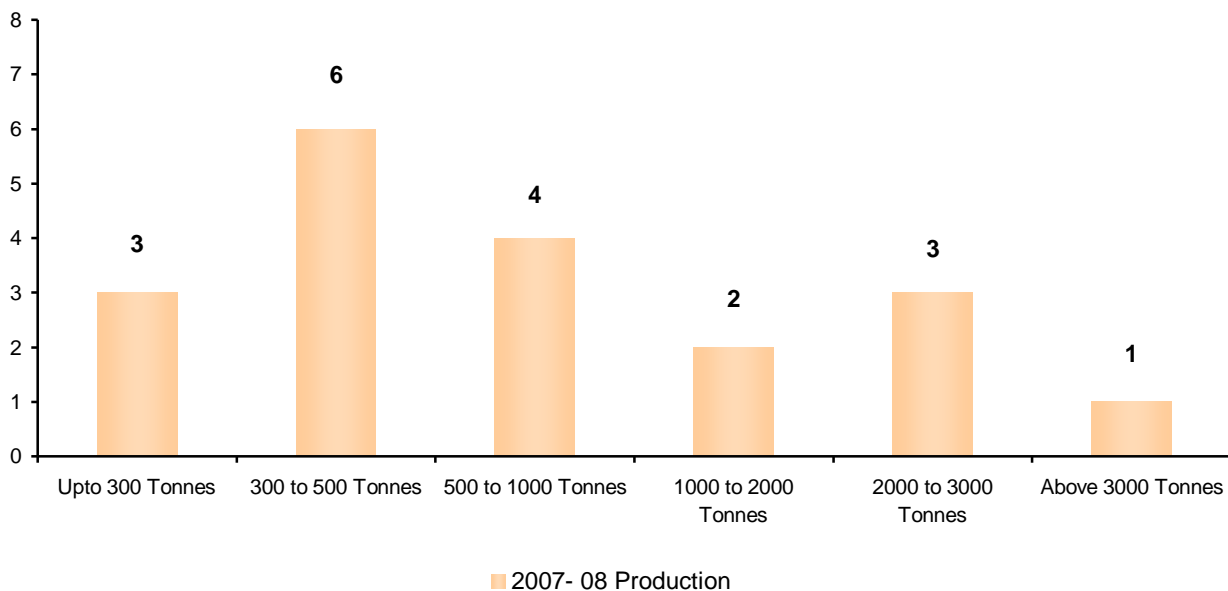
➤ ANNUAL TURNOVER

Annual Turnover (In Lakhs)



➤ PRODUCTION

Annual Production (In Tonnes Per Annum)

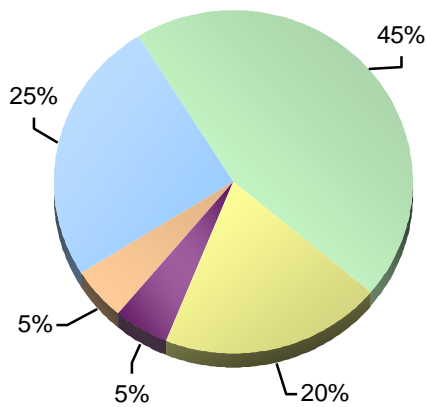


➤ **ENERGY REQUIREMENTS**

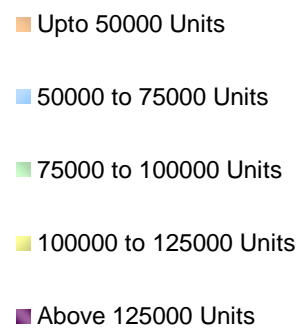
• CUMULATIVE FUEL USAGE

	Qty consumer per annum	Number of Units using the fuel
Electricity	1702670	20
Coal / Hard Coke	21840 Tons	20
Firewood / Husk	1560 Tons	7

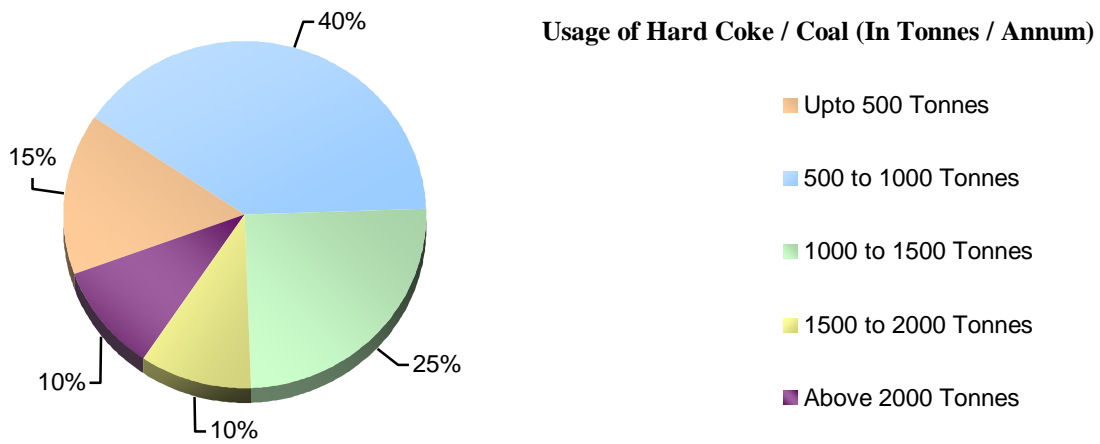
• USAGE OF ELECTRICITY (IN UNITS CONSUMED PER ANNUM)



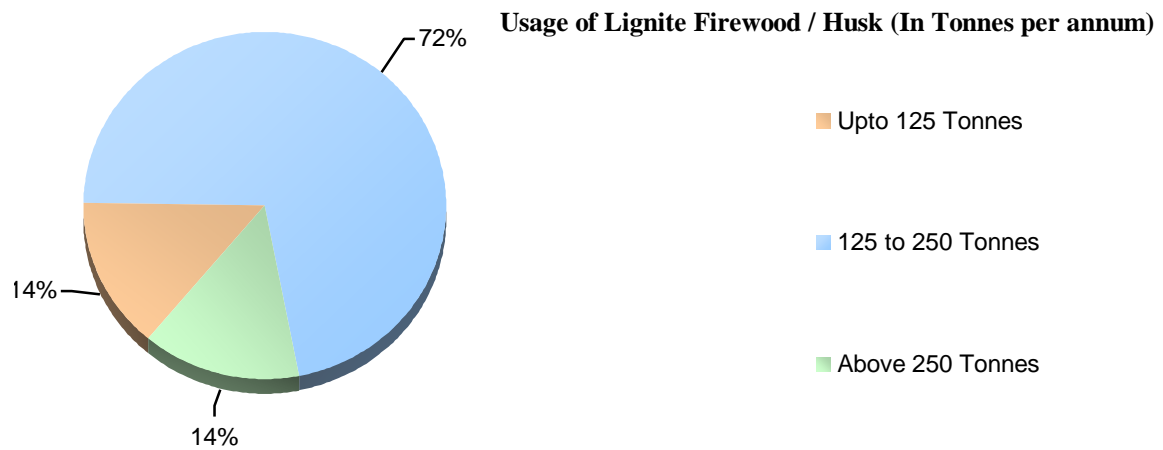
Usage of Electricity (In Units consumed per annum)



- **USAGE OF COAL / HARD COKE (IN TONNES PER ANNUM)**



- **USAGE OF LIGNITE FIREWOOD / HUSK (IN TONNES PER ANNUM)**

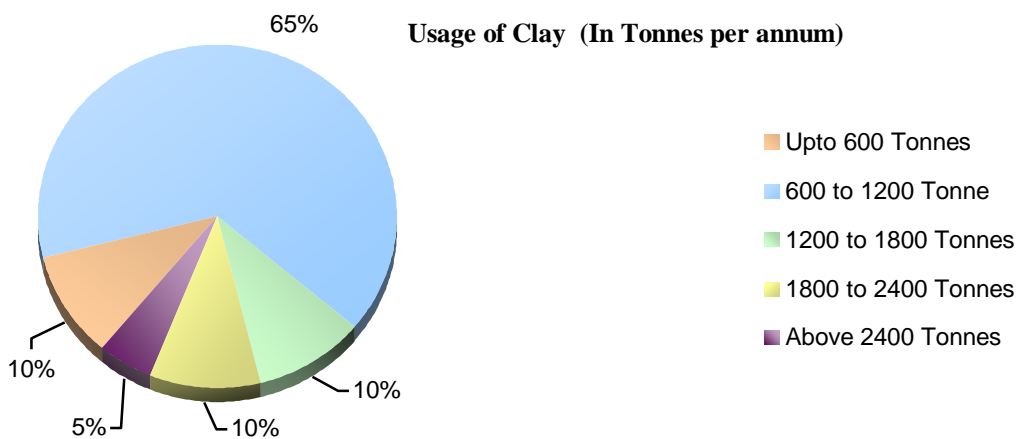


➤ **RAW MATERIAL REQUIREMENT**

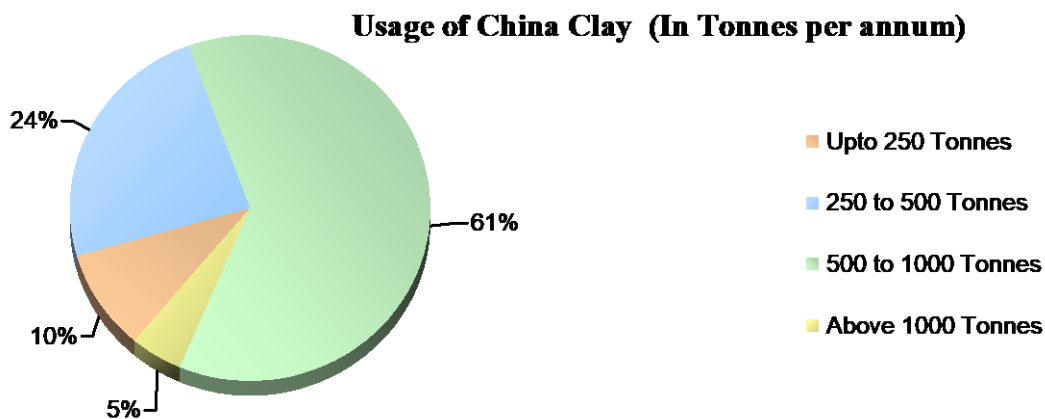
• CUMULATIVE RAW MATERIAL USAGE

	<i>Qty consumed per annum</i>	<i>Number of Units using the raw material</i>
<i>Clay</i>	<i>25968 Tonnes</i>	<i>20</i>
<i>China Clay (Garg)</i>	<i>11196 Tonnes</i>	<i>21</i>

• USAGE OF CLAY (IN TONNES PER ANNUM)

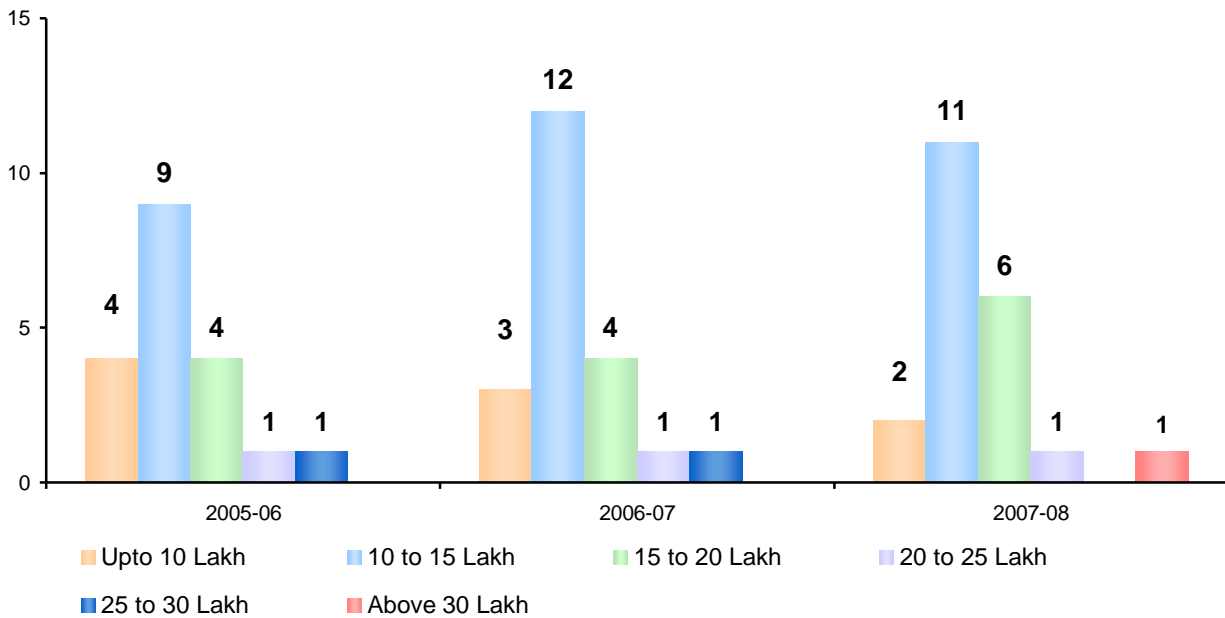
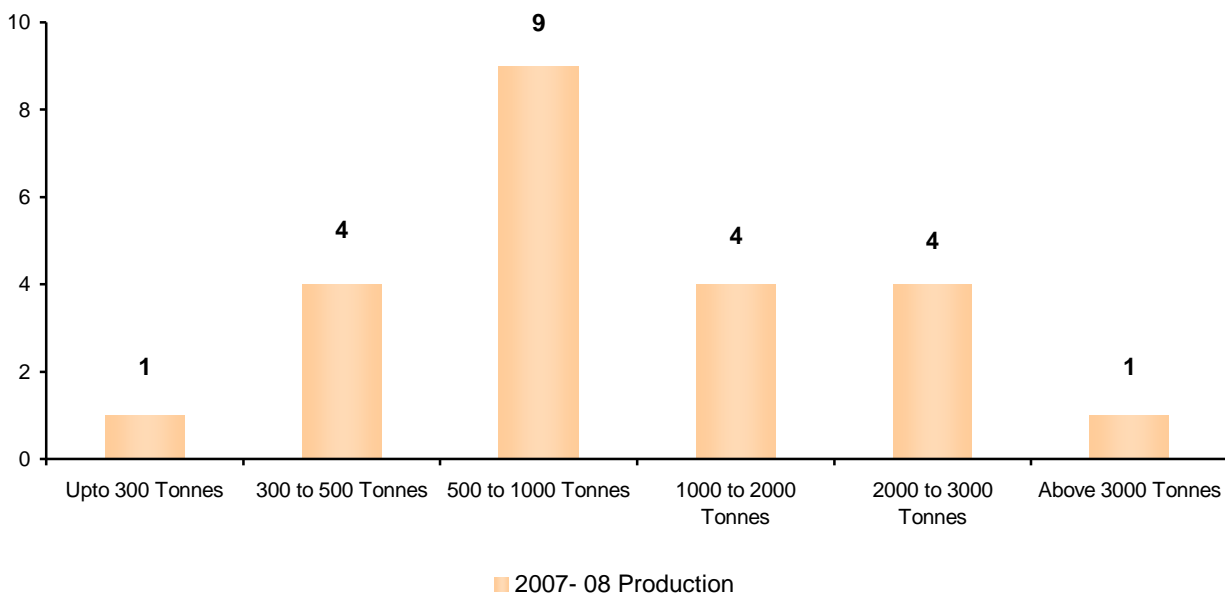


• USAGE OF CHINA CLAY (IN TONNES PER ANNUM)



East Godavari

- There are approximately 25 kiln units in this cluster who are engaged in manufacture of various types of firebricks / other refractory materials.

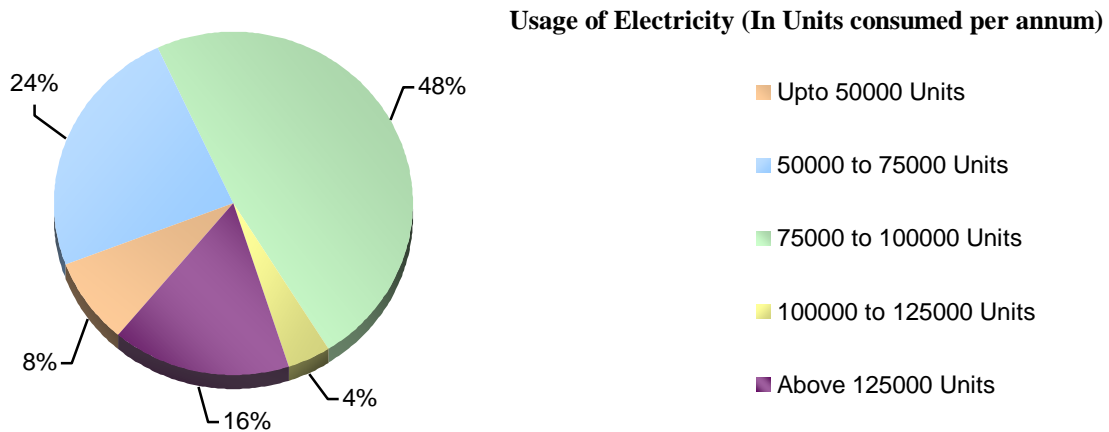
➤ ANNUAL TURNOVER**Annual Turnover (In Lakhs)****➤ PRODUCTION****Annual Production (In Tonnes Per Annum)**

➤ **ENERGY REQUIREMENTS**

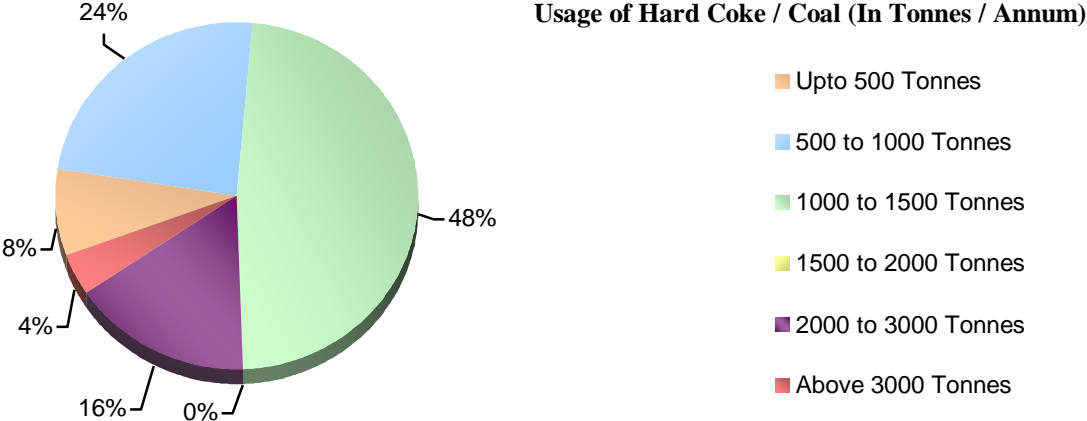
• CUMULATIVE FUEL USAGE

	<i>Qty consumer per annum</i>	<i>Number of Units using the fuel</i>
<i>Electricity</i>	<i>2057170 Units</i>	<i>25</i>
<i>Coal / Hard Coke</i>	<i>33084 Tonnes</i>	<i>25</i>
<i>Firewood / Husk</i>	<i>6480 Tonnes</i>	<i>13</i>

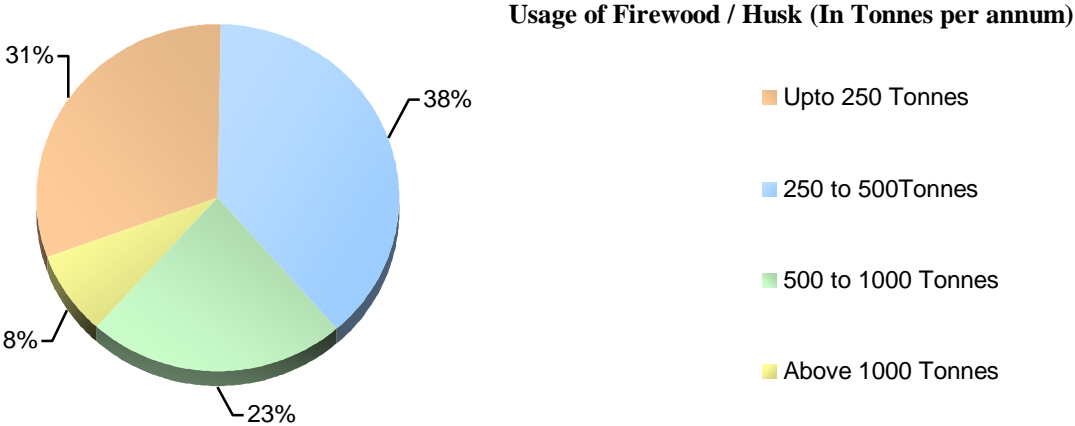
• USAGE OF ELECTRICITY (IN UNITS CONSUMED PER ANNUM)



- USAGE OF COAL / HARD COKE (IN TONNES PER ANNUM)



- USAGE OF FIREWOOD / HUSK (IN TONNES PER ANNUM)

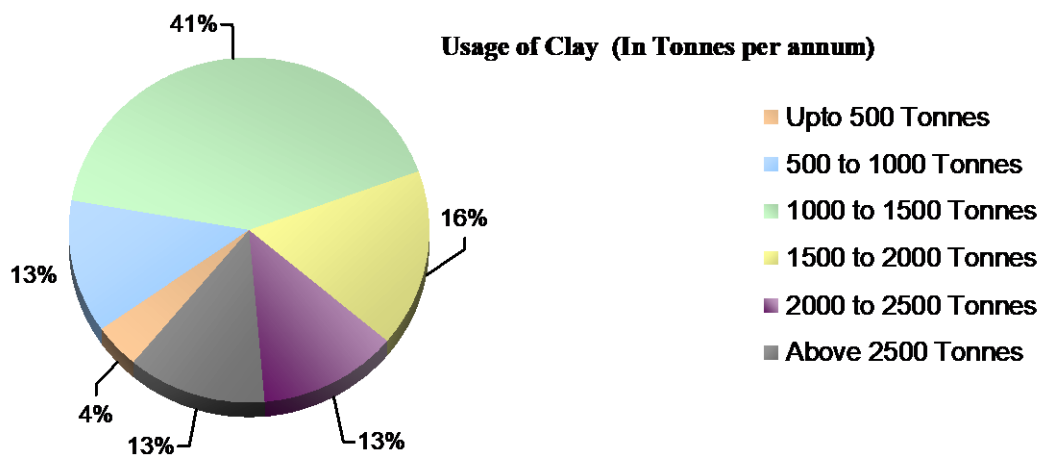


➤ **RAW MATERIAL REQUIREMENT**

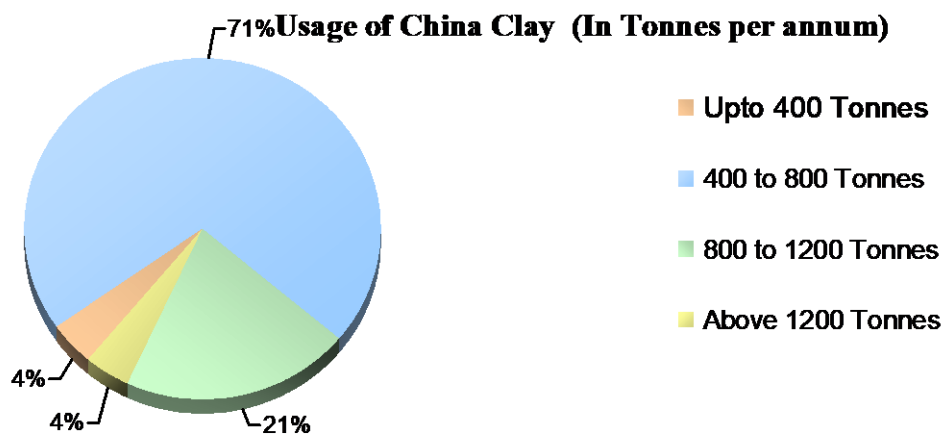
• CUMULATIVE RAW MATERIAL USAGE

	<i>Qty consumed per annum</i>	<i>Number of Units using the raw material</i>
<i>Clay</i>	<i>43680 Tonnes</i>	<i>25</i>
<i>China Clay / Calcined Bauxite</i>	<i>19080 Tonnes</i>	<i>24</i>

• USAGE OF CLAY (IN TONNES PER ANNUM)

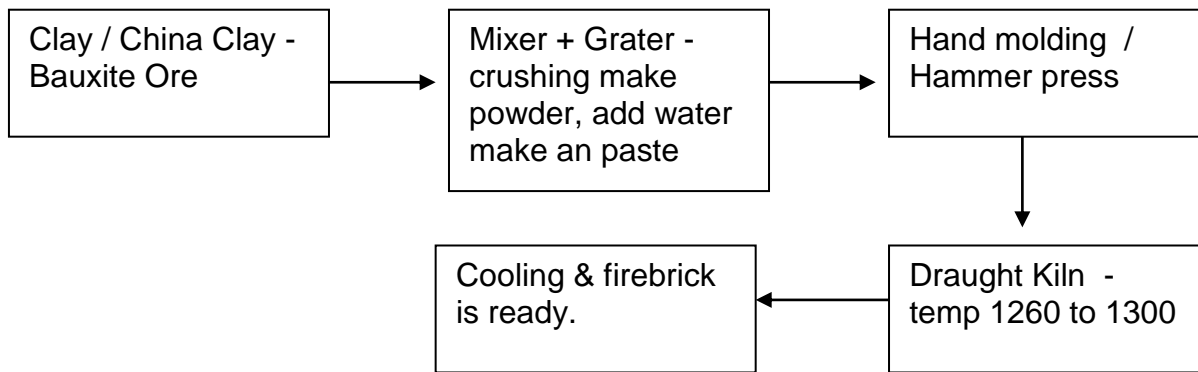


• USAGE OF CHINA CLAY – Calcined Bauxite (IN TONNES PER ANNUM)



Field Observations

- ✓ The units in West Godavari are spread across Chebrolu, Bhimdole, Dwarka Tirumala, Timmaya Palem Road and run in general shift for 8 –10 hours.
- ✓ The units in East Godavari are located in Rajhamundry and spread across Morampudi and Dowel swarm within an radius of 5 kms from Rajamundry.
- ✓ All the units in this cluster are having grid connection - commercial and power availability is not a problem except some small power cuts of 30 – 40 mins daily.
- ✓ All the units are semi mechanized in nature and use there own technology; there is no sourcing of technology.
- ✓ The units are manufacturing various grades of firebrick from Fire clay, which is widely used as refractory insulating bricks for maintaining consistent temperature.
- ✓ Used in lining furnaces, kilns, fireboxes and fireplaces. These are built primarily to withstand high heat and also find applications in extreme mechanical, chemical, or thermal stresses.
- ✓ The major equipments are Draught Kiln, which is normally called locally as DD Kiln, besides this a Grator, Muller Mixer, hammer press and motors of 7.5 & 12.5 hp are being used. In each unit in case of West Godavari wherein the plants are operating at 30-50 tpm capacity are having 2/3 DD kilns whereas in East Godavari wherein the plants are operating at 400 to 500 tpm are having 7/8 DD kiln.
- ✓ The major equipment being the DD Klin is fabricated locally.
- ✓ The energy cost in the total cost of production is ranging between 30 % to 35%, which comprises of Electricity, Hard Coke Fire wood where as the raw material cost which consists of clay as well as bauxite ore.
- ✓ The units are not running throughout the year because of marketing / order problems
- ✓ The major manufacturing process is as under
 - The most important aspect is the mixing ratio as well as content of aluminum oxide and iron oxide in bauxite ore.



- ✓ Both the locations are manufacturing firebrick of varied alumina content, besides this the units using China Clay / Bauxite ore are also manufacturing Pickle Jars and other articles.



Draught Kiln



Draught Kiln



Draught Kiln



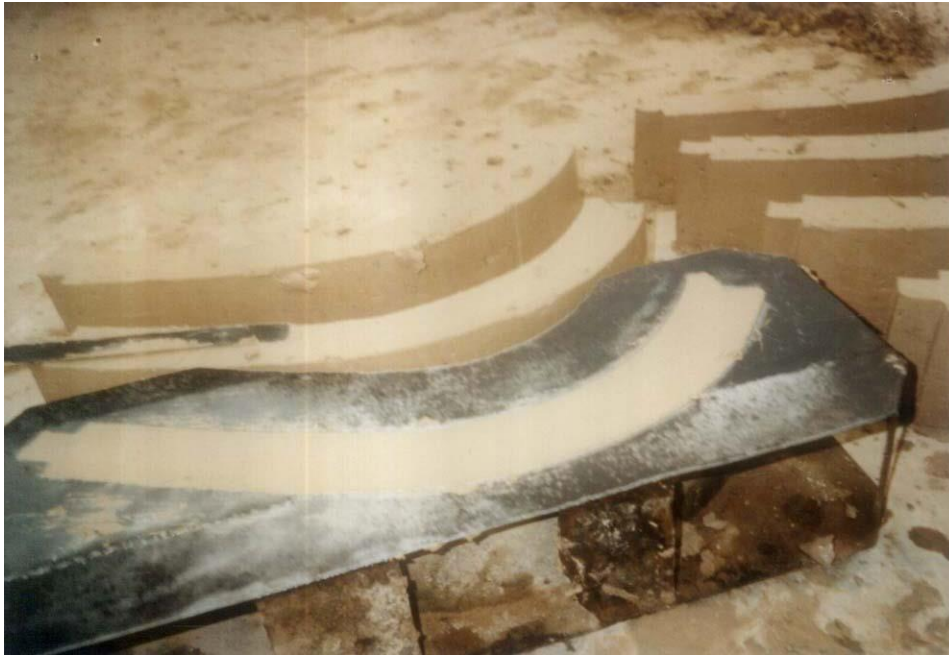
Exit point



Fire clay brick frame



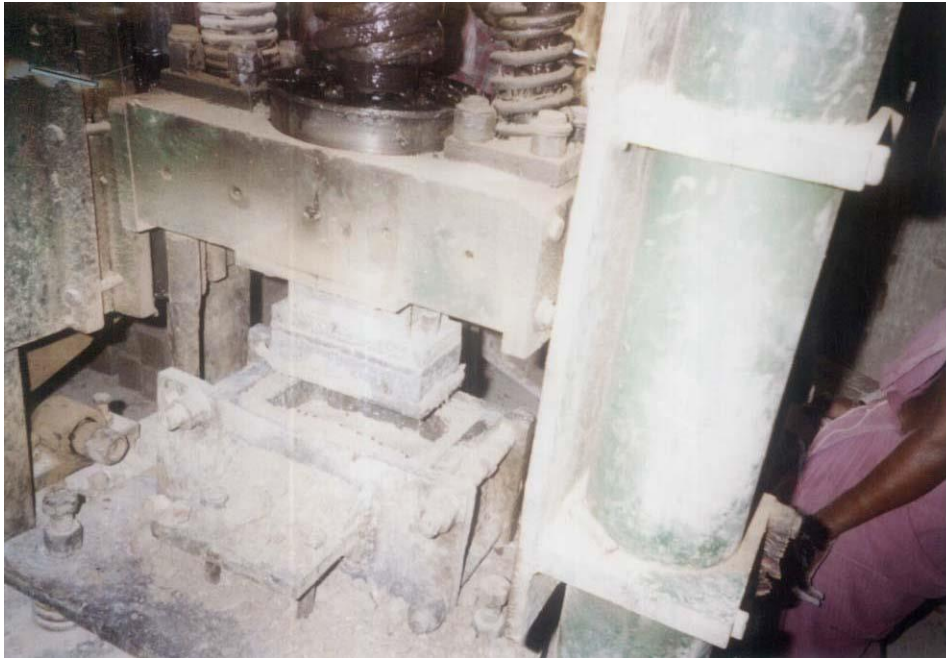
Fire clay brick frame



Fire clay brick frame



Mixer/Crusher



Hammer press



Pressing machine



Ball clay pickle jar frame



Finish products

SERVICE PROVIDERS

	Equipment Supplier	Contact Nos	Remarks
	M/s Amic Industries (P) Ltd 86-D, Dr. Suresh Sarkar Road, Calcutta-700014		
	A.R. Engg. Refractory Rajamundhry East Godavari	08883- 2467357	Fabricator for Kiln
	Gerranjali Engg. Refractory 8, Morampudi, East Godavari	08883 -2533103	
	Heat Flow Engineering Polasanpalli Elure West Godavari	08829- 222273	
	Raw Material		
	Shri Laxmi Clay Mines Dwarka Tirumala West Godavari M. SATYANARAYAN	09393262301	
	Vijay Laxmi Minerals Dwarka Tirumala West Godavari Bishveshara Rao	08829- 271213	
	Shri Satya Sai Clay Mines Dwarka Tirumala West Godavari A.M.Venkateshwara Rao	08829 - 271545	
	Godavari Clay Mines East Godavari	09392064444	
	Association		
	B.Shyama Prasad President West Godavari	09390410011	
	Er. M.Satyanarayan President West Godavari	09390400054	
	Ceramic Association G.A.Raju President East Godavari	09848253664	
	George Babu Vice President East Godavari	09247605859	

BANKERS

- ✓ The major banks in the area wherein the units are sourcing finance are
 - State Bank of India, RAJAMUNDHRY
 - Andhra Bank , RAJAMUNDHRY
 - State Bank of India, Tirumala
 - ANDHRA bank, Tirumala
- ✓ Out of total 45 units operating in this cluster 25% of the units are not having any bankers , rest are having the bankers for CC limits as well as loan purpose for Kiln.