CHAPTER V

PROBLEMS OF TILE INDUSTRY IN KERALA

Tile industry which had flourished for more than a century finds it difficult to survive today due to multiplicity of problems. With the opening of new tile factories in other states like Tamil Nadu, Karnataka, Andhra Pradesh, Gujarat, Rajasthan and Orissa our products lost many of their major markets with the result that the stock of roofing tiles in all factories have accumulated. Due to the changes in the pattern and design of houses, the demand position of the products have come down to such an extent that the tile factory owners are not able to effect sales even on credit basis. Also, majority of the tile factories are small in size with limited financial resources and hence they will not be able to withstand the stress and strain for any length of time and will be forced to discontinue and close down in the immediate future. Hence an attempt is made in this chapter to identify the problems and constraints facing the tile industry in Kerala.
5.1. Technological problems

Barring a few units, the level of technology is seen to be outdated. About 80 per cent of them continues to be family concerns and are not properly organised as industrial units. Sentiments to maintain the inherited property is the only motive force in running the units and not the entrepreneurship. The notable change that has taken place over the last 100 years is the replacement of screw press by revolving presses in the Trichur region. Of the sample units in Trichur region, 68.75 per cent have replaced screw press by revolving press. In Calicut region also 60 per cent have effected the replacement. Quilon region is lagging far behind in this respect as only 16.7 per cent of the sample units alone have made this replacement.

Quality control is essential to ensure the availability of quality products. The quality of products depends on the availability of good quality clay. Quality of clay can be ensured only if the proper testing is made. But the clay testing and product testing
facilities are available only in a handful of units. Of the sample units, only three units in the Calicut region had the facility of clay testing.

Fuel efficiency can be achieved only if Hoff-man type kilns are used which give 28 per cent fuel efficiency compared to traditional intermittent kilns which give only 18 per cent.¹ New type of kilns are replaced in Calicut region, where 60 per cent of the sample units have Hoff-man type kilns. In Trichur area, majority of the units have started in small scale and the number of chambers of kilns were limited. But subsequently, the introduction of revolving press has necessitated increasing the capacity and a few more chambers were added. In Alwaye and Quilon regions intermittent kilns still dominate. Even where new model kilns are used, the kilns are not properly designed resulting in energy waste.

The age old technique of drying the tiles by keeping them in pallets is followed throughout the state. Drying on pallets require more time, space and

capital investment. Of the sample units, replacement of pallets by dryers has taken place only in 40 per cent units in Calicut region, 6.25 per cent in Trichur region, 20 per cent in Alwaye region and 33.33 per cent in Quilon region.

5.2. Scarcity and increasing cost of inputs

The major inputs of the industry are clay and firewood. The scarcity of quality clay and firewood took its price to the peak in recent years.

Now a days, the collection of clay and its transportation have become major problems. Earlier the factories were situated near the fields where large quantity of clay was available. Due to persisting consumption for years, these fields are getting exhausted. Digging to lower strata may not be feasible due to two reasons (a) The quality of clay will differ when it goes to lower strata (b) the cost of collection increases in the depths. Due to these reasons the contractors collect the clay from the far off places and supply at very high rates. The average cost of clay
per cu. meter has gone up from Rs 20-25 in 1978 to Rs 120-140 in 1988 which reflects a five fold increase in its price over a 10 year period.

Clay at Calicut and Trichur regions are found to be much superior to those of Quilon region. When the clay is too plastic, they add lean clay and keep the lean clay and plastic clay in layers for some days for aging and then use for actual production. Quilon clay contains too much of organic materials and hence more percentage of yellow clay should be added during processing.

Firewood is the most commonly used fuel in the tile industry in Kerala. A major problem facing this industry currently is the rising cost of firewood and its scarcity. More than 50 per cent of the cost of production of tile is the cost of firewood in units having intermittent kilns, while this is about 25 per cent in units having Hoff-man type kilns. The firewood price at present is in the range of Rs 300-350/tonne

2. Ibid p.3.
in Calicut region, Rs 400-450/tonne in Trichur region, Rs 375-440/tonne in Alwaye region and Rs 325-400/tonne in Quilon region. The average price of firewood in Kerala as a whole was Rs 140-160/tonne in 1978 which rose to Rs 350-400/tonne in 1988, recording a decennial growth rate of 150 per cent. The major reasons responsible for scarcity and high price of firewood are,

i. the reduction in the forest area and stoppage of clear felling.

ii. the increasing demand for wood for other industries.

iii. growing demand for fuel wood in the domestic sector.

iv. rise in the cost of all other sources of fuel.

It is estimated that the average annual requirement of firewood in a factory in Kerala is 1100 tonnes at the present scale of production and hence the tile factories in Kerala altogether require 3,50,000 tonnes of firewood annually valued at Rs 14 crores. These statistics highlight the need for discovering fuel substitutes.
The other important input is lubricating oil among which kerosene is the most important one. The price of kerosene has also increased considerably over the years and the required quantity is not available. As per ISI prescriptions, 1000 tiles require 5 litres of kerosene but at present the sanctioned quantity is only 1.5 litres.

5.3. Cost of labour

A sustained rise in wages is a common problem in Kerala which is equally applicable to tile industry also. The tile manufacturers in Kerala are bound to pay the wages to the workers as per "The Minimum Wages Act 1948" of the Government of India as revised from time to time. The Minimum Wages Committee were constituted in 1958, 1961, 1968, 1977 and 1989.* As per their recommendations the wage rates were revised in 1965, 1971 and 1981. It has been noted from table 5.1 that the

---


* The report of the Minimum Wages Committee 1989 is in the final stage and is expected to submit in December '90
Table 5.1. Minimum wages in different states (1980)

<table>
<thead>
<tr>
<th>Class</th>
<th>Tamilnadu (Rs)</th>
<th>Karnataka (Rs)</th>
<th>Andhra-pradesh (Rs)</th>
<th>Kerala (Rs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skilled</td>
<td>5.25</td>
<td>6.50</td>
<td>5.00</td>
<td>9.84</td>
</tr>
<tr>
<td>Semi skilled</td>
<td>4.25</td>
<td>5.25</td>
<td>3.50</td>
<td>9.59</td>
</tr>
<tr>
<td>Unskilled</td>
<td>4.00</td>
<td>4.50</td>
<td>3.00</td>
<td>8.89</td>
</tr>
</tbody>
</table>

Difference for skilled with Kerala: 4.59 3.84 4.84
Difference for semi-skilled with Kerala: 5.34 4.34 6.09
Difference for unskilled with Kerala: 4.89 4.39 5.89


The minimum wages in Kerala was very much higher than their neighbouring states like Karnataka, Tamilnadu and Andhra Pradesh.
From table 5.1, it is found that for a factory employing 100 workers for a year consisting of 270 working days, the average difference in wages between Andhra Pradesh and Kerala works out to be Rs 1,51,380 while that between Tamilnadu and Kerala will be Rs 1,33,380 and that between Karnataka and Kerala Rs 1,08,630. In other words, assuming the same technology in all the four states, the difference in labour cost for producing 1000 tiles between Andhra Pradesh and Kerala will work out to be Rs 61.68 while that between Tamilnadu and Kerala will be Rs 54.34 and that between Karnataka and Kerala Rs 44.26.

5.4. Marketing problems

The market for tiles may be divided into three areas:

a. Export market
b. External market (Market outside Kerala state but within the country)
c. Home market (within the Kerala state).

The export of tiles from Kerala has reduced to a great extent since 1960. India, and in particular Kerala,
dominated the tiles market in the world in early 20th century. Unique in their quality and design, the Mangalore and Calicut tiles got their market in Burma, Malaya, Singapore, Basra, Sumatra, Ceylon, Africa and even Australia. With the independence of India, the gradual disintegration of the colonial empire of British started and most of the colonies became independent. Soon, these independent countries started to develop their own tile factories to meet their demand, thereby reducing the Indian export. The steep downward trend in the export of tile since 1960 is illustrated in table 5.2.

From table 5.2, it is evident that, of the total production, nearly 20 per cent was exported in 1960 which came down to a very negligible share in 1985. It is significant to note that while the value of output increased by 1714.8 per cent during quarter century 1960-85, exports declined by 98.74 per cent. The major complaints of manufacturers regarding exports are:
Table 5.2. Export of tiles from Kerala (1960-1985)

(Rs lakh)

<table>
<thead>
<tr>
<th>Year</th>
<th>Value of production</th>
<th>Value of exports</th>
<th>Exports as percentage to production</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>270</td>
<td>50.3</td>
<td>18.62</td>
</tr>
<tr>
<td>1965</td>
<td>380(40.74)</td>
<td>5.69(-88.68)</td>
<td>1.49</td>
</tr>
<tr>
<td>1970</td>
<td>576(35.78)</td>
<td>2.54(-55.36)</td>
<td>0.49</td>
</tr>
<tr>
<td>1975</td>
<td>1800(248.83)</td>
<td>1.37(-46.06)</td>
<td>0.08</td>
</tr>
<tr>
<td>1980</td>
<td>2000(11.11)</td>
<td>0.92(-32.85)</td>
<td>0.04</td>
</tr>
<tr>
<td>1985</td>
<td>4900(145)</td>
<td>0.63(-31.52)</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Figures in brackets give percentage growth over the previous period.


1. Export is done mainly through cargo ships. Factories are not located near the water ways and hence they have to transport the tiles by road and rail to the port. This naturally imposes heavy cost due to a chain of loading and unloading operations on the manufacturers. Losses are also incurred due to the attitude of headload workers. The loading and unloading should be
done by utilising the workers of that particular area. There are instances when the goods were kept idle for weeks together due to such problems. This problem is equally relevant to external and internal trade also.

2. Each time, when the loading and unloading is done, breakage to the tune of 3-8 per cent occurs leading to additional breakage losses.

3. Heavy demurrages in ships: For example, ship may not be available at the warf when the materials arrive. Due to such problems, the manufacturers are now-a-days reluctant to accept orders.

   Some customers from gulf countries and Japan are placing orders for special design tiles in recent days. But the manufacturers are reluctant to accept orders because,

   a) they demand specially designed tiles which cannot be sold in local market.

   b) the tiles should be packed in wooden boxes which take the packing cost to the peak.
The marketing of tiles became further complicated due to the wrangle of home market. Earlier, we send tiles to Tamilnadu, Karnataka, Andhra Pradesh, Maharashtra and Gujarat. Now we lost a considerable portion of our external market. For instance, only 20-25 per cent of the production is sold outside Kerala state today, whereas 70 per cent of the tiles were sold in sixties. The major factors contributed to this unenviable state of affairs are:

i. Higher labour cost in Kerala compared to other states.

ii. Increased transportation cost also raised the selling price, which consequently affected the external sales.

It was reported by the units covered by the survey that there has been an increase of around 75 per cent in railway freight and truck charges. For instance, the railway freight from Trichur to Poona was Rs 5.12 per quintal* in 1970 which rose to Rs 8.56 per quintal in

* Quintal is a standard measure followed by railway authorities for charging railway wagons.
1976 and Rs 14.32 per quintal in 1985 making 67 percent increase in both the periods. The despatch was around 2400 wagons in 1970 which declined to 1200 wagons in 1976 and 400 wagons in 1985. Each wagon had a capacity of 9000 tiles and hence the value of external sales came to Rs 32.4 lakh in 1970, Rs 27 lakh in 1976 and Rs 36.48 lakh in 1985 at Rs 150/1000 tiles in 1970, Rs 250/1000 tiles in 1976 and Rs 750/1000 tiles in 1985 assuming that the entire external trade was done through railway wagons. The rise in truck charges is also not different. At present the truck charges come to Rs 2.25 per km and a truck can carry 3000 tiles which means that on an average the transportation cost of 1000 tiles per km is worked out to be Rs 0.75 with slight variation from region to region.*

iii. The problem is further aggravated by the starting of tile factories in other states like Tamilnadu, Andhra Pradesh, Maharashtra and Gujarat, where Kerala

* The truck charges are found to be low at the present level because,

i. transportation is done on contract basis
ii. in their return trip they carry vegetables, rice, wheat etc. to Kerala for which they charge.
tiles found potential market in earlier years. Due to the lower cost of labour in other states, even some manufacturers from Kerala have started factories in other states.

iv. Changes in the pattern and design of houses.

The third component of the market is the demand from within the state which also declines at a faster rate due to,

a. shifting preference for RCC and other types of houses for middle and higher income group and commercial and public buildings.

b. the annual maintenance cost of tiled houses is very high.

c. tiled houses can be cheaply constructed only if wood is available at low rate, which is a complementary good for tiled roofs. But the price of wood is exorbitantly high.

From the above discussion, it is evident that the external and internal market for roofing tiles is fast declining, which constitute 75-80 per cent of the
product mix of tile factories even today. Hence it is high time to introduce product diversification.

5.5. Emergence of new technology in building construction

The type of houses and materials used is selected based on climatic conditions, strength, durability, cost and social status. Nowadays there is an increased demand for RCC type houses where the contribution of the tile products is negligible or even zero. Also the substitution of clay products by synthetic items nullified the demand for clay products in building construction. Therefore, if the industry has to survive it should innovate products to suit the modern house building technology. In other words, it is high time to think of intensifying product research.

5.6. Financial problem

Tile industry can be activised by the adoption of technology which is cost effective and which can also enable the industry to diversify into areas manufacturing products which suit modern building technology. But the basic problem responsible for lack of
modernisation is the non availability of adequate finance and also lack of financial support from the government, commercial banks and other financial agencies.

5.7. Lack of standardisation of tiles

There is no uniformity or standard in the quality of tiles produced. There are some units which bring out as many as seven standards which indicate poor furnace control.

5.8. Statutory regulations

A number of regulations were imposed on tile factories as a result of which quite a lot of time, money and effort has to be spent in fulfilling the obligations of various enactments. The minor minerals levy is applicable to tile factories. This is to be abolished. Similarly the existing rate of sales tax is high and the industry can be made prosperous only if the sales tax is reduced to the earlier rate of two per cent. Certain statutory regulations act as a blessing also. For instance, a factory after its commencement can enjoy tax holiday for the first five years. This
concession led to the starting of scores of small factories particularly in Trichur region in recent years and consequently the installed capacity increased in a situation where only 50-60 per cent of the existing capacity is utilised.

5.9. Organisational problems

The organisational environment is an important factor for the success of any industry. In tile industry, there is no well defined structure of organisation in most of the factories. The medium size factories are mostly of partnership type and a few big units are limited companies. In majority of the factories the workers are not classified according to their skills. The manager/proprietor does most of the administrative work by himself. Contacting the suppliers of fuels, clay and other raw materials, arranging transportation, marketing, sales etc. are done by the manager/proprietor. In many cases he himself goes and supervises the production too. Though a good percentage of the proprietors are well experienced in the field,
some are totally new to the field. In a set up like this, effective management is rather difficult.

Productivity in any manufacturing unit can be improved only by a combined effort of management and workers. The workers will improve the productivity if they have an efficient organisational structure and environment.

5.10. Absence of Research and Development (R&D)

Research and development is inevitable in any industry. In tile industry the need of R&D is all the more important because the involvement of educated and technically qualified people are few in the tile factories. Detailed analysis of clay and clay products can be conducted only by qualified persons. But the training and laboratory facilities are totally absent in tile producing centres such as Calicut, Trichur, Alwaye and Quilon. For instance, earlier there was a proposal to start a clay testing laboratory at Ollur
near Trichur. But ultimately it was installed at
Valapatnam near Cannanore (1976) where only two tile
factories are located.

5.11. Common marketing agency

Another problem of the tile industry is the
unhealthy competition between regions and factories
within the region. This can be solved if a common
marketing agency is formed.