

CHAPTER VI

SLATE INDUSTRY IN MARKAPUR

Introduction

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This chapter presents a detailed account of the **origin**, growth and functioning of the various units of slate industry of Markapur. Slate industry can be divided into two major parts.

1. Slate mining.
2. Slate **manufacturing**.

First, a detailed account of growth and functioning of various stages of slate manufacturing is presented. This is followed by a brief note on slate mining activities. In the final section market conditions in slate industry are discussed.

Introduction:

The slate industry of Markapur is over 80 years old and is the main centre for slate manufacturing in India. Slates of Markapur are supplied to all places through out the country for primary education to the school going children.

The slate industry is a major source of employment in Markapur region. While the 1991 census data puts the figure of workers engaged in slate units at 1313, conversations with the employees of the various slate factories, companies and the trade union members placed the figure of workers between 5000 and 6000. Of the total workers, approximately 1500 are children below the age of 14 years. However, the workers strength was nearly 10,000 during mid 1970s.² While slate industries pertain to the Markapur town and its vicinity, slate mines **from** which raw slate layers are extracted constitutes the major employment base for **nearly 70** percent of the population in 40 villages. Slate mines are spread over in 1900 acres of land in Markapur **region**. Trade union members and other reports, **put** the

total number of workers employed in the mines as **35,000** to 40,000, of which more than 4000 are children.

Origin and Growth of Slate Industry:

The slate industry of **Markapur** was started in the 1920s after an accidental discovery of smooth slate stone by a person belonging to vadiyara community in 1918. In the early years, the making of slate must have been a household affair and concentrated only in few villages. Slate manufacturing, based on the use of light machinery or rotating machinery with the assistance of manual labour, was started more precisely in 1944. Use of machinery in various stages like stone polishing, frame polishing and slate planeing with the use of power was, however, started in 1960s. Further it was in 1960s the rise factories with special emphasis on large scale production and recruitment of labour on a regular basis took place. Rapid growth of slate industry in terms of production, marketing and employment generation was demonstrated in two decades following 1960s. According to the Markapur Slate Exporters Association (registered in 1961), at present there were 100 household units locally called *companies*, and 50 slate factories catering their production to the requirements of market within as well as out side the country.

In slate companies, the various processes are under taken entirely by hand, where as in slate factories some processes are under taken by the large scale machinery run with the aid of either electric or oil engines. While these companies and factories are under taking different processes of work, there are some units locally called **bodibandalu**, which take up the cutting of raw slate stones into the required sizes as per the order. These units are spread over in a vast area within a radius of 30 km of

Markapur. Many families, including Reddys, **Kapus**, Baliyas, who found it difficult to support themselves by their traditional occupations, took resort in slate industry.

Prior to 1975 the slates of Markapur found a high place in markets of distant countries like Srilanka, Indonesia, South Africa and other places. Slates to these markets were supplied by the merchants from Madras and Bombay who possessed export licenses for foreign countries.⁸

Around 1977 the slates were sent to the markets of Nepal, Bangladesh, Pakistan and Srilanka. The industry could supply yearly slates worth of 15 crores of rupees.⁹ The prosperity of this industry was not limited to the foreign exchange alone, even the related infrastructure like railways benefited greatly. For instance in 1987 South Central Railways' revenue for transporting slates was Rs. 14 lakhs. **Infact**, the 1970-80 decade may be considered as the golden period of slate industry which had nearly 200 to 250 slate companies and 50 slate factories working to their full capacity.

Since early 1980s the slate industry showed the signs of decline both in terms of number of factories, companies and in production levels. For instance, as per the statements provided by the Assistant Labour Officer, there were only 97 companies and 76 factories functioning in Markapur in 1993.¹² But these factories and companies are not entirely stone slate units, but consisted of enamel, plastic, and cardboard factories also. Out of 76 factories mentioned above, there are 15 enamel, 5 plastic and 20 cardboard units.¹³ The advent of modern slates adversely affected the stone slate business activity because it caused a drastic decline in companies

from 200 to nearly 100, and that of factories to 37. Another dimension added to the structure of the slate industry from 1990s is the development of the design tile units. It is these units that changed the position of the slate industry drastically in these years.

As for employment, the reports provided by the Assistant Labour Officer put 485 workers working in factories and 556 in companies as listed in the records maintained by the employer for the year 1992. It may be mentioned that this figure refers only to registered workers. However from the interviews held with various groups of people, it is found that the workers in these factories and companies still range from 5000 to 6000.¹⁴

Location of Industries and Companies:

Markapur town can be divided into two parts if one follows the Tarlupadu to Yerragondapalem bus route which passes from South to North of the town. Most of the slate industrial activities like slate industries, companies, bodibandalu units are concentrated on the western part of the town, particularly, in 7th and 10th wards. Further, few industries and companies are also located in 1st ward on the eastern side of the town particularly in the area behind Revenue Division Office.

The central part of the town on both sides of the main road constitute the modern commercial area. However, the area around the temple at the heart of the town is the old and main commercial area.

Factories which are recently established are given permission to start only in Industrial Estate located on **Ongole** road on the south eastern part

of Markapur. Most of the factories started in eighties are Enamel, Plastic and Design slate units are established in the Industrial Estate located in the outskirts of town on the Ongole road near Markapur Railway Station. This is because, in 1984 an order was issued by the district collector not to give permission to start new factories within the town premises. However, all the cardboard units which were started in the mid eighties are located in town premises. Also, plastic units are started in the traditional slate industrial complexes which are located in town. These are being allowed since these units cause no pollution.

With regard to the social base of the industry it is noticed that most of the factories and companies are owned by the Vaishyas, the predominant local business community. However, the big and leading factory owners are those from outside the Markapur area. For instance the large factories like Sipani Company, Kanpur factory and Govindram factories were started two to three decades back by the leading business families from outside Andhra Pradesh. Almost all these factory owners are residing in the town.

Stone Slate Manufacturing Process:

The manufacturing process of the raw slates consists of three different stages. The first stage involves getting the stones from the mines and cutting the raw slates into different sizes, that is, **6"x4", 7"x5", 8"x6", 9"x7"** and other big sizes according to orders. In the second stage the main work is making stone polishing, cutting clutches, and wooden planeing by machine. Third stage relates to applying black colour for polished slates, fitting the slates to wooden frames, nailing the frame in four corners, rounding the corners and tin binding the same.

The three stages exhibit wide variations with regard to the nature of work processes, workers employed, social groups involved, concerned wage structure, and legal provisions applied. Extracting of raw slate layers that is work in mine involves again five stages the details of which are provided in the forthcoming sections.

From cutting raw slates into different sizes to packing the slates, approximately 20 stages have been identified. There are only a few factories that undertake all these stages in their factory premises. Most of the factories get some stages of the work done outside the factory. They allot the required work to the mediators or the household owners on contract basis and it is the responsibility of company owner or contractor to get the work done on time. In this case the contractor usually gets the agreed amount. The transport costs to shift the commodity back to the factory premises is the responsibility of the factory. In some factories the premises and the machines usually belong to the owner who directly hires labour and gets work done on a lot basis. But in most of these factories the owner who owns the machinery and premises, usually rent them out to sub-leasers who arrange for different slate process by employing labour. All companies, however, have to get some parts of manufacturing like mud polishing, locally called as *buruda polishing*, and planing in factories.

However in enamel and plastic units the machinery is completely under the charge of the original owner. He employs different groups of workers as per the factory requirement and pays wages as per the **Minimum** Wages Act.

The only exception to this is the employment of children.

Manufacturing process in Enamel, Plastic and Cardboard Slate Factories:

There are five enamel slate manufacturing units in **Markapur area**. Of these one is located in the Markapur town, while the remaining four are established in the Industrial estate located in outskirts of the town. Essential inputs like tin, metal and plastic beads, paints are brought from distant places like Bombay and Calcutta and not from the hinterland.

The first stage in the slate manufacturing process is cutting the tin into required sizes as per the orders. These sized tins are then sent for acid oxidation, where these pieces are soaked or dipped in the hot water mixed with chemicals. This is mainly to purify these metal pieces from rust. Mostly children below the age of 14 are employed for this work. They are allotted a certain amount of work which they have to finish within the time allotted.

Painting the purified slates with liquid paints is the next important process of work. These painted slates are kept from 10 to 15 minutes in heat chambers having a temperature of 670 degree celsius. After giving a few more rounds of painting, slates are again brought back to heat chamber. Finally slates are taken to moulding machines in order to affix the frame of different colours. Except in acid oxidization, almost all workers employed are adult **male** workers. This process of colouring and painting in enamel units usually cause bleaching of hands and other related skin disorders.

Plas work, **wherein**, the extra strips of plastic at the edges of the frame (which are formed when kept in moulding machines) **are** removed is the last important stage of the enamel slate manufacturing. Mostly women workers including girl children are employed for plas work.

The manufacturing process in the plastic factories is almost similar to the process carried on in the enamel **units**, except for the absence of modern heat chamber. Instead of modern kind of heat chamber these plastic units usually operate ordinary type of heat chambers using firewood. Metal pieces used in plastic units are generally low both in quality and cost.

An interesting aspect of these enamel and plastic units are that the children and women are employed in unskilled category of work.

Interviews with the various employers were conducted in order to elicit information on various aspects of industry like work force, wage structure in these units, general trend in the employment of children, facilities provided by these factories like E.S.I., P.F., financial compensation etc., and legislations applicable to the factories and the nature of inspections carried out by the government officials in these units. **Our** sample is limited to 17 units, the composition of which is given below

| | |
|----------------------------|---|
| Stone slate units | 3 |
| Stone slate & enamel units | 2 |
| Des ign tiles | 1 |
| Enamel slate units | 4 |
| Household units | 5 |
| slate pencil units | 2 |

Table 6.1
Labour Force in Slate Factories and Companies

| Name of the Factory | Nature of Work | Present Strength of Workers | | | | Total |
|-----------------------------|----------------|-----------------------------|--------|------|-------|-------|
| | | Male | Female | Boys | Girls | |
| 1. Eanpur Slate Factory | Slate | 40 | 20 | 05 | 15 | 80 |
| 2. Viswanath Slate Factory | Slate & Enamel | 15 | 10 | 02 | 02 | 29 |
| 3. Govindaraa) and Motila 1 | Slate & Enamel | 15 | 10 | 03 | 04 | 32 |
| 4. Sujatha Enamel Industry | Enamel | 10 | 08 | 04 | 03 | 25 |
| 5. Viranjaneya Enamel Ind. | Enamel | 15 | 06 | 08 | -- | 29 |
| 6. Lepakshi Enamel Ind. | Enamel | 30 | 10 | 10 | 02 | 52 |
| 7. V.J.R. Enterprises | Enamel | 10 | 06 | 03 | 05 | 24 |
| 8. Dayal Slate Works | Design Tiles | 08 | 02 | -- | -- | 10 |
| 9. Kiran Kishor Slate Works | Household | 07 | 05 | 04 | 02 | 18 |
| 10. aqusa Slate Works | Household | 08 | 07 | 02 | 02 | 19 |
| 11. Ratna Pullaiah Unit | Household | 03 | 04 | 02 | 05 | 14 |
| 12. Hanuman Slate Unit | Household | 06 | 05 | 06 | -- | 17 |
| 13. Kareem Company | Household | 07 | 05 | 02 | 02 | 16 |
| 14. Sspani Slate Factory | Slate | 30 | 24 | 10 | 14 | 78 |
| 15. BVR Slate Industry | Slate | 25 | 15 | 08 | 04 | 52 |
| 16. Hiriyala Kallayya | Slate Pencil | 02 | 02 | -- | -- | 04 |
| 17. Mughal Raheem Beg | Slate Pencil | 01 | 03 | 01 | | 05 |

Source: Field Survey

Table 6.1 shows that, in stone slate factories the workers strength extends from 70 to 80. The strength of workers in Enamel factories is 25 to 50. In household units 15 to 20 workers are engaged. In design tiles 10 workers and in slate pencil units 4 to 5 workers are engaged. In almost all these units there is significant number of children below 14 years are engaged.

In factories and companies single shift is a general phenomenon. But the number of hours of work in slate factories and companies is greater between February and July. This is because it is during these months that the factories and household units undertake the Government tenders and they have to ensure the required supplies by June and July. In these months the factory employers usually resort to two shifts.

Wage Structure of the Labour Force:

The wage structure in various slate units exhibit wide disparities between the various categories of workers employed. In each variety of slate manufacturing like raw slate, enamel, and plastic, employers follow different systems like regular monthly consolidated pay, daily piece rate system and contract pay system. The wage structure also reveal the exploitative nature of operations as different groups **are** excluded from minimum benefits as entitled by the Factories Act or by the Minimum Wages Act.

For instance in stone slate units daily wage for the recognized workers vary depending on the nature of **work**. Generally four categories of **workers** are identified for the payment of daily piece rate wage. These

four groups are as follows.

1. Raw slate cutting whose daily wage is Rs. 12.
2. Mud polishing whose daily wage is Rs. 15.
3. Nice polishing whose daily wage is Rs. 15.
4. Frame polishing whose daily wage is Rs. 20, but usually gets Rs. 35 to 45 depending on the extent of work.

The wages for the above mentioned categories of workers is decided based on the amount of work which they have to put in. For instance in nice polishing and frame polishing, they have to complete the target of 8 boxes, each box containing 48 slates. All these categories of workers are paid a yearly bonus of Rs. 500 at the time of the festival of local god Sri Chennakesava which usually falls in the month of April. It is at the time of this festival that workers usually change their employer.

In enamel units the machine operator and chemist get a consolidated pay of Rs. 600 and they are entitled for living quarters also. The average daily wage of others like that of an operator adjusting or fixing frame would range from Rs. 20 to 50; worker employed in colouring or painting gets Rs. 24 for completing 8 boxes per day. the average daily wage for a women worker amounts to Rs. 15 per day; and those of children employed to Rs. 9.

In almost all factories the employers are required to provide beneficiary schemes like Provident Fund and **E.S.I.** facilities to the registered workers. Because of this employers keep only 10 to 15 members in records. Women and children, who generally fall under the unregulated lot of workers, are not provided with any of these facilities.

Table 8. 2
Wage Structure in Slate Industry

| Name of the Factory | Nature of Work | Per Day Wage In Rupees | | | |
|-------------------------------------|-------------------|------------------------|--------|-------|------------------|
| | | Male | Female | Boys | Girls |
| 1. Kanpur Slate Factory | Slate | 24 | 15 | 15 | 15 |
| 2. Viswanath Slate Factory | Slate * | 24 | 15 | 15 | 15 |
| 3. Govindaram and Motilal | Enamel Slate k | 20-25 | 15-20 | 10-15 | 10-15 |
| 4. Sujatha Enamel Industry | Enamel | 20-25 | 15 | 10-15 | 10-15 |
| 5. Viranjaneya Enamel Ind. | Enamel | 20-25 | 15 | 10-15 | 10-15 |
| 6. Lepakshi Enamel Ind. | Enamel | 25-30 | 15 | 10-15 | 10-15 |
| 7. V.J.R. Enterprises | Enamel | 25-30 | 15 | 10-15 | 10-15 |
| 8. Dayal Slate Works | Design Tiles | 25 | 15 | -- | -- |
| 9. Kiran Kishore Slate Works | Household | | | | |
| 10. Aqusa Slate Works | Household | | | | |
| 11. Batna Pullaiah Unit | Household | | | | |
| 12. Hanuman Slate Unit | Household | | | | |
| 13. Kareem Company | Household | | | | |
| 14. Sipani Slate Factory | Slate | 20-25 | 15 | 15 | 15 |
| 15. BVR Slate Industry | Slate | 20-25 | 15 | 15 | 15 |
| 16. Miryala Kallayya | Slate Pencil | 15-20 | 10-15 | -- | -- |
| 17. Mughal Raheem Beg | Slate Pencil | 15-20 | 10-15 | 10 | -- |

Source: Field Survey

However it is clear from table 6.2 that an adult male worker receives an average daily wage ranging from rupees 20 to 25 and female worker rupees 15 per day. According to the information provided by the employer, the average daily wage for those children employed generally varies between rupees 10 and 15. An interesting aspect of the wage structure is that the girl children employed in enamel units are not linked to the factory pay rolls. They are usually brought to work by the contractor, who provide work for 10 to 15 days in particular **factory**.

All the employers surveyed stated that child labour is existing in their units. They maintain records of those 10 to 15 workers, who generally enjoy the status of the workers. The names of other members are never properly maintained. Further records of children employed were never maintained.

The stone based slate industries and companies do not provide any facilities for skill development. As far as other facilities are concerned enamel and plastic units located in Industrial Estate, provide residential facilities for the machine operators and chemists.

The employers of the slate factories complained of health problems like TB, **bronchitis**, dust allergy and respiratory problems, which the workers are prone to get when they work in the state factories and companies. Major problems in enamel factories, as complained by employers are related to skin disorders like bleaching of hands etc.

Between 1986-1992, the factories have not brought any of the accidents

occurred in their premises to the notice of the authorities. All 15 respondents expressed that such accidents or injuries had never taken place in their factory premises. But interviews with the villagers of Vemulapeta and Besta colony, **however**, brought to light a few accidents cases. They had failed to get any compensation

With regard to the environment of Bodibandalu units it is noticed that in most of the cases the rough slate layers are cut into different sizes, mostly in open spaces without any shelter near the **mines,homes** and the factory premises.

In slate factories different stages of work are undertaken in different work places within the factory premises. Mud polishing, nice polishing and colouring processes are carried out in open spaces having adequate ventilation and lighting. Other stages of work like frame cutting, planing and round polishing are carried out in rooms having inadequate ventilation facilities. In all factories drinking water facilities are available. But the sanitation and toilet facilities are provided only in few factories.

In slate companies various work processes are undertaken in congested and cramped conditions. Most of the companies are located in narrow lanes and by lanes of 7th and 10th wards. In most of the units the entire work place consists of the two rooms (**9 x 9** approximately) and two verandas. In some units fixing of nails and bolts are carried out in **rooms** where there is no provision for ventilation.

When asked about the legal aspects of the various legislations applicable to their factories and companies, they expressed the view that they are not strictly enforced. For instance, the employers are reluctant to say anything about records. In these records, the employers hardly maintain the names of more than 15 workers. This is because all those workers whose names are listed in the records are entitled to **benefits** like ESI, PF. Employers stated that they tried to deliberately reduce the number of ESI cards. Instead, they have accepted to pay consolidated amounts to the workers. In most of the factories and units, facilities for skill development are not visible. As for the requirements of the Factories Act, shops and Establishment Act, Minimum Wages Act, the employers never implemented those provisions related to welfare and health measures in the factory premises.

All factories including enamel, plastic, and cardboard come under the jurisdiction of legislative measures like the Factories Act, Minimum Wages Act, and Child Labour (Prevention and Prohibition) Act, while the companies are brought under the jurisdiction of the Shops and Establishment Act. But only workers in factories are entitled to welfare benefits like ESI and PF.

Slate Pencil Units:

Another activity related to the use of raw slate stone is the growing importance of slate pencil units. In early 1970s there were six units. A remarkable increase in these units was noticed within a decade, that is, between 1975 and 1985. There are 25 units presently operating. This increase is due to a decrease in the cost of machinery itself, from **Rs.** 10,000 to Rs. **8000**. Replacement of various parts like cutting blade,

supporting rods **etc.**, are the technical problems associated with these units.

Cost of raw materials vary depending on the **quality** of stone they opt for. For instance, the cost of first quality stone is about Rs. 1350 for trader, while that of second quality is Rs. 1250. Generally they go for latter quality. This cost includes

1. Rs. 100 for permit
2. Rs. 60 for loading the slate
3. Rs. 800 original stone cost
4. Rs. 260 transport cost.

Normally each unit on an average produces 100 to 150 boxes per day. Some times they produce upto 200 boxes provided there is proper supply of electricity.

The price of the product varies (Rs. 2 to 3 per packet) depending on sizes. Each packet constitute 100 slate pencils. Each box constitute 50 packets.

Slate pencils have better market from December to May, the period before new academic year starts for schools. In lean season the rate of the product ranges from Rs. 90 to Rs. 100 per one box. Usually they hand over the material to their **merchant/sahukar** from whom they get advance. The merchant collects product once in a week (mostly on Sundays) during season and once in a two weeks in lean season.

Most of these units are household units managed by family members. If

they employ an outsider, they have to pay Rs. 12 per 50 packets. In each unit workers are employed at three levels.

1. **Ullupattuta:** ¹⁸ He is paid Rs. 350 **monthly**, besides bonus of half of his monthly salary during the local cultural festival held in April. Further, he is paid an advance of Rs. 1500.
2. Machine operator: He is paid Rs. 15 per day, Rs. 1500 towards advance, and Rs. 100 as yearly bonus.
3. Two women who are engaged in sizing and sharpening the pencil are paid Rs. 12 per day. They get no advance and are paid Rs. 60 as yearly advance.

Most of these units are owned by Muslims. Interestingly no Vaishya owns a pencil **unit**. **All** these units are located in 10th ward. **S.B.I.** provided financial assistance to five units.

In the recent years, especially from the late 1980s there is decline in production levels of slate pencil in Markapur. No new units are coming up. Owners of these units say that the market for Markapur slate pencil is decreasing because the slate pencil of Markapur is far below the quality of Mandsour (Maharashtra) slate pencils which are of pure white and are more soft.¹⁹ The Markapur slate pencils are slightly black thereby are not preferred much. Further, these pencils are not suitable to modern slates.

If we observe carefully, the rapid increase of these units during mid 1980s might be because, as the demand for slate **stone** decreasing, the erstwhile slate companies in an attempt to look for other alternatives began establishing slate pencil units. However, as the market for slate

pencils never rose as they expected, slate pencil units in Markapur, never got a strong foot hold and underwent stagnation.

A Note on Slate Mines:

Mines are spread over a vast area covering nearly 1300 acres in hinterland of Markapur. Over 70 percent of the, **population**, ranging between 30,000 to **40,000**, from nearly 40 villages are dependent on the slate mines for their livelihood. In these 10 to 12 percent are children. There are 32 villages from which most of the workers are employed in slate mines.²⁰

Work in the mines involves the following five stages:

1. To dig the stone and remove the raw slate layers.
2. To carry out the slate stones from the mines to outer areas.
3. To carry out the wastage like mud, stones etc., from the mines.
4. Transportation of stones from mines to factories or to houses.
Here workers are employed for loading and unloading the stones.
5. To cut the raw slates layers into the required sizes.

Generally women and children are employed in 3rd and 5th stages essentially to carry out the wastage like mud and stones. Sometimes children are employed for cutting out raw slate into the required sizes. On occasions children do this as a part of the family labour.

The structure of operations pertaining to the ownership/lease rights over the mines have caused great variations in the wage structure and employment structure of the workers employed in these mines.²¹

The work in mines is carried out in two shifts. First shift extends between 7 a.m. and 12 p.m. while that of the second shift extends between 1

p.m. and 5 p.m. Children and women get the same wages, that is, **Rs. 5** per day. Wages for men employed in extracting raw slate layers usually vary from Rs. 20 to Rs. 30 per day. Mine workers are not entitled to welfare benefits like P.F. and ESI. Mines Act, **1952** is applicable to all the **mines**, but there is no effective machinery for ensuring the proper implementation of legal provisions related to the slate mines. Minimum wages Act does not apply to the slate mine workers. Consequently, the slate mine workers are forced to live in dire economic conditions.

The mines are very deep and steep ranging from 30 to 100 feet. The entire work in these mines is carried out in a crude, unscientific manner without providing for safety measures. Most of the mines are deep without any proper stair cases or steps. The result is that accidents or injuries are a quite usual phenomenon in these mines. In case of any fall, or accident, the death is the instant result. In case of any injuries, minimum medical facilities are hardly available near the mines. In case of major accident, the workers family usually gets nothing in the form of accident compensation and further no attempt has been made to bring such cases to the notice of authorities.

Besides injuries and deaths which are the main occupational hazards, the mine workers are prone to respiratory problems. Many workers complained of body aches after the working hours. To overcome this pain most of the mine workers are prone to alcoholism. Many children complained of hard sores in palms and fever and cough.

The development of "**design tiles**" and factories further increased the

demand for raw slate layers and consequently the employment of children in the mine has increased greatly. Because of the absence of alternative employment sources in the region, as the entire region is a drought prone area with minimum available irrigation **facilities**, there is hardly any scope for the extension of agricultural activities in the region. Because of this, even though the government has sanctioned land from two to four acres to scheduled castes and tribes, still these are not brought under cultivation. Entire families are therefore forced to work in the mines.

Market conditions of Slate Industry:

Slate has been part and parcel of Indian school education since 19th century. In the recent years though there has been significant change in the type of slates being used, that is, enamel, tin, plastic, cardboard slates instead of stone slates, there is no drastic change in the utilitional levels of slate. However, the duration and extent of slate use is coming down in the present school education system particularly in the Convent schools with the increasing use of note books under the new syllabus system. However, with the increasing literacy trends one has to conclude that the demand for slates is still fairly high though not increasing rapidly.

Any discussion on market trends of **Markapur** slates includes analysis of two types of slates.

1. Traditional **slates**. i.e., stone slates.
2. Modern **slates**. i.e., enamel, tin, plastic, and cardboard slates.

Before 1980s Markapur produced only stone **slates**. **Markapur** covered 80 percent of the slate market in entire India.

With the advent of modern slates in the form of enamel, tin, cardboard, the market demand for stone slates got affected. Because the modern slates are more durable, light weight thereby easy for children to handle and are suitable for rough use. This necessitated the shift in the manufacturing from traditional slates to modern slates. Thus, after 1980 not even a single new stone slate industry was started and at the same time the production levels within the existing stone slate units got decreased as they started modern slate units.²² The slate companies which were around 250 in number declined and their present strength is around 90 units. At the same time the strength of modern slate units began increasing gradually. Also these modern slate units are being started in various places of India. To mention, modern slate industries in Andhra Pradesh are started at Hyderabad, Proddutur and other places.²³

Another important factor which affected the growth of slate industry in general and stone slate in particular is the infighting among slate industrial owners and between owners and slate market agents. Discussions with numerous industrial owners and market agents brought to light that there is no coordination within and between owners and market agents. The market agents who will be on market line touring various places and get orders, have disunity, there is no demarcation of areas among themselves either officially or unofficially, thereby the intra competition among market agents is leading to decline in the prices of slate. This is because, if one market agent quotes certain price to one **party**, another market agent quotes lesser price to the same party promising one standard of product but supplying another quality of product later **on**. This is leading to not only decrease in price but also in terms of name and fame of

Markapur product. **Further**, on numerous occasions the market agents who buy products from industrial owners on credit, promising them to pay back when they sell the product very often delays in paying to industrial and slate company owners. This delay in payment of money to owners is leading to lack of capital to them thereby **affecting** their production in the absence of input capital.

Thus, owners complain that they not only get low profits but also delayed payments thereby they are forced to pay higher interests to the persons or institutions from which they got the input capital. However, market agents complain that the delay in their payments is due to the delay in payments from the parties to which they sell. This according to them is because there is no one ready to buy on cash but only on credit. Thereby parties pay them in installments and not at once.

Coming to market position of modern slate industry of Markapur, though the overall market position of these slates is good, one important factor which started affecting this market is, the growth of these industries in various places of India thereby increase in the competition of their market and affecting the further growth of these industries **in** Markapur.

Moving to the other half of slate industry, that is, slate mining, interesting changes have occurred due to changes in slate manufacturing. **In fact** one can say mining sector adopted itself and created its own new avenues in the changing industrial conditions.

As the slate industry shifted from traditional to modern slates, the demand for slate stone began to fall down. In these conditions, the **mining** industry looked for other avenues for utilization of their raw material and the *design tile* industry is the solution to it.

The slate stone slabs brought from the mine are made to square pieces of around one feet. These are used as tiles in Europe, Australia and other countries. The export demand for the product is high.

This demand for tiles in a way gave a boost to mining industry in Markapur region. Thereby though there is decrease in the production of stone slates, the mining industry is being continued due to the tiles industry. As the manufacturing of tiles is a simple process which includes the cutting of slabs brought from the mines into small pieces, the consumption of mine stone is rapidly increasing, thereby in a way, the mining activities have become more brisk. However, though consumption of slate stone due to design industry is increasing at a more intense pace, the employment generation in design tiles industry is minimum since it involves minimum manufacturing work which is totally done by machines. **Infact**, the more they are untouched, the more natural the tiles look and
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the more they are preferred by consumers.

Thus, the changes in the slate industry drastically affected the production, wages and employment levels in factories, with minimum effects in the mining industry.

Conclusion:

The slate industry of Markapur experienced rapid growth from 1960s to 1980. The advent of modern slates in 1980s led to decline of traditional slate units and companies. Further, the infighting among the market agents and production of modern slates in other places also affected **the** slate industry of Markapur.

How these various changes that occurred in slate industry affected town-country networks in Markapur region? What is the impact of these changes on the development of town vis-a-vis region? Attempts to find answers to these questions will be made in the forthcoming chapters.

NOTES:

¹ **Planning** Commission report on Child Labour in Slate Industry of **Markapur**, 1992, p.9.

² **Planning** Commission Report, op.cit., p. 10. The results of the base line survey done by **Jagruthi-Assistant** India, a non-governmental organization functioning in **Markapur** also showed the same conclusions. Field notes. Interviews with trade union leaders **viz.**, Nasariah, Guruviah, District Labour Officer, **Nirmal** Kumar Prasad.

³ **Planning** Commission Report, op.cit. p 109.

⁴ **Ibid**, pp 9-10

Report of Slate Manufacturers Association, Markapur, on growth of slate industry of Markapur. Also see **Planning** Commission Report, op.cit., p 10.

⁶ **Ibid**.

⁷ **Ibid**.

⁸ **Ibid**. Field notes. Interview with Padarthi Ramaiah, President, Markapur slate Exporters Union, trade union leaders, slate workers union leaders.

⁹ Slate Manufacturers report, op.cit.

Planning Commission **Report,op.cit.**, p 64.

Annual reports of the Assistant Labour Officer, Markapur, 1992. Field notes. Interviews with slate industrial and household unit owners.

¹² Annual reports of Assistant Labour **Officer,op.cit.**

¹³ **Ibid**.

¹⁴ Field notes. Interviews with employees of Slate factories, Trade union leaders, slate workers of Venkateshwara slate factory, Sipani slate factory, Kanpur slate factory. Also please see **Planning** Commission Report, op.cit., p 12.

The Industrial Estate has nearly 30 factories, which are modern slate and design tiles industries. This estate is developed by Andhra Pradesh Industrial Infrastructure Development Corporation. It was started in early eighties in Markapur.

The detail description of slate manufacturing in different types of slate factories is based on field observation and field notes. A sample of slate units of different kinds were selected and interviews were conducted with owners and workers of these units.

The relations between slate factories and companies are explained in detail in chapter VIII.

¹⁸ Here, the workers cuts the slate stone layers brought from mines into thin layers, smoothen them and divide them into small pieces.

¹⁹ Mandour is famous for production of slate pencil. Due to the availability of white stone which is soft **natured, large-scale** slate pencil production is undertaken. Because of its soft natured, the slate pencils produced are of fine quality and are supplied all over India.

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Field notes. Interviews with **Guruviah**, President, Slate **Mine** Workers, **Markapur**, Pamphlets of slate mine workers union, Report submitted by slate mine workers to Chief Minister of Andhra Pradesh when he visited in 1967. Base line survey report Assistant India Society, Interview with trade union leaders, district labour officer sri Nirmal Kumar **Prasad**. Also see Planning Commission **Report,op. cit., pp.** 9-10.

“**The** details are provided in chapter VIII.

22

Annual reports of Assistant Labour Officer, **Markapur,1993**.

23

Field notes. Discussion with slate industry related persons particularly, Sudhakar, design tiles unit owner. Also see Planning Commission **Report.op.cit.,** p 19.

24

Field notes. Interview with Manager, Venkateshwara design tiles units, Sudhakar, owner, Hanuman design tiles unit, Markapur.