

**LIVING AND WORKING CONDITIONS OF COIR WORKERS
AND THEIR IMPLICATIONS FOR HEALTH -
A CASE STUDY IN ALLEPPEY DISTRICT**

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CERTIFICATE

Certified that the dissertation entitled "Living and Working Conditions of Coir Workers and Their Implications for Health - A Case Study in Alleppey District", submitted by Bindu B.Nair is in partial fulfilment of six credits for the degree of Master of Philosophy of this University. This dissertation has not been submitted for any other degree of this University or any other University and is her own work.

We recommend that this dissertation be placed before the examiners for evaluation.

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TO MY
ACHHAN AND AMMA

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CHAPTER I
INTRODUCTION

The coir industry has developed in Kerala as a labour oriented cottage industry. Though ancient in lineage, its rapid expansion as the Premier rural industrial occupation of the coastal belt took place with the trade boom in hard-fibres during the latter half of the nineteenth century. Half of the rural workforce in Kerala is employed in agriculture. The low labour intensity of tree-crops such as coconut and the broad prevalence of wage labour relation in the agrarian structure of the State made it difficult to accommodate the increasing population within the agriculture sector. As a consequence the growing workforce is pushed in to various non-agricultural occupations. Its characteristic features such as labour intensive handicraft technology, petty production structure, customary work sharing arrangement etc. made coir an eminently suitable sector for accommodating the surplus population that could not find gainful employment elsewhere. As a result it is the largest employment source after agriculture in the coastal tracts of Kerala.¹

Coir industry may be broadly divided into 2 sectors, the coir yarn spinning sector and the coir goods weaving sector. The coir yarn spinning sector accounts to 90 per cent of the employment and 70 per cent of the value in the industry.² The main activities in this sector are retting of green husks, defibring of retted husks and spinning of

yarn from the fibre.

Alleppey is the main centre of concentration accounting for 55 per cent of the coir industry and production is mainly located in the countryside adjoining the town of Alleppey. The lower cost of production in the countryside was the main attraction for the locational spread of the industry. The most important factor, however was the comparative cheapness of labour; i.e. rural wages were around 50 per cent below the urban wages.

Nearly 90 per cent of the workforce in the industry are women. Women in the unorganized sector of the industry outnumber those in the organized sector. They face more problems as they have no protection from labour laws and are far more vulnerable to exploitation. Economic development often adversely affects the life conditions of these women.

The working conditions in the industry is pathetic, as the workers are usually made to work overtime without extra pay. A number of malpractices continue such as not maintaining proper registers, recruiting people on temporary basis and employing them continually so that they have no job security. Most workers are aware of the exact minimum wages, but working on the piece-rate system, they put in long and tedious working hours in unsanitary conditions. As a result, most of them suffer from diseases related to poor environmental sanitation.

The majority of coir workers do not find employment throughout the year. It is a life of abject poverty and starvation with nothing to fall back on and nowhere to work for two to three months of an year. Their problem is very acute, mainly because in the coastal areas of Kerala where the coir industry is concentrated there are few opportunities for alternate employment. Living below the povertyline, coir workers are subjected to worst type of exploitation and social degradation. Most of their suffering is caused by low wages and lack of continuous employment.³ The inefficient and bureaucratic implementation of regulations have contributed to a worsening of situation, creating raw material scarcity, underemployment and steep rise in yarn prices. As long as the production is welded to handicraft technology, surplus value extracted can be increased through reducing wages, increasing intensity of work or lengthening the daily work hours.⁴

The coir industry, thus presents a picture of archaic production structures under the unbridled control of industrialists and employers, hardly providing even a physical minimum subsistence to majority of the workers who are dependent on it. The much desired trade union actions should be considered against this background.⁵

Significant changes occurred in the industry in recent

years. Erosion of cheap labour basis of the industry by the militant trade unionism, a further decentralization of production, the emergence of co-operative structures, the mounting pressure for mechanization and decline in foreign exports are some of the major developments.⁶ But the net result of all these developments has been the continuation of underemployment, low wages and poverty among coir workers in Kerala.

In our attempt to understand the implications of the living and working conditions of coir workers for health, their socio-economic conditions, working conditions like nature and type of work, facilities in work place, perception of health problems, the action-taking with regard to those health problems and workers perception of services, level of unionization to understand their coping capacity with the problems regarding work and its impact on the well being of workers were studied.

We spent about three months from October 1992 to December 1992 in actual contact with the study village, Kokkothamangalam in Alleppey district, in the coastal area of Kerala state. The methodology that has been followed in the study is stated in chapter 3.

In Chapter II, we reviewed some of the literature about the Coir Industry in Kerala. Section one under this chapter covers the aspects of production in which the historical

examination and organization and structure of industry including the exporting sector is discussed. Section two describes levels of management in the coir industry, the mechnaisation that took place in the industry and the production and consumption of coir and coir products. The conditions of labour and related issues like underemployment among coir workers, labour recruitment and working conditions are discussed in Section III and Section IV describes unionization and its impact in the coir industry and the present trend of coir industry and the crisis it is facing in the export sector.

In Chapter IV, which is based on survey data, the data on socio-economic and living conditions are analysed. Characteristics like age, religion, caste, education, income, marital status, expenditure, savings, pattern of housing, landholding and availability of sanitary facilities are analysed in order to portray the socio-economic life of the workers and to project a micropicture of the condition of the worker.

In chapter V, which is again based on survey data on working conditions, variables such as nature and posture adopted during work, days of work available in an year, wage levels, daily problem faced in work area, any health problem the worker has, the span of the health problems are analysed. In order to understand how the worker cope up

with the illnesses, data on availability, accessibility and action-taking in health also were analysed in Section II of the chapter. Section III analyses the particulars regarding trade union, its functions and the workers view of trade union activities in order to portray the existing nature of coir workers well-being in Kokothamangalam.

In Chapter VI, the summary of the findings and conclusions of the study are reported.

Notes and References

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CHAPTER II

COIR INDUSTRY IN INDIA - AN OVERVIEW

INTRODUCTION

Coir is the most important traditional industry in Kerala and is an important non-agricultural occupation in the south-western coastal belt of India employing about three to four lakhs of workers. Kerala accounts for over 83 per cent of total production of coir in the country. The industry has developed in Kerala as a labour oriented cottage industry. The availability of coconut husks and the existence of natural retting facilities have favoured the concentration of the industry mainly in the coastal belts of the state. The industry is still a reminder of those ancient days when products were mainly made by hand and the production took place in small household units scattered all over the rural areas. All along the south-western coast of the Indian subcontinent, the presence of coir-production is visible as one will find heaps of coconut husks ready to be sucked by nearby lagoons or back-waters. Between the tiny stems of palms, one will see clusters of women sitting on the marshy banks of back waters, beating incessantly on the water-soaked husks or walking on narrow winding paths between private yards, one will hear the rattling of spinning wheels that cannot be seen. Shifting from literary to scientific, most of the industry is concentrated in the southern districts of Kerala namely Trivandrum, Quilon and Alleppey due to natural retting facilities present in the

lakes and lagoons of this area together with the availability of inland transportation. Hence Kerala holds world monopoly in the production of white fibre from retted husks.

Coir is the native name of the fibre extracted from coconut husks, the fibrous mass surrounding coconut, the fruit of the perennial plant cultivated extensively in the tropics. Therefore coconut production is of great relevance to the industry. As per the report of the Coconut Development Board, Kerala is the largest producer of coconuts in India as they are cultivated over an area measuring 14,28,700 hectares and the production is around 75623 million nuts.¹

The industry started in late 1800s went into a rapid expansion as a premier rural industrial occupation with the production of coir yarn products the majority of which is exported. Till then coir had remained dominant in the moderate needs of rural economy and spurred on by the export demand, coir yarn spinning has spread along the coastal villages (Isaac, 1981). Hence to a European observer in Cochin as early as 1861, the growth of coir yarn sector was a recalling of the past experiences of weaving in England many years ago.²

Therefore the coir industry is of crucial importance as a source of livelihood for the poor particularly in the

backward areas of the state. It also plays a vital role in the economy of the country as a source of foreign exchange.

As a result of mechanization and modernization of products and due to export oriented strategy, over the years the coir industry in Kerala has registered an impressive development. This is reflected in the various types of finished products with high export value ranging from coir mats of various designs, patterns, weaves to coir rope in different diameters produced from retted fibre and spun yarn. A still newer addition is the matting of coir products with rubber backing.

However, this did not result in any improvement in the living conditions of workers. The recruitment of the workforce was managed indirectly by the contractors who ensured supply and control of labour. The piece-rate form of payment was also meant to impose self-discipline on the workers. Working in the unsanitary conditions together with the fact that there is no full time employment throughout the year have made the workers more vulnerable to exploitation. (Women outnumber men in case of employment in the industry). Therefore poor economic conditions often adversely affected the living conditions of these women workers. This in turn led to the formation of union under CITU to fight for their rights.

ASPECTS OF PRODUCTION

Historical Examination

The word "coir" is derived from the Malayalam word *kayar* which means cord or from *kayaru* meaning twisted. It is believed to have been introduced in the European language by Marco Polo, the Italian traveller of the thirteenth century. In their writings, the Arab writers of the eleventh century had mentioned the use of coir as ship cables, fenders, rigging and as an auxiliary in the building of ships in the Persian Gulf.

In those days, spinning was entirely done by hands, without any mechanised tools. The spinning wheel called the "ratt" was brought to the area by Portuguese, Dutch and English travellers of fifteenth and sixteenth century. Currently about 85 per cent of the yarn is spun at wheel and 15 per cent, still like ancient times is made by rubbing hands.³

The gains from the coir industry has led different European nations to more or less colonialize Kerala. It started with Portuguese from 1500 passed on to Dutch in 1665 and later to British in about 1800. The history of coir manufacturing dates back to 1859, when James Dorragh, an Irish born American established a manufacturing unit at Alleppey beach. This was the first of its kind in the Malabar coast.⁴ The production of coir yarn was left to

home-based producers distributed all over the coast as it was much cheaper.⁵ A long chain of village dealers, wholesalers and brokers connected the home-based producers to the European exporters. The initial market for the industry was U.S.A. Slowly the market expanded to United Kingdom, Australia and British India.⁶ During this time, the price of yarn and fibre declined and the export value increased. This attracted major European coastal firms into the industry who found it to be a profitable venture. Europeans had the monopoly over coir industry till the twenties of this century. The Indians entered the industry during the trade-boom of the inter-war period.⁷ The majority of the Indian capitalists were owners of small-scale establishments in the countryside adjoining Alleppey. The entry of Indians to this traditional form of industry was not welcomed by Europeans.⁸ These new entrepreneurs came from diverse social backgrounds, such as the prosperous Ezhava farmers who had taken to coir yarn trade, the Gujrati merchants at Alleppey and the Syrian Christians involved in commercial cultivation and trade. There were also enterprising employees of the European firms who later themselves set up independent business and prospered through the trading and speculative skills and the contacts gained while in European service.⁹

In tune with the demand, the production of yarn also

increased. It was directly exported to western countries for use in agriculture and in their coir manufacturing industries. During this period, spinning by ratt gained momentum and it slowly replaced spinning by hand in the southern regions of Kerala.

With the commercial expansion in the latter half of the nineteenth century the number of independent petty producers who procured husks from landlords and sold the spun coir to village coir dealers began to rapidly decline. After the Second World War which affected the export oriented industry very severely, the Europeans slowly disappeared from the scene leaving the industry to the Indians.

The growing success of labour-unions in "mobilizing the masses" and making the labourers "conscious of their class interest" was an important development in the post-war period. It helped in regulating the wages in the industry, apart from getting benefits such as bonus for workers in times of religious festivals. Further when the owners were trying to mechanise coir products for maximum production, the labour unions resisted the move. The government was forced to prohibit it as it would have led to more unemployment in the coastal area where majority is dependent on this for daily bread.

The production of yarn and weaving was thus limited to Alleppey town and there was a concentration of such coir

factories in the town. There also arose in Alleppey, a new group of shippers after the Europeans, mainly from Ezhava caste, who accumulated their capital through coconut cultivation or trade or through liquor contracts. These people formed the backbone of rural employers association called the "Associated Cottage industrialists and shippers union", established in 1938 at Shertallai.⁹

The quantum of exports of the coir also started declining from 1940 onwards. It has come down from 80 per cent of the total production in the pre-war period to approximately one third in the eighties.¹⁰

A glance at the history of the coir industry gives an indication of how a particular traditional industry flourished mainly by exports of yarn and coir products, while utilizing very cheap labour available at that time.

The glance portends an idea of how the traditional, home based production can be exploited by a few who have money and other resources to accumulate capital.

ORGANIZATION AND STRUCTURE OF COIR INDUSTRY

Coir enjoys its dignified status as a fine decorative material in the mansions of the rich and an article of utility in the huts of the poor.

The structure of coir industry in India is based on three sectors. They are:

(a) Retting and Fibre extraction sector.

(b) Spinning sector

(c) Manufacturing sector

In addition to these, there is also the exporting sector.¹¹

(a) Retting and Fibre Extraction Sector

The coir fibre is mainly produced from retted husks. The coconut husks available during dehusking of the nuts are made use of for preparing the fibre. Retting process consists of keeping green husks soaked in saline water by the side of backwater and lagoons for a period of six to ten months.

The natural retting process accounts for about 90 per cent of coir production in India. During retting the husks are subjected to microbiological action involving the degradation by getting rotten of the non-fibrous components of the husk. This facilitates the loosening of coir fibre from the husk. The impervious nature of the exocarp limits the access of the ret-liquor to the interior of the husk. But with the progressive elimination of entrapped air, more efficient contact of the ret-liquor with the husk is facilitated, leading to micro-biological action. This is why retted husks have a foul smell. Retting is essential to produce golden coir of best commercial grade.

After retting, the husks are taken from the water and transported to a place near the backwaters. It is first washed with water to remove impurities and the outer skin is peeled off. It is then beaten with wooden mallets by human hands to extract the fibre from the pith. The wet-fibre is dried in shade and passed through a willow machine to remove the last traces of pith and other impurities. Then the fibre is rolled for spinning.

According to Coir Board estimates, there are about 23,800 retters spread over 260 villages along the coast of Kerala. Retting is concentrated on the Travancore Cochin area and the yearly operation is 1,92,000 husks.¹²

Mechanical Extraction of Husks

By 1964-65, the extraction of fibre by hand beating was gradually replaced by the introduction of a simple mechanical process represented by husk-beating machines. These machines beat about 8,000 to 10,000 husks per 8 hour shift. This implies that each machine can do the work of eighty to ninety workers. There were about 400 husk beating machines operating in Kerala until the government banned it in 1974.¹³

(b) Spinning Sector

The spinning sector which follows the defibring can be

done theoretically through four methods: by hand, by ratt, by treadle ratt and also mechanically. In Kerala, only the first two are put into practise, the third being confined to the building of coir research institute at Kalavur.¹⁴

For spinning, the fibre has to be cleaned, dried and slivers arranged in the same direction before spinning can start. Traditionally coir yarn was spun by rolling fibre between the palms of the hand into short lengths. In the case of ratt spinning, a stationary wheel with two spindles and a moving wheel are used. The stationary wheel is rotated by a person while the spinners feed the fibre slivers to the spindle to make the strands which are then connected to the moving wheel to give counter twist to make the two ply yarn. Majority of the ratts are two spindled, but ratts with three, four or six spindles are also in use. Usually two women are needed for feeding the slivers and one woman for rotating the ratt. There are about 80,000 handspinning units and 25,000 ratt spinning units in Kerala and predominantly women workers are employed in this sector.¹⁵ The above sectors together are known as Handicraft Technology.¹⁶

Manufacturing Sector

This phase includes the making of a whole range of coir products among which mats, mattings, rugs and carpets are

the more important ones. Out of the 2,101 small scale manufacturing units registered under Coir Board, only 170 are under the Factory Act.¹⁷

Organization wise, majority of the workers in the industry are employed in the fibre extraction and spinning sector (67-90 per cent). About 80 per cent of the units for weaving are small scale ones employing less than ten workers. About ten units employ more than one hundred workers.¹⁸

(d) Export Potential of Coir Yarn and Coir Goods

Coir industry is highly export oriented and from its early years has been concentrated in the hands of few industrialists. Prior to independence the yarn market was controlled by half a dozen European exporters of coir yarn who were also major manufacturers of coir products. These European trading firms who owned the bailing presses and had better market contracts monopolised the export field. Till the depression on coir goods, these firms continued their exports to London from where the yarn was exported to other European countries. The economic depression in coir goods was due to competitive price reduction in the coir industry coupled with high export rate and low export price.

The entry of Indians in the field during the post independence period posed a serious threat to the European

shippers. The competition increased significantly with the introduction of standardized wages in bailing and rehanding sector in 1959, which resulted in decentralization of the rehanding activity. But even at the time of second world war, the export prices of products had declined due to severe inter-capitalist competition. This competition was due to two reasons, i.e., (a) the overall demand for coir products were stagnating; (b) a small number of exporters had been steadily increasing their share of the market at the expense of others. This resulted in the withdrawal of Europeans from Indian market paving the way for Indian Industrialists. The export of coir yarn began to decline only in 1967 when the Coir Board introduced floor-prices and a pre-shipment inspection for coir yarn.

The decline in the exports of coir floor coverings has not been as severe as in the case of coir yarn. By late 1970s there has been a recovery in the market for coir floor coverings. The decline was mainly due to lack of product innovation and poor quality and packaging.

One of the major problems regarding exports from Kerala is the failure of timely supply of goods, the tariff problem and adequate shipping facilities from Cochin. Further the workers struggles, as well as the agitations of small producers often interrupted the supply and disrupted the trade.¹⁹ Exports have always absorbed a large part of

production in Kerala and lately it has come down from around 80 per cent in pre war period to approximately one third now.

The increase in rail movement of coir and coir products to other states in India has, to a great extent, compensated for the decline in foreign shipments. But in the eighties this also started declining. This is evident from Table 1.

Table 1

Kerala's Exports of Coir Products - Tonnes

Year	Total export	Total coir goods moved by road
1944-49	72815	-
1949-54	87603	-
1954-59	90270	23175
1959-64	80761	31185
1964-69	66826	40442
1969-74	51249	50380
1974-79	41797	53794
1979-84	32799	42632

Source: Issac T., Evolution of Organization of Production in Coir Yarn Spinning Industry. CDS Working Paper No.236, 1990, p.90.

These trends are often used as identifications for further introduction of mechanisation.

Levels of Management in Coir Industry

Coir yarning industry is highly unorganized whereas the weaving sector is organized. Since a significant proportion of the yarn production is still in the hand-spinning sector, it produces a wide spectrum of pre-manufacturing production organizations like independent domestic producers, varied forms of putting out systems and occasionally direct use of hired labour under a common shed.

As it is mainly export oriented, the small producers of coir yarn scattered along the coastal belt of Kerala are totally dominated by the traders in the raw material markets and finished good markets. The operation of these traders and fluctuations in the export demand have made the existence of petty producers very precarious. Squeezed between the monopolistic husk market and monopolistic yarn market, the workers and the petty producers are left with bare subsistence.²⁰

It is very clear that the coir industry is primitive and simple and that there is no investment in machinery. The industry has been facing a crisis since 1950s as the export value was declining and internal consumption, though rising was not able to keep up with the export value. Because of the popular pressure, the government made an attempt to co-operativise the spinning sector.²¹ This was a land mark in the history of coir industry.



Coir co-operatives, have come up in Malabar from the early twenties and the Cochin area also started co-operatives in 1940s, but these remained as isolated experiments and did not have any significant impact in the industrial structure. The new phase in co-operatisation opened with the formation of United Travancore Cochin Government after the Independence.

The (co-operative) scheme was launched in 1950s to re-organize coir-yarn spinning on co-operative basis. The aim of this was to standardize, the quality of coir produced, to discourage adulteration prevalent, to attract foreign markets for coir products, to eliminate middle men engaged in various stages of industry swallowing up the profits, to ensure reasonable wages and regular work for the labour class.²² This was intended as a programme for rehabilitation of the industry. Even with substantial support from government, co-operative societies, still account for only a small share of the total business.

In the 1980s, there was a nominal increase in the number of co-operatives, but majority of them included dormant societies and new ones which had not yet started functioning. Of the working, 70 per cent were incurring losses. Even after many re-organization schemes, co-operatives accounts for only less than a third of the workforce in the industry and less than fifteen per cent of

industrial production. But it had a significant positive impact on labour conditions and industrial organizations. The majority of the co-operative members also work in the private sector, either as wage workers or self employed producers. The wages of the above sectors remain lower than the co-operatives and is normally fixed as a relative proportion of the co-operative wages. Thus the co-operatives has improved the labour conditions by increasing the wages in the unorganized sector of the industry. Earlier majority of the co-operatives were organized according to unit system, under which the workers were paid directly by cooperative society and production taking place in households. But with constant pressure most of the co-operatives have stopped this type of yarn production. Today there is universal recognition that unless husks can be made available at economic prices, the co-operative sector cannot remain viable. Because of high wage and establishment charges, societies are not able to compete with private sector.²³

Major problem faced by the cooperative societies is the inadequacy in the availability of retted husks. Even with improvement in the procurement of husks, the society is unable to give employment to all members in the society. Only a small percentage of members is actually employed and even they do not get work whole throughout the year. The

factors which contribute to poor performance of co-operative societies, are the dominance of middlemen in the industry, inadequate financial resources of society and absence of competent and trained managerial personnel. Therefore, the complete reorganization of industry on a co-operative basis seems to be a far off dream today than before the scheme was initiated nearly four decades back.

MECHANIZATION IN COIR INDUSTRY

While the co-operative movement had given some relief to the workers, an alarming development in the Coir industry recently was an attempt to introduce mechanization at various levels of production leading to large scale unemployment amongst women. As the workers have been trying to organize themselves through trade unions, the factories retaliated through introducing machines to replace labour. This serves to increase the profit of the capitalists (or industrialists) as well as disrupt the workers unity. Hence it was started as an easy way of making workers more helpless. It also helps to keep the wages at a low level. The machines by throwing thousands out of employment, creates a reserve army of unemployed people, forcing those who are still employed to be more submissive for fear of being replaced at any time.

At the lower level of production machines were introduced in the defibring sector which was labour intensive. The machine introduced was a larger and modified version of the willowing machine consisting of a fast-revolving nail barbed drum to which husks were fed through two closely pressed rollers. The nails on the drum shredded the husk into fibres. Each mill needed around twenty female workers to run machinery and twenty female workers to remove the pith from the fibre. A mill would defibre in an 8 hour shift around 8000 husks which normally would have needed around 100 manual workers.

While in 1955, there existed only six defibring machines, it was ironic that as unionization became more intensive, the number of machines also increased. The labour recruitment was further decreased by another new technological innovation resulting in significant cost reduction. The new machine had a shaft which when rotated at high speed, and husks when fed from one end produces clean fibre through the other end. By 1973 there were around 400 such machines operating in Kerala as it saved the manual shifting of fibre and also the cost of space for shifting and drying the fibre.

With the installation of these machines, there was deterioration in the quality of fibre and its value was more in the field of reducing labour requirements. These

machines were usually set up by larger producers or rural entrepreneurs who defibred husks for spinning establishments on a contract basis. These moves enabled to deny work for the defibring workers who constituted 30 per cent of the workforce.

This large scale displacement of workers created wide spread rural unrest in the coir belt.²⁴ It was estimated by Planning board that complete mechanisation of defibring would displace 81,562 out of 1,12,000 workers engaged in production. The struggle against mechanisation reached its peak in 1972. Cases of starvation deaths among unemployed workers were reported.²⁶ To curb violence the police started firing which ended up in killing one worker, arresting thousands and torturing much more. At last in 1973, Government was forced to ban the husk beating machines from operating in Kerala.

The companies which originally implemented technological methods were the Aspinwal company which had a fibre processing factory at Angengo (1920) and Arnold Chennery and Co. in Alleppey²⁷ (1922). The mechanical fibre processing technology has successfully used in Sri Lanka to produce brown fibre. But in Kerala the mechanical defibring factories could not withstand the competition from the hand processing sector and had to be closed down. Even in spinning, attempts were made to set up motorised units and

this also was banned due to social unrest.

The surplus labour in Kerala's coastal belt and the cheap labour it provided, thus enabled the survival of the primitive methods of production and kept out labour saving technological improvements which would have otherwise benefitted only a few.

Industrialists view of mechanisation is that machines are introduced to improve productivity and to meet competition in international markets. But their actual motive, "is to break the organized strength of workers through mechanisation,"²⁸ and to earn quick profits.

But it is unlikely that the present situation would continue, as the growth of mechanized coir industry in other countries like Sri Lanka and other states in India like Tamil Nadu has posed a threat for the traditional retted husk fibre industry of Kerala.²⁹ If these threats materialise, Kerala will have no choice but to modernize its industry in a phased manner.

PRODUCTION AND CONSUMPTION OF COIR

The production of coir in India is estimated on the basis of exports, internal sales and movement of coir products from the producing centres to other places in India by rail and road. In the past coir industry was the monopoly of Kerala. But with coconut cultivation becoming

popular in non-traditional areas, coir industry has started developing in the states of Tamil Nadu, Karnataka, Andhra Pradesh and small quantities of coir produced in Orissa, Maharashtra, Goa, West Bengal, Pondicherry and Andaman and Nicobar Islands.

Basically there are two types of fibres (a) White fibre which is extracted from green husks by natural retting process, and (b) Brown fibre extracted from dry husks by mechanical action. Kerala is the main producer of White fibre and total production in 1987-88 was 1,30,600 tonnes.³⁰ White fibres resiliency coupled with extra ordinary endurance and hard weaving characteristics, helps it for usage in the preparation of ropes and cordages for weaving mats etc. Brown fibre on the other hand is used for making brooms and brushes, in the manufacture of upholstery, insulation materials etc. It is also used for manufacturing rubberized coir for production of car seats, mattresses and insulations.

In Kerala, there are varieties of coir yarn which vary according to the method of extraction and end uses. Of these the mate fibres or yarn fibres is the finest and longest variety obtained through retting and is mainly used for manufacture of yarn mats and mattings. The different yarns are named according to the places where its first produced, and hence these are varieties of yarn like

Anjengo, Mongadan, Aratery, Alappatt, Ashtamudy, Vycome, Beachyarn, Beypore and Quilandy.

Coir production depends primarily on the production of coconuts. India with an annual production of about 6000 million nuts occupies the third rank in the world coconut production. 91 per cent of the area under coconut cultivation is concentrated on the four southern states and Kerala alone accounts for 60 per cent.³¹ Kerala with 60 per cent of area under coconut cultivation contributes only 52 per cent of the total production of coconuts.

Production in Unorganized Sector

Table 2

District-wise Distribution of Coir Products Units in Kerala

S.No.	Districts	Number of Units
1.	Trivandrum	1356
2.	Quilon	4480
3.	Alleppey	70160
4.	Kottayam	4780
5.	Ernakulam	4359
6.	Tricur	1608
7.	Malappuram	4925
8.	Kozhikode	3900
9.	Cannonore	1138
TOTAL		97405

Source: Report of the Survey on Production and Consumption of Coir and Coir Products in Kerala, Government of Kerala, 1984-85.

According to the survey on production and consumption of coir goods, the number of units engaged in production is estimated to be around 97405. Besides there are 84 coir producing units in the factory sector. The district-wise distribution of coir producing units shows that 72 per cent of units are in Alleppey district and among these more than 92 per cent of units are set up in household premises.

The process for the production of coir begins with the collection of raw husks from coconut cultivators and hence it depends primarily on the collected coconut husk. The number of units engaged in various activities like retting, defibring, spinning, weaving etc. of the industry are given in Table 3.

Table 3

Number of Units Engaged in Various Activities

S.No.	Type of Activity	Number of Units
1.	Retting	69456
2.	Beating	83240
3.	Cleaning	438
4.	Spinning	92615
5.	Rehanking	1328
6.	Manufacture	3765

Source: Report of the Survey on Production and Consumption of Coir and Coir Products in Kerala, Government of Kerala, 1984-85.

A unit usually attends to more than one activity.

During 1984-85, 84,257 tonnes of coir yarn valued at Rs.4689 lakhs were produced in the unorganized sector.³² Among the important varieties of yarn, *Mangadan* yarn produced in Quilon district accounted for 32 per cent of total yarn produced followed by "Beach yarn" (14 percent) produced in Alleppey. *Anjengo*, the most superior, produced in Trivandrum accounted for 13 per cent and *Vaikkom* produced in Alleppey and *Kottiyam* accounted for 11.6 per cent of total yarn production in the state.

Among the coir goods manufacturing units, mainly producing coir mats, more than 70 per cent are concentrated in Alleppey district.

In the organized sector of the industry in Kerala manufacturing of furnished goods is the main emphasis while the first two phases are in the unorganized sector. Majority of the production of yarn is in the unorganized sector. The organized sector is involved mainly in the production of coir goods like mats, mattings etc.

Consumption of Coir Products

By and large, coir has been an export commodity and the foreign market remains the main stay for the bulk of coir products. The internal markets were on a subsidiary market absorbing excess production over export requirements. The

exporters neglected the Indian market which became synonymous with inferior quality products and export rejects.

The internal market was developed by the efforts of Coir-Board by opening up small-number of showroom distributed in major urban centres and accredited dealers through whom standardized quality products were promoted.

The rural household sector for agricultural purposes and the urban customers for construction and packing purposes consumes 60 to 70 per cent of the coir yarn. In the coir product market, mattings are mostly purchased by institutional buyers. Coir door mats have a high percentage of demand from the household sector.

In 1973, the internal consumption of coir and coir products was 50 per cent of the total output.³³

Table 4

Consumption of Coir and Coir Products in India

S.No.	Article	Consumption (In tonne)
1.	Coir fibre	12,153
2.	Coir yarn	50,205
3.	Coir products	7,943
4.	Coir rope	19,242
5.	Curled coir	523
6.	Rubberised coir	500
	TOTAL	90,566

Source: Internal Market for Coir and Coir Products, Coir Board, 1973.

About 52 per cent of the output of yarn is being consumed within the country, the consumption of products and ropes being 32 per cent and 92 per cent respectively of the total output.

Over time the major determinant of consumer preference shifted from quality to price of the products. The entry of machine made brown fibre had enabled people to get coir goods at very low prices and this adversely affected the traditional superior quality products of Kerala. Hence in recent years the monopoly of Kerala over coir products have declined considerably.³⁴

The important point that has emerged from our analysis is that, the internal market potential and the need for such a strategy would probably help the traditional sector and the lakhs of workers engaged in production, rather than, an export oriented strategy which encourages mechanization and thereby benefit only a few.

CONDITIONS OF LABOUR AND RELATED ISSUES

A. Labour Recruitment in the Industry

The coastal region of Kerala is one of the most densely populated tracts in India. Coir industry flourished in the coastal areas, being one of the traditional industries, employ around four lakhs of rural population. Only less than half of the rural population is employed in

agricultural sector, the rest accommodated in any of the traditional industries like coir, fisheries etc. This is because exclusive dependence on agriculture for work meant low and uncertain income, arbitrary terms and conditions of work and long spells of forced idleness. The establishment of coir industry opened up avenues for regular wage employment for the agricultural workers. The overriding desire to overcome social barriers and achieve freedom to work was another strong incentive to seek work in these factories. More specifically work in these meant the prospect of money wages, fixed hour of work and more importantly continuity in employment, although it meant longer working hours.

However regarding labour supply "the relation between coir and agricultural sector is mutual depending upon the crisis in each sector in specific periods. Thus there is constant intermigration from these two sectors."³⁵

The employment in the coir industry has more than kept pace with the expansion in the production through the century. There is lack of reliable data to trace the growth of the work force.³⁶ The workers were recruited and supervised through the institution of *moopan*. The *moopans* were trusted skilled workers who had been in the employment of the industry for a long period. They were responsible for the maintenance of discipline in their respective

departments and had the right to impose fines. The wages were dispersed through the *moopans* whose earnings consisted of a commission (*moopan kasu*) deducted from the wages of the workers.³⁷

According to the census figures, 90 per cent of the workforce in coir yarn industry are women. The widely accepted estimate of employment in the industry inclusive of marginal and part time workers is that of four lakh fifty thousand workers,³⁸ considering all the four sectors.

Table 5

Number of Workers Employed in the Four Sectors of the Coir Industry

S.No.	Sector	No. of Workers
1.	Retting	50,000
2.	Beating sector	132000
3.	Spinning sector	216000
4.	Manufacturing	46,500
	TOTAL	445900

Source: M.V.Pylee, A Study of Coir Industry in India - Problems and Prospects, Coir Board, 1977.

But a recent survey (1981) has come out with a figure of only 2,83,478 workers belonging to 1,53,143 households. According to this survey the earlier tabulated figures of

employment is slightly high because the same workers sometimes work in different units on different days which leads to multiple counting.

Table 6 shows that nearly 47.0 per cent of coir workers are concentrated in Alleppey followed by Quilon with 12.9 per cent. Cannanore has the lowest with 1.7 per cent.

Table 6
District-wise Distribution of Coir Workers

S.No.	District	Number of workers	Percentage
1.	Trivandrum	28,301	9.98
2.	Quilon	36,548	12.89
3.	Alleppey	1,33,085	46.95
4.	Kottayam	14,738	5.20
5.	Ernakulam	18,263	6.44
6.	Trichur	10,121	3.57
7.	Malappuram	9,119	3.22
8.	Koshikode	28,498	10.05
9.	Cannanore	4,804	1.70
	TOTAL	2,83,478	100.00

Source: Report on Survey on Number of Coir Workers, Government of Kerala 1981.

The spinning sector of coir industry accounts to around 72 per cent of coir workers, and beating sector about 16 per cent. The number of workers in each category classified

according to activity is given in Table 7.

A comparison of the previous estimates on the volume of employment shows a declining trend from 4,30,000 in 1966 to approximately 3 lakhs in 1981.³⁹

Table 7
Number of Workers in Each Category Classified
According to Activity

Category	Number of workers	Percentage
Retting	4,871	1.72
Beating of husk	45,832	16.17
Spinning	2,05,088	72.35
Weaving	11,239	3.96
Other types	16,488	5.80
TOTAL	2,83,478	100.00

Table 8
Comparison of Workers Employed During the Years
1975-76 and 1981 in the Coir Industry

Sector of Activity	1975-76	1981
Retting and Beating	1,34,286	50,703
Spinning and weaving	2,27,059	2,16,327
TOTAL WORKERS	3,61,345	2,67,180

Source: Report on Survey on Number of Coir Workers, Government of Kerala, 1981.

A comparison of the survey results of 1975-76 and 1981 shows that, there is decline in the total number of workers in all the four sectors of the industry. This apparent decline in the industry could be due to longer period of leave season and inadequate wages in the industry.

Labour Conditions in the Coir Industry

As the coir industry is highly unorganized, the wages obtained by a worker is very low, regardless of the amount of work done. In 1966, the average monthly income of a hand spinner was around Rs.10.00 and that of a spindle spinner Rs.30.00.

The hand spinning household continues to be the most sweated and under paid stratum of workers in Kerala.⁴⁰ These workers have to purchase retted husk from dealers, extract the fibre and convert it into yarn, which they sell to local traders. The workers in this section work for about 9 to 10 hours a day, as they usually take a break in the mornings and afternoons to attend to their household chores.

The earning of the "ratt" spinners are two to three times the earning of hand spinners. Majority of the workers in coir industry find employment only for about two hundred days a year. Theirs is a life of abject poverty and starvation, with nothing to fall back on and nowhere to work

for nearly three months of an year and many of the workers had migrated from agriculture in the hope of regular employment.

The mode of payment, universally prevalent in the industry is the piece-rate system which imposed self-discipline on the worker as his earnings depended on the out-turn. Workers are usually made to work over time without extra pay.

In 1972, the Government of Kerala, fixed the minimum wages in spinning sector at Rs.2.40 per worker for hundred yards of spun yarn and Rs.2.80 per hundred husks for beating.⁴¹ The incompatibility in the price of husk with coir yarn is the basic factor which has contributed to such a low wage level. The price of husk is very high in relation to coir yarn and therefore producers are unable to give minimum wages fixed by government.

Deterioration of Labour Conditions in the Industry

A number of malpractises continue in the industry such as not maintaining proper registers, recruiting people on a temporary basis, no extra payment for over time etc. Even majority does not get the fixed minimum wages.

Most workers are not aware of the exact minimum wages declared by the Government. Working on the piece-rate system, they put in long and tenacious hours in unsanitary

conditions. As a result, most of them suffer from diseases related to postural and poor working conditions. In addition to this, they have to do all the housework such as cooking, cleaning and looking after children.

The following description about the coir worker in the rural areas of central Kerala given in the minimum wages committee report (1953), might convey the miserable plight of coir workers more sharply than any statistical exercise. "For a long time, the workers have not been able to obtain a good meal on any day except on festival days.... Even that was made possible only by starvation on subsequent days. Usually they take a little 'black tea' early in the morning and go to the workspots. In the noon intervals, they are able to take a little dry tapioca and ground nut cakes which they supplement by drinking water. After returning from work, they prepare *kanjis* and drink the watery portion, giving the residue portion to men and children in the family. Most of the workers are found to wear only rags in the working spots.... Girls between 16 and 20 years of age were dwarfed on account of insufficient nourishment. Women between 25 and 30 were so worn out by work and starvation that they looked forty to fifty years of age. The workers who are spinning coir cannot as a rule work for more than four or five days a week. Generally they start work in the early morning, have a small break in the afternoon and

continue working till 5 or 6 O'clock. This craze of long working hours is the outcome of their desire to earn as much as they could by turning out more work on piece-rate system. per day."⁴²

The coir industry in the 1950s thus presented a picture of archaic production structures under the unbridled control of exporters and middleman and hardly providing a minimum subsistence for the majority of workers who are dependent on it. Even after forty years after publishing of the report the workers are still in the same level as described in the minimum wages committee report and they still remain as the lowest paid in the country regardless of the rise in wages due to unionization. The average family has to be in perpetual debt just to live at subsistence level. Among the whole set of workers, the handspinnners are highly exploited by both dealers and pretty traders as there is no formal employer-employee relation.

Generally the workers have no financial assets and their economy is run on borrowing at exorbitant interest rates. As the workers toiled for mere subsistence, the producers accumulated wealth through exports using this cheap labour.

Women, as discussed earlier outnumber men in the coir industry. Apart from the gender issues, the problems that these workers encounters are enhanced by the absence of any

labour laws. As there is no protection of work of any sort, they are more vulnerable to exploitation.

TRADE UNIONIZATION AND ITS IMPACT IN THE COIR INDUSTRY

The emergence of trade union movement in the coir industry was not a post 1950s phenomenon. The coir weaving industry at Alleppey was the cradle of the trade union movement in Kerala. A philanthropic association that already emerged in 1922, grew into a militant trade union fighting against wage reductions caused by the economic depression and inter capitalist competition during the 1930s. The trade union movement developed into political radicalism and Alleppey coir workers came to constitute one of the main strongholds of the left movement in Kerala.⁴³

The Ezhava caste happened to be the major caste composition of the coir workers, 65 per cent of the work force in 1921 being from this caste. Thus Ezhava Social movement against Savarna domination also might have contributed to the militancy of coir workers.

During 1940, coir workers had a major role in the uprising against autocratic monarchy in Travancore. The Punnāpra Vayalar Struggle indicated high level of politicisation of coir workers and their refusal to be incorporated into proper trade union channels.

Local workers organizations and struggles in the spinning sector subsequently emerged during the 1950s. The spread of union was mainly among husk beaters who worked (for wages) in the yards of merchants' houses. An important feature of the industry which the minimum wages committee of 1954 mentioned was that whenever labour was organized under trade unions the conditions of labour were comparatively better.⁴⁴ The workers in Trivandrum and Quilon area were organized and were conscious of their rights and claims. The fixation of minimum wages and the widespread struggles of workers to implement them led to a virtual turmoil in the industry. The employers generally avoided the payment of the minimum wages or increased the workloads or denied the workers the customary rights which were specified in the recommendations. The employers were of the opinion that the minimum wages could not be paid without significant reduction in the prices of husks.

The immediate impact of the struggles of the workers and the introduction of minimum wage legislation was the gradual extinction of centralized production system. The large fibre producing yards operated by the husk retters were split into smaller units or subcontracted to middle man who in turn employed small group of workers, and got small advantages by exploiting the workers under him. The unions were not successful in preventing the development of the

contract system. The most intensive and fierce struggle in the spinning sector took place in 1956 and was centered around the issue of the right of large scale retters to close their workyards and contract out the defibring activity. This went on for a month in a most militant fashion against police violence and starvation. But the agitation was later withdrawn and it was left for adjudication.⁴⁵

Therefore the initial phase of trade union movement was not very successful in effecting any dramatic improvement in the labour conditions. The second minimum wages committee that toured the coir industry districts in 1961, "found very little changes in the working conditions in the industry".⁴⁶ It took more than a decade for the wages to reach the subsistence minimum recommended in 1954.

The formation of the United Front Government in 1967 and the active entry of CITU into the coir industry marked a new stage in the struggles in the coir-spinning sector. The minimum wages committee of 1971 observed that the wages prevalent were 100 to 125 per cent above the notified minimum wages set in 1964 (Mohideen, 1971). In fact, the new wage rates fixed by the committee therefore only regularized the actual gains won by the workers through their own struggles. In the southern districts, bonus payment during the festival season became a customary right

and thus, the period from 1967 onwards proved to be one of rapid rise in wages. As mentioned earlier, it was the strong trade union movement which could block the move for mechanization. Moreover the struggles of coir workers were not merely for their immediate gains, they also campaigned for the demands of farmers, spinners and rural poor.⁴⁷

The struggle still continues for the labour problems remaining as such in the spinning sector, even with the increase in daily wage. According to Susheela Gopalan, the President of the CITU workers union, "There has not been a single day when a struggle has not taken place on the questions of raw material prices, minimum wages and hours of work".⁴⁸

Thousands of workers are still participating in the trade union struggle continuously for their upliftment. Development of unionization, thus is helping the workers slowly but steadily to erode the capitalist vision of cheap labour and has highlighted the paramount importance of protecting employment in the industry.

COIR INDUSTRY : PRESENT STATUS AND IMPORTANT FEATURES

Coir industry, once a monopoly of Kerala at present is passing through difficult times. Only less than 10 per cent of the workforce is in the organized sector. The rest are in small scale or cottage units employed as part time, self-

employed or casual wage labourers. Hence, the industry disguises unemployment in the regional economy.

As mentioned earlier, although significant changes like introduction of machines occurred in the industry, the government had to ban any such move as it would have led to more unemployment in the rural areas. Other states in the country like Tamil Nadu, Karnataka etc. have introduced machines in their coir industry which has now become a growing threat to Kerala's traditional industry. Increase in the cost of production resulting in high prices for coir products has placed the industry in a very disadvantageous position.

Kerala's position in both the national and international market is being seriously threatened. In the international market, Sri Lanka has been steadily displacing yarn from Kerala in the recent years. While Kerala's share in the world trade of coir yarn had declined from 90 per cent at the end of 1970s to 72 per cent in 1988, Sri Lanka has increased its share from less than 10 per cent to more than 25 per cent during the same period.⁴⁹

Within the national market, there is potential threat from Tamil Nadu, where mechanized fibre production is rapidly expanding. Currently the raw husk fibre production centres of Tamil Nadu are catering to the fibre requirements of Kerala's spinning sector.⁵⁰ The only obstacle in Tamil

Nadu's coir industry is the lack of skilled hand for the spinning of fibre into yarn. They are trying to overcome this by experimenting with mechanized spinning mills. Such a development if materialises would be disastrous to Kerala's traditional coir industry and workers engaged in this activity.

Government of India has started many development schemes with the help of coir board for the amelioration of the conditions of the workers regarding minimum wages and full time employment through co-operatization of the industry. But this scheme failed due to lack of resources in many societies, affecting the availability of raw materials, limited profit and overall poor managerial efficiency.

The other welfare measures started by Coir Board in January 1987 consists of :

- (a) Model coir village scheme: In which the workers of the selected village can avail all facilities like electricity, drinking water scheme, house for SC/ST, worksheds, etc.; and
- (b) Medicare programme to improve health status of coir workers for which the government has allocated Rs.200 lakhs. This programme is available at present to only fifty villages in Kerala out of a total of 260 identified coir villages. A large majority of the workers are thus outside the orbit of this scheme and still lead a miserable life..

For them, a few rupees they earn make a difference between starvation and mere subsistence.⁵¹

The following issues emerge from the overview of the different facets of coir industry.

Coir industry, one of the traditional industries of Kerala is heavily export-oriented and from its early years has been concentrated in the hands of a few industrialists. The rural poor driven by insecure conditions in agriculture constantly migrate to coir industry centres. Majority of the coir workers are women from the lower economic strata of Ezhava caste. However, they find themselves equally insecure as industrial workers because they are at the mercy of the management who, having a vast army of impoverished and unemployed to choose from, can hire and fire at their will and depress wages below subsistence and starvation levels.

Living below the poverty line, coir workers are subjected to worst type of exploitation and social degradation. Most of their suffering is caused by low wages, lack of security and non-availability of regular employment leading to an existence of under employment.

Though battling against poverty, malnutrition and unemployment, there are many young workers with a long history of struggles in union. Even the existing low wages has been ensured only by a series of struggles. But poor

working conditions and meagre wages makes them more prone to illness and hence the struggle for better wages thereby to a better standard of living still continues.

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CHAPTER III
METHODOLOGICAL APPROACH

CONCEPTUAL FRAMEWORK

The coir industry is a main source of employment to a quarter to half a million of Kerala's rural workers in the coastal belt. The industry is characterised by mostly, labour intensive process of coir-fibre extraction and spinning by simple human labour, i.e., from collection of husks to spinning into yarn. The technology of production is primitive and simple. Since the people are almost dependent on it, there is great resistance to mechanization of production process. The supply of labour to this industry is mainly from the agrarian sector. The shift occurred as exclusive dependence on agriculture meant low and uncertain income, arbitrary terms and conditions of work and fixed idleness for a long time.

In this particular study, a coir worker is defined as "a person who is usually engaged in any activity in the coir industry - either as an employee receiving wages or as a self employed person working in his/her own household enterprise."

As per the Economic Statistical Survey of 1981, the female workers predominate (i.e. 67 per cent) in coir operations such as beating, cleaning and spinning. Earlier the industry used to employ only people from lower-strata of Ezhava caste and at present this is fast changing as people from other castes like Nairs and Christians are also

entering into the field of coir production.

The coir yarning sector is highly decentralized or unorganized. The working hours are exhaustive extending up to ten hours a day and the wages they receive are comparatively low, reported to be the lowest in the country (Pylee, 1975). Added to this, their working environment is often found to be unhygienic which makes them highly susceptible to various health problems. The development of trade union in the industry has helped the workers to some extent. But this is limited to fixing minimum daily wages and recruiting labour directly under producers of yarn.

RATIONALE OF THE STUDY

The economic condition of workers in coir industry in Kerala has been fast deteriorating as their wages has not kept pace with the steadily rising prices. There is very little scope for alternate employment for workers as most of these areas are industrially backward. This indirectly results in under employment of the workers. This in combination with the earlier mentioned unhygienic, oppressive and over crowded working environment affect the health and well being of this group of workers.

Thus the main emphasis of this study will be the living and working conditions of coir workers as influenced by socio-economic and some selected sociological factors with

special emphasis on perceptions and awareness of their problems. The effort here will be to get an insight into the working and living conditions in order to find their implications for health and well being of workers.

In order to achieve this major objective, we have evolved the following specific objectives:

SPECIFIC OBJECTIVES OF THE STUDY

1. To study the socio-economic and living conditions of coir-workers.
2. To study the working conditions such as nature of work, location of work place, facilities in the work place etc.
3. To understand the perceived health problems in order to get a broad idea of their association with their living and working environment.
4. To study the action-taking with regard to the health problems and their perceptions of the services.
5. To study the level of unionization among the workers in order to understand how they cope up with the problems of work and its impact on the well-being of the workers.

FIELD AREA

Universe of Study

The study is conducted in a village in Shertallai

Taluk, Alleppey district. Alleppey, the smallest district in the State is bounded on the north and north-east by Ernakulam and Kottayam districts, on the south by Quilon district and on the west by Arabian sea. It lies between north latitude $9^{\circ} 05'$ and $9^{\circ} 52'$ and east longitude $76^{\circ} 17'$ and $76^{\circ} 48'$. The population of the district according to 1991 census is 1,990,603 persons spread around 1,414 sq. km. Of the districts in Kerala, Alappuzha has a predominant position with 1,408 persons per sq.km. which is almost double of the state density of population. The total number of workers in the district is 598,468 of which 452,061 are male and 146,407 are female workers.

Alleppey district has the highest number of workers in the household industry. Shertallai taluk of Alleppey district lies in the low land region and has the highest population of 17.86 per cent and the lowest literacy rate of 66.07 per cent in the district. The reason for selecting the particular taluk is due to the fact that it has got the highest number of workers in household industry (due to high concentration of coir industry).

The village Kokkothamangalam is selected after undertaking a scouting investigation in the area. The village is situated at a distance of one and a half kilometer from Shertallai town to Thaneer Mukkom on North and Muhamma to south. The total area of the village is

11.29 square kilometer and the population is 5073 accounting to 2443 males and 2630 females. There are 805 households in the village. The infrastructural and other facilities available in the village are as follows.

- (a) Educational institutions include two primary schools (i.e. up to 4th standard) and two middle schools (i.e. up to 7th stand) both run by government authorities.
- (b) The medical infrastructural facilities include one primary health centre located at Velliamkulam, one family welfare clinic, two ayurvedic dispensaries, four allopathic dispensaries and two homeopathic dispensaries.

The other amenities include a post office and the village is linked to the nearest town Shertallai three kilometers away from village by back waters and road services. Majority of the rural folks are employed in the traditional industry of coir and the important commodity manufactured is coir yarn from coconut husks.

In the village Kokkothamangalam, the major portion of the production of coir yarn is done by the cooperative societies working in the village. As discussed in Chapter II, cooperative society scheme was promoted by Coir-Development Board of the Government in 1950-51 in order to rehabilitate coir industry. The co-operative societies are mainly working in the area of spinning of coir yarn. The co-

operative societies in Kokkothamangalam has got a president, a secretary, a works manager and a panel of members elected by the workers working under the society.

Generally, the society in the village carries out two types of yarn production, i.e. yarn produced in co-operative worksheds and those produced in certain households under society. The societies work six days a week and around 9-10 months an year. The societies have got fixed minimum wages paid in piece-rate weekly. The co-operative society in Kokkothamangalam carries out a programme called Kshemanidhi started in 1989 by Kerala coir worker kshemanidhi Board, Alleppey. The worker in the society can become a member of kshemanidhi by paying a minimal amount of Rs.3.00 to the society at the time of starting his work in the society. The kshemanidhi of the cooperative society helps its members by giving financial help at needed times like children's marriage, death rituals, educational purposes etc. The society also gives its workers 20 per cent bonus during the festival time once a year.

In Kokkothamangalam, seven such co-operative societies are catering to the rural folks by employing more than 250 workers in one society.

The details of the societies in Kokkothamangalam are shown in Table 1.

Table 1

Societies and the Number of Workers Employed by Them

S.No.	Society	No. of workers
1.	Nedumbarakkad	452
2.	Poothotta	332
3.	Varanad	358
4.	Manavelli	491
5.	Muttathiparambu	262
6.	Kattachira	398
7.	Velliyamkulam	300

SELECTION OF SAMPLES

After undertaking a pilot study and analysing the relevant literature, it was possible to identify four types of activities in the village with respect to coir yarn production. According to these activities there are four categories of workers. They are:

- (i) workers who are working directly under the society;
- (ii) Members of the co-operative society who hires workers from outside to do the work in their homes.
- iii) Households who are not members in the co-operative society, but hires workers from outside to do the work in their houses.

iv) Household members who themselves work and are not related to the society.

Regarding the second category of workers, of the seven societies in the village, only one society i.e. Nedumbarakkad (working strength 452) in the village is employing this kind of work. The process of work is as follows: it gives retted husks to the members. The members hires the workers by paying from their pockets to defibre the husks and to turn the fibre into yarn. The members in turn are paid by society depending on the quality of yarn spun. As this type of work is not benefitting the members financially and as the society finds it difficult to supply fresh stock of defibred husks, six of the societies in Kokkothamangalam have stopped this activity.

Out of the seven societies in the village, one society is taken, on the criteria of maximum number of workers employed. Therefore the society taken was Manavelli society which is three and a half kms away from Shertallai town and has the work strength of 491 (Table 1). (The particular society is situated in Ward 10, called Idavana).

METHOD OF SAMPLING

From the Manavelli society, 75 workers were randomly selected from the first category making sure that only one person is selected from a family. Twenty five workers were

selected from the second category from the Nedumbarakkad society. From the third category of workers, 25 workers were selected from those households which employ more than ten workers (from outside). The houses selected are located around the area of Manavelli society. To study the socio-economic and working patterns, 25 workers were purposively selected from the fourth category of workers.

In all the above cases, care was ensured that only one persons was selected from one particular family. The total sample size was thus one hundred and fifty.

The study was conducted with an assumption that there exists differences in the living and working conditions among the four types of coir workers.

In order to get a clear picture of the life of those who toil for three quarter of their lives, 10 in-depth case reports were prepared from different age groups. These case reports have helped in providing a qualitative dimensions as well as in cross-checking the data from the survey.

TOOLS OF DATA COLLECTION

Tools administered for collecting data is important as it influences the nature of the study. Tools should be selected considering the problem to be studied and keeping in mind the time limit. The tools used in this study were:

- A. Interview Schedule: A schedule was developed keeping in mind the problem area. The schedule was prepared by taking into consideration the objectives of the study and it covers areas like personal data, living and working conditions of workers, their perception of health problems and availability of health services and finally on the impact of unionization in their working conditions.
- B. Observation Technique: Being Present on the spot, some informations like the facilities in the workplace, the type of sanitary facilities available, the housing pattern was also obtained. This method hence enables one to record behaviour as it occurs and has helped in eliminating bias to an extent.
- C. Informal Interview: In order to have a clear perspective of the problem of workers, informal interviews were held with the field workers of the Coir Board, both in Ernakulam and Shertallai. . Also to know more about the workers and their opinion in the industry regarding work in the recent years, informal interviews were held with both the presidents and secretaries of the Societies.
- D. Secondary Sources: Information already compiled like various government reports on minimum wages, surveys on economic conditions, surveys on living conditions etc. were collected from respective sources.

PROCESS OF DATA COLLECTION

Pre-Pilot Study or Scouting Investigation

In order to get a first hand knowledge about the nature and possibility of conducting a study on coir workers a pilot study was conducted in Shertallai district. The scouting investigation helped the investigator to identify the village and to get acquainted with the workers and their daily living and working patters.

Pilot Study

The pilot study has helped in recognizing the four categories of workers in the coir yarn spinning section. Also the sample size and the sampling methods were finalized during this phase. The pilot study was conducted in September.

A Pre-test was done during this time with a view to detect the short comings of the interview schedule before their proper administration. The pre-test was done on ten workers and necessary modifications in the schedule.

FIELD OPERATIONS

For the main study the tool used was interview schedule and the period of study took two months (November and December). Other than formal and informal interviews, data collection included a visit to the health centre in the village, visit to the Taluk hospital and meeting the chief

doctor and visit to a small unit where the manufacture of coir yarn products are done according to orders received. The investigator also visited Coir Board, Ernakulam and Centre for Developmental Studies, Trivandrum for collection of secondary sources.

LIMITATIONS OF THE STUDY

- (1) We are only trying to place the health problems within the living and working conditions of coir workers. This need not be considered as cause-effect relationships between occupational factors and health. An epidemiological study is needed to further probe the relationships.
- (2) The sample is drawn from an area where the workers are traditionally considered as more organized. A study in other districts such as Trivandrum, and Quilon would help in enlarging the scope.
- (3) We had to limit the sample size in different categories due to limitations in time and hence the sample size is quite small compared to the work force in coir industry in the study village. This will lay a restriction in generalization to the entire stretch of the coastal area in Kerala where the coir industry is prevalent.
- (4) Since the study has only concentrated on coir yarn spinning industry, the conclusions drawn here on the implication of working condition on the well being of worker, cannot be generalized to the coir weaving sector.

CHAPTER IV
COIR WORKERS: AN ANALYSIS OF SOCIO-ECONOMIC
AND LIVING CONDITIONS

One of the important objectives of the present study is to place the working and living conditions of coir workers in the socio-economic setting. This would help us in understanding the dynamics of the well-being of workers. As coir-workers are largely homogeneous in terms of caste, religion and gender, differentials may not be discernible except for variables such as land holdings, income, pattern of housing etc. and that too in a small way. The attempt in this chapter will be to portray the socio-economic life of the workers employed in the coir industry.

As discussed in the second chapter coir industry is one of the three traditional industries in the state providing employment to five lakh people. As the sector does not provide employment for more than seven months an year, the coir work is forced in to a life wrought with poverty and starvation. Thus, most of their suffering is caused by low wages, lack of security and non-availability of regular employment. The women working in the industry are malnourished due to inadequate quantity of food and long working hours in addition to the dual role they have to play. They are usually made to work overtime without extra wages and this type of mal practises still continue in the industry inspite of the unionization among the workers.

This chapter is intended to project a micropicture of the conditions of workers which were indicated in some of

the official document and reports. This is done through analysing the socio-economic and living conditions of the poor workers who toil nearly a three quarter of their life for mere subsistence.

PERSONAL CHARACTERISTICS

A coir worker spends a major part of her life working hard for daily subsistence. Hence it is important to study the personal characteristics such as age structure, education, income etc. This would give an indication of their life patterns.

Table 1

Age-wise Distribution of the Four Types of Coir Workers

Age	I-type		II-type		III-type		IV-type	
	No.	%	No.	%	No.	%	No.	%
10-20	1	0.66	3	2.00	7	4.66	2	13.00
20-30	20	13.33	8	5.33	6	4.00	9	6.00
30-40	28	18.66	4	2.66	10	6.66	6	4.00
40-50	13	8.66	4	2.66	2	1.33	3	2.00
50-60	10	6.66	6	4.00	-	-	5	3.33
60 &>	3	2.00	-	-	-	-	-	-
TOTAL	75	49.97	25	-	25	-	25	
Grand Total	150	% 100.00						

Table 1 gives the age-group of four categories of workers in the coir industry. In the first category, majority of the workers are from the age-group of 30-40 years followed by 20-30 years of age group. Only one worker is in the age group of 10-20 years. In the second and fourth category of workers, majority are from the age group of 20-30 years and both age groups, i.e., 30-40 years and 40-50 years has the same number of workers (2.66 per cent) in the second category of workers. In the third category, majority are from the age group of 30-40 years followed by those in the age group of 10-20 years.

This shows that large majority of the workers in the coir industry are mainly below the age of 40 years. This is especially seen in the case of Group III and IV where majority are in the age group of 20-30 years. This also indicates that in the industry, people start working at a very young age.

Survey of coir workers (1981) by Government of Kerala also supports this contention. The report found that 89.3 per cent of the women workers under the survey are in the age-group of 20-60 years. The heavy workload and long hours of work make them so famished that they are unable to continue after 60 years of age.

Both in terms of religion as well in terms of caste, coir workers are by and large a homogenous group. 95 per

cent of the workers are Hindus. But it is important to point out again that majority of the workers (92 per cent) are from the Ezhava caste which is traditionally considered as a backward caste in Kerala. This is supported by the study by I.I.M. in 1977 and Jurgen Sweegers (1985) on the coir industry in Kerala state. Toddy Tapping, agricultural work, coir sector are some of the traditional occupations of this caste.

Table 2

Educational Status of the Coir Workers

Type of workers	Illiterate		Lower Primary		Upper Primary		High School		Above	
	No.	%	No.	%	No.	%	No.	%	No.	%
I Category (75)	4	5.33	34	45.33	29	38.66	6	8	2	2.66
II Category (25)	2	8.00	8	32.00	9	36.00	6	24	-	-
III Category (25)	-	-	6	24	12	48	6	24	1	4
IV Category (25)	2	8	7	28	8	32	7	28	1	4

In an article entitled "Constant Underemployment - Women in Kerala's Coir Industry", Molly Mathew (Manushi, 1981) has pointed out that "women have made better use of existing facilities for primary education than men. However fewer girls study up to middle school level, because they

are withdrawn to help in the coir units or at home. This observation has been examined while analysing the educational levels of workers.

Table 2 reveals that a large majority of the workers in the first category has had education till the lower primary stage followed by those in upper primary level. A similar trend is seen among the workers in the second group of coir workers. In the third and fourth category of workers a reversal of the above is observed i.e. majority of the workers in these two groups has had education till upper primary followed by those (28 per cent) in lower primary level. Those who have had education above high school is very minimal (and similarly are those who are illiterates). A very few illiterates are noted, considering the respondents from all the four categories of coir workers employed in the industry.

This information already shows the higher rate of dropout at the lower primary or upper primary levels. The observation, among women workers of the earlier mentioned study is thus verified.

Similar conclusions are also drawn from M.N.V.Nair's study on organization and structure of coir industry in Kerala 1977.

Place of Residence and Type of Family of Coir Workers

In order to know how far the environment and residing place influence a coir worker, the focus was had on place of residence and type of family. The analysis of this part of the data revealed that all the workers in the study population are from the rural area and that majority are from nuclear family and only very few respondents are there from joint family. This shows the increasing trend of nucleation among the poorer households, especially those workers belonging to coir and agriculture (Krishnaji). Further this promotes the fact that the traditional industry of coir yarn production is concentrated in the rural areas of the coastal belt of Kerala.

A DEMOGRAPHIC PICTURE OF THE RESPONDENTS

In the study, "Profiles in Female Poverty" by Leela Gulati (1981), "A study of five poor working women in Kerala, it is pointed out that the female children in these five families i.e., the grown up daughters have already taken to their mothers work and the ones that are growing up have already dropped from school and is following the occupation of their mother. Hence the following details on the coir workers family is collected to know the share of the family in the making of a coir worker.

Most of the workers were from families with five to eight members.

Educational Level of Parents

The focus here is on educational level of (family members i.e.) parents to understand the antecedent conditions which is symptomatic of the poor economic condition of coir workers.

Table 3

Educational Level of Parents

Type of workers	Illiterate		Lower Primary		Upper Primary		High School	
	No.	%	No.	%	No.	%	No.	%
I Type	50	66.6	15	20	10	13.33	-	-
II Type	10	40.0	6	24	4	16.00	5	20.0
III Type	12	48.0	9	36	3	12.0	1	4.0
IV Type	14	56.0	11	44	-	-	-	-

It is clear from Table 3 that a large majority of the parents of workers in the first group are illiterates. A more or less similar trend is noticed in the other groups as well. Overall, the educational level of parents of the coir workers are very dismal, most of them being either illiterate or below the primary stage.

This is inspite of the fact that the people in Kerala had started giving more importance to education. Further the provisional census of 1991 of Alleppey district states that 90.45 per cent of the population in the district is literate, but still we find a good number of coir workers still illiterate.

Table 4

Occupational Level of Parents

Type	Agriculture		Coir		Coolie		Others		No Job	
	No.	%	No.	%	No.	%	No.	%	No.	%
I Type	10	13.4	40	53.3	10	13.3	10	13.3	5	6.66
II Type	4	16.0	10	40.0	3	12.0	6	24.0	2	8.0
III Type	5	20.0	15	60.0	2	8.0	2	8.0	1	4.0
IV Type	6	24.0	15	60.0	-	-	-	-	4	16.0

It is clearly evident from the above table, that most of the parents of all the four groups are employed in the coir industry itself. But this trend is much more observed in the case of group I where 53.3 per cent are in the coir industry. The rest are scattered in occupation like agriculture, coolie and other jobs like working in tea shops, arrack shops etc. A total of 8 per cent (very few) of parents from all the four categories of workers are found to be unemployed due to old age and various illness.

MARITAL STATUS

Table 5

Marital Status of Workers

Type of workers	Unmarried		Married		Separated		Widow		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
I Type	19	25.33	50	66.7	4	5.3	2	2.7	75	100
II Type	6	24.00	16	64.0	1	4.0	2	8.0	25	100
III Type	10	40.00	15	60.0	-	-	-	-	25	100
IV Type	10	40.00	11	44.0	2	8.0	2	8.0	25	100

It is clearly evident from the above table that most of the workers in all the four groups are married. Only very few workers, considering all the four categories are separated and similar trend is noticed in the case of widows. Unmarried workers, in all four categories are higher in number, almost nearing to the married sample population.

The unmarried workers are mainly from the age-group of 20-30 years. Many young women among the coir workers, between the age group of 18 and 30 are unmarried, as their parents cannot afford to pay the marriage expense (Molly Mathew, 1981).

Table 6
Age Level of Spouses

Type	20-30		30-40		40-50		50-60		60 & Above	
	No.	%	No.	%	No.	%	No.	%	No.	%
I Type	2	27	20	26.7	22	29.3	4	5.3	2	2.7
II Type	2	8	3	12.0	3	12.0	5	20.0	3	12.0
III Type	-	-	11	44.0	4	16.0	-	-	-	-
IV Type	-	-	3	12.0	3	12.0	4	16.0	1	4.0

Table 6 reveals that spouses of the workers in the first and third category are mainly from age group of 30-50 and those in the second and fourth category are mainly from the age group of 50 to 60 years.

Table 7
Educational Level of Spouses of the Workers

Type of Worker	Illiterate		Lower Primary		Upper Primary		High School	
	No.	%	No.	%	No.	%	No.	%
I Type	3	4.0	20	26.6	22	29.3	5	6.6
II Type	2	8.0	6	24.0	6	24.0	2	8.0
III Type	-	-	8	32.0	3	12.0	4	16.0
IV Type	-	-	3	12.0	3	12.0	5	20.0

Table 7 shows that educational level of spouses are better of than the women workers. This also brings out the gender differences in the educational levels. This may be desirable in sectors which consume large quantity of female labour such as coir, agriculture etc. However the picture that emerges out of this data may not be so encouraging even for male educational level, when in this group of workers, even men do not go beyond the upper primary stage.

But still the above data points towards the general trend of high literacy in the state.

Occupational Level of Spouses of Coir Workers

A study of the occupational level of the Spouses showed that a majority of the workers Spouses in all the four groups are employed in other occupations like working in tea-shops, arrack shops etc. The rest are scattered in occupations like Coolie, working in coir industry and agriculture. A very minimal percentage (8.15 per cent) from all the four categories of workers are found to be unemployed due to old age and illnesses like tuberculosis, rheumatic problems etc.

Table 8

Occupational Level of Spouses

Type of Worker	Agricult.		Coir		Coolie		Other Jobs		No Job	
	No.	%	No.	%	No.	%	No.	%	No.	%
I Type	15	20.0	8	10.66	4	5.33	19	25.3	4	5.3
II Type	3	12.0	3	12.0	4	16.0	3	12.0	3	12.0
III Type	3	12.0	2	8.0	3	12.0	7	28.0	-	-
IV Type	1	4.0	4	16.0	3	12.0	3	12.0	-	-

This part of the study reveals that even after marriage, the workers are in a state of economic backwardness.

Income Level of Spouses

The minimum level of income also gives an idea of why women are forced to take up employment to contribute to her family income as well as for the sake of daily sustenance.

It is quite evident from Table 9 that a large majority of the coir workers' Spouses of all the four groups earn between Rs.20.00 and Rs.30.00 per day. Very few people earn above Rs.30 per day. Overall the daily income level of Spouses of the workers are very dismal majority of them earning either Rs.20 to Rs.30 per day or Rs.10 to Rs.20 per day.

Table 9

Daily Income of Workers' Spouses

Type of Worker	Rs. 10-20		Rs. 20-30		Rs. 30-40		Rs.40-50		Rs.50 & Above	
	No.	%	No.	%	No.	%	No.	%	No.	%
I Type	11	14.66	22	29.3	8	10.6	7	9.3	3	4.0
II Type	5	20.0	5	20.0	-	-	2	8.0	1	4.0
III Type	4	16.0	8	32.0	3	12.0	-	-	-	-
IV Type	2	8.0	2	8.0	-	-	3	12.0	1	4.0

An important factor to be noted here in the case of Spouses of all the four categories of workers is that majority of them i.e., 53.3 per cent do not have steady job, i.e., they do not get thirty days of work in a month. The maximum work they get in a month ranges between 10 to 15 days. Hence for nearly half of a month they are jobless and are dependent on their wives earnings. Therefore, the whole family falls back into the low economic group and has to struggle hard for their daily living.

With this level of existence, the number of children as well as their contribution of the family income also play an important role. Unlike in any other poorer sections, when children also are forced to work, the trends in this society are slightly different.

The analysis of the data regarding this reveals that, except one married worker all the other workers have children. A further probe into the welfare of the children reveals that 49.32 per cent of children (including all four categories) are studying in schools at various levels. 10 per cent does not have any work and are not studying also, as they have failed in the school exams. Only a very small percentage of the children of all the four categories of workers are contributing to the income of the family by either working in the coir industry or as headload workers.

The conclusion of the analysis of coir workers family reveal that even after marriage, the women have to work hard for their living as their families are mostly dependent on them due to non-availability of daily work on the part of their Spouses. They have to make sacrifices to educate their children which further result in impoverishment.

The fact which was clear from the workers responses was, unlike their past days where the parents wanted their children to work in order to minimise the families' burden, the workers now want their children to study and to get out of their traditional occupations which in any case is not enhancing the well-being of the workers. The workers are willing to work for more hours to pay for their children's education which they could not afford health-wise or economically. This reveals the extent of the hardships they

have to face in the day to day life both in the family and in the work area.

INCOME AND EXPENDITURE OF COIR WORKERS

The data on the weekly income of the respondent shows that all workers in the first and second group of workers get a weekly income of Rs.80-90 per week. A very small percentage gets weekly income of Rs.70 to Rs.80 and Rs.90-100. The former income discussed is earned by the third category of workers and the latter by the fourth category of workers. Overall the weekly income level of almost all workers are in the range of Rs.80 to Rs.90.

Table 10

Weekly Income and Other Source of Income

Type of Worker	Weekly Income						Other Source		Total	
	Rs. 70-80		Rs. 80-90		Rs. 90-100		No.	%	No.	%
	No.	%	No.	%	No.	%				
I Type	-	-	75	100	-	-	12	16	75	100
II Type	-	-	25	100	-	-	2	8	25	100
III Type	9	36	16	64	-	-	1	4	25	100
IV Type	1	4	6	24	18	72	3	12	25	100

Regarding the source of income other than these from coir industry, its clearly evident that only a very few

workers of all the four categories of workers have other source or income, although the quantum of the income is not available. This income is negligible as the extra income is mostly from poultry and cattle rearing.

The monthly income of majority of workers, surprisingly is lower than the per capita income of Kerala and with this meagre income, they have to provide for their whole family. Thus the financial burden and the responsibilities they have to shoulder acts as a vicious circle of overwork low wages, ill health and poverty. Hence coir workers end up in being the group which is susceptible to easy exploitation.

The average family is found to be in perpetual debt just to live at subsistence level. This can be further illustrated with the data collected on the main expenses of the workers and the extent of their debts.

As per Table 11, the main expense of almost all the workers in all four groups is food (accounts to 96.1 per cent) only 4 per cent has their main expense as food and medicine.

Table 11

Table on the Main Expense and the Amount They
Spend for Their Expenses

Type of Worker	Food		Food & Medicine		Rs. 10-15	Rs. 15-20	Rs. 20-25	Rs. 25-30	Rs. 30&>	Median
	No.	%	No.	%	No.	No.	No.	No.	No.	Median
I Type	72	96	3	4	2	20	23	19	11	23.4
II Type	25	100	-	-	7	12	4	2	8	22.3
III Type	25	100	-	-	-	11	6	5	3	20.3
IV Type	25	100	-	-	1	9	4	4	7	20.6

In order to know the daily expense of the worker, the data focused on how much money the worker spends each day for food.

The above table reveals that the median of the expenses of the first group of workers is highest, i.e., 23.4. The other three groups also has their median around 21. This further points out that for minimum daily subsistence a family needs around Rs.20 to Rs.22 per day when her weekly income is only Rs.85. This means that the income the worker gets in a week will support her family for maximum three to four days. The question which arises here, is, "How then do the coir worker manage to feed herself and the family the rest of the days in a week. Is it through borrowing money, if so from whom and whether they are still indebted.

Table 12

Liabilities of the Coir Workers

Type of Worker	Need to Borrow				Debts to Pay				To Whom							
	Yes		No		Yes		No		Shopkeepers		Relatives		Friends		Neighbours	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
I Type	70	93.4	5	6.6	70	93.4	5	6.6	65	86.6	-	-	5	6.6	-	-
II Type	25	100	-	-	25	100	-	-	23	92.0	-	-	2	8.0	-	-
III Type	24	96	1	4.0	24	96	1	4.0	18	72.0	2	8.0	3	12.0	1	4
IV Type	24	96	1	4.0	24	96	1	4.0	9	36.0	14	56.0	1	4.0	-	-

Table 12 gives the answer to the above questions. It is clearly evident from the above table that for majority of the workers the income they get is insufficient for their daily subsistence. This is true in the case of all the four categories of workers in the study sample. Only very few of the workers in all the four categories manages with the income they get.

We also asked the respondents the purpose of borrowing money. A large majority (90 per cent) of the workers in the first group has borrowed money for buying food for their daily subsistence. According to one of the workers, "To feed all the members in the (my) family at least once a day needs around Rs.20 to Rs.25. The income from the work does not help in buying food for not even four days and there are

other expenses also. Hence borrowing has become a must".

Similar trends are seen in all the other categories of workers. In addition to this, the fourth category of workers need to borrow money for their work in order to buy green husk for retting or retted husks for yarning.

From the responses of the coir workers in all the four categories in the industry it was noted that the majority (86 per cent) mainly borrow money from shopkeepers in the form of rice, provisions etc. A few of them have also borrowed money from neighbours (4 per cent), relatives (7 per cent) and friends.

We also tried to understand the level of indebtedness and the source of debt. The data showed that a large majority (94 per cent) of the workers in the first category of workers are still indebted to the shopkeepers. A very similar trend is noted among the rest three categories of workers in the industry. Overall the debts of the workers is very high, most of them being still indebted to either shopkeepers or to relatives, friends and neighbours. Only a very few percentage is indebted to friends, relatives and neighbours.

Thus, the economic burden of a coir worker is slightly on the higher side. This is reflected in a remark by a perspective observer, "...the wage earnings represent practically nothing... in the absence of any other

occupation to engage the women workers honourably, there is no other alternative but to take this kind of work, which gives them at least few annas a day" - which makes the difference between starvation and bare minimum subsistence" (Menon, 1930).

Table 13
Saving Habits of Coir Workers

Type of workers	Savings Habits				Amount Saved					
	Yes		No		Rs.10-20		Rs.20-30		Rs.30 and above	
	No.	%	No.	%	No.	%	No.	%	No.	%
I Type	21	28	54	72	12	16	9	12	-	-
II Type	6	24	19	76	6	24	-	-	-	-
III Type	10	40	15	60	5	20	3	12	2	8
IV Type	3	12	22	88	2	8	1	4	-	-

In spite of the economic burden, a very small percentage among all the four categories of workers has tried to save some money for the future. It was noted that majority of the workers who saved money from all groups are unmarried and their main purpose of saving money was to get some small gold ornaments for their marriage. Majority of them in the first category of workers save around Rs.10 to Rs.20 per month through *chitti* (local private banks). A similar trend is seen in the other groups of coir workers in the study population.

Our observation empirically support the earlier observation by Molly Mathew (Manushi, 1981), "that the average family of a coir worker has to be in perpetual debt just to live at subsistence level".

The coir worker from the low income group of the society does not have any financial assets. Their economy is run on borrowing from others exorbitantly for mere subsistence. A few days without work will lead them to starvation. Hence the women coir worker, however sick, tired or aged still work for her daily bread.

Housing Pattern and Landholding of the Coir Worker

Table 14

Housing Pattern and Landholding of Coir Workers

Type of workers	0-5 per cent		5-10 per cent		10-15 per cent		15-20 per cent		20 per cent	
	No.	%	No.	%	No.	%	No.	%	No.	%
I Type	15	20	45	60	9	12	3	4	3	4
II Type	8	32	8	32	6	24	3	12	-	-
III Type	6	24	11	44	3	12	2	8	3	12
IV Type	9	36	7	28	5	20	3	12	1	4

It is clearly evident from the table that a large majority of the workers in the first category has land holding of 5 to 10 cents. A more or less similar trend is observed in the other three groups as well. Only a minority of 6.66 per cent in all the four groups of coir workers has

landholding above 20 cents. Overall the land holding patterns of the coir workers are either 5-10 cents or 0-5 cents.

This data show that landownership does not mean ownership of cultivable land but just the area on which the house is situated.

Housing Patterns of Coir Workers

Table 15

Housing Patterns of Coir Workers

Type of workers	Kutchha		Semi-Pucca		Total	
	No.	%	No.	%	No.	No.
I Type	31	41.3	44	58.7	75	100
II Type	11	44.0	14	56.0	25	100
III Type	6	24.0	19	76.0	25	100
IV Type	4	12.0	21	84.0	25	100

The data on the housing pattern of coir workers reveal that a large majority of the workers in all the four categories are living in semi-pucca structure with tiled roofs but unfinished walls and floors (most of the house have only two rooms). The rest have houses with roofs thatched with palm leaves, walls by unplastered bricks and floors by cowdung. Some of the workers houses are in the

one lakh housing scheme built by government for landless agricultural workers by modifying the Central Programme RWS and HC scheme.

The important point to be looked upon when studying the housing pattern of the lower economic group is the availability of sanitary facilities in the houses. It is a notable feature in the rural areas especially where daily wage earners are dwelling, the sanitary facilities like toilet are non-existent or nearly five to ten families may have one toilet built by panchayath with proper sanitation channels like septic tanks. This is usually available to workers living in the one lakh housing colony. The rest do not have any sanitary facilities other than private spaces covered by palm leaves on all three sides.

Table 16

Availability and Type of Sanitary Facilities

Type of workers	Availability of Sanitary Facilities			
	Yes		No	
	No.	%	No.	%
I Type	9	67	66	93.3
II Type	5	20	20	80.0
III Type	5	20	20	80.0
IV Type	8	32	17	68.0

The above table shows the availability of sanitary facilities of the four groups of coir workers. In the first type of workers, very few people have the benefit of proper sanitation (6.7 per cent). The trend is somewhat similar in the other three groups also. Hence, the overall sanitation facility in the study village is quite pathetic with very few having sanitary facilities, the majority of which is being built by government. The non-availability of proper sanitation facilities to the rural mass makes them susceptible to various health problems. Therefore, for coir workers lack of sanitation is one of the factors which lead to ill-health, the other being poverty, heavy work pressure, the nature of work etc.

Portrait of Coir Workers

Since the coir workers are a homogeneous group, it is difficult to evolve a portrait of the four groups of coir workers that were included in the sample. Generally, most of the coir workers are women mainly from Ezhava caste of Hindu religion dwelling in rural areas and from nuclear families. The workers are mainly in the age group of 20 to 50 years and have had education till upper primary by making use of the existing facilities for primary education.

A demographic picture of the worker reveals that the parents are illiterates in most cases and were employed in

the coir industry itself. More than three quarter of the women workers are married and their spouses has had primary education and are employed in jobs like toddy tapping, tea-shops, arrack shops etc. Their income usually is dismal and they do not have any stead job.

Most of the workers own around 5 to 10 cents of land and the houses are semi-pucca with unfinished walls and floors, but with tiled roofs. Almost all of the houses have no sanitary installations except for a very small percentage coming under the one lakh housing scheme by the state government.

The wages of the coir workers are very poor and hence they have to depend heavily on borrowing for their daily living. Many of them, are still, indebted as they have to provide for the whole family.

The above portrait of the coir worker reveals the hardships the worker have to face in their daily life. Because of the financial burdens, the whole family is in perpetual debt all throughout their life for mere subsistence. Hence the coir worker is forced to work for long hours in unhealthy conditions getting very low wages and in making herself susceptible to all kinds of health problems. Thus in the course of their work, the workers are perpetually trapped in direct exploitation by the employers and are made to lead a life of drudgery and ill-health.

CHAPTER V

WORKING CONDITIONS AND HEALTH OF COIR WORKERS

The conditions of living in terms of socio-economic factors, pattern of housing, land holding etc. discussed earlier form a backdrop for understanding the working conditions in this sector. This would enable us to understand the whole life pattern of a coir worker. Apart from work related variables such as nature of work and posture adopted during work, days of work available in an year, wage levels, daily problems faced in the work area, we would also make a general assessment of health problems, span of the health problems accessibility of health services, expenditure incurred for medicines etc. In order to understand how the workers collectively cope up with the working and living conditions, the response to unionization among the four categories of workers and their activities in the union will also be studied.

In this chapter, the focus is on the working conditions which have implications for the health of the worker. The approaches will be not on funding cause-effect relations but on evolving a general picture of work-related health problems along with general health problems as the study does not have a control population. It would also attempt to show how working conditions contribute to the impoverished status and in turn result in marginalised life patterns. Wages of the coir workers as mentioned in the earlier chapter are comparatively low and this has led to

low standard of living. Coupled with this, the unhygienic working environment makes them more susceptible to illness.

In order to understand how the workers cope up with the illnesses, availability, accessibility and action taking in health also were studied.

ANALYSIS OF WORKING CONDITIONS OF WORKERS

As discussed in the chapter on methodology, four type of workers according to their activities would be identified in the coir sectors. Hence, the workers selected are 75 workers who are working directly under the society, 25 from the section of members who hires workers from outside to do the work in their homes, 25 from the households who are not members in the society but hires workers from outside to do the work in their houses and finally twenty five from household members who fully depend on home based production and are not related to society.

Table 1
Location of Work Place

Type of Workers	Work Shed		Near Back Waters		Own House		Employers House	
	No.	%	No.	%	No.	%	No.	%
I Type	43	57.3	32	42.66	-	-	-	-
II Type	-	-	-	-	-	-	25	100
III Type	-	-	-	-	-	-	25	100
IV Type	-	-	-	-	25	100	-	-

Out of the seventy five workers in the first category, 43 are working under working sheds constructed by the society and thus are involved in yarn spinning. Thirty two workers in this category are working near backwaters and they are involved in defibring of retted husks. All the workers in the second and third category are working in the premises of their employers houses while the workers in the last category are centered in heir own houses. Some of them have constructed temporary sheds as a working place.

As the production of coir yarn needs natural retting facilities, the coir industry is located in the coastal regions of Kerala. The production of yarn takes place near the back waters. Almost all houses and places in the study village is surrounded by backwaters on three sides.

In the case of yarn production under the society, the society has constructed working sheds with tiled roofs where six to seven ratts are kept in a line and that means nearly 21 workers are involved in the yarn production under one shed. The temporary sheds constructed by the last category of workers are generally thatched with generally one ratt and in some cases two ratts. The workers in the second and third category usually do not have any working sheds and do their work standing directly under the blazing sun near the employers house. There is no drinking water facility except the polluted water in the canals and no sanitation facility

is available in the vicinity. The canals surrounding the houses are generally used for the purpose of retting green husks.

The defibring usually takes place near the back waters in the open space. The place where the defibring is done can be identified by the stink that emanates from the husks. The ground around these waters is covered by wet slivers from the retted husks. The workers engaged in defibring usually sit under the coconut palms very near to the water and is seen beating the retted husk with wooden mallets. In this process, they get covered by the fibre particles from head to toe. The particles also have a pungent smell due to microbiological action during the retting process of green husks. They usually work without wearing any foot-wears to protect their feet. This way of working in many cases lead to various types of skin infections and allergies. They have their afternoon meals in their work place and washes the vessels in the dirty water. As in the above case, here also there is no facility for sanitation and drinking water. Unlike the workers engaged in spinning, there is no shed here to protect them from the sun.

Thus the ecological setting, more or less similar in the case of four categories of workers in the coir yarn industry is characterised by unhygienic working patterns and lack of basic facilities needed in the work place which are

conducive to many work related health problems.

Table 2
Nature of Work and Posture Adopted During Work

Type	NATURE				POSTURE					
	Spinning		Defibring		Sitting		Standing		Crouched	
	No.	%	No.	%	No.	%	No.	%	No.	%
I Type (75)	43	57.3	32	42.7	15	20	28	37.3	32	42.7
II Type (25)	19	76	6	24	6	24	13	52	6	24
III Type (25)	25	100	-	-	9	36	16	64	-	-
IV Type (25)	22	88	12	9	9	36	13	52	3	12

It can be observed from the above table that the majority of the workers in first category (43) are engaged in spinning and most of them work by standing (28) and rest by sitting (15). All workers in the third category are engaged in spinning and a similar trend is noticed in the rest two categories also, where the majority work in standing position.

Only in category one, we find a substantial number of workers engaged in the defibring operations i.e., 32 persons. While in the remaining categories there are very few workers in sector. It is noticed that all women workers

engaged in defibring usually takes a crouched position. Overall, majority of the workers considering all the four groups are engaged in spinning, most of them opting a standing position during the course of work.

In the present study, the spinning sector of the coir industry emerges as the most important activity. According to the report on the survey of production and consumption of coir products in 1984-85, "spinning of coir fibre into yarn is the most important activity in the coir industry and nearly 50 per cent of the total employment in the industry is in this field'. In the present study also, 72 per cent of the workers are engaged in coir yarn spinning from coconut fibre.

WORKING PATTERN OF COIR WORKERS

Data on the working pattern of coir workers reveal that in the first 3 types of workers engaged in spinning almost all of them work from 9 a.m. to 6 p.m. Those engaged in defibring usually works for nearly eleven hours a day, i.e. from 8 a.m. to 6 p.m. This trend is observed in the case of group I workers where 42.7 per cent are in the defibring sector. All the workers in the first three categories are given one hour break in the noon, from 1 p.m. to 2 p.m. But they are able to spend only half an hour for rest for taking their lunch. The rest of the time is spent for

drying and arranging the fibre for spinning. The fourth category of workers who are home-based put in more hours of work than the first three categories. Majority of them start work at 9 a.m. continue till 12 p.m. again they begin work at 2 p.m. till 6 p.m. After nearly two hours break at 6 p.m. for preparing food they again resumes their work and work till 10 p.m. or 11 p.m.

Table 3
Working Pattern of Coir Workers

Type of Workers	WORKING HOURS IN A DAY						DAYS WORKED IN A WEEK				Total
	8-7		9-6		8-6		7 Days		6 Days		
	No.	%	No.	%	No.	%	No.	%	No.	%	
I Type	-	-	43	57.3	32	42.7	-	-	75	100	75
II Type	-	-	3	12	22	88	-	-	25	100	25
III Type	-	-	25	100	-	-	22	88	3	12	25
IV Type	3	12	14	56	8	32	15	60	10	40	25

When asked about the reason for this, they said that they are not able to finish making the usual 100 yards of yarn by working till 6 p.m. as they are often interrupted by household chores. Therefore they can only finish the required amount of work, by working late hours in the night.

The above data give an indication of the hard working patterns of the coir worker. They have to work for nearly 8

to 10 hours a day for the daily living and majority of them work 6 days a week (i.e. 60 hours a week). Even with this situation the quantum of work in an year is limited, which means hard work when work is available and no work for a considerable part of the year.

Table 4
Availability of Work in a Year

Type	9-10 Months		11 Months		12 Month (Whole Year)		Total
	No.	%	No.	%	No.	%	
I Type	75	100	-	-	-	-	75
II Type	25	100	-	-	-	-	25
III Type	6	24	-	-	19	76	25
IV Type	21	84	2	8	2	8	25

Table 4 shows the quantum of availability of work in an year. All workers in the first and second category and a majority of workers in last category do not get work all throughout the year and they get work for nearly 9 to 10 months in a year. In the case of the workers in third category, most of them (76 per cent) get work all throughout the year. Only very few (8 per cent) gets work all throughout the year in the fourth category of workers.

The lean period in coir industry is in the months of June, July and October when no work can be carried out due to rains. Usually during rainy season, spinning cannot be done because retted husks cannot be taken out of water for drying and as dried fibres are used for spinning. In majority of the cases, the workers work in open spaces. whether it be their own house or employers house. Hence no work is undertaken during rainy season in the open space. It is even more difficult to work in a thatched shed in the premises of the house or society as the ground gets flooded due to rains.

Maximum work is available for coir yarn production for all categories of workers during the months of January and February and no work in the monsoon season. Hence coir industry is termed as a "seasonal industry". (Kerala Government, 1984-85, Report on Survey of Production and Consumption of Coir Yarn and Coir Goods).

Mode of Payment and Weekly Wages

As per Table 5, it is clear that payment in the coir industry is through piece-rate rather than time-rate. To have a clear idea about the working conditions, the daily income of the workers were taken into consideration. As per the minimum wages fixed according to piece-rate, for 100

Table 5

Mode of Payment and Weekly Wages

Type of Workers	WEEKLY INCOME								Total
	Piece Rate		Rs.70-80		Rs.80-90		Rs.90-100		
	No.	%	No.	%	No.	%	No.	%	
I Type	75	100	-	-	75	100	-	-	75
II Type	25	100	-	-	25	100	-	-	25
III Type	25	100	9	36	16	64	-	-	25
IV Type	25	100	1	4	6	24	18	72	25

yards of spun yarn or 100 husks defibred the workers should have got Rs.18 per day (i.e. Rs.100 per week). But the wages obtained weekly by the workers are between Rs.80 and Rs.90 for all the workers in the first and second category and for majority of workers in the third category. Most of the workers in the fourth category i.e., household workers get a weekly wage of Rs.90 to Rs.100. A few workers in the last two categories also get weekly wage of Rs.70 to Rs.80.

A study of the organizations and structure of coir industry in Kerala by M.N.V.Nair of I.I.M. Bangalore, states that, "there is large scale violations between the minimum wages forced by Government and the actual wages received by workers. The wide variations between the fixed wages and

earnings is clearly demonstrated in the above data. Even when some of them work over time, the extra wages are not paid.

The workers directly under the society and workers hired by members of the society do not work over time. It was noted by the investigator during the study, that the worksheds of society are closed at around 6 p.m. when the works manager in the society comes and notes down the work done by each worker and takes the spun yarn into the societies godown.

In the case of the last category of workers, i.e. the household workers, as mentioned earlier, work over time for finishing the required amount of work. This is a regular feature of all other home-based production which can be called as a hidden exploitation of workers.

The most exploited are the third category of workers, who even if worked overtime and covered the daily requirement of work are never given the minimum wages fixed by government. Majority of them end up in getting wages between Rs.12 to Rs.15 per day for their work. They are made to work seven days a week and their only benefit is that majority gets employment all through the year.

Regarding the changes that has happened in the coir yarn spinning industry during the last decade, the workers generally believe that changes have happened mainly due to

the work of the unions. Mainly the change was with regard to wage increase. In 1984-85, the average daily wage for a worker in the spinning section was Rs.7. The rate in 1992 has increased to Rs.18. The workers are of the opinion that, even if the wage has increased, the working conditions are still worse as before, because, they do not get any benefits that the workers in the coir factories receive under the Factories Act of 1921.

The daily problems faced by a coir worker in the field area depend on the kind of the work they do. For instance, Leela, a coir worker working directly under the society, said "Every day (morning) I have to walk about more than half an hour to reach the society's work shed. We usually start work immediately, i.e. around 9 a.m. and work continuously till 1 p.m. when we take our lunch break. I resume my work at around 1.30 p.m. and work till 5.45 p.m. Again I have to walk back all the way to home and reach there by 6.30 p.m. On reaching home, I take a hurried bath and then start doing the household chores like sweeping, washing, cooking etc. Generally my daughter helps me, but then she is studying and needs to do her work also. So I just don't ask her to help me and do all the work by myself. By the time I sleep it will be late night and again I have to get up early in the morning and cook food for afternoon before I start for my work. Hence I get very little rest

and even the sleep I get is not enough. But then I have to work for my daily living irrespective of all my problems."

This is the case with majority of the workers in the first three categories. Being a women, they are exploited to maximum both in the work place, by making them work more with less wages and at home which will keep them awake till late night.

As described earlier the working conditions of coir workers are unhygenic and oppressive and lack most of the basic facilities needed like drinking water supply, sanitation facilities etc. In the work area they have to face specific work problems depending on the nature of the work done. These problems are same for the workers in all four categories employed in the industry. Shanta, a coir worker from the third category engaged in spinning yarn said, "As I have to sit and turn the wheel of ratt from morning onwards and arranging fibre simultaneously, by the time the work is finished, I usually develop back pain and body ache especially pain in hands. I find it very painful even to walk back home and do the work awaiting me at home."

Thankam, another worker engaged in defibring of retted husks said "My work is more difficult as I have to do it directly under the sun from 8.am to 6 p.m., that also in a ground covered with mud and water. I have to use all my strength to beat the retted husk with the wooden mallet to

defibre it and I need to defibre at least a minimum of 75 husks to get the wage of Rs.15 per day. I have to be very careful not to crush my hand while beating. At the end of the days work, now I start getting chest pain, body ache and head ache. In addition to all these, I have to look after my one year old son after reaching home."

Pushpa, another coir worker said, "most of the days I have to bring my two year old daughter to the work place as there is nobody to look after her at home. In between my work, I have to attend to her needs also and thereby many a times. I leave the work place after every one leaves and come back early morning by around 7 a.m. to finish the required amount of work."

Therefore majority of the workers work on all days despite their problems.

PERCEIVED HEALTH PROBLEMS

The perceived health problems are of two types;

- (a) work related health problems, and
- (b) general health problems.

The data on the perceived health problems reveal that, majority of the workers in the first group suffer from allergic problems affecting skin and respiratory organs followed by body aches and pains.¹ A more or less similar trend is seen among the other three categories of workers.

The other health problems common among coir workers are chest pain, headache and other health problems like tooth ache, stomach ache, vomiting etc. Overall almost all workers suffer from either work related or general health problems due to working in the open space. The study also found that majority of the workers associated their health problems with their nature of work.

Table 6

Perceived health problems of Workers

Type of Workers	Bodyache		Rheumatic Complaints		Chest Pain		Allergy & Respiratory Infections		Head-ache		Fainting		Anaemic Symptoms		Others		Total
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
I Type	39	52	29	38.6	37	49.3	51	68	23	30.66	-	-	4	5.3	38	50.6	75
II Type	13	52	9	36	7	28	19	76	5	20	-	-	-	-	10	40	25
III Type	7	28	10	40	2	8	15	60	7	28	-	-	-	-	8	32	25
IV Type	7	28	4	16	6	24	16	64	10	40	-	-	-	-	7	28	25

A survey of 1250 women coir workers in Kerala revealed high morbidity and skin infections. They are also found to be prone to gynecological complaints due to postural positions and hyper keratosis.²

To know the time span of the particular work related health problem, the following data was collected.

Table 7

Time Span of Work Related Problems

Type of illness	0-5 Years	5-10 Years	10-15 Years	15-20 Years	20 & >
Rheumatic Complaint	13	15	5	7	12
Allergies (Skin Respiratory)	17	45	22	14	13
Bodyaches	14	22	14	10	6
Chest Pain	15	25	4	3	5

As per Table 7, majority of the workers in the study population have been suffering from the work related health problems for a period of 5 to 10 years. This is quite visible in the case of allergies of skin and respiratory organs. A very few workers have the above health problems spinning for a period of 20 years and above.

The above data shows the fact that almost all workers develop one or other health problems soon after they start working in the coir industry. This shows that there is high occupational risk involved in the industry.

MEDICAL FACILITIES AVAILABLE FOR COIR WORKERS

Table 8 shows that majority of workers in all the four groups seek help from the government hospital, i.e.,

Table 8

Action-Taking in Health Problems

Type	Govt. Hospital		Private Hospital		Other Facility		PHC		Total
	No.	%	No.	%	No.	%	No.	%	
I Type	65	86.7	4	5.3	GH+HC 4 5.3		-	-	75
					GH+ Ayur 2 2.7				
II Type	23	92	2	8	-	-	-	-	25
III Type	19	76	3	12	1 MC+	4	-	-	25
					2 Homeo	8			
IV Type	20	80	4	16	1 MC	4	-	-	25

Shertallai Taluk hospital. A small number of workers from all the four categories have utilized private hospitals for their health problem. A few in all the four categories have also utilized other sources like medical colleges, Ayurvedic hospital and homeo dispensaries. None of the surveyed population in the study have utilized the services of Primary Health Centre. This is because the taluk hospital is located within commutable distance while the PHC is situated far from the village selected for the study.

The reasons for utilizing the particular services are also proved.

Table 9

Perceptions About the Service in Government Hospital

Perceptions	I Type		II Type		III Type		IV Type	
	No.	%	No.	%	No.	%	No.	%
Only Prescriptions	65	86.7	23	92	19	76	21	84
Long Wait for help	65	86.7	23	92	19	76	21	84
TOTAL	65/75		23/25		19/25		21/25	

All the workers who seek help from government hospitals felt that the hospital only gives prescriptions. They mentioned that only paracetamol tablets are available in the hospital. Long waiting time is a wide spread negative feeling expressed by majority of workers against government hospital services and they felt that even after waiting for such a long time, they only get a prescription for medicine.

Those who are simply dependent on daily work for their living cannot afford to go to hospitals at the risk of losing a days payment and buy medicines, costing them more than a week's earning. Hence majority of them end up in either tucking the prescription away or buying only a part of the medicines prescribed. However they have no other alternative but to utilize whatever services available.

Services Obtained in the Private Hospital

Some of the workers prefer going to private hospital spending a major chunk of their earnings. Only a few workers, considering all the four categories have utilized the services of private hospitals (i.e. four from first type, two from second, three from third and five from fourth group of workers). Majority of the workers seeking help from these hospitals spend around Rs.100 per month (for treatment). A very few have also spend around Rs.200 and above for medicines.

The above data shows that majority of the workers cannot afford to have treatment from private hospitals due to the high expenditure involved, but still a few prefer it as they get better consultation facility and that too at the needed time. This is despite the fact that Kerala has a better spread of health services. This also raises the question of quality of services rather than mere availability.

It is clear from Table 10 that majority of the workers usually get their medicine from private medical shops outside the hospital. One can also observe flourishing medical shops outside government hospitals throughout Kerala.

Table 10

Source of Medicine and Money Spend for It

Type	Source				Money Spend								
	Medical Shops		Hospitals		50-100		100-150		150-200		200 & >		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
I Type	69	92	6	8	28	37.3	27	36	14	18.7	6	8	Median-117.59
II Type	23	92	2	8	16	64	9	36	-	-	-	-	Median- 89.06
III Type	21	84	4	16	23	92	1	4	-	-	1	4	Median-77.17
IV Type	20	80	5	20	15	60	7	28	2	8	1	4	Median-91.66

As also mentioned earlier, during the interviews the workers revealed that they cannot afford to buy the whole set of medicines prescribed by the doctor. This often aggravates the health problem. Even if they buy medicines, they stop it when they attain a relief and keep the rest for the next bout of illness.

On the whole a coir worker is forced to spend a substantial amount for buying medicines. This is clearly seen in the case of group I workers who spend between Rs.100 to Rs.150 for medicines every month whereas their monthly earning is only around Rs.325. The workers in the rest three categories also spend between Rs.50 and Rs.100 (medium amount spent is Rs.85) for buying medicines. Hence it is

seen that the money the workers have to spend for medicines is more than what they can afford. It swallows nearly two third of their monthly income (around Rs105). As discussed in the earlier chapter, the wages they get in a week is not even enough for their food. The additional expenses for buying medicines every month pull them further down in the economic ladder. This is reflective of the poor quality of curative health services which in essence is an important institutional life support system for the poor. Falling ill, even for a day is a major disaster for the workers as they loose a days earnings. As a result they have to borrow money from others for the daily food. Therefore the moment they get some relief, they are again forced to come back for work. These workers as they are not registered under the Factories Act of 1921 do not get any sickness or maternity benefits.

According to Latha, a coir worker, 27 year old, high school educated, who is in the seventh month of pregnancy at present belongs to the third category of workers said, "Like all the other workers here, I also work from 9 a.m. to 5.30 p.m. By the time I finish spinning, I need to sit somewhere before walking back home. The doctor has asked me to take rest as continuous and strenuous work of this type is bad for the baby. But how can I stop work. My husband who is a head-load worker do not get work every day and the whole

burden of providing food for the family is on my shoulders. If I don't work we will have to borrow again. In the past, I had borrowed money for buying medicines like tonics etc. and I have not repaid them. But there are days when I don't feel like getting up on such days usually I do not come for work. At least it is good that I don't need to do household works when I go back home, as my mother in law does all those jobs."

This shows that even during pregnancy periods, the workers have to toil hard till their last months of pregnancy. Neither the co-operative society, nor the employers are responsible for any accidents or injuries, that happens in the work place and the worker is not entitled to compensations for accidents and injuries.

In order to overcome the problems discussed above like lack of compensation, low wages, labour conditions etc. the workers organized themselves under unions. The process of unionization is discussed in chapter II. In the next section, we shall examine this issue through the perception of the workers towards participation in union activities and its benefits.

UNIONIZATION AND ITS IMPACTS

As discussed in the Chapter II, coir industry was the cradle of the trade union movement in Kerala. The trade

union movement has helped in improving the labour conditions of the workers by fixing minimum wages and is struggling continuously for the upliftment of the workers.

Table 11

Trade Unions and Number of Workes Enrolled in Them

Type	Existence of Union		Non-existence of Union		Members in Union		Non-Members in Union		Total
	No.	Freq.	No.	Freq.	No.	Freq.	No.	Freq.	
I Type	75	100	-	-	75	100	-	-	75
II Type	25	100	-	-	25	100	-	-	25
III Type	-	-	25	100	8	32	17	68	25
IV Type	8	32	17	68	8	32	17	68	25

Analysis of the above data reveal that all workers working under the society and all workers employed by members of the society are engaged in union activities. Some of the workers in the third category and fourth category are also members of the union. But as such, unionization is very limited in the third and fourth category of workers. Unions play a greater role in cooperative societies where an apparent aura of organized activity is visible.

As per the table given below, majority of workers are engaged in union activities for about five years in all the four groups of workers. Some of them are also members of the union for a period of five to ten years. This is quite

visible in the case of group one workers. It is evident that at least at the level of co-operative societies, majority of the workers have participated in union activities for a longer period of time.

Table 12

Number of Years in the Union

Type of Workers	0-5 Years		5-10 Years		10-15 Years		15-20 Years		20 & >		Total
	No.	%	No.	%	No.	%	No.	%	No.	%	
	I Type	24	32	21	28	14	18.7	10	13.3	4	
II Type	12	48	5	20	8	32	-	-	-	-	25
III Type	3	12	4	16	1	4	-	-	-	-	8/25
IV Type	3	12	1	4	3	12	1	4	-	-	8/25

The general functions of the union in the work place according to the perceptions of all four types of workers are with regard to tackling the problems of work like low wages, better conditions of work etc. through long struggles. Workers including the non-members feel that union helps them at least in fighting for wage increase and also for getting regular employment. In general, there is a positive attitude towards union activities. All the union members participate in "dharnas and demonstration activities" for achieving their demands.

According to workers in all the four categories, participation in the union activities has never affected their work nor their relationship with employers. The most popular union in the coir industry is that of CITV, the trade union wing of CPI(M).

The trade union movement has certainly helped in significant wage gains and this has helped to some extent in eroding the cheap labour concept in the industry.

Earlier studies have shown that wages are higher in areas where coir workers have been continuously struggling like Alleppey and lower in regions where unionization is at a low level like Canannore and Trivandrum (Molly Mathew, 1981).

The union activities, we find, has played only a limited role and their success is mainly in terms of wage increases. They have not been successful in overcoming the loopholes of the system. Nor they could ameliorate the poor living and working conditions of coir workers. The night be partly due to the unorganized nature of the industry.

CONCLUSION

The picture that emerges from the analysis of working conditions is that of a group of impoverished workers, placed against the backdrop of unhygienic and oppressive working environment, toiling hard for their survival against heavy odds.

Due to the unorganized nature of the industry, we find, even in an institutional set-up like the co-operative societies, workers are forced to work under difficult conditions for the piece-rate mode of payment. Even then, they are not paid the minimum wages fixed by the government.

The nature of work and the posture adopted during work result in many work related health problems such as skin allergies, backache, respiratory infections etc. Although a large majority of the workers utilize government health services, because of the inefficient delivery systems, they are forced to spend considerable part of their earnings on buying medicines etc., which pull them further down in terms of impoverishment. Neither the society nor the employers are responsible for any accidents and injuries at the work place. They also do not get any medical benefits especially maternity benefits considering the gender of the workforce.

This portrait throws up linkages between poor working conditions, ill health and poverty, all of which in combination produce a set up conducive to further impoverishment in working conditions as well as in the living conditions. It is evident that even in a state which has well developed health infrastructure the availability of services is dependent on the purchasing power of people.

Coir workers who contribute to the export earnings of the state while marginalised by the production process

itself, the insufficient state support in the form of health services, workers benefits etc. further add to their miseries. Through unionization the workers tried to overcome these problems but they were successful only to an extent by increasing the daily wages earned. Because of the unorganized nature of the industry, many of the demands like compensation for sickness and maternity benefits were unrealized and the struggle for the attainment of these objectives still continue despite poor working conditions and still poorer living conditions.

Notes and References

1. M.V. Pylee, A Study of Coir Industry in India - Problems and Prospects, Coir Board, 1976; has found that the working conditions of Coir Workers are unhygienic, oppressive and many of them suffer from occupational skin diseases.
2. Government of India, Occupational and Environmental Health Issues of Working Women, New Delhi, 1985.

CHAPTER VI

SUMMARY AND CONCLUSION

The main objective of the study was to analyse the living and working conditions of coir workers. The study presents objective and subjective data on a number of variables associated with these two conditions like socio-economic and living conditions, working patterns, workers perception of health problem, and action-taking and impact of unionization on work. The overall life patterns of coir workers thus evolved, help us in understanding their implications for health and well-being.

Kokkothamangalam, a small village in Shertallai Taluk of Alleppey district has been selected for this study. The major study was conducted in this village. A limited study was also conducted in the same village earlier to validate the tools and to get an idea of the association between the living and working conditions of the coir workers.

A variety of tools such as observation, interview schedule, informal interviews, discussions and bibliographical studies were employed to generate qualitative and quantitative data. These tools were administered to one hundred and fifty coir workers, taking into consideration the four categories of workers employed in the coir yarn spinning industry. Based on simple random sampling, tools were administered to seventy five workers working directly under the society, twenty-five workers who are employed by the members of the society and twenty five

workers who are employed by household members but are not members of the society. In addition to this, twenty-five workers from home-based sector were also selected for the study. The summary of the observations, findings and conclusions are given in the following section.

The study began with the assumption that there exists difference between the four types of workers. But we found that such a statement lacks validity. The following are common for the four categories of workers in the industry.

1.1 In terms of gender, religion and caste, the coir workers are by and large a homogenous group as most of the workers are women from Ezhava caste of Hindu religion. The coir workers enter the field at an early age. However in the sample there are large number of workers mainly in the age group of 20-40 years. The general level of education of the workers is till upper primary level.

1.2 The women workers are forced to work because of the miserable living conditions of the family. In such a situation, it becomes important for each member of the family to contribute to the overall income of the family. This is reflected in the poor educational level and low occupational status of family members.

The trend of children joining their parents' occupation to contribute to the family income is

considerably diminishing in this sector as the workers want their children to get out of the traditional occupation of coir spinning at any cost.

- 1.3 The same picture emerges with regard to spouses of the workers. Most of the workers are married and the spouses are engaged mainly in works like Toddy tapping, Coolie, Working-in tea-shops, Arrack shops etc. They usually do not get any regular employment which is only for around fifteen days in a month. The women members of the family thus have to contribute substantially to the family income.
2. The land holding pattern shows that a coir worker owns about 5-10 cents of land on which the house is located. They do not own any cultivable land. Most of the workers have semi-pucca houses with two rooms, tiled roofs but unfinished walls and floors. Proper sanitation facilities are not available to most of the workers. Only a few who lives in one lakh housing colony, a housing programme implemented by government have a semblance of some sanitary facilities.
3. Variations exist between the four categories of workers in terms of weekly income. The fourth category of workers who depend on home based production get the maximum while the third category gets the minimum. Although some of the workers in all the four groups have other

source of income, this is negligible as it is mostly from poultry and cattle rearing.

- 3.1 The main expenses of all the workers is food for daily - subsistence. The daily expense of a worker turns out to be around Rs.25 for food alone. Since this is not met from their wages, workers are forced to borrow money mainly from shopkeepers, friends and neighbours. But in some cases in the fourth category of workers, money is borrowed also for buying retted husks for defibring and green husks for retting. Some also borrow money for medicines.

An average family of a coir worker is in perpetual debt through out his life just to live at subsistence level and all the workers are still indebted either to shopkeepers or to their friends and neighbours.

- 4.1 As the production of coir yarn needs natural retting facilities the working places are always located near the water sources. The two main types of works undertaken in the coir yarn-spinning industry are defibring of retted husks and spinning of fibres into yarn. Defibring operations are carried out in open spaces and directly under the sun near the lagoons or near the back waters. The work place is covered with mud and water together with the particles of defibred husks. The posture adopted for their work is squatting



position irrespective of their age in order to beat the husk with wooden mallets.

In the case of spinning of yarn, some workers in category one and four work under thatched sheds, while for large number of them, there is no roof over their head. They have to sweat it out under the blazing sun. In spinning, both sitting and standing posture is adopted for work. This is because spinning of yarn by "ratt" needs one person to turn the ratts wheel and two to spin the fibre from its needles.

In the workplace, basic amenities like drinking water, sanitary facilities etc. are found to be lacking. Thus location of the workplace, the ecological conditions around it, the posture adopted for work and the facilities available to them are important occupational factors which have implication for the health.

4.2 Most of the workers work for around ten hours a day (8 to 6) with half an hour lunch break. They work around six days a week and 9-10 months an year. Since the industry is highly seasonal no work is done during the rainy seasons and maximum work is in the winter periods. Thus hard work and lack of regular employment are regular features of this sector.

4.3 Payment in coir industry, in all four categories is

according to piece-rate. Minimum wages are fixed for the spinning of 100 yards of yarn and defibring 100 retted husks at Rs.18 per day. The workers earn differently but most of them do not earn the minimum wages fixed and earns around Rs.15 per day. Especially the workers in the third group are over exploited as they need to work over time and they are neither paid extra wages, nor the minimum wages fixed by the Government. The nature of the occupation in which they are engaged demands more labour on lesser wages.

4. 4 Because of the gender composition of the workforce, the workers have to play a dual role and many find it difficult to carry on work at home due to the long hours they have to spend at the work place in totally unfavourable working conditions.

4.5 In all of the four categories of workers, skin allergies, respiratory infections, chestpain, rheumatic problems and head ache are the commonly perceived health problem by the workers. All these health problems are linked to the earlier mentioned working conditions. The workers despite their poor economic conditions have taken action to ameliorate their problem. For instance, most of them have utilized the services from government hospitals inspite of long queues and lack of drugs.

The workers have to spend a substantial part of their income for medicines. Falling ill, even for a day is a major disaster as they lose a day's earnings. Thus the action-taking in health is linked to their sheer felt need for survival. Neither the co-operative society nor the employers are responsible for any accidents or injuries that happen in the work place.

5. Unions are considered as an important vehicle for airing their grievances and fighting for their rights. A strong union movement in coir industry is an evidence of the consciousness of the worker. Despite such a long history of unionization, the achievements are not very encouraging.

Over the years, trade union has helped the workers by increasing the daily wages and thereby eroding the cheap labour concept prevalent in the industry. But the overall working conditions remain static and the coir industry still remains as an unorganized sector.

The study has shown the interlinkages between living and working conditions and their interaction in producing marginalised life patterns. A combination of these two sustain their poverty thereby also resulting in ill-health, especially occupation related health problems. Low wages generally results in low standard of living. Hard nature of work, long working hours, low wages coupled with unhygienic

working environment make them susceptible to different kinds of illness.

Constant migration had taken place from agriculture due to insecure condition in agriculture, hoping that in coir industry more secure employment would be available. But because of the unorganized nature of the industry, the conditions are much worse than in agriculture. Despite, being a highly profit oriented marketing system, wage patterns of the labour is exploitative. The labour is extracted by local dealers, who have a vast army of unemployed to choose from and can hire and fire at their will. Even in an institutional set up like co-operative societies, the conditions of labour are miserable.

Some of the issues which arise from this study and which need to be studied are the following:

- (1) Epidemiological association between work process and ill health.
- (2) The condition of workers in areas where unionization is negligible or even absent like in Canannore.
- (3) Mutual relationships between agriculture, coir industry and other unorganized sectors like fisheries.

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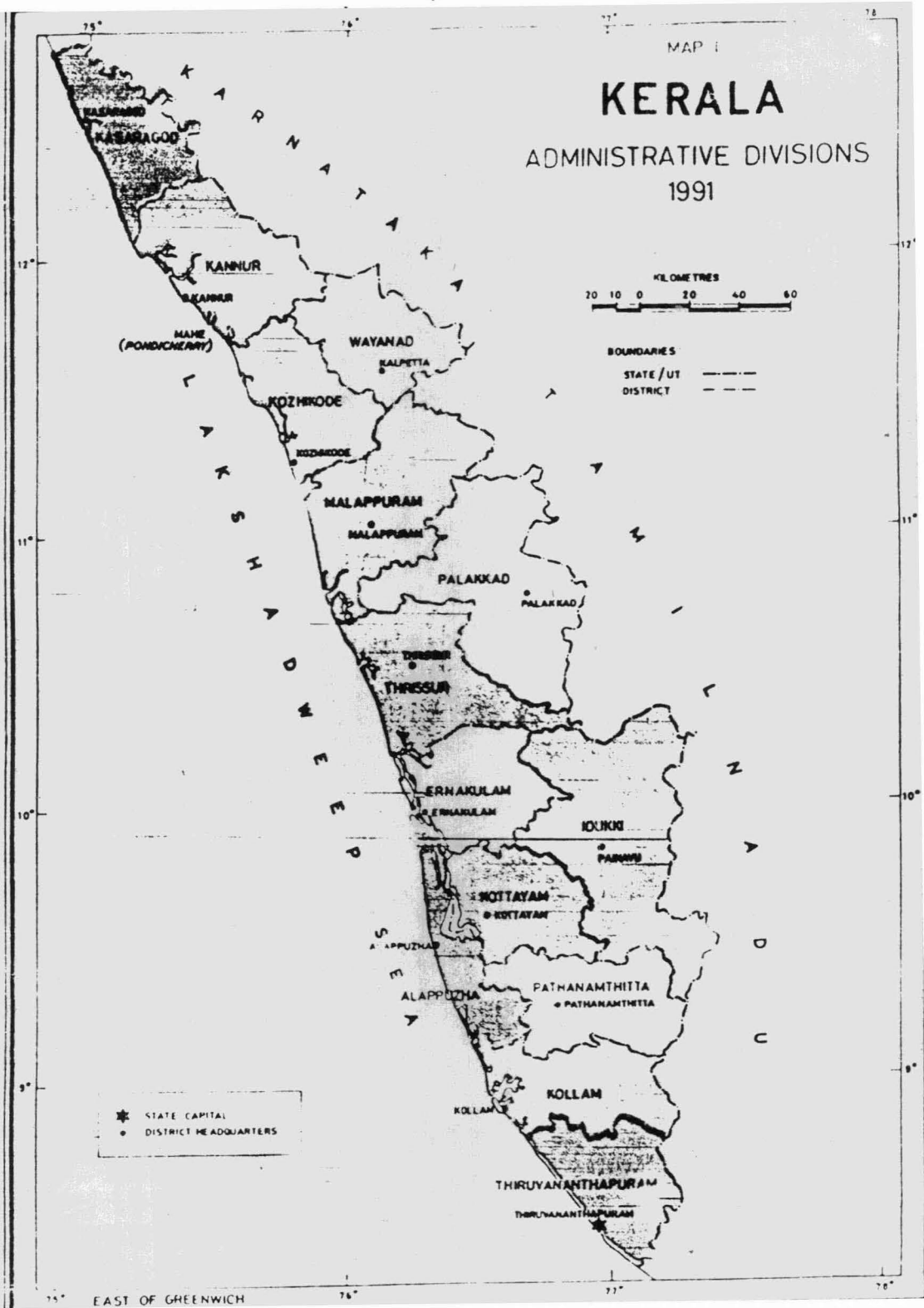
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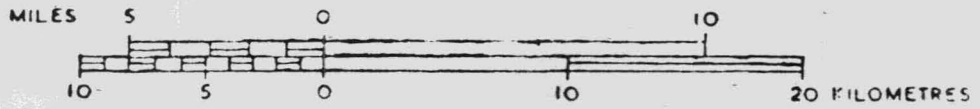
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APPENDIX



SHER TALAI TALUK



COCHIN TALUK

KANAYANNUR TALUK

VAIKOM TALUK

ARABIAN SEA

KOTTAYAM TALUK

AMBALAPUZHA TALUK

LEGEND

- TALUK BOUNDARY
- - - VILLAGE BOUNDARY
- NATIONAL HIGHWAY
- OTHER IMPORTANT ROAD
- LAKE AND CANAL
- PT POST AND TELEGRAPH OFFICE
- H HIGH SCHOOL
- VILLAGE BELOW 5000 POPULATION
- VILLAGE 5000 AND ABOVE POPULATION
- MUNICIPAL TOWN
- ⊙ TALUK HEADQUARTERS
- 10. KOKKOTHAMANGALAM-VILLAGE

ALLEPPEY DISTRICT

TALUK

- 1 SHER TALAI
- 2 AMBALAPUZHA
- 3 KUTTANAD
- 4 THIRUVALLA
- 5 CHENGANNUR
- 6 MAVELIKKARA
- 7 KARTHIGAPALLY



EAST OF GREENWICH

76° 15'

76° 30'

10°

10°

9°
45'

9°
45'

5°
30'

5°
30'

B) Details

- | Sl.No. | Age | Sex | Exn. | Occupation | Income |
|--------|---|-----|------|-----------------------------|--|
| 10. | Do you have any other source of income other than from your job. | | | Yes/No | |
| 11. | If yes, specify | | | :Agriculture/Cattles/Others | |
| 12. | What are your main expenses: | | | | |
| 13. | How much do you spend for it:
(for each) | | | | |
| 14. | Does the children contribute to family expenses, (if they are occupied) | | | : | Yes/No |
| 15. | If yes, how much | | | : | |
| 16. | The income you get sufficient for your lively-hood | | | : | Yes/No |
| 17. | If no how do you manage | | | : | |
| 18. | Do you need to borrow money : | | | | |
| 19. | If yes, from whom do you usually borrow | | | : | Friends/Neighbours/
Relatives/Shopkeepers |
| 20. | State the reason for borrowing money | | | : | |
| 21. | Have you got any debts to clear | | | : | Yes/No |
| 22. | If yes, to whom | | | : | |
| 23. | Do you have any savings habits | | | : | Yes/No |
| 24. | How much do you save in a month | | | : | |

III. Working Condition:

- | | | | | | |
|----|--|---------------------------------|-------------------------------------|-------------------------------|--|
| 1. | Type of worker: | 1. | 2. | 3. | 4. |
| | | Working directly under society. | Members of who hires to do the work | Non members who hires workers | Household who are not members but themselves do the work |
| 2. | Location of the work Place : | | | | |
| 3. | Do you work in your own house or in employers : | | | | |
| 4. | What is the nature of your work | | | : | Retting/Defibring/
Spinning |
| 5. | What posture do you adopt when you are working : | | | | |
| 6. | Duration of working hours in a day : | | | | |

7. How many days do you work :
in a week
 8. Details of work in a day :
Timings Daily hours of work Spread of over Duration of
rest interval
 9. Do you get work all through--: Yes/No
out the year
 10. If no, on an average how :
many months do you work in
a year
 11. State the months which :
there is no work
 12. State the months in which :
there is minimum work
 13. What is your mode of payment : Piecerate/Time rate
 14. Do you get weekly or daily :
wages
 15. Do you work overtime : Yes/No
 16. Do you get any extra wage : Yes/No
for working overtime
 17. What's your actual payment :
in a week
 18. a) How do you view the
changes in the last 10-15
years regarding working
conditions
b) What according to you are :
the reason for the changes
 19. What are the daily problems :
you have to face in your work
area
 20. If you have small children who :
looks after them when you come
for work
 21. In case of pregnancy till which:
month do you work
- III.
1. What are the problems you face :
after a days work
 2. If (you have) health problems, :
specify
 3. How long have you had this :
problems, specify
 3. How long have you had this :
particular problem
 4. Where do you usually go when : Govt./Private/PHC
you fall sick Hosp./ Hosp./

5. If it's to a Government Hospital:
 - a) What are the services you get there
 - b) Do you get it at the needed time
6. If it's to a Private hospital
 - A) What are your reasons for going to private hospital :
 - B) How much do you spend in a private hospital :
7. If it's to a PHC
 1. What are the services you get there :
 2. Do you get it at the needed time :
 3. How much do you have to spend in a PHC :
8. Where do you usually buy your medicines from : Hosp./Private Med. shops
9. On an average, how much do you spend for medicines in a month :
10. What do you generally do when you are ill during work hours :
11. In case of accident/injury at work site does your employer or society pay any compensation : Yes/No
12. If yes, state details : Yes/No
- IV. Unionization:
 1. Is there a union in your work place : Yes/No
 2. Are you a member of the union : Yes/No
 3. If yes, in which union and date of joining in the union :
 4. What are the general functions of your union :
 5. Does your union helps you when you need them : Yes/No
 6. What is your opinion about union and its activities :
 7. Does your participation in union, :
 - a) Affects your work : Yes/No
If yes, in what way :
 - b) Affects your relationship with employer : Yes/No
If yes, in what way :