GOVERNMENT OF KERALA

Report on Survey
of
Coir Workers--1981

Directorate of Economics & Statistics

Trivandrum

July 1982.

PREFACE

In June-October 1981, the Department of Economics and Statistics conducted a survey to identify the coir workers in the State as part of the Employment Generation Scheme. The survey was conducted in 256 villages spread over in 30 taluks from Neyyattinkara to Kasaragode. To identify the coir workers the enumerators visited each and every household in the area covered and made enquiries. Along with the work of identifying the coir workers, certain basic items of information like age, sex, activity, etc.have also been collecte This opporunity for covering all the cnetres of coir industry was used to prepare a list of coir producing units also.

The field work of the survey was organised and supervised by Shri.P.Gopinatha Pillai, Deputy Director and Shri P.J.Basil, Assistant Director. The tabulation of the data was organised and the report prepared by Smt.C.Zainaba, Deputy Director. Shri R.K.Vincent and Shri A.Sivaraman provided technical assistance for the conduct of the survey and preparation of the report. Shri G.Ramachandran Nair, Joint Director (Economic Census) was in overall charge of the survey. Dr.P.A.Nair, the former Director evinced keen interest in the survey.

I should take this opprotunity to thank the Central Trade Union leaders and the Director, Coir Development for their valuable suggestions and co-operation.

The data collected in the survey have been tabulated and presented in this report. It is for the first time that such a large scale survey covering all the worker households in the coir industry has been conducted. It is hoped that the data thrown out by the survey will form the basis of future indepth studies.

Trivandrum,
25..10..1982.

Dr.R.S.Kurup
Director.

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Chapter - I

Planning and Organisation of the Survey

1.1 Introduction

In early 1981, the Government of Kerala announced their intention to draw up a Welfare Scheme for the Coir workers in the State. Before the implementation of the scheme, it was necessary to identify the coir workers so as to ensure that the benefit of the scheme would be confined to actual coir workers alone. Government therefore decided that a survey to identify the coir workers should be conducted in the State. The survey was planned to be taken up as part of the Employment Generation Scheme. The State Department of Economics and Statistics was entrusted with the responsibility for the conduct of the survey.

Government issued the following guide lines for the conduct of the survey

i) The survey is to be conducted in 196 coastal villages, where the coir workers are known to reside. The coir workers will be identified by house to house visit in these villages.

ii) The survey will cover all category of workers in Coir industry. The four processes in coir industry, viz. retting, beating, spinning and weaving will be taken into consideration while conducting the survey.

iii) In the survey schedule, details regarding name, age, earnings, no.of days worked, other occupation if any, etc. of workers will be included.

iv) For the field work of the survey 600 enumerators will be appointed. Unemployed persons possessing SSLC or superior qualifications and registered with the Employment Exchange in the State will be selected as enumerators. In selecting the enumerators, restriction or communal rotation need not be observed. Each enumerator will work for a period of two months, for which they will be paid consolidated honorarium at the rate of Rs.400/- per enumerator.

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v) The selection and training of enumerators and supervision of their work will be done by the officers in the Department of Economics and Statistics.

Government suggested that before finalising the survey forms a meeting of the representatives of the Central Trade Unions in Coir industry and the Director, Coir Development might be convened and their views ascertained. Accordingly meetings were convened on 11.5.1981 and 27.5.1981. In these meetings the forms and the method of data collection were discussed and finalised.

1.2 Object of the Survey

The main object of the survey was to identify the Coir workers in the State. In respect of each worker so identified, particulars regarding age, sex, address, type of enterprise in which working, length of service in the enterprise, description of work, no.of days employed, earnings, other occupation if any etc. were to be collected.

The identification of coir workers was decided to be made through their residences, for which all the houses in the area were to be visited. It was suggested that this opportunity could be utilised to prepare a list of production units also in the area covered by the survey. In respect of the units identified, certain basic characteristics like type of activity, no.of workers usually employed, etc. might be collected so that the list could be used as a frame for future sample surveys on coir industry.

1.3 Coverage

Initially, it was planned to conduct the survey in 196 coastal villages spread over 28 taluks from Neyyattinkara to Kasargode. These 196 villages were identified on the basis of information available from census and earlier surveys. According to the available information, with the exception of some scattered households almost all the coir workers could be covered by surveying these 196 villages. However, the representatives of some of the Central Trade Unions in Coir Industry pointed out that there are other villages also where large -

no.of coir households existed, even though a ready list of such areas was not readily available. It was therefore decided that initially the survey might be started in the 196 villages and in the meantime the Trade Unions, through their sub-units would identify the other areas and intimate the Department.
Simultaneously the Coir Project Officers could also identify the villages and report. The areas so identified and reported were also surveyed. Before the completion of the survey a detailed list showing the names of places intended to be covered was prepared and circulated to all Central Trade Unions in Coir industry, Director, Coir Development and Coir Project Officers, with a request to intimate whether any additional areas remained to be observed. As no additional areas were reported, the survey was completed. The final list consisted of 209 revenue villages completely covered and 47 revenue villages partly (certain karas or wards only) covered. The names of villages covered are given in the Appendix.

1.4 Forms used and items of Information collected.

The forms- Form A and Form B were used for the survey. Form A was used to prepare the list of coir workers. Each coir worker was identified by the address of his/her residence, given by taluk, village/town, kara/ward, house no., name of head of household and his name. Age and sex, name and address of the establishments in which he was working, type of establishment, his total service in the establishment, length of experience in coir work, type of activity engaged in, earnings, no.of days worked during last year, name of subsidiary occupation etc. of each coir worker were also recorded in the form against his/her name.

Form B was used to prepare a list of production units in coir industry. In this form, the name of the Unit, type of establishment (ie. whether household or non-household units) whether in the co-operative or private sector, type of activity carried on, no.of workers employed, no.of days worked during the previous year, name and no.of various equipment used, etc. were recorded.

1.5 METHOD OF SURVEY:

The field work of the Survey was carried out by enumerators specially recruited for the work through Employment Exchanges. Unemployed persons having S.S.L.C. or superior qualification were interviewed and selected for the survey work. They were given 3 days training in data collection work before deploying for field work. As far as possible the enumerators selected were assigned work in their native taluks so that they know the locality and could enlist the co-operation of the people in the area. Each enumerator was assigned a definite area, with instructions to visit all houses in the area. The enumerator noted down the house number of each house visited and if it was a residential house he would find out whether it was a coir worker household. In that case the information as required in Form A was canvassed and recorded. During the course of these visits, the enumerator identified the coir production units also functioning in the area and recorded the data in Form B.

A total of 593 enumerators were appointed for the Survey work. Each person worked for a period of two months for which he was given a consolidated remuneration of Rs.400/-. But to the low rate of remuneration, there was difficulty in getting suitable persons as enumerators. Some of the persons who accepted the work initally backed out after a few days. In their place new hands had to be found out. The Survey work could not therefore be completed in time as originally planned.

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The training of enumerators and supervision of their work was done by the Taluk Statistical Inspectors. This work they did in addition to their normal duties. The primary tabulation of the data collected was also attended to by these Statistical Inspectors.

During the course of the Survey, two meetings, in which the representatives of the Central Trade Unions, Officers of Coir Department and the Department of Statistics and Economics participated, were convened to review the survey work.

1.6 PERIOD OF THE SURVEY:

The field work of the survey commenced on 22nd June, 1981 and was completed by the end of October, 1981.

1.7 PUBLICITY:

Wide publicity was given to the Survey through Press and All India Radio. The representatives of the Central Trade Unions in Coir Industry who attended the meetings in connection with the survey said that through their local units, they could enlist the cooperation of the people in the conduct of enumeration work.

1.8 TABULATION OF DATA:

The survey was primarily aimed at identifying the coir workers. Even though, it was thought desirable to make a primary tabulation of the data collected so as to provide information on the basic characteristics of Coir Industry. As there was no special staff for Tabulation work only certain primary aggregation could be attempted. This was done by the Supervisory officials at the taluk level. The State level aggregation was done at the headquarters. The results of this tabulation are given in this report.

1.9 COST OF THE SURVEY:

The total cost of the survey was Rs.2.54 lakhs of which Rs.2.37 lakhs was the amount paid as remuneration to enumerators.

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CHAPTER - II

CONCEPTS AND DEFINITIONS USED IN THE SURVEY

The various concepts and definitions used in the Survey are briefly described below.

2.1 COIR INDUSTRY:

In this survey, the term 'coir industry' was used to include the various processes in the manufacture of coir and coir products, starting from retting of husk. The processes were briefly classified into four stages viz. retting, beating of husk (including cleaning), spinning and weaving. Intermediate manufacturing activities which could not be included in one or other of these four stages were grouped into 'other items'. It will be noted that activities incidental to coir manufacture like trade, transport etc. were not included under 'coir industry', in this survey.

2.2 COIR WORKER:

In the usual sense of the term a 'coir worker is one who pursues any activity in 'coir industry' as his means of livelihood. In this survey this definition has been amplified so as to cover persons who were traditionally coir workers, but at the time engaged in other activities due to non-availability of work in coir industry. Thus the following categories of persons were covered in this survey.

i) Persons who are usually engaged in any activity in coir industry. He may be pursuing this activity either as an employee receiving wages or as a self-employed person or helper in his household enterprise without wages.

ii) Persons who traditionally were in coir industry, but at the time were unemployed or temporarily in other activities due to lack of work in coir industry. The assumption is that if employment in coir industry were available, they would have returned to their traditional work which they had been following for a long time.

It is to be pointed out here that owner of coir factories, spinning units etc. who were not engaged in manual work in the industry were not treated as coir workers.

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Coir worker household is a household with at least one member in 'coir industry' as coir worker.

2.3 Production Unit/Enterprise

The production unit/enterprise is a place where any manufacturing process related to coir industry is carried out. If it is carried out in the premises of a house, the activity is considered to be carried out in the house itself. However, there were instances where the activity was being carried out in open spaces (eg.retting) which were not in the premises of any house. Such units were associated with the residence of the person who operated the unit.

2.4 Type of Enterprise

The enterprise have been categorised as factories, small establishments household enterprises.

'Factories' are enterprises registered under sections 2 m (i), 2 m (ii) or 85 of the Factories Act 1948. A factory may be either in the cooperative or private sector. Small establishments are enterprises where the work is carried on in non-residential houses (including its premises) but, not registered under the Factories Act. 'Household enterprises' are enterprises where the work is carried on in the residential houses or at their premises. From the worker's point of view this has again been classified as household enterprises where the worker is employed on wages and household enterprises where the person is working as self-employed or as an unpaid helper.

2.5 Activity of the Enterprise

In this survey, the enterprises have been classified according to the activity carried on viz. retting, beating (including cleaning of fibre), spinning of yarn, weaving and 'others'. If more than one activity is carried on in an enterprise, the activity that forms the later stage in the manufacture is treated as the activity of the enterprise. For example, if beating and spinning are carried out in a unit, the unit is considered to be engaged in spinning.

2.6 Activity of the Coir Worker

It is that activity in the coir industry in which the worker is mainly engaged in during the previous one year. In the case of workers who were not actually working in the coir industry at the time of survey, his usual activity while he was working in coir industry was considered.

Chapter III

Coir industry - Importance structure and present trend

3.1 Importance of the Industry

The coir 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 belt of Kerala. It is because of the natural retting facilities present in the lakes and lagoons of the western coast that Kerala holds world monopoly in the production of white fibre from retted husk.

Coconuts are grown in more than 30 countries in the world. Among them India ranks third in the production of nuts as well as in the areas under cultivation. Kerala is the largest producer of coconuts in India. The area under coconut cultivation is about 7.5 lakhs hectares. Of the total production of 5734 million nuts in India, the share of Kerala is estimated at 59 percent. About 50% of the husk produced in Kerala used for industrial purposes. Among the coconut growing countries in world only Sri Lanka and India have made use of coconut husk for industrial purposes on a commercial scale.

Kerala accounts for over 83% of total production of coir in the country. Out of the total 126500 tonnes of white fibre produced in India during 1980-81, about 1,06,500 tonnes was produced in Kerala.

Over the years Kerala has developed coir industry to produce various types of finished products from retted fibre and spun yarn. The coir products in Kerala ranges from coir mats in various designs, patterns and grades, coir mattings of different weaves, pattern and textures and coir rugs and carpets. Coir yarn in different tensile strength, thickness and colour are also produced and exported from Kerala. Coir rope in different diameters is produced for domestic consumption. A new addition to the range of coir products manufactured in Kerala is matting with rubber backing.

The coir industry has its manifield importance in our State. The industry is of crucial importance as a source of employment and income particularly in the backward areas of the State. Further, the industry plays a vital role in the economic structure of the country as a source of foreign exchange. Export of coir and coir products from India during 1980-81 amounted to 28,610 tonnes valued at Rs.25.55 crores. Export from India consists of coir yarn made of white fibre and coir products like coir mats, coir mattings, coir rugs and carpets. A major share of these products is exported from Kerala.

3.2 STRUCTURE OF THE INDUSTRY:

The main activities involved in the coir industry are the following.

1. Retting.
2. Beating - Fibre extraction.
3. Spinning.
4. Weaving.

The coir fibre prepared from retted coconut husk is called white fibre. In Kerala, coir fibre is mainly produced from retted husk. The coconut husks available during dehusking of the nuts are made use of for preparing the fibre. The husks are soaked in saline water by the side of backwaters and lagoons for a period of 6 to 10 months. This process is called retting. Retting helps to lessen the pith that holds the fibre in the husk.

The retted husks are beaten manually or mechanically and the fibre is separated from the partly decayed pith. Kerala holds world monopoly in the production of white fibre.

Coir fibre produced from unretted husk is known as brown fibre. The development of mechanical fibre extraction without retting has in recent years encouraged the setting up of coir industry in other parts of the country where retting facilities are non-existent.

The dried coir fibre is used for spinning. Spinning by hand as well as spindle is prevalent. Better varieties of yarn are spun by hand; Until recently the only machinery used for spinning was ratt.

The weaving sector transforms the spun yarn into finished products like coir mats, coir mattings, rugs and carpets. The first three activities namely retting fibre extraction and spinning are done mainly in the household sector, while weaving in the factory sector.

3.3 Present Trend

Coir industry was once the monopoly of Kerala. However, at present the industry is passing through difficult times. The high percentage of unemployment in Kerala combined with the low capital investment needed for the coir industry tend to keep the industry ever crowded with the result that coir workers are under-employed. Kerala is now facing new challenges from Tamil Nadu, Sri Lanka and other coir manufacturing countries where the coir industry has been mechanised.

Increase in the cost of production resulting in high price for coir products also places the industry in a very disadvantageous position from the competitive point of view. The industry is also facing competition from synthetic products. The shortfall in the exports of coir products and lack of adequate finance are also aggragating the crisis in the industry. It seems that this 'drastic fall' in the coir exports could be arrested only through achievement of greater efficiency through modernisation of the industry and consequent reduction of costs.

It is to be regretted that though the raw material for the coir industry is locally available in plenty, it is not reaching the production units in sufficient quantities for want of finance. The production techniques used in the coir industry are not much improved.

Wages of the coir workers are comparatively low. This has led to the low standard of living of the coir workers. The working environment of the labourers engaged in retting and fibre extraction activities is found to be unhygienic.

It was for the amelioration of the conditions of the poor coir workers that the co-operative societies were set up. These cooperative societies procure husks and supply them to the producing units. Further they function as production-cum-sales units. However, now these societies are also finding it

difficulties to tide over the crisis in the State's traditional coir industry due to lack of finance. This has led to a further decline in the employment opportunities in the industry.

It is in this context, the survey to identify coir workers for drawing up welfare schemes has been conducted.

3.4 Previous estimates on the volume of Employment in the Industry

Before analysing the results of the survey it is worthwhile to examine a few earlier estimates on the volume of employment attempted by various agencies.

Coir Board had conducted a field survey on retting, spinning and manufacturing in 1966. According to this survey the no.of workers partly or fully engaged in coir industry in Kerala was about 4,30,000.

However the 1971 census figures showed that the employment in coir industry was only 1,58,607. The difference may be due to the differences in the definition of coir workers.

As per survey on unregistered industrial units in the rural areas of the State, conducted by the Directorate of Economics & Statistics during 1972-73, total no.of workers engaged in the coir industry was 1,42,170. The survey had, however, covered only the rural areas and unregistered units in the manufacturing and servicing sectors.

Another study on coir industry in the household sector conducted by the Directorate of Economics & Statistics during 1975-76 shows that there were 2,27,059 persons working on a household basis in the spinning and weaving sectors of the industry. For retting, beating and defibering an employment potential of 1,34,286 persons was estimated. The no.of workers employed in the manufacturing sector, as estimated by the Coir Board was 46,500. The total volume of employment in coir industry is thus estimated to be round about 4 lakhs.

The present survey has covered almost all the coir workers in the State. Field enquiry relating to this survey was confined to coir workers engaged in all sectors of the industry except traders, middlemen and those in the transport sector.

In the present survey a total no.of 2.83 lakhs persons in the surveyed area have been identified as coir workers. There may be a few hundred scattered coir workers households in the remaining areas. The figures ascertained from the production units however, show that the no.of coir workers employed is 3.0 lakhs. Reverification of data in respect of a few units has revealed that there are instances in which the same person works in more than one unit. This is more so in the case of units under the cooperative societies. When there is not sufficient work in the units under the cooperative sector, the workers seek private employment. The employment figure of 3.0 lakhs therefore seems to be on the high side. We may safely put the present total employment in coir industry at round about 2.90 lakhs.

A general comparison of the results of the present survey with those of the 75-76 survey of the Department shows that difference in employment figures mainly occurs in the sectors covered by ratting, beating and defibering.

Sector of Activity	1975-76 Survey	1981 Survey
Retting and beating	134286	50703
Spinning and weaving	227059	216327

It seems that the employment potential arrived at in 1975-76 on the basis of certain norms is very much on the high side. The decline in employment in the spinning and weaving sector may be explained as due to the recession in the industry.

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Chapter IV

SURVEY RESULTS

The main object of the survey was to identify the actual coir workers in the State. This was done by visiting each and every household in the villages selected for the survey and enumerating the members, if any, who were actually working in coir industry. Based on this, a list showing the name and address and other particulars of coir workers have been prepared and kept in the Taluk statistical offices. Along with this, a list showing the adress of production units in the coir industry has also been prepared. This list can be used as a frame for future sample survey on coir industry.

After completion of the enumeration work, certain key items of data of a basic nature obtained in the survey were tabulated and aggregates prepared at taluk, District and State levels. The tabulated results are discussed in the following paragraphs.

4.1 No.of Workers in Coir industry

In the survey, a total no.of 2,83,478 coir workers belonging to 1,53,143 household were identified and enumerated. Since almost all the villages having coir industry in one form or other have been covered in the survey, this figure can be considered to represent the total no.of coir workers in the State (with a small margin to be allowed for the workers ina few scattered households outside the villages surveyed). The tabulated figures of employment in the production units, however, show a slightly larger figure of 3.0 lakhs. This figure seems to be on the high side since the same worker was sometimes seem to be working in different units during different days, thus leading to multiple counting.

Nearly 47.0 percent of coirworkers are concentrated in Alleppey district. Quilon district has the second place with about 12.9% of the workers. Cannanore has the lowest concentration with 1.7%. Wynad, Palghat and Idukki districts were not covered in the survey as there is no coir industry in these areas.

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The District-wise distribution of coir workers is given in the following table.

District wise distribution of coir workers

District	No.of coir workers	Percentage
Trivandrum	28301	9.98
Quilon	36548	12.89
Alleppey	133085	46.95
Kottayam	14738	5.20
Ernakulam	18263	6.44
Trichur	10122	3.57
Malappuram	9119	3.22
Kozhikode	28498	10.05
Cannanore	4894	1.70
State	283478	100.00

The major activity in the coir industry in which the worker was engaged was also ascertained in the sruvey. The spinning sector accounts for about 72% of the coir workers and the beating sector about 16%. The no.of workers in each category classified according to the activity is given in the table below.

Category of work	No.of workers	Percentage
1.Retting	4871	1.72
2.Beating of husk (including cleaning)	45832	16.17
3.Spinning	205088	72.35
4.Weaving	11239	3.96
5.Other type of work	16448	5.80
All	283478	100.00

The no.of coir workers in each District and taluk classified by the activity they were engaged in is given in Tables I (a) and I (b).

4.2 Age-sex pattern of coir workers

The age-sex patterns of coir workers is of significance in formulating welfare measures for coir workers. The tabulated results of the survey show that 89.3% of the workers are in the working age group of 15 to 60 years. Contrary to general belief, children below 15 years formed only 2.1% of the total no.of coir workers The remaining 8.6% were older persons past 60 years of age.

In the coir industry, majority of workers are women. The survey results show that nearly 84% of the coir workers are women. The age-sex patterns of coir workers is given in the following table. Detailed break-up of the figures are given in Table No.II.

Age group	No.of workers Male	Female	Total	Percentage
Below 15 years	1375	4642	6017	2.12
15 to 60 years	38159	214989	253148	89.30
60 years and above	5145	19168	24313	8.58
All ages	44679	238799	283478	100.00

4.3 Workers by type of Enterprise

While identifying the coir workers, the address of their employees and the type of enterprise were also enquired and recorde It was found that about 76% of the workers were employed in household units and among them three fourths were self-employed persons working in their own household units. Cooperative sector was able to cover only one eighth of the workers. Figures in the following table explain the position.

Type of enterprise	No.of workers	Percentage
Cooperative sector units	35113	12.39
Private sector factories	5240	1.85
Small scale non-household establishments	27896	9.84
Household units :		
i) as hired workers	54848	19.35
ii) self employed	160381	56.57
All	283478	100.00

It will thus be seen that about 56.6% of the workers are self-employed persons who work in their own households with or without engaging outside labour. The remaining 43.4% are wage paid employees working in the production units of Cooperative societies, private insitutions or other households.

District wise distribution of workers by type of enterprise in which they were working is given in Table No.III.

4.4 Production units in the coir industry

During the course of the survey, the enumerators identified 94127 production units in the coir industry. There are units where various process of manufacturing coir industry like beating of husk, spinning, weaving etc are carried out. Of this, 449 were factory type units, 4253 were small scale non-household units and 89425 were household units. The industry has a high concentration in Alleppey district. Nearly two third of the production units are functioning in this district. The following table shows the district-wise distribution of production units in coir industry.

District	No.of production units/enterprises
Trivandrum	2202
Quilon	8019
Alleppey	62567
Kottayam	5835
Ernakulam	3913
Trichur	1928
Malappuram	3952
Kozhikode	4259
Cannanore	1452
Total	94127

The production units were further classified according to the activity in which they were engaged. The tabulated results are given below.

Activity of the Enterprises	No.of units	Percentage
Retting	662	0.70
Beating	2108	2.24
Spinning	87724	93.20
Weaving	3025	3.21
Others	608	0.65
Total	94127	100.00

Almost all the production units in retting, beating and spinning sectors were in the household sector, while factory type and other non-household establishments are seen in the weaving sector.

In the survey, 829 units reported that they were working in the Co-operative sector. Since some of the household units also were found to be reported as units in the co-operative sector, the accuracy of this figure needs further verification.

District-wise distribution of the number of production units is given in Table IV.

4.5 No.of days worked by production units

Information on the no.of days worked by each production unit during the year was also collected in the survey. It was found that due to various reasons like lack of finance shortage of husk, accumulation of stock etc., a large no.of units were not able to work through out the year. Nearly 40% of the units did not work even for six months. Only about 29% of the units could work for more than 8 months during the previous year. An analysis of the data collected show that the private units could get more work than co-operative sector units. Nearly 60% of the private sector units worked for more than 6 months while the corresponding figure for the cooperative sector units was 39%. The percentage distribution of the no.of units by days worked

in the previous year is given in the following table:

No. of days worked in the previous year	Percentage of Units		
	Co-operative sector	Private sector	Total
Less than 60 days	4.6	3.9	3.9
60 - 120 days	23.2	15.3	15.3
120 - 180 days	32.7	21.1	21.2
180 - 240 days	21.0	30.7	30.6
240 days and above	18.5	29.0	29.0
Total	100.00	100.00	100.00

Detailed distribution of the no. of units by days worked and type of activity of the units is given in Table VI.

4.6 Machinery and Equipments used in production units: Particulars on the type of machinery and equipments used and their no. in each production unit were also collected in the survey.

Extraction of fibre from husk is mainly done by hand, but it was reported that in certain units machines were being used. A total of 188 machines for extraction of fibre from husk was reported in the survey. In some units machines are being used for cleaning the husk. A total of 510 cleaning machines were enumerated in the survey. Most of these machines are in the units located in Quilon district.

In the survey a total of 15827 ratts, and 12072 looms have been enumerated. The looms are mainly in Alleppey district.

Details of various types of machines used in the coir units and their no. are given in Table V.

4.7. No. of husks beaten:

An attempt was made in the survey to find out the total no. of husks beaten during the year by enquiring with the units. The figures furnished by the proprietors were tabulated and aggregated. This shows that a total of 81 crores husks were beaten during the year. Considering the fact that the State's Annual production of coconut is 305 crores nuts; the number of husks reported to have beaten during the year seems to be very low. It is understood that large number of husks are being retted illegally in various parts of the State. In a survey of this type, it is difficult to identify and collect data on such illegal activities. Therefore, to that extent the figures on the number of husks retted will be an under estimate.

LIST OF TABLES

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KERALA STATE

SURVEY OF COIR WORKERS -- 1981

Table Ia : Distribution of Coir Workers by category of work

District	No.of coir households	No.of workers by category of work					
		Retting	Ieating	Spinning	Weaving	Other types of work	Total
1	2	3	4	5	6	7	8
Trivandrum	12429	667	8866	16358	67	2343	28301
Quilon	21134	1266	11498	22563	72	1149	36548
Alleppey	72290	557	11269	101063	10826	9370	133085
Kottayam	6149	64	404	14024	65	181	14738
Ernakulam	9862	367	3315	12398	68	2115	18263
Trichur	6176	579	3896	4910	4	733	10122
Malappuram	4917	186	2269	6559	11	94	9119
Kozhikode	17680	1002	3132	23868	115	381	28498
Cannanore	2506	183	1183	3345	11	82	4804
Kerala	153143	4871	45832	205088	11239	16448	283478

1	2	3	4	5	6	7	8	9
11. Vaikom	5938	5624	64	404	13557	65	181	14271
12. Kottayam	211	211	..	..	467	..	..	467
Kottayam district	6149	5335	64	404	14024	65	181	14738
13. Parur	4625	1648	203	2396	3896	..	1595	8090
14. Cochin	3645	1224	146	808	5413	25	295	6687
15. Kanayannur	1592	1041	18	111	3089	43	225	3486
Ernakulam district	9862	3913	367	3315	12398	68	2115	18263
16 Trichur	569	66	92	710	72	..	13	887
17 Mukundapuram	712	261	155	366	534	..	138	1195
18 Kodungalloor	2959	1081	200	1521	3009	1	466	5197
19 Chavakad	1936	500	132	1299	1295	3	116	2845
Trichur district	6176	1928	579	3896	4910	4	733	10122
20 Ponnani	957	323	89	229	1490	11	28	1847
21 Tirur	3555	3234	81	1975	4535	..	66	6657
22 Ernad	405	395	16	65	534	..	..	615
Malappuram district	4917	3952	186	2269	6559	11	95	9119

..... 3/-

1	2	3	4	5	6	7	8	9
23 Kozhikode	9052	1029	338	1696	10968	111	150	13263
24 Quilandy	7698	2939	477	707	12215	1	50	13450
25 Badagara	930	291	187	729	685	3	181	1785
Kozhikode district	17680	4259	1002	3132	23868	115	381	28498
26 Kasaragode	18	19	..	..	18	..	..	18
27 Hosdurg	547	298	72	429	521	..	4	1026
28 Taliparamba	44	32	..	21	85	..	3	109
29. Cannanore	1565	1025	72	442	2584	8	72	3178
30. Thalasserry	332	78	39	291	137	3	3	473
Cannanore district	2506	1452	183	1183	3345	11	82	4804
KERALA	153143	94127	4871	45832	205088	11239	15448	283478

Table II - Distribution of coir workers by age and sex

District	Distribution of workers by age and sex											
	Below 15 years			15 - 60 years			60 & above			Total		
	M	F	T	M	F	T	M	F	T	M	F	T
1	2	3	4	5	6	7	8	9	10	11	12	13
Trivandrum	602	1378	1980	4592	20443	23035	417	869	1286	5611	22690	28301
Quilon	137	872	1109	2992	29814	32806	453	2180	2633	3582	32966	36548
Alleppey	184	1187	1371	17255	102889	120144	2124	9446	11570	19563	113522	133083
Kottayam	22	111	133	3306	9761	13067	533	1005	1538	3861	10877	14738
Ernakulam	156	202	358	9436	12384	15822	794	1289	2083	4388	13875	18263
Trichur	31	112	143	2892	5765	8656	517	807	1324	3440	6684	[illegible]
Malappuram	60	290	350	978	7230	8208	52	509	561	1090	8029	9119
Kozhikode	162	232	394	2031	23188	25219	181	2704	2885	2374	26124	28498
Cannanore	21	158	179	675	3517	4192	74	359	433	770	4034	4804
Kerala	1375	4642	6017	38159	214989	253148	5145	19168	24313	44679	238799	283478

M - Male F - Female T - Total

Table III - Distribution of coir workers by type of enterprises

District	No.of workers	No.of workers by type of enterprises in which worked				
		co-operative sector	private sector	other small establishments (non-household)	household units	
					hired workers	self employed
1	2	3	4	5	6	7
Trivandrum	28301	6282	789	1900	12403	6927
Quilon	36548	7128	620	7087	11858	9655
Alleppey	133085	3791	2572	8928	12957	104837
Kottayam	14738	708	64	3	120	13843
Ernakulam	18263	5706	375	1055	5649	6104
Trichur	10122	1923	124	491	4649	2935
Malappuram	9119	416	81	623	1149	6850
Kozhikode	28498	8360	559	7166	6109	6304
Cannanore	4804	599	56	665	558	2926
Kerala	283478	35113	5240	27896	54848	160381

District	type of enterprises/units				No.of units according to type of activity				
	factories	small scale production units	household/ own family units	total	retting beating etc		spinning	weaving	other items of work
1	2	3	4	5	6	7	8	9	10
Trivandrum	17	183	2002	2202	25	20	2023	11	123
Quilon	158	953	6908	8019	13	113	7876	6	11
Alleppey	98	2147	60322	62567	114	1167	57945	2908	433
Kottayam	36	6	5793	5835	9	6	5794	17	9
Ernakulam	43	328	3542	3913	88	103	3645	71	6
Trichur	21	111	1796	1928	205	232	1482	2	7
Malappuram	14	78	3860	3952	44	129	3762	-	17
Kozhikode	48	332	3879	4259	122	196	3931	10	..
Cannanore	14	115	1323	1452	42	142	1266	-	2
Kerala	449	4253	89425	94127	662	2108	87724	3025	608

Table V. No.of machines/equipments used in production units

District	no.of producting units	no.of machines / equipments used				
		beating/ defibering	for cleaning	ratts	looms	others
1	2	3	4	5	6	7
Trivandrum	2202	..	69	18770	31	..
Quilon	8019	11	217	8489	28	..
Alleppey	62567	90	91	10590	11833	..
Kottayam	5835	..	14	3674	95	7
Ernakulam	3913	22	16	2016	63	86
Trichur	1928	34	78	1024	10	1
Malappuram	3952	18	5	559	3	..
Kozhikode	4259	13	18	361	9	..
Cannanore	1452	..	2	344	..	5
Kerala	94127	188	510	45827	12072	89

Table VI

Distribution of coir producing units by no.of days worked during 1980-81

Type of activity of the enterprise	Less than 60 days	60-120 days	120-180 days	180-240 days	240 days or more	total
1	2	3	4	5	6	7
Retting	285	125	82	92	78	662
Defibering	78	441	740	538	311	2108
Spinning	3031	12612	17960	27573	26548	87724
Weaving	263	1132	967	473	190	3025
Other items of work	23	110	179	137	159	608
Total	3680	14420	19928	28813	27286	94127

SURVEY TO IDENTIFY COIR WORKERS-1981

List of Revenue villages/wards selected for the survey

Name of taluk	Names of revenue villages completely enumerated	Names of revenue villages partially enumerated showing the name/no.of town/panchayat ward enumerated
1	2	3
		TRIVANDRUM DISTRICT
1. Trivandrum	1.Thiruvallam 2.Muttathara 3.Kadakampally 4.Kazhakuttam 5.Kadinamkulam 6.Pallipuram 7.Vailoor	Nil
2. Neyyattinkara	1.Kulathoor 2.Thirupuram 3.Karumkulam 4.Kottukal	Nil
3.Chirayinkil	1.Azhoor 2.Chirayinkil 3.Vettoor-Cherunniyoor 4.Edava 5.Ayiroor 6.Kadalravoor	1.Varkala (wards 5,6,7 & 10 of Varkala Panchayat 2.Manambur (wards 8 & 9 of Manambur panchayat and ward containing Perattil area of Ottur Panchayat) 3.Keezhvilam (ward 2 of Keezhvillam panchayat 4.Chemmaruthy (2 wards panayara East and Kuttappalam of Chemmaruthy panchayat)
		QUILON DISTRICT
Quilon	1.Thrikaruva 2.Mundro Island 3.East Kallada 4.Mulavana 5.Perinadu 6.Thrikkadavoor 7.Kottamkara 8.Nedumpana 9.Thrikkovilvattom 10.Mayyanad 11.Adichanalloor 12.Meenadu 13.Kalluvathukal 14.Poothakulam 15.Paravoor 16. Vadakkevila 17.Eravipuram 18.Kilikollur	1.Quilon village, Quilon Municipal area (Uliyakovil wards 1,2 & 3 Ashramam wards 4,5,6 & 7 Kureepuzha wards East & West 34 & 35)

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2. Kunnathoor	1. West Kallada		Quilon District Nil
3. Karunagappally	1. Perunad 2. Krishnapuram 3. Thazhava 4. Kulasekharapuram 5. Thodiyoor 6. Karunagappally 7. Panmana 8. Chavara 9. Thekkumbhagom 10. Thevalakara 11. Mynagappally		Nil
1. Karthigappally	1. Keerikkad 2. Mathukulam 3. Puthuppally 4. Kayamkulam 5. Kandalloor 6. Arattupuzha 7. Chingoli 8. Karthigappally 9. Kumarapuram 10. Karuvatta 11. Thirikunnapuzha	1. Pathiyoor (wards 7 to 14 and 23 of Kayamkulam municipality)	Alleppy district
2. Ambalapuzha	1. Mararikulam south 2. Alleppey 3. Punnapra 4. Aryad North 5. Aryad South	1. Ambalapuzha (wards 3 & 4 of Ambalapuzha panchayat) 2. Purakkad (wards 2, 3, 4 & 10 of Purakkad panchayat)	
3. Shertallai	1. Mattathilbhagom 2. Panavally 3. Thycattusserry 4. Pallippuram 5. Vayalar west 6. Vayalar east 7. Aroor 8. Thuravoor North 9. Thuravoor South 10. Thanneermukkom North 11. Thanneermukkom South 12. Kokkothamangalam 13. Shertallai North 14. Shertallai South 15. Mararikulam Noth 16. Kanjikuzhi	NIL	
4. Kuttanad	NIL	1. Veliyanad (ward No. 5 of Veliyanad Panchayat)	

1	2	3
		Kottayam District
.Kottayam	1.Thiruvarpu 2.Kurarakon 3.Aimanam	NIL
.Vaikom	1.Thalayazham 2.Vechoor 3.Vaikom 4.Naduvila 5.Vadakkemuri 6.Vadayar 7.Kulasekharamangalam 8.Velloor 9.Chempu	1.Kallara (ward 1 of Kallara Panchayat)
		Ernakulam district
1.Cochin	1.Kumbalangi 2.Palluruthy 3.Chellanam 4.Pallipuram 5.Edavanakad 6.Kuzhuppilly 7.Nayarambalam 8.Narakkal 9.Elankunnapuzha	NIL
2.Kanayannur	1.Kadamakudy 2.Maradu 3.Kumbalam 4.Manakunnam 5.Mulavucad	1.Nadamel (wards 3,4,5,9 to 17 and 19 of Trippunithura municipality) 2.Cheranelloor (wards 1,2,4 & 5 of Cheranelloor panchayat and ward 44 Vaduthala of Cochin Corporation)
3.Parur	1.Vadakkekara 2.Chendamangalam 3.Puthenvelikkara 4.Parur 5.Ezhikkara 6.Kottuvally	1.Varapuzha (wards 9 to 15 of Eloor panchayat) 2.Alengad (wards 1 and 3 of Alengad panchayat)
		Trichur District
1.Kodungallur	1.Edavilangu 2.Eriyad 3.Lokameleswaram 4.Azhikode 5.Methala 6.Pallippuram 7.Poyya 8.Kaippamangalam 9.Perinjanam 10.Pappinivattom 11.Pulloot	1.Sreenarayananpuram (wards 1 to 3, 5,6,8 to 11 of Sreenarayanapuram panchayat) 2.Chendrappini (wards 6 & 7 of Edathuruthy panchayat)

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		Trichur District
Trichur	1. Padiyam 2. Karamuck	1. Mannur (wards 3,5,6 & 7 of Nenalur Panchayat) 2. Anthikkad (ward 9 of Anthikkad panchayat) 3. Thanniam (ward 3 of Thanniam panchayat) 4. Kuzhuppillikara (ward 2 of Thanniam panchayat) 5. Vadakkumury (wards 7 & 8 of Thanniam panchayat)
5. Chavakkad	1. Pavaratty 2. Orumanayur 3. Chavakkad 4. Engandiyur 5. Thalikulam 6. Nattika 7. Edamuttam 8. Kzhimpram	1. Punnayurkulam (ward 8 of Punnayurkulam panchayat) 2. Punnayur (wards 7 & 10 of Punnayur panchayat) 3. Vadakkekad (wards 2 & 6 of Vadakkekad panchayat) 4. Pookad (wards 1,3,5,6 & 7 of Pookad panchayat) 5. Elavally (ward 9 of Elavally panchayat). 6. Mullassery (ward 1 of Mullassery panchayat) 7. Venkitangu (wards 1 to 4 and 7 of Venkitangu panchayat) 8. Vandenappally (wards 1 to 5,8,9 and 10 of Vandenappally panchayat) 9. Valappad (wards 1,5 & 6 of Vellangalloor panchayat)
Mukundapuram	1. Edathirinji 2. Padiyur 3. Puthenchira 4. Vallivattam 5. Karumathara 6. Thekkumkara	1. Kattur NIL
		Malappuram district
Tirur	1. Purathur 2. Puthuppally 3. Tirur 4. Vettom 5. Tannur 6. Tanalur 7. Parappanangadi 8. Vellikunnu 9. Ariyallur 10. Thenjipalam 11. Cheriamundam	1. Athavanad (ward 8 of Athavanad panchayat) 2. Pomundam (ward 1 of Pohmundam panchayat) 3. Nannambra (ward 8 of Nannambra panchayat) 4. Munniyur (ward 4 of Munniyur panchayat)
Ponnani	1. Ezhavathuruthy 2. Ponnani 3. Veliyancode 4. Marancherry	NIL
5. Ernad	1. Chelambra	NIL

1	2	3
4. Tellicherry	1. Dharmadam 2. Eranholi 3. Pinarayi 4. Paduvilayi 5. Pathiriyad	1. Chokkli (5 desoms viz. Olavilam Mungad and Peringadi) 2. Kodiyeri (5 desoms viz. Edarmur, Kallet, Kurichiyil, Azhikkal and Paumunderi) 3. Tellicherry and 4. Thiruvangad (Municipal area 7 wards viz., a) Kannoth b) Mannayad c) Illikkunna d) Nettoor e) Kaduvally f) Court g) Lorakunnu)