GOVERNMENT OF KERALA

MANPOWER STUDIES

VOLUME IV

DEPARTMENT OF
ECONOMICS & STATISTICS
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PREFACE

A major goal of development planning is eradication of unemployment. 'Man power Planning' is gaining greater importance in the development process. The essence of 'Man power Planning' is to match employment generation with the demand for work. Demand for jobs is highly dispersed not only regionally but also by ages, sex and class of workers. It is also fragmented in terms of timing and duration for a large number of the unemployed. The economy now faces the paradox of unemployment of the trained and untrained personnel and also the shortage of hands in several areas. If an employment strategy is to be effective it has to be based on the understanding of the charateristics of various types of unemployment, tracing them to their root causes, particularly the in-equitous social and economic structure and inequitous institutional set up. An efficient system of 'Man power Planning' alone can equip the economy, to meet these challenges effectively. The 'Man power studies' is a series of publication which the 'Directorate of Economics and Statistics' has commenced with a view to enable the State to vitalise her 'Man power Planning' System.

The Manpower Unit started functioning in the Directorate of Economics and Statistics from April 1974. This unit could publish 23 studies in three volumes. This publication, ie. Volume IV, contains 6 studies relating to various disciplines, prepared by officers working under the unit.

It is hoped that the 'Man power Studies' included in this volume will be of immense use to the planners and administrators.

Sd/-

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Director of Economics and Statistics

Trivandrum,
23-2-1981.

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A STUDY ON
THE EMPLOYMENT POTENTIAL IN THE KHADI AND VILLAGE INDUSTRIES IN KERALA

"In a country, where, even after three decades of planned development, more than half of the population is living below the proverty line the level of employment and earnings provided in Khadi & Village Industries, sector is contributing in a very significant way for bringing this category of persons much above the povertyline. In Kerala also the development of this potential sector is very vital because of its economic justification. The study reveals that an important feature of this activity is the very high participation ratio of women who contribute substantially to their family income. It is pointed out that the 'Fibre' industry has much development potential in the State. The development of Khadi and Village Industries in Kerala will also go a long way in increasing the rural participation in the developmental efforts. As the Mahatma observed "Khadi is the only true economic proposition in terms of millions of village, until such time, if ever, when a better system of supplying work and adequate wages for every able bodied person above the age of 16, male or female, is found for his field, cottage or even factory in everyone of the villages in India, or till sufficient cities are built up to displace the villages so as to give the villages the neccessary comforts and amentities that will regulate life demands and is entitled with".

CONTENTS

1. Introduction

"Khadi is the sun of the village solar system. The planets are the various industries which can support Khadi in return for the heat and sustenance they derive from it", said the Mahatma. The Gandhian model of economic regeneration of the village based Indian Economy is not a concise packet of positive marcro-economic analysis containing chisselled up tools like the "multiplier" and "accelerator". It is an etheical cum corporeal complex of multidimensional ideas in the economic sphere to the pramountsy of normative rules and upliftment of the 'weakest of the weak' and poorest of the poor' He wanted every village to be an entity of its own. Gandhian Economics, the present Indian attraction, have agro-based small scale and cottage industries as the economic base. One of the principal aims of economic planning the major accent of the VI Plan is the provision of employment opportunities for the large "army of the unemployed" in the country. Employment generation at low capital cost is the unique feature of village and small scale industries. Prof. Gadgil has rightly stated that the entire Khadi and Village industries programme is a relief and rehabitation programme for the sustenance of subsistance level of people.

Unemployment is a major malady of the Kerala Economy. She has rightly adapted the strategy of itegrated rural development to benefit the fruits of intersectoral and intrasectoral balances of growth. Decentralised planning would go a long way in bridging the economic gulf in the State through an interlinked process of unemployment eradication and employment generation. In Kerala the Khadi and Village Industries sector projects a profound scope for employment and income generation. Being labour intensive, the development of this sector is quite in consonance with the "development spirit" of the Kerala Economy.

2. The Objectives of this Study

The Stduy aims at the following:—

1. An evaluation of the Khadi and village industries segment of the Kerala economy in the employment generation and absorption perspectives.
2. Attempt at an assessment of the employment protential in this labour intensive sector of the eeconomy.
3. Identification of the "lead industry" from the multifactoral employment angle.
4. Pinpointing the "growth points" in this sector to complement our endeavour of unemployment eradication in the state.
5. Demarcation of the impending impassee in the employment generaating development cycle of this traditional sector, and
6. Fixing up the role of the individual, group, instittions, organisation and the state in the development of this traditional sector.

3. Methodology of this study

No methodological "path breaking" is claimed for this study. The dominant data base of this study is a well carried out sample survey incorporating a reasonable geographical coverage. The study has been limited to 'Khadi' and 'Fibre' industries alone as they were identified as the crucial constituents of the village industries sector in Kerala. The study is made more "location specific" to feel even the minute sensations of the "growth membrane" of the participant Industries. Data compiled from the Annual report of the Khadi and Village Industries commission have been made use of in evaluating the 'development trend' of this sector in Kerala.

Two questionnaires were designed for this study. (Appendix I) questionnaire No. I was canvassed from 'the managerial personnel' of the selected institutions through which an "institutional version" of the problem and a "high level analysis" of the propsect of development of the industries could be obtained. Questionnaire No. II has been made more 'personal' with which a 'workman version' of the 'sectoral expansion potential' could be evoked. This questionnaire contained, also , a Socio economic enquiry of the artisans class in this sector.

The number of units selected under the Khadi and Fibre industries in different districts of Kerala are given in tables 1 and 2 respectively, given below. From these institutions 10% subject to a minimum of 2 persons from the supervisory and mangerial category and 5% subject to a minimum of 2 persons from the artisans were slected systematically for the purpose of questionnaire No. II. Casual labourers were excluded from the workers list.

TABLE 1

Number of units selected under Khadi Industry in different districts of Kerala

Sl. No.	*Name of District*	*No. of units selected*
(1)	(2)	(3)
1.	Trivandrum	2
2.	Quilon	1
3.	Alleppey	1
4.	Kottayam	1
5.	Ernakulam	1
6.	Trichur	2
7.	Palghat	1
8.	Malappuram	1
9.	Kozhikode	2
10.	Cannanore	1
11.	Idukki	
	Total	13

TABLE 2

Number of units selected under different sections of Fibre industry in the districts of Kerala

Type of industry	No of units selected in each district											
	Tirvandrum	Quilon	Alleppey	Kottayam	Idukki	Ernakulam	Trichur	Palghat	Malapouram	Kozhikode	Cannanore	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Screwpine mat weaving		3	1	2	..	..	1	..	..	—	1	8
Fancy articles	1	1	..	1	..	2	1	—	—	—	..	6
Sisal yarn making	1	..	1	..	..	..	..	..	..	—	—	2
Korai grass making	1	..	1	..	..	..	..	1	..	..	..	3
Total Fibre	3	4	3	1	..	1	2	1	..	..	1	19

4. Coverage of the study

The Geographical coverage of this study included eleven Distrcts of Kerala. 13 instituions selected at random have been studied in detail in respect of Khadi industry. In the Fibre industry 19 instutions also selected at random, formed the sample units. The survey could collect details from all the 32 institutions in questionnaire No. I which formed the basis of "institutional version" of the topic of study. The "artisans appraoch" to the subject could be compiled from the 445 questionnaire No. II canvassed in the course of the study. Experienced investigators attached to the District Statistical Offices, under the expert guidance and supervision of a hierarchy of officers, did the field work. A thorough scrutiny of the data has been done to make it ripe for further analysis.

5. Of field response

Field responses have been mixed. It was passive, sceptical, optimistic and even fatalistic "we are the victims of poverty", rebuked the artisans. "Poverty line is our perpetual path". They suffer more of the torture of disguised unemployment. "What survey ? "Surveys do not make us survive". Some were passive in spirit. "Why these penetrating questions? Are we going to be taxed further?". They were more sceptical. "A tleast the Government are insearch of the weakest". "something good must be in the offing" "Why? these expensive surveys cannot be without a positive purpose". The optimisits responded in private groups. "No surveys can save these declining industries". "Well hunger is our fate". The tone of fatalism has been more dominant in the "response—reaction record" of the survey– It may be noted that this traditional sector keep the artisans more traditional in growth. The Khadi and Village industries sector has not reached its full stage of expansion in the State. It remains a 'subsistance sector'. Development efforts, carried out in a systematic manner, can convert this into a "surplus sector".

6. The Story of Khadi:

'Khadi' was introduced in the nation as a political weapon for the boycott of foreign goods in general and cloth in particular and thus stimulate in every Indian, desire for independence as well as an attitude for self descipline Gandhiji referred to Khadi as a "livery of freedom". In December 1923 the 'All India Khadi Board' was established as an integral part of the 'Congress Association", later in the year 1925 the 'All India Spinners Association' was formed. Till 1935 the association concentrated its activity on propagation, production and sale of Khadi with the result that the social objectives of Khadi were relegated to the background. A revitalization of the social objectives of Khadi was found with the adoption of the doctrine of "*Samagra seva*" the central theme of which was that Khadi could have a permanent effect only when carried out as part of a wider programe of non-violent village reconstruction.

7. The development of Khadi and Village Industries under the Five Year Plans.

Traditional rural artisans like Blacksmith, carpenter, handloom weaver, leather maker, potter etc. constitute a vast repository of skill and production potential in the country. In the 'Directive principles of State policy, the Government of India evolved a policy for the development of Khadi and Village Industries. The growth and development of this sector is thus closely related to the 'planned development process' of the national economy.

Even after three decades of Planning a significant percent of the people of our country still remain below the poverty line and millions of young persons are unemployed. According to 'Yojana Bhavan' estimates there were 29.4 crores persons below the poverty line in 1977-1978 with 23.9 crores in rural and 5.5 crores in urban. Total unemployment on March 1978 was 20.6 million persons 16.5 million in rural and 4.1 million in urban.

As much as 79% of the total population, 82% of the unemployed, 80% of the uneducated and 81% of the landless are all in the villages. But by a quirk of fate 80% of the employment generated, 90% of the industries started 100% of the profit earned and 95% of the services rendered are concentrated in the metropolitan cities. big provincial towns and growth centres. The only hope of pushing poverty nacked behind the rural curtain is the development of decentraslised industrial sector including Khadi and Village Industries. Accordingly this sector had been given extra emphasis in different five year plans.

In the Ist Five Year Plan development of Khadi and Village Industry was treated as an integral part of the development of Agriculture. It was also hoped that with the development of this sector excessive pressure on Agriculture could be averted and maximum utilization of leisure time managable industrial pesuits during the off season for agriculturists could be made. The plan allocation was Rs. 15 crores.

The second Five Year Plan made the development of the Khadi and Villages Industries an integral part of the over all plan for the country's industrialization. The main objectives were extention of work opportunities, raise progreassively the standard of living of artisans and bring about a more balanced and integrated rural economy. It was expected that with the growing inevestment in heavy industries additional purchasing power of higher magnitudes would be generated in the economy and that the village industries would be able to meet the growing requirements of commodities in common demand. These industries were looked upon as means of reducing inflationary pressures which was likely to be generated due to investments in heavy industries.

A number of protective measures to safeguard the interests of village industries were taken which included mainly—

1. Reservation of specific spheres for village industries.
2. Prohibition on expansion capacity of large scale industries.
3. Imposition of excise duty on large-scale industrial products.
4. Supply of raw materials on preferential basis
5. Provision of technical research and training for village industriallists. A co-operative society for village industries was also recommended for the development of this sector. The plan provided Rs. 83.78 crores for the development of this sector.

The third plan emphasis was on the integration of village industries with the rural economy. Positive forms of assistance such as—

1. Improvement of skills
2. Supply of technical guidance
3. Better equipments
4. Liberaliseded credit—were given importance.

An amount of Rs. 92.40 crores was allotted for the development of this sector.

During the plan holiday period of 1966-67 to 1968-69 the plan provision was Rs. 53.05 crores.

The fourth plan emphasised the concept of viability as the basis of prerequisite for undertaking any economic activity. The emphasis in policy was shifted from one of protection to positive forms of assistance such as improving skills, supply of technical guidance and better equipment and credit. The adoption of intermediate "appropriate technology" to ensure quality of production was also stressed. Rs. 110 crores was allotted in the plan.

The Fifth Plan thrust was to arrest the displacement of additional artisans from the existing crafts providing fuller work opportunities, widening of the employment base in backward areas and ensuring a level of earning adequate to meet the basic needs of life. Research and development was accorded an important place. The plan provision was Rs. 208 crores.

The sixth plan (1978-83) made a provision of Rs. 1295.66 crores for the development of this sector

Table 3 given below illustrates clearly that only a meagre percentage of the public sector outlay is allotted for the development of this sensitive and employment oriented sector.

TABLE 3

Financial Outlay Under Planed for Khadi & Village Industries

(Rupees in Crores)

Plans	Public sector outlay	Plan Provision for Khadi & village Industries	Fund made Available Khadi & village industries	Col. 3 as percentage of Col. 2	Col. 4 as percentage of Col. 3
(1)	(2)	(3)	(4)	(5)	(6)
I Plan	1960	15.00	11.58	0.8	77
II Plan	4672	83.78	78.71	1.8	94
III Plan	8577	92.40	86.90	1.1	94
Annual Plans 1966-67 to 1968-69	6625	53.05	53.05	0.8	100
IV Plan	15783	111.00	97.73	0.7	88
*V Plan	28991	208.00	118.26	0.7	57
VI Plan	69380	1295.66		1.9	

* for four years only

(Source : Commerce Research Bureau)

During the first plan period, only 0.8% of the public sector outlay was made available for the development of Khadi and Villages Industries. This percentage for the successive plan periods were 1.8, 1.1, 0.8, 0.7 and 1.9 respectively. It may also be noted that the full utilization of the plan provision is seldom achieved in this sector. The percentage of utilization is given in col. 6 of the table. Full utilization was achieved only during the period of plan holiday. The utilization was very low, ie. 57% during the fifth plan period. This reveals a disquieting picture. An efficient and fuller utilization of the available fund is a senequanon for the development of this sector.

Now development in its real sense is a passport to a privileged few, not available to many. Employment in specialised group means "leisure" Employment in domestic sector means—"All work no pay and Nil Income' Employment in traditional sector means—'subsistence'—.

Neglect of this sector by planners and administrators denied 'subsistence' to many.

8. Growth of Organization in the Khadi and Village Industries Sector

The 'Khadi and Village Industries Commission' was established in 1957 under the Khadi and Village Industries Act of 1956. It has both financial and executive powers. The activities of the commission extend over a wide range viz.—procurement of raw materials, disposal of goods, training of artisans, supply of tools and extention of research. The Commission Comprises of five members assisted by a financial adviser and a Chief Executive Officer. The commission is responsible to the parliament through the ministry of Rural Reconstruction.

The Khadi and Village Industries Board is the executive agency in the State. The Board is a Statutory organization constituted under Act 9 of 1957 of the Kerala Legislative Assembly. The Board receives funds for developmental purposes from the KVIC and a Government of Kerala from the plan allocation-in the form of grants, subsidies and loans.

Table 4, given below, gives an account of the organiszation engaged in the Khadi and Village Industries sector.

TABLE 4

Growth of Organizations in the Khadi & Village Industries Sector

Organization	1955-56	1960-61	1965-66	1973-74	1974-75	1975-76	1976-77	1977-78
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	9)
State Boards	2	14	15	15	20	20	20	20
Registered Institutions	242	720	1037	678	700	688	628	694
Co-operative Societies	60	11765	19371	20079	23715	23715	27071	27071
Total	304	12499	20423	20772	24435	24423	27719	27785

(*Source:* Commerce Research Bureau)

In 1955-56 there were only 2 state Boards which increased to 20 in 1977-78. There were 242 registered institutions engaged in Khadi productions and propagation. In the next quinquinum there was a substantial increase in number of these institutions. The number rose to 1037 in the year 1965-66. But the period 1973-74 to 1977-78 showed a decreasing trend in the number of registered institutions with only 694 in the year 1977-78. There were only 60 Co-operative societies engaged in Khadi and Village Industries in the year 1955-56. The subsequent years showed a commendable 'Co-operative initiative' in the Khadi and Village Industries sector. The number of societies rose steadily and stood at 27071[1] in the year 1977-78.

9. The Developmental Agencies in Kerala

In Kerala the net work of Khadi and Village Industries are being organised by three main agencies.

I. 3 direct dealing institutions

II. 442 institutions which are directly aided by the Khadi and Village Industries Board.

And

III. Departmental production centres of Khadi and Village Industries Board.

The three direct dealing institutions are:—

a. Kerala Sarvodaya Sangh, Kozhikode

b. Kerala Khadi and Village Industries Association, Trichur

And

c. Kerala Gandhi Smarak Nidhi, Trivandrum.

In addition, the Khadi and Village Industries commission has a departmental production centre at Kanimangalam in Trichur District and a 'Khadi gramodyog Bhavan' at Cochin in Ernakulam District to effect sales of Khadi and Village Industries products on a large scale. Apart from these Semi governmental institutions, charitable institutions and social service organisations have volunteared for the propagation of the village industries products in Kerala on a massive scale. Inspired by the initiative of voluntary organisations in redumpting this neglected sector, Banks have started extending financial assistance to the village industries projects. But to be true, the developmental infrastructure of these rural industries is in a stage of infance in the State.

10. The Composition of Khadi and Village Industries in Kerala

Kerala manufactures only 'Cotton Khadi', 'Silk and woolen Khadi' are the untouched areas due to the unfavourable production conditions. Fibre industry is the Major component of the village industries sector in the State. The Fibre industries segment comprise of production of screwpine mats, door mats, hubbrush, straw cases, banana fibre bags, Talipot palm fibre products, garlands, Fancy articles, sisalyarn fibre articles, etc. All there articles are excellent exhibitions of 'Super skill' and 'creative craftsmanship'. Other major village industries in the state include ghani oil industry, village leather industry, lime manufacturing industry, cottage match industry, carpentry and blacksmithy industry, non-edible oil and soap industry, cane and bamboo industry, gur and khandsari industry, palm gur industry, handmade paper industry processing of cereals and pulses industry, village pottery industry, Bee-keeping industry, coconut palm leaves industry, medicinal plants industry, Fruit processing industry etc., to list a few of them.

11. Employment in the Khadi and Village Industries Sector

The hetrogeneous character of the unemployment situation complicates the problem of employment generation. The Khadi and Village industries sector stood remarkable in the process of employment generation. From the angle of employment creation the Fibre industry, Bee-keeping industry and palmgur making industry rank top in the country. Village industries like processing of cereals and pulses carpentry and blacksmithy handmade paper, soap manufacturing and fruit processing do not seem to be highly employment generating at present

Table 5 gives an account of the growth of employment in the Khadi and Village industry sector in the country during the plan periods. During the last three years of the first plan the sector could provide employment to 24.73 lakh persons in the country. The Khadi sector could absorb 15.59 lakh persons while the village industries sector employed 9.14 lakh persons. In the second plan period there was a remarkable progress in the employment absorption capacity of this sector. It gave employment to 97.69 lakhs persons of rural India. The Khadi sector absorbed 67.36 lakh persons and the village industries offered employment to 30.33 lakh persons. It is obvious that khadi sector was in its "high speed growth path" while village industries developed in slow pace. By the end of the third plan the total employment in the combined sector stood at 127.76 lakh persons comprising of 92.14 lakh persons in the Khadi segment and 35.62 lakhs persons in the village industries. During the plan holiday of 1966-67 to 1968-69 the sector could offer employment only to 67.42 lakh persons. Here again the Khadi industry employed the maximum number, of persons. The 'Fourth plan period' showed a comparative slackenning in respect of employment generation in this sector. The subsequent plans set apart lesser amounts than the previous plans for the development of the rural economy. However the shift in emphasis was in favour of equitable distribution of income and growth with stability.

TABLE 5

Growth of Empoyment in Khdi & Villages Under Plans

(No. of persons in lakhs)

Year	Khadi			Village Industries			Khadi & Village Industries Total
	FT	PT	Total	FT	PT	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1953-54	0.31	3.48	3.79	0.01	3.04	3.05	6.84
1954-55	0.49	4.74	5.23	0.06	2.96	3.02	8.25
1955-56	0.61	5.96	6.57	0.08	2.99	3.07	9.64
Total I Plan	1.41	14.18	15.59	0.15	8.99	9.14	24.73
1956-57	0.91	7.89	8.80	0.60	6.18	6.78	15.58
1957-58	1.33	10.03	11.36	0.42	5.22	5.64	17.00
1958-59	1.47	12.52	13.99	0.33	5.02	5.35	19.34
1959-60	1.96	14.12	16.08	0.47	5.28	5.75	21.83
1960-61	2.05	15.08	17.13	0.73	6.08	6.81	23.94
Total II Plan	7.72	59.64	67.36	2.55	27.78	30.33	97.69
1961-62	2.09	15.37	17.46	0.84	4.53	5.37	22.83
1962-63	2.34	15.64	17.98	0.82	6.51	7.33	25.31
1963-64	2.35	16.25	18.60	0.72	6.54	7.26	25.86
1964-65	2.35	16.80	19.15	0.72	6.17	6.89	26.04
1965-66	1.81	17.14	18.95	0.81	7.95	8.76	27.72
Total III Plan	10.94	81.20	92.14	3.91	31.70	35.61	127.75
1966-67	1.71	16.52	18.23	0.75	6.30	7.05	25.28
1967-68	1.32	12.04	13.36	0.75	6.95	7.70	21.06
1968-99	1.32	12.04	13.36	0.79	6.93	7.72	21.08
Total Annual Plans	4.35	40.60	44.95	2.29	20.18	22.47	67.42

TABLE 5 (*Concld.*)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1969-70	1.26	9.74	11.00	0.87	8.18	9.05	20.05
1970-71	1.17	8.24	9.41	1.05	8.74	9.79	19.20
1971-72	1.21	8.42	9.63	1.24	7.15	8.39	18.02
1972-73	1.26	8.73	9.99	1.37	7 03	8.40	18 39
1973-74	1.07	7.77	8.84	1.32	7.96	9.28	18.12
Total IV Plan	5.97	42.90	48.87	5.85	39.06	44.91	93.78
1974-75	1.10	7.91	9.01	1.57	8.25	9.82	18.83
1975-76	1.13	7.12	8.25	1.84	9.37	11.21	19.46
1976-77	1.30	7.23	8.53	2.23	9.49	11.72	20.25
1977-78	2.39	6.83	9.22	3.16	11.78	14.94	24.16
Total V Plan	5.92	29.09	35.01	8.80	38.89	47.69	82.70
Grand Total	36.31	267.61	303.92	23.55	166.60	190.15	494.07

Source: Commerce Research Bureau

The 'fifth plan' period also could not rise the employment positions in this sector. Infact the total employment declined to 82.70 lakh persons. The overall employment position, by the end of the fifth plan, stood at 494.07 lakhs in this sector. Khadi and Village industries sector can be proud of the fact that it has contributed substantially in lessening the burden of chronic unemployment during the last two decades.

Table 6 gives an account of the grwoth of employment in the Khadi and Village Industries sector in Kerala for the period 1970-71 to 1977-78.

TABLE 6

Employment in the Khadi and Village Industries Sector—Kerala

Year	*No. of persons employed in Khadi*	*Village Industries*	*Total*
1970-71	10831	50806	61637
1971-72	10000	66136	76136
1972-73	10216	83280	93496
1973-74	9979	90294	100273
1974-75	10494	103945	114439
1975-76	11158	94642	105800
1976-77	11893	94285	106178
1977-78	12009	100148	112157

As evidenced by the table given below the general trend of employment in the Khadi component of the sector was an increasing one with the exception of the year 1973-74. The period 1970-71 to 1973-74 was a stage of unbalanced growth in the employment position of the Khadi industry in Kerala. The year 1977-78 could offer the maximum employment to artisans in this sector. The number employed is 12,099 in this year. In the case of village industries, the period 1970-71 to 1974-75 represented an 'expansion phase' of this sector. Employment showed a steady increase. The year 1975-76 and 1976-77 were a stage of "stationary state" in regard to employment generation in the village industries. But the employment stagnation was broken in the year 1977-78 marking an upswing in the employment curve in the industry. The number employed stood at 100148 in the year 1977-78.

TABLE 7

Growth of Employment in the Khadi & Village Industries Sector in Kerala in Comparison with the Position in all India 1972-73 to 1976-77

(Number of Persons in Lakhs)

Year	*India/Kerala*	*Khadi*	*Palm Gur*	*Bee Keeping*	*Gur & Khand Sari*	*Village Pottery*	*Village Industries* — *Non Edible oil and Soaps* — *Seed Collection*	*Oil Production*	*Soap Production*	*Total*	*Fibre*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1972-73	INDIA	9.98	2.92	1.48	1.09	0.60	0.42	0.01	0.04	0.47	0.45
	KERALA	0.10	0.26	0.12	0.01	0.04	..	..	0.01	0.01	0.32
	Percentage of Kerala to all India	1%	8.9%	8.1%	0.9%	6.7%	..	..	0.3%	2.1%	71.1%
1974-75	INDIA	9.78	3.31	1.43	1.11	0.50	0.93	0.03	0.04	1.00	0.64
	KERALA	0.10	0.30	0.13	0.02	0.04	0.03	0.01	—	0.04	0.48
	Percentage of Kerala to all India	1%	9%	9%	1.8%	8%	3%	33%	..	4%	75%
1976-77	INDIA	8.53	3.16	1.46	1.32	0.78	1.07	0.05	0.07	1.19	0.77
	KERALA	0.12	0.16	0.15	0.02	0.04	0.01		—	0.01	0.53
	Percentage of Kerala to all India	1.4%	5%	10.3%	1.5%	5.1%	0.9%		..	0.8%	68.8%

TABLE [illegible]—Contd.

Year	India/Kerala	Village Leather	Ghani oil	P.C.P.	Carpentry & Blacksmithy	Lime	Forest plants & Fruits	Hand made paper	Cottage Match	Bamboo & Cane	Fruit processing	Total: Village Industries	Total: Khadi & Village Industries	Remarks
(1)	(2)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
1972-73	India	0.34	0.34	0.29	0.10	0.10	0.09	0.04	0.02	0.03	0.01	8.84	18.82	
	Kerala	0.01	0.04			[illegible]	—	..	0.01	0.01	..	0.86	0.96	
	Percentage of Kerala to all India	2.9%	11.8%	..	..	20%			[illegible]	33%	—	10.1	5.2%	
1974-75	India	0.36	0.33	0.19	0.21	0.08	0.47	0.05	0.04	0.07	—	10.97	20.57	
	Kerala	0.01	0.01		..	0.01		..	—	0.01	—	1.09	1.19	
	Percentage of Kerala to all India	2.8%	3%		..	12.5%	—	—	—	14%		10.7%	5.9%	
1976-77	India	0.59	0.31	0.22	0.32	0.12	0.64	0.05	0.03	0.22	—	12.27	20.80	
	Kerala	0.01	0.02	0.01	..	0.03	—	—		0.01	—	[illegible]	[illegible]	
	Percentage of Kerala to all India	1.7%	6.4%	4.6%	..	25%				[illegible]	..	[illegible]	[illegible]	

Source: Khadi and Village Industries Commission.

Table 7 gives a comparative study of the trend of employment in the Khadi & Village Industries sector in India and Kerala for the period 1972-73 to 1976-77. In the year 1972-73 the percentage of employment generated in the State ni the Khadi & Village Industries Sector, in relation to the all India total, stood at 5.2%. In the Khadi segment this percentage was 1% and in the village industries 10.1%. Among the village industries Fibre Industry was well advanced in the State of Kerala followed by cottage match industry, bamboo and cane industry and lime industry. In all the above village industries a significant share of the total employment in the country was from Kerala. In the year 1974-75 the percentage share of employment in the combined sector increased to 5.9%. The increase was due to the increasedcontribution of the village industries component in Kerala. In the year 1976-77 the percentage share in the Khadi segment showed an increase and that of village industries marked a decline resulting in a fall in the over-all percentage share given in Col. 24.

Comparing the trend of employment in the Khadi sector in Kerala with hat of the national trend, a reciprocal relationship can be observed. The national trend was a decreasing one while the state trend was one of increase. But in the case of village industries the national figures of employment showed a steady rise over the period 72–73 to 1976-77. In Kerala, on the otherhand, the employment growth was an irregular one showing the seasonality of the industries in question. This unsteady path of progress is indicative of the need for a balanced approach in the problem. A combined effort of private initiativea nd Governmental incentives can only rectify this deficiency in the sector to a certain extent.

Table 7 A to 7 U given in the Appendix provided comparative figures of employment in the Khadi and Village Industries sector for the year 1972-73 to 1976-77. The percentage relation to the all India position is also furnished in the table.

TABLE 8

Employment Generation in Khadi & Village Industries during the Year 1977-78

Sl. No.	Name of Industry	Employment		
		FT	PT	Total
1	Khadi	12099	..	12099
2	Fibre	50597	1190	51787
3	Bee-keeping	537	15050	15587
4	Palm-Sugar	217	15130	15347
5	Pottery	3825	360	4185
6	Cane and Bamboo	804	1622	2426
7	Cane sugar & Kandsari	1112	999	2111
8	Collection of medicinal plants	..	2005	2005
9	Village Oil	457	1370	1827
10	Lime	1154	446	1600
11	Cottage Match	406	1098	1504
12	Village Leather	659	265	924
13	Processing of Cereals and Pulses	267	38	305
14	Carpentry & Blacksmithy	186	10	196
15	Hand made paper	178		178
16	N.E.O. Soap	39	51	90
17	Fruit Processing	11	18	29
	Khadi (Total)	12099		12099
	Village Industries (total)	60449	39652	100101
	Grand Total	72548	39652	112200

Source: Khadi & Village Industries Commission

A closer look at Khadi and the different components of the village industries sectors, from the employment angle, is given in Table 8. The village industries are listed in order of relative employment generation capacity' in the table obviously Fibre Industry contributed 51.7% of the total employment of the Village Industries segments. The least contribution was by fruit processing industries in Kerala. Industries like Bee-keeping, palm gur making, pottery making, cane and bamboo manufacturing and Cottage Match display high rate of expansion potential and employment generations. Kerala is not dificient in skill and expertise But the individual initiative is the "bleak flame" which spreads a shade in the path of growth and expansion.

The sample study conducted by the Directorate of Economics & Statistics throws some light on the strategic role of the Khadi and Village Industries sector in mitigating the unemployment problem in Kerala. The study in respect of Khadi covered the districts of Trivandrum, Quilon, Alleppey, Kottayam, Ernakulam, Trichur , Palghat and Kozhikode. Eleven Institutions, as detailed in col. 2 of Table 9 given below, were studied in detail primarily to assess the employment generation and other related aspects of the Khadi sector.

The 'Kerala Gandhi Smarak Nidhi' of Trivandrum had 44 working branches spread over the whole of Kerala. The 'Kerala Khadi and Village Industries Association' of Trichur stood second with 33 working units in the State. 'The Kerala Sarvodaya Sangh' of Kozhikode had 22 working units in the State. There were 119 institutions engaged in the production and propagation of Khadi in the State of Kerala.

On the employment front, 'The Kerala Sarvodaya Sangh' of Kozhikode ranked first, employing a total of 4583 persons in their different units in the State. It is unique that they provided full time employment mainly to males. 'The Kerala Gandhi Smarak Nidhi' of Trivandrum which stood second in respect of employment, employing a total of 1439 persons, extended employment opportunity mainly to the Women folk. The third largest employer is the 'Njekad Khadi Production Industrial Co-operative Society' of Trivandrum District which employed 187 persons out of which 186 were females. There is male domination in the supervisory cadre in the Khadi sector employing 472 males and 76 females. The Khadi Sector could offer full time employment to 4262 females and 1648 males. Khadi seems mainly a Women Industry as it could employ more of the women folk in Kerala. Khadi is not a 'part time employment generator' as it would extend part time employment only to 14 males and 61 females. The Khadi sector is still a supplementary source of income to the Kerala rural Community.

In the Fibre sector 23 institutions spread in the districts of Trivandrum, Quilon, Alleppey, Kottayam, Trichur, Ernakulam Palghat and Cannanore have been studied in detail. The district of Alleppey pioneered the work on Fibre Industry in Kerala with the 'Vallikunnam Harijan Multipurpose Cooperative Society' entering the field of production in 1961. In the middle of the sixties three more societies entered the field of Fibre Industry. The advent of the seventies marked the 'bloom' of Fibre Industry in Kerala as a series of institutions in the line of Fibre management were set up. There were 20 live centres engaged in Fibre Industry in the year 1979 with the 'Intensive Khadi Centre' under the Khadi & Village Industries Board, having the maximum number of units.

TABLE

Employment Generation by Different Khadi Producing

Sl. No.	District	Name of Institutions	Year of starting	No. of units/ branches	Details of Employment: Supervisory cadre — Male	Female	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Trivandrum	(a) Kerala Gandhi Smarak Nidhi	1962	44	72	26	98
		(b) Njekad Khadi Production Industrial Co-operative Society	1959	2	1	3	4
2	Quilon	Gandhi Smarak Grama Seva Kendram	1956	2	..	3	3
3	Alleppey	Aroor Service Co-operative Society	1947	1	1	..	1
4	Kottayam	Khadi & Village Industries Co-operative Society	1960	1	.	3	3
5	Ernakulam	Pampakuda Khadi Produceers Industrial Co-operative Society	1967	7	.	5	5
6	Trichur	(a) Manapuram Spinners and Weavers Association	1949	3	5	..	5
		(b) Kerala Khadi and Village Industries Association	1955	33	25	33	58
7	Palghat	Akathethara Khadi Producers Co-operative Society	1959	3	..	2	2
8	Kozhikode	Kerala Sarvodaya Sangh	1958	22	367	..	367
		Gramodaya Khadi Sangham	1955	1	1	1	2
		Total		119	472	76	548

Institutions in the District of Kerala

in 1979

Artisans						Total workers		
Full time			Part time					
Male	Female	Total	Male	Female	Total	Male	Female	Total
(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
27	1250	1277	14	50	64	113	1326	1439
..	183	183	..	..	..	1	186	187
..	19	19	..	..	..	..	22	22
..	5	5	..	..	..	1	5	[illegible]
4	81	85	..	..	..	4	84	[illegible]
15	..	15	..	..	..	15	5	20
..	[illegible]	[illegible]	..	8	8	5	40	45
..	..	..	..	..	..	25	[illegible]	58
..	[illegible]	[illegible]	..	3	3	..	[illegible]	[illegible]
4216	..	[illegible]	..	..	..	[illegible]	..	4583
..	25	25	..	..	..	1	26	27
4262	1648	[illegible]	14	61	75	4748	1785	6533

TABLE

Employment Generation by Different Fibre

Sl. No.	District	Name of Institutions	Year of starting	No. of units	Details of Employment		
					Supervisory cadre		
					Male	Female	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Trivandrum	(a) Mariyapuram Village Industrial Co-operative Society	1978	1	2	..	2
		(b) Women's Cottage Industrial Co-operative Society	1964	1	..	2	2
		(c) Nirmalalayam Centre	1975	..	..	4	4
2	Quilon	(a) Mahila Cottage Industrial Co-operative Society	1971	1	..	2	2
		(b) Thodiyoor Cholakattukulangara Khadi & Village Industries	1970	1	1	..	1
		(c) Mahila Khadi & Village Industries Co-operative Society	1973	1	..	..	..
		(d) Thodiyoor Puliyoor Vanchi Khadi and Village Industries Co-operative Society	1970	1	1	..	1
3	Alleppey	(a) Sree Narayana Cultural Mission	1978	1	1	..	1
		(b) Vallikunnam Kannimal Khadi & Village Industries Co-operative Society	1970	1	1	..	1
		(c) Vallikunnam Harijan Multipurpose Co-operative Society	1961	1	1	..	1
		(d) Sri. V. K. Thankappan Charamangalam, Muhamma	1977	1	3	..	3
4	Kottayam	(a) Vaikom Town Thazhapaya Co-operative Society	1972	..	1	..	1
		(b) Thalayazham Thazhapaya Vyavasaya Sahakarana Sangham	1973	..	1	..	1

10

Producing Institutions in the District of Kerala

in 1979

Artisans						Total Workers		
Full time			Part time					
Male	*Female*	*Total*	*Male*	*Female*	*Total*	*Male*	*Female*	*Total*
(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
3	..	3	3	6	9	8	6	14
..	40	40	..	..	..	..	42	42
..	124	124	..	..	..	..	128	128
..	70	70	..	230	230	..	302	302
..	400	400	163	..	163	164	400	564
..	45	45	..	..	..	..	45	45
..	512	512	..	..	..	1	512	513
..	..	..	3	16	19	4	16	20
..	..	..	..	..	..	1	..	1
..	..	..	36	16	52	37	16	[illegible]
10	1	11	14	29	43	27	[illegible]	[illegible]
..	..	..	..	..	..	1	..	1
..	..	..	..	..	..	1	..	1

TABLE

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
		(c) N. E. S. Block Vanitha Khadi & Village Industries Co-operative Society	1965	1		1	1
		(d) Vaikom Kunnu Thazhapaya Vyavasaya Sahakarana Sangham	1976	..	1	..	1
		(e) Kidangoor Grama Vyavasaya Sahakarana Sangham	1974	..	..	1	1
5	Trichur	(a) Departmental Fibre Centre	1975	..	..	..	..
		(b) Kaipamangalam Grama Vyavasaya Sahakarana Sangham	1973	..	1	..	1
6	Ernakulam	(a) Gaild of Charity	1967	..	..	4	4
		(b) Koothattukulam Village Industries	1964	..	..	1	1
7	Palghat	Mankara Mahila Samajam	1978	..	1	2	3
8	Cannanore	(a) Office of the Centre Khadi Officer, Intensive Khadi Centre, Kerala Khadi & Village Industries Board	1974	10	36	7	53
		(b) Cheruvathur Village Industrial Co-operative Society	1971	..	1	..	1
		Total		20	52	34	86

10 *Cntd.*

(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
..	12	12	1	..	1	1	13	14
	..	..	..	34	34	1	34	35
1	10	11	..	..	..	1	11	12
..	30	30	..	..	..	..	30	30
43	208	251	..	..	..	44	208	252
..	207	207	[illegible]	9	9	..	216	216
..	35	35	..	1	1	..	36	36
..	25	25	..	..	..	1	27	28
260	762	1022	..	..	..	296	779	1075
	175	175	..	103	103	1	278	279
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Table 10 gives an account of the employment generation in the Fibre Industry in Kerala. In the Fibre Segment the 'Intensive Khadi Centre', under the Khadi and Village Industries Board, ranked the highest employer extending job opportunities to 1075 persons consisting of 296 males and 779 females. The second highest employer has been the 'Thodiyoor Chelakattukulangara Khadi and Village Industries' of Quilon District which could employ 163 males and 164 females during 1979. The third largest employer—'The Thodiyoor puliyoor Vanchi Khadi & Village Industries Co-operative Society' belongs to the district of Quilon. In the supervisory cadre the Fibre Sector could employ 86 persons in the year 1979. It could extend full time employment to 317 males and 2656 females, making a total of 2973. The Fibre sector offered part time avocation to 220 males and 446 females. The total employment generated in 1979 stood at 3718 comprising of 589 males and 3129 females. The Fibre Industry also employed more of women both fully and partially.

12. Employment potential in Khadi and Village Industries in Kerala

The Khadi and Village Industries sector in Kerala can absorb a good number of jobless, and lessen the problem of chronic unemployment. Khadi can be promoted only on the basis of an interstate co-operation. Cotton is scarce in Kerala. Cotton producting States can be linked in this government of expansion. The following table gives an account of the artisanversion of the employment potential in the Khadi & Village Industries in Kerala.

TABLE 11

Employment Potential in Khadi & Village Industries in Kerala (Artisan's Vision)

Name of District	*Khadi*			*Fibre*			*Total*		
	FT	*PT*	*Total*	*PT*	*PT*	*Total*	*FT*	*PT*	*Total*
(1)	(2)	(3)	(4)	()	(6)	(7)	(8)	(9)	(10)
Trivandrum	12820	2580	15400	3300	460	3760	16120	3040	19160
Quilon	120	..	120	14210	120	14330	14330	120	14450
Alleppey	132	65	197	174	490	664	306	555	861
Kottayam	137	25	162	160	15425	15585	297	15450	15747
Ernakulam	..	..	..	..	..	..	..	..	..
Trichur	..	..	..	..	..	..	..	..	..
Palghat	180	55	235	32	20	52	212	75	287
Kozhikode	1613	10	1623	..	..	..	1613	10	1623
Cannanore	25	..	25	..	..	..	25	..	25
Total	15027	2734	17762	7876	16515	34391	32903	19250	52153

In respect of Khadi the districts of Trivandrum and Kozhikode offer the highest employment potential. The district of Cannanore gives only a low employment potential which shows the under developed nature of the Khadi sector in that district though in early Cannanore district encouraged and fostered Khadi through Payyannur Khadi Centre and because the nerve centre of Khadi movement in old Malabar district. It may be noted that Khadi offers the prospect of full time employment to many educated and therefore enterprising men can exploit this potential possibilities to enter the field of self employment In the Fibre component the ditricts of Kottayam, Quilon and Alleppey project the maximum employment opportunity. The district of Kottayam offers employment opportunity to more of women in this sector. Women unemployment is another problems of this State.

The inter-scale and intra-scale aspects of the Khadi and Village Industries in Kerala also emphasis the employment potential in this sector. The inter scale aspects are efficiency of small scale industries and the place of the small scale Sector in the State economy. The intra-scale aspect is one of inter industry comparison.

Variables like the output, fixed capital ratio, worker fixed capital ratio, value added worker ratio, and the output worker ratio of this sector are explanatory of the expansion potential of this segment in the Kerala State. There is a high output fixed capital ratio in this sector showing a high capital productivity in this unit. The importance of this sector looms large in an economy where capital is scarce and labour is surplus. The worker fixed capital ratio also is high in this sector which shows that this sector is more labour intensive. Labour intensive programmes are the only alternative to the problem of unemployment. A high value added fixed capital ratio, which is shown in this segment, marks the increase in the value of inputs. An increase in the value of inputs imply inter alia that inputs are combined with fixed capital more optimally in the small scale sector of Kerala economy. But there are some disquieting features in this employment generating sector. A low output-worker-ratio is shown by this sector implying low productivity of labour. This is supplemented by a low value added worker ratio. As such innovatiors and improvements in machinery and methods of production with a view to increase the percapita labour productivity are to be attempted. More advanced conditions of production in large industries make labour more productive in the capitalist sector. On any count an effective promotion of cottage and small scale industries, which are widely despersed in rural areas and small towns, can be justified in the growth context of Kerala economy since it projects a commendable employment potential. Among the village industries Fibre Offers the maximum employment potential.

13. Khadi Production in Kerala

Table 12, given overleaf, gives an account of the production figures in the Khadi Industry in Kerala for the year 1978-79. The main items of production are yarn, cloth and Muslin. The production total for the reference period comes to Rs. 89,21,190. The sale proceeds for the year stood at Rs. 1,25,45,058. A detailed note on the Khadi production front revealed that there 'exists excess capacity' in the Khadi production front. Fuller utilization of existing capacity is hindered by entanglements of a varied nature. Production bottlenecks can be averted through a peroper planning in the industry. Sales promotion and finding of new foreign markets are some of the incentives.

In the Khadi segment expenditure overtook the receipt and the industry thus was in loss during the reference year 1978-79. But the loss shown for the year is not representative of a usual trend. The lukewarm nature of the participants in the industry and lack of industrial talents may be the reason for the dismal fate to the sector. Table 13 below gives an account of the expenditure on the capital and werking side of the industry. The expenditure total comes to Rs. 431 lakhs making a huge loss to the industry.

TABLE 12

Production and sale of Khadi in Kerala during 1978-79

Name of item	*Production*			*Sales*		
	Unit	*Qty.*	*Value in Rs.*	*Unit*	*Qty.*	*Value in Rs.*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Khadi Cloth	Sq. Mt.	1015001	8553112	Sq. Mt.	182136	12285349
Khadi Yarn	No. of hanks	208782	152320	No. of hanks	56283	69786
Muslin Khadi	Sq. Mt.	21702	215758	Sq. Mt.	21702	189923
Total			8921190			12545058

14. Fibre Production in Kerala

Table 13 gives the details of production and sales in the Fibre industry in Kerala for the year 1978-79. The main items of production are table mats, Screwpine mats, Fancy articles made of sisalfibre, different Kinds of fancy mats, hub brush, bags, purses and brushes etc. The value of production for the reference period came to Rs. 40.44 lakhs. The sales proceeds from the industry is Rs. 43.50 lakhs during the period under reference. The industry offers extensive possibilities of production expansion. But the Fibre segment has turnedout to be a cinderella in the Village Industries component in the State. Foreign markets for this excellent craft can be tackled at Government levels.

TABLE 13

Production and sale of firbre products in Kerala during 1978-79

Sl. No.	Name of items	Unit	Production Quantity	Production Value in Rs.	Sales Quantity	Sales Value in Rs.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Mats	No.	3522	11800	3497	13733
2.	Table mats	No.	10352	124887	10522	145418
3.	Screwpine mats	No.	115620	3412704	118620	3602959
4.	Butterfly mats	Sqft.	36000	50400	30460	45690
5.	Door mats	No.	876	7008	1765	25904
6.	Round mats	Sqft.	11100	45210	42100	50520
7.	Round square mats	Sqft.	126000	124200	127600	136250
8.	Oval mats	Sqft.	2400	2880	2050	2665
	Mats (Sub Total)			[illegible]		40,23,219

(1)	(2)	(3)	(4)	(5)	(6)	(7)
9.	Bags	No.	2346	30079	1200	[illegible]
10.	Brushes	No.	187	5610	355	14277
11.	Banana Fibre	Kg.	192	1872	249	2650
12.	Cycle bub brush	No.	239260	30000	240994	43276
13.	Door Curtains	No.	7	56	7	80
14.	Embroidary articles	No.	..	..	..	
15.	Fancy Articles	No.	NA.	38572	NA.	31338
16.	Fibre Products	NA.	NA.	43270	NA.	51105
17.	Palm Fibre	KG.	5630	39404	6405	47793
18.	Parse	No.	1031	12492	1970	27216
19.	Sisal twine Rope	NA.	NA.	49851	NA.	53597
20.	Sisal yarn	Qut.	31	13719	18	13050
Fibre Products (Sub-Total)				2,64,925	–	3,27,660
Grand Total		..	..	40,44,014	..	43,50,879

Table 14 gives the figure of expenditure in the different units selected under the fibre in Kerala. The expenditure total, excluding capital investments, stood at Rs. 79.30 lakhs for the reference period. The lack of proper management and organisational skill in the sector contribute to this dark side of the village industries growth. The motivational climate is lacking in the industry. A sense of belongingness, self-actualisation needs, which are the lofty goals of a prospective organization are quite missing in the Fibre segment in Kerala.

TABLE 14

Cost of production in fibre sector in Kerala during 1978-79

Sl. No.	Name of unit	Capital investment	Working capital		Others
			Raw materials	Payment of salaries, wage bonus etc.	
1	Mariyapuram village Industries Co-operative Society	2000	1750	1138	..
2	Women's Cottage Industriaes Co-operative Society	..	35000	14925	..
3	Nirmalalayam centre	..	23987	54088	..
4	MahilaCottage Industries Co-operative Society	1086	7741	21208	42560
5	Thodiyoor Puliyoor Vauchi Khadi & Village Industries Co-operative Society	..	923410	463805	350
6	Thazhava Panchayat Mahila Khadi & Village Industries Co-operative society	..	26225	9000	200
7	Thodiyoor Chela kottukulangara Khadi & Village Industries	..	405060	1749340	300
8	Sri V.K. Thankappan Charamangalam Mohamma	7950	33910	110750	19040
9	Vallikunnam Kunnimal Khadi & Village Industrial Co-operative Society	..	..	..	..
10	Vallikunnam Harijan Multi-purpose Co-operative Society	170	..	2180	655
11	Sree Narayana Cultural Mission	[illegible]	14808	4901	526
12	Vaikomkunnu Thazhappaya Vyavasaya Sahakarana Sangham	..	3000	4500	..
13	Thayazhem Thazhappaya Vyavasaya Sahakarana Sangham	144	..	300	[illegible]
14	Kidangoor Grama Vyavasaya Sahakarana Sanghem	..	708	[illegible]	[illegible]
15	Vaikom Town Thazhappaya Co-operative society	..	..	[illegible]	..

Sl. No.	Name of Unit	Capital investment	Working Capital		
			Raw materials	Payment of salaries, wages, bonus etc.	Others
16	N.E.S. Block vanitha Khadi and Village Industries Co-operative Society	136	14400	11799	3718
17	Koothattukulam Village Industries	..	..	..	..
18	Giuld of Charity	4041	68163	81873	32489
19	Departmental Fibre Centre Khadi and Village Industries	..	23189	12127	3268
20	Kaipamangalam Grama Vyavasaya Sahakarana Sangham	..	..	985	117
21	Mankara Mahila Samajam	5206	1037	831	300
22	Office of the centre Khadi officer, Intensive Khadi centre Kerala Khadi and Village Industries Board	666697	2153601	979139	555194
23	Cheruvattur village Industries Co-operative				..
	Total	697137	3735989	3531869	660318

15. Capital Formation of Khadi and Village Industries Sector in Kerala

Capital formation is the switch to start the development mechanisam in any sector. The capital investments in the economy, through Khadi and Village Industries sector, comes to Rs. 28, 90,604 for the year 1978-79. The contribution of the Khadi sector figured more which stood at Rs. 21,93, 467 and that of Fibre was Rs. 697137 Table 15 gives the District-wise details of capital formation in the industry.

TABLE 15

Capital Formation in Khadi and Village Industries in Kerala

Sl. No.	Name of District	*Khadi*	*Fibre*	*Total*
		Capital Investment	*Capital Investment*	*Capital Investment*
1.	Trivandrum	1242950	2000	1244950
2.	Quilon	..	1086	1086
3.	Alleppey	325	17827	18152
4.	Kottayam	48002	280	48282
5.	Ernakulam		4041	4041
6.	Trichur	42000	..	42000
7.	Palghat	17085	5206	22291
8.	Kozhikode	843105	..	843105
9.	Cannanore	—	666697	666697
	State Total	2193467	697137	2890604

16. Flow of finance in the Khadi & Village Industries Sector in Kerala

Kerala produces Khadi and Village Industries products worth Rs. 10.42 crores annually out of which Khadi accounts for Rs. 1.49 crores and other Village Industries products for Rs. 8.93 crores. The Khadi and Village Industries commission provides financial assistance for the development of these rural industries. The Kerala Khadi and Village Industries Board is the major agency receiving financial assistance from the commission. In turn the Khadi and Village Industries Board finances a net work of 493 working Khadi and Village Industries Co-operative Societies and 45 other registered institutions. Also the commission directly finances the Kerala Gandhi Smarak Nidhi, Kerala Sarvodaya Sangh and the Kerala Khadi and Village Industries Association which are known as directly aided institutions.

The Commission has some approved pattern of financial assistance to different industries. Assistance patterns are different in the case of institutions and individuals artisans. Normally 4% of interest is charged on loans by the commission. For programmes implemented by societies and institutions recognised by the commission or State Board as per the approved patterns availing bank finance, there is a scheme to subsidise the interest to the extent of the difference between the normal bank rates and 4%. But this interest subsidy benefit is not given to individual artisans. But a new scheme has been introduced by which a grant of Rs 100 is given to individual artisans through these institutions.

Banks have extended its unstringent economic aid to some selected prospering rural industries in Kerala. They issued finance to individual artisans too. In financing the scheme the banks have mainly looked in to the scope for expansion, gestation period, period of operation and expected turn over of the industry. On the above Criteria Banks have advanced finance to schemes like cottage Match, Soap Industry, Screwpine Industry, Cane and Bamboo Industry, Village Pottery Industry, Beekeeping Industry, Lime Industry, processing of cereals and pulses.

Finance is the pivot of any project. Banks are the catalitic agents in the flow of finance. The sample study reveals that in adequacy of finance is a limiting factor in the case of Khadi and Village Industries in Kerala.

Finance comprise of loans and grants. The loans are given by the Government. Banks advance loans to the rural sector. Table 16 gives an account of the flow of finance from various sources to the Khadi and Village Industries sector for 1978-79. The grant amount for the year 1978-79 was Rs. 12,371,44.

The outstanding loans to this sector in Kerala was Rs. 13,519,152 for 1978-79. The Government are the main financiers in the field of Khadi and Village Industries sector in Kerala.

TABLE

Flow of Finance in Khadi and Village

Source of Finance	*Khadi*			
	Loans			
	Obtained	*Repaid*	*Balance*	*Grants*
(1)	(2)	(3)	(4)	(5)
Government (Central or State)	8443524	956881	7486643	412738
Banks	74485	4765	69720	..
Co-operative Societies	..	..	..	
Other Institutions		..	..	
Private party	..	..	..	..
Total	8518009	961646	7556363	412738

16

Industries Sector in Kerala

	Fibre				Total			
	Loans				Loans			
Obtained	Repaid	Balance	Grants	Obtained	Repaid	Balance	Grants
(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
7711588	1765099	5946489	824406	16155112	2721980	13433132	1237144
16300	..	16300		90785	4765	86020	..
..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..
7727888	1765099	5962789	824406	16245897	2726745	13519152	1237144

17. Socio-economic enquiry in to the Khadi and Village Industries Sector in Kerala

A Socio economic enquiry of the artisans engaged in Khadi and Village Industries was conducted through questionnaire No. II designed for the purpose of this survey. 433 Families were selected for the Socio-economic enquiry in the State, out of which 254 families belonged to the Khadi Sector and 179 families represented the Fibre Sector.

1. The religious composition:

Table 17 gives the religious distribution of the families selected for the detailed study.

TABLE 17

Distribution of families engaged in Khadi & Village Industries according to religion

Sl. No.	*Name of Religion*	*No. of Families engaged in*		
		Khadi	*Fibre*	*Total*
(1)	(2)	(3)	(4)	(5)
1.	Hindu	224	152	376
2.	Christians	21	14	35
3.	Muslims	9	13	22
	Total	254	179	433

In both Khadi and Village Industries Hindus formed the predomenant religious group followed by Christians and Muslims. In percentage the Hindu representation in Khadi and Village Industries is 86.8.

2. Participation of the weaker sections:

Table 18 given below throws light on the low participation of the weaker sections of the community in the Khadi and Village Industrial enterprises.

TABLE-18

Distribution of families belonging to SC/ST engaged in Khadi and village Industries in Kerala

Community	*No. of persons engaged in*		
	Khadi	*Fibre*	*Total*
(1)	(2)	(3)	(4)
Scheduled Caste	4	19	23
Scheduled Tribe	1	..	1
Not specified	2	11	13
Total	7	30	37

The participation rate of Scheduled Caste Communities in decentralised rural enterprises is very low. The scheduled castes in Kerala figure top is participation among the weaker communities. The participation rate works around to 1% only. Though small, their participation is prominent in the Fibre segment. The Scheduled Caste Communitie are gifted with skill and expertise but the missing link is individual initiative or entrepreneurial talent. The entreprenurial shyness of this community is a logical concomitant of the social backwardness. Governmental and quasi-governmental financial aids and entrepreneurial guidance can go a long way in lifting up the participation rate of the weaker sections in self employment programmes in the State.

3. Asset preference

The families enaged in Khadi and village Industries sector showed a preference to land holdings as shown in table 19 given below:

TABLE 19

Distribution of families according to land ownership/ possession

Extent of land held	*Khadi*	*Fibre*	*Total*
(1)	(2)	(3)	(4)
No land	4	..	4
Below 5 cents	16	6	22
5-10 cents	48	43	91
11-20 cents	53	32	85
21-30 Cents	33	26	59
31-50 cents	35	31	66
51-99 cents	32	24	56
1 Acre and above	33	17	50
Total	254	179	433

In the khadi & village Industries sector in Kerala the number of families Possessing no land at all is negligibly small. Ownership of land is a token of social status in the villages of Kerala. It may also be noted that only a small percentage of families possesses land more than one acre. In both Khadi and Village Industries sector the highest number of families had small holdings ranging between 5 and 20 cents. The preference for small holdings indicative of the capacity in generating "income surplus". But Khadi and Village Industries sector in Kerala is a subsistence sector and never a surplus sector. The income flow is limited from this sector of the economy and hence investment in landed property becomes an impossiblity for this set of people.

4. Activity status

Economically active members are a source of income for the family. The size of income of the family depends, to a great extent, on the number of economically active one. Table 20 furnishes the details of the size of earning members in the families engaged in the rural industries sector.

TABLE 20

Distribution of families engaed in Khadi and village Industries according to the size of the earning members in the family

No. of earning members	*Khadi*	*Fibre*	*Total*
(1)	(2)	(3)	(4)
1	43	25	68
2.	123	94	217
3.	63	37	100
4.	20	13	33
5.	4	5	9
6.	1	3	4
7.	–	2	2
Total	254	179	433

Maximum number of families had two or three economically active members. This tendency holds good both in Khadi and Village Industries sectors. The families engaged in this subsistance sector had relatively large size. The question of economic existence compel more members to undrtake some income earning activities. In their hard trial to make bothends meet, the Khadi and Village Industries are a supplementary channel of income.

5. Occupational distribution

Table 21 gives the occupational distribution of the families engaged in this sector. Khadi and Village industries are a 'supplementary sector' in Kerala State.

TABLE 21

Occupational distribution of the families engaged in Khadi and Village Industries in Kerala

Sl. No.	*Name of occupation*	*Khadi*	*Fibre*	*Total*
(1)	(2)	(3)	(4)	(5)
1	Cultivation	13	9	22
2.	Agricultural labour	61	23	84
3.	Mining & quarrying	2	..	2
4.	Khadi	30	..	30
5.	Fibre	30	43	73
6.	Household industry	25	8	33
7.	Manufacturing other than household industry (except Khadi & Fibre)	8	2	10
8.	Construction	4	5	9
9.	Trade & Commerce	15	24	39
10.	Transport & Storage	4	2	6
11.	Services	62	63	125
	Total	254	179	433

Both in Khadi an Fibre industries the participant families were mainly employed in the services sector. As the table reveals, 125 families, out of a total of 433, were making a living principally form the sevices sector. 84 families whose major occupation was Agricultural labour comes second. Only 30 families took Khadi manufacture as the principal avocation. There were only 43 families exclusively enaged in the Fibre sector. This trend of occupational distribution in the Khadi & Village Industries speaks of the "subsidiary income generating status" of the sector in the context of Kerala economy. The employment generation of this sector is partial and income flow is tiny. In Kerala this sector is below the line of 'self' sustained growth' But this is never a matter of dismal fate to the industry. The only effort must be to reassign the industry' the status of a 'self sufficient industry'. The expansion potential in this sector in Kerala is self explanatory. Self employment schemes based on Khadi and village Industries in Kerala are the apt alternative for unemployment eradication. Group initiative of the educated unemployed in Kerala can very well turn in these lines of activity with governmental aid.

6. Worker participation

In the 254 families engaged in Khadi manufacture and related works, 282 persons were participating in the industry in different capacities. Among the total number of workers in the industry there were 29 males and 253 females. Females dominated in the work force covering this industry in Kerala. The details of worker participation in the Khadi industry, is given below: (table 22)

TABLE 22

Worker participation in the Khadi industry in Kerala

Description of work	*No. of persons*		
	Male	*Female*	*Total*
A. ADMINISTRATION:			
1. Managerial	5	4	9
2. Supervisory	2	5	7
3. Clerical	6	2	8
4. Salesmn	2	..	2
5. Others	..	..	
B. MANUFACTURNG			
1. Yarn winding	..	2	2
2. Spinning	3	159	162
3. Weaving	10	58	68
4. Others	1	20	21
Total (A+B)	29	253	282

On the administrative side of Khadi production males numbered more though marginally. But in the manufacturing side of the industry female participation is apparently dominent. This may be due to the enthusiastic encouragement given to women entreprenurship in Kerala's Industrial area. More workers, both men and women were found engaged in the spinning process, and weaving could employ the next hightest number of workers. The female folk enaged in Khadi production supplement the income of the family to ensure a moderately confortable secure and sheltered life.

Table 23 gives below presents the worker participation in the Fibre industry. In the Fibre industry also female participation was more. From the 179 familes engaged in Fibre industry, therewere 198 persons employed directly in the sector.

TABLE: 23

Worker participation in the Fibre Industry in Kerala

Description of Occupation	*Screw pines*		*Kora Grass*		*Fancy Articles*		*Sisal yarn*		*Total*		
	M	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*T*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Manager				1	..	1	1	..	1	2	3
Secretary	4	1	..	1	..	1	..	..	5	2	7
Office staff	1	1	1		1	2		1	3	4	7
Marketing	..	..	..	..	..	..	..	..	..	..	..
Collection of raw-materials	..	..		..	..		..	..	..	..	..
Spinning	..	..	..	1	..	4	..	..	..	5	5
Weaving	..	121	2	7	..	14	..	2	2	144	146
Other occupation	1	13	..	..	..	14	..	2	1	29	30
Total	6	136	3	10	1	36	1	5	12	186	198

Among the Fibre units, Screwpine industry provided employment to the maximum number of persons. This can well be identified as the lead industry in the Fibre Complex. More are found employed in the weaving process. The production of Fancy articles occupy the second place in regard to employment absorption. Sisal yarn making and koragrass manufacture has not devleoped much in the State. More of protection to these segments of the Fibre complex can save the industry, and hence the artisans too, from wanton devastation.

7. The economic importance of Khadi and Village Industries

The economic importance of Khadi and Village Industries in Kerala is derived, mainly, from the percentage income contribution of this sector to the total family income. The study revealed that, in the case of relatively high income families, the contribution of Khadi and Village Industries to the 'family income stream' was quite negligible. But low income families engaged in this sector depend exclusively on this sectoral income to make both ends meet.

Table 24, given below, gives a picture of the percentage income contribution.

TABLE: 21

Distribution of families engaged in Khadi according to their percentage share of contribution to the gross monthly income

Gross monthly income Rs.	Below 5%	5–10%	11–20%	21–30%	31–40%	41–50%	51–75%	76–90%	*Above 90%*	*Total*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Less than Rs. 100	—	..	..	1	2	2	6	1	7	19
101–150	..				1	2	5	4	5	17
151–200	..	..	3	3	2	1	7	4	4	24
201–250	..	1	6	4	2	2	6	5	4	28
251–300	..	1	1	3	3	2	9	1	4	25
301–400	..	2	5	11	10	3	10	5	4	50
401–500	.	5	4	3	..	..	8	..	4	19
501–600	1	4	8	1	2	1	8	5	3	30
601–750	1	2	1	1	1	1	..	2	1	10
751–above	2	10	2	3	3	1	5	1	1	32
Total	4	25	30	30	26	20	54	26	30	254

Maximum number of families engaged in Khadi manufacture belong to the middle income group of Rs. 301-400. The number of familied falling in the higher income bracket, ie. families having a monthly income greater than Rs. 750, is also not low and stood at 32, out of a total of 254. This was due to the increased participation of the services sector in Khadi manufacture. Taking the income slab of Rs. 0 to 250 as the lower quartile of the income rage the number of families falling in this group stood at 88. The income slab of Rs. 251 to 500 can be taken on the middle range. The number of families falling in this group was 94. Income above Rs. 501 may be taken as the upper quartile and the number of families in this group comes to 72. This clearly documents the concentration of middle income groups in Khadi production in Kerala.

It may also be noted that the contribution of the khadi segment to the family income comes below 40% . Of the 254 families, 115 families get on income share of below 40% from this sector. 74 families get 41 to 75% of the family income from Khadi. Again more than 75% of the gross monthly income of 65 families was from Khadi as per the result of the study. This analysis, again, support our earlier finding that to many, Khadi and Village Industries sectors, are a supplementary source of income.

TABLE: 25

Distribution of families in Fibre Industries according to the percentage share of contribution to the gross Income

Monthly gross income (Rs.)	*Percentage of Share income from Fibre Industries to gross monthly income*									
	5%	5–10	11–20	21–30	31–40	41–50	51–75	76–90	*above* 90%	*Total*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Upto 100	—	..	..	..	..	..	4	1	13	18
101–150	—	..	..	..	..	2	17	4	2	25
151–200	—	..	..	1	..	2	18	10	3	34
201–250	—	..	..	—	..	6	14	9	[illegible]	32
251–300	—	..	..	1	2	3	5	4	1	16
301–400	1	..	..	4	2	1	4	2	1	15
401–500	—	..	..	1	1	4	4	1	2	13
501–600	—	..	1		1	2	1	4	3	12
601–750		..	1		1		1	1	2	6
751 and above	1	..		1		3	1	—	—	8
Total	2	..	2	10	7	23	69	36	30	179

Lower income families are found more employed in Fibre Industry in Kerala. Of the 179 families engaged in this sector 109 were in the lower income brackets, 44 in the middle rang and 26 in the upper strata of the income ladder. As a correlation to lower income group concentration in this industry, the highest number of families obtained more than 50% of thier monthly income from the Fibre sector. Only 21 families reported to be geting the pecentage income share below 40%. 66 families reported the income contribution to be more than 75% of the monthly gross income.

We can conclude from the above analysis that, from the income generation angle, Khadi is a middle class industry and village industries are the poor man's area of operation in Kerala.

The welfare of a family depends upon the gross income and size of the family. If the income is small and if the number of earning members is less and if the number of mouths to feed with that meagre income is more, the family will be subjected to many hardships and difficulties. The per capita availability of goods and services will be more only if the family size is samll. Table 26 gives the distribution of the families engaged in Khadi sector according to family size and monthly income.

TABLE 26

Distribution of families engaged in Khadi according to family size and monthly gross income

Gross Monthly income	*No. of members in the family*											
	1	2	3	4	5	6	7	8	9	10	*above* 10	*Total*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Upto 100	4	5	4	3	1	1	1	..	..	..	..	19
101–150	1	5	2	3	4	2	..	..	..	..	..	17
151–200	..	..	4	5	6	3	4	1	1	..	..	24
201–250	..	1	2	5	6	7	2	3	2	..	..	28
251–300	..	..	..	6	6	8	1	1	2	..	1	25
301–400	..	..	4	3	9	17	6	5	2	3	1	50
401–500	..	1	..	2	3	4	2	2	3	..	2	19
501–600	..	1	..	5	2	7	4	2	2	5	2	30
601–750	..	..	1	1	1	2	3	..	1	..	1	10
Above 750	..	..	2	5	4	5	7	2	3	1	3	32
Total	5	13	19	38	42	56	30	16	16	9	10	254

182 families, out of 254 had membership of family ranging from 4 to 8. There were 35 families having members 9 and more. The principle of 'small is beautiful' seemed to have adhered to only by a small selection of families engaged in Khadi and Village IneTtries in Kerala. The big size of the family reduces the size of the individual share of the family income cake.dusreha re only 9 families out of 254 where monthly income is above 300 rupees with less than 4 members in the family.

TABLE 7

Distribution of families engaged in Fibre according to family size and gross income

Gross income per month	No. of members in the family											
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	Total
Up to 100	1	2	4	4	5	1	2	1		..		18
101-150	..	2	3	7	6	3	2	2	1	..		27
151-200	1		5	8	10	[illegible]	1	[illegible]	1	..	..	[illegible]
201-250	1		[illegible]	[illegible]	6	[illegible]	3	[illegible]	1	..		[illegible]
251-300	1	2	2	2	1	[illegible]	2	—	2	..	1	[illegible]
301-350		1	1	[illegible]	[illegible]	[illegible]	1	3		1	—	[illegible]
351-400		—	3	[illegible]	[illegible]	1	[illegible]	2	1	1		[illegible]
401-500	1	.	—	1			2		4	[illegible]	2	12
501-750			.	—	2	—	—	1		[illegible]	..	[illegible]
Above 750			.	—	1	[illegible]	1	1	[illegible]	..	3	[illegible]
Total	[illegible]	7	[illegible]	[illegible]	[illegible]	27	[illegible]	15	[illegible]	5	8	[illegible]

In the Fibre segment also the picture is not different. Large families are more and 'planned families' are less in number. Material prosperity and family size are negatively correlated in the case of a developing economy. There are only 3 families out of 179 where monthly income is above Rs. 300 with family size less than 6 in the fibre sector. More than 65% of the families have members more than 4.

8. Employment intensity in Khadi and village Industries sector:—

The existence of chronic under-employment and disguised unemployment in a sector of the economy is determined by the intensity of employment obtained in that sector.

TABLE 28

Intensity of Employment in Khadi and Village Industries in Kerala (Month)

Employment intensity group No. of days	*No. of persons* *Khadi* *Male*	*Female*	*Fibre* *Male*	*Female*	*Total* *Male*	*Female*	*Total*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
'0' days	1	15	6	15	7	30	37
1—5	..	5		10		15	15
6—10	..	2		16		18	18
11—15		15	1	15	1	30	31
16—20	8	36		22	8	58	66
21—25	6	103	1	45	7	148	155
26—30	14	77	4	63	18	148	158
	29	253	12	186	41	439	480

The intensity of employment in the Khadi and village Industries sector in Kerala is given in table 28. The study revealed that there is the existence of disguised unemployment and under employment in this sector in Kerala. Of the 282 persons working in the Khadi employment of the rural industrial sector, atleast 82 persons do not get employment for more than 20 days in a month. In Fibre also the same is the story. But a majority of workers in both the segment got employment for 20 to 30 days in a month. There is a possibility for attaining full employment in this sector.

9. Extent of indebtedness:

The Khadi and Village Industries workers are also found in the "queer street" through not dethering the somber state of mind. Majority of them had an outstanding debt of less that Rs. 1000. This too sounds a sceptical note. This does'nt mean the sector to be of copious profit chances. It would equally be erroneous to eulogise this sector as 'loss proof'. People are less industrious and risk taking. Table 29 gives the state of indeptedness in Khadi and Village Industries in Kerala

TABLE 29

Outstanding debt of the families engaged in Khadi and Village Industries in Kerala

Outstanding debt Rs.	*Khadi*	*Fibre*	*Total*
Below Rs. 100	40	50	160
101-150	10	3	13
151-200	13	6	19
201-300	17	8	25
301-500	25	21	46
501-750	9	17	26
751-1000	17	16	33
1001-2000	28	24	52
2001-3000	13	10	23
3001-5000	5	11	16
5001-10,000	5	9	14
above 10,000	2	4	6
Total	254	179	433

As the table illustrates, there were no one without debt in the Khadi and Village Industries sector. In the Khadi component 110 persons had only marginal debt and only two persons had a debt of above Rs. 10,000. This holds good in the case of Village Industries the sector too. People are less risk taking and as such avoid debt at the cost of poverty. Poverty is preferred to debt. There debts coil till the end of their career as an artisan.

Easy terms of credit would be ablessing to artisans engaged in this sector. But often the credit facilities do not reach the hands of the artisans done to official and non-official lapses. A closer look at the financial need, and debt management in the Khadi & Village Industries sector is of urgent importance. If some debt relief schemes can be launched, it will help to same extend to reduce the present difficulties experienced by the artisans engaged in Khad and Industries

18. What ails the Khadi and Village Industries sector in Kerala

The development propspects of a labour intensive, employment generating rural sector of the economy remains in the balance. Emanation of a surplus income stream to fill the reservoier of state income converge to a divisions dream. A condusive development milieue is far beyond this sector. The clear picture revealed by this potential segment of the economy speaks for the pit-falls in the sector.

The impediments in the growth path of the Khadi and Village Industries sector in Kerala are mainly financial, infrastructural, entrepreneurial, managerial and administrative. Kerala has surplus labour. But Paucity of finanee prevents potential projects. The state Budget does not provide adequately for this sector on grounds of priority. Less organised are people in this sector Collective bargaining is less effective on grounds of finance in Khadi & Village Industries. The central aid also flows only 'in sterio type' fashion. The dynamism of this decenralised sector is seldom cared while granting the central aid. Other financing agencies were also shy towards this sector. But, of recent, the nationalised banks have stressed a rural bias in the credit advance policy. This shift in the credit policy of banks have given an extra filling to rural industries. Adequate and timely financial flow to the Khadi and Village industries sector in Kerala can nature the long term aspirations of thousands of artisans who otherwise are in a strew to make both ends meet.

The infrastructual inadequacy is yet another impasse on the line of rural industrial growth. Raw material searcity impeeds the quick progress of this sector. There is hardly any effective,i machinery to ensure the unrestrained flow of production components. There exists no setup to give technical guidence in skill formation and production management. Societies which act as the connecting link between artisans and the consumer market, often, seem not interested in the development of the sector. Many societies have made the sponsoring of rural industries as a 'namesake' affair. There were instances of these co-operative organisations exploiting the fruit of skill of these gifted artisans. Yet another set of societies and organization use the rural industries label to avail the benefit of grants from Governmental and semi governmental agencies. What is evident in this sector is lack of 'sincerity of interest' and motivation. No sector can follow the path of expansion unless the basic needs of functioning are made available. Cotton is a raw material, scaroe in Kerala. The collection centres of cotton are far away from the production centre: There is no centralized agency in Kerala to supply the rawmaterials direct to artisans and collect the finished goods back. Finding new markets, either domestic or foreign, is a sinequanon for the dynamic development of the sector. The artisans are unaware of the changing condition of demand for their product. There is an information gap. A lasion agency is a missing link. Marketing of Khadi and village Industries product is an equally important field requiring extra attention. A little care on the industrial infrasrutcture in this sector can speed up the momentum of rural industrial growth in Kerala.

Extreprenurial talents do not blossom in village industries. Being labour intensive, labour problems are a dis-insentive to the one who take up the veeture People are disilusioned and disillusionment spirings from deep personal and common concern about unemployment, poverty, abuse of power, curruption and violencic. Etreprenuers are less riskt aking. Profit motive surpasse the employmeent motive. The "State of economy" is a very general term for the toiling millions. The creation of a conductive industrial climate can save these industries from the period of extention.

Administrative and managerial lapses invigorate the decay of these industries in Kerala. The official eggerheads seem to have literally curled up in their bureaucreatic shells. Political sanction remain in papers. Bureaucratic implementation is at snail-speed. Amounts are either surrendered or lapsed due to poor progress with the developmental projects. The decentralisation of administration is a welcome sign in the development of rural industries in the state. The 'District Industrial Centres' is not giving proper attention to the needs of Khadi and Village Industries sector in Kerala. It is the duty of those who have picked up the mantle for steering the destiny of the state to switch the engine of rural industries segment in propelling the state economy.

19. Towards optimal utilization of the employment potential in Khadi and villages Industries in Kerala.

The Khadi & Village Industries in Kerala is an industrial cynderella. It must be revamped within a definite time horizon to achieve optimal utilization of employment potential in this sector.

The Khadi and Village industries commission has alloted Rs. 5 crores for the development of this sector for the year 1978-79. The most important developmental programmes for this financial year included the following.

1. Setting up of [illegible] gobargas plants.
2. Commissioning 12 toilet soap manufacturing units.
3. Registration & expansion of 138 cottage match units.
4. Establishing two major Honey processing units at Balusserry (Kozhikode) and Trichur.
5. Opening of Khadi and Village Industris sales depots exclusively for leather products.
6. Opening of 200 Khadi production centres.
7. Training unemployed youths and workers in various industries.
8. Extending individual assistance programme.
9. Introduction of consultancy service for setting up industries and extending training facilities.
10. Setting up raw material bank for soap and cottage match industries.

and

11. Setting up of major splints and veeners units under cottage match industry.

The Kerala Government has constituted a high level committee headed by the Minister for Industries for the implementation of the "Special Employment Programme" of the state Khadi and Village Industries Board. It aims at providing additional employment to one lakh persons in the course of three years. The investment required for the scheme is proposed to be provided by three agencies:—

1. Khadi and Villae Industries Commission.
2. Kerala Government

and

3. Nationalised Banks.

According to an official press release of the Government of Kerala the Khadi and Village Industries Board proposes to start 4 Khadi spinning and weaving units in the district of Idukki with two units in the co-operative sector. Each unit would provide employment to 70 persons. The Board would provide Rs. 1,90,000 and Rs. 35,280 respectively as grants to the co-operatives for starting the units.

The sample study conducted by the Directorate of Economics and Statistics brought to light many inpediments that block the development of the Khadi and Village Industries sector. In the light of the analysis the following suggestions are made to clear off the impending impasse inhibiting this sector.

1. A reliable Government agency must supply raw materials at the production centres at reasonable prices.
2. Establishment of an independent agency to look after the monitoring of this sector.
3. Generous extension of grants and interest free loans to potential projects.
4. Making available land and other fixed capital for an employment generating project, by local bodies or organisations.
5. The intervention of intermediaries on the marketing side should be checked by the creation of a marketing agency in the block level under Government guidance. This agency should invariably have collection depots in major production centres.
6. A 'Technical Expertise Wing' of the Khadi and Village Industrie Board must be started to give guidance to the unemployed ones in the villages to take up self employment projects.
7. Mobilization of Bank finance to this sector on easy terms can be an additional stimulant.
8. Product standardising techniques should be givien to artisans at the production centres by an appropriate agency.
9. The 'Market Research Wing' can explore the potential demand from foreign markets for the Khadi and Village Industries products

10. Introduction of Khadi uniform in schools and Government. offices on a compulsory basis at least for two days in a week may go a long way in improving the demand for Khadi cloth.

11. All office equipment such as paper, paper weight, table cloths, window curtain, pencils, carpets, etc. used in Governmental and semigovernmental offices must be obtained from the Khadi and village industries sector.

and

12. Increased publicity to Khadi and village Industries products will definitely earn in an increased measure, both national and international markets.

20. Conclusion

Findings of this survey are more suggestive than exactly definitive. It is evident that the Khadi and village Industries in Kerala play a Vital role in solving the unemployment and under employment of the state with minimum investment and gestation period. Emphatic emphasis on the uplift of this sector is needed to help in reducing the cost of production, capitalise the skill of local artisans, generate employment in rural areas, facilitate the dispersal of ownership and also the economic power, improve the income levels and living and finally to bring about prosperity to the rural areas.

Economists like Gadgil has advocated a dynamic and integrated approa to the development of the Khadi and Village Industries. In order to bridge the gap between traditional and modern industries, it is necessary to establish reciprocal and mutually beneficial relationship between these two sectores and integrate them effectively with the overall industrial structure. But Kerala is industrially shy. This syness resembles in the small industries sector also. Industrial promotion is one among the long cures of the economic disease of the state. Planned development of the Village industries has been inhibited by the absence of intogration of efforts Rural industries must also adopt to the changing needs and accept an intermediate technology.

The sociology of Khadi and Village Industries also assumes importance in Kerala. Educated unemployment is a "Special curse" of this state. The orientation of the atitude of jobless in respect for all kinds of work, is the major function of the Khadi and Village Industries movement. The 'white collar preference' must be shed by our jobless millions. In the Khadi and Village Industries sector production must be linked with 'values'. The spirit of creativity is another message of this sector. This sector should promote the svalue Co-operation among our brotheren. Co-operation indicates the qualities necessary for living generously harmoniously and effectively with one's followmen. Dicipline, Co-operation, social sensitiveness and tolerance are the sociological messages of this sector for the people of Kerala. In short a social transformation reorientation of values concerning life, status, money and work, are the important factors which have to be initiated by the Khadi and Village Industries programme.

Planning is an exercise in socal engineering and a frame of policy -mix designed to make possible the realisation of developmental goals and egalitarian objectives within a definite time limit. We had planning for three decades. The paradox is that a vast majority remained still to be covered for getting the benefit of progress. The grim fact is that problem of hunger,privation and inequality seem to have eluded solution. The 'Yojaana Bhavan' calculated the number of people below the 'poverty line', as 47.65% and 40.70% respectively in rural and urban India. In the State of Kerala also the bulk of the people, the toiling millions, are gronning under heavy burden of soical and economic inequality, poverty unemployment and high prices.

Kerala has rightly shifted to the programme of decentralised planning. Emphsis now is on decentralised and area based planning rather than sectoral planning. The main thrust of investment strategy under the new plan tries to increase substantially the employment content of the plan so as to effect removal of unemployment. Khadi and Village industries must assume a prime place in the new investment policy in Kerala. The area approach perforce calls for a dynamic manpower planning, planning for optimum utilization of the vast idle manpower of the state for productive purposes. The educated unemployed should be attracted to this potential sector.

Kerala economy is growing. Our development, mechanism has somehow or other created a wide gap between haves and have not Village industries can only arrest this trend and pleesing the gap. Hunger will still linger. To con lude and to quote Arnold Toynbee—"the teweieth century will be chiefly remembered not as an age of political conflicts or technical innovations, but as an age in which human society dread to think of the welfare of the whole human race as a practical objective".

21. ANNEXURE TABLES

TABLE 7A

Employment—Khadi—Spinners from 1972-73 to 1975-76

Year	Name	Number of spinners in cotton Khadi								% in relation to All India
		Traditional	Traditional amber	Amber	Cotton	New model charka	Muslin Charka	Self sufficiency Charka	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1972-73	India	—	670178	..	—	61102	—	—	731280	..
	Kerala	..	6946	..	—	1462		..	8408	1.2
1973-74	India	509464	..		111092	35283		..	655839	—
	Kerala	4639	..	..	1367	1830	..	..	7836	1.2
1974-75	India	550401	—	73191	—	101177	1836	5625	732230	..
	Kerala	2658	—	3001	—	1134	985	—	7778	1.1
1975-76	India	441781		49469		74757	2375	2285	570667	..
	Kerala	2224		2894	—	1541	1660	2	8321	1.5
1976-77	India	449735		42292	—	73586	3651	584	569848	
	Kerala	1376	..	2858		1778	2502	2	8516	1.5

(*Source*: Khadi and Village Industries Commission)

TABLE 7B

Khadi--Employment--Weaving from 1972-73 to 1976-77

Year	Name	No. of weavers in cotton Khadi	% in relation to All India
(1)	(2)	(3)	(4)
1972-73	India	72070	1.6
	Kerala	1169	
1973-74	India	59264	
	Kerala	1350	2.3
1974-75	India	56803	
	Kerala	1892	3.3
1975-76	India	54008	
	Kerala	1944	3.6
1976-77	India	59513	
	Kerala	2438	4.1

Source: Khadi and Village Industries Commission.

TABLE 7C

Khadi--Employment--Other Artisans for the period 1972-73 to 1976-77

Year	Name	No. of other Artisans in Cotton Khadi	% in relation to All India
(1)	(2)	(3)	(4)
1972-73	India	11921	
	Kerala	194	1.6
1973-74	India	10394	
	Kerala	267	2.6
1974-75	India	11054	
	Kerala	291	2.6
1975-76	India	9821	
	Kerala	444	4.5
1976-77	India	20593	
	Kerala	230	1.1

Source: Khadi & Village Industries Commission.

TABLE 7D

Khadi—Employment—Salaried Staff for the period 1972-73 to 1976-77

Year	*Name*	*No. of Salaried staff engaged cotton Khadi*	*% in relation to All India*
(1)	(2)	(3)	(4)
1972-73	India	15062	
	Kerala	445	2.95
1973-74	India	16675	
	Kerala	526	3.15
1974-75	India	19836	
	Kerala	593	2.99
1975-76	India	21059	
	Kerala	644	3.01
1976-77	India	19900	
	Kerala	617	3.10

TABLE 7E

Manufacture of Cane Gur and Khadi Sari Employment (part-time) persons in Nos.

Name	Year					
	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
(1)	(2)	(3)	(4)	(5)	(6)	(7)
India	[illegible]	108796	107058	110746	129975	132340
Kerala	[illegible]	[illegible]	1470	[illegible]	1624	1800
% in relation to All India	0.5	0.4	1.4	1.4	1.3	1.4

Source: **Khadi & Village Industries Commission.**

TABLE 7F

Palm Gur making and other palm products employment (part-time) persons in Nos.

Name	Year					
	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
(1)	(2)	(3)	(4)	(5)	(6)	(7)
India	228793	292452	304649	330851	325157	316345
Kerala	18770	26240	19240	29898	15403	15535
% in relation to All India	8.2	8.8	6.3	9.0	4.7	4.9

Source: Khodi & Village Industries Commission.

TABLE 7G

Beekeeping Employment (part-time) persons in Nos.

Name	Year					
	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
(1)	(2)	(3)	(4)	(5)	(6)	(7)
India	138291	147812	150421	143065	147010	145940
Kerala	12482	12495	12544	12969	15259	15377
% in relation to All India	9.0	8.5	8.3	9.0	10.4	10.5

Source: Khadi & Village Industrias Commission)

TABLE 7H

Village Pottery Employment (persons) in Nos.

Year	Name	No. of persons employed			% in relation to All India
		F.T.	P. T.	Total	
(1)	(2)	(3)	(4)	(5)	(6)
1971-72	India	31211	22565	53776	
	Kerala	2775	195	2970	5,5
1972-73	India	36748	22985	59733	
	Kerala	3077	219	3368	5.6
1973-74	India	27220	20203	47423	
	Kerala	3463	534	3997	8.4
1974-75	India	31895	17662	49557	
	Kerala	3159	375	3534	7,1
1975-76	India	36973	28565	65538	
	Kerala	3566	294	3860	5.9
1976-77	India	49004	29268	78272	4,9
	Kerala	3309	500	3809	

Source: Khadi & Village Industries Commission.

TABLE 7 I

Non-edible Oil Production Employment No. of persons

Year	Name	No. of persons employed			% in relation to All-India
		F.T.	P.T.	Total	
(1)	(2)	(3)	(4)	(5)	(6)
1971-72	India	244	3626	3870	
	Kerala	4	37	41	1.0
1972-73	India	43	462	505	
	Kerala	[illegible]	4	4	0.8
1973-74	India	54	3350	3404	
	Kerala	7	201	208	6.1
1974-75	India	101	3499	3600	
	Kerala	9	179	188	[illegible]
1975-76	India	131	3520	3651	
	Kerala	5	68	73	2.0
1976-77	India	202	5233	5435	
	Kerala	9	205	214	3.9

TABLE 7 J

Non-edible Oil Soap Production Employment -Persons in No.

Year	Name	No. of person employeds			% of this All-India
		F.T.	P.T.	Total	
(1)	(2)	(3)	(4)	(5)	(6)
1971-72	India	923	4662	5585	
	Kerala	56	1057	1113	19.9
1972-73	India	944	3492	4436	
	Kerala	34	914	948	21.0
1973-74	India	1097	2834	3931	
	Kerala	37	154	191	4.9
1974-75	India	1280	2770	4050	
	Kerala	28	198	226	5.6
1975-76	India	1332	5368	6700	
	Kerala	22	296	318	4.7
1976-77	India	1631	5553	7184	
	Kerala	20	160	180	2.6

TABLE 7 K

Fibre Employment (Persons in Number)

Year	Name	No. of persons employed			% in relation ta All India
		F.T.	P.T.	Total	
(1)	(2)	(3)	(4)	(5)	(6)
1971-72	India	25461	11669	37130	
	Kerala	18000	7200	25200	67.8
1972-73	India	30882	14530	45412	
	Kerala	22495	9205	31700	69.8
1973-74	India	39117	18711	57828	
	Kerala	31805	13900	45705	79 0
1974-75	India	43133	20892	64025	
	Kerala	33560	14350	47910	74.8
1975-76	India	44952	21755	66707	
	Kerala	35285	15087	50372	75.5
1976-77	India	51532	25297	76829	
	Kerala	37504	16035	53539	69.7

TABLE 7 L

Village Leather Employment Persons in No.

Year	Name	No. of persons employed			% in relation to All India
		F.T.	P.T.	Total	
(1)	(2)	(3)	(4)	(5)	(6)
1971-72	India	17961	15715	33676	
	Kerala	360	341	701	2.1
1972-73	India	18258	15857	34115	
	Kerala	412	344	756	2.2
1973-74	India	15210	21085	36395	
	Kerala	394	349	741	2.0
1974-75	India	17584	17964	35548	
	Kerala	444	232	676	1.9
1975-76	India	32048	18022	50070	
	Kerala	500	235	735	1.5
1976-77	India	39868	19066	58934	
	Kerala	590	253	843	1.4

TABLE 7 M

Ghani Oil - Employment [1]
Persons employed

Year	*Name*	*No. of persons employed*			*% of the All India*
		F.T.	*P.T.*	*Total*	
(1)	(2)	(3)	(4)	(5)	(6)
1971-72	India	21322	12787	34109	
	Kerala	441	1827	2268	6.7
1972-73	India	21803	12510 *	34313	
	Kerala	[illegible]	3067	4001	11.7
1973-74	India	23595	9692	33287	
	Kerala	875	1203	2078	6.2
1974-75	India	22270	10629	32899	
	Kerala	366	415	781	2.4
1975-76	India	24039	10555	34595	
	Kerala	[illegible]	836	995	2.9
1976-77	India	20258	10690	30948	
	Kerala	426	1076	1502	4.9

TABLE 7 N

Processing of Cereals and Pulses – Employment
No. of Persons

Year	*Name*	*No. of persons employed*			*% of the All- India*
		F.T.	*P.T.*	*Total*	
(1)	(2)	(3)	(4)	(5)	(6)
1971-72	India	10580	16162	27012	
	Kerala	46		46	0.2
1972-73	India	8944	20861	29295	
	Kerala	40		40	0.1
1973-74	India	9013	12549	21594	
	Kerala	60		60	0.3
1974-75	India	10231	8795	19026	
	Kerala	60		60	0.3
1975-76	India	9886	12215	22101	
	Kerala	75		60	0.3
1976-77	India	12705	9532	22314	
	Kerala	359	658	1017	4.6

TABLE 7 O

Carpentry and Blacksmithy Employment—(Persons in Nos.)

Year	Name	No. of persons employed			% of the All India
		F.T.	P.T.	Total	
(1)	(2)	(3)	(4)	(5)	(6)
1971-72	India	[illegible]	2138	8644	
	Kerala	115	38	153	1.8
1972-73	India	6889	2845	9734	
	Kerala	147	55	202	2.1
1973-74	India	7905	2514	10419	
	Kerala	133	52	185	1.8
1974-75	India	16878	3748	20626	
	Kerala	148	—	148	0.7
1975-76	India	19895	5335	25230	
	Kerala	242	40	282	1.1
1976-77	India	27440	4864	32304	
	Kerala	171	46	217	0.7

TABLE 7 P

Lime Manufacturing—Employment

No. of persons

Year	Name	No. of persons employed			% of the All-India
		FT	PT	Total	
(1)	(2)	(3)	(4)	(5)	(6)
1971-72	India	3664	1444	5108	
	Kerala	641	280	921	18.0
1972-73	India	5579	4642	10221	
	Kerala	1389	366	1755	17.2
1973-74	India	2694	4228	6922	
	Kerala	693	222	915	13.2
1974-75	India	5029	2934	7963	
	Kerala	725	594	1319	16.6
1975-76	India	4239	3347	7586	
	Kerala	1291	617	1908	25.2
1976-77	India	8106	3702	11808	
	Kerala	1756	821	2577	21.8

TABLE 7Q

Collection of Forest Plants and Fruits for Medical purposes (Employment) Persons in Nos.

Year	Name	No. of persons employed FT	PT	Total	% of the All India
1971-72	India	44	70272	70316	
	Kerala	..	..	..	..
1972-73	India	1320	7783	9103	
	Kerala	..	..	..	..
1973-74	India	114	41051	41165	
	Kerala	..	..	..	..
1974-75	India	63	47128	47191	
	Kerala	1	..	1	[illegible]
1975-76	India	240	72719	72959	
	Kerala	6	400	406	0.6
1976-77	India	149	63216	63365	
	Kerala	3	193	196	0.3

TABLE 7R

Hand Made Paper—Employment (Person in Nos.)

Year	Name	No. of persons employed FT	MT	Total	% of All India Total
(1)	(2)	(3)	(4)	(5)	(6)
1971-72	India	3546	544	4090	
	Kerala	207	19	226	5.5
1972-73	India	3441	688	4129	
	Kerala	209	45	254	6.2
1973-74	India	3382	640	4022	
	Kerala	192	8	200	4.9
1974-75	India	3504	700	4204	
	Kerala	190	29	219	5.2
1975-76	India	3546	698	4244	
	Kerala	196	96	292	[illegible]
1976-77	India	3635	963	4598	
	Kerala	185	44	229	4.9

TABLE 7S

Cottage Match—Employment (No. of Persons)

Year	*Name*	*No. of persons employed* *FT*	*PT*	*Total*	*% of All India*
(1)	(2)	(3)	(4)	(5)	(6)
1971-72	India	736	2006	2742	
	Kerala	114	88	202	7.4
1972-73	India	467	1924	2391	
	Kerala	188	214	402	16.8
1973-74	India	708	2482	3190	
	Kerala	138	494	632	19.8
1974-75	India	708	2852	3560	
	Kerala	40	173	213	5.9
1975-76	India	755	2002	2757	
	Kerala	50	256	306	11.1
1976-77	India	938	1994	2932	
	Kerala	65	270	335	11.4

TABLE 7 T

Cane and Bamboo—Employment (Persons in Nos.)

Year	*Name*	*No. of persons employed* *FT*	*PT*	*Total*	*% of the All India*
(1)	(2)	(3)	(4)	(5)	(6)
1971-72	India	..	..	..	
	Kerala	..	..	..	..
1972-73	India	..	..	..	..
	Kerala	..	..	..	..
1973-74	India	2398	2467	4865	
	Kerala	370	306	676	13.9
1974-75	India	3385	3397	6782	
	Kerala	582	482	1064	15.7
1975-76	India	5596	4585	10181	
	Kerala	718	595	1213	12.9
1976-77	India	6511	5846	12357	
	Kerala	721	597	1318	10.7

TABLE 7U

Fruit Processing and Fruit Preservation Employment
(Persons in Nos.)

Year	*Name*	*No. of persons FT*	*MT*	*employed Total*	*% of All India*
(1)	(2)	(3)	(4)	(5)	(6)
1971-72	India	[illegible]	[illegible]	[illegible]	[illegible]
	Kerala	[illegible]	[illegible]	[illegible]	
1972-73	India	[illegible]	[illegible]	[illegible]	[illegible]
	Kerala	[illegible]	[illegible]	[illegible]	
1973-74	India	106	349	455	
	Kerala	4	2	6	1.3
1974-75	India	63	182	245	
	Kerala		6	6	2.5
1975-76	India	76	239	315	
	Kerala	1	[illegible]	6	1.9
1976-77	India	69	297	366	
	Kerala	5	12	17	4.6

BUREAU OF ECONOMICS & STATISTICS STUDY ON THE PROSPECT OF EMPLOYMENT IN KHADI AND VILLAGE INDUSTRIES

Questionnaire No. I

(To be canvassed from Institutions only)

CONFIDENTIAL—FOR OFFICE USE ONLY

1. Name of District —
2. Name of Panchayat/Municipality —
3. Name of Establishment —
4. Year of starting the Operation —
5. Nature of operation (Perennial/Seasonal) —
6. Peak period if seasonal —
7. Number of Units/Branches under the Establishment —
8. Details of employment for the last 365 days preceding the date of Survey or last accounting year —

Category	*Rate of wages per day (Rs.)*				*No. of persons employed*						*Payments towards wages/ Salaries etc.* (Rs.)	*Bonus, pre-requisites. Production incentives, etc.*
	FT		*PT*		*Full time*		*Part time*		*Total*			
	M	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*		

9. Details of production and sales during the above period.

Item	Production			Sales		
	Unit	*Quantity*	*Value (Rs.)*	*Unit*	*Quantity*	*Value (Rs.)*

10. Details of Expenditure (Period same as under item 8)

Items of Expenditure	*Amount spent on Capital Investment etc.*	*Amount spent on working Capital (Raw Material and other incidental expenses of production)*
Total		

11. Details of Finance (Both grants and loans)

Source of Finance	*Whether loan or grant*	*Amount obtained so far*	*Amount obtained during the reference year*	*Amount repaid during the reference year*	*Balance outstanding*
Total—					

12. Problem solution matrix

Sl. No.	*Nature of the problems faced by the enterprise/ establishment*	*Suggestions to solve the problem*

13. Possibility of Expansion:

Area of work where expansion is possible	*Line of expansion suggested*	*Additional employment likely to be created*		
		F.T.	*P.T.*	*Total*

14. Name and Signature of the Officer Canvassing the Questionnaire.

15. Date of canvassing

BUREAU OF ECONOMICS AND STATISTICS

STUDY ON PROSPECTS OF EMPLOYMENT IN KHADI AND VILLAGE INDUSTRIES

Questionnaire No. II

(To be canvassed in respect of Khadi and Village Industries workers only)

CONFIDENTIAL—FOR OFFICE USE ONLY

1. Name of District ..
2. Name of Panchayat/Municipality ..
3. Name of Establishment ..
4. Name of the head of the household ..
5. Religion ..
6. Whether belonging to Scheduled Castes/Scheduled Tribes ..
7. Extent of land owned by the household (Acres '00) ..
8. Number of earning members in the household ..
9. Type of work in the enterprise in which the worker is directly engaged ..
10. Main occupation of the household (based on relative income share) ..
11. Subsidiary occupation of the household ..
12. Monthly gross income from the main occupation (Rs.) ..
13. Monthly gross income from the subsidyary occupation(Rs.) ..

14. **Monthly income from other Sources:**

Sl. No.	*Source of income*	*Income (Rs.)*

15. Outstanding debt of the household as on date of Survey ..

16. Average monthly expenditure of the household (Rs.) ..

17. Do you own a house .. Yes/No.

18. Household particulars.

Sl. No.	*Relation to head of the household*	*Sex*	*Completed age*	*Educational standard (State the Std. passed only)*	*Skill if any*	*Activity status (occupation)**	*Subsidiary occupation if any*	*No. of days worked during last month*	*Emoluments obtained last month Rs.*

*(All activities pursued by the member should be included).

19. Name of the person (with Sl. No. as under item 18) engaged in Khadi and Village Industry activity ..

20. Is the occupation/activity subsidiary .. Yes/No.

21. Are you fully employed in the enterprise/occupation .. Yes/No.

22. Do you experience any raw material scarcity .. Yes/No.

23. Do you get satisfactory wage/price .. Yes/No

24. Does the enterprise/occupation cause any probelm to your health .. Yes/No

25. Are you a member of any society? (K & V.I.) .. Yes/No.

26. If yes, is the working of the society effective .. Yes/No

27. If No, what are your suggestions for improvemnet of the working of the society ..

28. What are the facilities offered by the society/institution for continuing this occupation ..

29. Is there any scope for engaging additional persons in the enterprise .. Yes/No

30. If yes,

	Area in which additional hands can be absorbed	*Line of development suggested for absorbing additional hands*	*Additional employment likely be generated*		
			F.T.	*P.T.*	*Total*

31. Have you got any training facility .. Yes/No

32. Suggestions for the improvement of the functioning of the institution ..

33. Name and Signature of the Investigator ..

34. Date of canvassing the questionnaire ..

INVOLVEMENT OF MANPOWER IN MINI-INDUSTRIAL ESTATE IN KERALA

"Kerala still remains industrially backward. Industrialization is the key to *solve* the unemployment menace in the state. The Mini 'Industrial Estates' Programme launched by the Government of Kerala in 1975 marked an industrial awakening and entrepreneurial enthusiasm in the state. The dispersal of industrial units in the rural area for effective utilization of rural manpower in industrial advancement in the shortest time is the principal objective of this massive programme. This study gives a clear idea of manpower utilization in Mini Industrial estates in its technical and non-technical components. It reveals that judicious and scientific selection of enterprise for inclusion under this scheme can go a long way in diverting the trent of infant units falling suddenly sick. Since Agriculture reached a stage of saturation industrial expansion alone can absorb the army of unemployed in the State".

CONTENTS

1. Introduction

India is said to be "a rich country inhabited by poor people". The country abounds in natural resources, raw materials and manpower. As present a considerable portion of our supply of man-power is being wastet' without being exploited to the fullest extent possible. Ours is primarily' an agricultural country. Industrialisation is the only way by which we clan exploit our abundant supply of man power. Within the Country Kerala continues to be an industrially backward state in contrast to the industrially advanced states like Maharashtra, Gujarat, Punjab and Tamilnadu. It is evident that industrialisation is the major key to the solution of the problem of unemployment. It was with this end in view, that the Government of Kerala started the massive rural industrialisation programme popularly known as the "Mini Industrial Estate Programme in April 1975. It was the first of its kind ever taken up in the country an- as such it get attention from every quarter. The introduction of Mini Industrial estates has opened a new chapter in the history of industrial development of Kerala. It is a new experiment and it can bring about a mometum for further development in the industrial sector. The dispersal of industrial units in the rural areas for the effective utilisation of rural man-power to achieve a particular pattern of industrial development within the shortest possible time is the objective of Mini Industrial Estate programme.

The new industrialisation programme launched by the State Government has paved the way for an era of industrial awakening and entreprenewrial enthusiasam. The message of industrialisation has been taken to every nook and Corner of the villages of our country and this has resulted in the growth of industrial centres in rural areas. Therefore a detailed analysis of the man-power utilisation in Mini Industrial Estates will help us to focus attention on the problems and factors that impede the smooth industrial growth in our State.

2. Objectives

The Mini Industrial estates Programme envisaged the setting up of 10,000 new Small Scale Industrial units in rural areas of the State. It was planned to set up one Mini Industrial Estate consisting of 10 units each in all the 1971 Panchayats in the State. Effective utilisation of man-power available, promotion of rural industrialisation, increasing employment opportunities and promoting self employment, meeting the requirements of rural areas locally, preventing the migration of labour from rural areas to urban areas and providing infra-structural facilities to absorb the surplus man power employed in the agricultural sector as far as possible were the main objective of the programme. The importance of Mini Industrial estates lies in the fact that they provide immediate and permanent employment at a relatively low cost. The Mini Industrial programme meets the demand for consumer goods considerably and facilitates the mobilisation of resources which might otherwise remain unutilised. As such a study on this programme will be of considerable use.

The study is intended to obtain a vivid picture of the volume and pattern of man power utilisation in the Mini Estates, the propoton of technical and non-tehnical persons employed, their qualification, wages and salaries, sex, age, length of service, whether they are local or outside people etc Moreover the possibility of absorbing more man-power in future can also be assessed on the basis of this study.

3. Collection of data

Data on the relevant aspects of man-power utilisation in Mini Industrial Estates have been collected by sending questionnaires to the concerned units. The tabulation of the data has been done by the staff of the Man power division of Bureau of Economics and Statistics.

Eventhough it was proposed to start 1024 units, only 508 units have been commissioned actually. Of this details have been collected fron 245 units. The district-wise number of units proposed, commissioned and covered by survey is given Table 1.

Out of the total number of units Commissioned, about 48% of the units have been surveyed, and the conclusions have been derived on the basis of these units.

4. Type of ownership of the Units

District-wise distribution of the Mini industrial estates according to type of ownership is given in Table II. It is seen that about 73% of the total units (179 units) come under proprietory (single) ownership and 21% (51 Units) come under partnership management. Only 2% (5 units) come under Co-operative management. The details of management in the case of 4% of the Units (10 units) are not known.

5. Type of Industries

It was decided that the 10,000 units to be set up in the State must be proportionately allotted to various categories and sub-categories of industries which have scope in the State. The Government of India have published a list of 670 industries which have to be encouraged in the Small Scale Sector. These resource based industries include (i) wood and timber Industries (35 lines of products (including) bamboo products boxes building fittings furniture etc.)

2. Agricultural implements (5 lines of products') including agricultural machinery and tools etc.)

3. Textile and fibre industries (11 lines of products) (including brushes and brooms ropes, measuring tapes etc.)

4. Food and alied Industries (28 lines of products) including arecanut processing, cattle feed, beverages etc.)

5. Rubber sroducts (12 lines of products) (including cycle tyres and ubes, industrial rubber products etc.)

6. Paper conversion products (26 lines of products) (Carbon paper, fibre boards exercise) books etc.'.

7. Leather industries (16 lines of products), (Shoes, finished leather etc.) ;

8. Mineral based Industries (58 lines of products-Building materials, Asbestose, cement etc.)

9. Chemical Industries (9 lines of products-paints and varnishes' cement colours and paints, distempers, lacquers, Plastic emulsion paints, printing inks etc.).

10. Inorganic chemicals (22 lines of products Aluminium hydroxide salts and bio chromatess etc.)

11. Plastic goods (21 lines of products-Acrylic sheets, containers ete.,

12. Oils, soaps and cosmetics (19 lines of products—Aromatic chemicals) lubericating oils, chlorinated paraffin wax etc.).

13. Dye-stuffs (4 lines of products—different types of dyes and bleaching agents etc.)

14. Organic Chemicals and intermediates (51 lines of products Acids Di-mothylavine etc.).

15. Drugs and pharmaceuticals (39 lines of products—autobmobiles ancillaries, garage equipments, surgical and medical instruments, machine tools etc.

16 Engineering Industries (198 lines of products—automalile ancilliarie garage equiqments, surgical and medical instruments, machine tools etc.

17. Electrical and electronic industries (48 lines of products-accessories for generating industries, transmission and distr'itution equipments, electric motors etc.

18. Electronic industries (88 lines of proaucts-consumer electronics, rrdio receivers, testing and measuring instrument etc.

19. Miscellaneous and residual including service industries (lines of products not estimated).

On a scrutiny of the list it is seen that the vast majority of the items can be manufactured within the state and some of these especially have ample scope for intensive development in Kerala. The units in the Mini-Industrial estates are to select the items oftheir production from the above list.

6. Products Manufactured in the mini Industrial Estates

As given in the above list they produce a variety of goods from good items to machine spare parts. Some of them are aluminium and allied products, coconut oil/cakes, wooden furniture, printing presses, paper products, electrical equipments mosaic tiles cutlery, ceramics, chemicals, medicines, agricultural implements, rubber goods etc. An overall assessment of the items manufactured shows that 16% of the units are undertaking hosiery and knitting works (including weaving and ready made garments). Another prominent item is coconut oil/cakes. Nearly 8% of the units are engaged in the production of coconut oil/cakes. Similar is the position of production of chappals and other rubber goods. Of the total 245 units surveyed 18 units are producing plastic goods and 13 units are established on aluminium based Industries. Food articles are produced by 12 units only.

The districtwise distribution of the units accordingly to manufactured products is given in Table III.

A closer view (district-wise) of the products manufactured shows that in Trivandrum District hosiery and knitting occupies the top rank. Out of the 22 units, 4 units are engaged in hosiery and knitting. Two units produce coconut oil/cakes and other two are printing presses. Agricultural implements are produced by 2 units. It is seen that no unit is engaged in fabrication works, makeing of wooden furniture or making of paper products They also produce plastic goods, P.V.C. Cables, electrical goods and accessories, safety matches etc. In Quilon seven units produce oil and oil cakes. Making of wooden furniture comes second. There are five such units in Quilon Mini Industrial Estate. Aluminium and allied products, rubber products, polythene bags etc., are the other prominent items. Here also there are no fabrication units or paper products manufacturing. In Alleppey, Plastic materials, cocnut oil and aluminium products are the chief items of production. Besides, they also produce electrical equipments, rubber. products, sodium silicate, gate grills, chemicals, paints, paper products etc. etc. In Kottayam, they make rubber products, paper products and Engineering goods mainly. In Ernakulam district 30 units have been covered by the survey and eight units are engaged in making cotton cloth or hosiory and knitting products, 4 units are making engineering goods, 2 units produce wooden furniture and two units produce paper goods. Electric motors pumpsets, storage batteries, food products, crape rubber are other items o production. In Idukki, Cotton fabrics, rubber roller, grills, mosaic tiles, aluminium products, surgical bandages etc., are produced mainly. Scientific glass apparatus, washing soap, Ayurvedicl soap and candles are manufactured in Idukki. Manufacturing of important articles like medicines, machine spare parts, coramic items, textile spares, chappals, mosaic tiles is undertaken in Palghat. In Malappuram weaving occupies the top rank. They also manufacture coconut oil/cakes, wooden furniture, grills and machine parts. We can come across some new items in Kozhikode. They are chicery powder, gold oranaments, cattle feed, opticals etc. Nine units are engaged in hosiery and knitting. 4 units are engaged in the manufacture of chappals and other rubber goods. Coconut oil, wooden furniture etc., are other prominent items.

7. Entrepreneurs

The entrepreneur is the pivot of an industrial unit. It is he who builds and equips the factories, buys the raw materials needed for the factory, employs the workers, finds out market for the finished goods and finally sells out the produce produced in the factory and pockets the profit or loss.

An agewise classification of the entrepreneurs is given in Table IV. It shows that 9% of them are in the age group of 20-25 years. 25% of the entrepreneurs are between 25-30 years of age, 19% of the entrepreneurs come between 30-35 years. 13% belong to the age group of 35.40 years; between 40-45 years there are 8% and between 45-50 years there are 9% of the entrepreneurs. Above 50 years there are only 8% of the entrepreneurs while the details of age in respect of 9% of them are not available.

In regard to the educational qualifications of the entrepreneurs, it is seen that 46% of them are having only secondary education. 3% of the entrepreneurs have only primary education. Graduates/post graduate entrepreneurs are to the tune of 12% and the technically qualified industrialists are about 13%. These details are given in Table V.

Experience makes a man perfect. Ample knowledge and experience in the particular line are of very great importance in the management of a business concern. 46% of the entrepreneures are having previous experience in conducting the business and such firms are making good profit also. About 13% of the industrialists are trained in the line and 6% of them are having other business or industrial units elsewhere.

One of the most important bottlenecks in conducting industrial surveys in Kerala is the unwillingness of most of the entrepreneurs to give the details of their busineess. The investigators are viewed with suspicion, and the entrepeneurs very convenently take it for granted that the investigator/ Surveyors are people determined to trap them for income tax matters. In this survey 28% of the entrepreneurs have given the information that they are not in a position to say whether their firms are running at loss or profit while 47% of them have agreed that their firms are running on profit. These details are given in Table VI.

8. Monthly income of entrepreneurs

As reported above most of the entrepreneus are reluctant to furnish details of their monthly income and it is evident from the Statistics given below in Table VII.

Details of monthly income in respect of 45% of the entrepreneurs are not available. 4% of the Industrialists run their busniess on loss. 11% of them are getting between Rs. 700-800 as their monthly income, 2% get between Rs. 600-700. About 10% of the Industrialist & come under the income group of Rs. 500 600 while another 10% receive between Rs. 200-300. 3% of the Industrialists receive a moderate income of Rs. 400-500 while 4% get only between Rs. 100-200. It is observed that 1% of the entrepreneurs get only less than Rs. 100.

9. General Particulars

Workers.—Generally workers can be broadly classified into permanent workers and temporary workers. Distribution of the workers according to the temporary or permanent nature of their work according to the locality to which they belong is given in Table VIII.

The total number of people working in the surveyed units comes to about 1399. Of this 735 people are permanent workers. This include 589 male workers and 146 female workers. The number of temporary workers comes to 664 including 483 males and 181 females. 963 people out of the total of 1399 are local people (707 males and 256 females) and the remaining workers are from outside the locality (365 males and 71 females).

An analysis of the educational qualification of the workers in the Mini Industrial Estate is given in Table IX. The details of educational qualifications of the majority of workers (56%) are not available or their qualifications are not specifically mentioned. Nobody having post-graduate degree/diploma is working in the Mini Industrial Estates as a labourer. A very low percentage of the workers, i.e. about 1% of the workers are graduate or have studied upto pre-degree classes. 29% of the workers are S.SL.C passed or having secondary education. 2% of the workers have upper primary education while 7% of the workers are having only primary education. Technically qualified workers are to the tune of 5%. They are mostly holders of either technical certificate or technical degree.

The distribution of the workers according to their age is given in TableX. Majority of the workers come under the age group 20-30 years. They account for about 66% of the total working population. (51% males and 15% females). 16% of the workers are betwen 15-20 years of age. Chiled labour is comparatively less and only 1% of the workers are below 15 years of age. Similarly those who are 50 years or oabove constitute only 3% and 2% of the workers are between 40-50 years while 12% are between 30-40 years. Of the total workers female workers come to 24%.

Regarding the service details of the workers 431 workers are having more than one year service. This is about 31% of the total working population. 834 (59%) workers are having below one year's service and 8% of the workers have only less than one month's service. The service details of 2% of the workers (23 people) are not available. These details are furnished in Table XI.

Based enrolment on the workers can be classified as (1) monthly paid workers, (2) weekly paid workers (3) daily paid workers and (4) apprentices and others. Monthly payment is made to 533 workers (44 males and 119 females), 343 (233 males and 110 females) people are paid weekly 474 (393 males and 81 females) are paid daily and 49 people are apprentices or others· These detailes are given in Table XII.

10. Income of the Workers

The distribution of the workers according to their income is given in Tables XIII, XIV and XV. Among the monthly paid workers, there are only 13 people who are getting a pay of Rs. 500 or above. 24 people receive their pay between Rs. 400-500. Women do not come into the income group above Rs. 400 at all. There are 46 workers in the income group of Rs. 300-400 This includes two women. It is seen that lower the income, higher the number of workers. 146 workers including 12 female workers receive their pay between Rs. 200-300 while the majority of them i.e., about 266 persons (185 males and 81 females) get their pay between Rs. 100—200 and even though they are monthly paid workers 38 people (15 males+23 females) get only a meagre income of less than Rs. 100. Weekly paid workers are comparatively less than the monthly paid workers. A good many of them i.e., about 142 (65 males and 77 females) got less than Rs. 30 in a week, 92 people get between Rs. 30-45, 81 people get a weekly payment between Rs. 45-60. There are only 12 people who get their weekly payment between Rs. 60-90 while there are 16 persons whose income is above Rs. 90 in a week. The remaining 474 workers are daily paid ones or apprentices. Of this 10 people are getting Rs. 15 or above daily, 93 get between Rs. 10-15. The largest number of daily paid workers (259) come in the income group of Rs. 5-10 and the remaining 112 workers got only less than Rs. 5 a day.

A massive programme of small industries development to deal with the challenge of unemployment is the need of the hour in Kerala. Any further delay or failure to mobilise all the available resources and to provide effect organisational backing to meet this challenge will not be forgeiven by the growing army of the unemployed who are denied the basic right to work and a decent existence. Development of the Mini Industrial Estates provides easy employment to the unemployed. 512 people are needed in future in the Mini Industrial Units due to expansion of the units and reasons like that Technically qualified people and othe s trainned in the industrial lines are greatly in demand while people with General educational qualifications are not in demand generally. Of the future requirement the demand for technical certificute holders comes to about 18%, those trainneel in industrial lines 27%, untrainneel 27% other 14%, people with secondary education 10% and people with upoer primary education 4%.

11. Some suggestions

Entrepreneurs and industrial units must be selected after a thorough scientific study. The functioning of the unit has to be evaluated periodically so that necessary steps can be taken for the smooth functioning of the unit, At least for a period of 5 years these units should be viewed as infant units and repayment of loans should not be insisted upon during this time. Repayment of loans must be in easy instalments.

Making arrangement for the availability of raw materials in time at reasonable price will do a lot for the smooth functioning of the unit. Products if standardised, can capture the market and if this is done according to their quality, the consumers will come forward to purchase the products of these Mini Industries. The Government can give enough publicity of these products through the Public Relation Department. Control of movements of raw materials from the State is to be effected strictly. Many of the entrepreneurs complain that the machinery bought through the SIDECO are not in working conditions and the entrepreneur is not given any help or proper follow up in this regard. This is not fair, because for no fault of the entrepreneur he will be compelled to lose huge amounts which is not accountable. Imparting training to those engaged in industrial activities can improve the working of the industries.

As agriculture in Kerala has already attained nearly its saturation point, absorption of any more people is not at all possible. So if employment is to be given industrial sector is to be developed further. During the five year plans our traditional industries have not been developed and as a result of this, employment facilities in this sector have not increased much. The under-development of the industrial sector in Kerala can be attributed to so many factors. One of them is the low capital investment of Central Government in Kerala compared to other States of India. The State is not in receipt of its due share from the financial agencies like the I.D.B.I., I.C.I.S., I.F.C.L., L.I.C. etc. etc. As Mini Industries are less capital intensive, their development will involve only very little capital. The development of Mini Industrial Estates bring about immediate employment to the unemployed. If the Governmental agencies try to implement their policies vigorously, and effectively the small industries in Kerala can be developed fast and a solution could be found for the unemployment problem in Kerala.

12. Summary and Conclusions

Kerala is one of the smallest States in India. But it tops the list in the percentage of literacy and over increasing unemployment among its educated Inhabitants. The problem of acute unemployment in Kerala is so well known that it needs no elaboration. The lion's share of this unemployment is constituted by the rural sector which contributes about 85% of the total population. Unless the rural agraraian economy is changed into an industrial economy more and more employment opportunities cannot be generated. For this we should be able to exploit to the maximum extent the favourable conditions now available in the State. It is with this end in view that the State Government launched the Mini-Industries Programme. It aimed at consolidation and stabilisation of the gains already made in the small scale sector, reviving the sick units by providing necessary assistance and establishing another 10,000 new small scale industrial units.

Even though the proposal was to begin 1000 units in 1975-76, only 508 units were commissioned actually. More than 48% of the units have been covered by this survey. It is true that we cannot jump so high in empty air unless we cover a bar. For each and every endeavour there will be difficulties of its own. But the difficulties faced by the units in the Mini Industrial Estates are numerous. They suffer from problems of entrepreneurship, raw material, marketting and capital formation.

There are two categories of entrepreneurs: (1) the educated unemployed who have real interest in the working of the unit and (2) those who are attracted by the benefits of the subsidies offered to small units. These people will be having business firms or concerns elsewhere. The benefits due to the Mini units will be collected by these people for the development of other units and as a result sick units will increase like anything.

Availability of raw materials in time at reasonable prices is the most important thing for the smooth functioning of the unit. Those who depend upon the Governmental machinery for their raw materials become the worst sufferers because distribution of raw materials through Government agencies is not smooth and most often the industrialists do not get them in time. Purchasing of raw materials in bulk quantity is not possible for the tiny units and buying piecemeal will affect the cost of production. Another thing to be noted is that the price of raw materials at quota rate is not much lower than their price in the open market.

Capital formation is another major bottlerec6 that stands in the way of Mini Industrial Estates. Financial institutions are reluctant to lend their helping hand to these tiny units because these units very often come under sick units due to lack of sufficient working capital and working knowledge of the industry Irregularities in the purchase of the machinery, non-availability of skilled labour and managerial skill etc. are other problems that confront these tiny units.

The units in the Mini-Industrial Estates are run on limited amount of capital and as such they cannot bear the expenses of standardisation of products. Owing to this the products of the Mini Estates are placed in a disadvantageous position because they cannot capture the market. A satisfied consumer is the best form of advertisement. If the consumers are suspicious of the quality of the product, naturally such products will experience poor marketing.

Power and transportation problems are not of lesser importance than the above said problems. Even though Kerala is highly rich in the producrion of electricity our Industrial units have to suffer a great deal due to low voltage, short supply etc.

TABLE—I

LIST OF INDUSTRIAL ESTATES

No. of Units

	Proposed	*Commissioned*	*Covered by the Survey*
Trivandrum	86	47	22
Quilon	90	51	34
Alleppey	98	48	30
Kottayam	105	55	12
Ernakulam	149	61	30
Trichur	78	54	7
Idukki	69	41	22
Palghat	90	36	25
Malappuram	66	27	19
Calicut	107	47	21
Cannanore	86	41	22
Total	1024	508	245

TABLE 11

MINI INDUSTRIAL ESTATES

Type of ownership in 1978

	Proprietor-ship	*Partner-ship*	*Co-operative*	*Others*	*NA*	*Total*
Trivandrum	19	2	1	..	..	22
Quilon	28	3	..	..	3	34
Alleppey	19	9	2	..	..	30
Kottayam	11	1	..	..	..	12
Ernakulam	15	15	..	..	..	30
Idukki	16	5	1	..	..	22
Trichur	4	3	..			7
Palghat	16	4	—	—	5	25
Malappuram	17	1		—	1	19
Kozhikode	14	5	1		1	21
Cannanore	20	3	..	..	..	23
Total	179	51	5		10	245

TABLE III

MINI INDUSTRIAL ESTATES—CLASSIFICATION OF UNITS ON THE BASIS OF ITEMS OF PRODUCTS

No. of units in each District

Sl. No.	Name of Products	Trivandrum	Quilon	Alleppey	Kottayam	Ernakulam	Idukki	Trichur	Palghat	Malappuram	Kozhikode	Cannanore	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1.	Aluminium and allied products	1	3	3	..	1	2	..	..	..	2	1	13
2.	Coconut Oil/Cakes	2	7	3	1	1	1	1	..	3	..	2	21
3.	Wooden furniture and others	..	5	1	..	2	1	..	..	2	2	2	15
4.	Fabrication works	..	..	2	..	..	..	1	2	1			6
5.	Printing Presses	2	2	1	1	1	2	..	2	..	..	..	11
6.	Paper Products	..	..	1	1	2	..	..	1	..	1	..	6
7.	Hosiery & Knitting products including ready-made garments	4	4	3	2	8	6	..	3	5	1	2	38
8.	Others	2	5	5	1	3	2	..	1	1	5	9	34
9.	Food materials	..	1		.	1	2	1	2	2	3	..	12
10.	Rolling Shutters/grills	..		1	.		3	..	1	2	..	..	7
11.	Plastic materials	3	2	4	1	1	1	..	3	..	3	..	18
12.	Fibre glasses and glass products	..	.	.	..	..	..	1	1	..	..	..	2
13.	Electrical goods and equipments	2	..	2	..	..	..	1	1	..	..	..	6
14.	Mosaic tiles	..	.	..	..	1	1	..	1	1	..	..	4
15.	Cutlery	..	.	..	..	.	..	..	1	..	..	..	1
16.	Ceramics	..	.	..	..	.	..	..	1	..	..	..	1
17.	Medicines and allied products including chemicals	1		2	..	..	..	1	2	..	..	..	6
18.	Textile spares	..					..		1	..	..	.	1
19.	Machine parts and engineering goods				2	4	..		1		1	2	10
20.	Chappals and other rubber goods		3	2	3	3	1	..	1	2	2	4	21
21.	Electroplatings and allied goods	1	[illegible]	..	..	..	..	..	..	..	..	..	2
22.	Agricultural implements	2	1	..	..	2	..	1	..	..	..	..	6
23.	Cattle feed	2	..	..	..	..	..	..	..	..	1	1	4
	Total	22	34	30	12	30	22	7	25	19	21	23	..

TABLE IV

AGE OF ENTREPRENEURS

Number of Persons in

Age group	Trivandrum	Quilon	Alleppey	Kottayam	Ernakulam	Idukki	Trichur	Palghat	Malappuram	Kozhikode	Cannanore	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Less than 20 years												
20—25	..	3	3	1	2	5	..	..	3	4	1	22
25—30	8	11	6	5	12	7	1	3	3	2	4	62
30—35	2	[illegible]	7	2	4	3	2	5	3	2	8	47
35—40	5	2	3	3	3	—	1	4	5	5	2	33
40—45	1	2	1	—	2	3	—	3	2	2	4	20
45—50	3	..	1	—	3	—	2	5	6	1	1	22
Above 50	1	5	3	1	2	3	—	1	—	2	2	20
Details not available	2	2	6	—	2	1	1	4	—	3	1	22
Total	22	34	30	12	30	22	7	25	22	21	23	248

TABLE V

Educational Status of the Entarpreneurs

	Trivandrum	*Quilon*	*Alleppey*	*Kottayam*	*Ernaakulam*	*Idukki*	*Trichur*	*Palghat*	*Malappuram*	*Kozhikode*	*Cannanore*	*Total*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. *General Education*												
Primary	..	1	..	..	2	..	..	..	2	1	1	7
Upper Primary	..	2	..	1	5	1	..	2	7	1	..	19
Secondary	1	2	3	2	4	2	..	6	6	..	5	29
S.S.L.C. Passed	8	16	12	4	21	15	..	8	4	12	4	104
Pre-Degree	2	5	2	..	1	3	1	2	2	1	..	19
B.A./B.Sc./B.Com.	5	4	10	4	2	2	..	5	..	2	..	34
M.A./M.Sc.	..	..	1	1	..	..	1	..	..	..	..	3
2. *Technical Education*												
Technical Certificate	5	3	..	..	..	1	1	1	1	..	..	12
Technical Degree	..	..	1	..	3	2	..	1	1	..	3	10
Technical Diploma	1	2	4	..	5	..	..	..	..	1	3	17
3. *Others*												
MBA	..	..	..	..	..	..	1	..	..	..	..	1
LLB	..	..	..	1	..	..	..	..	..	..	..	1
LME	..	..	..	1	..	..	..	..	..	..	..	1
4. *Not stated*	2	1	1	1	1	1	4	3	..	9	7	30
Total	24	36	34	15	44	27	9	28	23	26	21	[illegible]

TABLE VI

Experience particulars of the Entrepreneurs

	No. of persons	*Experience*	*Trained in industry*	*Having other units*	*Concerned business*	*Running on Profit*	*Loss*	*Not Available*
(1)	(2)	(3)	(4)	(5)	[illegible]	(7)	(8)	(9)
Trivandrum	24	11	[illegible]	1	..	15	1	6
Quilon	36	17	8	1	..	23	1	10
Alleppey	34	18	[illegible]	5	..	18	3	9
Kottayam	15	7	1	..	..	9	..	3
Ernakulam	44	16	..	..	..	11	8	11
Idukki	27	3	..	..	1	8	1	13
Trichur	9	2	..	..	..	1	1	5
Palghat	28	19	1	..	1	5	6	14
Malappuram	23	6	[illegible]	..	2	[illegible]	10	..
Kozhikode	26	14	5	..	..	14	7	..
Cannanore	23	19	2	4	2	10	3	10
Total	289	132	36	11	6	123	41	[illegible]

Table VII

Monthly income in Rs.	Trivandrum	Alleppey	Quilon	Kottayam	Ernakulam	Idukki	Trichur	Palghat	Malappuram	Kozhikode	Cannanore	Total	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
100	..	..	1	..	..	..	..	..	..	1	..	2	1
100—200	1	1	1	..	1	..	..	..	2	5	2	13	4
200—300	4	1	4	1	1	1	1	2	1	2	3	24	10
300—400	3	4	7	1	2	..	..	1	1	4	1	24	10
400—500	2	1	1	1	..	1	..		..	1	2	9	3
500—600	3	4	8	4	..	1	..		2	..	2	24	10
600—700	1	1	1	2	..	..	..	..	..	..	..	5	2
700—800	1	6	..	3	4	5	..	2	3	1	..	25	11
N.A.	6	12	10	..	11	13	6	20	10	7	13	108[1]	45
Reporting no income	1	..	1	..	8	1	..	..	..	..	..	11	4
Total	22	30	34	12	30	22	7	25	19	21	23	245	100

TABLE VIII

Types of Workers

	Temporary		Permanent		Locally recruited		Outsiders	
	M.	F.	M.	F.	M.	F.	M.	F.
Trivandrum	33	33	35	29	43	13	25	49
Alleppey	79	34	87	11	104	44	62	1
Quilon	57	9	85	16	107	24	35	1
Kottayam	27	5	36	7	37	12	26	
Ernakulam	[illegible]	2	105	24	115	23	38	3
Idukki	30	13	51	8	38	19	43	2
Trichur	6	2	6	8	11	10	1	
Palghat	30	10	81	17	82	24	29	3
Malappuram	69	8	29	8	43	4	55	12
Kozhikode	43	29	52	8	62	47	33	..
Cannanore	61	36	22	18	65	36	18	..
Total	483	181	589	146	707	256	365	71

TABLE No. IX

Educational Qualifications of the workers of the MIEs.

Qualifications	*Trivandrum*				*Quilon*				*Alleppey*			
	Male		*Female*		*Male*		*Female*		*Male*		*Female*	
	Trained	*Untrained*	*Trained*	*Untrained*	*Trained*	*Untrained*	*Trained*	*Untrained*	*Trained*	*Untrained*	*Trained*	*Untrained*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. *General qualifications*												
Primary	..	..	..	..	—	—	..	..	..	1	—	..
Upper Primary	1	3	..	..	..	..	..	..	4	..	..	..
Secondary	4	13	27	13	29	14	2	8	18	11	26	3
S.S.L.C. (Pass)	7	3	8	..	—	..	..	..	18	26	—	6
P.D.C.					1							
B.A. /B.Sc.	..	..	..	..	..	..	..	..	1	3	..	2
M.A./MSc.	..	..	..	..	..	..	..	..	..	..	..	..
2. *Technical qualifications*	..	..	..	..	—	..	..	..	—	..	—	..
Technical Certificate	3	..	2	1	1	..	..	..	5	..	..	..
Technical Diploma	..	..	..	—	1	..	..	..	..	..	..	..
Technical Degree	—	..	—	—	..	..	..	..	—	..	—	..
3. *Qualifications not mentioned*	16	16	5	6	53	26	.	8	10	20		..
4. Others	2	..	—	..	5	12	7	..	30	19	1	7
	33	35	42	20	90	52	9	16	86	80	27	18

Qualifications	Kottayam				[illegible]				Idukki				Trichur			
	Male		Female		Male		Female		Male		[illegible]		Male		Female	
	Trained	Un-trained	Trained	Un-trained	[illegible]	Un-trained	[illegible]	Un-trained	Trained	Un-trained	[illegible]	Un-trained	Trained	Un-trained	Trained	Un-trained
(1)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)
1. *General qualification*																
Primary	—	—	—	—	5	—	..	—	..	..	..	[illegible]	..	..	..	..
Upper Primary	..	..	..	..	1	—	—	—	—	3	..	..	..	..	..	..
Secondary	..	..	—	..	..	..	..	..	..	[illegible]	—	—	—	..	..	—
S.S.L.C. (Pass)	[illegible]	—	[illegible]	..	10	..	..	..	[illegible]	..	..	[illegible]	—	[illegible]	—	—
P.D.C.	[illegible]	[illegible]	[illegible]	[illegible]	15	[illegible]	[illegible]	7	—	18	—	[illegible]	[illegible]	..	..	..
B.A./B.Sc.	[illegible]	[illegible]	—	[illegible]	1	..	..	..	[illegible]	1	—	—	..	..	..	..
M.A./M.Sc.	..	..	..	..	..	..	..	—	—	—	—	..	..	..	..	..
2. *Technical Qualification*																
Technical Certificate	5	..	..	..	..	..	..	..	[illegible]	—	..	—	1	..	..	..
Technical Diploma	..	..	..	..	[illegible]	..	..	..	[illegible]	—	—	—	..	..	..	..
Technical Degree	[illegible]	[illegible]	—	—	[illegible]	—	..	..	..	..	[illegible]	..	—	—	—	—
3. *Qualifications not mentioned*	15	[illegible]	—	—	—	18	[illegible]	[illegible]	20	25	—	19	[illegible]	5	10	—
4. Others	27	[illegible]	[illegible]	[illegible]	74	21	[illegible]	[illegible]	..	..	..	..	[illegible]	[illegible]	—	—
	50	13	[illegible]	[illegible]	110	43	[illegible]	20	32	49	[illegible]	[illegible]	[illegible]	[illegible]	10	..

Qualifications	Palghat				Kozhikode				Cannanore				Malappuram			
	Male		Female		Male		Female		Male		Female		Male		Female	
	Trained	Untrained	Trained	Untrained	Trained	Untrained	Trained	Untrained	Trained	Untrained	Trained	Untrained	Trained	Untrained	Trained	Untrained
(1)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)
1. *General Qualification*																
Primary	..	..	..	..	..	..	..	..	3	12	..	5	7	58	2	2
Upper Primary	..	—	..	..	..	..	..	..	..	1	..	10	..	..	..	..
Secondary	—	3	..	..	..	3	..		4	6	..	11	..	..	..	—
S.S.L.C. (Pass)	..	..	..	..	12	37	—	29	—	4	..	2	..	..	..	..
P.D.C.	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..
B.A./B.Sc.	..	1	..	..	1	1	..	..	..	2	..	..	..	..	..	..
M.A./MSc.	..	..	..	..	..	..	..	..	..	..	..	..	—	..	..	..
2. *Technical Qualification*																
Technical Certificate	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Technical Diploma	2		2		1	5			5	3			2	10		
Technical Degree	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3. *Qualifications not mentioned*	7	97	..	25	—	2	—	—	7	4	6		9	12	3	9
4. Others	..	..	..	..	12	20	..	18	3	21		9	..	..	..	..
	10	101	2	25	27	68		47	22	54	6	37	18	80	5	11

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TABLE 19

Number of workers according to Age

	Less than 15		15-20		20-30		30-40		40-50		50 and above		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Trivandrum	..		4	17	57	41	7	2		2	..		68	62
Quilon	2		10	3	102	18	20	1	4	3	4		142	25
Alleppey	1		12	2	110	36	26	5	10	2	7		166	45
Kottayam			9	1	45	10	7	1	..	..	2		63	12
Ernakulam			12	11	118	15	22	..	1		..		153	26
Trichur				1	9	9	3	..	..	..	..		12	10
Palghat	1		26	8	57	18	16	1	10	..	1		111	27
Idukki			17	5	42	16	19		3	..			81	21
Malappuram	1		26		42	10	9	2		..	19	4	98	16
Kozhikode		1	6	9	70	36	11	1	2	..			95	47
Cannanore	2	4	4	8	58	23	17		2	1			83	36
Total	10	5	131	67	710	232	151	13	32	6	39	4	1072	327

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TABLE 11

Distribution of workers according to the length of Service

	Less than one month		*Less than one year*		*One or more*		*Details Not available*		*Total*	
	M	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*
Trivandrum	4	2	46	24	18	36	..	..	68	62
Quilon	18	1	85	17	33	7	6	..	142	25
Alleppey	21	1	90	40	44	3	11	1	166	45
Kottayam	2		38	10	23	2	..	..	63	12
Ernakulam	19	..	89	16	45	10	..	..	153	26
Trichur	..	..	8	2	4	8	..	..	12	10
Palghat	3	..	62	12	46	15	..	..	111	27
Idukki	1	..	70	20	9	1	..	..	81	21
Malappuram	10	2	82	13	6	1	..	..	98	16
Kozhikode	3	2	36	2	51	43	5	..	95	47
Cannanore	16	5	52	20	15	11	.	..	83	36
Total	97	13	658	176	294	137	22	1	1072	327

Table 12

Number of workers based on Enrolment

	No. of daily paid workers		*No. of weekly paid workers*		*No. of monthly paid workers*		*Apprentices*		*Others*	
	Male	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*
Trivandrum	25	3	22	36	19	18	..			..
Quilon	69	[illegible]	33	2	36	18	..	—	4	..
Alleppey	77	4	14	—	75	41	..	..	..	.
Kottayam	8	4	17	—	38	8	..	..	..	..
Ernakulam	21	[illegible]	36	2	96	15	..	..	—	..
Trichur	9	2	1	8	2	..	..	..	..	..
Palghat	19	5	21	5	73	17	1	3	3	3
Idukki	[illegible]	[illegible]	15	12	25	—	1	..	..	..
Malappuram	41	[illegible]	32	8	8			—	17	2
Kozhikode	46	17	17	24	26	1	—	—	..	5
Cannanore	42	12	—	13	16	1	—	10	..	..
Total	[illegible]	81	233	110	414	119	2	13	24	10

TABLE 13

Distribution of monthly paid workers according to income

	Less than Rs. 100		Rs. 100-200		Rs.200-300		Rs 300-400		Rs 400-500		Above Rs 500		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Trivandrum .	1	6	12	12	6	..	..	..	..	..	..	..	19	18
Quilon	..	..	11	15	12	3	6	..	5	..	2	..	36	18
Alleppey	2	4	39	32	26	3	2	2	4	..	2	..	75	41
Idukki	1	..	4	..	11	..	4	..	1	..	4	..	25	..
Kottayam	..	8	23	..	8	..	5	..	..	..	2	..	38	8
Ernakulam	3	2	40	8	30	5	14	..	8	..	1	..	96	15
Palghat	8	3	35	13	25	1	4	..	1	..	1	..	74	17
Malappuram	..	..	1	..	4	..	1	..	1	..	1	..	8	..
Kozhikode	..	..	15	1	6	..	4	..	1	..	..	..	26	1
Cannanore	..	..	5	..	5	..	4	..	2	..	..	..	16	1
Trichur	..	..	..	..	1	..	..	..	1	..	..	..	2	..
Total	15	23	185	81	134	12	44	2	24	..	13	..	415	119

TABLE 14

Distribution of weekly paid workers according to income

	Less than Rs. 30		30–45		45–60		60–90		*Above Rs.90*		*Total*	
	M	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*
Trivandrum	1	35	10	1	9	—	1	.	1	..	22	36
Quilon	5	5	1	1	21	—	6	.		..	33	6
Alleppey	4	..	4	—	5	—	1	.	—	..	14	..
Kottayam	2	..	3	—	7	—	2	..	3	..	17	..
Ernakulam	9	2	7	..	18	..	..	..	2	..	36	2
Trichur	..	8	1	..	..	..	..	..	..	..	1	8
Idukki	..	..	10	—	2	—	1	.	2	..	15	..
Palghat	19	5	2	—	..	..	—	..	..	..	21	5
Malappuram	17	9	7	2	5	..	—	.	3	.	32	16
Kozhikode	..	—	5	24	7	5	1	—	4	..	17	24
Cannanore	8	13	14	..	2	—	—	.	1	..	25	13
Total	65	77	64	28	76	5	12	—	16	—	233	110

Table 15

Distribution of daily paid workers according to income

	Less than Rs. 5		*Rs.* 5–10		*Rs.* 10–15		*Above Rs.* 15		*Total*	
	M	*F*	*M*	*F*	*M*	*F*	*M*	*F*	*M*	*F*
Trivandrum	..	2	26	6	..	..	1	..	27	8
Alleppey	2	2	47	2	25	..	3	..	77	4
Kottayam	..	..	7	4	1	..	..	..	8	4
Ernakulam	3	7	14	2	4	..	..	..	21	9
Palghat	10	5	3	..	..	..	..	..	13	5
Malappuram	..	2	27	4	12	..	2	..	41	6
Kozhikode	9	17	25	..	8	..	4	..	46	17
Cannanore	10	8	25	4	7	..	..	..	42	12
Quilon	11	3	33	2	25	..	..	..	69	5
Trichur	5	..	2	2	2	..	..	..	9	2
Idukki	13	3	18	6	9	..	..	..	40	9
Total	63	49	227	32	93	..	10	..	393	81

TABLE XVI

Future Requirements of Workers

Title	Trivandrum M	Trivandrum F	Alleppey M	Alleppey F	Kottayam M	Kottayam F	Ernakulam M	Ernakulam F	Palghat M	Palghat F	Malappuram M	Malappuram F	Kozhikode M	Kozhikode F	Cannanore M	Cannanore F	Trichur M	Trichur F	Idukki M	Idukki F	Quilon M	Quilon F
Technical Certificate	19	1	9	...	11	2	4	...	9	2	3	—	20	10	..	..	..	..	..	..	..	..
" Diploma	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
" Degree	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Primary	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Upper Primary	..	..	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Secondary	..	..	..	..	..	..	..	..	..	..	..	..	6	12	..	..	4	1	10	2	11	2
P.D.C.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B.A./B.Sc.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
M.A./M.Sc.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Trained	17	[illegible]	36	..	13	2	14	3	19	4	2	3	—	—	—	—	..	..	9	5	11	1
Untrained	..	1	12	...	8	7	1	..	11	—	..	—	..	—	7	..	..	..	3	..	86	..
Diploma in Business Management	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Others	..	..	21	..	..	..	..	..	..	..	..	..	15	—	12	..	6	..	4		15	—
Total	44	9	94	...	32	11	19	3	39	6	5	3	46	22	12	..	11	..	27	7	122	3

Distribution of units according to the No. of People Employed

No. of Units in

No. of workers	Trivandrum	Quilon	Alleppey	Kottayam	Ernakulam	Idukki	Trichur	Palghat	Malappuram	Kozhikode	Cannanore
1	1	..	1	..	1	..	3	1	1	2	..
2	4	3	1	1	1	2	1	1	5	2	4
3	6	8	5	2	3	7	..	3	4	5	7
4	1	4	2	3	9	8	2	..	1	[illegible]	..
5	4	8	3	2	5	2	..	3	1	1	2
6	3	3	6	..	2	..	..	1	..	3	3
7	1	5	2	..	1	..	..	4	1	1	2
8	..	2	4	2	3	1	..	4	3	2	2
9	..	..	1	1	..	1	..	2	1	1	..
10	..	..	2	..	1	..	..	..	..	..	1
11	..	..	..	..	1	..	..	..	..	1	2
12	..	1	..	..	..	..	..	..	..	..	..
13	..	..	..	..	1	1	..	..	..	..	..
14	..	..	2	..	1	1	..	[illegible]	..	..	..
15	..	..	..	..	1	..	..	1	..	1	..
16	..	..	..	..	..	..	..	..	..	..	..
17	1	..	..	..	..	..	..	..	..	..	..
18	..	..	..	..	..	..	..	..	..	..	..
19	..	..	..	1	..	..	..	..	..	..	..
20	..	..	..	..	..	..	..	..	2	..	..
21	1	..	1	..	..	..	..	..	..	..	..
NA	..	..	..	..	..	..	..	4	..	..	..
Total	22	34	30	12	30	22	6	25	19	21	23

MANPOWER INVOLVEMENT IN PRIVATE MEDICAL CARE IN KERALA SOME HIGH LIGHTS

"A healthy people is a nation's pride, its economic potential, and threod of social fabric. Private sector contributes significantly in the medical care of the health totality in Kerala. Kerala has one private doctor for every 3675 of the population. In the state the Districts of Kottayam and Ernakulam have the highest private doctor participation rate. The study reveals that the private practice preference is mainly due to reasons of service orientation achievement orientation, profit orientation and treatment orientation. It is found that there is unemployment among doctors and there is a dearth of paramedical personnel, in the state of Kerala. There is urgent need for increased governmental participation in the medical sector. Medical sector projects considerable employment potential in Kerala".

CONTENTS

37/203/MC

1. Introduction

Health has an ephemeral quality when we try to define it. Like salt, it is something we notice when it is not there. Usually we take our health for granted and bother only when we fall sick. Disease is the whole consequence of a conflict between man (or animal) and the noxious agent in his environment. A healthy people is a nation's pride, its economic potentiial and thread of social fabric. Investment in human capital is crucial in economic transition. Medical care is an important determinant of human capitial formation. Private sector contributes significantly in the medical care of the health totality in Kerala. It is a flourishing ground of 'own account' enterprise in the Kerala economy.

Kerala is a problem State with the highest density of population in India. The State confronts many problems. the problem of health and medical care being one among them. With many far below the poverty line, hunger and malnutrition breed disease. Health cannot be viewed in isolation from its economic, social and environmental components. Many people who are not getting primary medical care do not know that they are not getting it, because they do not know that they need it

This paper tries to draw attention to the problem of inadequate medical facility in the light of unemployment among medical personnel and stresses the need of efficient manpower planning in this sector.

2. Medical Facility Available at Present and Employment Absorption

There were 2130 medical institutions in the State in 1977, 881 in the public sector and 1249 in the private sector. The latest registration (figures of the Medical council) showed that there were 9365 Allopathic, 3842 Ayurvedic and 1572 Homoeopathic Doctors readily serving the ailing ones in Kerala. Apart from this a large number of traditional "Vaidyans" are serving the rural Keralites in prevention and cure of disease. Kerala is a land of "Hortus Indicus Malabaricus". Pardoxically Allopathy is the main component of medical care in this land of herbs. Hence this study is limited to Allopathy sector alone.

In Kerala during 1977 there were 881 public and 1249 private allopathic hospitals and dispensaries with a total bed strength of 46283. There was one medical institution, public or private, for every 18 sq. kms. in Kerala. In this sector there were 2700 Government Medical Officers and 4600 private Medical Practitioners working in the State as on date of survey. It may here be pointed out that medical council registration data usually do not take into account depletion due to migration and death. There were 3438 Nurses working in the public sector and 1924 working in the private sector institutions. In addition to this 4484 A.N.Ms' are also employed in the medical segment. The availability of beds in public institutions stood at 25576 and that of private institutions at 20707, making a total of 46283 for the state. It reveals that Government medical care units provide the maximum inpatient facility. Ernakulam district has the highest number of doctors and hospital beds. Idukki, lags behind in all these respects. It seems that doctors are having a "rural indifference". The young doctor contemplating an inner city vacancy forsees a heavy patient demand, many of them requiring an 'across the-service' approach for which there is no basic structure. He has to work in inadequate premises and has to live in an area where housing, school and the community may be unattractive to his social built and status complex.

Considering the medical sector as a whole there is one doctor for 1871 of population in Kerala. There is only one allopathic doctor for every 2816 of population. To keep up the accepted standard of one nurse and one A. N. M. for every 5000 population respectively there should be 7930 nurses and 4760 A.N.Ms in the state. Kerala is facing a dearth of para medical personnel. It is of special interest, for us, to note that Kerala has one private doctor for every 3675 of population, while Government doctor availability is one for every 6260. The bed population ratio is a pointer to the inadequacy of the inpatient facility in the State. More than 50% of the Government medical institutions do not have inpatient facility. But the private sector is more developed in this regard. 69% of the private institutions do possess inpatient facility, though not to the full requirement. The distribution of the medical institutions in Kerala according th bed availability is given in Table III. From the details furnished in tabl II it may be noted that Idukki and Malappuram have one doctor for 4128 and 3111 of population respectively, while Kottayam has one doctor for 1485 of population.

3. Private participation—A closer look

Private sector is a vital component of medical care in Kerala. It is a progressive sector. There is an expansionist trend in private initiative to serve the sick (see table IV) as evidenced by the general increase in the number of private institutions. During the period under reference there were 240 hospitals and 94 dispensaries in the private voluntary sector with the highest regional concentration in the Districts of Kottayam and Ernakulam Palghat and Malappuram have the lowest number of private institutions. A high degree of private doctor participation is observed in the Districts of Ernakulam ans Kottayam. The service of private paramedical personnel is also more in the above districts. The voluntary hospitals alone provided a total of 12804 beds for inpatients. They treated 5111968 patients during the reference period. This depicts a high rate of doctor demand in Kerala. In the same period 48293 births took place in the voluntary hospitals. Private hospital use is more in the districts of Ernakulam and Kottayam. In Trivandrum it is less, because of the free availability of medical expertise in the Medical College situated in the capital.

Another field of "Private concentration" is the Dental care segment of the medical branch. As per the recommendations of Health survey and Planning committees of India there should be one dentist for every 4000 of population. Kerala stands below this standard. Kerala has only 274 dental care institutions of which 56 are in the public sector and 218 in the private sector. As per the norms of the Bhore Committee there should be a minimum of 6041 dentists. Kerala has less than 400 qualified Dentists. About 45% of the people in Kerala suffer from Dental disease. In a study conducted by the Dental College (see table VI) it was noted that 26% of the Dental patients were below 12 years of age, and 57% were below the age group of 20. Table VII provides a rural urban distribution of private dental institutions. The districts of Ernakulam, Kottayam and Quilon are the major beneficiaries of private Dental care. There is acute shortage as we have observed already, of Dentists in Kerala. Government must adopt a perspective planning in this sector. The intake capacity of Dental Course should be increseed to ensure adequate supply of Dentists in the wake of growing demand. Governments active participation may be an economic relief to the users of private Dental care.

4. District-wise Variations

The districts of Kottayam, Ernakulam, Trichur, Kozhikode, Alleppey and Trivandrum are almost well placed both in respect o the population—Doctor ratio and population—bed ratio. The recommendation of the Mudaliar Committee is one Doctor for 3000-3500 of population, one Nurse for 2000 of population and 1 bed for every 1000 of population. Those criteria have more or less been achieved in our State. When we take the Public and Private Sector together, population Doctor ratio is the least in Kottayam District (1485) and Population bed ratio is the least in Ernakulam District (234). Both are greatest in Idukki District (4128 and 1354 respectively). The total number of Hospitals and Doctors are more in the private sector than in the Public Sector but regarding the availability of Nurses and Midwives of beds giving inpatient facility it is more in the public sector.

The ranking of the Various Districts according to the availability of Hospitals and Dispensaries, Medical Offices, Nurses and number of beds is given in the following Table for Private Sector, Public Sector and total separately.

Cannanore district stands first in the State with regard to the total number of Hospitals and Dispensaries both in the public and private sector. In respect of the total number of Doctors, Nurses and No. of beds giving inpatient facility, Trivandrum District stands first in the public Sector and Ernakulam District in the Private Sector Idukki District takes the last place for all the above items, closely followed by Malappuram and Palghat. The districts Trivandrum, Kozhikode and Alleppey take the first three places in respect of the availability of Doctors in the Public Sector because of the Medical Colleges situated there. In the private sector the first three places are for Ernakulam, Kottayam and Cannanore Districts. The availability of doctors in the private sector is more in Ernakulam District.

Ranking of various districts according to the availability of Hospitals, Dispensaries, Medical Officers, Nurses and number of beds

District	Hospitals and dispensaries			Doctors			Nurses			No. of beds		
	Public	Private	Total	Public	Private	Total	Public	Private	Total	Public	Private	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Trivandrum	3	5	4	1	10	6	1	10	1	1	5	2
Quilon	2	3	3	4	6	8	7	6	8	8	3	7
Alleppey	5	6	7	3	5	4	5	5	6	3	4	4
Kottayam	9	8	8	5	2	2	4	2	3	6	2	3
Idukki	10	11	11	10	11	11	11	11	11	11	11	11
Ernakulam	9	2	2	6	1	1	3	1	2	5	1	1
Trichur	4	7	6	8	4	5	6	4	5	4	7	5
Palghat	7	9	9	9	7	9	9	7	9	9	10	9
Malappuram	8	10	10	9	8	10	10	8	10	10	9	10
Kozhikode	6	4	5	2	9	7	2	9	4	2	8	6
Cannanore	1	1	1	7	3	3	8	3	7	7	6	8

5. The Unemployment Paradox

The supply in elasticity of medical personnel is evident from the foregoing analysis. It is a paradox that medical men, though not in large number, remain unemployed in Kerala. As per the Employment Exchange Register 529 males and 268 females, having medical qualification were unemployed in the State. For obvious reasons our young doctors prefer private Practice to Government service. As A.L. Srivastava in his study "Professional identification of Medical Doctor" observed private practice preference may be due to reasons of service orientation, achievement orientation, profit orientiation and treatment orientation. But the rural poor can illafford private doctor service. The extent of unemployment among paramedical personnel is less accute. The existing threat of unemployment is a matter of concern. The paradox of overall shortage of paramedical staff is the logical concomitant of the Malthusian devil of unemployment jeoparadising the Kerala economy. The skills drain for want of job opportunities in the State. But our Nurse community working abroad is serving a National purpose. They are the principal Foreign Exchange Mint of our country. The Doctors or paramedical personnel who seek for abroad fascinated by the Petro-Doller affluence contribute unfavourably to the vulnerable economy of Kerala. The foreign money influx inflates the economy beyond all proportions. Governmental aids in the way of medical infrastructure and operational finance may go a long way in routing out the unemployment among our medical personnel. Hospitals can bestarted in the Co-operative sector in areas of medical care deficiency. The inequitable distribution and geographical spread of medical institutions should be minimised.

6. Conclusion

There is urgent need for increased Governmental participation in the medical sector. Prevention is better than cure. As Dr Mahler observed medical science is paradoxically advancing for the cure of disease and not for prevention of disease. A comprehensive health education programme must be given adequate place in the revised education structure. The high rate of Doctor demand, the high rate of private concentration and the increasing rate of medical applicants necessarily strengthen the demand for an additional Medical College in Kerala to train efficient and dedicated doctors to serve the sick.

Medical sector in Kerala projects considerable employment potential. Private participation is more in the sector. Governmental participation is inadequate. Revitalisation of the medical care component of the health sector is an inevitable necessity. Brain drain should be prevented by providing employment facilities to qualified medical men at Governments initiative. Health service alone in the long run does not hold the key of human happiness. A public health campaign cannot make progress without recognising the social component of the programme.

TABLE

District-wise distribution of Hospitals Personnel and No. of beds

Name of district	*No. of Hospitals and dispensaries*			*No. of medical officers*		
	Govt.	*Private*	*Total*	*Govt.*	*Private*	*Total*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Trivandrum	88	126	214	463	270	733
Quilon	92	131	223	276	313	589
Alleppey	82	115	197	291	482	773
Kottayam	61	106	167	268	621	884
Idukki	42	20	62	56	87	143
Ernakulam	88	181	269	241	838	1079
Trichur	85	114	199	209	543	752
Malappuram	69	60	129	141	305	446
Palghat	72	85	157	141	309	450
Kozhikode	74	128	202	396	271	670
Cannanore	128	183	311	218	558	776
Total	881	1249	2130	2700	4600	7300

EABLE Ia

Registered Allopatbid Doctor

Period	No of Doctors
31-12-1945	395
31-12-1950	618
25-9-1953	725
24-6-1957 to 60	1041
31-12-1965	2101
31-12-1970	4547
31-12-1975	7870
29-3-1978	9765

)

(Government and Private) Medical
in Kerala as on 31-12-1977

Nursing staff			*Auxiliary Nurse Midwives*			*No. of beds*		
Govt.	*Private*	*Total*	*Govt.*	*Private*	*Total*	*Govt.*	*Private*	*Total*
(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
721	111	832	281	102	383	4904	2032	[illegible]
224	130	354	319	116	438	1761	2506	[illegible]
327	202	529	267	166	453	3134	2246	[illegible]
407	261	668	209	240	449	2314	3676	[illegible]
26	37	63	117	34	151	261	175	[illegible]
445	354	799	241	187	428	2460	5221	[illegible]
317	228	545	222	209	431	3072	1487	[illegible]
99	126	225	232	116	348	796	299	[illegible]
171	128	299	217	117	334	1242	424	[illegible]
480	113	593	230	104	334	3416	858	[illegible]
221	234	455	330	215	545	2216	1783	[illegible]
[illegible]	[illegible]	5362	2715	1769	4484	25576	20707	46283

TABLE II

Population Doctor ratio and population bed ratio district-wise as on 31-12-1977

Name of District	*Population Doctors ratio*			*Population bed ratio*			*Average coverage area of one hospital or dispensary (Sq. Kms.)*
	Govt.	*Private*	*Total*	*Govt.*	*Private*	*Total*	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Trivandrum	3768	6461	2380	355	858	251	10
Quilon	7054	6220	3306	1105	776	456	21
Alleppey	6205	3746	2336	576	1210	390	10
Kottayam	4927	2126	1485	570	458	254	13
Idukki	10542	6785	4128	2262	3373	1354	82
Ernakulam	6979	2007	1560	684	356	234	9
Trichur	8719	3109	2245	549	1363	391	15
Malappuram	9839	4549	3111	1742	5505	1328	28
Palghat	9713	4490	3070	1103	3869	858	34
Kozhikode	4011	5798	2371	465	2227	384	18
Cannanore	8166	3190	2294	803	1157	474	18
Total	6260	3675	2816	661	944	389	18

TABLE III

Distribution of Medical Institutions according to availability of beds as on 31-12-1977

Type of institutions	*Number of beds*							
	Below—30	30-100	100-200	200-500	500-1000	1000-2000	without beds	*Total*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Government	261	68	33	18	11	2	488	881
Private	562	155	23	15	1	..	493	1249
Total	823	223	56	33	12	2	981	2130

TABLE IV

Number of Government and Private Medical Institutions commenced in 1975, 1976, 1977

Name of District	Private Institutions			Government Institutions		
	1975	1976	1977	1975	1976	1977
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Trivandrum	6	8	5	..	1	..
Quilon	5	13	5	..	..	..
Alleppey	10	13	10	..	..	..
Kottayam	13	20	16	..	..	..
Idukki	2	3	3	..	..	..
Ernakulam	7	15	11	..	..	..
Trichur	3	6	7	..	..	..
Malappuram	8	8	2	..	..	..
Palghat	12	14	12	..	..	..
Kozhikode	24	26	24	..	..	..
Cannanore	20	28	20	..	..	..
Total	100	145	[illegible]	2	[illegible]	1

III

TABLE V

Details retling to the Voluntary Hospitals as on 31-12-1977

District	No. of Hospitals	No. of Dispensaries	No. of Doctors	No. of Nurses	Other Personnel	No. of beds	No. of births	Out-patients	In-Patients
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Trivandrum	17	16	15	35	94	742	815	15702	13646
Quilon	18	5	47	126	478	1203	6117	349945	40053
Alleppey	38	7	71	140	545	2243	5936	530336	64100
Kottayam	50	4	111	277	1134	2814	12288	1145340	157693
Idukki	15	5	26	74	277	488	2021	175352	20341
Ernakulam	46	25	125	303	1211	2848	14516	1176319	268262
Trichur	19	15	60	164	382	1118	2206	394978	39987
Palghat	6	3	7	20	49	97	51	52453	4740
Malappuram	8	2	25	31	101	139	348	170967	5435
Kozhikode	15	4	27	74	243	750	2229	290250	25596
Cannanore	8	8	15	28	121	362	1301	158540	11933
Total	240	94	529	1272	4635	12804	48293	4460182	651786

TABLE VI

Age group and percentage of population suffering from Dentral diseases

Age group	Percentage of population suffering from Dental diseases
12 years and below	26
13-20	31
21-30	23
31-40	17

TABLE VII

District-wise distribution of priv[illegible] [illegible] [illegible]ions as on 31-12-1976

District	*No. of Dental institutions (Private)*			*No. of Dentists (private)*	*Para-medical personnel*	*No. of patients attended in 1976*
	Rural	*Urban*	[illegible]			
(1)	[illegible]	[illegible]	[illegible]	(5)	(6)	(7)
Trivandrum	4	21	25	28	5	17,409
Quilon	31	1	32	29	11	99,580
Alleppey	13	5	18	16	5	16,827
Kottayam	20	16	36	35	14	1,13,825
Idukki	21	..	21	24	5	24,025
Ernakulam	26	6	32	30	17	60,046
Trichur	7	2	9	10	..	N.A.
Palghat	4	7	11	10	4	17,000
Malappuram	8	[illegible]	8	10	4	16,190
Cannanore	11	8	19	20	9	53,885
Kozhikode	5	2	7	9	6	42,400
Total	146	73	218	221	80	4,39,906

INSERVICE TRAINING

OF

MEDICAL AND PARA MEDICAL PERSONNEL

IN HEALTH SERVICES

"Many people who are not getting primary medical care do not know that they are not getting it, because they do not know that they need it. Health is an asset. Medical care is a must to ptotect this asset. Qualified ans trainned personnel is a Sine qua non for efficient extension of medical care. Inservice training is necessary to equip the medical personnel to suit the changing pattern of diseases and health care. True, health manpower planning is an integral part of a comprehensive health planning. The study aims at assessing the inservice facilities available for our medical men in the state and also looks at the trend of demand and supply for trained medical personnel. Family welfare includes education, health, childcare, family planning, nutrition etc., and the training programmes should cover all these related aspects in a Co-ordinated manner."

CONTENTS

Introduction

Access to health is a basic human right and health is an asset. Health is an essential means to socio-economic development and therefore planning of health services assumes a major role in national planning.

For the development of a country there should be adequate provision for health care which is dependent on 3 factors—personnel, capital and technology. There must be adequate qualified persons and sufficient funds.

In a developing country like India the health care system has 4 components—Promotive, Preventive, Curative and Rehabilitative. Within the health system naturally the manpower component accounts for the major part of the budget.

It is obvious that there should be a sound organization and that the personnel responsible for delivery of health care should have the prescribed qualification and training. Their skills and knowledge should be fully utilised with necessary inservice training to suit the changing pattern of diseases and health care.

Therefore there should be close co-ordination between health, manpower and health care development. Health manpower planning is an integral part of comprehensive health planning.

The objective of health manpower planning is to provide the right type of education and training for the right number and type of people needed to render effectively and safely the services required by the population.

Kerala with the highest density of population in India has to fight against apidemics, malnutrition, diseases and over population. By giving emphasis to preventive and curative services and family planning in the health plans, spectacular results have been achieved. Now health care is available in the remotest part of the State.

The various categories of medical and para-medical staff in Health Services and their necessary qualifications are given in Appendix I.

Specialists, Medical Officers and Dentists constitute medical personnel and the rest are paramedical personnel. Of the paramedical staff those working in Hospitals and those engaged on field work require in service training of various types so as to instill into there new ideas of Health Services.

2. **Object of the study.—**

The object of this study is to asses the facilities of inservice training in Health Services, and the demand and supply of trained personnel. The study also takes into account, the feasibility of increasing the enrolments, if it becomes necessary to increase the manpower supply.

The data have been collected from all—D.M.O. Offices and training institutions.

3. Training facilities available.

Inservice training is conducted by the Health Services Department at the Health and Family Welfare Training Centre, Calicut, Health and Family Welfare Training Centre, Trivandrum, Public Health Training School, Trivandrum, Field study demonstration and Training Centre, Neyyattinkara in Medical Colleges and at times in other institutions.

In the Health and Family Welfare Training Centres at Trivandrum and Calicut the training relating to Family Welfare was inparted till recently. Now since the M.P.W's scheme has been imtroduced the Multipurpose workers' training is imparted. In the Public Health Training School at Trivandrum usually training relating to Public Health is conducted. Besides training required by other departments are also organised there. The field study demonstration and training Units was engaged in the organisation of demonstration and study projects and the conduct of in service training pro grammes. Table I below gives the number of medical personnel trained. The number of Medical and para medical personnel trained in Family Welfare in the various Medical discipline is given in Table II.

TABLE I

Number of Medical Officers who have undergone inservice training till the end of 1978-79.

Name of Training Course	No. Trained
1. Family Welfare	1077
2. MTP (Family Welfare	
3. Qrientation	268
4. Filariology	3
5. F.P. Orientation	3
6. Nutrition	23
7. Blood Bank	4
8. Leprosy	479
9. Opthalmology	4
10. Public Health	13
11. Multipurpose	221
12. Paediatrics	16

TABLE II

The number of medical and para medical staff who have undergone training in Family Welfare till the end of 1978-79.

Category	*No. of trained hands*	*Total No. in the Dept.*	*No. of Staff to be trained*
Medical Officers	1077	2167	1090
Block Extension Educators/H.Is.	426	521	95
P.H. Nurse/Health Visitors	338	446	108
A.N. Ms.	3151	3151	..
Staff Nurses	1703	2948	1245
Health Assistants (F.P.)	875	875	—
Head Nurses	102	556	454
Workshop for Sister Tutor	25	60	35
Sister Tutor/Nursing Supdt.	60	60	..
Administrative Asst./Lay. Secretary	18	63	45
Health Educators	15	15	..
Dist. Extension Educators / Urban Extension Educators	64	64	..
Family Planning Welfare Workers	895	895	..
Workshop for M.E.I.O., D.E.E.	30	30	..
Workshop for D.F.W.M.O.	9	10	1
Dist. Public Health Nurse	5	10	5
Workshop for B.E.E. & U.E.E.	15	15	..

Regarding Family Planning training about half of the medical officers, and about 1/3 of staff nurses have not undergone the training.

The details of training programmes in vogue are given below:

4. Multipurpose Workers' Scheme

This is a scheme of Govt. of India according to the Karthar Sing Committee recommendations for meeting the basic health needs of the community. Uni purpose workers of Malaria, Smallpox and Family Welfare are given. multipurpose training. After the training, instead of working as family Welfare Health Assistant, Health Assistant and Basic Health Workers separatelythey can work as multipurpose workers. That is they can work for many of the programmes such as Smallpox, Malaria, Family Welfare, T.B., Leprosy etc. According to the multipurpose work there will be only two categories of staff—health worker and supervisory both male and female.

A.N.Ms. will be female health workers. Health Visitors and P.H. Nurses will be female health supervisors. Family Welfare Health Assistant, Health Assistant and Basic Health Worker will be male health workers and Health Inspectors, Block Extension Educations and Vaccination supervisors will be male health supervisors. For the training and imple mentatation of the programme, Government of India is providing aid For every four Health Worker there will be one Health Supervisor. One Male Health Worker and one female health worker will form a team for a sub-centre. The population prescribed for a sub-centre according to the scheme is 5000.

The syllabus for the training course is given below.

Science I	Anatom. and Physiology, Microbiology, Psychology, Sociology, Hygiene, Nutrition
Foundamentals of Nursing I	Introduction to Nursing Nursing procedures and techniques First aid and emergency Nursing-
Fundam entals of Nursing II	Introduction to Child Health. Introduction to Maternal Health Introduction to Family Health and Community Health
Community Health Nursing I	Domiciliary Midwifery Midwifery and Maternity Nursing, Family Planning and Welfare
Community Health Nursing II	Nutrition Education, Health Education Communications skills and Audiovisual aids.
Community Health Nursing III	Basic Medicine ans Pharmacology Health Problems and Plans communicable diseases, Mental diseases
Community Health Nursing I(ii) for Health Worker male	Environmental Sanitation, Health Statistics, Family Planning Welfare

The syllabus for the training is designed with the specific objectives that the student health workers on completion of training should have ability to:

1. Explain the principles of healthful living related to all age groups in the community.
2. Perform basic health care activities on community and institutione settings.
3. Plan and carry out nutrition and health education activities in the home clinic and community.
4. Provide basic maternal and child health care including immunization services, family Health care and family planning services.

. (i) Perform basic midwifery procedures and basic nursing techniques with special emphasis on domicillary and home nursing procedures (Health worker—female)

(ii) Participate in prevention and control of communicable diseases; assist in execution of nationed health programmes; promote village and environmental sanitation; perform basic nursing techniques (Health worker—male)

. Provide first aid and emergency nursing care, elem : ıtary medical care including treatment of minorartment.

Participate as a responsible member of the health team.

. Identify community resources which could be utilised for health promotion, health maintenance and prevention of disease.

. Assist in the training of community village level health workers/

). Promote community development activities.

In order to implement the multipurpose workers scheme in Trivandrum nd Kozhikode Districts with effect from 1-4-1978, Training to various cateories of staff was imparted in RFWTC at Kozhikode ans Trivandrum. A atement showing various categories of persons trained under MPW scheme on 31-12-1978 is given below.

Centre	*No. of P.H.Cs.*	*Medical Officers*	*Block Extension Educators.*	*Health Assistants*	*Multipurpose workers.*
rivandrum	18	175	75	120	52
ozhikode	15	26	25	59	44

Quilon and Cannanore Districts have been selected for MPW scheme in e second phase.

Community Health Workers Scheme has not yet been implemented.

Requirement of staff for the implementation of multipurpose workers heme from 1978 to 1982 are given below. It is calculated on the basis of ojected population.

Year	*Female workers*	*Female supervisors*	*Male workers*	*Male supervisors*
1978	4917	1229	4917	1229
1979	4998	1249	4998	1249
1980	5077	1269	5077	1269
1981	5153	1288	5153	1288
1982	5306	1326	5306	1326

The availability of staff as on 1-4-1979 in the Health Services Department is given below:—

Female workers	*Female Supervisors*	*Male workers*	*Male Supervisors*
3151	446	2852	569

The deficiency of Female Workers, Female Supervisors Male Workers and Male supervisors are 1847, 803, 2146 ans 680 respectively in the year 1979.

As such it seems that the training centres will not be available for Famil. Welfare training for a reasonable period.

Government have been requested for sanction for starting four A.N.M. training centres-one each at Quilon, Kottayam Trichur and Malappuram, The duration of the course is one and a half years. The first batch of students is to be admitted in January 1980. 140 Female candidates (S.S.L.C. passed) will be admitted at a stipend of Rs. 100/month. Training of Health Supervisors under Multipurpose programme is proposed to be started at the P.H. Training School, Trivandrum. As per multipurpose programme, the senior A.N.Ms. will have been given one promotional training for six months. All Health visitors in service above the age of 45 years have been given one months training. 51 Health visitors below the age of 45 years are given six months training in two batches and the 3rd batch of 24 Health visitors are undergoing training at the College of Nursing, Trivandrum.

Government have accorded sanction for intensive training programme in maternity and child health for Medical Officers working in Primary Health Centres. The duration of the course is 8 weeks.

5. Health Education Training Programme

Training in Health Education for inservice personnel is going at Field Study Demonstration and Training Unit, Neyyattinkara. Para Medical staff working in P.H. Centres are deputed for training here. 70 batchesof health personnel have so far completed training. The duration of the course is 4 weeks providing both theoretical and practical sessions.

Field study Demonstration and Training Centre located at Neyyattinkara works as a field lab. of the State Health Education Bureau. Assistant Healt Education Officer is in charge of the Unit. This Unit has taken up seveaial projects in the Field area with the co-operation of voluntary agencies.

The unit continued its work connected with the 3 important programmes under operation namely (1) Health Education Demonstration Project on environmental sanitation (2) Health Education demonstration on M.C.H. F.P. and Immunisation and (3) Integration Health Education Programme. The evaluation of the 1st Project was completed and that of the 2nd taken up.

The unit also organised regular Health Education Programmes like group discussions, film shows etc. as well as participated in important celebrations like World Health Day, Anti Leprosy Day, etc.

The training Unit continued to organize regular 4 weeks, training programmes in Health Education to Public Health Workers.

The major items of work of the Public Health Training School started on 20th May 1964 can be categorised as

1. Refresher training course in Public Health for Health Inspectors
2. Environmental sanitation project.
3. Other training programme.

Refresher training in Public Health consists the following subject

1. Environmental sanitation.
2. Communicable diseases.
3. Public Health Administration.
4. Health Education
5. Vaccine preparation.
6. Immunisation.
7. Food Sanitation.
8. Family Planning
9. Applied Nutrition Programme.
10. Supervision, records and reports.
11. Vital Statistics.
12. National Health Programmes.

At the beginning of the year 1965-66 there was a Regional F.P. training Centre attached to the S.A.T. Hospital, Trivandrum which was under the control of the Principal, Medical College, Trivandrum. This training cenere was detached from the S.A,T Hospital upgraded and brought under the control of the Health Services Department and another training centre at Calicut has also been started. There are at present 2 training centres. The training centre at Trivandrum started functioning during January 1966.

The Principal and Medical Lecturer-cum-Demonstrator of the Trivandrum Training Centre and the Health Education Instructors and P.H. Nurse Instructors of the 2 Training Centres were deputed for a course for the trainees at the Central Family Planning Institute, New Delhi. The District Family Planning Medical Officers, Quilon and Palghat were deputed to the All India Institute of Hygiene and Public Health, Calcutta for the certificate course in Family Planning Administration and Education.

TABLE III

Details of Inservice Training Courses Conducted at the Health and Family Welfare Training Centre, Calicut till the end of 1978-79

Sl. No.	*Name of Inservice training*	*Category of paramedical personnel trained*	*No. of personnel trained*	*Duration of the course*	*Period of training*	*No. of batches trained*
1	Orientation Training in FP	A.N.M.	20	one month	1966	1
2	Do.	A.N.M.	1675	one week	1966-69	79
3	Do.	Staff Nurse	784	4 days	1969, 70, 71, 74, 75	34
4	Do.	B.E.Es.	195	1 week	1972, 73, 74, 75,	12
5	Workshop for Health Education	Health Educators	16	1 week	1971	1
6	Orientation in FP	Health Assistants	543	10 days	1969, 70, 71, 72, 73 and 74	30
7	Workshop in FP	P.H.N. & Health Visitors	214	1 week to 2 weeks	1969, 70, 71, 72 73 & 74	12
8	Job Orientation Training in F.P.	F.P.H.A.	55	2 weeks	1973	2
9	Do.	BEE & HI	81	2 weeks	1973, 74, & 75	4
10	Do.	P.H.N. & HV	34	2 weeks	1973, 75	2
11	Do.	Head Nurses	28	2 weeks	1974	2
12	Do.	Staff Nurse	104	2 weeks	1974, 75	4
13	Workshop in MPW Programme	Dist. level supervisors	19	10 days	1976	1
14	M. P. Training	Health Supervisors and Health workers	50	30 days for HS & HW (F) 35 days for H.S. & HW (M)	1976	2
15	Training for Supervisors under MPW Scheme	Health Supervisors	54	15 days	1977	3
16	Multipurpose workers training (along with Ms. of PHCs)	B.E.Es.	46	1 month	1977 & 78	7

TABLE IV

Details of various personnel trained in the family welfare training Institutions from the starting of the programme till the end of 1978-79

Category	*No. of personnel trained at*		
	Regional F.P. Training Centre Trivandrum	*Regional F. P. Training Centre Calicut*	*Total*
Medical Officers	785	117	902
B. E. Es./H. Is.	156	195	351
P. H. Nurses/Health Visitors	244	94	338
Health Assistant (F. P.)	419	428	847
Aux. Nurse Midwives	1592	1696	3288
Staff Nurses	1017	686	1703
Head Nurses	36	66	102
Sister Tutor/Nursing Supdt.	57	25	82
Administrative Assistant/Lay Secy.		18	18
Workshop Sister Tutors	25		25
Health Educators	..	16	16
Statistician/Statistical Asst.	116	6	122
Dist. P. H. Nurses	5	27	32
Dist. Extension Educators/U. E. E.	64		64
F. P. Welfare Workers	1045	15	1060
P. H. Nurse students	14		14
A. N. M. students	14		14
Social Workers	19		19
Workshop for Lay Secretary and Administrative Asst.	18		18
B. D. Os.	101		101
Computer	75	..	75
Homoeopathic Practioners	67		67
Dist. level workers	101		101
Workshop MEIO, BEE	30		30
Information Assistant	5		5
Workshop D. E. W. M. O.	9		9
Workshop B. E. E. & U. E. E.	21		21

TABLE V

Details of Training Programmes Conducted at the Public Health Training School, Trivandrum

Name of the inservice training	*Total No. of para medical personnel who have undergone training*	*Duration of the training*
Para Medical Training for C & Malaria and E & NSEP Personnel	1855	15 days
Para Medical training for Municipal health staff	141	14 days
P.H. Refresher Course for Health Inspectors	702	14 days

TABLE VI

Health & Family Welfare Training Centre, Trivandrum Multipurpose Workers' Training (District-wise)

No. of Medical and para medical personnel trained

Name of District	*Medical Officers*	*No. of Block Extension Educators*	*Health Assistants*	*Health Workers*
Trivandrum	47	17	120	52
Quilon	32	18	..	..
Alleppey	43	17	..	..
Ernakulam & Idukki	43	16	..	..
Kottayam	10	7	..	..
Total	175	75	120	52

Usually 20 trainees are admitted at Calicut F.W. Training Centre, 30 at the Family Welfare Training Centre, Trivandrum, 20 at the Public Health Training School, Trivandrum and some 11 at the Orientation Training Centre Neyyattinkara.

The staff pattern of the institutions is given in Appendix II. In all the four institutions 30 technical staff and 46 other staff are working. Besides the technical staff, other technical persons are also taking classes and they are paid only T.A. and D.A. Trainees are also given only T.A. and D.A.

The duration of the training courses are given below:

Name of Training	*Duration*
F.P. Course	1 week
F.P. Training	7 weeks
F.D. Orientation	10 days
Leprosy Training	2 weeks
M.T.P. Training	4 weeks
Nutrition Training	6 months
Orientation Training	7 weeks
A.N.P. Training	5 days
Health Inspectors training	6 months

Further on the job training is given to categories of para medical staff— Health Assistant/Basic Health Workers and Health Visitors.

Health Inspectors' Training is conducted in 3 Medical Colleges (Trivandrum, Kozhikode and Kottayam) for Health Assistants and Basic Health Workers to promote and post them as Health Inspectors. The Noumber of seats in each college is given below:

		No. of seats
Medical College,	Trivandrum	70
Do.	Calicut	70
Do.	Kottayam	60

Examination is conducted after the training by the Board of Examiners, H.I. Training Course. The training is imparted for departmental candidates only. Those who are below 45 are given 6 months training and those who are above 45 are given only one month's training.

Besides on the job training has been imparted to Health Visitors for posting them as Public Health Nurse. The duration of the training is 6 months. The training is conducted as per requirement.

6. Nutrition Training and Education

Nutrition Training was given to different categories of people like B.D.O's. Extension Officers, B.D.C. Members, Panchayat President, Mahila Samajam representatives, etc., at the various extension training centres in 15 batches in which the State Nutrition Officer participated and conducted classes. Special talk (20) on ANP was also given to Medical Officers and para medical personnel who attended refresher courses at the Orientation Training Centre, Neyyattinkara and the Public Health Training School, Trivandrum. At the request of the Principal, Avenasalingam Home Science College, Coimbatore and the Administrator, CARE Kerala, a special lecture on A.N.P. in Kerala was given CARE Supervisor Trainee attended a 4 weeks course at Coimbatore.

Two R.Os. were deputed for 2 months' training in Central Public Health Engineering Research Institute, Nagpur.

Medical Officers in service are deputed for special training in Blood Bank, D.M.R. etc. 50 candidates are admitted for training as Leprosy Health Visitors.

Some 20% of the medical officers have undergone training in Leprosy and M.T.P. 12% of the Medical personnel have undergone training in orientation. Those who have undergone training in Multipurpose Workers' Scheme is 221. The Medical personnel who have undergone training in Nutrition, are only few.

In the Public Health Training school 1855 para medical personnel have undergone training in C & Malaria and E & NSEP. All Health Inspectors have undergone Public Health Refresher course.

7. Utilisation of trained hands

After training the Medical Officers are posted usually in their respective fields so that the ideas gained in training can be effectively utilised. But it may not be possible it for their whole service owing to promotions. Hence it is desirable that all medical Officers may be trained in all important items of training so that the same may be utilised at one time or another. Regarding paramedical staff usually such cases do not occur.

8. Summary and conclusion

Inservice Training to staff is highly necessary for the efficient discharge and implementation of there duties. This is more important in the case of health service staff. Since they are dealing with human lives. Disease is a curse to humanity. The achievement of Modern medicine is supers that today most of the diseases can either be controlled or cuved if timely and proper treatment is given.

Timely and proper treatment of diseases call for proper training to the personnel in order to increase the efficiency of their working. Moreover it is quite essential that they should have adequate knowledge about the latest achievement and change in treatment pattern in the field of modern medicine which is possible only through periodical inservice training.

An attempt has been mode in this paper to assess the facilities for inservice training and demand & supply of trained personnel in the Health Services Department.

There are at present 888 medical institutions in the State in the public sector with a total bed capacity (which gives inpatient facility) 27897. Out of the 2167 Medical Officers the State in the Health Services Department, nearly 50% have been given inservice training. A good percentage of the para medical personnel also has been trained. Most of the Health Assistants and Auxilary Nurse Midwives are also trained. Among Nursing staff it is seen that 58% has been trained.

After training, as far as possible, the Medical Officers are posted in the respective field in which they are trained, so that the ideas gained in training Can be effectively utilised. But this may not be possible always due to promotions and other reasons. Therefore it is necessary that the Medical officers should be trained in all important items.

Since family welfare cover, education health, maternity, child care. family planning & Nutrition, the training programme should be continued in all years with the ultimate aims of getting all the personnel trained.

Appendix I

Medical and Para Medical posts in Health Services and the required Qualifications

1.	Specialists	Post Graduate Degree or Diploma in Medicine
2.	Medical Officers	MBBS
3.	Dentists	B. D. S.
4.	Public Health Nursing Tutors or Dist. P.H. Nurse	Diploma or B.Sc. Nursing and Public Health Training
5.	Nursing Tutors	Degree in Nursing Post-graduate studies in the various branches or teaching
6.	Nursing Superintendent (Gazetted)	Diploma in B. Sc. Nursing
7.	Nursing Superintendent (Non-Gazetted)	By promotion from Head Nurses.
8.	Head Nurse	do. Staff Nurse
9.	Staff Nurse	1. S.S.L.C. 2. General Nursing & Midwifery 3. Registration with Kerala Govt. Nurses and Midwives Council.
10.	P.H. Nurse and Health Visitors	General Nursing and 9 months, Training in P. H. Nursing
11.	Pharmacists	1. S.S.L.C. 2. Diploma in Pharmacy 3. Registration with the Kerala State Pharmacy Council
12.	Dental Hygienist	1. S.S.L.C. 2. Dental Hygienist Course
13.	Refractionist	1. S.S.L.C. 2. Diploma for opticians & Refractionists Assistants.
14.	Orthoptist	1. S.S.L.C. 2. Diploma in Orthopaedics
15.	ANMS	S.S.L.C. and A.NMs'. Training.
16.	B.C.G. Tehnician	S.S.L.C. and H.Is. Course
17.	X-ray Technician	1. S.S.L.C. 2. Radiological Assistants' Course
18.	Lab. Technicians	1. S.S.L.C. 2. Lab. Technicians' Course

19.	Radiographer	1. Pre-degree 2. Diploma in Radiology
20.	Non Medical Supervisor (Leprosy)	Promotion from Health Visitors (Leprosy)
21.	Treatment Organiser	1. S.S.L.C. 2. T.B. Health Visitors Training
22.	Leprosy Physiotherapist	1. S.S.L.C. 2. Leprosy Health Visitors and Leprosy Physiotherapists, Training
23.	Maistry	Promotion from field workers
24.	Insect Collectors	1. S.S.L.C.
25.	Field Assistants	
26.	Health Assistants	
27.	Basic Health Worker	
28.	Health Inspectors	1. S.S.L.C. Health Inspectors, Training
29.	Vaccination Supervisor	
30.	Health Supervisor	
31.	Health Educator	
32.	Food Inspector	S.S.L.C. Health Inspectors' training
33.	B.C.G. Team lader	
34.	Filaria Inspector	
35.	P.H.N. Instructor	Promotion from Staff Nurse with P.H. Nurses' Training
36.	P.H. Nurse/Tutors	
37.	F.P. Health Assistant	1. S.S.L.C. 2. Health Inspector's Course
38.	Blood Bank Technician	1. S.S.L.C. 2. Lab. Technician Course
39.	F.P. Welfare Worker	1. S.S.L.C. 2. E.P.S.Ws. Training
40.	Leprosy Health Visitor	1. S.S.L.C. 2. L.H. Visitors' Training

APPENDIX II

Staff Pattern of Training Institutions

Health and Family Welfare Training Centre, Trivandrum			*Public Health Training School, Trivandrum*	*Health & Family Welfare, Calicut*	*Orientation Training Centre, Neyyattinkara*	*Total No. of posts*
Category of post	*Scale of pay*	*No. of post*	*No. of post*			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Principal	1125-1725	1	1	1	..	3
Medical Lecturer—						
Demonstrator	800-1550	1	..	1	..	2
Do. (M.C.H.)	800-1550	1	..	.	..	1
Home Science Assistant	420-720	..	..	.	1	1
Health Education Instructor	800-1550	1	..	1	..	2
Senior Training Officer Nursing	700-1270	1	..	1		2
Health Educator	520-900	..	..	.	1	1
Do. Sanitarian	700-1270	1	..	1	..	2
Health Education Officer (Nursing)	650-1150	..	..	.	1	1
Statistician	700-1270	1	..	.	..	1
Confidential Assistant	325-660	..	..	1	..	1
Social Science Instructor	650-1150	1	..	1	..	2
Health Inspector	420-720	..	3	..	..	3
Health Education Extn. Officer	650-1150	4	..	3	..	7
Health Education Officer	650-1150	..	1	..	1	2
Junior Superintendent	520-900	1	..	1	..	2
U. D. Clerk	390-685	2	1	2	..	5
Confidential Assistant	450-785	1	..	..	..	1
Clerk Typist	330-515	1	1	1	1	4
Artist-cum-D'man	420-720	1	..	1	..	2
P. H. Nurse Instructor	650-1150	1	..	1	..	2
Driver Grade II	310-490	3	1	2	1	7
Driver-cum-Projectionist	420-720	1	..	..	..	1
Peons	280-400	1	1	1	1	4
Hospital Attd. Gr. I	280-400	2	1	..	..	3
Do. Grade II	280-400	3	..	4	..	7
Cook Grade II	280-400	1	..	1	..	2
L. D. Accountant	330-515	..	1	..	..	1
Night Watcher	280-400	..	..	1	..	1
Watcher-cum-Sweeper	280-400	..	1	..	..	1
P. T. Sweeper	128	..	1	..	..	1
Driver-cum-Operator	370-600	..	..	..	1	1
Total		30	15	24	8	77

TABLE II B

Percentage distribution of Medical, para-medical staff who have undergone training in Family Welfare

Category	*% trained hands*
Medical Officers	50
Block Extn. Educators/H. Inspectors	82
P.H. Nurse/Health Visitors	76
Health Assistants (F.P.)	100
Auxiliary Nurse Midwives	100
Staff Nurses	58
Head Nurses	18
Workshop Sister Tutor	42
Sister Tutor/Nursing Superintendent	100
Administrative Assistant/Secretary	29
Health Educators	100
Dist. Extn. Educators/Urban Extn. Educators	100
Family Planning Welfare Workers	100
Workshop M.E.I.O.-DEE	100
Workshop D.F.W.M.O.	90
Workshop BEE-U.E.E.	100
District Public Health Nurse	50

Noumber of Government Medical Institutions as on 1-4-1979 and Noumber of beds

Public Sector—(Districtwise)

Name of District	*No. of Allopathic Institutions*	*No. of beds*
Trivandrum	89	5126
Quilon	92	2012
Alleppey	83	3365
Kottayam	62	2486
Idukki	43	376
Ernakulam	89	2748
Trichur	85	3285
Palghat	74	1313
Malappuram	70	1015
Kozhikode	74	3631
Cannanore	127	2540
Total	888	27897

EMPLOYMENT IN

FISH MARKETING IN KERALA

"Kerala is a leading maritime State in India. Fishing is a labour intensive sector too. Internal increase in the demand for fish and expansion of the export market of fish have made significant impact on the extent and pattern of employment generation at various stages. A chain of activities allied to fishing like procurement, distribution, processing and marketing extend employment to many of our rural poor. The study reviews the general structure of fish marketing process in Kerala and also tries to identify the different participants involved in the process. It is revealed that though the marine sector needs quick diversification to exploit the deep sea and other oceanic resources, there is need for prevention of over exploitation of the inshore resources. It is observed that there is only a dim scope for a leap forward in fish production and employment generation in the sector. The manpower demand would remain steady over a few more years."

37/205/MC.

CONTENTS

1. Introduction

General changes in the pattern of demand and product preferences among a section of the population—a consequence of increased cash incomes and growth of urbanisation in India during the last few decades—reflected in the demand for fish also. At the same time global shortage of high value marine crustaceaa like prawns has generated fresh demand from foreign consumers for the prawn resources of the potential seas of India. This has set in motion a series of modernisation or mechanisation programmes for a fresh assault on the marine resources suited to foreign markets. Consequently the emergence of a two sector activity became noticeable in the marketing of marine products in the country. The first is linked with the activities associated with the distribution and marketing of fish within the country and the second, with the development of an exclusively export oriented efforts projected to foreign markets. The whole process as made some significant impact on the extent and pattern of employment generation at different levels.

Our present task is to examine the employment generated in the numerous activities connected with fish marketing in Kerala. Since marketing is closely linked to production, distribution, processing etc. these also need to be examined for presenting a full pictue of the whole problem.

Besides attempting to present the general structure of the fish marketing process in Kerala the objectives of the paper are—

1. To identify the different participants involved in the marketing process of fish and crustacea.

2. To estimate the employment content in the activities connected with fish marketing in Kerala by fixing some norms.

Fish is primarily a product intended for a merket either in fresh, dry or processed form. It may be mentioned that though the topic provides ample scope for a deep study, paucity of data is a major hindrance for such an attempt. Except for production and export, hardly any scientific information is available in the State on the demand and supply of fish, consumer preferences, distribution or the extend of price spread.

2. Limitations of the study

The study is based on secondary information available and estimates have been made on the basis of certain assumptions. The correctness of the observations largely depends on how far the assumptions are close to reality.

3. A Brief History of the Evolutionery Process

The fisherfolk of Kerala estimated at 0.78 million are spread over 265 fishing villages along the 590 km. coastline. They mainly belong to three major communities-Hindu, Muslim and X'ian— characterised by a number of sub-castes. They have been persuing fishing from time immemorial with predominantly traditional or crude form of crafts and gears that they have evolved through centuries of trial and error and is perfectly suited to their local conditions. However, capacity limitations and poor productivity of these traditional crafts forced them to restrict their fishing operations on shallow waters close to the shore. Low capacity also prevented them from over exploiting the marine resources and the biological balance of the sea was seldom disturbed. However, even at low levels of productivity, the traditional crafts generated sufficient surpluses for catering to the needs of the local markets. Marketing was mainly carried out by headload fisher women or men and their clientele consisted mainly the population that lived adjacent to the coastal belt. Barter or trade was the usual form of exchange. The degree of human involvement was at a low pitch at this stage of fish marketing. Proneness of fish to high perishability and the lack of preservation techniques prevented the expansion of fish markets to distant places.

However, the introduction of new methods like salting and drying widened the marketing horizons. The manufacture and use of ice revolutionised the marketing potentials still further. This may be considered as a turning point in the history of fish marketing. A spectrum of activities from on the beach operations down to the final sale of fish like salting, drying, icing, packings transportation etc., began to appear. These developments provided ample scope for more human involvement at different levels in the fish marketing process and the degree of intermediation between the initial production and final consumption has vastly increased. The major formal as well as informal participants in fish marketing process at this stage are middlemen, financiers, merchants, agents, traders and retailers. They created new areas of exploitation, and manipulation proportionate to the extent of control they were able to weild in the marketing of fish. With this, the fish markets that were originally confined to the numerous coastal trading centres were gradually expanded to the hinderland areas of the country. This in turn triggered the activities of the numerous participants also.

Post independence period witnessed significant changes in the conditions and relations of fish production in the country. The development policy of the Government was aimed at helping the fishermen to overcome their age long productivity problem that was at a low key till then. The remedy persued was the introduction of mechanised boats into fishing. The larger trun out by the mechanised boats, glutted the fish markets giving a further fillip to the marketing participants other than producers. At the same time, the low price of fish and the larger chain of recurring costs inherent in the mechanised

fishing increased the burdens of the already indepted fishermen who could not maintain a favourable cost and earning relationship compared to their traditional crafts. But gradually events took a different shape. There appeared a new source of demand for a there unto much neglected but abundant crustaces viz , prawns from foreign markets especially from the affluent U. S. and Japanese markets. This gave wide scope for the lucrative utilisation of mechanised boats in the State that have become full-time "prawn trawlers."—Thus "with one stroke, they have discovered the way to avoid the self-defeating internal logic of a costly technology superimposed on poor consumer......"
—John Kurian.

The emergence of 'prawn trawling' in a massive way created certain far reaching changes in the handling, distribution and marketing of fish. Prawn trawling by increased number of mechanised boats with bottom trawl nets, setting up of a chain of freezing plants and cold storages, springing up of a large number of export firms and establishment of new trade contacts and business connections—all projected for the export market—created a distinct and bifurcated pattern of activities in the fisheries sector with definite impact on the distribution and sharing of incomes within and between different sections of the fishery economy.

Chapter 2

4. The Distribution and Marketing of Marine Landings

Kerala is the leading maritime state in India with the highest annual fish production. The average annual fish production during the period 1975 to 1979 was 360000 tonnes valued at Rs. 705 million. Annual inland Fish Production in the same period was 24000 tonnes valued at Rs. 83 million.

The growth in marine production for the traditional and motorised sectors is indicated in Table.1

Table I

Marine Fisheries Production by traditional and Motorised sectors (1970-79)

Yearly average	*Total landings*	*Traditional (in tonnes)*	*Motorised (in tonnes)*	*Motorised of % of total*
1970-71	419	369	50	12
1972-73	372	305	67	18
1974-75	421	280	141	33
1976-77	338	255	83	25
1978-79	352	246	106	30

Of the total fish production in the State, nearly 75% is contributed by the traditional sector.

In 1978-79 about two third of marine landings consisted of pelagic fishes (eg. Sardines, Mackerels, Anchovicellas etc.) and one third of demersal species (eg. perches, ribbon-fish, prawn etc.). Out of which one-third was crustacea, mainly prawns.

Table II shows the contribution of important fish species to total marine landings in 1978-79.

TABLE II

Important Pelagic and Demersal species of Kerala and their contribution to total marine fish landings in 1978-1979

Species	*Quantity (in tonnes)*	*As % of total marine landings*
Pelagic		
Sardines	126698	34.4
Mackerels	23296	6.3
Anchovicellas	18781	5.1
Demersal		
Prawns	47537	13.0
Perches	27565	7.5
Ribbon—fish	23232	6.3
Others	100757	27.4
Total	367866	100.0

The six species sardine, mackerels, anchovicellas, prawns, perches and ribbon fish account for 73% of the total marine landings and for 82% in terms of value. Detailed species-wise figures of marine fish landings are provided in appendix

Zone-wise distribution of marine fish production is shown in Table. Nearly 50% of the total catch in 1978-79 has been landed in the two southern districts Trivandrum and Quilon. In these districts, the demersal species–prawn, perches and ribbon fish dominate while for the central and northern zones the small pelagic species—sardines and mackerels—are more important

TABLE III

Zone-wise contributions of important pelagic and demersal Species during 1978-79 in percentages

Species	*South Zone*	*Central Zone*	*North Zone*
		(in percentage)	
Pelagic:			
Sardine	19	50	31
Mackerel	8	28	64
Anchovilla	N.A.	N.A.	N.A.
Demersal:			
Prawns	72	12	16
Perches	88	11	1
Ribbon Fish	96	2	2
Total	48	31	21

South Zone: Trivandrum and Quilon.
Central Zone: Alleppey, Ernakulam and Trichur
North Zone: Malappuram, Kozhikode and Cannanore

The bulk of prawn catches (70%) is concentrated at two centres at Neendakara and Sakthikulangara in Quilon District, which shows the over concentration of mechanised fishing in Quilon District.

5. Ditribution of Marine Production

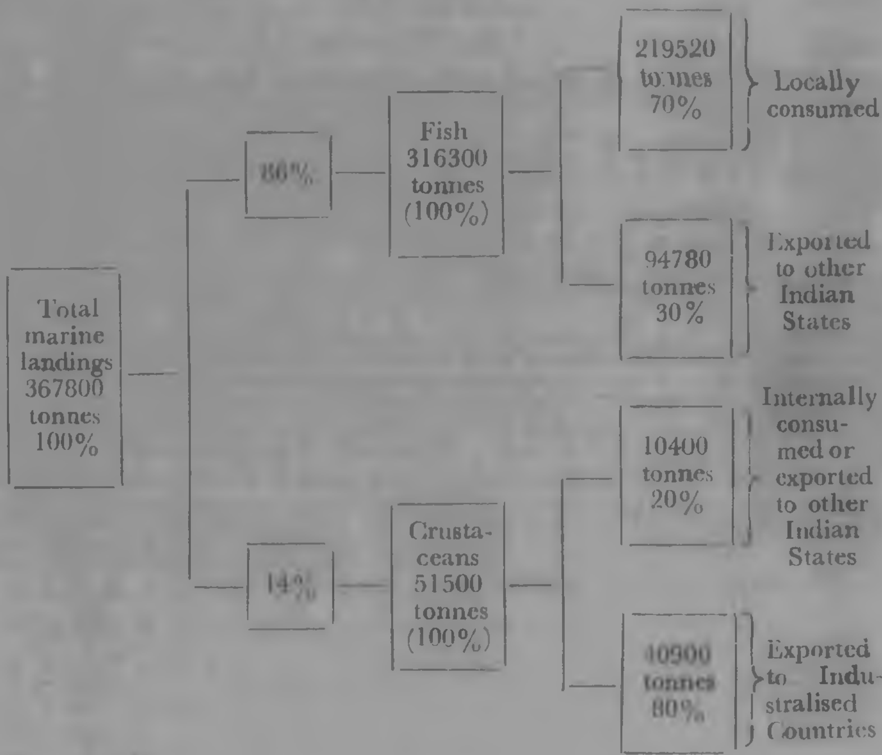
With a large avid fish eating population the per capita consumption of fish is the highest in Kerala compared with other Indian States. The average annual consumption of fish lies in the range of 8 –10 kg. (equal to 22—28 gm./day). Fish provides the cheapest source of animal protein to the population when compared with other sources. Consumption of fish also varies from region to region, it is the highest in the coastal belt and lowest in the hilly areas. Distinct consumer preferences are also noticed in the pattern of demand for fish. The upper and middle income groups usually prefer larger species like seer, pomfret, mackerels, carangids etc., that are available in smaller quantities. The smaller species like oil sardines, anchovies etc., that are available in larger quantities are usually consumed by lower income groups like agricultural labourers. Consumers normally prefer fresh fish to iced fish and iced fish to dried fish.

The bulk of the fish produced in the State (nearly 70%) is locally consumed and about 30% are marketed in other Indian Statas or exported to other countries and the lions share (nearly 80%) of the expensive crustacea (mainly prawns) are exported to the rich industrialized countries.

The approximate distribution of marine fish production in 1978-79 is show in Table.

TABLE IV

Approximate distribution of marine fish production in Kerala-1978-79



6. Disposition of Marine Production

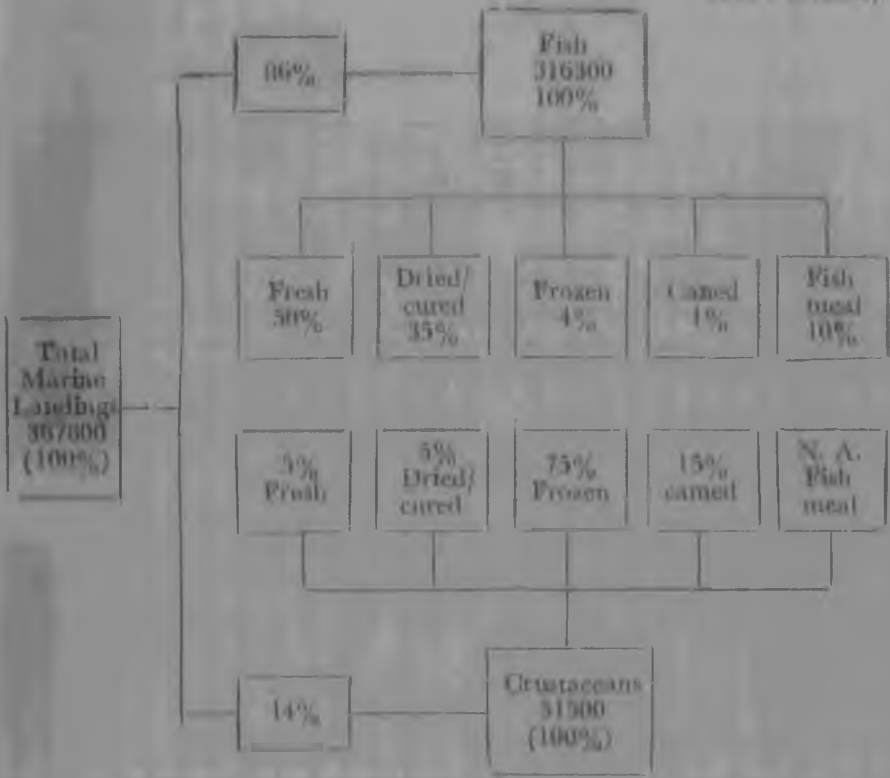
About 50% of the marine fish production in Kerala is consumed in fresh form and 35% is either dried or cured. The rest is either frozen or converted into fish meal. Only a negligible quantity of fish is canned in the State. The bulk of the crustaceans—mostly prawns—are frozen and exported. A small quantity of prawns is canned or dried and the low value items of prawns are consumed fresh within the State.

The approximate disposition of marine production is shown in Table V.

TABLE V

Approximate Disposition of Marine Production during 1978-79

(Units in tonnes)



7. Marketing of Marine Products

Demand for Fish Marine Products—Internal Demand

Nearly 70% of the fish landed is consumed within the State. The internal demand for fish emanate chiefly emanate from four sources. These may be distinguished as follows:

1 The lower income groups comprising mainly of agricultural labourers and headload workers who demand cheap varieties of fish like sardines, anchovies etc., that are available in larger quantities.

2. The middle income group consisting of mainly Government employees, cultivators, factory workers etc., who do not exhibit distinct preference for particular varieties of fish.

3. The higher income groups like landlords, merchants, managers and well paid Government Officers, dependents of persons employed in foreign countries who prefer high quality fish like seer, pompract, crangrades etc., that are (available in smaller quantities) irrespective of prices.

4. The non-household establishments like hotels, resturants, toddy shops, etc., who demand both high and low quality fishes to satisfy their consumer preferences.

The chief source of external demand is from wealthy industrialised countries like Japan and U. S. A. The major species demanded is the most expensive crustacea viz., shrimp—certain other items include frozen squid, froglegs, cuttle fish, lobster tails, etc. A small quantity of dried fish is also exported to Shri Lanka and Burmah.

Some fish is also exported to other Indian States like Tamil Nadu, Karnataka and Andhra Pradesh in fresh and dried form by train, trucks and lorries.

Markets for Fish Products

The spatial distribution of markets may be distingusihed as follows:

1. The local markets.
2. The inland markets.
3. The outside markets.
4. Foreign markets.

Local markets are those lying in the fringes of the coastal areas.

The Inland markets are the wholesale markets that are located in the District and Taluk centres of the State.

The outside markets are those lying outside the State ie., in the neighbouring States.

Participants in the Fish Marketing Process.

In the marketing of marine products, five major types of participants may be differenciated.

1. Headload distributers (fresh and dried fish)
2. Cycle load distributers (fresh and dry fish)

3. Whole sale merchants (fresh and dry)
4. Merchant Exporters (Prawns and other crustaceous)
5. Middlemen.

Headload distributors are mainly basket women who normally conduct way side sale and house to house distribution of fish. Their products are normally derived from catches of the male members of their family who may be active fishermen.

The cycle load distributers are mainly venders who buy fish from the landing centres and distribute to the neighbouring local markets. The above two categories may be characterised by relatively small personal assets and operational capital high labour intensity in the marketing process and low incomes. The wholesale merchants mainly operate in the more important district and taluk fish markets, from where they distribute fish to retailers who comprise of stall traders, wayside traders, headload and cycle load distributers. Wholesale merchants may own lorries and vans.

The export agents are usually employed by big and small processing firms. They are mainly involved in the marketing of prawns, lobsters and other crustacea landed by mechanised boats. They also own lorries and vans.

Middlemen played a pivotal role in fish marketing in Kerala from a very long time. They are the intermediary elements in the marketing channel. Three types of middlemen may be recognised. The first category are large in number and they act as petty auctioners on the shore. They act as middlemen between the producer fishermen and the headload and cycleload buyers on the sea shore. Except thickly behaviour, these people do not possess much financial assets at their disposal.

There are also commission agents at the wholesale markets who principally deal between the wholesalers and retailers. They are having comparatively better financial assets than the auctioners on the sea-hore.

Then, there are the agents of exporters who participate in the auctioning of prawns and other crustaceans in the landing centres especially those landed by the non-mechanised boats. They are normally employed by export firms.

The flow of fish and crustacea through the different participants in the fish marketing process to the final consumer is shown in Table VI.

TABLE VI

Flow of Fish and Prawns.

Fish

F/M → MC → Cy/c
F/Cy → Cy/c
F/H → H/c
F/M → M/L → L/H → M/c
F/M → M/L → L/Cy → Cy/c

Prawns

F/B → Pc
F → A → Pc
F/M → L/A → Pc
F/M → A → Pc

→ Fc.

Key

F—Fishermen
Cy—Cycle load distributor
M—Middlemec
H—Headlord distributor
L—Lorry merchant

C—Consumer
Pc—Processing centre
B—Boat owner
A—Agent of exporter
Fc—Foreign Consumer

CHAPTER 3

8. Employment in the Procurement, Distribution, Processing and Marketing of Marine Products

Fishing industry means the whole field of activity concerned with fish. It may be delienated into a number of activities –catching and landing of fish, procurement, distribution, fish processing industry and fish trade.

Fishery like agriculture is a labour intensive sector. In Kerala it is a chief source of employment to a sizeable section of the workforce. With the exception of the fishing proper that absorbed 1,23 lakh people into active employment in 1971 a chain of activities alied to fishing is a chief source of employment to at large proportion of the work force. The most prominent of such activities with remarakable labour involvme include procurement, distribution processing and marketing of marine products. These form the chief forward linkage actvities of the fishery sector.

9. Estimate of Employment in the Forward Linkage Activities

1. *Procurement and Movement Locally Consumed Fish.*

It is estimated that about 70% of the fish landed in Kerala is absorbed into local consumption either in fresh, dry or cured form. Prior to the final consumption of fish by different sources as mentioned earlier, a series of movements though different media takes place. The procurment and movement of locally consumed fish take place at two levels. One is the procurement and movement of fish by headload and cycle load distributors and the other, the movement in bulk by lorries and vans from landing centres to the wholesale markets.

It is estimated that nearly 30% of the fish landed is handled at the first level. On an average, 20 kg. of fish is handed by a person per day.

The total employment generated at this stage is estimated at 49.11 lakh man days.

In the Inland sector also, the entire fish landed is handled by headload workers creating 9.57 lakh mandays.

In the bulk movement if fish by lorries and vans, it is assumed that 2000 kg. of fish gives employment to four persons (loading, unloading, icing, transport, etc.)

During the period 1974-75 to 1978-79, the bulk movement generated 4.49 lakh mandays of employment.

The fish that is turned out by lorries/vans in the wholesale markets is distribued to different kinds of distributors like stall, traders, headload, cycleload, and retail distributors that again generate further employment avenues.

Assuming that 30 kgs. of fish per day is handled by one person, this will generate 76.39 lakh mandays of employment.

2. *Salting, Drying and Curing of Fish.*

It is estimated that 35% of the fish landed in the State is either salted/dried/cured.

Assuming that 100 kg. of fish for salting/drying curing can be handled by one person per day this has generated 11.46 lakhs mandays.

3. *Employment in the Procurement and Distribution of Prawns.*

Prawn production is often considered as the sole output of the mechanised sector. Though there is a seizable fleet of mechanised fishing boats operating in the marine waters and almost all of them are 'Prawn-trawlers', the composition of catch in the mechanised fishery of Kerala—Appendix shows that only 40% of the total catch consists of prawns and other crustaceans. The over exploitation of prawn resources from the inshore belt by an icreasing number of mechanised boats - nearly 300—has even led to a drastic decline in the percapita prawn catch of mechanised boats in recent years. *See* Appendix—All this show that a sizeabe proportion of the prawn landings in Kerala is still claimed by the traditional sector. Prawn output of the mechanised and non-mechanised crafts shows that nearly 60% is still contributed by the latter. The procurement and distributions of prawns landed by both the sectors are noted by high labour intensity. Here, a two stage hirearchy exist between the initial producer and the final processor. The first is related to the collection and pooling of prawns and the second stage is the transportation of prawns to the processing centres. From the output of the non-mechanised sector only 50 kg. of prawns may be handled by one person per day due to the highly scattered nature of landings. From the output of the mechanised sector 300 kg. may be handled by one person due to more centralised and bulk landings. In the second stage 2000 kg. is transported by lorry/van which would give employment to 4 persons a day (driving, icing, loading,unloading etc.).

The total manpower generated in the first stage in the non-mechanised sector is 4.16 lakh that of the mechanised sector is 0:46 lakhs. In the second stage 0.70 lakh mandays are generated.

4. *Peeling of Prawns*

This is an important labour intensive activity. It can be assumed that 25 kg. of prawns is peeled by one person per day. This process has generated 12.84 lakh mandays in the marine sector and 1.93 lakh mandays in the inland sector.

5. *Freezing and Processing*

A study on the employment generated in the fish processing industry was conducted by the manpower unit of the Fisheries Directorate in 1978. According the sample study that covered the whole stated estimated that the emloyment generated in the freezing and processing plants come to about 18.78 lakhs mandays.

The employment content in the procurement, distribution, processing and marketing of marine products in Kerala can be arrived at by a consolidating the above figures. The above forward linkage activities have generted 190 lakh mandays of employment.

10. Production Trends and Future Demand for Man Power in the Forward Linkage Activities

The major species of marine fish landed in Kerala are Oil Sardines, Mackerels, Ribbon Fish, Silver Bellies, Soles and Cat fish that account on an average over 75% of the total marine landings in terms of quantity. Marine fish production in Kerala from 1965 onwards is shown in Appendix. The trend in production over the years shows, a gradual and study upward trend from 1965-68. then widly fluctuating from 1969-75 and then gradually declining. In fact the production of some of the important species like sardines and mackeral that constitute the bulk of the marine land ings, shown marked declining trend in recent years. Though the catch of the mechanised boats showed remarkable increases from 1968-1973 its share has fallen from 33% in 1973-74 to 30% in 1978-79 though the number of boats operated has further increased during this period.

11. Conclusion

Though the development plans fix up ambitious targets of production, the development strategy pursued is not likely to boost up production in the near future. Though the recent trend in Fish and Prawn production stresses the need for quick diversification of fishing methods for exploiting the deep sea and other potential oceanic resources as well as to introduce national management regulations to prevent the over exploitation of the resources of the inshore belt the development efforts to this end is not so encouraging. Thus there is no much scope for a meaningful leap forward in fish production in Kerala and the scope for further employment prospects in the forward linkage activities are also not so bright. Thus it may be safely concluded that the demand for manpower in the above analysed activities are likely to remain steady overthe next few years or so.

APPENDIX TABLES

Appendix I

District-wise Details of Fishermen Population in Kerala

District	*No. of fishermen household*					*Total fishermen population*		*% of actual fishermen engaged in fishing*
		Hindu	*Muslim*	*Christian*	*Total*	*Male %*	*Female %*	
Trivandrum	22365	6	21	73	128125	51	49	9
Quilon	[illegible]	30	14	56	97858	51	49	19
Alleppey	22341	51	8	41	136631	51		23
Kottayam	3245	84	4	12	19420	51	49	23
Ernakulam	15909	62	4	34	102222	50	50	21
Trichur	9634	62	32	6	68543	50	50	18
Malappuram	7280	8	91	1	61849	50	60	21
Kozhikode	11666	41	58.6	0.4	87708	51	49	19
Cannanore	10315	55	41	4	74090	50	50	21
Total	118437	40	25	35	776446	51	49	20

Soune :—Socio-economic census of fisheries in Kerala—1980 (Provisional)

Appendix II

Composition of Marine Fish Landing in Kerala—1964-1978 (in tonnes)

Name of Fish	1964	1965	1966	1967	1968
Elasmobranchs	7218	5969	8080	7330	4175
Eels	..	3	..	273	2
Cat Fishes	2248	3565	5793	7536	4173
Chirocentras	705	452	427	337	390
Oil-Sardine	190401	219170	202800	235410	247048
Other Sardine	13808	18962	8680	9038	7723
Hilsa Ilisha	2	—	2	..	1
Other Hsila	253	10	..	123	35
Anochoviella	10461	2718	8816	11606	5652

Name of ifsh	1964	1965	1966	1967	1968
Thrissocles	755	849	2744	2785	1293
Other olupelds	1341	1811	2177	2562	1018
Harpodon nehereus	..	..	..	..	..
Saurida & Saurus	62	199	173	192	581
Hemirhamphus & Belone	30	35	190	101	114
Flying fish	..	..	..	2	4
Perches	791	1057	1286	1717	1649
Red mullets	189	305	2782	164	495
Polynemids	113	73	152	49	80
Scisenids	3647	3267	4921	4310	3630
Ribbon fish	169	13826	21102	6841	992
Caranx	15026	3959	7841	9642	4827
Chorinemus	247	65	142	537	81
Trachynotus	..	..	7	4	19
Other carangids	..	..	7	100	..
Coryphaena	15	5	20	64	12
Elacate	25	54	22	11	30
Leiognathus	9100	9873	12970	11987	7099
Gazza	..	..	..	..	..
Lactarius	990	1332	2393	4824	1771
Pomfrets	1077	435	562	1661	973
Mackerel	9657	18048	10747	4500	3599
Seer Fish	1906	1513	1263	1353	3785
Tunnies	1842	1831	1197	1445	1852
Sphyraena	580	902	267	1129	494
Mugil	463	67	112	285	186
Bregmaecertos	..	..	..	..	..
Soles	4324	7312	4736	3201	9495
Penaeid prawns	35220	14327	28120	27164	25356
Non-penaeid prawns	..	84	259	88	35
Other crustaceans	72	130	557	58	177
Cophalopods	340	174	714	374	1122
Miscellaneous	5406	6771	4683	5328	5283
Total	317973	339173	346744	364129	345301

Name of fish	1969	1970	1971	1972	1973
Elasmobranchs	5759	7490	4889	6986	8852
Eels	9	1	31	5	8
Catfishes	6245	16380	15189	12636	17498
Chirocentrus	308	877	464	397	544
Oil sardine	199983	191683	194977	104426	122783
Lesser sardines	9485	6139	11403	6790	62421
Hilsa ilisha	..	..	9	19	..
Other Hilsa	..	13	6	3	39
Anchoviella	10,846	7948	10,842	10,672	8940
Thrissocles	1166	4610	2349	2001	1663
Other clupeids	1589	1566	1668	1346	1158
Harpoden nehereus	..	..	1	43	45
Sauride & Saurus	546	1066	1395	1426	1136
Hemirhamphus & Belone	83	30	97	[illegible]	185
Flying fish	..	3	2	..	1
Perches	2340	4336	3663	3939	8663
Red mullets	1548	279	1573	2960	1537
Polynemids	142	22	569	24	570
Sciaenids	3195	5792	4145	6137	11723
Ribbon fish	7446	4922	17380	10,459	23,897
Caranx	3542	2563	4952	14848	14283
Chorinemus	55	77	49	817	48
Trachynotus	6	..	6	2	—
Other carangids	4	38	[illegible]	[illegible]	36
Coryphaena	1	1	1	92	153
Elacate	51	118	299	76	52
Leiognathus	14,019	16,167	8609	5042	18,388
Lactarius	1301	1443	2991	3034	6663

Name of Fish	1969	1970	1971	1972	1973
Gazza	..	..	21	15	4
Pomfrets	1177	693	2416	1932	1809
Mackerel	29,981	54,659	95,164	34,516	19,780
Seer fish	1010	1731	2800	1386	1690
Tunnies	978	1226	[illegible]	3626	2699
Sphyraena	339	79	174	1125	2333
Mugil	64	154	549	91	103
Bregmaceros	..	..	..	..	..
Soles	10029	10212	8807	6119	8551
(a) Penaeid prawns	34334	36940	31294	35866	84770
(b) Non-Penaeid prawns	44	14	1519	711	981
Lobsters	..	..	..	..	..
Crabs & Other crustaceans	435	556	523	158	1781
Cephalopods	164	86	473	350	339
Miscellaneous	6923	12966	11002	15419	12208
Total	294787	392880	445347	295618	448269

Name of Fish	1974	1975	1976	1977	1978
Elasmobranchs	10338	10292	7308	5706	9302
Eels	49	12	10	6	30
Catfishes	33526	32603	12743	7947	9125
Chirocentrus	660	605	807	547	1298
Oil Sardine	102135	97183	123937	117356	119037
Lesser sardines	31335	33652	34305	20754	11713
Hilsa ilisha	[illegible]	10	12	86	102
Other Hilsa	33			14	69
Anchoviella	19463	11432	9987	10105	21203
Thrissocles	1321	1638	2732	1648	1898
Other clupoids	1334	998	1174	512	973
Harpodon nehereus	10				91
Saurida & Saurus	6039	11294	99	5169	6246
Hemirhamphus & Belone	331	278	141	201	201
Flying Fish	2		1		
Perches	30970	14741	3069	14121	24909
Red Mullets	3081	23	2577	240	171
Polynemids	1	105	122	69	35
Sciaenids	26510	16811	6935	11965	19045
Ribbon fish	30102	15175	7687	7440	24207
Caranx	5960	7190	10478	15673	7197
Chorinemus	77	135	265	540	148
Trachynotus		6		7	19
Other carangids	75	65	8	16	72
Coryphaena	94	61	36	23	10
Elacate	35	73	106	158	166
Leiognathus	17518	5211	9371	7708	8040
Gazza	5				--
Lactarius	2903	988	168	829	1343
Pomfrets	7503	4101	708	3732	1014
Mackerel	10035	14020	19176	19050	25917
Seerfish	4909	4065	5036	3230	3354
Tunnies	5927	5845	12080	6705	8548
Sphyraena	3865	390	494	253	721
Mugil	955	74	26	30	1
(b) Non-penaeid prawns	1011	750	35	174	894
(c) Lobsters		31	50	40	38
(d) Crabs & other crustaceans	2886	1797	1310	4021	2170
Cephalopods	2175	3142	972	4973	6516
Miscellaneous	14305	43296	22074	26254	16023
Total	420257	400950	331047	313037	373339

Appendix III

District-wise Landings (Marine) in Kerala by type of Fish 1979

(Quantity in tonnes)

Name of fish	TVM	QUN	ALPY	EKM	TCR	MALPM	CLT	CANR	Total
Elasmobranchs	990	1350	551	1858	432	313	418	985	6897
Eels	..	—	..	7	1	..	1	1	10
Cat fishes	500	3288	910	1502	303	259	1245	3222	11229
Chirocentrus	604	115	16	28	38	28	41	255	1125
Oil Sardine	5968	5065	25193	15290	15001	7350	16511	25945	116323
Lesser Sardine	5043	1679	7494	396	130	55	576	541	15914
Hilsa illisha	6	..	..	..	..	..	..	..	6
Other hilsa	33	2	..	1	..	..	..	..	36
Anchoviella	4112	1885	162	351	19	6	10	5	6550
Thrissocles	38	424	485	170	159	145	169	199	1789
Other clupeids	60	411	43	83	9			68	674
Harpodon nechereus	—	—		—	—	—	1	—	1
Sauridah Saurus	27	4810	2	466	2	5	10	3	5325
Hemirhamphus & Belone	36	121	17	52			16	15	257
Flying fish			—	—	..	—	—	—	—
Perches	1676	15306	106	2873	42	27	65	51	20146
Red Mullets	..	21	1	..	..	17	68	..	127
Polynemids			..	1	..	8	18	2	29

37/205/MFC

[illegible]	TVM	QLN	ALPY	EKM	TCR	MALPM	CLT	CANR	Total
Sardines	79	461	304	1089	137	159	254	963	[illegible]
Ribbonfish	21048	2082	67	498	179	[illegible]	546	510	[illegible]
[illegible]	10173	[illegible]	232	407	461	[illegible]	236	192	[illegible]
Chirocentrus	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1	[illegible]	—	[illegible]
Dussumieria					—				
Other clupeoids	—				—				
Coryphaena	[illegible]	[illegible]		[illegible]					[illegible]
Elasmobranchs	[illegible]	[illegible]	[illegible]	[illegible]		—	[illegible]	[illegible]	[illegible]
Leiognathids	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	73	[illegible]	[illegible]	[illegible]
Gerres	—	—	—	—					
Lactarius	146	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Pomfrets	[illegible]	134	39	320	23	[illegible]	[illegible]	[illegible]	[illegible]
Mackerel	4133	[illegible]	3690	[illegible]	25922	[illegible]	[illegible]	1889	[illegible]
Seerfish	2690	544	50	1108	[illegible]	[illegible]	124	1027	[illegible]
Tunnies	11897	1001	47	[illegible]	[illegible]	[illegible]	14	2	[illegible]
Sphyraena	424	22	1	[illegible]	2	1	—	[illegible]	[illegible]
Mugil	—	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]
Bregmaceros	—	—		—	—				—
Soles	[illegible]	2268	502	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Penaeid prawns	62	13192	1400	[illegible]	1035	[illegible]	2468	2980	29503
Non-penaeid prawns	58	16	[illegible]	—	—	—	—		75
Lobsters	8	9	2	—	—	[illegible]	1	[illegible]	20
Crabs	—	1205	200	[illegible]	25	[illegible]	730	565	[illegible]
Squilla		1941	—	1857	—	—	—	—	3798
Cephalopods	1370	1157	2	[illegible]	—	—	—	—	2975
Miscellaneous	[illegible]	2515	[illegible]	[illegible]	2984	[illegible]	303	120	[illegible]
Total	74965	67945	13982	30723	23920	13282	26721	41154	329524

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APPENDIX IV

Composition of Catch in the Mechanised Fishery of Kerala in 1978

Name of fish	*Catch in tonnes*	%
Elasmobrachs	9,302	7.90
Eels	38	0.03
Cat fishes	9,125	7.80
Perches	21,919	18.70
Redmullets	171	0.15
Polynemid	35	0.03
Sciaenids	12,045	10.30
Leiognathus	2,140	1.80
Lactarius	1,533	1.30
Pomfrets	1,614	1.40
Soles	5,276	4.50
Penaeid Prawn	45,034	38.40
Non-Penaeid Prawns	394	0.34
Lobsters crabs & other crustaceans	214	0.18
Cephalopods	5506	4.70
Miscellaneous	2010	2.47
Total	1,17,356	100

Source: CMFRI published data.

APPENDIX V

Trend Prawn Production by Mechanised Boats At Neendakara under 1973-74

Year	*Total catch (tonnes)*	*Prawn catch (tonnes)*	*Total effort in hours*	*Catch per unit effort for prawn (in kg.)*	*prawn % of in total catch*
1973	66064	45477	550370	82.6	68.8
1974	77748	27764	823719	33.7	35.7
1975	151095	56750	1331728	42.6	37.6
1976	29836	14993	536897	27.9	50.2
1977	45828	24121	1336732	18.0	52.6
1978	89892	33143	241375	13.7	36.8
1979	56016	14582	3467943	4.2	26.0

Source: All Kerala Bost owners association

Appendix VI

Meethod of Employment Estimation:

Employment in the different forward linkage activities is calcualted on the bassis of the average, Marine production figures for five years from 1974-75 to 19778-79 The number of man days generated in different fishery activities aree arrived at as follows:—

1.(a) *Procurement and distribution of locally consumed fish by Cycle load and head-load workers*

Asssumption.— 30% of the fish landed is handled by cycle load and headload woorkers. On an average 20 kg. of fish is handled by a person per day. The enttire inland fish produced is handled by headload workers.

Callculation: (Marine)

$$\frac{98218000 \text{ kg.}}{20} \qquad 49.11 \text{ lakh man days}$$

(Inland) $$\frac{19136000}{20} \quad .. \quad 9.57 \text{ lakh man-days}$$

(b)) *Bulk movement by lorries and Van*

Assumption:—Nearly 70% of the fish moved by lorries and Vans 2000 kg. of fish given employment to four persons per day in bulk movement.

Calculation:

$$\frac{229176000}{2000} \times 4 \quad .. \quad 4.49 \text{ lakhs.}$$

(c) *Distribution of Fish turned out by Lorries and Vans*

Asssumption.—30kg. of fish is handled by one person per day.

Calculation: $$\frac{229176000}{30} \quad .. \quad 76.39 \text{ lakhs}$$

2. *Salting Drying and Curing of Fish:*

Assumption: 35% of the fish landed is salted/dried/cured, 100 kg of fish is handed by one person per day.

Calculation: $$\frac{114588000}{100} \quad .. \quad 11.46 \text{ lakhs}$$

3. *Employment in the procurement and distribution of prawns*

Assumption: 60% of the prawn catch is carried out by non-mechanised crafts 50kg. of prawns in handled by one person per day. In the mechanised sector 300 kg. per person.

Calculation

(a) (Non-mechanised) $\frac{2080000}{50}$ 4.16 lakhs---Mandays

(b) (Mechanised sector) $\frac{13874000}{300}$ 0.46 lakhs Mandays

4. *Movement of prawns by Lorries and Vans*:

Assumption:--2000 kg. of prawns given employment to 4 persons per day.

Calculation: $\frac{34684000 \times 4}{2000}$ 0.70 lakhs man days.

5. *Peeling of prawns*:

Assumption:—90% of the prawns landed is subjected to peeling 25 kg. of prawns is peeled by a person per day.

Calculation: (Marine) $\frac{32083000}{25}$ .. 12.84 lakh mandays.

(Inland) $\frac{4818000}{25}$ .. 1.93 lakh mandays.

6. *Freezing and processing*

18.78 lakhs

Total man power generated —190.80 lakh Mandays of employment.