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GOVERNMENT OF KERALA

MAN POWER STUDIES

VOLUME—III

MAN POWER DIVISION

BUREAU OF ECONOMICS & STATISTICS
TRIVANDRUM

1979



Government of Kerala

1980

PRINTED BY THE S. G. P. AT THE GOVERNMENT PRESS,
TRIVANDRUM, 1980.



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BUREAU OF ECONOMIC & STATISTICS

WASHINGTON

1957

16-50801-3

FOREWORD

Manpower Planning has been recognised as an integral part in Economic Development. The Manpower Unit started functioning in the Bureau from April, 1974. This unit has already published 18 studies in two volumes. Volume I contains 12 studies and Volume II 6 studies. The present publication, that is Volume III contains 5 studies relating to various disciplines. These studies were prepared by officers working under the Unit.

It is hoped that the Manpower Studies included in this Volume will be useful to the Planners and Administrators.

Trivandrum,
30-7-1979.

DR. P. A. NAIR,
Director,
Bureau of Economics and Statistics

The present volume includes the following five studies:

1. Availability of Specialists in Modern Medicine in Kerala.
2. A Report on the Study of Capacity Utilisation and Manpower Involvement in the Manufacturing Industries of Cartons, Paper Bags and Envelopes in Kerala.
3. Employment in Fish Processing Industries in Kerala.
4. A Report on the Study on the Employment of Craftsmen in Different Trades in Kerala.
5. A Study on the Characteristics of Unemployment among Postgraduates in Kerala.

It is hoped that more areas could be covered in the ensuing volumes of the series.

Trivandrum,
August 8, 1979.

DR. P. A. NAIR,
Director.

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MANPOWER STUDIES PUBLISHED IN PREVIOUS VOLUMES

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1. Technical Manpower for Agriculture in Kerala
2. Attrition rate of Agricultural Personnel in Kerala
3. Utilisation of Veterinary Personnel in Kerala
4. Employment potential of Fisheries Development Programmes in Kerala
5. Manpower Involvement in the School Education of Kerala
6. Unemployment among B.Ed. Degree holders in Kerala
7. Employment Trends among Engineering Graduates on the Live Register of the Employment Exchanges 1974
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9. Medical Manpower (Allopathic) in Kerala
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1. Higher Education (General) and Educational Manpower in Kerala
2. A study on the statutory apprenticeship programmes in Kerala
3. Fisherman population and Fishing implements in Kerala
4. Technical Manpower in Fisheries Sector in Kerala
5. A Report on the Manpower utilised by PWD in Kerala by its activities during 1976-77.
6. Migration of Engineering Graduates—A case study.

MANPOWER STUDIES UNDERTAKEN IN TRINIDAD, GUYANA

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1. Technical Manpower in Agriculture in the
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11. Manpower Requirements in the School Education of
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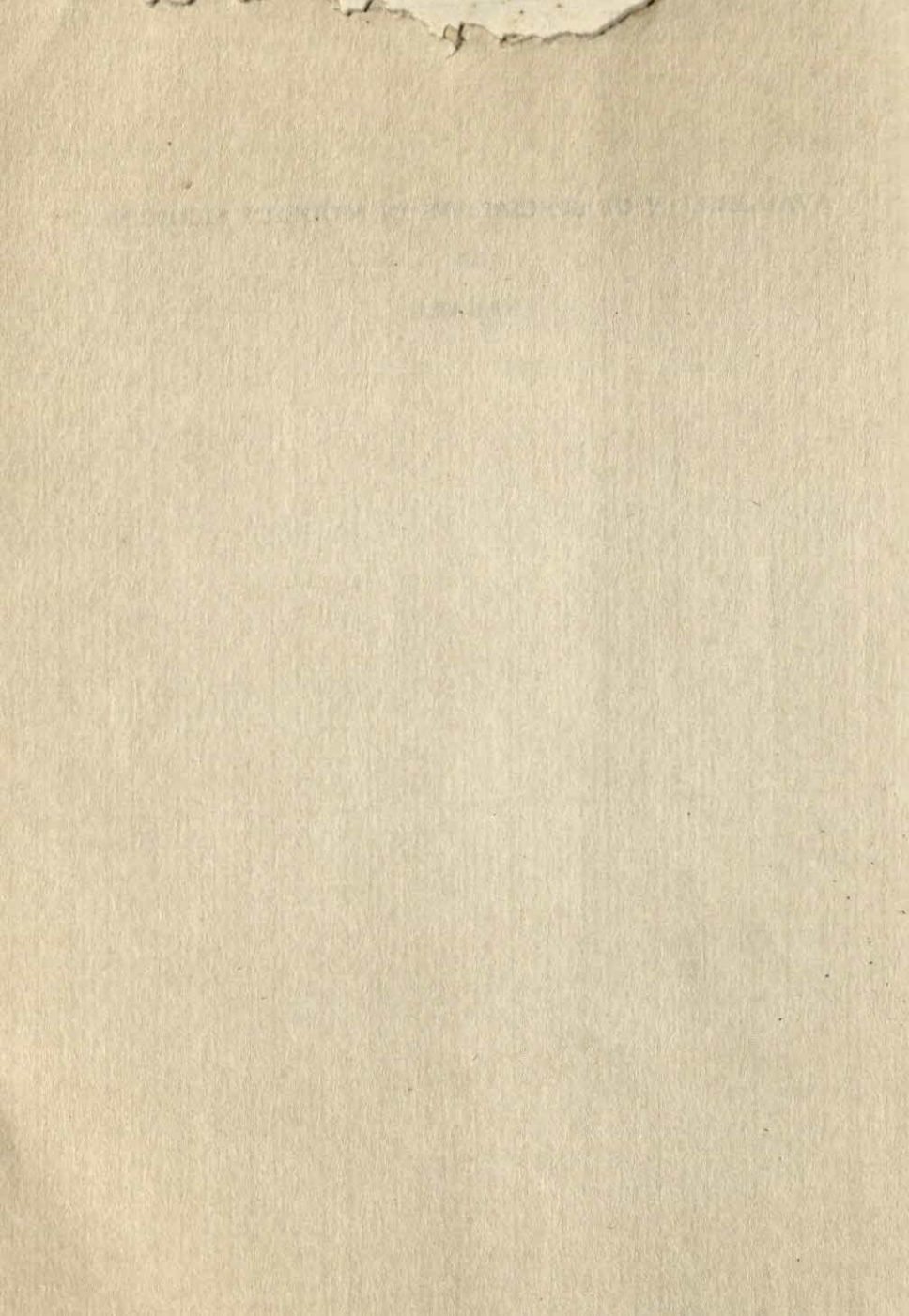
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2. A Study of the Manpower Requirements in
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4. Manpower Requirements in the School Education of
5. Manpower Requirements in the School Education of
6. Manpower Requirements in the School Education of

I

AVAILABILITY OF SPECIALISTS IN MODERN MEDICINE

IN

KERALA



AVAILABILITY OF SPECIALISTS IN MODERN MEDICINE IN KERALA

Introduction

Much progress has been made in the State in Medical and Public Health Activities during the recent decades. The Health Services Department renders integrated health services to the public. At the time of independence there were two departments Medical for curative, and Public Health for Public Health activities in the erstwhile Travancore state. Consequent on the formation of Kerala State in 1956, these two departments were merged to form an integrated Health Services Department.

The progress made in the activities of the Medical system all through the years since 1947 is noteworthy. Kerala has now four Medical Colleges and 881 Hospitals and Dispensaries as against 140 Medical institutions at the end of the year 1947. A massive scheme for opening rural dispensaries was taken up. More than 300 such dispensaries have also been opened in the State. This is a milestone in the history of development of Health Care delivery system in the State. The existing facilities for delivery of Health Care have been improved and speciality services have been provided to the rural areas as well.

Providing Medical Care Services in backward areas, conducting Medical check-up camps in rural areas making available the specialists services, establishment of a dispensary for giving better medical aid to the pilgrims at Sabarimala were also some of the notable features in the growth and development of the medical care during the last three decades.

Object of the study

In the modern medical sector alone, there should be at least one doctor for every 3000 population as is recommended by the Mudaliar Committee. Definitely specialisation ensures better quality of service. Hence this study attempts to evaluate the requirements and availability of specialists in different branches. M.D. & M.S. Courses have been commenced in Medical College, Trivandrum from the year 1968 and at Kottayam and Kozhikode in the year 1972.

The allocation of seats in the three colleges for the year 1977-78 for the different post graduate courses is given in Appendix I. Altogether there are 122 seats for post graduate degree courses and 100 seats for Diploma courses. There are at present 550 post graduate Degree Holders (excluding Dental) and 474 Diploma holders. The details have been collected from Medical Council, Medical Colleges and Health Services Department.

Procedure of selection for post graduate courses.

The courses are expected to commence in December every year. Candidates should have passed the M.B.B.S. Degree of Kerala/Calicut University or any other University recognised by the Kerala/Calicut Universities as equivalent thereto with eligibility for full registration in respect of all courses. For selection to the course, preference will be given to candidates who have done one year senior House surgency or one year Tutorship/Demonstratorship in the concerned subject or who have been engaged in Medical practice for a minimum period of three years. The question of preference comes only when the assessed merit of two candidates is found equal.

The selection is made on the basis of merit which will be assessed by taking into account the total marks for all the subjects for M.B.B.S. course in the University examinations plus the marks of particular subject or the parent subject in the case of speciality converted into a percentage of the total.

A weightage of 5% marks will be added to the total percentage in the case of those who have undergone Military service for a period not less than three years.

10% to Diploma holders in the selection of candidates to M.S. & M.D. Courses in the respective subjects or sub specialities.

5% to Health Services candidates with three years or more of rural service. This concession is available also to the Medical Officers working in the rural areas under the E.S.I. Scheme provided their service in rural areas is certified to be so by the Administrative Medical Officer E.S.I. and countersigned by the Director of Health Services.

Full time service in Primary Health Centres or Government Rural Dispensaries under the Health Services Department in this State will be considered as rural service for this purpose.

Diploma in physical medicine and Rehabilitation is entitled to 10% weightage for both M.S. General Surgery and M.S. Orthopaedics.

A weightage of 10% marks will be given to post graduate Degree holders either in General Surgery or in Orthopaedics in the selection of candidates for admission to Diploma in physical Medicine and Rehabilitation.

10% of the seats in each subject of the Post Graduate Courses will be reserved for admission to scheduled castes and scheduled tribes candidates.

20% of the seats in post graduate courses in the Medical Colleges will be reserved for teaching staff in Medical Colleges. The selection to the reserved quota of seats for Tutors in Medical Colleges will be made strictly on the basis of seniority.

The duration of the course is 3 academic years in the case of Degree Courses and 2 academic years in the case of Diploma courses. A reduction of one year may be given as per the relevant University regulations in force from time to time. But no reduction in the duration of the course will be granted in the case of Diploma in Psychiatric Medicine. The duration of the Diploma course is 26 months.

Distribution of Post Graduates in Medicine, Surgery etc.

Table I below gives the distribution of post graduates according to their field of specialisation.

TABLE—I

Distribution of Post Graduates According to field of specialisation

Sl. No.	Name of Speciality	No. of Specialists (Public Sector)	Total no. of Specialists
1	General Medicine	180	226
2	Obstetrics & Gynaecology	148	180
3	Paediatrics	100	130
4	Anatomy	25	25
5	Physiology	15	15
6	Biochemistry	16	16
7	Pathology	33	48
8	Pharmacology	16	16
9	Forensic Medicine	6	6
10	General Surgery	195	240
11	Ophthalmology	51	65
12	Orthopaedics	20	30
13	Microbiology	9	9
14	Social & Preventive Medicine	15	15
15	Anaesthesia	20	34
16	Radio Diagnosis	20	25
17	Radiotherapy		
18	Dermatology & Venereology	17	27
19	E.N.T.	28	51
20	Psychiatric Medicine	15	22
Total		929	1180

From the table it is seen that most of the post graduates in Medicine are employed in Public Sector unlike Graduates in Medicine. In the Professional employment exchange only 3 post graduates in Medicine have been registered which shows that unemployment problem is limited. According to the recommendation of the Health Survey and Planning Committee the population norm fixed for a Medical College is 50,00,000. The estimated population of Kerala for the year 1978 is 245 lakhs whereas we have only 4 Medical Colleges at present against the requirement of five.

Nearly 412 post graduates are working as professors, Associate Professors and Assistant Professors in all our four Medical Colleges. The provisional figures of availability of Post Graduates in Medicine shows that 251 specialists are in the private sector in Kerala.

Further it may be noted that we have no excess of specialists. There might be some Tutors in Medical Colleges who have secured Post Graduate Degree, but since they are employed they may not be registered in the Professional employment exchange.

At present we have 1,049 specialists including those in dentistry (Degree and Diploma holders). According to the estimated population for 1978 we have one specialist for 20,402 population, which is not at all satisfactory. At least a norm may be accepted as one specialist for every 10,000 population. As such we are in need of more than double the number of specialists that are presently available.

For the post graduate degree courses major portion of the seats are allotted for General Medicine and General surgery which are required in all hospitals. Specialists in Anatomy, Physiology, Forensic Medicine, Microbiology, Social and Preventive Medicine are required in Medical Colleges only. Specialists in Biochemistry and Pathology are required in Medical Colleges and Laboratories. Post Graduates in Pharmacology are required in Medical Colleges and Drugs control Department. Specialists in Ophthalmology, Orthopaedics, Radio Diagnosis and Therapy, Dermatology and Venereology are required in all Medical Colleges and District Hospitals.

Specialists in General Medicine, Surgery, Gynaecology, Paediatrics and Anaesthesia are required in all hospitals where there are inpatient facilities.

As such in District Hospitals all specialities are available. But at Kottayam, consequent on the functioning of the Medical College Hospital, separate speciality units are not sanctioned. At Kottayam since specialists are available, units are functioning. But para medical staff are not posted. At Idukki also all specialities are not available since the District Hospital was set up only recently.

Specialities such as Medical, Surgical, Gynaecology and Obstetrics and Paediatrics are sanctioned in all Hospitals (139). Ophthalmology and E. N. T. are sanctioned in 25 Taluk Headquarters Hospitals other than the district hospitals. Either post graduate degree or diploma holders are posted in speciality units.

Dentistry

The district-wise distribution of dental institution and dental surgeons is given below:

TABLE II

District-wise distribution of Government and Private Dental Institutions in Kerala

Name of District	No. of Dental Institutions				Total	No. of Dental Surgeons		
	Government		Private			Govt. Insti- tution	Private Insti- tution	Total
	R	U	R	U				
Trivandrum	3	3	4	21	31	31	28	59
Quilon	3	2	31	1	37	5	29	34
Alleppey	3	3	13	5	24	6	16	22
Kottayam	3	3	20	16	42	7	35	42
Idukki	2	..	21	..	23	2	24	26
Ernakulam	2	6	26	6	40	8	30	38
Trichur	4	3	7	2	16	8	10	18
Palghat	3	2	4	7	16	5	10	15
Malappuram	2	2	3	5	12	4	10	14
Cannanore	3	2	11	8	24	5	0	25
Kozhikode	2	2	5	2	11	4	9	13
Total	30	28	145	73	276	85	221	306

According to the Health Survey and Development Committee there should be one Dentist for every 4,000 population by 1981. But at present in Kerala there is only one Dental Surgeon for nearly 67,000 of the population.

The requirement, availability and deficit of Dentists from 1961 to 81 are given below in Table III.

TABLE III

Year	Requirement	Availability	Deficit
1961	4049	49	4000
1966	4654	144	4510
1971	5259	239	5020
1976	5864	334	5530
1981	6469	435	6034

A major portion (80%) of the dentists are employed in the Private Sector. It is a fact that a major portion of the population cannot resort to Private Medical aid. Hence employment avenues in Public Sector may be increased, so as to benefit all sections of the population. There is one Dental College at Trivandrum and Dental Units are functioning in all Taluk Headquarters Hospitals except Pulinkunnu and 2 Taluk Headquarters Hospitals in Idukki. There are dental units in 2 P.H. Centres also.

As far as Dental services are concerned even B. D. S. degree holders are lacking in Kerala to achieve the norm. MDS course has been commenced in the Dental College, Trivandrum in 1968. 25 Candidates have secured Post Graduate Degree from the Dental College, Trivandrum and most of them are presently engaged in the teaching profession.

Specialists in ESI Scheme

In order to provide Medical amenities to the employees, the Employees State Insurance Scheme was introduced in Kerala during the year 1956. In the beginning it was introduced only in four districts of the State—Quilon, Alleppey, Ernakulam and Trichur. Now the scheme has been extended to all districts except Malappuram and Idukki. Under this scheme Medical care is extended to nearly 201,000 employees and their families. In the earlier years of implementation of the scheme the families of the employees were not eligible for hospitalisation facilities. With the introduction of the full medical care from 1st May 1971 in this State which was the first state to introduce it in India, this facility has been extended to the families of the employees also.

Medical benefits under the Scheme are extended through a number of full time E. S. I. Hospitals and through a number of beds reserved in Government Hospitals referred to as Referred Hospitals.

Statement showing the number of full time and part-time Specialists under the ESI Scheme are given in Table IV. All specialities are not available in all Districts under the ESI Scheme. Steps have to be taken to post specialists in those Districts also.

TABLE IV

District	Full-time Specialists	Part-time Specialists	Total
Alappuzha	10	10	20
Ernakulam	11	11	22
Idukki	2	2	4
Kannur	3	3	6
Kasaragod	4	4	8
Kozhikode	5	5	10
Malappuram	6	6	12
Palakkad	7	7	14
Thiruvananthapuram	8	8	16
Thiruvananthapuram	9	9	18
Trichur	10	10	20
Wallooam	11	11	22
Wallooam	12	12	24
Wallooam	13	13	26
Wallooam	14	14	28
Wallooam	15	15	30
Wallooam	16	16	32
Wallooam	17	17	34
Wallooam	18	18	36
Wallooam	19	19	38
Wallooam	20	20	40

No. of full time and part-time specialists

Sl. No.	Name of District	Medicine		Surgey		ENT		Obstetrics & Gynaecology		T.B.		EYS	
		FT	PT	FT	PT	FT	PT	FT	PT	FT	PT	FT	PT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Trivandrum	1	1	1	1	..	..	1	1	..	..	..	..
2	Quilon	2	1	2	1	..	..	2	1	..	..	..	..
3	Alleppey	1	1	1	1	..	..	1	1	..	..	..	..
4	Kottayam	2	1	1	1	..	..	1	1	..	..	..	..
5	Ernakulam	2	1	2	1	..	..	2	1	..	..	..	..
6	Trichur	2	..	1	..	..	..	1	1	..	..	..	..
7	Palghat	..	1	..	1	..	1	..	..	..	1	..	1
8	Kozhikode	..	1	..	1	..	1	..	1	..	1	..	1
9	Cannanore	..	1	..	1	..	..	..	..	..	1	..	..
Total		10	8	8	8	..	2	8	7	..	3	..	2

Allocation of Specialist (District-wise)

The District-wise distribution of specialists in the public sector is given in Table V. The specialists working in Medical Colleges are also included in this table. In those Districts where Medical Colleges are functioning there are more specialists. Hence more speciality units may have to be set up in the other districts.

Communicable Diseases.

Much attention was focussed in controlling the communicable diseases in line with National Control Programmes. There are specialised treatment centres for all communicable diseases. For each item there is one Assistant Director in the Health Services Department with medical and para-medical staff. Through the sustained effort of the Health staff both in the rural and urban areas smallpox has been totally eradicated. Kerala was the first State that entered the maintenance phase in 1964, regarding Malaria Eradication.

The establishment of T. B. demonstration and training centre, sanatoria for Chest Diseases, T.B. Clinics and T.B. Seal wards attached to the hospitals has facilitated the proper diagnosis and treatment of T.B. patients. With the introduction of District T. B. Programme in 1964, the domiciliary line of treatment was also made available to the T.B. patients. The B.C.G. Vaccination Programme commenced in 1949 for the prevention of Tuberculosis and it continues as an integral part of District T.B. Control Programme.

The three T. B. Hospitals one at Pulayanarkottah, K. V. Sanatorium, Mulankunnathukavu and T. B. Sanatorium, Pariyaram continued to provide treatment to the T.B. patients. T. B. patients were given domiciliary treatment in the T.B. Centres. In T. B. Clinics and T.B. Seal Wards attached to the Hospitals too, the T.B. patients were admitted for treatment. The list of T.B. Centres, T.B. Clinics and T. B. Seal Wards providing treatment to the patients are given in Appendix II. There are 2690 T.B. beds available in the above Government Medical Institutions for the treatment of T.B. patients. T.B. forms approximately 5% of the total diseases. The services of a specialist should be made available in all major hospitals including Taluk Headquarters Hospitals.

The three Government Leprosy Hospitals one at Nooranad, another at Koratty and third at Chevayoor continued to give treatment to the Leprosy patients.

There are also four Private Hospitals, Salvation Army Hospital, Puthencruz and St. Johns Hospital, Purappancode, Poor Leprosy Hospital, Green Garden, Sherthallai and Damien Institute, Trichur, with a total bed strength of 571.

One percent or more population suffering from Leprosy are considered Endemic population. 100 lakhs of population is considered as Endemic population in Kerala and 90 lakhs of population have been covered by the Health staff. Each Leprosy Health Visitor is allotted an inhabitedly area 20000 population. The Health Visitor visits all the households in a year and examines them and advises suspected cases to approach the doctor on the Clinic day. The main duty of the Leprosy Health Visitor is to induce the person to take treatment. Doctors posted in S.E.T. Centres are trained for 6 weeks at the Noornad Leprosy Centre. It is expected that the Medical Officers in S.E.T. Centres would attend the clinic for better diagnosis and treatment on the clinic day.

At present no separate allotment for medicine is made available for Leprosy Patients. It is desirable to allot separate quota for S.E.T. Centres so that there may not be any difficulty for those patients in getting medicines.

There are 325 S.E.T. Centres and 25 Urban Taluk Headquarters Leprosy Centres. The S.E.T. Centres are attached to either Government Hospitals, Government Dispensaries or Primary Health Centres with a total of about 500 para Medical workers working exclusively for Survey, Education and treatment under the public sector.

Also 2 Government and 5 private Leprosy Control Units are functioning. A control unit has a population of four lakhs and an endemic population of 1% or more. The Control Units in the Public Sector are at Erumapetty and Ponmani. Total number of patients detected by various surveys are 31179. The endemicity of the State is roughly calculated as 5 percent. There are 27 specialists in Leprosy and 325 Medical Officers who are trained in Leprosy. beds are available in the Public Sector and 571 in the Private Sector. The 2213 beds District-wise distribution of Leprosy Control Units, Hospitals and S.E.T Centres are given in Table VI.

Two temporary hospitalisation wards (20 bedded each) attached to Government Hospitals, Kunnankulam in Trichur District and Perinthalmanna in Malappuram District are functioning. These wards are established in areas where the endemicity is high and are for admission of patients in the acute stages like reactions etc.

Pilot Survey Unit is meant to conduct Random Surveys in all Districts and to find out the endemicity of the areas. According to the report of the Pilot Survey S.E.T. Centres and control units are created.

Three Government Mental Hospitals are functioning with a total bed strength of 1298 at Trivandrum, Trichur and Kozhikode. The number of inpatients treated in a year comes to 7364 in these Hospitals. There are no well developed Private Hospitals for Mental Diseases. This leads to overcrowding in Government Hospitals and thus the facilities are quite insufficient.

Hence more mental hospitals may be commissioned and side by side the facilities in the existing Hospitals may be increased. Kerala having the highest density of population is lagging behind for some specialised units especially psychiatry. Psychiatrists may be posted at least in all District Hospitals since such specialists are meagre in private sector.

There is one Ophthalmic Hospital at Trivandrum. Eye Units are functioning in all District Hospitals and 25 Taluk Headquarters Hospitals. The National Trachoma Control Programme was begun in Quilon and Trichur in the IV Plan Period and then extended to Kottayam District. Eye ointment was distributed and proper Health education was also given. Every year eye ointment is being distributed from Health Services Department under the National control programme. For skin and V. D. specialities are provided in Medical Colleges as well as in District Hospitals as well as in some of the Taluk Hospitals.

For cardiology, facilities are provided in all Medical Colleges and District Hospitals. For Cancer, there are facilities in Medical Colleges as well as in one of the district hospitals. Specialities like Nephrology, Endocrinology are yet to be developed even in Medical Colleges.

Conclusion

On the whole we are in need of more specialists. It is a fact that no additional remuneration is provided for specialists except for certain category as compensation allowance. To provide more speciality services more and more Medical Officers should be trained and the speciality services will have to be extended to all hospitals down from Medical Colleges to District Hospitals and then to the Taluk Hospitals in a phased manner.

District-wise Distribution of Specialists (Public Sector)

<i>Name of District</i>	<i>No. of Specialists</i>	<i>Population per Specialists (Public sector)</i>
Trivandrum	211	12019
Quilon	64	43297
Alleppey	122	20090
Kottayam	112	15669
Ernakulam	80	32637
Trichur	69	33899
Palghat	37	52216
Kozhikode	184	13201
Cannanore	12	228000
Malappuram	33	64848
Idukki	5	176800
Total:	929	26463

TABLE VI

Number of Leprosy Hospitals, Control Units, Urban Leprosy Centres and Survey Education and Treatment Centres

<i>Name of District</i>	<i>No. of Hospitals</i>		<i>Control Units</i>		<i>Urban Leprosy Centres</i>	<i>S.E.T. Centres</i>
	<i>Government</i>	<i>Private (Grant-in-aid)</i>	<i>Government</i>	<i>Private (Grant-in aid)</i>		
Trivandrum	..	1	..	1	5	53
Quilon	..	..	..	..	1	33
Kottayam	..	..	..	..	2	3
Idukki	..	..	..	..	..	4
Alleppey	1	1	..	2	4	34
Ernakulam	..	1	..	..	4	25
Trichur	1	1	1	1	3	51
Palghat	..	..	..	..	1	63
Malappuram	..	..	1	..	..	16
Kozhikode	1	..	..	..	3	24
Cannanore	..	..	..	1	2	19
Total:	3	4	2	5	25	325

APPENDIX I

Number of Seats for the Post Graduate Course in Medicine

Sl. No.	Name of Course	No. of Seats			Total
		Trivandrum	Kottayam	Calicut	
1	M.D. General Medicine	13	2	6	21
2	M.D. Obstetrics & Gynaecology	8	2	4	14
3	M.D. Paediatrics	3	..	..	3
4	M.S. Anatomy	2	..	2	4
5	M.D. Physiology	2	2	3	7
6	M.D. Biochemistry	2	..	..	2
7	M.D. Pathology	6	..	..	6
8	M.D. Pharmacology	4	..	2	6
9	M.D. Forensic Medicine	2	..	2	4
10	M.S. General Surgery	20	2	6	28
11	M.S. Ophthalmology	4	..	2	6
12	M.S. Orthopaedics	2	..	2	4
13	M.D. Microbiology	..	..	2	2
14	M.D. Social and Preventive Medicine	3	..	2	5
15	M.D. Anaesthesia	1	1	..	2
16	M.D. Radio-Diagnosis	2	..	..	2
17	M.D. (Radio-therapy)	2	..	..	2
18	M.D. Dermatology & Venereology	..	..	2	2
19	M.S. E.N.T.	2	..	..	2
Total:		78	9	35	122

Sl. No.	Name of Course	No. of Seats			Total
		Trivandrum	Kottayam	Calicut	
<i>Diploma Course</i>					
1	Diploma in Clinical Pathology	4	..	3	7
2	Diploma in Gynaecology and Obstetrics	6	6	8	20
3	Diploma in Child Health	6	..	6	12
4	Diploma in Ophthalmology	3	..	6	9
5	Diploma in Orthopaedic Surgery	3	..	4	7
6	Diploma in Laryngology and Otology	3	..	3	6
7	Diploma in Anaesthesiology	4	6	2	12
8	Diploma in Public Health	12	..	..	12
9	Diploma in Medical Radiology	3	..	..	3
10	Diploma in Dermatology and Venereology	..	..	2	2
11	Diploma in Psychiatric Medicine	6	..	..	6
12	Diploma in Physical Medicine and Rehabilitation	4	..	..	4
Total:		54	12	34	100

Details of T.B. Centres and Clinics

Sl. No.	T. B. Centres	Beds
1	State T.B. Centre, Trivandrum	28
2	District T.B. Centre, Quilon	40
3	do. Alleppey	64
4	do. Kottayam	48
5	do. Ernakulam	40
6	do. Trichur	22
7	do. Palghat	54
8	do. Malappuram	25
9	do. Kozhikode	20
10	do. Cannanore	28
<i>T. B. Clinics.</i>		
1	T. B. Clinic, Kottarakkara	24
2	do. Kozhencherry	69
3	do. Karunagappally	50
4	do. Karuvatta	..
5	do. Vaikom	..
6	do. Alwaye	12
7	do. Fort Cochin	..
8	do. Muvattupuzha	12
9	do. Ponnani	52
10	do. Kasargode	12
<i>T.B. Seal wards attached to Hospital.</i>		
1	Taluk Headquarters Hospital, Neyyattinkara	12
2	Taluk Headquarters Hospital, Nedumangadu	12
3	do. Chirayinkil	24
4	Government Hospital, Punalur	12
5	do. Kozhencherry	12
6	do. Chengannur	12
7	do. Mavelikara	12
8	do. Chanaganacherry	12
9	do. Palai	12
10	do. Kanjirappally	12
11	do. Vaikom	12
12	do. Palluruthy	12
13	do. Ayyampally	12

<i>Sl. No.</i>	<i>T. B. Seal wards attached to Hospitals</i>	<i>Beds</i>
14	Taluk Headquarters Hospital, Muvattupuzha	12
15	Government Hospital, Alwaye	12
16	do. North Parur	12
17	do. Njarackal	12
18	do. Grangannore	12
19	do. Irinjalakuda	12
20	do. Kunnankulam	12
21	do. Chalakudy	12
22	do. Chittoor-Tathamangalam	12
23	do. Ottappalam	12
24	do. Mannarghat	12
25	do. Perinthalmanna	12
26	do. Tirur	12
27	do. Tirurangadi	12
28	Taluk Headquarters Hospital, Badagara	12
29	do. Quilandy	12
30	Government Hospital, Vythiri	12
31	do. Tellicherry	12
32	do. Kasargode	12
33	do. Kanhangad	12
34	District Hospital, Trichur	22
35	do. Cannanore	28
36	Central Jail Dispensary, Cannanore	6
37	Medical College Hospital, Alleppey	50
38	Medical College Hospital, Kottayam	24
39	Medical College Hospital, Calicut	60

II

REPORT OF
THE SURVEY ON CAPACITY UTILISATION AND MAN POWER
INVOLVEMENT IN THE MANUFACTURING INDUSTRIES
OF CARTONS PAPER BAGS AND ENVELOPES
IN KERALA 1977

REPORT ON
THE SURVIVAL OF CARBON UTILIZATION AND MAXIMUM
INVOLVEMENT IN THE MANUFACTURE OF PAPER
OR CARTONS FROM PAPER AND PULP
IN GREAT BRITAIN

REPORT OF THE SURVEY ON CAPACITY UTILISATION
AND MANPOWER INVOLVEMENT IN THE S. S. I. UNITS
MANUFACTURING CARTONS, PAPER BAGS AND
ENVELOPS IN KERALA 1977

CHAPTER I

Introduction:

1.1 Kerala lags behind most of the other States in India in the matter of Industrial Development. The States of Maharashtra, Gujarat, Punjab and Tamilnadu have achieved remarkable industrial progress in the last two decades.

Resources and facilities are available in Kerala, which if properly exploited with the employment of appropriate technologies will lead to the establishment of a firm base of industries suited to the needs and genius of the region. In this context a massive effort in the form of an intensive programme of Small Industries Development with the twin objectives of (1) stabilisation and nursing of the existing units and (2) establishment of 10,000 new Small Scale Industrial Units during the years of 1975-79 was proposed under a New Industries Programme (NIP). The programme was launched by the State Government in April, 1975.

The concept of 10,000 Mini Industrial Units for the State has caught the imagination of the whole country at present. This boldly aims at the manufacture and distribution of consumer goods in an integrated economic pattern. This in itself holds out great potential for the growth of industries in the State.

The launching of this New Industries Programme in the state of Kerala resulted in the dawn of Industrial units for the production of new items and for the expansion of existing items of production under the S.S.I. sector. The expansion of an industry is expected to generate direct as well as indirect employment opportunities, but it is difficult to assess in concrete terms to what extent the quantum of employment will be generated by expansion of a specific industry due to its inherent character of industrial-mix with other industries.

1.2 Reliable data are necessary to calculate technical ratios of a specific industry for arriving at valid conclusions. The relevant ratios not only differ from industry to industry, but are seldom the same at the margin as on the average for the same industry. The changes in technology and organisations also necessitate changes in the co-efficients.

Objectives:

1.3 The main objectives of conducting this industrial survey are:

1. To assess the present production capacity and its utilisation.
2. To examine the current Manpower situation in the industry; and
3. To examine the occupational structure of the industry and to estimate the scope for further expansion and the future requirements of Manpower in the Industry.

These are vital aspects from the point of view of development of any industry.

Methodology:

1.4 At the time of initiating this survey, there were 55 units engaged in the manufacture of cartons, paper bags and envelopes under the S.S.I. sector spread over 10 districts of the State. There are no registered units in Idukki district. All these units were contacted by the field staff of the Directorate of Industries and Commerce. The schedules were scrutinised and data tabulated manually by the Manpower Officer in the Directorate.

Response:

1.5 Out of 55 units of the industry in the State existing at the time of launching the field enquiry in 1977, details from 53 units were obtained. Complete coverage has been made impossible because of the non-receipt of details from two carton manufacturing units at Ernakulam.

Limitations:

1.6 Since the response of the survey is not exhaustive, it may be kept in mind that the data incorporated in the report relate to the responding units only. Further, for the purpose of conducting this study, carton, paper bag and envelope manufacturing industries have been termed as one industry. These limitations have to be kept in view while interpreting the results of this survey for future purposes.

General Characteristics:

2.1 The units manufacturing cartons, paper bags and envelopes in the State vary in the degree of mechanisation and level of technology employed. Some units employ rudimentary and antiquated methods where almost all the operations are done by manual labour. Others employ modern techniques and are run by electricity. They have higher efficiency of production. In between these two extreme groups, come the medium units which use only the minimum machinery and simple technology required. These medium units also rely on manual labour to a great extent. This methodology of employing intermediate technology is well suited to a developing economy for matching the available manpower, social structure and the size of the market.

2.2 It has been estimated that 40 per cent of the total demand for paper and paper products in our country is for industrial papers. Cartons, paper bags and envelopes are manufactured by industrial papers. The annual rate of growth of demand for industrial paper is of the order of 10%. The per capita consumption of paper and paper products in India is only 2 kgs. compared to 8.6 kgs in China. Textiles, tobacco, tea and coffee industries are assuming the larger consumers of industrial paper in India. Thus, these three groups accounts for 17%, 14% and 5% respectively of the total consumption of paper and paper products.

2.3 The use of cartons as packing material is ever increasing in the industries like hosiery and foot wears, textiles and ready made garments, cigarettes, food preservation industry, breweries, glass wares, pharmaceuticals, soaps and cosmetics, biscuits, cashewnuts, electronic goods, electric bulbs and tubes, rubber and rubber products, sea food industry etc.

The paper bags find their applications in:

1. Provision and Grocery shops
2. Chemist and Druggist shops
3. Stationery shops
4. Laundries
5. Cloth and Textile shops
6. Bakery units etc.

2.5 Envelopes are used extensively in offices, Commercial establishments, industrial establishments and households as an essential stationery item. They are used to envelope wedding and greeting cards also.

2.6 There is a large element of unsatisfied demand in the country for cartons of good quality given adequate supply, there will be substantial replacement of the conventional wooden cases by cartons in many sectors.

2.7 The main purpose of attractive packaging of a product for today's market is to increase sale. A suitable wrapper can be used to transfer a plain paper or a simple box into a beautiful package which arouse the desire to purchase the item.

2.8 It is no exaggeration that the development of this industry presents a saga of human inventiveness responding to the changing demands and urges of the masses for a gracious living. The Industrial applications of these products are also increasing day by day.

Concentration in the Industry

2.9 The annual turnover of paper products comprising of cartons, paper bags and envelopes in Kerala comes to 5703.226 Metric tons valued at Rs. 3,02,11,583 during the year 1977. The 53 units in Kerala put together provide an employment to 472 persons. In the matter of direct employment, Ernakulam tops followed by Quilon and Calicut districts, their shares of total employment in the industry being 27%, 23% and 13% respectively.

TABLE I

Manpower Distribution in the S. S. I. Units engaged in the Manufacture of Cartons, Paper bags and Envelopes 1977

Sl. No.	District	Units		Manpower		Manpower involvement per unit (No.)
		No	% age to total	No.	% age to total	
1.	Trivandrum	5	9	34	7	7
2.	Quilon	7	13	107	23	15
3.	Alleppey	4	8	31	7	8
4.	Kottayam	4	8	22	5	6
5.	Idukki	x	x	x	x	x
6.	Ernakulam	13	25	130	27	10
7.	Trichur	6	11	50	11	8
8.	Palghat	2	4	19	4	10
9.	Malappuram	1	2	6	1	6
10.	Kozhikode	8	15	63	13	8
11.	Cannanore	3	6	10	2	3
KERALA STATE		53	100	472	100	9

2.10 Table I gives the district-wise distribution of S. S. I. units engaged in the manufacture of cartons, paper bags and envelopes in Kerala State along with the corresponding manpower involvement in the industry during the period under report. There are paper products units in all districts except Idukki. Higher concentration is found in Ernakulam district. Out of 15 units in Ernakulam, details from 2 units have not been received inspite of repeated endeavours. Of the remaining 13 units, 10 are engaged in the manufacture of cartons with a manpower involvement of 119. In Quilon, there are 6 carton manufacturing units with manpower involvement of 103. Out of 4 paper products manufacturing units in Alleppey, 3 are engaged in the manufacture of cartons. There are two carton manufacturing units with manpower involvement of 20 in Calicut.

Reasons for concentrations

2.11 In general, cartons are extensively used in industry for packaging of finished goods and merchandise. In Kerala, cartons are mainly used for packaging of products like Sea food, cashewnut and processed fruits. Products like confectionary, pharmaceuticals and electronic items are also using part of cartons manufactured here for internal marketing purposes. The units manufacturing cartons are by and large small scale units. Cartons manufacturers are mainly located in Ernakulam, Quilon and Alleppey Districts, because of the concentration of the end-use industries in these Districts.

2.12 The number of major units in end-use industries in Quilon, Alleppey and Ernakulam districts is as under:

Industry	No. of Units		
	Quilon	Alleppey	Ernakulam
1. Cashew processing	90	1	4
2. Sea food	10	16	43
3. Other food products	24	40	24
4. Confectionary	6	1	4
Total	130	58	75
Carton Manufacturing Units	6	3	12

Price and quality of products are found to be competitive in these markets.

2.13 Paper bags are considered these days as the most common packaging medium used by bakers, confectioners, grocers, textile merchants, dry cleaners etc. due to the various advantages over the other conventional packaging

medium. It may be noted that the sales of paper bags will be higher during certain festival seasons like Onam, Christmas, Bakrid, etc. when the sale of consumer products like textiles is high. Thus we find that the market for the product is good, but it is competitive at the same time. It is also understood that most of the requirements of paper bags in the various trade centres in Kerala are met by supply from outside states.

2.14 The reason for the increasing number of paper bag units in Calicut may be the demand of paper bags from the confectionary, halwa and textile units, in the city. The large quantity of merchandise transacted in the busy business city may also require use of paper bags to a great extent.

No. of Units		Industry	
Calicut	Alleppey	Units	Value (Lakhs)
1	1	100	0.00
2	10	10	0.10
3	40	24	0.24
4	1	5	0.05
5	88	100	0.10
6	2	5	0.05
7	10	100	1.00

2.13 Paper bags manufactured these days in the most common packaging medium used by paper confectionery, halwa and textile units. It is also understood that most of the requirements of paper bags in the various trade centres in Kerala are met by supply from outside states.

CHAPTER III

ANALYSIS OF DATA

A district-wise analysis of the industry is given below:

3.1 *Trivandrum*.—There are 5 units in this District with an employment of 34. Two units produce hand made paper bags and envelopes. Two other units are engaged in the manufacture of paper bags and envelopes using the bare minimum machinery required.

There is only one unit, manufacturing cartons. This unit is said to be facing marketing difficulty.

Since only 14% of the available capacity has been utilised it can be legitimately assumed that the scope of starting additional units in this district is not promising, unless quality goods are produced at competitive prices.

3.2 *Quilon*.—There are 7 units with an employment of 107 in this district. Due to the concentration of cashew processing units in Quilon there are 6 carton manufacturing units with an employment of 103. The other is a paper bag unit.

These carton manufacturing units have installed comparatively capital intensive equipments which require lesser manpower participation in the process technology.

Only 9% of the installed capacity of the units has been utilised in this District compared to 67% in Ernakulam District.

Hence it is seen that there is no scope of starting new carton manufacturing units in this district. On the other hand the capacity utilisation of the paper bag unit is good (70%) and its prospects appears bright.

3.3 *Alleppey*.—There are four units with an employment of 31 in this district. Out of these two are engaged in the manufacture of cartons only. One is engaged in the manufacture of both cartons and paper bags. The remaining one is engaged in the production of paper bags only.

41% of the installed capacity of the units is utilised. The entrepreneurs say that there is unhealthy competition in the field of manufacture of paper bags.

3.4 *Kottayam*.—There are only 4 paper bag manufacturing units with an employment of 22. According to these manufacturers:

(i) The price of Kraft paper has increased, but the price of finished products remained stationary during the period. Hence the profit margin of the manufactured goods has decreased.

(ii) Paper products produced outside the State are dumped here, hence the scope for the sale of the products locally manufactured has shown a decreasing trend. So also there is heavy competition from outside market.

(iii) As there is no quality control for the products, cheaper quality products are being manufactured and there is unhealthy competition even among the local manufacturers.

45% of the installed capacity has been utilised with a profit margin of 12%.

Since there is no fish processing plants etc, there is no scope for carton manufacturing units.

Installation of additional paper bag units may not be advisable.

3.5 *Idukki*.—There is no paper products manufacturing unit in this district. There is scope of starting a paper bag unit at Thodupuzha.

3.6 *Ernakulam*.—At present, there are 15 registered SSI units engaged in the manufacture of paper products in this district. They are mainly concentrated in Cochin Corporation limits. Out of these, 13 have responded. The details from the remaining 2 units could not be gathered, even after repeated efforts.

The concentration in Cochin Corporation is obviously due to the marketing facilities provided by the exporting companies, major manufacturing industries etc., and other infrastructural facilities. Of these 15 units, 12 are engaged in the manufacture of paper cartons. These units are doing good business with bright prospects. The remaining 3 units are engaged in the manufacture of paper bags required by stationery shops, textile shops, grocery shops etc. Though these units are not working on big profit margin, the profits (11%) earned by them are sufficient to keep them in the field.

67% of the installed capacity of the units is utilised in this district.

3.7 *Trichur*.—There are 6 units of which two are carton manufacturing units and four are engaged in the manufacture of both paper bags and envelopes with an employment of 50.

38% of the installed capacity is utilised with a profit margin of 12%.

3.8 *Palghat*.—19 workers are employed in the two units for the production of paper bags worth Rs. 52, 600 during 1977. This is only 3% of the installed capacity, but their marginal profit is 13.5%. Hence we may reasonably

assume that the workers are under employed or there is only seasonal employment. The entrepreneurs say that this is due to lack of working capital and difficulty in obtaining Kraft Paper.

These bottlenecks are likely to hinder the progress of the industry. Therefore, they deserve to be investigated and rectified to the extent possible.

3.9 *Malappuram*.—There is one new paper bag unit in the Mini Industrial Estate at Edavanna with an employment of 6. Within 3 months, they have utilised 3% of installed capacity. This unit is far away from important trading centres in the eastern part of the district.

The possibility of starting a new unit at Tirur needs to be explored.

3.10 *Kozhikode*.—There are 3 mechanised paper bag manufacturing units with an employment of 17. 25% of the installed capacity of these units is utilised. They are having keen competition from among themselves and also from the Tamil Nadu manufacturers.

There are two hand operated units engaged in the manufacture of paper bags. These units are not functioning properly, for want of ready orders.

The market for these paper bag units is inside the State, mainly in and around the district. It seems that there is no scope for organising more paper bag units in the District.

There is only one mechanised unit engaged in the production of cartons. This unit is utilising only 33% of its installed capacity. Another small unit is also manufacturing cartons using hand tools. No scope of further units is visualised.

There is only one unit engaged in the production of envelopes in this district. About 60% of the installed capacity of this unit is being utilised. The envelope unit is also experiencing keen competition from Tamil Nadu manufacturers.

On the whole, 45% of the total installed capacity of the paper conversion units in the district is utilised with a profit margin of 6%. This profit margin of 6% is below the State average of 10.9% and so not promising for the development of the industry in the district if the information furnished by the units are reliable.

3.11 *Cannanore*.—There are 3 paper bag manufacturing units in this district with an employment of 10. These are comparatively new units. Only 5% of the installed capacity is utilised with a profit margin of 15%. It can also be legitimately assumed that there is under-employment or seasonal employment with respect to the workers in these units.

There is no scope of starting new units in Cannanore District at present.

CHAPTER IV

CAPITAL REQUIREMENTS AND TECHNICAL RATIOS

4.1 *Capital Investment.*—The capital investment employed by the industry during the year 1977 amounts to Rs. 1,27,57,188 the share of plant and machinery being 55.5% and that of working capital 44.5%. The details of capital investments are given in Table 4.

4.2 *Working Capital.*—The total working capital employed by the industry during 1977 is Rs. 56,83,358. The percentage share of the working capital is found to be less than the State average in the district of Trivandrum, Malappuram and Cannanore. This may mean the inadequacy of institutional finance for short term loans and advances for raising enough working capital rather than the ability of the industry to generate from within the necessary working capital.

4.3 *Average investment per person.*—Table 4 gives the average investment per person in the industry during the year 1977. The average capital investment requirement per person is found to be 27,027.94 composed of Rs. 14,986.93 as fixed capital and Rs.12,041.01 as working capital. We see that the average working capital requirement is found to be less than the average fixed capital requirement in the State. But in the case of Alleppey, Ernakulam, Palghat and Cannanore districts, the working capital investment per person is greater than the fixed capital requirements.

4.4 *Inter district Comparison.*—Tables 2 and 4 reveal that paper products manufacturing units in Ernakulam have higher capital investment, higher quantum of output and higher man power involvement than paper products units in any other district.

Technological ratios can be put to considerable use for fixation of targets and for making comparisons. However it has to be stated that the available data on comparative coefficients of this nature are only fragmentary. The computation of exact technological ratios is beset with numerous difficulties, because of the dearth of reliable statistical data for computing investments, output, etc. The margin of error in the ratios calculated will be consequently high. An attempt at a comparative study of 3 technological ratios of the industry is made here.

The ratios that have been computed and presented in Table 5 are: (1) Investment-employment ratio, (2) Output-employment ratio, and (3) Investment-output ratio. All these ratios obtained for the State are higher than the ratios arrived at in Table 7 for comparative purposes on the basis

of representative project reports. This means that we have yet to go a long way in the desired directions on industrialisation of these manufacturing processes.

The investment-employment ratio is computed by dividing the capital investment by the total manpower involved in the manufacturing process. The more an Industry is technologically oriented the more will be the investment per person and this ratio tends to be higher. The investment employment ratio is found to be highest in Alleppey (50,838.7). The productivity per worker is also highest in Alleppey (1,37,516.1). These testify to the higher order of technology prevailing in the units there.

4.5 Utilised Capacity.—Table 3 presents the details of the utilised capacity of the industry during the year 1977. The average utilised capacity of the industry is of the order 27.4%. The highest percentage of utilised capacity is found in Ernakulam District. The percentage of utilised capacity is found to be least (2.78) in Malappuram District. The main reasons advanced by the manufacturers for the unutilised capacity are lack of demand and working capital and increase of price of raw materials.

The details of the unutilised capacity etc., presented in this report are based on the information furnished by the manufacturers.

CHAPTER V

OCCUPATIONAL STRUCTURE

5.1 In a planned economy, the study of the capacity utilisation and quantum of employment in industries is not enough. The analysis of the pattern of employment i. e., the occupational disposition of employment in Industries is of considerable importance. In the absence of this occupational structure according to the requisite skills and training, meaningful manpower planning becomes almost impossible.

The carton and paper bag manufacturing industry requires qualified and experienced skills. Skilled workers are required for handling the equipments of the industry.

The manpower requirements in an average unit of the industry is given in Table 6.

It will be observed that the craftsmen and production process workers will constitute about three-fourths of the total employment. Professional and related workers consisted about 20 per cent of the total number of employees. The scope of clerical and related workers estimated to be less than 10 per cent.

5.2 *Manpower requirements.*—The knowledge of current manpower shortages is a vital factor in the manpower planning process. It helps in formulating not only long term policies but also in evolving short term measures to remove bottlenecks in economic growth arising out of lack of right type of manpower in required numbers. While some of the employers are of the view that they do not get right type of persons specially for jobs of technical nature, some others are of the opinion that the required manpower for the industry is easily available for entry occupations which by giving suitable training could be deployed on the job requirements.

However, it would be observed that manpower shortages exist for craftsmen and production process workers to some extent. It will also be inferred from Table 2 that additional employment of about 900 can be visualised on the basis of installed capacities of the units.

5.3 Assuming compound growth rate, the growth rate of manpower requirement (R_m) could be calculated on the basis of the rate of growth of production (R_p) and the growth rate of production per worker (R_Q) with the help of the following formula:

$$R_m = \frac{R_p - R_Q}{100 + R_Q} \times 100, \text{ all the rates } R_m, R_p \text{ and } R_Q \text{ are expressed in percentages.}$$

However, by optimum utilisation of installed capacities of the existing units or of a promising system or service by which the units would be generating demand for manpower of specific categories, an additional employment of 1000 can be envisaged in the near future in the industry. Of this, production process workers will constitute about three-fourths of the total.

CONCLUSION

6.1 The per capita consumption of paper and paper products in India is estimated to be 2.5 grams. Various paper bags, envelopes and other industrial products will come about 40 per cent of this total consumption. The growth of demand for paper and paper products depends on a number of factors like increase in population, the rate of industrialisation, spread of education and the consequent improvement in standard of living as well as increase in purchasing power of the people. Keeping these factors in view, the per capita consumption of cultural and industrial paper in Kerala will be much higher compared to the All India rate of 2.5 gms.

6.2 The per capita consumption of industrial paper in India comes to 800 Gms. Considering the foregoing arguments and the extent of social advancement of the people in the State, it may be rightly assumed that the per capita consumption of paper products in Kerala will be more than 1 kg. On this basis, we may estimate at least 21,000 metric tonnes of paper products a year. The total installed capacity of the units under survey is 29,800 MT. Assuming that the normal capacity utilisation in the industry is about 85 per cent, these units will be able to cater to a demand of 17,880 metric tonnes per year. Therefore an additional demand of 3,320 metric tonnes of these products has to be met from new units or by increasing the installed capacities of the existing units.

6.3 On the other hand, the over specified capacity of the industry as a whole in the State is of the order of 27.4 per cent. This means that the per capita consumption of cartons, paper bags and envelopes in Kerala is about 300 grams. This is much lower compared to 800 grams in India. It will not be correct. Hence we may conclude that the major part of the demand of the State is met from the units situated in other States where the production price is low.

6.4 To arrive at some comparable statistical ratios, the project reports of one carton unit in Orissa, a paper bag and envelope units at Coimbatore, one paper bag unit each in Palghat, Coimbatore, Kozhikode and Brachikulam Districts were considered. The ratios are given in Table 7.

TABLE 7

Profit ratio	Investment		Gross output	
	Investment	Gross output	Investment	Gross output
0.31	0.27	0.27	0.27	0.27

CONCLUSION

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6.3 On the other hand, the average utilised capacity of the industry as a whole in the State is of the order of 27.4 per unit. This means that the per capita consumption of cartons, paper bags and envelopes in Kerala is about 300 grams. This is much lower compared of 800 gms. in India. It will not be correct. Hence we may conclude that the major part of the demand of the State is met from the units situated in other States where the products are priced low.

6.4 To arrive at some comparable technical ratios, the project reports of one carton unit in Quilon, a paper bag and envelope units at Cannanore, one paper bag unit each in Palghat, Cannanore, Kozhikode and Ernakulam Districts were considered. The ratios are given in Table 7.

TABLE 7

<i>Investment</i>	<i>Gross output</i>	<i>Investment</i>	<i>Profit ratio</i>
<i>Employment</i>	<i>Employment</i>	<i>Gross output</i>	
16708	61896	0.27	8.31

6.5 The average profit ratio in Kerala is 10.9 per cent. This compares well with the estimated profit ratio of 8.31 per cent in Table 7. The study has now revealed that no units are running at a loss. But Kerala products with necessarily higher price range are easily out-priced in the home state market by cartons and paper bags from Tamil Nadu which are priced low for various reasons.

The growing competition for Kerala products from outside States as well as from among home units themselves will have a cumulative and crippling effect on the industry.

6.6 The average capital output ratio of the industry in Kerala is 0.42. It is higher than the expected ratio of 0.27. Hence optimisation of capacity utilisation of the existing units is the need of the time. For attaining this goal in view, necessary help should come to the rescue of the sick units. This includes adequate and timely working capital participation, Comprehensive marketing assistance and issue of raw materials including imported items through a Governmental agency.

The modern entrepreneurs in this industry is in need of effective specialised and sophisticated consultancy services. He should get advise as to adopt the best and appropriate technology in the production processes. The services of specialist in these fields with high degree of expertise and practical know-how should be made available to him.

The potential entrepreneurs should also find a friend, philosopher and guide in every one of those specialist. These constantants will be instrumental in reducing the risk involved in starting industrial ventures. The District Industries Centres, we can naturally expect, would provide these services in the years to come.

Sl. No.	State	Capital Output Ratio (C.O.R.)	Profit Ratio (%)
1	Andhra Pradesh	0.44	10.9
2	Assam	0.38	10.9
3	Bihar	0.30	10.9
4	Goa	0.30	10.9
5	Gujarat	0.30	10.9
6	Haryana	0.30	10.9
7	Karnataka	0.30	10.9
8	Kerala	0.42	10.9
9	Madhya Pradesh	0.30	10.9
10	Madhya Pradesh	0.30	10.9
11	Madhya Pradesh	0.30	10.9
12	Madhya Pradesh	0.30	10.9
13	Madhya Pradesh	0.30	10.9
14	Madhya Pradesh	0.30	10.9
15	Madhya Pradesh	0.30	10.9
16	Madhya Pradesh	0.30	10.9
17	Madhya Pradesh	0.30	10.9
18	Madhya Pradesh	0.30	10.9
19	Madhya Pradesh	0.30	10.9
20	Madhya Pradesh	0.30	10.9
21	Madhya Pradesh	0.30	10.9
22	Madhya Pradesh	0.30	10.9
23	Madhya Pradesh	0.30	10.9
24	Madhya Pradesh	0.30	10.9
25	Madhya Pradesh	0.30	10.9
26	Madhya Pradesh	0.30	10.9
27	Madhya Pradesh	0.30	10.9
28	Madhya Pradesh	0.30	10.9
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95	Madhya Pradesh	0.30	10.9
96	Madhya Pradesh	0.30	10.9
97	Madhya Pradesh	0.30	10.9
98	Madhya Pradesh	0.30	10.9
99	Madhya Pradesh	0.30	10.9
100	Madhya Pradesh	0.30	10.9

TABLE—2

Manpower in the Paper Products Units in Kerala, 1977

Sl. No.	District	No. of Required Workers				Total production (value in Rupees) 1977
		Units	Actual Workers	On the basis of annual turn over 1 worker/15 M.T.S.	On the basis of installed capacity 1 worker/15 M.T.S.	
1	Trivandrum	5	34	11	79	7,70,285
2	Quilon	7	107	67	735	50,46,530
3	Alleppey	4	31	30	73	42,63,000
4	Kottayam	4	22	9	21	6,89,000
5	Idukki	*	*	*	*	*
6	Ernakulam	13	130	213	320	1,51,72,696
7	Trichur	6	50	24	63	18,02,694
8	Palghat	2	19	1	4	52,600
9	Malappuram	1	6	1	6	11,861
10	Kozhikode	8	63	23	51	22,80,728
11	Cannanore	3	10	2	33	1,22,189
Kerala State		53	472	381	1385	3,02,11,583

The number of workers on the basis of production in worked out at 1 person/15 M.T. of production.

TABLE—3

Paper Products Units—Capacities, Turnover and Profit Ratios, 1977

Sl. No.	Districts	Installed capacity (M.T.)	Actual Turn-over 1977 (M.T)	%age of installed capacity	Average profit ratio (%)
1	Trivandrum	1188.800	168.909	14.20	14.00
2	Quilon	11016.000	1009.306	9.16	17.30
3	Alleppey	1100.000	447.800	40.70	9.00
4	Kottayam	306.000	137.800	45.03	11.70
5	Idukki	*	*	*	*
6	Ernakulam	4808.700	3200.300	66.55	10.70
7	Trichur	946.000	360.000	38.05	12.00
8	Palghat	69.000	2.228	3.22	13.50
9	Malappuram	90.000	2.500	2.78	..
10	Calicut	773.200	347.547	44.94	6.00
11	Cannanore	502.600	26.836	5.33	15.00
Kerala State:		20,800.300	5,703.226	27.41	10.9

* The only units at Edavanna in Malappuram district is new and they are canvassing markets without incurring any loss to the unit now.

TABLE—4

Capital Investment per person in the Paper Products Industry in Kerala, 1977

Sl. No.	District	Capital Investment (Rs.)			Manpower Employed	Average investment per person (Rs.)		
		Plant and Machinery	Working Capital	Total		Plant and Machinery	Working Capital	Total
1	Trivandrum	2,29,000	1,43,224	3,72,224	34	6,735.29	4,212.47	10,947.76
2	Quilon	28,56,225	9,99,295	38,55,520	107	26,693.69	9,339.21	36,032.90
3	Alleppey	6,52,000	9,24,000	15,76,000	31	21,032.26	29,806.45	50,838.71
4	Kottayam	1,86,203	1,63,000	3,49,203	22	8,463.77	7,409.09	15,872.86
5	Idukki	*	*	*	*	*	*	*
6	Ernakulam	22,86,482	24,76,000	47,62,482	130	17,588.32	19,046.15	36,634.47
7	Trichur	4,28,178	4,12,000	8,40,178	50	8,563.56	8,240.00	16,803.56
8	Palghat	17,325	29,000	46,325	19	911.84	1,526.32	2,438.16
9	Malappuram	36,131	20,000	56,131	6	6,021.83	3,333.33	9,355.17
10	Calicut	2,64,268	4,29,339	6,93,607	63	4,194.73	6,814.91	11,009.64
11	Cannanore	1,18,018	87,500	2,05,518	10	11,801.80	8,750.00	20,551.80
	Kerala State	70,73,830	56,83,358	1,27,57,188	472	14,986.93	12,041.01	27,027.94

TABLE—5

Technical ratios of paper products industry in Kerala, 1977

Sl. No.	District	Investment/ Employment	Gross out put/ Employment	Investment/ Gross output	Remarks
(1)	(2)	(3)	(4)	(5)	(6)
1	Trivandrum	10,948	22,655	0.48	
2	Quilon	36,033	47,164	0.76	
3	Alleppey	50,839	1,37,516	0.36	
4	Kottayam	15,873	31,318	0.50	
5	Idukki	..	..	..
6	Ernakulam	36,635	1,16,713	0.31	
7	Trichur	16,804	36,054	0.46	
8	Palghat	2,438	3,757	0.33	
9	Malappuram	9,355	1,977	4.73	
10	Calicut	11,015	36,202	0.30	
11	Cannanore	20,552	12,219	1.68	
Kerala State		27,028	64,008	0.42	

TABLE—6

Manpower requirements in units of average size in the industry

Occupation	Wages rate per month (Rs.)	Paper bag & Envelopes		Carton	
		Minimum	Maximum	Minimum	Maximum
1. Managerial (Promoter)	500	1	1	1	1
2. Salesman	300	1	1	1	1
3. Office Assistant/Accountant	300	..	..	..	1
4. Typist Clerk	250	..	1	..	1
5. Skilled Worker	300	1	4	2	4
6. Semiskilled Worker	250	1	3	2	4
7. Unskilled Worker	200	1	2	1	3
Total	*	5	12	7	15

* Rate of wage required revision from time to time on the basis of current prices and cost of living standards.

III

EMPLOYMENT IN FISH PROCESSING
INDUSTRIES IN KERALA

EMPLOYMENT IN FISH PROCESSING INDUSTRY IN KERALA

Introduction

Fish processing is a most flourishing industry in the coastal regions of the state. It is estimated that on an average 4.5 lakh tonnes of marine fish is landed in the state annually. Approximately 55% of the marine fish landing is consumed fresh and 15% is canned, salted and sun dried. 18% is frozen mainly for export and 7% is used for preparation of fishmeal and oil extraction and 5% for the manufacture of manure. It is also estimated that 60% of the total produce is consumed in the state, 22% sent to other states and 18% exported to foreign countries.

Economic and hygienic handling of fish has been one of the most difficult problems of the fishing industry in the state. Added to the highly perishable nature of the commodity is the peculiar problems arising out of the seasonal concentration of the fish production. For, 65% to 75% of the annual fish landing is obtained during the short period of 5 months from September to January. Further the landing is also dispersed widely along the entire length of 590 km. of the coast.

The most common method of processing fish in the past was preservation by salting and drying. The Fisheries Department had maintained 67 Fish Curing Yards all along the coast in the state for the purpose. There was also a system of distributing salt to fishermen at subsidised rate for popularising the practice of salt curing. About 8000 tonnes of salt were being issued for curing about 55000 tonnes of fish annually the quantity of cured fish was about 38000 tonnes per annum. But the distribution of salt at subsidised rate was later abolished since it was not found necessary to continue the scheme. But the fish curers were, however, allowed to utilise the Fish Curing Yards, to cure their fish. In addition to the above mentioned yards, there are also a large number of private fish curing yards in the state where salt curing is conducted on an extensive scale.

Before the advent of planned economic development in the country, the ice and cold storage facilities were very scanty in the state. However, the period covered by the first and second Five Year Plans witnessed the ushering in of a number of ice making and freezing plants with cold storage facilities. The increased demand for frozen products from foreign markets coupled with the greater availability of prawns through trawlers have paved the way for establishing quite a large number of refrigeration plants both in public and private sectors. The Government owned factories provide facilities for the production of 295 tonnes of ice with a storage capacity for 1030 tonnes of ice, freezing capacity of about 65 tonnes and frozen storage capacity of 2110 tonnes of fish. In the private sector too, quite a large number

of plants have been established with facilities for the production of 2361.25 tonnes of ice, 3595.25 tonnes of ice storage, 245.00 tonnes of fresh fish storage, 610.85 tonnes of freezing capacity and 7573 tonnes of frozen fish storage. There are also two plants in the Co-operative sector. They provide an ice production capacity of 16 tonnes, ice storage capacity of 18 tonnes, freezing capacity of 4 tonnes and frozen storage capacity of 60 tonnes of fish.

The increased facilities for ice making, cold storage and freezing of shrimp and other marine products have considerably improved the efficiency of hygienic handling and thereby improved the quality of the frozen as well as chilled products exported to foreign markets and disposed of in the interior markets of the country.

2. *The Fishermen Population*

Employment in the various sectors of the fishing industry in the state has not been estimated so far. But the sector-wise employment details of fishermen have been furnished in the Quinquennial Livestock Census Reports. The Eleventh Quinquennial Livestock Census conducted in 1972 has thrown a lot of light into the employment aspects also. It is appropriate to make a reference in this context to the salient aspects of employment high-lighted by the census.

The total fishermen population in the state is 5.508 lakhs, of which 2.739 lakhs are adults and the remaining 2.719 lakhs are children. The adult population of 2.789 lakhs consists of 1.410 lakhs males and 1.379 lakhs females.

Out of the total adult population of 2.789 lakhs of adult fishermen, 1.105 lakhs are employed in actual fishing operations including both full-time and part-time. But apart from the actual fishing operations, fishermen are also employed in other occupations closely allied with fishing. Processing, marketing, repairs of fishing implements etc., are the most common occupations providing alternate employments. The total employment in this allied sector is 1.007 lakhs out of the total adult population of 2.789 lakhs. To put it in terms of percentage, 36.1% of the total adult population is employed in processing, marketing etc., in the state. The details of the employment are furnished in Table 1 below:

TABLE I

Employment of Fishermen in occupations other than fishing in Kerala

Sector	No. of persons employed			Percentage to total
	Rural	Urban	Total	
1. Marketing of fish	16003	3487	19490	19.36
2. Marketing/repairing of nets	12301	3383	15684	15.57
3. Marketing/processing of fish	10078	1066	11144	11.07
4. Others	46090	8277	54367	54.00
5. Total	84472	16213	100685	100.00

This shows that marketing/processing affords employment opportunity to 11144 persons in the State. In other words about 11% of the total employment of fishermen in ancilliary occupations is accounted for by the marketing/processing sector of the fishing industry. The district-wise and rural-urban classifications of the employments have been furnished in appendix. The figures however, relate only to the employment of the fisherman population in processing/marketing, and do not indicate the total employment available in the processing industry in the state.

3. *Employment in Fish Processing Industry in the State*

3.1 The study on the manpower employed in the fish processing industry in the State was taken up by the Manpower Planning Unit of the Department of Fisheries. This was conducted as sample survey covering the entire State. Twenty fish freezing plants were selected on a simple random basis from the frame given as Appendix 1. The data collected from the selected institutions through personal visits were compiled and employed in the Directorate of Fisheries. The important findings and conclusions of the study are summarised in the following paragraphs. The estimates show the position as on 31-3-1978.

3.2.1 The direct employment in the fish freezing plants in the State is estimated to be 6879 of which 58.22% are males and 41.78% are females. As regards qualifications, as many as 63.38% of the employees are educated only upto the IV Standard. Females exceed males in this group. They are 54.86% and 45.14% respectively. This is because the major part of the employment in the peeling sheds attached to the freezing plants goes to women. The employees with education upto upper primary level and upto X standard are 7.09% and 22.62% whereas Degree Holders and Post-graduates are 3.94% and 0.28% respectively. It is interesting to note that only 0.09% of the employees are having diploma in fishing subjects. But as against this there are 1.02% of the employees having Diploma in Engineering subjects. The details are furnished in Table I.

3.2.2 As regards the age composition of the employees, the important point to be observed is that there is only 0.74 of the employees in the highest age group "of above 60 years". The age groups of 50-60 years and below 20 years come next with 5.99% and 9.90% respectively. The employees in the age group of below 20 years have an interesting future in their sex composition. 95.30% of the employees in this age group are females and males are only 4.70%. The largest proportion of employees fall in the age group of 20-30 years, i.e., 47.75% of the total number of 6879. In all the age-groups except the lowest, males predominate. In the last group, namely above 60 years there are no females. The whole lot of 57 employees constituting 0.74% of the total are males. One apparent phenomenon which is striking in the analysis of age composition is that the percentage of female employment is inversely proportional to the advancement of age. Lower the age group, higher in the percentage of female employment. The details are furnished in Table II.

3.2.3 The distribution of Manpower in the different income groups is presented in Table III. The monthly emoluments of 13.36% of the employees are below Rs. 150. The largest group of employees constituting 38.89% are in the income group of Rs. 150-200. The next income group of Rs. 200-250 also accommodates a pretty large proportions of 31.23%. Only 1.57% of the employees get monthly emoluments of over Rs. 600. The lowest proportion of employees are, however, in the income group of Rs. 350-400. Another interesting point to be taken note of in this context is that women predominate in the lower income groups. 70-62% of the total number of employees in the lowest income group of below Rs. 150 are females. The same trend is manifested in the next income group of Rs. 150-200 also. Here in the proportion of females is 70-91%. This predominating trend of women is seen reversed from the third income group of Rs. 200-300 onwards. In the higher income groups of Rs. 400-500 and Rs. 500-600 the female participation is only 5.33% and 11.88% respectively. In the highest income group of Rs. 600 and above, the employment of women conspicuously absent.

3.3 The fish processing industry in the State is confined to the principal coastal districts of the State. Trivandrum, Kottayam, Idukki, Trichur, Palghat and Malappuram are the districts beyond the reach of this industry. Out of the remaining 5 districts, Ernakulam stands foremost in respect of the Manpower involvement. About two-third of the total employment generated by the fish freezing plants is accounted for by Ernakulam District. It is estimated that 69-98% of the total of 6879 are employed in this district on account of the concentration of processing plants in this region. Next comes Quilon district with an employment of 13.82%. Alleppey and Kozhikode show almost equal degrees of Manpower utilisation in fish processing 5.80% and 5.79% of the employees respectively. The details are furnished in Table IV.

4. Summary

The basic data relating to employment in fish freezing plants in the state are presented below:

	(No. of persons)
1. <i>Employment:</i>	
(a) Males	4005
(b) Females	2874
(c) Total	6879
2. <i>Qualifications:</i>	
(a) S.S.L.C. & below	6404
(b) Above S.S.L.C.	475
(c) Total	6879

3. <i>Age:</i>	<i>(No. of persons)</i>
(a) Below 30 years	3966
(b) Above 30 and below 50 years	2450
(c) 50 years and above	463
(d) Total	6879
4. <i>Monthly Income</i>	
(a) Below Rs. 250	5742
(b) Above Rs. 250 and below Rs. 500	868
(c) Rs. 500 and above	269
(d) Total	6879

List of Tables

1. Educational qualifications of Manpower employed in Fish Processing Industry.
2. Age-composition of Manpower employed in Fish Processing Industry.
3. Income distribution of Manpower employed in Fish Processing Industry.
4. District-wise details of Manpower employed in Fish Processing Industry

APPENDIX

1. Details of Freezing Plants in Kerala (Private Sector)
2. Details of Freezing Plants in Kerala (Public and Co-operative Sector)

TABLE—I

Educational qualifications of the Manpower employed in Fish Processing Industry

<i>Details of qualification</i>	<i>No. of persons employed</i>		<i>Total</i>
	<i>Male</i>	<i>Female</i>	
1. Upto IV Std.	1968	2392	4360
2. V Std. to VII Std.	379	109	488
3. VII Std. to X Std.	1228	328	1556
4. Pre-Degree	103	6	109
5. Degree	238	33	271
6. Post-Graduate Degree	19	..	19
7. Diploma in Fisheries	6	..	6
8. Diploma in Engineering	64	6	70
Total	4005	2874	6879

TABLE—II

Age-composition of the Manpower employed in Fish Processing Industry

<i>Age group</i>	<i>No. of persons employed</i>		<i>Total</i>
	<i>Male</i>	<i>Female</i>	
1. Below 20 years	32	649	681
2. 20—30 years	1723	1562	3285
3. 30—40 years	1202	431	1633
4. 40—50 years	669	149	817
5. 50—60 years	328	84	412
6. Above 60 years	51	..	51
Total	4005	2874	6879

TABLE—III

Income distribution of the Manpower employed in the Fish Processing industry

Income—Group (Monthly Income)	No. of persons employed		Total
	Male	Female	
1. Below Rs. 150	270	649	919
2. Rs. 150—200	778	1897	2675
3. Rs. 200—250	1897	251	2148
4. Rs. 250—300	270	39	309
5. Rs. 300—350	212	6	218
6. Rs. 350—400	97	..	97
7. Rs. 400—500	231	13	244
8. Rs. 500—600	141	19	160
9. Above Rs. 600	109	..	109
Total	4005	2874	6879

TABLE—IV

District-wise Details of Manpower employed in Fish Processing Industry in Kerala

Sl. No.	District	Manpower Employed (Nos.)
1.	Trivandrum	..
2.	Quilon	951
3.	Alleppey	399
4.	Kottayam	..
5.	Idukki	..
6.	Ernakulam	4814
7.	Trichur	..
8.	Palghat	..
9.	Malappuram	..
10.	Kozhikode	398
11.	Cannanore	317
	State	6879

TABLE I
 Distribution of the Total Population of the Districts of the Province of Buenos Aires, 1910

District	Total Population	Male	Female
Below 10,000	1,000,000	500,000	500,000
10,000-20,000	1,500,000	750,000	750,000
20,000-30,000	1,000,000	500,000	500,000
30,000-40,000	500,000	250,000	250,000
40,000-50,000	300,000	150,000	150,000
50,000-60,000	200,000	100,000	100,000
60,000-70,000	150,000	75,000	75,000
70,000-80,000	100,000	50,000	50,000
80,000-90,000	50,000	25,000	25,000
90,000-100,000	20,000	10,000	10,000
Over 100,000	100,000	50,000	50,000
Total	6,000,000	3,000,000	3,000,000

TABLE II
 District-wise Details of Males employed in the
 Processing Industry in 1910

District	Total Males	Employed in Processing Industry
Below 10,000	1,000,000	100,000
10,000-20,000	1,500,000	300,000
20,000-30,000	1,000,000	200,000
30,000-40,000	500,000	100,000
40,000-50,000	300,000	60,000
50,000-60,000	200,000	40,000
60,000-70,000	150,000	30,000
70,000-80,000	100,000	20,000
80,000-90,000	50,000	10,000
90,000-100,000	20,000	5,000
Over 100,000	100,000	50,000
Total	6,000,000	1,000,000

APPENDIX I

Details of Freezing Plants in Kerala (Private Sector)

		Year of start	Freezing capacity (Tonnes)
CANNANORE DISTRICT			
1.	M/s. Southern India Marine Products, Private Ltd., Kasargode	1971	5.00
2.	Kohinoor Fishing & Canning Company, Cannanore	1972	5.00
KOZHIKODE DISTRICT			
1.	Beypore Ice Plants & Cold Storage, Calicut-15	1968	20.00
2.	Sea Diamond Freezing & Cold Storage, West Hill	1974	3.00
3.	A. Avaran & Sons, West Hill, Calicut-5	1965	3.00
4.	Indo Marine Agencies, West Hill, Calicut-5	1969	5.00
MALAPPURAM, PALGHAT AND TRICHUR DISTRICTS			
Nil			
ERNAKULAM DISTRICT			
1.	Coastal Food Packers, Palluruthy, Cochin-5	1968	2.50
2.	Amrat & Company, Palluruthy, Cochin-5	1958	2.50
3.	Feroke Fisheries, Karuvelippady, Cochin-5	1975	1.00
4.	Four Season Fisheries, Edacochin, Cochin-6	1968	3.50
5.	Canning Industries, Cochin Limited, Edacochin	1970	5.00
6.	Ocean Fisheries, Edacochin, Cochin-6	1969	4.50
7.	Pearl Fisheries, Edacochin, Cochin-6	1968	2.50
8.	Blue Water Fisheries Company, Edacochin, Cochin-6	1972	3.00
9.	Chemmeen Exports Private Limited, Edacochin, Cochin-6	1966	2.50
10.	Chemmeens Registered Kochangadi, Cochin-2	1966	3.50
11.	T. Thomas & Company, Kannamalai, Cochin-7	1970	2.50
12.	Paragan Sea Foods, Palluruthy, Cochin-6	1969	3.00
13.	Super Sea Foods, Palluruthy Nada, Cochin-6	1968	10.00
14.	Kerala Food Packers, Palluruthy Nada, Cochin-6	1964	14.00
15.	John Cherady & Sons Private Limited, Palluruthy Nada, Cochin-6	1969	75.00
16.	United Industries, Palluruthy, Cochin-5	1945	50.00
17.	Cattle Rock Fisheries 27/559, Palluruthy, Cochin-5	1963	10.00
18.	Victor Jossaran Company, Manassery, Cochin-6	..	3.00

	<i>Year of start</i>	<i>Freezing Capacity (Tonnes)</i>
19. Universal Trades Corporation, Kannamali, Cochin-7	1960	6.00
20. Fancy Foods, Cochin-2	1972	5.00
21. Choice Canning Company, Kannamali, Cochin-7	1962	6.00
22. XL Sea Foods, Karuvelippady, Cochin-5	1966	7.00
23. Abad Fisheries, Kochangadi, Cochin-2	1964	6.00
24. Indian Sea Food Industries, Kochangadi, Cochin-2	1966	2.50
25. Cochin Ice and Cold Storage, Kochangadi	1972	2.50
26. Blue Horizon Fisheries, Kochangadi, Cochin-2	1972	2.00
27. Indian Sea Foods, Kannamali, Cochin-7	1964	15.00
28. George Maijo Company, Kuttiparambu, Cochin-7	1964	10.00
29. Blue Bay Fisheries, Kochangadi, Cochin-2	..	5.00
30. Travancore-Cochin Prawn Curers Co-operative Marketing Society, Kochangadi, Cochin-2	1968	4.00
31. K. E. Kesavan & Sons, Kochangadi, Cochin-2	1972	4.00
32. Toyo Sea Foods, Kochangadi, Cochin-2	1975	2.50
33. Indo Marine Agencies, Kochangadi, Cochin-2	1958	10.00
34. Trans Sea Foods, Karuvelipady, Cochin-5	1975	8.00
35. New India Fisheries Limited, Karuvelipady, Cochin-5	1962	15.06
36. K. K. Raghavan & Company, Palluruthy, Cochin-6	1972	2.50
37. Osseys Enterprises, (Super Sea Foods), Palluruthy, Cochin-6	1968	10.00
38. Geo Sea Foods, Palluruthy, Cochin-6	..	5.00
39. Coastal Ice Plants, Cochin-5	1968	2.50
40. Ocean Flag Fisheries, Edacochin, Cochin-6	1969	4.50
41. Regini Freezing Firm, Cochin	1974	5.00
42. Coromandal Fisheries, Nadakkavu, Cochin-6	..	3.50
43. K & R Sea Foods, Cochin	..	2.50
44. Eastern Sea Foods, Cochin	..	2.50
45. M/s. Island Sea Foods, Murukkumpadam	1971	100.00
46. M/s. Dennis & Thomas, Edavanakkad	1969	2.50
47. Travancore-Cochin Prawn Curers Co-operative Marketing Society, Kochangadi, Cochin-2	1948	4.00

IDUKKI AND KOTTAYAM DISTRICTS

Nil

ALLEPPEY DISTRICT		<i>Year of start</i>	<i>Freezing capacity (Tonnes)</i>
1.	Pooppally Sea Foods, P. B. No. 141, Sea Ward, Alleppey	1967	4.00
2.	Season Enterprises, Alleppey	1974	2.50
3.	Relish Food, Kakkazham, Ambalapuzha	1973	5.00
4.	Coastal Aquatic, Valanjavazhi	1970	2.50
5.	Seven Star Mariner, Thottappally	1974	5.00
6.	Malankara Fisheries, Karuveli	1974	10.00
7.	Anil Fisheries, Thottappally	1973	7.00
QUILON DISTRICT			
1.	Associated Food Packers (P) Ltd., Puthenthura, Neendakara	1971	5.00
2.	King Fisheries (P) Limited, Neendakara	1968	5.00
3.	Kerala Sea Food (P) Ltd., Neendakara	1964	5.00
4.	General Sea Foods, Neendakara	1973	11.50
5.	Mariyalayam Sea Food Exports and Ice Factory, Sakthikulangara	1974	2.50
6.	Form Sea Products (P) Ltd., Sakthikulangara	1974	3.50
7.	Fine Sea Products (P) Limited, Sakthikulangara	1975	1.00
8.	Oceanic Products Exporting Company, Sakthikulangara	1964	10.00
9.	Esmaries Export Enterprises (P) Limited, Kavanadu Quilon	1968	13.00
10.	Associate Marina Products, Sakthikulangara	1970	1.00
11.	Quilon Sea Food (P) Limited, Chavara South	1975	1.00
12.	Melayil Industries & Commercial Enterprises, Mathilil	1969	1.35
13.	M/s. Poilakada Fisheries, Quilon	1974	7.50
14.	Capitan Exporting Co. (P) Limited, Kavanad	1973	2.50
15.	Super Aquatic Products, Vallikeezhu, Kavanad	1976	5.00
16.	Austin Philo Marine Products	1967	1.00
17.	Asiatic Sea Food (P) Limited	1967	5.00

TRIVANDRUM DISTRICT

Nil

APPENDIX II

Details of Freezing Plants in Kerala (Public and Co-operative Sector)

(a) Public Sector	Year of start	Freezing capacity (Tonnes)
CANNANORE DISTRICT		
1. Government Ice and Cold Storage-cum-Freezing Plant, Kasargode	1969	3.00
2. Government Ice and Cold Storage-cum-Freezing Plant, Cannanore	1969	8.00
3. Government Ice-cum-Freezing Plant, Baliapattam (under construction)	..	10.00
KOZHIKODE DISTRICT		
1. Ice Plant-cum-Freezing and Cold Storage, K. F. C., West Hill, Calicut-5	1955	3.00
2. Government Ice and Cold Storage Plant, Beypore, Kozhikode-15	1975	5.00
MALAPPURAM DISTRICT		
Nil		
PALGHAT DISTRICT		
Nil		
TRICHUR DISTRICT		
1. Government Ice and Cold Storage Plant, Azhikode	1967	3.00
ERNAKULAM DISTRICT		
1. Integrated Fisheries Project, Ernakulam, Cochin-16	1965	3.00
2. Kerala Fisheries Corporation, Kochangadi, Cochin-5	1962	15.00
IDUKKI DISTRICT		
Nil		
KOTTAYAM DISTRICT		
Nil		
ALLEPPEY DISTRICT		
Ice-cum-Freezing and Cold Storage Plant, Alleppey	1967	3.00
QUILON DISTRICT		
K. F. C. Ice and Freezing Plant, Neendakara	1957	12.00
TRIVANDRUM DISTRICT		
Nil		
(b) Co-operative Sector		
Travancore-Cochin Prawn Curers Co-operative Marketing Society, Kochangadi, Cochin-2	1948	4.00

IV

REPORT ON THE STUDY ON THE EMPLOYMENT
OF CRAFTSMEN IN DIFFERENT TRADES
IN KERALA

REPORT OF THE BOARD OF THE PATRONAGE
OF CRAFTSMEN IN THE DISTRICT OF COLUMBIA
IN 1874

REPORT ON THE STUDY ON THE EMPLOYMENT OF CRAFTSMEN IN DIFFERENT TRADES IN KERALA

Introduction

Lack of information on the stock and availability of trained personnel in the different fields has always been a serious handicap for the timely planning and execution of important development programmes. Planning for rapid growth of the industrial sector necessitated the enhancement of the Training facilities of the craftsmen in the different trades.

The working group set up by the Planning Commission, Government of India, to go into the organisational arrangements for Manpower Planning in the State had recommended among other things that utilisation studies of trained personnel should be undertaken on a continuing basis. The working group has also suggested to take up studies for locating trades in short supply.

Accordingly, the Manpower Division of the Bureau of Economics and Statistics and the Manpower Unit of the Directorate of Employment and Training jointly launched a study on the pattern of employment of craftsmen in different trades in Kerala.

Objectives

Important objectives of the study were:

- (i) to assess the pattern of employment and unemployment among the craftsmen trained in the different trades at the Industrial Training Institutes and Industrial Training Centres in Kerala State;
- (ii) to estimate the period of waiting to secure a job;
- (iii) to locate the different categories in which craftsmen are in excess, and
- (iv) to obtain information on migration of persons already employed.

Coverage

There were 40 Industrial Training Institutes/Centres (12 Government Industrial Training Institutes and 28 Private Industrial Training Centres) in the State during the period 1972-74. The original plan was to select one Government I.T.I. and one Private I.T.C. from each district. But in Palghat, Malappuram and Kozhikode districts, there were no private institutions and in Idukki District there was no Government I. T. I. As such altogether 18 institutions, (10 Government I.T.I. and 8 private I.T.C.) were

selected and from each institution 20% of the total number of craftsmen who had passed out in different trades during the years 1972, 1973 and 1974 were selected in turn by systematic random sampling for detailed enumeration.

The persons selected were contacted by the field staff of the Bureau of Economics and Statistics and the required informations were collected in a proforma designed for the purpose. A copy of the proforma is given in Appendix.

The data on age, educational qualification, period of waiting to secure a job, place of employment, activity status, income, and migration of employed persons, etc., were collected.

Response

On the whole, 1631 craftsmen were selected for the survey. But the details could be collected only from 1198 persons, the percentage of response being 70.85. The remaining persons could not be contacted due to their non-availability in the given address. Information on their present whereabouts also could not be gathered. The district-wise details of persons selected and schedules analysed are given below.

<i>District</i>	<i>No. of persons selected</i>	<i>No. of persons contacted</i>
Trivandrum	257	214
Quilon	171	168
Alleppey	199	155
Kottayam	147	118
Idukki	4	3
Ernakulam	256	177
Trichur	211	108
Palghat	129	21
Milappuram	19	10
Kozhikode	102	88
Cannanore	196	136
	1691	1198 (70.85%)

Out of 1198 persons contacted, there were only 39 females. The percentage of females to the total number contacted worked out 3.3 only. Hence sex-wise analysis has not been made in this report.

Full details of certain selected persons could not be gathered due to the ignorance in the part of the informants.

The activity status

Study on the activity status of the selected persons was one of the important objectives. The details showing the activity status of the persons contacted in each district are given below.

<i>District</i>	<i>Activity status</i>				<i>Total</i>
	<i>Employed</i>	<i>Unemployed</i>	<i>Student*</i>	<i>Not specified</i>	
Trivandrum	103	105	1	..	214
Quilon	95	57	3	13	168
Alleppey	96	59	..	..	155
Kottayam	66	51	1	..	118
Idukki	1	1	1	..	3
Ernakulam	117	58	1	1	177
Trichur	60	48	..	..	108
Palghat	11	19	1	..	21
Mulappuram	5	5	..	..	10
Kozhikode	5	30	3	..	88
Cannanore	84	50	..	2	136
Total	698	473	11	16	1198
Percentage	58.3	39.5	0.9	1.3	100.0

The above table revealed that only 58.3% of the persons selected were found employed. The fact that nearly 40% of the trained personnel remained unemployed even after 4 years of waiting shows the gravity of unemployment among technically trained personnel in Kerala. Among the 473 unemployed Craftsmen contacted 83 (17.6%) trained welders and 80 trained fitters (17%) could not secure a job even after 6 years. Out of 67 persons trained in Carpentry 37 (55.3%) were found unemployed on the date of the survey. More than 50% of the persons trained in Building constructions, Draftsmen, Mechanical Moulders and Machinists were found unemployed and that restrictions in the admission to the above trades in future may prevent further increase in unemployment.

Among the persons contacted in different trades the percentage of craftsmen employed were found high in the trades of Draftsmen civil, Electrician, Fitter, Mechanist, Mechanic Diesel, Mechanic Instrument, Mechanic Motor, Mechanic Tractor, Mechanic Radio and T.V., Painting, Plumber, Refrigeration and Air Condition, Turner, Welder and Wireman.

All the persons contacted in the trades of survey Machinist, Grinders and Draftsmen Electrical were found employed. From the above findings it cannot be interpreted that all the trained personnel in the above categories are employed since the number of persons selected and contacted were few. The details showing the activity status of craftsmen in the different trades are given in Table I in Appendix.

For admission to the various courses in ITI/ITC's is that a candidate should have studied upto VIII standard; however for certain specific trades a pass in the S.S.L.C. examination has been stipulated.

The distribution of craftsman according to their basic educational qualifications is given below.

<i>Educational qualification</i>	<i>Number of craftsman</i>	<i>Percentage to total</i>
Below S.S.L.C.	243	20.3
S.S.L.C.	839	70.0
Above S.S.L.C.	43	3.6
Not specified	73	6.1
Total	1198	100.0

The above table reveals that 73.6% of the total craftsmen are S.S.L.C. and above even though the basic qualification prescribed for various categories is below S.S.L.C. It was observed that even for admission for training which require lower qualification, large number of persons with higher qualification have taken up the trade which shows the gravity of unemployment among the educated people. Table 2 in Appendix shows the trade-wise Academic qualification of Craftsmen contacted.

Age distribution

The age distribution of the Craftsmen contacted is given in the following Table:—

<i>Age-group</i>	<i>Number</i>	<i>Percentage</i>
15—19	..	..
20—24	412	34.4
25—29	701	58.5
30 and above	44	3.7
Not specified	41	3.4
	1198	100.0

Only 3.7% of the persons contacted are in the age-group 30 and above.

Employment Status

Employment status is an effective indicator of the prevailing employment situation. The analysis of the employment status of the craftsmen revealed that about 78% of the employed craftsmen are employees or wage earners. There were only six employers. Twenty-three were self employed craftsmen. Seven craftsmen were working as unpaid family workers. The six persons in the status of employers were from the trades of Draftsmen Civil, Fitter and Welder.

If sufficient financial and technical assistance are provided to the self employed persons, their status can be raised to that of employers so that they can absorb more number of the trained personnel. The following table shows the details of Employment status of craftsmen.

TABLE

Employment status of Craftsmen

<i>Employment status</i>	<i>Number</i>	<i>Percentage</i>
Employer	6	0.9
Employee	551	78.9
Self employed	23	3.3
Apprentice	72	10.3
Unpaid family worker	7	1.00
Not specified	39	5.6
Total	698	100.0

The trade-wise details on employment status are given in Table 3 in Appendix.

Utilisation of the craftsmen trained:

The actual utilisation of the persons trained in different trades is an index of the usefulness of the trade in which they have been trained. For this, employed craftsmen were classified according to the posts held by them viz., (a) employed in the same trade in which they have been trained (b) employed in allied trade; (c) employed in jobs not connected with any of the trades and (d) employed in other unskilled jobs. The training could be taken as useful if the trainees are employed in the same trades in which they have been trained or atleast employed in the allied trades. The study revealed that 52.7% were employed in the same trade, 13.8% were employed in allied trades, 17.3% were employed in the jobs not connected with any trade and 1.6% employed in other unskilled jobs. The details were not revealed in the case of 102 craftsmen. The following table shows the details of trade-wise distribution of craftsmen employed.

TABLE

Usefulness of Craftsmen training

<i>Category</i>	<i>Number</i>	<i>Percentage</i>
Employed in the same trade	368	52.7
Employed in allied trade	96	13.8
Employed in jobs not connected with any trade	121	17.3
Employed in other unskilled jobs	11	1.6
Not specified	102	14.6
Total	698	100.0

The details of trade-wise distribution of employed craftsmen is given in Table 4 in Appendix.

The above table also shows that the training was useful to only 66.5% of the employed craftsmen. Employment in the same trade was found higher in the trades of Carpentry, Draftsman Civil, Electrician, Machinist, Turner and Fitter.

Income.—The monthly income earned by the employed craftsmen is an important criterion which determines the economic status of the employees in the society. The following table gives the distribution of the craftsmen according to their monthly income.

TABLE

Distribution of Craftsmen according to their monthly income

<i>Income Range</i>	<i>No. of craftsmen</i>	<i>Percentage to total</i>
Below Rs. 100	17	2.4
Rs. 100 to 200	114	16.3
Rs. 200 to 300	100	14.4
Rs. 300 to 400	120	17.2
Rs. 400 and above	171	24.5
Not specified	176	25.2
Total	698	100.0

The study reveals that about 24.5% of the craftsmen employed are earning a monthly income of Rs. 400 and above. About 17.2% are in income group of Rs. 300-400, 14.4% in Rs. 200-300 and about 16.3% are in Rs. 100-200 income groups. Only 2.4% of the employed craftsmen were getting a monthly income of less than Rs. 100.

The details of trade wise distribution of craftsmen according to their monthly income is given in Table 6 in the Appendix. It can be seen from the table that the percentage of employees whose average monthly income exceeded Rs. 400 is higher in the trades Electrician, Fitter, Machinist and Turner.

(b) *Tenure of Employment:*

Tenure of employment indicates the nature of job security of employees. The following Table gives the tenure of employment of craftsmen under three categories viz., permanent, temporary and casual worker.

TABLE
Tenure of employment

<i>Tenure of employment</i>	<i>Number of craftsmen</i>	<i>Percentage of Craftsmen to the total</i>
Permanent	286	41.0
Temporary	260	37.2
Casual worker	62	8.9
Not specified	90	12.9
Total	698	100.0

It may be noted that nearly 41% of the employed craftsmen are permanently employed, 37% are employed temporarily and 9% are casual workers.

49.4% of the Electricians, 58.8% of the Draftsmen Civil, 41.8% of Fitters, 52.9% of the Machinists, 55.6% of the Instrument Mechanics, 50% of the Tractor Mechanics, 62.5% of the Painters, 41.9 % of the Turners, 42.4% of the Welders and 50% of the Wiremen are employed in permanent jobs.

45% of Wiremen, 44.0% of the Welders, 51.61% of the Turners, 56.8% of S. M. W. , 53.6% of Plumbers, 61.1% of the moulders, 36.2% of the Machinists, 51.1% of the Motor Mechanics, 46.9% of the Fitters, 53.6% of the Carpenters, 73.9% of the Blacksmiths were either temporary workers or casual workers.

The trade-wise distribution of tenure of employment of craftsmen is given in Table 7 of the Appendix.

The subjoined table gives the distribution of trained craftsmen and period of current unemployment.

TABLE

<i>Unemployment</i>	<i>No. of craftsmen</i>	<i>Percentage to total</i>
Below 6 months	24	5.07
6 months—1 year	15	3.17
1 year—2 years	35	7.40
2 years—3 years	37	7.82
3 years—4 years	35	7.40
4 years and above	237	50.11
Not specified	90	19.03
Total	473	100.00

It is very shocking to note that 50% of the unemployed craftsmen remained continuously unemployed for more than four years since they passed their craftsmen training course in the Industrial Training Institutes.

About 7.40% of the craftsmen remained unemployed, for a period of 3 to 4 years, 7.82 % for a period of 2 to 3 years, 7.40% for a period of 1 to 2 years, and 3.17 between 6 months and one year. Only 5.07% of the unemployed craftsmen were fortunate to secure a temporary job within 6 months.

The trade-wise details showing the waiting period of unemployed craftsmen is given in table 8 in Appendix.

34.8% of the blacksmiths, 45.9% of the Carpenters, 37.5% of Draftsmen mechanical, 63.8% of the Fitters, 46.2% of the machinist, 75% of the Machinist composite, 44.1% of Mechanic Motor, 85.7% of the Mechanic Tractor, 50% of the Moulder, 66.7% of the Plumbers, 62.5% S. M. W., 50% of the surveyors, 38.09% of Turners, 59.63% of Welders, and 35.3% of the Wiremen could not secure a job even after waiting period of more than 4 years.

Trade and Work sought

Out of the 473 employed craftsmen, 416 person (88%) have registered their names in the Employment exchange and are actively seeking employment.

The study revealed that while 82.2% of the unemployed craftsmen are particular to get employment in the respective trades in which they are trained, 5.8% are ready to accept job in any other trade.

The percentage distribution showing the preference (in trades) of the unemployed persons is given below:

1. Work sought in the respective trade in which they are trained	82.2%
2. Any trade	5.8%
3. Not specified	12.0%
Total	100.0

The trade wise distribution of craftsmen and their willingness to accept job is given in Table 9 in Appendix.

(c) *Mobility:*

The distribution of unemployed craftsmen according to their mobility is given below:

<i>Mobility</i>	<i>Number of craftsmen</i>	<i>% of craftsmen to the total</i>
Prepared to accept job:—		
(a) Within the home town	2	0.42
(b) Any where in the district	12	2.54
(c) Any where in the state	36	7.61
(d) Any where in the country	407	86.05
(e) Not specified	16	3.38
Total	473	100.00

The fact that about 86% of the unemployed craftsmen are prepared to accept jobs anywhere in the country, shows the gravity of unemployment among craftsmen in the state. Only a negligible per cent (0.4) is as particular to get employment within their home town.

The details of the distribution of unemployed craftsmen according to trades and mobility is given in Table 10 of Appendix.

Registration with Employment Exchanges

The survey has revealed that only 38% of the employed craftsmen were in the live Register of the employment exchanges for getting better job

opportunities. It may also be noted that 87% of the unemployed craftsmen sought the help of the employment exchanges for getting employment. The percentage of under registration is 13. The trade-wise details of registration of craftsmen with the employment exchange are given in Table 11 of Appendix.

Migration

The survey has also thrown some light on the extent of migration of employed craftsmen to other states. Though the purpose of migration was not known, it was inferred from the information gathered that the root cause of migration was securing of jobs. The following table given the distribution of employed craftsmen according to the place of migration.

<i>Nature of migration</i>	<i>No. of craftsmen migrated</i>	<i>Percentage to total</i>
Other districts within the state	384	55.01
Outside the state	156	22.35
Outside the country	57	8.17
Not specified	101	14.47
Total	698	100.00

The above data reveal that only 55% of the employed craftsmen could secure employment within the state itself. 22.35% of the employed craftsmen are working in other states and 8.17% is employed outside the country. The trade-wise details of migration are given in Table 12 of Appendix.

Conclusion

The imbalance between supply and demand of trained personnel has been always a serious problem to the planners. The working group set up by the planning Commission for Plan power planning have recommended among other things to undertake utilisation studies of trained personnel on a continuous basis. Government have provided facilities for training of craftsmen under different trades. The study has revealed the following facts. Out of 1198 persons who passed out during the period 1972 to 1974 only 58.3% could secure employment even after a period of 4 years. Employment was found high in the trades of welder, Draftsmen Civil, Electrician, Fitter, and Machinists. Unemployment was found high in Moulder, Carpentry and Sheet metal works categories. It was observed that even for trades which require lesser qualification, large number of persons with higher qualification have undergone training due to the acute unemployment among educated persons. More than 78% of the total employed craftsmen were employees and only 4.2% was either employee or self employed. 52.7% of employed craftsmen could secure employment in the same trade in which they were trained and 17.3% was found employed in jobs having no connection with the training they had.

The study revealed that 44.7% of the employed persons were in the Private Sector. The Private Sector employment was more than that of the state, Central, Semi-Government and Co-op. Sector taken together. About one-third of the total employed persons were getting only less than Rs. 300 per month. 86% of the unemployed craftsmen are prepared to accept jobs anywhere in the country.

55% of the employed Craftsmen were able to secure job within State itself whereas 31% had to migrate outside the state for employment. In order to sustain the existing training programme in the state, it is necessary to make continued efforts for the gainful employment of about half of the trained personnel outside the state.

STUDY ON THE EMPLOYMENT OF CRAFTSMEN IN DIFFERENT TRADES IN KERALA

Questionnaire

Date of canvassing:

PART I

Identification particulars

1. Name of the craftsman:
2. Present address:
3. Sex (Male/Female):
4. Age (in completed years):

PART II

1. Name of the trade in which trained:
2. Name of the institution:
3. Duration of the course:
4. Month and year of passing:
5. Previous academic qualification attained (higher examination passed or class upto which studied):

PART III

Activity status

(Activity status during the reference period employed/un-employed/student)

1. Whether employed/unemployed/student:
2. If employed, employment status: (Employer/Employee/Self employed/Apprentice/Unpaid family worker):
3. Trade in which employed:
4. Average monthly emoluments (Rs.):
5. Nature of employment (Permanent/temporary/casual worker):
6. Name of the establishment/firm in which employed:
7. Whether the establishment/firm is owned by State/Central/Co-operative/Local Bodies/Private:
8. Whether registered with employment exchange for getting better job as on the date of enquiry Yes/No:

PART IV

1. If currently unemployed how long (in months):
2. (i) Whether employed earlier Yes/No.
(ii) If yes, give details below:

Period of employment		Duration of employment (months)	Name of occupation or trade	Average monthly emoluments Rs.	Name and address of employer/establishment
From	To				

3. (i) Whether registered with employment exchange (Yes/No):
 (ii) If yes, name of Exchange in which registered:
4. Trade in which work is sought:
5. Whether prepared to accept job:
 (i) Only within the home town:
 (ii) Anywhere in the district:
 (iii) Anywhere in the State:
 (iv) Anywhere in the country:

PART V

1. How long remained unemployed after leaving the institute till the first employment (in months):

2. Opinions about the Trade:

Name of the Investigator:

District:

Inspected by:

Signature:

Name:

Designation:

Place:

Date:

Signature with date

TABLE I

Activity status of Craftsman in different trades (1971-73)

Sl. No.	Name of Trade	Apprentice	Employed	Un-employed	Student	Not specified	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Blacksmith	..	23	23	..	..	46
2.	Building Constructor	..	3	7	1	..	11
3.	Carpentry	..	28	37	1	1	67
4.	Draftsman—Civil	..	17	7	..	..	24
5.	Draftsman—Mechanical	..	6	8	..	..	14
6.	Electrician	..	80	14	1	..	95
7.	Fitter	..	98	80	1	2	181
8.	Machinist	..	58	41	2	1	102
9.	Mechanic—Diesel	..	6	2	..	..	8
10.	Mechanic—Instrument	..	9	5	..	..	14
11.	Mechanic—Motor Vehicle	..	45	34	..	..	79
12.	Mechanic—Tractor	..	10	7	..	2	19
13.	Moulder	..	18	34	..	..	52
14.	Mechanic—Radio & TV.	..	3	1	..	..	4
15.	Painting	..	8	2	1	..	11
16.	Pattern Making	..	..	2	..	..	2
17.	Plumber	..	28	15	..	1	44
18.	Refrigeration & A.C.	..	14	5	..	1	20
19.	Sheet metal worker	..	37	24	..	..	61
20.	Survey	..	5	..	..	..	5
21.	Tool & Dye Making	..	2	4	..	..	6
22.	Turner	..	62	21	..	2	85
23.	Welder	..	118	83	4	5	210
24.	Wireman	..	20	17	..	1	38
	Total	..	698	473	11	16	1198

TABLE No. 2

Academic qualification (1971-73)

<i>Sl.No.</i>	<i>Name of Trade</i>	<i>Below SSLC</i>	<i>SSLC</i>	<i>Above SSLC</i>	<i>Not specified</i>	<i>Total</i>
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Welder	48	148	2	12	210
2.	Fitter	43	128	..	9	180
3.	Turner	10	64	1	5	80
4.	Plumber	10	35	..	4	49
5.	Refrigeration & A.C.	..	5	7	8	20
6.	Draftsman Civil	..	18	4	2	24
7.	Draftsman Mechanical	..	15	..	..	15
8.	Moulder	21	29	..	2	52
9.	Building Construction	3	11	..	..	14
10.	Sheet Metal Worker	11	44	2	5	62
11.	Machinist	14	82	5	7	108
12.	Wireman	5	33	..	..	38
13.	Electrician	2	71	17	6	96
14.	Mechanic—Motor Vehicle	15	58	3	3	79
15.	Mechanic—Instrument	..	10	2	2	14
16.	Mechanic—Tractor	5	12	..	3	20
17.	Carpenter	34	30	..	1	65
18.	Survey	..	9	..	..	9
19.	Blacksmith	20	25	..	..	45
20.	Pattern making	..	2	..	..	2
21.	Painting	2	6	..	3	11
22.	Mechanic Radio & T. V.	..	3	..	..	3
23.	Tool and Dye Making	..	1	..	1	2
Total		243	839	43	73	1198

TABLE No. 3
Employment status of craftsmen (1971 to 1973)

<i>Sl. No.</i>	<i>Name of trade</i>	<i>Employer</i>	<i>Employee</i>	<i>Self employed</i>	<i>Apprentices</i>	<i>Unpaid family worker</i>	<i>Not specified</i>	<i>Total</i>
1	Blacksmith	..	16	1	4	..	2	23
2	Building construction	..	1	..	2	..	..	3
3	Carpentry	..	17	5	3	2	1	28
4	Draftsman—Civil	1	14	..	..	..	2	17
5	Draftsman—Mechanical	..	6	..	..	..	..	6
6	Electrician	..	67	3	4	1	5	80
7	Fitter	1	74	1	13	..	9	98
8	Machinist	..	46	5	4	1	2	58
9	Mechanic—Diesel	..	6	..	..	..	..	6
10	Mechanic—Instrument	..	6	..	2	..	1	9
11	Mechanic—Motor	..	38	1	3	..	3	45
12	Mechanic—Tractor	..	10	..	..	..	..	10
13	Moulder	..	14	..	4	..	..	18
14	Mechanic—Radio & T.V.	..	2	1	..	..	..	3
15	Painting	..	6	1	..	..	1	8
16	Pattern Making	..	..	..	..	..	..	..
17	Plumber	..	22	..	4	1	1	28
18	Refrigeration & A.C.	..	12	..	1	..	1	14
19	Sheet Metal Worker	..	24	1	8	..	4	37
20	Survey	..	5	..	..	..	..	5
21	Tool & Dye making	..	2	..	..	..	..	2
22	Turner	..	53	1	7	..	1	62
23	Welder	4	94	1	11	2	6	118
24	Wireman	..	16	2	2	..	..	20
	Total	6	551	23	72	7	39	698

TABLE No. 4
Trade-wise Distribution of craftsmen employed (1971 to 1973)

Sl. No.	Name of Trade	Employed in same trade	Employed in Allied Trades	Employed in jobs not connected with any	Employed in other unskilled jobs	Not specified	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Blacksmith	9	8	4	1	1	23
2	Building Construction	..	2	..	1	..	3
3	Carpentry	11	4	4	..	2	28
4	Draftsman—Civil	4	1	2	..	..	17
5	Draftsman—Mechanical	56	..	2	..	..	6
6	Electrician	50	10	7	2	15	80
7	Fitter	32	11	20	..	11	98
8	Machinist	4	8	7	..	..	58
9	Mechanic—Diesel	4	2	..	..	..	6
10	Mechanic—Instrument	4	1	..	1	3	9
11	Mechanic—Motor	16	6	14	..	9	45
12	Mechanic—Tractor	4	3	2	..	1	10
13	Moulder	8	2	7	..	1	18
14	Mechanic—Radio & T.V.	2	1	..	..	..	3
15	Painter	2	1	3	..	2	8
16	Pattern Making	..	..	..	..	..	..
17	Plumber	14	..	8	..	6	28
18	Refrigeration & A.C.	7	1	2	..	4	14
19	Sheet Metal Worker	14	4	9	1	9	37
20	Survey	3	2	..	..	..	5
21	Tool & Dye Making	1	..	..	..	2	3
22	Turner	45	..	2	1	5	62
23	Welder	55	14	27	3	19	118
24	Wireman	10	6	1	..	3	20
	Total	368	96	121	11	102	698

TABLE No. 5

Sectors of Employment (1971 to 1973)

Sl. No.	Name of Trade	State	Central	Semi-Govt.	Co-operative	Local Bodies	Private	Not specified	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	Blacksmith	4	2	1	1	..	13	2	23
2	Building Construction	2	1	..	..	..	..	..	3
3	Carpentry	3	6	..	..	..	..	..	28
4	Draftsman—Civil	8	..	..	..	2	4	3	17
5	Draftsman—Mechanical	2	..	..	..	..	3	..	6
6	Electrician	21	24	1	1	..	26	7	80
7	Fitter	10	19	1	3	..	55	10	98
8	Machinist	10	12	1	7	..	16	13	58
9	Mechanic—Diesel	3	..	..	..	..	3	3	6
10	Mechanic—Instrument	2	3	..	..	..	2	2	9
11	Mechanic—Motor	20	2	..	..	..	19	4	45
12	Mechanic—Tractor	4	..	..	1	..	5	..	10
13	Moulder	1	3	..	..	..	14	..	18
14	Mechanic—Radio & T.V.	..	..	..	..	..	2	..	3
15	Painting	..	4	..	..	..	4	..	8
16	Pattern making	..	..	..	..	..	..	..	..
17	Plumber	9	4	..	..	..	9	6	28
18	Refrigeration & A.C.	2	3	..	..	..	5	4	14
19	Sheet Metal Worker	7	6	..	1	..	19	4	37
20	Survey	4	..	..	..	1	..	..	5
21	Tool & Dye making	..	..	..	..	..	1	1	2
22	Turner	3	10	..	3	..	39	7	62
23	Welder	11	30	..	3	..	51	22	118
24	Wireman	8	2	..	1	1	8	..	20
	Total	134	132	3	22	6	312	89	698

TABLE No. 6

Average monthly income of wage earning craftsmen (1971 to 1973)

Sl. No.	Name of Trade	Below 100	100-200	200-300	300-400	400 & above	Not specified	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1	Blacksmith	..	9	4	3	4	3	23
2	Building construction	..	2	..	1	..	..	3
3	Carpentry	1	5	5	7	6	4	28
4	Draftsman—Civil	..	..	3	1	7	6	17
5	Draftsman—Mechanical	..	..	2	2	2	..	6
6	Electrician	3	10	8	15	23	21	80
7	Fitter	3	22	13	11	28	21	98
8	Machinist	1	9	6	8	17	17	58
9	Mechanic—Diesel	..	..	1	3	2	..	6
10	Mechanic—Instrument	1	7	2	..	3	3	9
11	Mechanic—Motor	..	1	8	11	7	12	45
12	Mechanic—Tractor	..	1	..	5	1	3	10
13	Moulder	..	4	6	1	5	2	18
14	Mechanic—Radio & T.V.	..	1	..	..	1	2	3
15	Painter	..	..	1	..	3	3	8
16	Pattern making	..	..	..	..	..	..	..
17	Plumber	1	4	8	3	4	8	28
18	Refrigeration & A.C.	..	1	1	2	3	7	14
19	Sheet Metal Worker	2	14	3	5	6	7	37
20	Survey	..	..	..	3	..	2	5
21	Tool & Dye Making	..	..	..	..	1	1	2
22	Turner	1	10	13	11	15	12	62
23	Welder	3	12	13	24	28	38	118
24	Wireman	1	3	3	4	5	4	20
	Total	17	114	100	120	171	176	698

TABLE No. 7
 Tenure of Employment of Wage Earning Craftsmen (1971 to 1973)

Sl. No.	Name of Trade	Permanent	Temporary	Casual Work	Not Specified	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Blacksmith	5	14	3	1	23
2	Building Construction	1	1	1	..	3
3	Carpentry	7	11	4	6	28
4	Draftsman—Civil	10	3	1	3	17
5	Draftsman—Mechanical	1	5	..	..	6
6	Electrician	40	23	8	9	80
7	Fitter	41	38	8	11	98
8	Machinist	26	18	3	11	58
9	Mechanic—Diesel	2	4	..	..	6
10	Mechanic—Instrument	5	..	1	3	9
11	Mechanic—Motor	16	21	2	6	45
12	Mechanic—Tractor	5	5	..	..	10
13	Moulder	6	11	..	1	18
14	Mechanic—Radio & T.V.	1	1	..	1	3
15	Painting	5	1	1	1	8
16	Pattern making	..	..	2	..	2
17	Plumber	8	13	8	5	28
18	Refrigeration & A.C.	6	3	..	5	14
19	Sheet Metal Worker	11	17	4	5	37
20	Survey	4	..	1	..	5
21	Tool & Dye Making	..	1	..	1	2
22	Turner	26	24	8	4	62
23	Welder	50	42	10	16	118
24	Wireman	10	4	5	1	20
	Total	286	260	62	90	698

TABLE No. 3
Trade-wise details showing waiting period of unemployed craftsmen

Sl. No.	Name of trade	Below 6 months	6 months to 1 year	1 year to 2 years	2 years to 3 years	3 years to 4 years	4 years to 5 years	5 years	Not specified	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(10)
1	Blacksmith	4	..	3	2	2	8	4	23	
2	Building construction	..	..	..	..	1	1	5	7	
3	Carpentry	..	..	..	..	2	17	11	37	
4	Draftsman—Civil	1	1	..	1	2	2	..	8	
5	Draftsman—Mechanical	..	..	..	2	2	3	4	14	
6	Electrician	1	4	5	4	..	51	12	80	
7	Fitter	2	..	6	2	2	18	10	41	
8	Machinist	3	..	..	1	..	..	..	2	
9	Mechanic—Diesel	1	..	1	2	..	..	..	5	
10	Mechanic—Instrument	..	..	..	4	5	15	3	34	
11	Mechanic—Motor	3	..	4	4	1	6	7	27	
12	Mechanic—Tractor	..	..	..	..	..	..	..	..
13	Moulder	1	2	3	5	2	17	..	34	
14	Mechanic—Radio & T.V.	..	..	..	..	..	1	..	1	
15	Painter	..	..	..	..	..	..	2	2	
16	Pattern Making	..	..	..	..	..	..	2	2	
17	Plumber	..	2	..	1	..	10	2	15	
18	Refrigeration and A.C.	..	..	..	..	2	3	..	5	
19	Sheet Metal Worker	1	1	3	1	..	15	3	24	
20	Survey	1	..	1	..	..	2	..	4	
21	Tool and Dye Making	..	..	..	..	..	..	..	..
22	Turner	2	1	1	2	1	8	6	21	
23	Welder	2	3	2	4	7	49	16	83	
24	Wireman	..	..	2	2	4	6	3	17	
	Total	24	15	35	37	35	237	90	473	

Trade-wise distribution of Craftsman showing the preference of Employment
(1971 to 1973)

Sl. No.	Name of trade	Work sought in respective trade	Work sought in any trade	Not specified	Total
(1)	(2)	(3)	(4)	(5)	(6)
1	Blacksmith	20	..	3	23
2	Building Construction	5	2	..	7
3	Carpentry	29	3	5	37
4	Draftsman—Civil	4	1	2	7
5	Draftsman—Mechanical	6	2	..	8
6	Electrician	10	1	3	14
7	Fitter	69	4	7	80
8	Machinist	31	4	6	41
9	Mechanic—Diesel	2	..	..	2
10	Mechanic—Instrument	3	..	..	3
11	Mechanic—Motor	30	1	3	34
12	Mechanic—Tractor	6	..	1	7
13	Moulder	24	4	6	34
14	Mechanic—Radio & T.V.	1	..	..	1
15	Painting	2	..	..	2
16	Pattern making	2	..	..	2
17	Plumber	13	..	..	13
18	Refrigeration and A.C.	4	..	2	6
19	Sheet metal worker	22	1	..	23
20	Survey	3	..	2	5
21	Tool and Dye making	..	..	1	1
22	Turner	17	..	..	17
23	Welder	72	3	4	83
24	Wireman	14	..	8	22
	Total	389	27	57	473

TABLE No. 10

Mobility of Unemployed Craftsman

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Sl. No.	Name of trade	Within home Town	Anywhere in the district	Anywhere in the State	Anywhere in the country	Not specified	Total
1	Blacksmith	..	..	4	18	1	23
2	Building Construction	..	..	..	7	..	7
3	Carpentry	..	2	3	31	1	37
4	Draftsman—Civil	..	..	4	3	..	7
5	Draftsman—Mechanical	1	..	1	6	..	8
6	Electrician	..	..	..	14	..	14
7	Fitter	..	2	3	73	2	80
8	Machinist	..	..	4	35	2	41
9	Mechanic—Diesel	..	..	..	2	..	2
10	Mechanic—Instrument	..	..	..	5	..	5
11	Mechanic—Motor	..	1	1	29	3	34
12	Mechanic—Tractor	..	..	..	7	..	7
13	Moulder	..	3	4	27	..	34
14	Mechanic—Radio & T.V.	..	..	..	1	..	1
15	Painter	..	..	1	1	..	2
16	Pattern making	..	..	..	2	..	2
17	Plumber	..	..	..	15	..	15
18	Refrigeration & A.C.	..	..	1	4	..	5
19	Sheet Metal Worker	..	..	2	21	1	24
20	Survey	..	1	..	3	..	4
21	Tool & Dye making	..	..	..	..	..	..
22	Turner	1	2	1	18	1	21
23	Welder	..	..	5	72	4	83
24	Wireman	..	1	2	13	1	17
	Total	2	12	36	407	16	473

TABLE No. 11
Registration with Employment Exchange (1971 to 1973)

Sl. No.	Name of trade	Employed Craftsmen			Unemployed Craftsmen		
		Total No.	Registered with Employment Exchange	Percentage to trade-wise total employed craftsmen	Total No.	Registered with Employment Exchange	Percentage to total unemployed Craftsmen
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Blacksmith	23	** 14	** 61.00	23	19	83.00
2	Building construction	3	1	33.00	7	6	86.00
3	Carpentry	28	13	46.00	37	31**	84.00
4	Draftsman—Civil	17	6	35.00	7	7	100.00
5	Draftsman—Mechanical	6	4	67.00	8	8	100.00
6	Electrician	80	31	39.00	14	11	79.00
7	Fitter	98	49	50.00	80	71	89.00
8	Machinist	58	21	36.00	41	38	93.00
9	Mechanic—Diesel	6	1	17.00	2	1	50.00
10	Mechanic—Instrument	9	4	44.00	5	4	80.00
11	Mechanic—Motor	45	16	36.00	34	26	76.00
12	Mechanic—Tractor	10	5	50.00	7	7	100.00
13	Moulder	18	6	33.00	34	27	79.00
14	Mechanic—Radio & T.V.	3	3	100.00	1	1	100.00
15	Painting	8	3	38.00	2	2	100.00
16	Pattern making	28	8	29.00	2	2	100.00
17	Plumber	14	4	29.00	15	14	93.00
18	Refrigeration & A.C.	37	16	43.00	5	5	100.00
19	Sheet Metal Worker	5	1	20.00	24	23	96.00
20	Survey	2	1	50.00	4	3	75.00
21	Tool & Dye Making	62	21	34.00	21	16	76.00
22	Turner	118	35	30.00	83	74	89.00
23	Welder	20	9	45.00	17	16	94.00
24	Wireman						
	Total	698	268	38.00	473	412	87.00

TABLE No. 12

Migration

Sl. No.	Name of trade	Within the State	Outside the State	Outside the country	Not specified	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	Blacksmith	12	7	1	3	23
2	Building construction	2	1	..	..	3
3	Carpentry	16	3	1	8	28
4	Draftsman—Civil	13	3	..	1	17
5	Draftsman—Mechanical	4	1	..	1	6
6	Electrician	45	20	3	12	80
7	Fitter	50	31	9	8	98
8	Machinist	30	14	3	11	58
9	Mechanic—Diesel	4	..	1	1	6
10	Mechanic—Instrument	4	4	1	..	9
11	Mechanic—Motor Vehicle	31	5	3	6	45
12	Mechanic—Tractor	4	4	2	..	10
13	Moulder	7	8	2	1	18
14	Mechanic—Radio and T.V.	..	1	..	2	3
15	Painting	7	..	..	1	8
16	Pattern Making	..	..	..	..	..
17	Plumber	19	3	2	4	28
18	Refrigeration and A.C.	4	3	6	1	14
19	Sheet Metal Worker	25	5	2	5	37
20	Survey	5	..	..	..	5
21	Tool and Dye Making	..	1	1	..	2
22	Turner	31	18	5	8	62
23	Welder	60	22	12	24	118
24	Wireman	11	2	3	4	20
	Total	384	156	57	101	698

v

A STUDY ON THE CHARACTERISTICS OF UNEMPLOYED
POST-GRADUATES IN KERALA

A STUDY ON THE CHARACTERISTICS OF UNEMPLOYED POST-GRADUATES IN KERALA

Introduction

Unemployment still remains as one of the biggest challenges facing the nation in spite of our best efforts to solve the problem for the last 2½ decades through successive Five Year Plans. Although it cannot be denied that new employment opportunities have been created, the programmes aimed at alleviating unemployment and under-employment do not seem to have made a dent in to the problem. One of the principal objectives of the 6th Five Year Plan (1978-83) is the eradication of unemployment and under-employment within a decade.

According to the Survey on employment and unemployment conducted by the Bureau of Economics and Statistics, there were 11.74 lakhs chronically unemployed persons in Kerala during 1977-78 (9.02 lakhs in rural and 2.72 lakhs in urban areas). The sex-wise distribution of the unemployed was 7.57 lakh males and 4.17 lakh females. The live register of the employment exchanges shows that the number of work-seekers registered was 10.53 lakhs on 31-12-1978, educated work-seekers constituting 53.4%. During the past two decades facilities for higher education especially in the Faculties of Arts, Science and Commerce have increased considerably with the result that a large number of post-graduates are coming out of the Universities and joining the employment market.

According to the live register of the Employment Exchanges there were only 445 unemployed post-graduates as on 31-12-1966. This has increased to 6346 by the end of December 1977 recording an increase of nearly 15 times.

Kerala has four Universities including the Agriculture University at Mannuthy, Trichur. The Kerala University with headquarters at Trivandrum has 79 Arts and Science Colleges affiliated to it. The Calicut University has 51 Colleges under it. There are no affiliated colleges under the University of Cochin.

Out of 130 Arts and Science Colleges, 105 are managed by the private sector.

Expenditure on education which was Rs. 16.16 crores in 1960-61 has increased to 143.79 crores in the year 1976-77. This constitutes 38% of the State Budget. In the number of educational institutions in relation to population, in the percentage of enrolment of children of various age groups in schools in women's education and spread of literacy, Kerala is several steps ahead of other States in the Country.

The Manpower Division of the Bureau of Economics and Statistics conducted during 1978-79 a study on the characteristics of the unemployed post-graduates in Kerala with the intention of examining the problem in detail. The study covered post-graduates in the disciplines of Arts, Science and Commerce in all the eleven districts of the State registered with the employment exchanges.

2. *Objectives and coverage of the study*

The study was intended to:

- (i) assess the extent of unemployment among post-graduates, sex-wise and discipline-wise (Arts, Science and Commerce mainly);
- (ii) study the spread of the unemployed—University-wise and district-wise;
- (iii) assess the job realisation lag;
- (iv) observe the age distribution of the unemployed post-graduates;
- (v) examine the job preference pattern;
- (vi) study on the dependency status;
- (vii) study the parental income and occupation status and observe the economic background of the unemployed;
- (viii) evaluate the role of employment exchanges and other agencies in handling the employment problem of the unemployed post-graduates;
- (ix) identify the location preference of the job-seekers;
- (x) present a critique of the gap between job expectation and job realisation i.e., the aspiration gap.

3. *Methodology of the Study*

As on 31-5-1978 there were 5090 unemployed post-graduates in Arts, Science and Commerce in the State, as per the live register of the Employment Exchange. Out of this a sample of 10% each from Faculties of Arts, Science and Commerce were selected systematically for detailed study. A questionnaire vide Appendix I, was prepared giving due emphasis to the objectives of the study. The details in the questionnaire were collected by the investigators of the Department through personal visits, under the supervision of the officers at the District level. The following table gives the details of post-graduates under different faculties and the number of persons selected under each category.

<i>Faculty</i>	<i>No. of persons in the live register as on 31-5-1978</i>	<i>No. of persons selected</i>
M.A.	2860	286
M.Sc.	1931	193
M.Com.	245	25
Others	54	5
Total	5090	509

4. *Field Response*

In spite of the best of efforts made, only 476 persons could be contacted out of the selected 509. The percentage of response works out to 93.50. Investigators confronted much difficulty in identifying the respondents for want of accurate current address of the selected registrants in the Exchange. Some have left the station in search of job to the other States of the Union and a few have gone abroad to earn a living. Mixed was the reaction of the respondents towards the study. Some hailed the objectives and appreciated the attempts while a minority was sceptical of the usefulness of the study.

5. *The Characteristics*

5.1 *Faculty*.—Faculty-wise classification of post graduates surveyed is given below:—

<i>Faculty</i>	<i>Number</i>	<i>%</i>
Arts	274	57.57
Science	174	36.55
Commerce	23	4.83
Others	5	1.05
Total	476	100.00

The study revealed that 57.57% of the respondents were post-graduates in Arts. Science post-graduates constituted 36.55%. Comparatively only a small section took post graduate degree in other subjects. Sex-wise and faculty-wise distribution of post-graduates contacted is given in Table I in Appendix.

5.2 *Sex Distribution*.—Women constituted 53.4% of the total post graduates surveyed.

5.3 *University*.—The following table gives the distribution of post graduates by University.

<i>University</i>	<i>No.</i>	<i>%</i>
Kerala	291	61.13
Calicut	88	18.49
Cochin	12	2.52
Universities outside the State	74	15.55
Not specified	11	2.31
Total	476	100.00

61.13% of the respondents were alumni of the Kerala University and 18.49% of the University of Calicut. Only 2.52% were from Cochin University. 15.55% of the post-graduates surveyed were students of Universities outside the State (Sagar, Venketeswara and Usmania). The study revealed that about 62% of the post-graduates from the Kerala University belonged to the districts of Trivandrum, Quilon and Kottayam. Post-graduates of the Calicut University belonged principally to the districts of Trichur, Palghat and Cannanore. Majority of the respondents from the Cochin University are from Ernakulam and Trichur Districts. Nearly 64% of the post-graduates who took their degree from Universities outside the State belonged to the districts of Quilon, Alleppey and Kottayam. The district-wise and sex-wise distribution of the post-graduates surveyed is given in Table 2 in Appendix.

Geographical spread

It may be noted that 72% of the post-graduates contacted belonged to the Districts of Trivandrum, Quilon, Alleppey, Kottayam and Ernakulam. The highest percentage (17.23) in the State is from Trivandrum and Quilon districts and the lowest (1.47) from Idukki District. The district-wise distribution of post-graduates surveyed is given below:

<i>District</i>	<i>Total No.</i>	<i>%</i>
Trivandrum	82	17.23
Quilon	82	17.23
Alleppey	60	12.61
Kottayam	65	13.66
Idukki	7	1.47
Ernakulam	54	11.34
Trichur	43	9.03
Palghat	24	5.04
Malappuram	12	2.52
Kozhikode	22	4.62
Cannanore	25	5.25
Total	476	100.00

5.3 *Marital status.*—The percentage distribution showing the marital status among the post graduates surveyed is given below:

<i>Marital status</i>	<i>Number</i>	<i>%</i>
Unmarried	323	67.86
Married	148	31.09
Widowed	1	0.21
Separated	..	..
Not stated	4	0.84
Total	476	100.00

About 67.9% of the post graduates were unmarried, 31.1% married and 0.2% were widowed. Details of remaining 0.8% could not be ascertained 56% of the unmarried post graduates were males. Among the married, females constituted nearly 75%. The sex-wise distribution showing the marital status of the post graduates contacted is given in Table 3 in Appendix.

5.4 *Age Distribution.*—The study has revealed that 71.6% of the persons contacted are below 27 years of which 54.8% are females. Only 4 persons are above 36 years and all of them are males. Table 4 in Appendix gives detailed information about the age composition of the respondents.

5.5 *Year of passing.*—About 5.25% of the persons contacted have taken their degree prior to 1970. Maximum number of persons 23.95% took their degree during the year 1976 and minimum (1.05%) during the year 1978. Table 5 in Appendix gives distribution of post graduates according to the year of passing the examination.

5.6 *Faculty and class.*—9.12% of the total arts students obtained first class, 67.15 second class and 19.34 third class. The class obtained by 4.38% could not be ascertained. In the science discipline, the percentages of first, second and third class holders were 36.21, 52.30 and 9.77 respectively. In the case of commerce post graduates the percentages of 1st, 2nd and 3rd class were 13.04, 47.83 & 39.13 respectively. Distribution of post graduates under different facilities with class obtained is given in Table 6 of Appendix.

5.7 *Additional Qualifications.*—About 34.9% of the total persons contacted were having additional qualifications like B. Ed., M.Ed., M.Phil., and Type-writing. Among the additionally qualified persons 62.66% were post graduates in arts and 34.94% in science. 103 out of the 166 post graduates with additional qualification were B.Ed. degree holders. One of the reasons why these post graduates acquired additional qualifications may be the difficulty in realising a job immediately after post graduation. Details of post graduates with additional qualification are given in Table 7 in Appendix.

5.8 *Parental occupation.*—31.72% of the post graduates belonged to cultivator's families and 19.12% of the respondents were sons and daughters of parents employed in the services sector. The parents of 17.23% were pensioners. Only 8.82% of them were from the business community. It is worth while to note that 2.31% of the post graduates came from the labour class. Table 8 in the Appendix gives detailed classification of the parental occupation of the post graduates surveyed.

5.9 *Job preference.*—According to the survey 42.44% of the respondents preferred teaching profession. 17.86% preferred jobs of an administrative nature, while 14.92% preferred executive posts. Only 10.29% liked research work. Among those who preferred executive jobs 52.11% belonged to the faculty of Arts, 32.39% to Science, 11.27% to Commerce and 4.23% to other disciplines. 62.35% of those who preferred administrative jobs came from the faculty of Arts 27.06 % from Science, 4.1% from Commerce and 1.8% from other faculty. Those who preferred the job of a research nature principally belonged to the Science faculty. 64.85% of those who preferred teaching had degree in Arts, 33.66% in Science and 1.49% in Commerce. Table 9 in Appendix gives the job preference details.

5.10 *Activity Status.*—Generally the details of unemployment according to the live register may not reflect the actual situation because many persons who have already secured jobs may continue their registration for better employment opportunities. For ascertaining the actual position, the activity status of the selected persons as on the date of survey was collected.

Out of the 476 persons covered in this study, 55.67% were found employed, 30.25% were chronically unemployed while 12.19% were students. The rest did not specify their activity status; many of them have reported that they are continuing some sort of studies because of the difficulty in getting suitable employment and also due to the reluctance to remain idle. Of the chronically unemployed, 54.86% were from the Arts category, 37.50% from Science and 5.56% from the faculty of commerce. In the employed category also 56.60% belonged to Arts Sector, 37.36% belonged to Science sector and 5.28% to the Commerce sector. Of the students category, 63.79% took Arts, 34.48% Science and 1.73% Commerce degree. The survey has revealed the discontentment among the employed ones since jobs they managed to obtain did not suit their optitude. The employed ones put in a bit of effort to improve their job status, but often the attempts do not fructify. Table 10 in Appendix gives the details activity status of the post graduates contacted.

5.11 *Sex-wise age distribution of the unemployed Post Graduates.*—Out of the 144 unemployed persons 46.53% are in the age group 25-27. More than 27% are above 28 years. The prospect of getting employment in the public sector is rather bleak in the case of these persons. The following table gives the percentage distribution of the unemployed persons above 28 years according to the faculty of study.

	<i>Arts</i>	<i>Science</i>	<i>Commerce</i>	<i>Others</i>	<i>Total</i>
Total No. of unemployed persons	79	54	8	3	144
No. of persons above 28 years	27	10	21	1	39
Percentage	34.17	18.52	12.50	33.33	27.08

Among the total number of chronically unemployed persons females constitute 67%.

The following table gives the marital status of the unemployed post graduates:

<i>Status</i>	<i>Male</i>		<i>Female</i>		<i>Total</i>	
	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
Unmarried	39	82.98	50	51.55	89	61.81
Married	8	17.02	47	48.45	55	38.19
Total	47	100.00	97	100.00	144	100.00

Nearly 83% of the unemployed males are unmarried. Compared to males, the percentage of unmarried females is much less.

5.12 *Period of waiting.*—The gravity of unemployment among the post graduates can be ascertained by examining the period of waiting for securing a job after taking the degree. 61% of the post graduates have taken their degree prior to 1976. 14.6% have taken their degree prior to 1973. They have not been successful in securing a job even after 6 years of waiting. The long period of waiting after acquiring high academic qualifications for securing a job will certainly affect the morale of any individual. Therefore effective measures have to be taken to absorb these unfortunate persons. Table 12 in Appendix shows the percentage distribution of unemployed persons with the year of passing.

5.13 *Present Avocation.*—An attempt has been made to study the present avocation of the post graduates found employed on the date of enquiry. Of the employed post graduates, 44.15% were engaged in the teaching profession.

The study revealed that most of them were employed in schools 27.17% were employed in different government services. The public and private sector enterprises provided employment to 13.21% and 12.45% respectively. Only 0.75% of the employed post graduates were engaged in research activity. Another interesting factor to note is that teaching and government service have absorbed 71% of the employed post graduates. Only 0.75% of the employed post graduates were self employed. Self employment schemes properly carried out will mitigate the unemployment problems and contribute to the economic development of our State. The Kerala Government have rightly understood the problem and are launching different self employment schemes to help the educated and talented persons on liberal terms and conditions. Nationalised banks are also financing projects of self employment. But the bank's adamant demand for adequate security for such loans practically thwart the purpose of the scheme. The self employment schemes can be more successfully implemented if banks and other lending institutions liberalise their terms and conditions for advancing the loans. The lending agencies by appointing qualified personnel can watch whether the loans advanced by them are being utilised properly for the purpose for which it was granted.

It is generally known that many persons are not able to obtain jobs according to their qualifications. An analysis of the present nature of jobs of the employed post graduates revealed the following facts.

1. Nearly 80% of the total employed post graduates are working in jobs which do not require post graduate degree at all.
2. Of these 80 per cent, 46.7 percent was found in clerical jobs, 35.7% in the school teaching and the rest in petty jobs.
3. Among science post graduates 83% was found employed in job which do not require post graduation. Out of these 46.3% was working as Clerks and 35.4% as School teachers.
4. Among Arts post graduates also more than 77% was employed in jobs which require only lesser qualification. The percentage of persons working as clerks and teachers were found to be 45.7 and 39.7 respectively.

The fact that about 80% of the post graduates could secure jobs below their qualifications shows the magnitude of wastage of highly qualified man power in Kerala. Detailed distribution is given in Table 13-A.

5.14 *Income Group.*—The study has revealed that out of the 265 employed post graduates only 31.32 per cent were getting an income of Rs. 500. and above per month. 27.92 percent was in the income group Rs. 401 to Rs. 500; the income of 16 percent of the post graduates was below Rs. 300. The study further revealed that 6.42 per cent of the post graduates were destined to work for a meagre income of less than Rs. 200 per mensem. The mushroom growth of Tutorial Colleges and Parallel Colleges due to the high percentage of failures in the Public Examinations and the extreme difficulty in

getting admission in colleges respectively have helped these post graduates in getting at least this meagre income. The distribution of post graduates according to their monthly income is given in Table 14 of Appendix.

5.15 *Agency of employment.*—An attempt has been made to study the effectiveness of the various employment agencies in providing employment to the post graduates. Employment Exchanges in many countries play a vital role in the field of employment. But the study revealed that only 5.28 percent of the employed post graduates could get their job through Employment Exchanges. 72 percent of the post graduates got their employment through their own effort.

5.16 *Dependency Status.*—Nearly 73 percent of the unemployed post graduates have stated that they are still depending on their parents for their livelihood. 5.56 percent depended on their brothers. It is pitiable to note that such a large percentage of these persons have to depend on their parents and brothers, since many of them might have even sold or pledged their properties to give higher education to their children. All the married unemployed females depended on their husbands. Only 1.39 percent have stated that they are depending on the income from family property. Table 16 gives details about dependency of the unemployed post graduates.

5.17 *Weaker Section.*—Since independence, Government have implemented a large number of schemes to give higher education to the weaker sections of the community with the object of uplifting them. Many of the persons belonging to these communities were able to acquire higher qualifications utilising the above benefits.

About 29.13 percent of the total post graduates contacted belonged to the weaker sections in the society. Out of the 141 post graduates belonging to the lower stratum of the society about 6.4 per cent was from Scheduled Castes and 93.6 per cent belonged to other backward classes. Majority of these persons has taken their post graduate degree in the faculty of Arts. The faculty-wise break up is given in Table 17 of Appendix. The breakup of the persons contacted belonging to the weaker sections of the community shows that 18 were students, 74 were employed, 49 persons, (that is about 34.76 per cent) were found unemployed. Of these 49 persons only two persons belonged to Scheduled Castes and the remaining 47 persons to the Other Backward Classes. Of the 49 persons unemployed, 31 persons were from Arts faculty and 14 from science. More than 63 per cent of the unemployed post graduates were females. Table 13-A in the Appendix shows that majority of the post graduates could obtain only jobs which did not require post graduation at all. This was found true in the case of the weaker section of the community also. Only 20% was employed in jobs which required post graduate degree as minimum qualification.

Unemployment among Post-Graduates—reasons, and suggestions of the candidates

The post-graduates contacted were requested to specify the reasons for the present unemployment among them and their suggestions to solve the

problem. Some of the reasons mentioned by them and their suggestions for solving the problem are given below:—

Reasons:

1. The post graduate courses conducted at present in the different faculties are not job oriented.
2. Industrial backwardness.
3. Lack of proper information about the vacant posts reduces the chance of many qualified candidates to apply for the post in time.
4. Selection to the various posts are not being made purely on the basis of merit.
5. Preference for only experienced hand, by employers.
6. Facilities for post-graduate studies have expanded at a faster rate than the opportunities for employment due to improper planning.
7. Deserving candidates find it difficult to take up the self employment schemes due to the various hurdles.

Suggestions of the candidates to solve the unemployment problem.

1. The post graduate course should be re-structured in such a way that it should be job oriented.
2. Admissions to the post-graduate courses should be restricted according to demand.
3. Avenues of employment should be opened in the rural areas by starting new industries.
4. Technical guidance and liberal loans should be given under the self employment schemes to the post graduates on a preferential basis.
5. Preference should be given to post graduates in the appointment of 'apprentice trainees' in the various industrial and other organisations for acquiring experience.
6. Appointments should be strictly made on the basis of merit, income of the family, year of passing and age of the candidates.

Summary

The Manpower Division of the Bureau of Economics and Statistics conducted a study on the characteristics of the unemployed post graduates in Kerala during 1978-79. The important findings of the study are given below:

1. As on 31st May 1978, there were 5090 post-graduates (2387 males and 2703 females) in the live register of the Employment Exchanges. 509

(10% sample) persons were selected systematically for the study, out of which 238 were males and 271 females. Only 476 persons could be contacted, the response being 93.5%. The remaining persons could not be contacted in spite of best efforts due to their incorrect address and also because some of them have already left the State in search of employment.

2. Out of the 476 persons contacted 222 (46.64%) are males and 25 (5.36%) females. 57.6% belonged to the faculty of arts, 36.6% to science, 4.8% to commerce and 1% to other faculties.

3. 82.1% of the total post-graduates contacted belonged to the Universities situated within the State out of which 61.13% is from Kerala University. About 15.6% took their degree from Universities outside the State. More than 72% of the persons contacted belonged to the southern districts of the State, the highest per cent being from Trivandrum and Quilon.

4. 67.9% of the total post-graduates surveyed and 61.8% of the unemployed post-graduate were unmarried as on date of survey. More than 56% of the unmarried persons were females. Among the unemployed males 83% and among unemployed females 52% were unmarried. Among the married nearly 75% was females.

5. The study has revealed that 71.6% of the persons contacted are below 27 years of age of which 54.8% are females. 10.4% of the unemployed post-graduates were above 30 years of age and there is little chance for them to get suitable employment especially when age limit and experience are prescribed for jobs.

6. It was found that only 72% of the persons who passed their examination prior to 1970 could secure employment. More than 50% of the persons who took their degree in 1971 are still unemployed.

7. Nearly 19% of the persons were first class and 61% second class degree holders. About 35% of them has acquired additional qualifications such as B.Ed., M.Ed. M.Phil., typewriting etc., Some sort of studies even after post-graduation was resorted to because of the difficulty in getting a job immediately after post graduation and also because of their reluctance to remain idle.

8. Nearly 32% of the post graduates were from cultivators' families, 19% from service sector, 17% were the children of pensioners. Nearly 2.3% came from labour class.

9. According to the survey nearly 42% of the respondents preferred teaching profession, 18% administrative jobs, 15% executive posts and 10% research work.

10. Activity status of the post graduates surveyed revealed that only 56% of them were employed. 30% was chronically unemployed while 12%
37/3140/MC.

was students. Among the employed persons 57% belonged to Arts and 37% to science faculty. Among the chronically unemployed also 55% were from arts and 38% from science faculties; 46.4% of the employed and 67% of the unemployed post-graduates were females.

11. More than 60% of the post-graduates contacted has taken their degree before 1976. 14.6% who have taken their degree prior to 1973 could not get a job even after waiting for a period of more than 6 years. More than 50% of them is from the faculty of Arts.

12. 44% of the employed post-graduates are engaged in teaching. But most of them were employed in private tutorials and schools. 27% was in Government service. The public and private sector enterprises provides employment to 12.83% each. Only 0.75% was engaged in research activities. 3.75% of the employed post-graduates are self employed. Another interesting fact revealed by the study is that nearly 80% of the post-graduates are working in jobs which do not require post-graduate degree at all. Out of these, 46.7% was found in clerical jobs 35.79% in school teaching and the rest in other petty jobs.

13. Out of the 265 employed post-graduates only 31% was getting an income of Rs.500 and above per month. 16% of the post-graduates employed are getting only an income of less than Rs.300 per mensem which is even lower than the income of the Class IV employee of the State Government.

14. It was revealed that only 5.28% could get their job through Employment Exchanges. The Public Service Commission provided job for another 22%, 72% of them got employment through their own effort.

15. The study brought to light that nearly 73 per cent of the unemployed post-graduates are still depending on their parents for their livelihood. 5.56% depended on their brothers and 1.39 per cent on their family income.

16. Nearly 30 per cent of the total post-graduates contacted belonged to the weaker sections in the society. 1.89 per cent was Scheduled Castes out of the 141 persons belonging to the lower stratum. 6.38% was from Scheduled Castes and 93.62% belonged to other backward classes.

17. Out of the 141 persons belonging to weaker sections 49 persons (34.76%) were found unemployed. 2 persons were Scheduled Castes and 47 were from other backward communities. Majority of the Scheduled Castes persons have taken degree in Arts. 51% of these unemployed persons were females.

18. Some of the reasons expressed by the post-graduates for the present unemployment among them, are:

- (a) The post-graduate courses conducted at present are not job oriented.
- (b) Industrial backwardness of the State.

- (c) Lack of proper information about vacancies and preference of only experienced hands by employers.
- (d) Facilities for post-graduate studies have increased at faster rate than opportunities for employment.

19. The main suggestions put forward by the post-graduates contacted to solve unemployment are:

- (i) Make the post-graduate courses job oriented by restricting admission according to demand.
- (ii) Avenues of employment should be opened in villages by way of rural industrialisation.
- (iii) Provide technical guidance and liberal loans to them under the self employment schemes.
- (iv) Give preference to post-graduates in the appointment of 'apprentices' in the various industrial and other organisations to gain experience.
- (v) Make appointments based on merit, income of family, age and year of passing of the candidates.

Suggestions

It is a paradox that we have educated unemployed. This is a situation illustrating the inability to use educated and trained man power fully when we want many more educated and trained people with skill, ability, capacity, competence, and expertise to produce more and more badly needed goods and services. Our educational system does not prepare people for productive work. Our system of education should undergo a techno-productive orientation. Unused man power must be made economically regenerative. Tapping this vital productive force forms the crux of the task of achieving economic growth and social progress.

We could observe high concentration and excessive pressure in the service sector. It is equally true that more potential productive sectors are faced with shortage of qualified, skilled man power. This gap can well be bridged by properly directing graduates to prefer productive and constructive lines of specialisation. A proper guidance programme and aptitude assessment are necessary in this regard.

Apart from the basic defect of the educational system the problems of unemployment in Kerala is more acute because of the lack of new economic investments. Investment is at the root of capital formation and economic development. Emphasis must be given on increased production and capital mobilisation. A surplus production is the sine-qua-non of savings which can be diverted into productive and employment oriented lines of investment. Private investments in industrial undertakings are sluggish due to variou

reasons—political, social and economic. The increased inflow of foreign money is not utilised for productive lines of investment but in effect only inflates the State economy. A rapid development of the small scale industrial sector would go a long way in solving the problems of unemployment in Kerala. The Government must take the responsibility of maintaining industrial peace and provide all amenities for industrial infrastructure. The recent patronage of agro-based industries and shift to intergrated rural development are welcome signs in this regard. The educated unemployed can be given the necessary guidance expertise and confidence to take up self employment schemes and become economically active.

Post-graduate education system as obtaining in India owes its origin to the British traditions that existed at the turn of the century. Post-graduate education has as its ultimate goal the inculcation of a taste and aptitude for original thinking and research. However in reality throughout the last two decades the system has largely contributed to the under employment of over qualified personnel. This trend has led to three major national problems.

- (1) A wide spread lack of job satisfaction among the over qualified employees.
- (2) Increase in unemployment at graduate and under graduate levels and
- (3) A partial failure of the post-graduate education system in attaining its major objectives.

A revolutionary change in the education policy should give adequate emphasis to the occupationalisation of education. Delinking of a degree from employment, major thrust on vocationalisation, a rural and cultural bias and a higher and more meaningful content are some of the features of the proposed national education policy. In the proposed plan, university admission is made selective—secondary education is made 'comprehensive enough to be terminal for those who do not want or cannot proceed for further education and to have strong academic foundation for higher studies for those who show intelligence and aptitude for that education'. Let us hope this new strategy in the education realm may end the pitiable plight of the unemployed post-graduates.

As Dr. Adishesayya observed 'Everybody in our political hierarchy is an expert in education. But unemployment among the educated is created by the wrong priority assigned to fiscal policies of the Government'. If education is an industry its product must find a market. If not, the factory should be closed and the workers should be sent out and if the diversification has to come by vocationalising education, it should be implemented.

In Dr. Swaminathan's view 'the greatest challenge before us now is achieving self duplicating economic growth which can provide gainful employment to every one'. Kerala should opt for developmental project satisfying this criteria. The employment generated can be based on two major types.

(1) Employment generated by Government through development projects.

(2) Employment generated through projects based on self help and group initiative.

In order to hasten the process of connecting intellect with labour, all educational, scientific and technological institutions should be assigned well defined responsibilities for undertaking developmental balance sheets for selected areas, and preparing port folios of vital projects in consultation with the people of the area.

As far as Kerala is concerned economic growth is the only way to full employment. The Keynesian approach of management of aggregate demand is a preferable policy in our context. Macro economic policies and man power policies should be complementary so that jobs created by selective policies are quickly absorbed into the main type of economic growth. The job creation strategy should be based on selective employment policy—unemployment benefit can be a solution for this grave menace.

The reversal of the brain drain and flow of resources from villages to the towns will have to be brought about by providing organised opportunities for educated youth and professionals to participate in the process of development. Through the development of rural resource co-operatives of young professionals, a cadre of trained local youths can be built up for taking the tools of science to the rural areas. The immediate task of all Universities, scientific and technical institutions should be the compilation of integrated resources, inventories bringing together data on the developmental assets and liabilities of each area.

Conclusion

The analysis of the nature and specificity of the extent of unemployment among the post-graduates in Kerala clearly expounded the inevitability and urgency of a time bound programme to mitigate this sorry state of affairs. It is extremely necessary that educated unemployment should be reduced to the minimum in the interest of social security. This point is emphasised by the Sadler Commission, namely, 'The existence and steady increase of a sort of intellectual proletariat not without reasonable grievances forms a menace to good Government, especially in a country where.....the small educated class is vocal. It must be an equal menace whatever form the Government may assume. The existence of unemployment among "the soft-handed intellectuals" is partly the result of an educational system which is highly located in favour of liberal education and does not prevail vocational or technical education'.

Unemployment, especially educated unemployment, is one of the major threats facing the nation. It is particularly true in Kerala where the percentage of literacy is the highest in India. The facilities for higher education

have increased considerably in the State in recent years. As a result every year a number of post-graduates are coming out of the Universities and joining the employment market. Due to the absence of sufficient and suitable job opportunities for the highly educated category, their number in the Employment Exchanges is increasing year after year and under such circumstances the very purpose of post-graduation itself is questionable. Educated manpower is an expensive input and educated unemployment could be an embarrassing waste. In this context, an effective co-ordination between the programmes of higher education and the demand for such personnel becomes an absolute necessity.

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**Study on the extent of unemployment among Post-Graduates
in Kerala**

PRO FORMA

1. Name in full
2. Age (in completed years)
3. Sex
- *4. Marital status Single/Married/Widowed/Divorsed/
Separated.
5. (a) Father's/Guardian's name
(b) Occupation
- *6. Whether you belong to Scheduled
Caste/Scheduled Tribe/Backward
Community
7. (a) Date of registration as a
Post-Graduate at the
Employment Exchange
(b) Name of Employment
Exchange
- *8. Educational qualifications:

<i>Course of study</i>	<i>Subject</i>	<i>Name of University</i>	<i>Year of Passing</i>	<i>Class or division</i>
M.A.				
M.Sc.				
M.Com.				

9. Additional qualification
if any

*10.(a) Activity status on the date of survey Unemployed/Employed/Student/Others
(specify)

(b) If employed, the status of
employment. Employer/
Employee/Own Account
Worker (Specify)

11. Nature of employment from the date of passing the Post-Graduate
Degree

<i>Nature of Employment (Designation/Post)</i>	<i>Employer</i>	<i>From</i>	<i>To</i>	<i>Monthly income (including allowance)</i>	<i>Reason for Termination</i>
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*Give a tick (✓) mark over the relevant category and score off the remaining entries.

12. Attempts for securing a job or self employment:

(a) Own effort not through Employment Exchange

<i>Sl. No.</i>	<i>Date of application</i>	<i>Organisation to which applica- tion has been made</i>	<i>Post</i>	<i>Scale of pay</i>	<i>Whether called for interview</i>	<i>Selected or not</i>
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- 1.
- 2.
- 3.
- 4.

(b) In case where you have been sponsored by Employment Exchange

<i>Date of receiv- ing call</i>	<i>Organisation/ to which sponsored</i>	<i>Post</i>	<i>Scale of pay</i>	<i>Selected or not</i>	<i>If not appear- ed for inter- view, reasons</i>
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- 1st call
- 2nd call
- 3rd call

13. If employed, reasons for continuing on the Live Register of Employment Exchange
14. (i) If unemployed, state how you are maintaining yourself since passing Post-Graduate Examination (Whether dependent on parents, brother, income from property, etc.)
- (ii) What type of jobs do you prefer (Please indicate your preference in Executive posts, Administrative Posts, Research, Teaching, etc. in the order of preference)
- *(iii) Are you prepared to work anywhere in the State/ anywhere in the Country/ anywhere outside the country.
15. What are your suggestions to improve the employment situation
16. Please give any additional information not covered earlier

Signature with name & designation
of the Enumerator

Inspected By:

Name

Designation:

Signature with date.

TABLE I
Faculty-wise classification of Post-graduates surveyed

Faculty	Arts			Science			Commerce			Others			Total		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
	Number	119	155	274	83	91	174	17	6	23	3	2	5	222	254	476
Percentage			57.57			36.55			4.83				1.05	46.64	100.00

Department of Post-Graduate Studies
University of Madras

TABLE 2
Distribution of Post-graduates by University and District

District	Kerala University			Calicut University			Cochin University			Other Universities		
	M	F	T	M	F	T	M	F	T	M	F	T
Trivandrum	25	46	71	1	..	1	..	..	..	5	2	7
Quilon	21	43	64	2	..	2	..	..	..	9	7	16
Alleppey	16	25	41	..	1	1	..	..	..	11	7	18
Kottayam	20	27	47	..	..	..	..	..	..	8	5	13
Idukki	3	4	7	..	..	..	..	..	..	..	..	..
Ernakulam	14	23	37	2	2	4	4	2	6	5	1	6
Trichur	8	6	14	9	11	20	1	3	4	2	3	5
Palghat	..	2	2	15	7	22	..	..	..	..	..	..
Malappuram	..	1	1	7	3	10	..	..	..	..	..	..
Kozhikode	..	5	5	5	6	11	2	..	2	3	..	3
Cannanore	..	..	..	12	5	17	..	..	..	5	1	6
State Total	107	184	291	53	35	88	7	5	12	48	26	74
Percentage	..	..	61.13	..	..	18.49	..	..	2.52	..	..	15.55

Source: Annual Report of Post-graduate Education, 1954-55

TABLE 2 (Contd.)

District	Not specified			Total			%
	M	F	T	M	F	T	
Trivandrum	2	1	3	33	49	82	17.23
Quilon	..	..	..	32	50	82	17.23
Alleppey	..	..	..	27	33	60	12.61
Kottayam	3	2	5	31	34	63	13.66
Idukki	..	..	..	3	4	7	1.47
Ernakulam	1	..	1	26	28	54	11.34
Trichur	..	..	..	20	23	43	9.03
Palghat	..	..	..	15	9	24	5.04
Malappuram	..	1	1	7	5	12	2.52
Kozhikode	1	..	1	11	11	22	4.62
Cannanore	17	8	25	5.25
State Total	7	4	11	222	254	476	..
Percentage	2.31	100.00

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TABLE 3

Distribution of post-graduates according to Sex & Marital status

Category	Male		Female		Total	
	Number (2)	Percentage (3)	Number (4)	Percentage (5)	Number (6)	Percentage (7)
Unmarried	181	81.53	142	55.91	323	67.86
Married	38	17.12	110	43.31	148	31.09
Widowed	..	..	1	0.39	1	0.21
Separated	..	..	..	..	..	..
Not specified	3	1.35	1	0.39	4	0.84
Total	222	100.00	254	100.00	476	100.00

TABLE 4
Age distribution of post-graduates surveyed

Age group	Arts			Science			Commerce			Others			Total		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Below 22 years	1	2	3	..	..	..	..	..	..	..	..	..	1	2	3
22-24	17	27	44	22	29	51	8	1	9	..	..	..	47	57	104
25-27	57	80	137	42	42	84	6	4	10	1	2	3	106	128	234
28-30	22	36	58	12	10	22	2	1	3	1	..	1	37	47	84
31-33	10	6	16	2	8	10	1	..	1	..	..	..	13	14	27
34-36	6	2	8	2	1	3	..	..	..	1	..	1	9	3	12
Above 36	3	..	3	1	..	1	..	..	..	..	..	..	4	..	4
Information NA	3	2	5	2	1	3	..	..	..	..	..	..	5	3	8
State Total	119	155	274	83	91	174	17	6	23	3	2	5	222	254	476
Percentage	..	..	57.57	..	..	36.55	..	..	4.83	..	..	1.05	..	..	..

TABLE 5

Distribution of post-graduates according to the year of passing

Sl. No.	Year of passing	Arts			Science			Commerce			Others			Total			
		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	
1	Prior to 1970	8	4	12	5	6	11	1	..	1	1	1	..	1	15	10	25
2	1971	3	6	9	2	4	6	..	..	..	..	..	..	..	5	10	15
3	1972	4	8	12	2	2	4	..	1	1	2	..	..	..	6	11	17
4	1973	6	19	25	8	7	15	1	2	3	3	..	..	..	15	28	43
5	1974	18	25	43	11	11	22	1	..	1	1	1	1	2	31	37	68
6	1975	23	35	58	14	20	34	2	..	2	1	1	..	1	40	55	95
7	1976	30	32	62	23	21	44	6	2	8	..	..	1	1	59	55	114
8	1977	23	23	46	16	17	33	5	1	6	..	..	..	..	44	42	86
9	1978	2	1	3	..	2	2	..	..	..	..	..	..	..	2	3	5
10	Not specified	2	2	4	2	1	3	1	..	1	..	..	..	..	5	3	8
	Total	119	155	274	83	91	174	17	6	23	3	2	5	222	254	476	

The distribution of post-graduates according to the year of passing

TABLE 5

TABLE 6

Distribution of post-graduates according to faculty and class obtained

Faculty	I Class			II Class			III Class			Not specified			Total		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Arts	14	11	25	70	114	184	27	26	53	8	4	12	119	155	274
Science	34	29	63	39	52	91	7	10	17	3	..	3	83	91	174
Commerce	2	1	3	9	2	11	6	3	9	..	..	..	17	6	23
Others	..	..	..	2	2	4	1	..	1	..	..	..	3	2	5
Not specified	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	50	41	91	120	170	290	41	39	80	11	4	15	222	254	476
Percentage	..	..	19.12	..	60.92	..	..	16.81	..	..	3.15	..	..	..	100.00

TABLE 7

Distribution of post-graduates with additional qualification Faculty-wise

Additional qualification	Arts			Science			Commerce			Others			Total			
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	
Typewriting	6	5	11	4	2	6	..	1	1	1	1	1	2	11	9	20
B.Ed.	20	46	66	12	25	37	..	..	..	..	..	..	..	32	71	103
M.Ed.	1	4	5	..	1	1	..	..	..	..	..	..	..	1	5	6
M.Phil.	3	..	3	5	..	5	..	1	1	..	..	..	..	8	1	9
Others	13	6	19	5	4	9	..	..	..	..	..	..	..	18	10	28
Total	43	61	104	26	32	58	..	2	2	1	1	2	70	96	166	
Percentage	..	..	62.66	..	..	34.94	..	..	1.20	..	..	1.20	..	..	..	100.00

TABLE 8

Classification of post-graduates according to the occupation of their parents/guardians

Occupation of parent/guardian	Arts				Science				Commerce			
	M	F	T	%	M	F	T	%	M	F	T	%
Cultivators	54	31	85	31.02	36	23	59	33.91	4	2	6	26.09
Artisans	..	1	1	0.37	1	..	1	0.58	..	..	..	..
Services	11	47	58	21.17	6	25	31	17.82	1	..	1	4.35
Labourers	5	1	6	2.19	3	2	5	2.87	..	..	..	..
Teaching	1	12	13	4.75	3	6	9	5.17	..	2	2	8.69
Business	10	16	26	9.49	8	5	13	7.47	1	1	2	8.69
Pensioner	22	21	43	15.69	17	15	32	18.39	4	1	5	21.75
Others	8	10	18	6.57	4	12	16	9.20	2	..	2	8.69
Not specified	8	16	24	8.75	5	3	8	4.59	5	..	5	21.74
Total	119	155	274	100.00	83	91	174	100.00	17	6	23	100.00

TABLE 8 (Contd.)

Occupation of Parent/guardian	Others			Total		
	M	F	%	M	F	T
Cultivators	1	..	1 20.00	95	56	151 31.72
Artisans	..	..	.. ..	1	1	2 0.42
Services	1	..	1 20.00	19	72	91 19.12
Labourers	..	..	.. ..	8	3	11 2.31
Teaching	..	..	.. ..	4	20	24 5.04
Business	..	1	1 20.00	19	23	42 8.82
Pensioner	1	1	2 40.00	44	38	82 17.23
Others	..	..	.. ..	14	22	36 7.56
Not specified	..	..	.. ..	18	19	37 7.78
Total	3	2	5 100.00	222	254	476 100.00

TABLE 9
Job preference of post-graduates surveyed

Preference	Arts				Science				Commerce			
	M	F	T	%	M	F	T	%	M	F	T	%
Executive	22	15	37	13.51	16	7	23	13.22	6	2	8	34.79
Administrative	31	22	53	19.34	11	12	23	13.22	6	2	8	34.79
Research	7	8	15	5.47	16	17	33	18.97	..	1	1	4.34
Teaching	35	96	131	47.81	25	43	68	39.08	2	1	3	13.04
Any job	2	..	2	0.75	..	..	..	..	..	..	..	..
Not specified	22	14	36	13.14	15	12	27	15.51	3	..	3	13.04
Total	119	155	274	100.00	83	91	174	100.00	17	6	23	100.00

TABLE 9 (Contd.)

Preference	Others			Total			
	M	F	T	M	F	T	%
Executive	1	2	3	45	26	71	14.92
Administrative	1	..	1	49	36	85	17.86
Research	..	..	..	23	26	49	10.29
Teaching	..	..	..	62	140	202	42.44
Any Job	..	..	..	2	..	2	0.42
Not specified	1	..	1	41	26	67	14.07
Total	3	2	5	222	254	476	100.00

Top executives of host-executive enterprises

1973-74

TABLE 10
Distribution of post graduates according to activity status

Activity Status	Arts				Science				Commerce			
	M	F	T	%	M	F	T	%	M	F	T	%
Unemployed	23	56	79	28.83	17	37	54	31.03	6	2	8	34.78
Employed	76	74	150	54.75	53	46	99	56.90	11	3	14	60.87
Students	17	20	37	13.50	13	7	20	11.49	..	1	1	4.35
Others	2	3	5	1.83	..	..	..	..	..	..	..	..
N.S.	1	2	3	1.09	..	1	1	0.58	..	..	..	..
Total	119	155	274	100.00	83	91	174	100.00	17	6	23	100.00
Percentage	57.57				36.55				4.88			

Table 10 (Contd.)

TABLE 10 (Contd.)

Activity Status	Others				Total			
	M	F	T	%	M	F	T	%
Unemployed	1	2	3	60.00	47	97	144	30.25
Employed	2	..	2	40.00	142	123	265	55.67
Students	..	..	..	..	30	28	58	12.19
Others	..	..	..	..	2	3	5	1.05
N.S.	..	..	..	..	1	3	4	0.84
Total	3	2	5	100.00	222	254	476	100.00
Percentage			1.05					

TABLE 11
Sex-wise Age distribution of the Unemployed post graduates

	Arts			Science			Commerce			Others			Total			T	%
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T		
	Below 22 years	1	..	1	1	..			1	0.69
22-24	4	12	16	6	12	18	3	..	3	..	..	..	13	24	37	25.69
25-27	11	24	35	9	17	26	3	1	4	..	2	2	23	44	67	46.53	
28-30	2	17	19	1	4	5	..	1	1	1	..	1	4	22	26	18.06	
31-33	2	2	4	1	4	5	..	..	..	..	..	..	3	6	9	6.25
34-36	1	1	2	..	..	..	..	..	..	..	..	..	1	1	2	1.39
Above 36	2	..	2	..	..	..	..	..	..	..	..	..	2	..	2	1.39
Total	23	56	79	17	37	54	6	2	8	1	2	3	47	97	144	100.00	

TABLE 13

Present avocation of employed Post graduates

Nature of job	Arts			Science			Commerce			Others			Total			
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	
Research	1	..	1	..	1	1	..	..	..	..	..	..	1	1	2	0.75
Teaching	28	48	76	11	25	36	5	..	5	..	..	..	44	73	117	44.15
Government service	27	16	43	14	11	25	2	1	3	1	..	1	44	28	72	27.17
Private Sector	9	5	14	12	3	15	2	1	3	1	..	1	24	9	33	12.45
Public Sector	6	5	11	15	6	21	2	1	3	..	..	..	23	12	35	13.21
Self employed	1	..	1	1	..	1	..	..	..	..	..	..	2	..	2	0.75
Not specified	4	..	4	..	..	..	..	..	..	..	..	..	4	..	4	1.52
Total	76	74	150	53	46	99	11	3	14	2	..	2	142	123	265	100.00

TABLE 13A

Nature of Work of the Employed post graduates

Nature of work	Arts			Science			Commerce			Others			Total			
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	
	Research	1	..	1	..	1	1	..	..	..	..	..	..	1	..	1
Clerks	23	10	33	..	8	5	..	2	..	3	..	..	..	34	16	50
Clerks (Bank)	4	3	7	12	6	18	..	..	2	1	..	..	..	16	11	27
Teachers	15	31	46	6	23	29	..	..	..	..	..	..	..	21	54	75
Schools	13	17	30	5	2	7	..	5	..	..	..	..	..	23	19	42
Colleges	7	6	13	6	1	7	..	1	..	1	..	..	..	14	7	21
II Grade Assistant	1	..	1	3	2	5	..	2	..	2	..	..	..	6	2	8
Accountant	2	1	3	..	2	..	..	..	..	..	..	..	..	2	1	3
Technical Assistant	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..
Geologist	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Project Assistant	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Laboratory Assistant	..	..	..	3	1	4	..	..	..	..	..	..	..	1	1	2
Library Assistant	..	..	..	..	..	..	..	..	..	..	..	..	..	3	1	4
Home Economist	2	1	3	..	..	..	..	..	..	..	..	..	..	2	1	3
Assistant Station Master	..	..	..	..	1	1	..	..	..	..	..	..	..	..	1	1
Assistant Information Officer	..	..	..	1	..	1	..	1	..	1	..	..	..	..	1	1
Scientific Officer	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Medical representative	..	..	..	1	2	3	..	..	..	1	..	..	..	2	2	4
Manager	..	..	..	1	1	1	..	..	..	..	..	..	..	1	1	2
Proprietor	1	2	3	2	..	2	..	..	..	..	..	..	..	1	4	6
Lawyer	..	..	..	1	..	1	..	..	..	..	..	..	..	1	1	2
Private	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..
Tutorial College	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Self employed	1	2	3	1	2	3	..	..	..	..	..	..	..	2	4	6
Not specified	1	1	1	..	..	..	..	..	..	..	..	..	..	1	1	2
4	..	..	4	..	..	..	..	..	..	..	..	..	..	4	..	4
Total	76	74	150	53	46	99	11	3	14	2	..	..	..	2	142	265

TABLE 14

Distribution of the employed post-graduates according to their monthly income

Faculty	Income group (Monthly in Rs.)																	
	Below 200			201-300			301-400			401-500			500 and above			Total		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Arts	4	7	11	7	10	17	24	23	47	19	22	41	22	12	34	76	74	150
Science	4	1	5	7	7	14	10	17	27	18	10	28	24	18	42	53	46	99
Commerce	1	..	1	1	1	2	1	..	1	3	2	5	5	..	5	11	3	14
Others	..	..	..	..	..	..	..	..	..	..	..	..	2	..	2	2	..	2
Total	9	8	17	8	18	26	32	33	65	40	34	74	53	30	83	142	123	265
Percentage	6.42			9.81			24.53			27.92			31.32			100.00		

TABLE 15

Distribution of employed post-graduates according to the agency through which employment was obtained

Agency	Arts			Science			Commerce			Others			Total			%
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	
	Own effort	48	54	102	42	36	78	8	2	10	2	..	2	100	92		192	72.45
Employment Exchange	5	3	8	2	2	4	2	..	2	..	..	..	9	5	14	5.28
P.S.C.	23	16	39	9	8	17	1	1	2	..	..	..	33	25	58	21.89
Not specified	..	1	1	..	..	..	..	..	..	..	..	..	..	1	1	0.38
Total	76	74	150	53	46	99	11	3	14	2	..	2	142	123	265	100.00

TABLE 16

Dependency of the unemployed post-graduates

Dependent on	Arts			Science			Commerce			Others			Total			%
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	
	Parents	17	40	57	15	23	38	6	2	8	1	1	2	39	66		105	72.92
Brothers	3	2	5	2	1	3	..	..	..	..	..	..	5	3	8	5.56
Husband	..	14	14	..	13	13	..	..	..	..	1	1	..	28	28	19.44
Wife	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Property	2	..	2	..	..	..	..	..	..	..	..	..	2	..	2	1.39
Not specified	1	..	1	..	..	..	..	..	..	..	..	..	1	..	1	0.69
Total	23	56	79	17	37	54	6	2	8	1	2	3	47	97	144	100.00

TABLE 17

**Distribution of post-graduates from the lower stratum of society (Weaker section)
Faculty-wise**

Category	Arts			Science			Commerce			Others			Total			%
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	
	Scheduled Caste	3	4	7	1	1	2	4	5		9	6.38
Scheduled Tribe	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other backward class	34	49	83	22	16	38	7	1	8	2	1	3	65	67	132	93.62
Total	37	53	90	23	17	40	7	1	8	2	1	3	69	72	141	100.00

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