#### CENTRE FOR STUDIES IN SOCIAL SCIENCES. CALCUTTA

10 Lake Terrace Calcutta - 700027

I certify that Shri L. Tombi Singh has done his thesis, <u>Manpower Utilization in A Developmental Process - A Case Study of Manipur (1951 to 1971)</u>, under my supervision. I recommend that his thesis be considered for the award of a doctoral de ree.

2 Sept. 1976

(Amalendu Guha, Professor of Economic History

Amalinda Guha

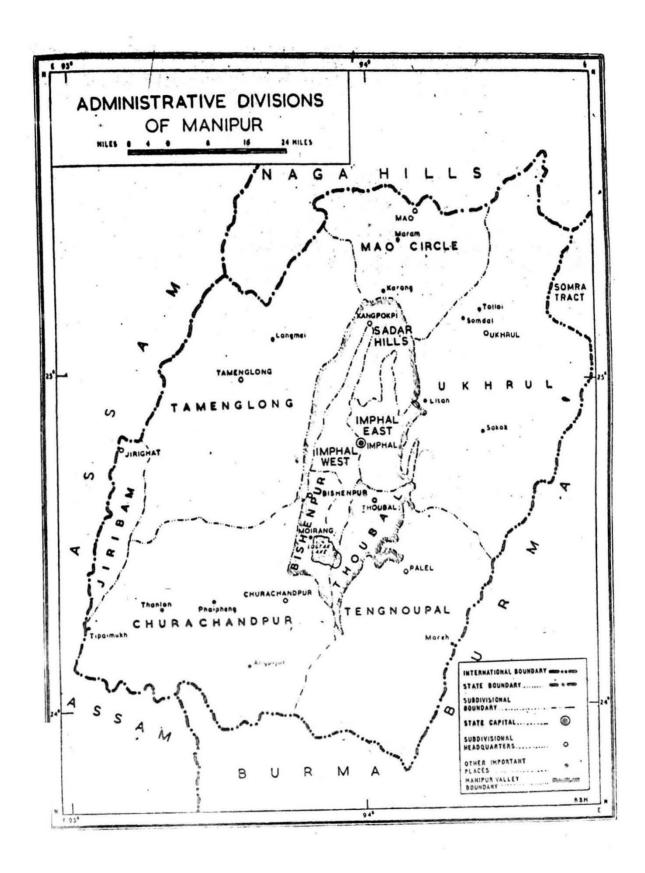
# MANPOWER UTILIZATION IN A DEVELOPMENTAL PROCESS - A CASE STUDY OF MANIPUR (1951 TO 1971)

## BY LAIPHRAKPAM TOMBI SINGH

A THESIS SUBMITTED TO THE POONA UNIVERSITY FOR THE DEGREE OF PH. D. IN ECONOMICS

GOKHALE INSTITUTE OF POLITICS AND ECONOMICS, POONA-4.

SEPTEMBER 1976



#### ACKNOWLEDGEMENT

This study has been made under the supervision of Dr. Amalendu Guha, Professor, Centre for Studies in Social Sciences, Calcutta. I drew very heavily upon Dr. Amalendu Guha, particularly when he was at the Gokhale Institute of Politics and Economics, Poona. His incisive suggestions, ungrudging help and constant encouragements went a long way in improving the quality of the work. For all these, I am deeply indebted - far more than any word can do justice - to him.

The work was initially started at the Gokhale Institute of Politics and Economics, Poona. The major part of the work, however, was completed at the Sardar Patel Institute of Economic and Social Research, Ahmedabad. I owe my thanks to the authorities of these Institutes for the facilities extended by them. Dr. Atul Sarma, Economist and Dr. R. Radhakrishna, Professor, both at the Sardar Patel Institute not only introduced me to this subject but also extended untiring help in all possible ways. What is more, Drs. Atul and Radhakrishna were the main source of inspiration all through. My heartfelt gratitudes are due to these two academicians.

I acknowledge gratefully the invaluable constructive suggestions made by Prof. P.N. Mathur, University College

of Wales, Aberyswyth, U.K., who warmly welcomed my request to go through the major part of the draft of the work despite his numerous preoccupations during his visit to India. I must also acknowledge my gratitude to Prof. D.T. Lakdawala, National Fellow at the Sardar Patel Institute for his kind comments and scholarly suggestions.

My colleagues, Mr. T. Suryanarayana, Statistician-Cum-Programmer and Mr. N. C. Shah, Research Assistant and Mr. K. N. Murty, Research Fellow at the Sardar Patel Institute helped me a lot in processing and computing the statistical data. I am indeed very much thankful to them. I owe to many other people, the mention of all of whom is almost impossible.

It is a real pleasure to acknowledge the neat and expeditious typing services provided by Mr. P. A. Patel.

Needless to mention, I alone am responsible for any errors and omissions that remain.

Gokhale Institute of Politics and Economics Poona-4 L. Tombi Singh

September, 1976.

## TABLE OF CONTENTS

			Page
ACKNOWLEI	CHARAT	3	(1)
TABLE OF	CONTENT	rs	(111)
LIST OF S	TATIST)	ICAL TABLES	(vi)
Chapter			
I	INTRODU	JCTION	1
II	PROFILI	ES OF MANIPUR	11
÷	2.1 2.2 2.3 2.4 2.5 2.6	Political and Administrative Set-up Demographic Profile Urbanization Education and Literacy Growth of State Domestic Product and Per Capita Income Sectoral Growth and the Correlations	12 16 21 24 27 28
III	CONSUM	PTION PATTERN AND LEVELS OF LIVING	<b>3</b> 8
	3.1 3.2 3.3 3.3.1 3.3.2 3.4 3.5	Distribution of Population by Per Capita Expenditure Class Average Consumer Expenditure Per Capita Expenditure by Expendi- ture Class Expenditure on Food Items Expenditure on Non-food Items Behaviour of Consumer Expenditure Magnitude and Levels of Poverty	39 41 44 48 49 56
IV	4.1 4.2 4.3	PORCE - DIMENSIONS AND COMPOSITION  Population by Age-Structure Conceptual Problems in Working Force Adjustment of Working Force Data Working Force Unemployment Underemployment	66 70 74 76 80 91
IV-A	APPEND	- A Note on the Methodology for Adjusting Working Force Data, 1961 and 1971-(Manipur).	97 97

# (iv)

			Page
V .	distri	BUTION OF WORKING FORCE	111
	5.1 5.2	Workers' Participation Rate Distribution of Workers by Indu- strial Category	112 116
	5.3	Distribution of Workers by Occupa-	123
	5.4 5.5	Distribution of Workers by Sector Productivity of Sectoral Workers	128 130
VI.	FEATUR	ES OF ACRICULTURAL DEVELOPMENT	134
	6.1 6.1.1	Land Resources and Utilization Changes in Land Utilization during 1950-61 to 1959-60	138 139
	6.1.2		141
	6.2 6.4 6.5 6.6	Land per Agricultural Worker Distribution of Land Holdings Cropping Pattern Operational Methods of Cultivation Agricultural Production and Popula- tion Growth	149 150 154 160 165
VII	Manpow Secto	ER UTILIZATION IN NON-AGRICULTURAL	172
,	7.1 7.2 7.2.1 7.2.2 7.2.3 7.3	Registered Factories	172 178 181 183 185 190
	7.5	Strategy for Development of Indu-	204
v.	7.5.1 7.5.2 7.5.3 7.5.5	stries Forest-based Industries Mineral-based Industries Agricultural-based Industries Textile-based Industries Demand-based Industries	205 207 209 210 212
VIII	DETAND	FOR AND SUPPLY OF MANPOWER	214
	8.1 8.1.1	Demand for Manpower Methodology and Projected Demand for Manpower	2 <b>1</b> 5 2 <b>1</b> 9

Demand	222
C 0 C	-
8.2 Supply of Manpower	230
	231
8.2.2 Projected Supply of Manpower and its Limitations	237
8.3 Demand for and Supply of Manpower- compared	237
IX CONCLUSION	239
BIBLIOGRAPHY	265

### LIST OF STATISTICAL TABLES

Table No.	Title	Page
2.1	Distribution of Road Length in Manipur as on March 31, 1969.	15
2.2	Distribution of Population by Region in Manipur, 1951-1971.	16
2.3	Comparative Decadal Growth of Population between Manipur and All-India; 1901-1971.	17
2.4	Distribution of Number of Villages according to the Size of Population in Manipur and All-India, 1971.	19
2.5	Density of Population by Region in Manipur, 1951-1971.	20
2.6	Distribution of Population between Rural and Urban for Manipur and All-India, 1951-1971.	22
2.7	Distribution of Town/Town-agglomeratic according to the Size of Population, Manipur -1971.	24
2.8	Distribution of the Number of Educational Institution by different types in Manipur, 1951-1971.	26
2.9	Comparative Indices of Income Growth between Manipur and All-India, 1960-61 to 1970-71 (at 1960-61 prices).	29
2.10	State Domestic Product of Manipur by Indu- strial Origin, 1960-61 to 1970-71.	30
2.11	Growth Rates of State Domestic Product of Manipur by Industrial Origin (1960-61 to 1970-71).	33
2.12	Correlation Matrix of Inter-Sectoral Output and also with State Domestic Product during 1960-61 to 1970-71. Manipur.	35

No.	Title	Page
2•13	Adjusted Sectoral Output on the basis of the Census Classification of Economic Activity, Manipur-1960-61 to 1970-71.	36
2.14	Correlation of Agricultural Output with that of other Sectors and with State Domestic Product in Manipur during the period 1960-61 to 1970-71.	37
3.1	Percentage distribution of Estimated Number of Persons by Monthly Per Capita Expenditure Class in Manipur and All-India, 1963-64.	40
3.2	Distribution of Average Per Capita Total Expenditure into different Consumption Items in Manipur-Rural and Manipur-Urban, 1963-64.	43
<b>3.</b> 3	Consumer Expenditure in Rupees (Q.00) Per Person for a period of 30 days by Monthly Per Capita Expenditure Class and by Item of Consumption in Manipur-Eural, 1963-64.	45
3.4	Consumer Expenditure in Rupees (0.00) Per Person for a period of 30 days by Monthly Per Capita Expenditure Class and by Item of Consumption in Manipur-Urban, 1963-64.	46
3•5	Results of the Estimates of Engel Curves for Consumer Expenditure in Manipur-Rural/ Urban, 1963-64 (Linear-form).	53
3.6	Results of the Estimates of Engel Curves for Consumer Expenditure in Hamipur-Eural/ Urban, 1963-74 (Double-log-form).	55
3•7	Per Capita Quantity Intake of Food-items for a period of 30 days by Expenditure Class in Manipur-Eural, 1963-64.	61
3.8	Per Capita Quantity Intake of Food Items for a period of 30 days by Expenditure Class in Manipur-Urban, 1963-64.	52

# (viii)

Table No.	Title	Page
3.9	Per Capita Per Day Calories Intake by Expenditure Class in Manipur-Rural, 1963-64.	64
3-10	Per Capita Per Day Calories Intake by Expenditure Class in Manipur-Urban, 1963-64.	65
4.1	Distribution of Population by Sex and Broad Age-group in Manipur, 1951-1971.	69
4.2	Distribution of Population by Recommic Status in Manipur, 1951-1971.	78
4.3	Distribution of Population into Workers and Non-workers by Sex in Manipur, 1951-1971.	79
1++1+	Trend of the Number of Students Enrolled in Post IX Class by Sex in Maripur, 1952-53 to 1964-65.	84
4.5	Distribution of Total Non-workers in the Age-group 15-59 by different categories in Manipur for 1961 and 1971.	86
4,6	Comparative Picture of the Incidence of Urban Unemployment between Maripur and All-India.	88
4.7	Distribution of Population by Labour- Force Status in Manipur 1%1-1971.	90
4.8	Percentage Distribution of Working Person according to their Hours of Work-groups in a week in Manipur-urban, 1961-62.	93
4-A. 1	Trends of Workers' Participation Rates in Manipur.	97
4-A-2	Age-Sex Specific Workers Rate - A Comparison of 1961 Census with 1971 Census Data,	<b>9</b> 9

Table No.	Title	Page
4-A-3	Age-Sex Specific Workers Rate - A Compa- rison of 1961 Census with 1971 Census Data, Manipur-urban.	100
4-A, 4	Estimated Seasonal Workers by Specific Sex and Age-group of Manipur-rural/urban, 1971.	103
4-A. 5	Adjusted Working Force of Maripur-rural/urban, 1971.	103
4-A.6	Estimated Undercounted Working Force of Manipur-rural/urban, 1971.	105
4-A-7	Distribution of the Total Undercounted Working Force in Manipur into Male/Female by Rural/Urban, 1971.	106
4-A-8	A Comparative Picture of Workers' Partici- pation Rate in Manipur for 1971 between Reported and Adjusted Figures.	106
4-A-9	Distribution of Adjusted Workers in different Industrial Categories by Sex in Manipur-rural, 1971.	108
4-A- 10	Distribution of Adjusted Workers in different Industrial Categories by Sex in Manipur- urban, 1971.	109
4-A. 11	Distribution of Adjusted Workers in diffe- rent Industrial Categories by Sex in Manipur, 1971.	110
5.1	Workers' Participation Rate by Sex and by Industrial Category in Manipur, 1951-1971.	113
5.2	Workers' Participation Rate by Sex and by Industrial Category in Manipur-rural, 1951-1971.	114
5•3	Workers' Participation Rate by Sex and by Industrial Category in Manipur-urban, 1961-1971.	115

No.	Title	Page
5.4	Distribution of Total Workers by Sex into different Industrial Categories in Manipur, 1951-1971.	117
5.5	Distribution of Workers by Sex into different Industrial Categories in Manipur- rural, 1951-1971.	118
5.6	Distribution of Workers by Sex into different Industrial Categories in Manipururban, 1961-1971.	119
5•7	Distribution of Workers by different Occupation and Economic Activity in Manipur, 1961.	124
5.8	Distribution of Workers by Major Occupational Division in Manipur, 1961.	129
5.9	Trend of Sectoral Workers in Manipur 1960-61 to 1970-71.	131
5.10	Trend of Productivity of Per Sectoral- Worker, 1961-71 after Adjusting the 1971 Census Workers.	132
6.1	Distribution of Income from Primary Sector in different Industrial Origin in Manipur, 1960-61 to 1970-71.	136
6.2	Distribution of total Workers in Agriculture-proper by Sex into Cultivators, Agricultural-labourers and the Allied Activities in Manipur, 1951-1971.	137
6.3	Classification of Land Resources by different Category in Manipur, 1950-51 to 1959-60.	140
6.4	Classification of Land Resources by different Category in Manipur, 1960-61 to 1970-71.	143
6.5	Changes in the Net Sown Area by base Year's Index.	145

Table No.	Title	Page
6.6	Distribution of total Cropped Area between Net Sown Area and Area Sown more than Once in Manipur, 1960-61 to 1970-71.	147
6.7	Changes in the Reclaimable Land in Manipur, 1960-61 to 1970-71.	148
6.8	Distribution of Cultivating Households by Size of Land-Holding in Manipur, 1961.	151
6.9	Estimated Number of Rural Households According to Asset-group and Area of Land owned in Manipur, 1971.	<b>1</b> 52
6.10	Distribution of total Cropped Area into Area under Foodgrains and Area under Non-foodgrains in Manipur, 1960-61 to 1970-71.	<b>1</b> 56
6.11	Distribution of Area under Foodgrains into Area under different Foodgrains in Manipur, 1960-61 to 1970-71.	158
6.12	Distribution of Area under Foodgrains into Area under Rice and Area under Foodgrains other than Rice for All-India, 1960-61 to 1970-71.	<b>1</b> 59
6.13	Comparative Yield Rate of Rice per Hectare between Manipur and All-India, 1950-51 to 1970-71.	161
6.14	Production and Yield of Rice in Manipur, 1950-51 to 1970-71.	167
7.1	Size and Proportion of Non-agricultural Sector in the Net-State Domestic Product of Manipur, 1960-61 to 1970-71.	<b>1</b> 73
7.2	Size of Non-agricultural Working Force as compared to the Total Working Force in Manipur, 1951-1971.	174
7.3	Sex-wise Distribution of Percentage Share of Non-agricultural Workers in Manipur, 1951-1971.	<b>17</b> 5

No.	Title	Page
7*4	Distribution of Non-Agricultural Sectoral Income into Industrial and Non-industrial Sub-sectors in Manipur, 1960-61 to 1970-71.	177
7.5	Distribution of Non-agricultural Worker into Industrial and Non-industrial subsectoral Worker by Sex in Manipur, 1951-1971.	179
7.6	Distribution of Industrial Workers by Household and Manufacturing other than Household in Manipur, 1951-1971.	<b>1</b> 80
7.7	Distribution of Workers in different Manufacturing Industries other than Household-Industry in Mamipur, 1961.	182
7.8	Distribution of Number of Registered Factories by different types of Industries and by corresponding Size of Average Daily Workers in Manipur, 1969.	184
7.9	Distribution of Workers by Sex in Household- Industry by different types of Industries in Manipur, 1961.	187
7.10	Distribution of the total Number of Indu- strial Establishments with the correspo- nding Number of Persons employed in Manipur, 1961.	188
7.11	Sub-Regionwise Distribution of Industrial Establishments by type of Industry in Manipur, 1961.	193
7.12	Distribution of Industrial Workers by Sub- region and by different Industry in Manipur, 1961.	194
7•13	Distribution of the Number of Persons employed in different Industries by Sub-region in Manipur, 1961.	<b>1</b> 96

# (xlii)

Table No.	<u>T1tle</u>	Page
7.14	Total Industrial Establishments and Corresponding Size of Employment by Sub-division in Manipur, 1961.	197
7.15	Location Quotients of Industrial Employment by different Industries and by Region in Manipur, 1961.	202
7.16	Specialization Coefficients of Industries by Region in Manipur, 1961.	203
8.1	Manpower Coefficients Vector by different Economic Activity and Occupation in Manipur, 1961.	216
8.2	Projected Sectoral Output based on the Time-Trend Growth Rates by different Assumptions for Manipur, 1980-81 (Set-1).	223
8.3	Projected Sectoral Output based on the Model where Agricultural Sector is an Independent Variable for Manipur, 1980-81 (Set-II).	224
8.4	Projected Manpower Demand in 1981 by Eco- nomic Activity and by Occupation, Manipur (Set I).	225
8.5	Projected Manpower Demand based on a Model where Agricultural Output is the Independent Variable (Set II) - Optimistic Assumption.	226
8,6	Projected Manpower Demand based on Model where Agricultural Output is the Independent Variable (Set II) - Feasible Assumption.	227
8.7	Projected Manpower Demand based on a Model where Agricultural Variable (Method II) - Optimistic Assumption.	228
8.8	Comparative Picture of Percentage Distri- bution of Demand for Manpower in Different Economic Activities in Manipur for the Year 1961 and 1981:	229

# (viv)

Table No.	<u>Title</u>	Page
8.9	Projected Population by Sex and Age-Group for 1981 on the Basis of Growth Rate of Population During 1961 and 1971, Manipur- Rural.	232
8.10	Projected Population by Sex and Age-Group for 1981 on the Basis of Growth Rate of Population During 1961 and 1971, Manipur- urban.	233
8. 11	Projected Population by Sex and Age-group for 1981 on the Basis of Growth Rate of Population During 1961 and 1971, Manipur.	234
8.12	Projected Population by Sex and Age-group for 1981 on the Basis of Planning Commi- ssion Figure, Manipur.	236
8.13	A Comparative Picture of Demand for and Supply of Manpower in Manipur for 1981.	238