

**SPATIAL AND TEMPORAL ANALYSIS OF  
RURAL UNORGANISED SECTOR**

— A Case Study of Haryana

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CERTIFICATE

This is to certify that the dissertation entitled "Spatial and Temporal Analysis of Rural Unorganised Sector: A Case study of Haryana" submitted by Nalin Kumar Singh in fulfilment of six credits out of the total of twenty four credits for the award of the Degree of Master of Philosophy (M.Phil.) of the University is a bonafide work to the best of our knowledge and may be placed before the examiners for evaluation.

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*Dedicated*

*-to*

*Rural Unemployed Youths  
of India*



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## CONTENTS

Chapter I	Page No.
INTRODUCTION	1 - 37
Chapter II	
ENTERPRISES AND WORKFORCE STRUCTURE OF UNORGANISED INDUSTRIES OF RURAL INDIA - A Regional Analysis	38 - 65
Chapter III	
STRUCTURE OF UNORGANISED INDUSTRIES-A Regional Profile	66 - 88
Chapter IV	
STRUCTURES OF RURAL UNORGANISED MANUFACTURING OF HARYANA	89 - 116
Chapter V	
CONCLUSION	117 - 121
BIBLIOGRAPHY	122 - 125
APPENDICES	

## TABLES

- Table 1 A - Rural Development Programmes
- Table 1 B - Major Industrial Groups at tow digit level
- Table 2.1 - Estimated Number of Enterprises (combined) as per listing schedule for each state and percentage distributiof over state for the rural areas in 1978-79 & 1984-85.
- Table 2.2 - Percentage of Own-Account enterprises and Nof-Establishment directory to total enterprises of the country for rural areas, 1978-1979.
- Table 2.3 - Percentage number of Own-account enterprises and Nof-directory enterprises to total enterprises of the country separately for rural areas, 1984-85.
- Table 2.4 - Percentage number of Own-account enterprises and Nof-directory enterprises for each state separately for rural areas in 1978-79 & 1984-85.
- Table 2.5 - Percentage change in rural unorganised industries over the period, 1978-79 to 1984-85.
- Table 2.6 - Estimated number of a workers (Combined) as per listing schedule for state and percentage distributiof over state of the rural areas in 1978-79 & 1984-85.
- Table 2.7 - Percentage of workers in Own-Account enterprises and Nof-directory enterprises to total respective workers of the country for rural areas, 1978-79.
- Table 2.8 - Percentage of workers in Own-Account enterprises and Nof-directory enterprises to total respective workers of the country for rural areas, 1984-85.
- Table 2.9 - Percentage number of workers in Own-account enterprises and Nof-directory enterprises to total workers for each state separately rural areas in 1978-79 & 1984-85.
- Table 2.10 - Percentage change in rural workers in OAEs, NDKEs and Combined enterprises over two period of time, 1978-79 to 1984-85.
- Table 2.11 - Per enterprise estimate of number of persofs employed, Value of fixed assets, value of output and value added for own account

enterprises and nof directory establishments for rural areas in 1978-79

- Table 2.12 - Per enterprise estimate of number of persofs employed, Value of fixed assets, value of output and value added for OAEs and NDMEs for rural areas in 1984-85.
- Table 2.13 - Percentage of enterprises and workers for each industrial groups to total respective enterprises and workers of the country for rural areas 1978-79 to 1984-85.
- Table 2.14 - Percentage change in enterprises and workers in each industrial group over six years 1978-79 to 1984-85.
- Table 2.15 - Ratios of output-capital, capital and labour productivity per worker for each industry for the rural areas in 1978-79.
- Table 2.16 - Ratios of output-capital, capital intensity and labour productivity per worker for each industry for the rural areas in 1984-85.
- Table 2.17 - Per enterprise estimate of number of persofs employed, Value of capital, value of output and value added for each industry group for rural areas in 1978-79 to 1984-85.
- Table 2.18 - COMPOUND GROWTH RATES -1978-79 TO 1984-85
- Table 3.1 - The Dominant Industries of the Rural Sector: 1978-79 (For Employment).
- Table 3.2 - The Dominant Industries of the Rural Sector: 1984-85 (For Employment).
- Table 3.3 - Co-efficients of Industrial Localisatiof in the Rural Sector (For Employment) 1978-79 & 1984-85.
- Table 3.4 - Co-efficients of Industrial Specialisatiof in the Rural Sector (For Employment) 1978-79 & 1984-85.
- Table 4.1 - Structure of Industrial Activity in Rural areas: Haryana.
- Table 4.2 - Percentage of Enterprises and Employment - Haryana 1978-79.
- Table 4.3 - Per Enterprises Estimated Number of Employment - Fixed Assets. Working Capital, Total output and value added Haryana.



- Table 4.4 - Ratios of Employment Fixed Assets Working Capital, Total output and value added Haryana.
- Table 4.5 - Nature of Enterprises.
- Table 4.6 - District-Wise percentage of enterprises and workers Haryana. 1978-79.
- Table 4.7 - District-wise proportiof of workers cofcentratiof in each Industrial Group - 1978-79.
- Table 4.8 - Indurstry-wise proportiof of workers cofcentratiof in each district 1978-79.
- Table 4.9 - Industry-wise proportiof of fixed assets, workers capital, total output and value added-Haryana (1978-79).
- Table 4.10 - Proportiof of highest ranking district in fixed assets, working capital, output and value added.

#### APPENDICES

CHAPTER I  
INTRODUCTION

## CHAPTER I

### Introduction

Expansion of employment opportunities has been an important objective of development planning in India. There has been a significant growth in employment over the years. However, a relatively higher growth of population and labour force has led to an increase in unemployment.

A large majority of India's population reside in rural areas. The alarming population growth has contributed to adverse land-man ratio in rural areas by increasing pressure on land resources. Agriculture and other land-based activities in the long run, even with a reasonably high rate and possible diversification of growth, would not be able to provide employment to all the rural workers at adequate levels of incomes. The technological and organizational changes accompanying agricultural growth firstly may not lead to increase in employment potential for further growth and secondly, conversion of a substantial number of those underemployed in agriculture into openly unemployed seeking work elsewhere. Thus, owing to the limited employment absorption capacities in agriculture, it becomes imperative that the rural economy get diversified into non-farm activities<sup>1</sup> in a big way as an alternate

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\*1. Non-farm activities are defined as those of a non-farming nature excluding work of any sort in agriculture on own account (as owner-operator or lessee) or for others (as hired worker on other's farms). Thus, it is a residual category which denotes gainful occupation in activities other than agriculture.

source of income, employment and expansion. Non-form sector has the potential to gainfully employ the growing rural labour force and also to reduce the wide economic differences between rural and urban areas.

Recognizing the need for diversification of rural economy, increasing importance is being accorded to the expansion of non-farm activities to curb problems of poverty and unemployment. However, farm and non-farm activities in rural areas are similar to some extent, in the sense that overall poverty restricts the effective demand for the growth of non-farm production in rural industries. Poverty hampers the promotion and growth of non-farm activities.

The phenomenon of rural poverty, unemployment and the poverty alleviation measures needs a detailed analysis for a better understanding of the problem of non-farm employment and income generation in rural areas.

1.1 RURAL POVERTY. The rural areas of the country where the majority of the population resides have high incidence of poverty and low income level. Mass poverty prevalent in these areas refers to low incomes in relation to basic necessities of life viz, food, clothing and shelter and serious deprivation in terms of access even to a minimum of basic services. Various definitions of rural poverty have been given by different organisations and scholars based on consumption expenditure, assets, etc. The definition followed by the Planning Commission (Government of India, 1981) in the Sixth Five Year Plan was based on a level of

expenditure of Rs.65/- per head per month according to 1977-78 prices for the rural areas. This corresponds to a daily minimum requirement of 2400 calories per person. The Planning Commission estimated 50.8 percent of rural population below poverty line in 1977-78 which declined to 39.9 per cent in 1984-85. The Eighth Five Year Plan document<sup>2</sup> mentions the rural poverty line in terms of per capita monthly expenditure in 1987-88 was Rs.131.80. Poverty for the same year was estimated to be 30 per cent. These figures indicate a considerable decline in the incidence of rural poverty over time. In terms of absolute numbers of poor, the decline has been much less. While this can be attributed to the demographic factor, the fact remains that after 40 years of planned development about 200 million are still poor in rural India<sup>3</sup>.

Rural poverty is inextricably linked with low rural productivity and unemployment, including under employment. Employment at miserably low levels of productivity and incomes is already a problem of far greater magnitude than unemployment as such. Hence it is imperative to improve productivity and increase employment in rural areas.

1.2 NON-FARM EMPLOYMENT. The advent of the British rule in India saw the annihilation of the rural Industrial base to

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\*2. Eighth Five Year Plan (1992-97) Vol.II Sectoral Programmes of Development Govt. of India. Planning Commission, New Delhi.

\*3. Ibid.

serve their own interest. The outcome of systematic de-Industrial processes and harassment of artisans and craftsmen resulted in a sharp decline among those primarily engaged in non-farming activities. The colonial rule destroyed the rural Industry without an alternate source of employment for rural poor. In the middle of the nineteenth century, about 55 percent of the population were dependent on agriculture, in 1901 it was about 68 percent and the proportion went upto about 72 per cent in 1931<sup>4</sup>. Even after Independence the manufacturing capabilities were not duly acknowledged on account of a misconception that rural people are capable of agriculture only. This could be the reason for an almost exclusive attention being accorded to agriculture in rural areas<sup>5</sup>.

The Eighth Five Year Plan document<sup>6</sup> states that over one-fifth of the rural workers are engaged in non-agricultural activities. This proportion has shown a remarkably rapid increase in recent years. Nearly all non-agricultural activities have shown a steady increase in employment. Manufacturing and services respectively accounted for 32 and 24 per cent in rural non-agricultural employment; trade accounted for 18 per cent and construction

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\*4. Dutta and Sundhram, 1984; 'Indian Economy' PP.12-18.

\*5. Sharma.B.K. "Profile of Employment" in Govt. of India, Strategy For Full Employment in Rural Areas, New Delhi, Ministry of Rural Reconstruction, 1981. PP.36-39.

\*6. Eighth Five Year Plan (1992-97) Vol.I, objectives, perspective, Macro-Dimensions, Policy Framework and Resource Govt. of India, Planning Commission, New Delhi. PP.122.

15 per cent in 1987-88. Construction, transport and trade depicted an annual growth of 11, 7 and 4 per cent per annum respectively during this period. The Eighth Plan document also states that the shift has been demand induced and not due to the push factor. It is due to the growth of productive employment opportunities in the rural non-farm sector and not a result of over-crowding in agriculture. Given the limited scope for expanding the area of land under cultivation, the growth of non-agricultural employment appears to be an important element of development strategy.

### 1.3 GOVERNMENT'S POLICIES AND PROGRAMMES

According to the 1991 census, seventy five percent of India's total population resides in the rural areas. The incidence of poverty is quite high in the rural areas, observing very low levels of productivity and income. Unemployment, including underemployment or 'invisible' unemployment is rampant in these areas. The case for rural development is thus formidable.

The need for rural development, as an important segment of development administration was emphasized even before India achieved Independence. Attention to India's villages became more or less organized and systematic with the enforcement of Government of India Act.1919, which, it may be recalled placed the nation-building activities including rural development under the popularly elected ministers in the provinces. This Act made rural development an important concern of the nation, even though it did not occupy that

high priority in the colonial administration. Since then, alleviation of rural poverty has been one of the primary objectives of planned development in India. It was realised that a sustainable strategy of poverty alleviation has to be based on increasing the production employment opportunities.

Policies and programmes aimed at upliftment of rural population were reflected in the Preamble and Directive Principles of Indian Constitution. The Planning Commission was set up in 1950 to translate the constitutional dictums into development policies. A major objective of planning was to offer employment opportunities for all. Accordingly, Five Year Plans were introduced. However, to the extent the process of growth bypassed some sections of the population, it became necessary to formulate specific poverty alleviation programmes for generation of a certain minimum level of income for the rural poor.

A beginning was made in 1952 with the launching of the Community Development Programme followed a year later by the National Extension Service. Till 1990, in the field of rural development nearly forty country wide programmes have been launched by the Central Government. The list is depicted in table number 1-A.



TABLE 1A  
RURAL DEVELOPMENT PROGRAMMES

Plan Period	Programme	Year of Introduction
Ist Five Year Plan	Community Development Programme	1952
	National Extension Service.	1953
IIInd Five Year Plan	Khadi and Village Industries Programme	1957
	Village Housing Projects Scheme	1957
	Multi-purpose Tribal Development Blocks Programme.	1959
	Package Programme.	1960
	Intensive Agricultural District Programme.	1960
IIIrd Five Year Plan	Applied Nutrition Programme	1962
	Rural Industries Projects	1962
	Intensive Agricultural Areas Programme	1964
	High Yielding Variety Programme	1966
Annual Plan, 1966	Farmer's Training and Education Programme	1966
	Well Construction Programme	1966
Annual Plan, 1967	Rural Works Programme (RWP)	1967
Annual Plan, 1968	Tribal Development Block	1968
Annual Plan, 1969	Rural Manpower Programme	1969
IVth Five Year Plan	Drought Prone Areas Programme	1970
	Crash Scheme for Rural Employment	1971
	Small Farmers' Development Agency (SFDA)	1971
	Tribal Areas Development Programme	1972
	Pilot Projects for Tribal Development	1972
	Pilot Intensive Rural Employment Prog.	1972
	Minimum Needs Programme	1972
	Command Area Development Programme	1975
Vth Five Year Plan	Hill Areas Development Programme	1975
	Special Livestock Production Programme	1975
	Food for Work Programme	1977
Plan Period	Desert Development Programme	1977
	Whole Village Development Programme	1979
	Training Rural Youth for Self-employment	1979
	Integrated Rural Development Programme	1979
Plan Period	Programme	Year of Introduction
Sixth Five Year Plan	National Rural Employment Programme	1980
	Prime Minister's New Twenty-point Programme	1980

Development of Women and Children in  
Rural Areas. 1983

VIith Five Year Plan - Earlier Programmes have been continued  
with increased outlays 1985-90  
and sharper focus.

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Source:- 'Story of Rural Development', India; Forty Year of  
Independence; Publications Division, Ministry of  
Information and Broadcasting, Govt. of India, P.P. 45-  
46, 1989.

The first Five Year Plan approached employment through two aspects: (1) the need to make the maximum use of idle labour for development purposes and (2) increase the productivity of labour so that large scale employment could be provided at rising levels of real income. The Second Five Year Plan focussed on the differential needs of the underemployed and unemployed. The Third Five Year Plan highlighted intervention through rural Industrialization and rural works. Emphasis was laid on labour intensive schemes in Fourth Five Year Plan. It also reiterated the need for safeguards to ensure flow of development aid for landless labour. Redistributive growth was the major goal of the Fifth Plan. It observed that the most effective way of tackling unemployment was by provision of large scale employment in non-farm rural works offering reasonable levels of income. The Sixth Plan gave preference to labour intensive technologies and programme with high potential. It laid utmost emphasis on self employment in farm and non-farm sectors in a substantial measure.

The development strategy adopted for the Seventh Plan aims at a direct attack on the problems of poverty, unemployment and regional imbalances. In the field of employment, a major objective of the plan was to ensure that growth of employment opportunities is faster than the growth of labour force. It also envisaged the continuation and expansion of National Rural Employment Programme (NREP) and Rural Landless Employment Guarantee Programme (RLEGP) which were started in the Sixth Plan.

Over one-fifth of rural workers are engaged in non-agricultural activities. This proportion has shown a remarkably rapid increase in recent years. Eighth Plan envisaged facilities for faster growth of the services and informal sector activities through greater ease of entry and suitable support systems. Development of an appropriate support and policy framework for the growth of non-agricultural, particularly manufacturing activities, in rural areas, including rural towns is included in the Eighth Five Year Plan.

The decline in rural poverty is attributable both to the growth factor and to the special employment programmes launched by the Government in order to generate more incomes in the rural areas. Rural development to some extent has been confined to a direct attack on poverty through special employment programmes, area development programmes and land reforms.

The first programme in this direction was made in 1960-61, when the Rural Manpower Programme (RMP) was launched. It was aimed at creation of employment during a slack season in areas known for chronic under-employment. Both these programmes failed to make a substantial dent as their resources as well as coverage were limited. An extension of CSRE, the Pilot Intensive Rural Employment Project (PIREP) was implemented during 1972-75 in 15 community development blocks. Since the labourers, small and marginal farmers did not benefit much from the Green Revolution, there are many values showing the opposite the

Small Farmers Development Agency (SFDA) and the Marginal Farmers and Agricultural Labour Development Programme were started. SFDA was meant to facilitate extension of new farm technology and inputs like seed and fertilizers, pumpsets, bullocks, implements, etc. The farmers and non-farm activities for others. However, the assessment of this programme revealed that it lacked coordination and the landless labourers were not significantly touched by the programme.

Amongst the existing programmes, Integrated Rural Development Programme (IRDP) was launched in the Sixth Plan. Under the IRDP, those living below the defined poverty line are identified and given assistance for acquisition of productive assets or appropriate skills for self-employment, which in turn, should generate enough income to enable the beneficiaries to rise above the poverty line. The poverty line was based at Rs.6400, but those eligible for assistance under the IRDP had to have an average annual income of Rs.4800 or less. This was done with an assumption that those households with income levels between Rs.4800 and Rs.6400 would be able to rise above the poverty line in the process of growth itself. The sectoral composition during 1990-91 indicates that, of all the schemes selected under IRDP, 47.8 per cent were in the primary sector, 18.9 per cent in the secondary sector and 33.3 per cent in the tertiary sector. The important activities under primary sector are minor irrigation, animal husbandry, pisciculture, poultry, sheep rearing, piggery and horticulture, secondary and tertiary secto

includes activities such as sericulture, handloom and handicrafts, village Industries, bullock carts, carpentry, blacksmithy and small shops.

Training of Rural Youth for Self Employment (TRYSEM) was introduced in 1979 to provide technical skills and to upgrade the traditional skills of rural youth belonging to families below the poverty line. Its aim was to enable the rural youth to take up self-employment ventures in different spheres across sectors by giving them assistance under IRDP. During 1990-91 the number of Youth trained were 2.6 lakhs and during the Seventh Plan a total of about 10 lakh youth were trained under TRYSEM. An exclusive scheme for women was launched in 1982-83 in the IRDP as a pilot project in 50 districts. The programme Development of Women and Children in Rural Areas (DWCRA) at the end of Seventh Plan period was in operation in 161 districts. Under DWCRA, a group of women are granted assistance to take up viable economic activities with Rs.15000 as a one time grant to be used as a revolving fund. In the Seventh Plan about 28,000 group could be formed against the target of 35,000 with a membership of 4.6 lakh women. During 1990-91, against a target of 7,500 groups, 7,139 were actually formed. Lack of cohesion among women groups formed under DWCRA and their inability to identify activities that could generate sustained incomes is the major drawback of this programme.

In 1989, erstwhile National Rural Employment Programme (NREP) launched in 1980 and the Rural Landless Employment

Guarantee Programme (RLEGP) launched in 1983 were merged into a single rural wage employment programme called the Jawahar Rozgar Yojana (JRY). JRY was introduced with a total allocation of Rs.2,600 crores to generate 931 million mandays of employment. The primary objective of the programme is generation of additional employment on productive works which would either be of sustained benefit to the poor or contribute to the creation of rural infrastructure. Under this programme, Centre's contribution is 80 per cent, and 20 per cent is the state's share. The JRY is implemented in all villages in the country. Central assistance is provided to the state on the basis of proportion of the rural poor in a State/UT to the total poor in the country. From the States to the districts, the allocations are made on an index of backwardness. In addition to these programmes, another programme which needs to be mentioned is the Drought Prone Area Programme (DPAP) launched in 1973 in arid and semi-arid areas. The objective was to promote more production dryland agriculture by better soil and moisture conservation, more scientific use of water resources, afforestation, and livestock development through development of fodder and pasture resource, and in the long run to restore the ecological balance. The DPAP covers 615 blocks of 91 districts in 13 states.

Khadi and Village Industries Commission (KVIC) set up in 1957 to plan, organize and implement programmes of Khadi and Village Industries in the country. Its purview extends to Khadi (Cotton, Woollen and Silk) and 27 village Industries.

The main objectives of Khadi and Village Industries (KVI) programmes during the Eighth Plan is to create additional employment opportunities in the non-farm sector and to ensure increased wages/earnings to rural workers. In addition to KVIC, agencies such as District Industries Centre help the rural poor through credit-cum-subsidy, training, entrepreneurship development, artisan complexes and Industrial Cooperatives to accelerate non-farm employment. All the above mentioned programmes reflect the serious efforts initiated by the Government for creating productive employment and income earning opportunities for the rural poor and the unemployed. The development of non-farm activities as a part of the general development process, thus has gained high policy significance as an alternative strategy for rural development.



#### 1.4 REVIEW OF LITERATURE

Alleviation of rural poverty has been one of the primary objectives of planned development in India. Ever since the inception of planning, the policies and the programmes have been designed and redesigned with this aim. It was realised that a sustainable strategy of poverty alleviation has to be based on increasing the productive employment opportunities in the process of growth itself. Rural poverty is inextricably linked with rural productivity and unemployment including underemployment. Hence, it is imperative to improve productivity and increase employment in rural areas.

For an assessment of growth and structural changes in employment and unemployment the quinquennial surveys of National Sample Survey Organisation (NSSO) provide the most comprehensive source. The National Sample Survey Organisation, which provides estimates of the rates of unemployment on the basis of its quinquennial surveys, therefore, uses three different concepts - Usual Status, Current Weekly Status (CWS) and Current Daily Status (CDS) A person is considered unemployed on Usual status basis if he or she was not working, but was either seeking or was available for work for a relative longer time during the reference year. On the basis of a week as the reference period, a person is considered unemployed by current Weekly Status, if he or she had not worked even for one hour during the week but was seeking or available for work. Current Daily Status unemployment indicates the total presondays of

unemployment, that is the aggregate of all the unemployment days of all persons in the labourforce during the week.<sup>7</sup>

The 'Usual Status' unemployment rates could be regarded as a measure of chronic unemployment during the reference year; the Current Weekly Status unemployment rates also measure chronic unemployment but with the reduced reference period of a week. The Current Daily Status is a Comprehensive measure of unemployment including both chronic unemployment as well as underemployment on weekly basis.

The study is based on Usual status employment in rural unorganised sector for major states of India and a case study of Haryana.

The literature on this vitally important subject is still at it's early stage while there is unclarity about the concept of rural industrialization itself, the available literature does not provide a clear understanding of the conditions that help in accelerating the process and the factors which act as constraints. An attempt has been made here to scan all the major studies in this area to have a better grip on thephenomenon of non-farm employment and income generation. Available literature can be clubbed into two parts:- rural industrialisation and Non-farm employment.

#### Rural Industrialisation

Unemployment problem acts as a major obstacle on the path of Country's development. Rural industrialisation

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7. Eight Five Year Plan (1992-97) Vol.I, "Unemployment: Trends and Structure", Govt. of India, Planning Commission, New Delhi. P. 118.

programmes lay maximum emphasis on rural unemployment. Eradication of this malady is the foremost aim of rural industrialisation programmes.

A study by Srivastava advocates in favour of employment, the strategy of rural industrialisation should be employment oriented. Further, it will also mitigate other related problems.<sup>8</sup>

Nakkiram's study goes to the extent that the future of India depends entirely on rural industrialisation. It is the only means through which increasing labourforce can be absorbed as agriculture has already reached the saturation point.<sup>9</sup>

Rao in his study suggests that unemployment problem is of very grinding nature in rural areas. The rural industrialisation seems to be the best cure of the social malady.<sup>10</sup>

Papola believes in to create employment through rural industrialisation but cautions against over emphasis on it, because this will lead to low productivity and dead-end production<sup>11</sup>.

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8. Srivastava,G.S.1994, "Rural Industrialisation Development "chugh Publications, Allahabad.

9. Nakkiram,S.(1986) Rural Industrialisation", Khadi Gramodyog vol.XXXIII, NO.1, Oct.86 Khadi and Village Industries Commission, Bombay.

10. Rao, R.V.(1978), "Rural Industrialisation in India" Concept Publishing Company, New Delhi.

11. Papola,T.S.,(1982), "Rural Industrialisation: Approach & Potential",Himalaya Publishing House, Bombay.

Though unemployment had been a major problem of underdeveloped and developing countries and still continues to be so, but it was not until the second world war that rural Industrialisation gained significance to curb this problem. Lewis formulated employment oriented models for underdeveloped Countries for the first time. He suggested that a number of things can be performed by manual labour using little capital. In Underdeveloped Countries human labourforce must be given priority over capital. Untile and unless it becomes necessary, capital intensive techniques should not be followed.<sup>12</sup>.

Apart from various studies abroad, Mehta also supported the views of Lewis. He says that capital intensive technique should b not be treated above labour intensive techniques in industrialisation. Rather labour intensive techniques should be promoted and the network of small scale and cottage industries should be expanded for a simultaneous increase, in output and employment, saving and investment.<sup>13</sup>

Rastogi's study on Madhya Pradesh strongly supports small and cottage industry. He says that these industries use local resources at their optimal levels. A good number of items can be produced by the rural masses more efficiently, in the small scale sector than in large scale sector.

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12. Lewis, W.Arthur, (1955), "The Theory of Economic Growth", George Allen & Unwin Publications.

13. Mehta, M.M., (1976), "Industrialisation & Employment" Popular Prakashan, Allahabad.

Since these industries use local resources, it also saves the over head costs and thus do not require heavy investment<sup>14</sup>.

Another study supports the views of Rastogi and advocates the use of labour intensive small scale techniques. The investment should be kept at the minimum level while maximising employment opportunities. The major finding of the study is in favour of employment oriented industries rather than capital oriented<sup>15</sup>.

Papola (1987) found that in different states the performance of rural industrial sector is associated with agricultural productivity and high correlation with the growth rate of agricultural output and size of rural incomes, purchasing power and, to an extent, the investible surplus. Agricultural growth improves the efficiency of the existing industries leading to the emergence of new and dynamic employment areas. It is also argued that the major part of rural industrialisation in different states has continued mainly as a part of the tradition without necessarily being differentiated on the basis of linkages and integration with the local resource and changing demand

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14. Rastogi, K.M., (1980), " Employment Generation through small scale, village & cottage industries: A case study of Madhya Pradesh in D.L. Narayana (ed.) Planning for employment, Sterling Publications, PP 308-320

15. Schumachar, E.F., (1972), "The work of the Intermediate Technology Development Group in Africa", International Labour Review, July, pp 75-76

patterns. Because of this, most rural industrial enterprises are based on as a means of family subsistence rather than business. Basically they use primarily unpaid household labour, have very small size of production and end up with low productivity and income per worker engaged in them.<sup>16</sup>.

Islam explains demand for the products of rural industries in three aspects, namely export demand, household demand and intermediate demand. These three demands are necessary to promote the rural industrialization. But generally it is observed that, rural industrialization fulfills household demand only in the absence of sophisticated technology. Because quality of the products of rural industries are comparatively inferior to this technology. Thus, it also restricts other two demands. In this condition, there exists a demand constraint from the rural mass, where poverty is quite acute. The demand constraint is very closely linked to the growth of agriculture in rural areas. It implies that higher income in the rural areas are likely to boost the performance of rural industries. Thus, a fast growth in agriculture can create conditions for the growth of rural industries by increasing the rural incomes.<sup>17</sup>.

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16. Papola, T.S., "Rural Industrialisation and Agricultural growth: A case study on India" in Rizwanul Islam (ed.), Rural Industrialisation and Employment in Asia, ILO-ARTEP, 1987.

17. Islam, Rizwanul, "Rural Industrialisation and Employment in Asia: Issues and evidences" in R. Islam (ed.) Rural Industrialisation and Employment in Asia, ILO-ARTEP, 1987.

## Non-farm employment

Very few studies have been undertaken in the field of rural non-farm employment. But the present trends indicate growing interest on this aspect of employment.

World Bank (1978) has examined the problems and issues of non-farm employment in a macro perspective. It remarks that few empirical or analytical studies are available on rural non-farm sector and points out that very little is known about the composition and characteristics of non-farm activities. Further it highlights the need for a detailed analysis of non-farm employment and incomes in rural areas in view of their importance in strategies of poverty alleviation.<sup>18</sup>

Many scholars have shown inclination towards the study of farm activities in rural areas, particularly in underdeveloped and developing countries. It's main aim is to promote economic activities, creation of employment, poverty alleviation and to raise standards of living of the rural masses.

A study by Tares Maitra points out several non-farm activities with potential for expansion in the village arena, leading to higher production and consumption of non-agricultural goods and services<sup>19</sup>.

18. International Labour Organisation, (1979), "Poverty and Employment in Rural Areas of Developing Countries", Geneva, ILO.

19. Maitra, Tares, "Expansion of Employment through Local Resources Mobilisation", Indian Statistical Institute, Calcutta, 1982.

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Vaidyanathan analyses the pattern of growth of non agricultural employment in India. He points out four factors which determine the share of non-agricultural sector in rural employment. These are:

1. Per capita rural demand for non- agricultural products
2. Extra local - (demand from outside the region)
3. Rural demand for non-agricultural goods
4. Non-agricultural activities could also be a residual sector.

He further says that higher the rate of unemployment, higher will be the share of non-agricultural employment and non-agricultural wage would be lower in relation to that in agriculture.<sup>20</sup>.

A number of scholars have supported the hypothesis of Vaidyanathan which states that the increase in non-agricultural employment in rural areas is only a spill over of rural work force into non agricultural activities.

A study by Sheila Bhalla also points out that high technology is being adopted in agricultural field, in order to increase productivity as well as reducing agricultural labour in India. This becomes the main reason of low growth in employment in agricultural sector. This will bring spill over of agricultural labour into non agricultural activities.<sup>21</sup>.

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20. Vaidyanathan, A., (1986), "Labour use in Rural India: A Study of Spatial and Temporal variations." Economic and Political Weekly, XXI, NO.52, Dec.27.

21. Bhalla, Sheila, "Trends in Employment in Indian Agriculture, Land and Asset distribution," Indian Journal of Agricultural Economics, Vol.42, No. 4, Oct.- Dec., 1987.



Sharma in his study attributes that poverty induces growth of non-agricultural employment. He has shown the relationship between increase in percentage of non-agricultural workers and increase in unemployment rate and increase in the share of casual worker to total wage. He observes that a shift of workers from agriculture is due to shrinking employment opportunities in agricultural sector. Further, he points out that where unemployment is increasing due to result of a spill over of labourers from agriculture, non-agricultural activities become residual sector for that particular region. In such a region, only non-farm activities create employment for the masses.<sup>22</sup>.

Basic theme of above studies are related with increase in non-farm activities, which shows, whenever saturation takes place in agricultural sector in terms of employment, non-farm activities emerges. Secondly, when agricultural sector gets saturated in terms of employment, automatic spill over of labourforce starts from agricultural activities. In fact, labourforce turn to other activities apart from agriculture.

Some of the studies show that agricultural sector and non-farm employment activities are interdependent. A number of scholars support that there exist a positive relationship between agricultural growth and share of non-agricultural employment.

Chadha's study on Punjab shows that due to rise in rural incomes, the demand from industrial output and

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22. Sharma, Rajeev, (1988) 'Aspects of Rural Non-farm Employment' (Dissertation, CESP, JNU).

employment has also increased. The benefits have occurred partially to the rural sector itself in terms of increased non-farm employment. He finds that a fast growing agriculture is capable of generating (i) high level of non-farm employment and income (ii) new source of income through non-farm activities, particularly for the weaker sections of the rural society and (iii) increasing agro-based industries.<sup>23</sup>.

Another study points out that there has been a shifting trend of rural industrialisation from traditional to modern occupation. The non-farm activities are region specific depending upon the resource base. The study reveals that agricultural density, literacy levels of the population and distribution of agricultural land are positively associated with participation in non-agricultural activities. Caste appears to be the most important determining factor in non-farm work at a micro level. Muslims are generally dependent on off-farm activities.<sup>24</sup>.

Basant and Kumar, using NSS data finds that the share of the rural non-agricultural sector in the total rural labour force has increased, and this trend is more visible in the case of males. The services sector (tertiary sector) shows sharper increase than

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23. Chadha, G.K., (1986) "The Off-farm Economic Structure of Agriculturally Growing Regions: a study of Indian Punjab" in R.T. Shand (ed.) Off Farm Employment in the Development of Rural Asia, ANU, Canberra.

24. Rayappa, P.H., (1986) "Some Dimensions of Off-farm Employment in Rural Karnataka, India" in R.T. Shand ed. Off-Farm Employment in the Development of Rural Asia, ANU, Canberra.

the secondary sector. He observed that changes in employment structure, low productive employment and seasonality in agriculture employment occur due to shift of casual labour back and forth between agricultural and non agricultural work. Participation in non-agricultural work is determined by the size size of land owned by the house hold.<sup>25</sup>.

Vaidyanathan says that more prosperous the regions, the greater is the inequality of distribution of land and, the greater the degree of exposure to urban life, the higher will be the demand for final consumer goods and services obtained from non-agricultural sector, and as a results greater will be the level of non-agricultural activities. He finds a significant and positive relationship between non-agricultural employment and crop output per head of agricultural population but a negative relationship between non-agricultural employment and inequality of operational holdings. His findings depicted that there exists a strong consumption interlinkage between agricultural and non agricultural sectors<sup>26</sup>.

Unni finds that non-agricultural employment is a function of the performance of agriculture, degree of commercialisation, concentration of operational holdings and urbanisation.

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25. Basant, R. and Kumar, B.L' (1989) " Rural Non-Agricultural Activities in India: A Review of Available Evidence " Social Scientist, Vol. X VII, NO. 1-2,

26. Vaidyanathan, A., Op.cit., pp 33-35

After observing two indicators of agricultural performance she found land productivity to be positively and significantly associated with the male, female and total non-farm employment but growth of agricultural production was negatively associated with female and total non-agricultural employment. lastly, her result showed that strong demand interlinkage did operate between agricultural and non-farm sectors. It can be said that performance of agricultural sector has a significant impact on employment in non-agricultural sector<sup>27</sup>.

Another study analysed the nature of "rural non-agricultural employment across the agro-climatic regions of the country. This study is based on 385 districts of the country, which fall under 14 ago-climatic regions. Further, it also includes economic census data and NSS data as a source of the study-field. The study finds that services sector still dominates in employment creation in the rural areas and industry has relatively lower capacity to provide employment. It further points out that the services sector come first in rural area for the purpose of providing good infrastructural facilities in rural areas that includes good transportation in rural area, market accessibility, equipments used in agriculture, electricity and so no. These facilities facilitate the agricultural growth and it's activities. Demand plays a vital role in growth of non-agricultural activities because a shift from agriculture to non-agricultural activities is demandinduced

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27. Unni, Jeemol, "Regional variations in Rural Non-Agricultural Employment: An Exploratory Analysis" Economic and Political Weekly, Jan. 19,1991.

while the state intervention (through various development programmes) has largely been supply led<sup>28</sup>.

A World Bank study suggests that requirements for more employment and higher incomes can be fulfilled by rural non-farm activities. It further, points out that small manufacturing farms generate more direct & probably more indirect jobs per unit of invested capital on the average. It will promote the rural economy as well as employment at lower cost<sup>29</sup>.

A study on industrial development of Madhya Pradesh finds that unorganised sector has tremendous employment generating potential, so their base should be broadened to absorb labourforce<sup>30</sup>.

The following important points emerge from the above studies:-

1. Increasing population pressure on agricultural activities leads to a negative impact on Indian economy and stagnation of its development.

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28. Singh, Surjit, (1992), "Training for Employment: Some Lessons from Experience" Journal of Educational Planning and Administration, 6(2), pp.119-32.

29. World Bank, 1978, "Rural Enterprise & Non-farm Employment" - A World Bank Paper.

30. Minocha, A.C., (1980), "Industrial Development in Madhya Pradesh: Regional Structure & Strategy for Employment Oriented Industrialisation" in D.L.Narayan (ed.), Planning for Employment, Sterling Publication.

2. Promoting non-farm employment is a very essential task in rural areas where agricultural land is becoming burdened with population pressure.
3. Rural Industrialisation can play a significant role in providing employment in rural areas. It will generate high incomes for the rural masses.
4. Last, but not the least, almost all the scholars unanimously agree on employment generating technique through non-farm activities and rural industrialisation.

#### 1.5 CONCEPTUAL FRAMEWORK

Before spelling out the major objectives of this study, it is imperative to define few basic concepts utilized in the analysis. NSSO<sup>31</sup> defines these as follows;

1. Unorganized manufacturing enterprise: Unorganized manufacturing enterprise is defined as an enterprise not registered under section 2m (i) and 2m (ii) of the Indian Factories Act 1948. In other words, manufacturing enterprises using power and employing less than 10 workers and also those not using power and employing less than 20 workers constituted the unorganized sector.

2. Enterprise: This refers to an unit engaged in some gainful activity of production of goods and services by the member of the household and/or hiring outside labour.

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31. National Sample Survey Organisation - Thirty-third Round: July 1978 - June 1979., Vol. NO.I, PP. 5-6.

3.Own Account Enterprise: An enterprise, which is engaged in gainful activity of production of goods and services with the help of household labour only i.e. without any hired worker.

4.Establishment: An establishment, which is defined as an enterprise engaged in manufacturing activity or services with the help of atleast one hired worker on a fairly regular basis.

5.Fixed Assets: It include land, building, machinery transport and other goods, new or used, that have a normal economic life of more than one year.

6.Working Capital: It consists of such items as raw material, fuel and lubricant, stock of semi-finished and finished products and cash in hand and at bank balance of amounts receivable and payable on date of survey.

7.Input: The value of raw materials, electricity, fuel, lubricants and other auxiliary materials consumed, maintenance and other expenses incurred by the enterprise for production process are considered as inputs.

8.Output: The value of products and by products manufactured by the enterprise together with the value of industrial service rendered, sale of electricity produced and other receipts are taken as output.

9.Value added: It is defined as the difference between the total output and total input and is not net of depreciation.

### 1.6 OBJECTIVE OF THE STUDY

This study has been designed with the following objectives which are the basis of the analysis.

1. To examine the structure of unorganized manufacturing enterprises in rural areas.
2. To study the spatial distribution of different manufacturing enterprises across regions.
3. To analyse the growth of the different manufacturing enterprises in major states of India.
4. To assess the diversification or concentration of different manufacturing enterprises across region.
5. To identify Industries providing maximum employment opportunities and leading to overall development.
6. Lastly, to study the pattern of rural industries and employment generated in different industries in Haryana.

### 1.7 SCOPE OF THE STUDY

The study covers various dimensions of non-farm employment spread over two time periods 1978-79 and 1984- 85.

Seventeen major states have been included in this study with a special emphasis on the state of Haryana for the year 1978-79. The significance of the unorganized sector in rural employment and income generation is the main focus of the analysis. All the major Industrial groups of division 2 and division 3, starting from 20 to 39 have been included (Table 1-B).



TABLE 1B

## MAJOR INDUSTRIAL GROUP AT TWO DIGIT LEVEL

Industry Groups	Descriptions of Industries
20	Manufacturing of food products (slaughtering, preservation of meat, dairy products, fruits and vegetables, preservation of fish, grainmill products, bakery products, sugar factories, Gur and Khandsari, Common salt, cocoa, chocolate and sugar confectionery)
21	Manufacturing of food products (Oil, Vanspati, Ghee, Edible oils, Mustard oil, Tea processing, Coffee curing, Roasting and grinding, Ice products, Cashewnut processing, animal fodders etc.)
22	Manufacture of beverage, tobacco and tobacco products.
23	Manufacture of cotton textiles.
24	Manufacture of Wool, Silk and Synthetic fibre textiles.
25	Manufacture of Jute, hemp and mesta textiles.
26	Manufacture of textile products.
27	Manufacture of Wood and Wood products, furniture and fixtures.
28	Manufacture of Paper and paper products and printing, publishing and Allied Industries.
29	Manufacture of Leather and fur products (except repair)
30	Manufacture of Rubber plastic, petroleum and coal products.
31	Manufacture of Chemicals and Chemical products (except products of petroleum and coal).

Industry Group	Descriptions of Industries
32	Manufacture of Non-metallic mineral products.
33	Basic metal and alloy's industries.
34	Manufacture of metal products and parts except machinery and transport equipments.
35	Manufacture of machinery, machine tools and parts except electrical machinery.
36	Manufacture of electrical machinery, apparatus, appliances and supplies and parts.
37	Manufacture of transport equipment and parts.
38	Other manufacturing industries.
39	Repair Services.

Source:- NSSO,  
(33rd Round) July, 1978-1979  
First Part

Besides a quick assessment of problems, the policies, programmes and prospects of rural non-farm activities also forms part of the study.

### 1.8 DATA SOURCES

This study is based mainly on the secondary data published by NSSO pertaining to Thirty third round ( 1978-79) and Fortieth round(1984-85). The case study of Haryana is based on original questionnaires provided by the Economic and Statistical Organization (ESO), Haryana for 33rd round Survey of an organised sector in 1978-79. The case study was done by tabulating the data for 800 households.

In addition to these, data from other studies have also been used at few places where they were found relevant and necessary.

### 1.9 METHODOLOGY

The methodology adopted for this analysis involves use of simple calculation techniques and the method developed by Sargent Florence for assessing the structure of Industrialization. Total number of enterprises and its percentage in each state, employment percentage and Industrial group wise employment for all India involved simple calculations. Simple calculations were also applied in calculating the following:

- (i) Productivity per worker = Value added/Total worker
- (ii) Capital output ratio = Capital/output
- (iii) Fixed assets output ratio = Fixed assets/output
- (iv) Working capital output ratio = Working capital/output ratio
- (v) Ratio of fixed assets to working capital = Fixed assets/working Capital
- (vi) Ratio of full time worker to total worker = Full time worker/total worker.

Three concepts were introduced by Sargent Florence to assess the structure of Industrialization. These three concepts are being applied in this analysis. They are (i) Location Quotient, (ii) Localisation Co-efficient and (iii) Specialisation concept.

(i) Location Quotient: indicates the degree of relative concentration of a particular Industry. It advocates an idea about the Industrial base of a particular region. It is defined as the ratio of proportional share of employment

of a particular industry in the total workers employed in a particular region and the proportional share of employment in that particular industry of all the regions in the total workers employed in all the regions. It has been derived by the following formula:-

$$LQR_{ij} = \frac{E_{ij} / \sum_j E_{ij}}{\sum_i E_{ij} / \sum_i \sum_j E_{ij}}$$

Where,  $LQR_{ij}$  = denotes Location Quotient of rural Industry

$i$  = Industries,

$j$  = States

Rural  $E_{ij}$  = Employment in the  $i$ th industry of  $j$ th region

$\sum_j E_{ij}$  = Total employment in all industry of  $j$ th region

$\sum_j E_{ij}$  = The employment in the  $i$ th industry in all the regions

$\sum_i \sum_j E_{ij}$  = Total employment in all the industries in all the regions

(ii) Localisation Coefficient:

Localisation coefficient indicates the spatial spread of a particular industry. It shows concentration or wide spread of a particular industry in the space. Higher the value of Localisation Coefficient, higher is the concentration of a particular industry in few regions, similarly lower the value of localisation coefficient shows wide spread of a particular industry across the regions. Localisation Coefficient is defined as half the sum of the absolute difference between the regional proportions of

workers in the particular industry and the corresponding regional proportions of workers in all the industries. Thus using the same notions as before, it can be written as:-

$$L_m = \frac{1}{2} \sum_j \left| \frac{E_{ij}}{\sum_j E_{ij}} \dots \frac{\sum_i E_{ij}}{\sum_i \sum_j E_{ij}} \right| \times 100$$

Where,  $L_m$  = denotes Localisation Co-efficient of rural industry

Other symbols have same connotation as for formulae Location Quotient

(iii) Specialisation Co-efficient

The co-efficient of Specialisation denotes the pattern of distribution of different types of industries in a particular region. In other words, it defines the structure of industries of a particular region in relation to that of the whole of the regions (country as a whole). Higher the value of Specialisation Co-efficient, higher is the specialisation of industry. Similarly Lower the value of specialisation of co-efficient, it denotes diversified industries in a particular region.

Higher specialisation of industries denotes region having one or two type of industries, is called highly specialised regions. Lower value indicates the region has diversified industries. The formula, which has been used is given below:

$$S_m = \frac{1}{2} \sum_i \left| \frac{E_{ij}}{\sum_i E_{ij}} \dots \frac{\sum_j E_{ij}}{\sum_i \sum_j E_{ij}} \right| \times 100$$

Where,

- $S_m$  = denotes Specialisation Co-efficient
- $E_{ij}$  = Employment in the  $i$ th industry of  $j$ th region
- $E_{ij}$  = Employment in the  $i$ th industry in all the region  
 $i$
- $E_{ij}$  = Total employment in all the industry of  $j$ th  
 $j$  region
- $E_{ij}$  = Total employment in all the industries in all  
the regions

Localisation Co-efficients studies the industrial pattern across the regions and Specialisation Co-efficient denotes the pattern across industries in a particular region.

Above three methods have been used in analysing the industrial patterns in the state and for the country as a whole.

#### 1.10 LIMITATIONS OF THE STUDY

Non-farm activities involve a broader area of different economic activities other than agriculture. This study covers only a segment of its' broad field, i.e. unorganised manufacturing enterprises. Also due to non-availability of data at micro-level, state level data has been considered in the analysis. However, district level data is being used for the state of Haryana, but it pertains to just one time period 1978-79. Finally, all the aspects of the unorganised sector have not been elaborately dealt with. The major thrust of the study being on the employment aspect.

Despite the few shortcomings, the data are rich enough to throw considerable light on the non-farm sector.

## 1.11 PLAN OF THE STUDY

First chapter begins with an introduction to the problem of rural poverty, income generation and non-farm employment. It also outlines the programmes and policies adopted by the Government for the upliftment of rural masses. This chapter in the later part spells out the conceptual framework the objectives and scope of the study, methodology adopted for the analysis plus few shortcomings of the study.

**Chapter II** Covers state-wise structure of unorganised sector in term of enterprises, workers, growths and various aspects of unorganised manufacturing regarding capital, output, value added and so.

**Chapter III** includes locational factor of industrial groups by using industrial-base, pattern of industrial groups through localisation-coefficient and specialisation of the state in few industries group.

**Chapter IV** deals structure of unorganised manufacturing sector in Haryana, which is based on 800 households or enterprises in 1978-79.

Lastly, the chapter covers conclusion part of the entire study.

All these aspects are on the basis of employment opportunities in the rural areas.

## CHAPTER II

### ENTERPRISES AND WORKFORCE STRUCTURE OF UNORGANISED INDUSTRY OF RURAL INDIA - A REGIONAL ANALYSIS



Developing industrially backward areas has always been an important feature of industrial policy of various governments. However, despite various efforts, revival and rejuvenation of village and cottage industries has not achieved its target. The basic problem is that the whole impetus has been put on wrong wheel rendering the development process slow and ineffective in the desired direction.

Our problem of employment is multifaceted. The organised industrial sector output has been increasing over the past five years at 8 to 9 per cent per annum but employment within it is not increasing. Industrial development of a country is to be possible through the large industries but the expansion or absorption of employment is not possible in the same way. Gandhi emphasised the role of cottage industries as the only way of doing away with penury and making famine of work and wealth impossible.

He said "A vast country like India with her millions of people having four months of enforced idleness on their hand could not afford to have large scale industries and yet live a life of tolerable comfort. Mechanisation is good when the hands are too few for the work intended to be accomplished. It is an evil where there are more hands when required for the work, as is the case of India".

The core of truth in this position of Gandhi on employment has been accepted by the government and people from the start of Planning. The Eighth Plan document in

Chapter-2 sets forth the outlines of the Rural Development Programme for the five year period, of which rural industrialisation is a part. The Plan document in its section on Employment made the important Statement:-

"The pattern of industrialisation and choice of techniques, where possible without sacrificing productivity, have to be such as to increase the possibility of labour absorption in manufactures and other sectors".

In this chapter, therefore, stress has been made on detailed analysis of 33rd round and 40th round of NSS data, which enables detail data about employment in unorganised sector. The unorganised manufacturing enterprise is defined as enterprise not registered under section 2m(i) and 2m (ii) of Indian Factories Act 1948. In other words, manufacturing enterprises using power and employment less than 10 workers and also those not using power and employing less than 20 workers constituted the unorganised sector.

(i) INTER-STATE ANALYSIS OF ENTERPRISES, EMPLOYMENT AND GROWTH:-

This section discusses the size, growth and inter state variations in Own Account Enterprises (OAEs) and Non Directory Establishments (NDMEs) across the seventeen major states by using the 33rd and 40th rounds of NSS. The estimate of rural enterprises i.e. Own Account Enterprises (OAEs) and Non Directory Establishments (NDMEs) combined for seventeen manufacturing enterprises put together for major states is given in table 2.1, which shows percentage of enterprises in 1978-79 and 1984-85 in respective year to all

India. In 1978-79, rural enterprises in Bengal shows highest concentration, having 14.83 per cent followed by Uttar Pradesh 12.18 per cent Andhra Pradesh 11.06 per cent, Bihar 10.5 per cent and Tamilnadu 9.59 per cent. These five states shows highest number of unorganised enterprises in rural areas and together account for approximately 58 percent of the total enterprises in India as compared to population share of respective states.

In 1984-85, the scenario has changed completely. The highest concentration of enterprises is shown in Uttar Pradesh 33.16 per cent compared to a population share of 16.6 per cent. The remaining four states, though the same as in 1978-79, have declined in their percentage concentration. West Bengal occupied for 11.08 per cent, followed by Bihar 8.74 per cent, Andhra Pradesh 7.73 per cent and Tamil Nadu 6.4 per cent. Put together, these five states now account for approximately 70 per cent of these enterprises compared to the population share of 50.51 per cent. However, the only state significantly gaining in terms of its share in the all India total is that of UP. All other states have reduced their share by 2 to 4 percent. It means that major share of the increase in these enterprises has been contributed by Uttar Pradesh. The table 2.1 shows combined feature of unorganised sector enterprises. Enterprises of unorganised sector has two constituents (i) Own-Account enterprises (OAEs) and (ii) Non-Directory Manufacturing Enterprises (NDMEs). As already defined Own-Account enterprises are those enterprises which did not have

any hired worker. It is run by household members alone and Non-Directory Manufacturing enterprises are those enterprises having less than six members and at least one hired worker on regular basis.

Table 2.2 is related with enterprises of OAEs and NDMEs separately for 1978-79. Highest concentration of Own-account enterprises is found in West Bengal (14.55%), followed by Uttar Pradesh (12.35%), Andhra Pradesh (11.18%), Bihar (10.99%) and Tamilnadu (9.26%). That is following almost the same pattern as for total enterprises. However the 4.99 laks enterprises in Non-Directory establishments has some what different pattern. Higher percentage in West Bengal (18.01%) is followed by Kerala (14.14%), Tamilnadu (13.34%), Uttar Pradesh (10.25%) and Andhra Pradesh (9.82%). There were three states that posses moderate percentage of enterprises between 5 to 9 percent. Rest of the states comes below five percent to total NDMEs. Table 2.3 reveals the situation in the year of 1984-85. In this year, the growth of own account enterprises is considerably gone up consituting 1.33 crore for seventeen major states as compared to 0.56 crore in the year 1978-79. However the pattern continues to be same as has been explained in the combined enterprises case. The Uttar Pradesh consisted of highest percentage of 33.82, followed by West Bengal (10.95%). Rest of the state fall below 10 percent to total enterprisdes of seventeen major states. Non-Directory manufacturing enterprises constitutes 10.05 lakhs enterprises in seventeen major states. Uttar OPradesh is

again leading one having (24.84%), followed by West Bengal, Tamilnadu and Bihar state.

It is very important to study that what should be the proportion of own account enterprises and Non-directory manufacturing enterprises in each state. Because one is run by household members only and other by household as well as hired workers. Table 2.4 reveals the proportion of OAEs and NDMEs in each state separately in 1978-79 and 1984-85.

Total for the seventeen states, the proportion of Own-account enterprises constitutes 91.86 percent and remaining 8.13 percent of Non-directory manufacturing enterprises in the total enterprises (OAEs and NDMEs put together). It indicates that the number Own-account enterprises is more than 11 times higher than that of Non-directory manufacturing enterprises. Most of the major states show higher proportion of Own-account enterprises i.e. more than 90 percent. It means that more than 90 percent of the enterprises are based on the surplus family labour which is generally available in the rural areas because of the biological nature of the agriculture production process. In an average only 10 percent of the enterprises are generating some demand for labour.

In 1984-85 the situation is more or less the same as 1978-79. Except that some states have more proportion of own-account enterprises and other less. Andhra Pradesh, Haryana, Himachal Pradesh, Maharashtra, Rajasthan, Uttar Pradesh and West Bengal show some increase in proportion of Own-account enterprises. It also indicates the

proportionate decrease in Non-directory manufacturing enterprises in above states.

Table 2.5 reveals percentage change in enterprises over two period of time. This table indicates three categories of growth of Own-account enterprises, Non-directory manufacturing enterprises and combined (OAEs and NDMEs taken together) enterprises. This growth has been shown over six years time period. All together seventeen major states have been clasified by these three categories. Total growth of Own-account enterprises is 135.91 percent over six years, meaning there by 22.65 percent as average annual growth rate.

Only the state of Kerala shows negative growth rate - 0.63 percent. Uttar pradesh experiences highest average annual growth rate of 91 percent, followed by Rajasthan, Assam, Orissa, Maharashtra and Karnataka. Himachal Pradesh shows least average annual growth rate of 3.31 percent closely followed by Haryana Jammu & Kashmir, Gujarat and Tamilnadu.

The average annual growth rate of Non-directory manufacturing enterprises is some what lower at the all India level. The average growth rate trun out to be 16.88 percent per annum. Negative growth is found in case of Kerala and Madhya Pradesh. Rest of the states experiances positive growth rates. The highest average annual growth is found in Uttar Pradesh having 64.6 percent closely followed

by Assam, Bihar, Orissa, Karnataka and Rajasthan. However the Low growth rate states are Jammu & Kashmir having 0.87 percent average annual growth rate closely followed by Himachal Pradesh, Haryana, West Bengal and Andhra Pradesh.

The average annual growth rate of combined enterprises, for all the major states, is 22.23 percent. Except the state of Kerala, all states experience positive growth rate. The pattern continues to the same as experienced to the Own-Account enterprises because of its domination in the total enterprises in the states.

Uttar Pradesh experiences highest average annual growth rate having 89.19 per cent, closely followed by Rajasthan and Assam. Least average annual growth is recorded in Himachal Pradesh 3.2 per cent followed by Haryana and Jammu & Kashmir. Involvement of employment in these enterprises is other aspect of analysis.

In 1978-79, 1.04 crore rural population were estimated to be employed in the rural enterprises of unorganised sector in fifteen major states. These follow the same pattern as that of enterprises distribution. West Bengal, alone constituted 16.95 percent to total workers closely followed by Uttar Pradesh (11.68%), Tamilnadu (10.97%), Andhra Pradesh (10.77%) and Bihar (9.77%). Lowest proportion of workers were recorded in Himachal Pradesh (0.81%) closely followed by Assam (0.81%), Jammu & Kashmir (1.26%) and Punjab (1.33%).

In 1984-85, the scenario of proportion of workers

engaged in unorganised sector, has drastically changed. Almost two time increase in workers employed in unorganised sector have been found out. However, the pattern continues to be the same as that of enterprises. The proportion of workers is the highest in Uttar Pradesh, having 37 per cent of the total workers of seventeen major states followed by West Bengal. Rest of the states have gone down below 10 per cent. the proportion of workers is lowest in Himachal Pradesh (0.44%) closely followed by Jammu & Kashmir and Gujarat. These three states have less than 1 percent workers to total workers. Table 2.6, reveals the structure of proportion of workers engaged in unorganised sector over two time period.

Table 2.7 deals with proportion of workers engaged in Own-account enterprises and Non-directory manufacturing enterprises in 1978-79. 90.6 lakhs rural workers are engaged in Own-account enterprises. West Bengal constitutes highest proportion of rural workers in OAEs, closely followed by Uttar Pradesh, Andhra Pradesh, Bihar and Tamilnadu. These five states possess more than 10 per cent proportion of rural workers engaged in OAEs. Himachal Pradesh shows lowest employment of rural workers, closely followed by Assam. Both the states possess less than 1 percent rural workers employed in OAEs to total OAEs workers.

Proportion of workers employed in Non-directory manufacturing (NDMEs) enterprises is very less in



comparision to OAEs workers. In 1978-79, there were 14 lakhs rural workers employed in NDMEs. West Bengal shows highest proportion of NDMEs workers to total NDMEs workers of seventeen states closely followed by Kerala, Tamilnadu and Andhra Pradesh. Each of these four states constitutes more than 10 percent of rural workers employed in NDMEs to total workers of NDMEs. Assam possesses lowest poroportion of rural workers in NDMEs, closely followed by Himachal Pradesh, Punjab, Rajasthan, Haryana and Karnataka.

Table 2.8 depicts the proportion of rural workers for the year 1984-85. The number of rural workers has increased more than two times than that of 1978-79. 1.96 crore rural workers are engaged in Own-account enterprises. Uttar Pradesh gets tremendous increase in rural workers proportion employed in OAEs while West Bengal occupies second place but far behind Uttar Pradesh. Other states are Andhra Pradesh, Orissa and Tamil Nadu at the following places.

The proportion of rural workers are least in Himachal Pradesh and Jammu & Kashmir. Both the states constitute less than 1 per cent of the rural workers. Gujarat, Haryana, Punjab and Assam each constitutes less than 2 per cent of rural workers. There are 23.5 lakhs rural workers employed in Non-directory manufacturing enterprises. Again Uttar Pradesh has the highest proportion of rural workers in NDMEs having 18.9 percent, closely followed by Tamilnadu and West Bengal. Rest of the states constitute less than 10 percent proportion of rural workers in NDMEs, Himachal

Pradesh, Jammu & Kashmir and Haryana have less than 1 per cent rural workers proportion in NDMES.

Table 2.9 deals with proportion of rural workers employed in OAEs and NDMES in each state. As already pointed proportion of rural workers employed in OAEs are much higher than that of NDMES. In 1978-79, the proportion of rural workers in OAEs at all India level was 86.61 percent while NDMES employ only 13.39 percent showing the dominance of OAEs is for employing workers in rural areas. This proportion ranges from lowest of 71.79 in Kerala to 94.08 in Orissa. In all eight states have higher proportion of rural workers in OAEs as compared to all India figure.

In 1984-85, the proportion of rural workers in OAEs has increased from 86.61 to 89.3 per cent. This shows more rural workers are getting employment in OAEs rather than that of NDMES. Maximum involvement of rural workers in OAEs is found in Madhya Pradesh closely followed by Uttar Pradesh, Orissa, Rajasthan, Haryana and Andhra Pradesh. Above all the states possess more than 90 per cent rural workers employment in OAEs. On the opposite side Gujarat has the highest proportion of rural workers in NDMES, consisting of 42.49 per cent, followed by Kerala, Tamilnadu and Bihar. Madhya Pradesh has lowest proportion of rural workers followed by Uttar Pradesh, Orissa, Rajasthan and Haryana. Declining or increasing proportions of rural workers in OAEs, NDMES and combined for various states is due to the differential growth pattern.

Table 2.10 deals with percentage growth of rural workers in OAEs, NDMEs and combined enterprises for all India over two periods of time i.e. 1978-79 to 1984-85 . Total growth of rural workers in OAEs for seventeen states is recorded 116.67 percent over six years while average annual growth rate is 19.44 percent. Highest growth of rural workers is found in Uttar Pradesh, followed by Rajasthan, Assam and Orissa. These states have more than 20 percent average annual growth of rural workers in OAEs. Gujarat, Kerala, Bihar, Jammu & Kashmir and Madhya Pradesh have negative growth of rural workers in OAEs. Rest of the state follows moderate growth of rural workers in OAEs.

Overall growth of rural workers in NDMEs for total all India is recorded 67.97 percent over six years of time and average annual growth is recorded 11.3 percent. Bihar follows highest growth of rural workers in NDMEs, closely followed by Assam, Uttar Pradesh, Orissa, Karnataka and Gujarat. While Madhya Pradesh, Jammu & Kashmir, Kerala and Haryana follow negative growth of rural workers in NDMEs. Rest of the state follows moderate average annual growth of rural workers in NDMEs i.e. from 1 to 30 percent. Least growth of rural workers is recorded in Andhra Pradesh, having 0.9 percent average annual growth.

The growth of rural workers in combined enterprises is recorded 110.15 percent over six years of time, while average annual growth is 18.36 per cent. Average annual growth of rural workers in combined enterprises is highest

in Uttar Pradesh, i.e. 99.22 percent, followed by Assam, Rajasthan and Orissa. All these states have higher growth of rural workers to total growth of seventeen states. Kerala, Jammu & Kashmir, Madhya Pradesh and Gujarat have negative growth of rural workers in combined enterprises. Least growth of rural workers in combined enterprises is recorded in Bihar, followed by Himachal Pradesh, Karnataka, Tamilnadu and Andhra Pradesh. These states have less than 10 percent average annual growth rate of rural workers. Remaining states follow moderate path of growth.

Above analysis is basically related with spatial and temporal structure of enterprises and employment of all seventeen major states in two period of time. However the question wheather a state has the strong base or not is determined by analyingin the variabls like fixed assets, output and value added per enterprise. It is essential because it relates economic relationship with the set up of enterprises. Table 2.11 deals with some economic variables per enterprise. Some of the important characteristics of unorganised manufacturing enterprises, namely, number of persons employed (hired workers as well as household members), value of fixed assets, value of output and value added for each state and total of seventeen states have been worked out separately for Own-account enterprises and Non-directory manufacturing enterprises.

For OAEs per enterprise estimates of number of person employed, value of fixed assets, value of output and value

added in rural areas of all India are 1.61, Rs.1172, Rs.2514 and Rs.1370 respectively, the corresponding structural ratios for NDMEs being 2.8, Rs.7103, Rs.9557 and Rs.4685. As expected structural ratios for the NDMEs exhibited appreciably higher values than the OAEs in almost all the states.

State wise comparison is very clearly visible in the text table. First the enterprise of OAEs is concerned, the ratio of fixed assets, output and value added of an enterprise is much more higher in Haryana, Gujarat, Jammu & Kashmir, Punjab and Rajasthan than the other states. Lowest ratios are found in Orissa closely followed by Kerala, Tamil Nadu and Bihar. Developed states shows higher value per enterprise of fixed assets, output and value added for an enterprise in OAEs, while developing or least developed states have lower ratios. Employment in an enterprise is more or less similar because of definition in all the states except Karnataka, where 2.02 persons are employed in an OAE enterprise.

As expected the per-enterprise employment, fixed assets, output and value added is higher in NDMEs. The states, having higher figure, are Himachal Pradesh, Haryana, Rajasthan and Punjab. Lower ratios are centred in Kerala, Uttar Pradesh, West Bengal and Orissa. Remaining states follow moderate range of values. Employment of workers in an NDMEs enterprise is higher than that of OAEs. West Bengal and Tamil Nadu have the highest employment of rural workers in NDMEs i.e. more than three workers in an

enterprise. Remaining states follow more than two rural workers employed in an enterprise.

Table 2.12 deals with average number per enterprise of OAEs and NDMEs in the year of 1984-85. With the inflation of money and time the per enterprise values have become higher in this year. For OAEs, per enterprise estimates of number of persons employed which is only due to real growth, value of fixed assets, value of output and value added in rural enterprises of all India are 1.05, Rs.11498, Rs.6667 and Rs.2817 respectively, the corresponding figures for NDMEs being 2.34, Rs.25158, Rs.17406 and Rs.15683. As far as the NDMEs are concerned as expected all the per enterprise figures showed higher values than the OAEs. Own-account enterprise is considered first for overall assessment of per-enterprise values. Fixed assets, output and value added per enterprise is higher in Punjab followed by Haryana, Kerala and Gujarat. Lowest ratios are found in Tamil Nadu, Orissa, Assam and Madhya Pradesh. Remaining states have followed moderate values of fixed assets, output and value added of an enterprise. Employment in OAEs is very low constituting less than two persons in an enterprise. Some states have very low rural employment in an enterprise. These states are Gujarat, Bihar, Jammu & Kashmir and Madhya Pradesh having less than one person per enterprise.

The values for NDMEs is always greater than that of OAEs in terms of employment, fixed assets, output and value

added per enterprise. Punjab has the highest value closely followed by Kerala, Gujarat, Haryana and Himachal Pradesh. Least values are that of followed by Assam followed by West Bengal and Tamil Nadu. 3 Employment in an enterprise is more than one in each state. Gujarat and Tamil Nadu have highest share of employment in per enterprise, having more than three persons in an enterprise. Andhra Pradesh, Jammu & Kashmir, Madhya Pradesh, Maharashtra and Uttar Pradesh have less than two persons employed per enterprise.

(ii) INTER-INDUSTRY ANALYSIS OF ENTERPRISES, EMPLOYMENT AND GROWTH:-

Inter-industry analysis of enterprises, employment, Capital, value added and output is essential feature of the study. It shows which industry has rising trends in term of employment in the economy. Because every policy has been keeping in view these two things. New inclusion of environmental degradation becomes essential part of it. Table 2.13 deals with proportion of enterprises concentration in each industrial group for the year 1978-79 and 1984-85 respectively. In 1978-79, the wood industry has very prominent domination over other industry, having proportion of 21.04 percent of the total enterprises at the all India level closely followed by food industry, Apparel industry. These three industries account for more than 57 per cent of enterprises. Electrical machinery industry has least share of the all industries. The other unimportant industries are Paper industry, Basic metal, Non-electrical machinery, Chemicals, Rubber & Petroleum, Transport

equipments and Jute industry. All these industries occupy less than 4 percent share of total enterprises.

In 1984-85 the proportion of enterprises more or less remains the same as that of 1978-79. Wood industry, again accounts or highest share closely followed by Apparel and Food. All of them constitute more than 53 per cent of enterprises. Least proportion of enterprises is found in Electrical machinery and other unimportant industries are Basic metal, Rubber & Petroleum, Paper, Transport equipments, Chemicals, Jute and Non-electrical machinery. All the above industries account for less than 1 percent of enterprises individually.

Table 2.13 also deals with proportion of workers in each industrial group. In 1978-79 maximum proportion of workers are found employed in Food industry, closely followed by Wood industry, Apparel and Cotton textiles. All of them account for more than 67 per cent of workers. Least important industries from the point of view of employment are electrical machinery, Paper, Basic metal, Transport equipments, Rubber & Petroleum, Non-electrical machinery and Chemical industries. All of them put together only constitute less than 3 percent workers employed.

In 1984-85 the share of rural workers in industrial enterprises has changed from earlier shares as that of 1978-79. The share of workers is the highest in Wool industry, closely followed by Food, Paper and Wood industry. All of these industries possess more than 10 percent of rural



workers. Transport equipment industry shows lowest concentration of rural workers, closely followed by Metal Products, Others, Chemicals, Leather, Electrical machinery and Apparel industry. This data shows shifting trend of labour shares in a particular industry. It can also be analysed through growth rate of enterprises and workers in each industry group. Table 2.14 deals with percentage growth of enterprises and workers over six years. From the data it is clear that the growth of Beverage and Tobacco industry is very high. It's average annual growth rate is 94.15 percent, closely followed by Cotton textile, Wool industry. Electrical machinery, Rubber & Petroleum, Transport equipments and Jute industry have been found negative growth of enterprises during six years. Least growth rate is found in Basic metal, closely followed by Metal products and Non-electrical machinery. Remaining industrial group come under 14 to 30 percent growth of enterprises per year.

As far as industrial workers are concerned, again, Beverage and Tobacco industry gets maximum growth of workers as compared to other industries, followed by Cotton textile, Wool and Paper industry. Negative growth of workers is found in Jute industry, followed by Transport equipments, Rubber & Petroleum, Basic metal and Chemical industry. Least growth of workers is shown in Electrical machinery, closely followed by Non-electrical machinery, Metal products, Repairs and Leather industry.

Table 2.15 deals with ratios of output -capital, Capital-Labour and Labour productivity per worker. These

three indicators are major instruments to see the profitability of an enterprise. Output-Capital ratio indicates that one unit of Capital will produce how much output. If the ratio is high means to produce one unit will require less capital and vice-versa.

In 1978-79, the output-Capital ratio has been show for each industrial group. Beverage and Tobacco, Cotton textile, Wool, Jute, Leather, Rubber and Petroleum, Chemicals and Basic metal industry is profitable because one unit of capital produces more than one unit of output. Jute and Basic metal industry are highly profitable because one unit of capital produces 2.71 and 22.15 unit of output. Remaining industrial group are not profitable as the ratios show.

Capital Labour ratio:- is the ratio of a firm's Capital to labour used. Where the Capital-labour ratio is high the value of a firm's output per worker would be expected to be higher than the wage rate.

Apparel industry has the higher ratio of Capital-labour, having Rs.2844.16. Closely followed by Electrical machinery, Food and Paper. Lowest ratio is recorded in Jute industry. In 1984-85 Non-electrical machinery has the highest ratio of Capital-labour, closely followed by Rubber & Petroleum, Metal products, Repairs and Leather. Lowest ratio is found in Jute industry.

Labour Productivity:- It indicates that how much output is produced by a worker of an enterprise. If the worker produces more output, the worker should get higher wages.

In 1978-79 per worker productivity is very high in Electrical machinery industry, closely followed by Basic metal, Transport equipments and repairs industrial group. Lowest productivity per worker is recorded in Jute industry followed by Rubber & Petroleum, Chemicals and Non-metallic mineral.

In 1984-85 productivity per worker is the highest in Transport equipments industry, closely followed by Electrical machinery and non-electrical machinery industry. Lowest productivity is recorded in Non-metallic mineral followed by Rubber & Petroleum and Jute industry.

(iii) Ratios and Growth:-

The present study deals with structure of work force and enterprises of unorganised sector. Previous section dealt with elaborate structure of workforce and enterprises with respective simple growth rate. This section is related with ratios of productivity per worker, Capital-output, fixed assets to working capital and full time worker to total worker. Ratio is a relationship that indicates the extent to which one class of objects exists compared to another.

\* Productivity per worker:- Productivity per worker is the ratio of total output of an enterprise to total workers of

that particular enterprise. Naturally, higher the value of output and lower the number of workers of an enterprise leads to higher productivity per worker. State-wise categorisation of productivity per worker is given in **Appendix 5**. Maximum productivity per worker and minimum productivity per worker are classified for two years. Productivity per worker for Andhra Pradesh is maximum in Rubber & Petroleum, Food (20), Beverage & Tobacco, Basic Metal and Leather industry, while minimum productivity are recorded in Jute, Non-metallic mineral, Paper, Apparel and Wool industry.

The basic notion of low productivity per worker is higher the concentration of worker in an enterprise. Though there may be various reasons for low productivity like low value of output, higher competition in the market, cheap availability of finished products and so on.

Maximum productivity per worker are recorded in Chemicals, Leather, others, Paper, Repairs and Non-metallic mineral in the state of Assam while low productivity per worker is recorded in Food (21), Cotton textile, Wool and Beverage & Tobacco.

Bihar- The higher productivity is recorded in Basic metal, Transport equipments, Non-electrical machinery, Rubber & Petroleum and Chemicals. Low productivity is recorded in Wool, Jute, Cotton textile and Paper industries.

Gujarat:- Electrical machinery, Transport equipment Non-electrical machinery, chemicals, Food (21) are industries of

higher productivity per worker. Cotton textile, Rubber & Petroleum, Non-metallic mineral, Beverage and Tobacco and Wool are industries of least productivity.

Haryana:- High productivity are concentrated in Rubber & Petroleum, Chemicals, Transport equipments, Paper and Apparel industry. Low productivity is in cotton textile, Wool, Beverage and Tobacco industry.

Himachal Pradesh:- High productivity per worker is found in Beverage & Tobacco, Paper, Rubber and Petroleum, Chemicals and basic metal industries. The industrial groups, having low productivity per worker are Jute, Non-metallic, Cotton textile and Food (20).

Jammu & Kashmir:- The higher productivity per worker is observed in Food (20), Basic metal, Electrical machinery, Basic metals and Non-metallic mineral. The groups of industry, having low productivity per worker, are Paper, Wool, Non-electrical machinery, and electrical machinery.

Karnataka:- The industrial groups, having high productivity per worker, are Food (21), Paper, Electrical machinery, Transport equipments and Food (20). Low productivity is found in Rubber & Petroleum, Non-metallic mineral, Wool, Basic metal and Others.

Kerala:- High productivity industries are Paper, Leather, Basic metal, Food (20), Electrical machinery and metal products. Low productivity industrial groups are Jute, Rubber & Petroleum, Apparel, Cotton textile and Leather

industry.

Madhya Pradesh:- The industrial groups, having high productivity per worker, are Food (20), Apparel, repairs, Non-electrical machinery and basic metal. Low productivity is concentrated in Jute, Beverage & Tobacco, Food (21), Rubber & Petroleum and Paper industry.

Maharashtra:- Maharashtra is a highly industrialised state. The higher productivity per worker is observed in Paper, Electrical machinery, Food (20), Chemicals, Transport equipments and basic metals. Low productivity industries are non-electrical machinery, Jute, Wool and Beverage & Tobacco industry.

Orissa:- The state has diversified industrial groups under unorganised sector in rural areas. High productivity is in Electrical machinery basic metal, Transport equipments and Leather industries. Low productivity is found in Jute, Non-electrical machinery, Wood products, Rubber & Petroleum and Food (21) products.

Punjab:- The concentration of industrial groups under unorganised sector is modernately spread out. High productivty per worker, bearing industrial groups are Paper, Chemicals, electrical machinery, metal products and non-electrical machinery. Low productivity is concentrated in Rubber & Petroleum, Jute, Cotton textile, Paper, Rubber & Petroleum and Wool industry.

Rajasthan:- Rajasthan is located in Semi-arid and arid

tracts. Agriculture is not suitable for this state without proper irrigation management. The growth of unorganised sector is the only way to increase rural employment in the state. The state possesses moderate spread out industrial groups under unorganised sector. High productivity per worker is found in Paper, Chemicals, Transport equipments and others. Low productivity groups are that of Wool, Beverage & Tobacco, Food (21) and Cotton textile.

Tamil Nadu High productivity per worker is concentrated in groups of electrical machinery, basic metal, Paper, Transport equipments, metal product and non-electrical machinery. Low productivity, bearing industrial groups are Rubber & Petroleum, Chemicals, Food (21), basic metal and Jute industry.

Uttar Pradesh:- Highly diversified industrial groups under unorganised sector are found in Uttar Pradesh. The state possesses highest proportion of enterprises as well as workers under unorganised sector. High productivity, bearing groups are Rubber & Petroleum, Paper, basic metal, Non-electrical machinery, Leather and repairs. Low productivity bearing groups are Jute, Food (21), Cotton textile, Paper and non-metallic mineral.

West Bengal:- Having second largest proportion of enterprises under unorganised sector, it is highly industrialised in organised sector also. Maximum productivity bearing groups are Leather, electrical machinery, transport equipments, electrical machinery, Wool

and Rubber & Petroleum. Low productivity is concentrated in Jute, Chemicals, paper, non-metallic mineral and Jute industry. In spite of being a home state of Jute industry, the productivity is low.

Capital-output ratio:- The capital-output ratio indicates the amount of capital required to produce one unit of output. Requirement of capital is less than unit indicates profitability of an enterprises and vice versa. Appendix 6 shows the state wise maximum and minimum profitable categories of enterprises. It shows various industrial groups in one state is profitable while the other state experiences low profitability. It varies from state to state and time to time. Employment is considered as profit maximisation. Maximum involvement of employment in an enterprise will lead least profitability of that particular industry and vice versa. So, capital-output is a good indicator of measuring profitability of an industry.

Ratio of fixed assets to working capital:-

Assets is an item owned by a company that has value. The fixed assets are such items as land, buildings, machinery and dasks, the items that are relatively static. In profit maximisation, the importance of fixed assets are less, particularly for unorganised sectoral industries, due to its static nature . The working capital of an enterprise includes cash, bonds, stock of raw materials and finished products. Higher the amount of working capital of an enterprise will higher profits.



Here ratio indicates the required fixed assets to circulate one unit of working capital. Fixed assets are more than unity, means industry involves more capital but least profit. Because working capital generates profit of an enterprise.

Appendix-7, shows the maximum and minimum fixed assets involved in various industrial groups. Involvement of maximum fixed assets in an enterprise will be less profitable and vice versa.

#### Ratio of full time worker to total worker:-

Appendix-8 deals with maximum full time worker involvement in an enterprise to total worker of that particular enterprise. Maximum full time workers enterprises and minimum full time workers enterprises are categorised on the basis of industrial groups. Both types of enterprises involves maximum proportion of full time workers. Categorisation is made on the basis of 90 percent and above full time workers employed and less than 90 per cent employed of full time worker in an enterprise. Part time workers are less in number in each and every state. The proportion of full time workers to total workers is consistently higher in every state.

#### Growth:-

Table 2.18 is related with growth rate of employment, value added, capital, output, output-capital ratio, Capital intensity and Labour productivity. This has been shown industrial group wise. The data shows which industrial

group is spreading or declining in the above mentioned combination of factors. Positive growth is a good symbol of spreading or expanding of industries. Growth of employment is not satisfactory in various industrial groups. Some industrial groups show a heavy declining trend of employment. These are Jute industry followed by Rubber and Petroleum, Transport equipments, Basic metals and chemicals industry. The employment in Jute industry shows large declining trend to the extent that more than 15 per cent negative growth is recorded. The growth of employment in Beverage & Tobacco is very high followed by Cotton textile and Wool industry. Remaining industrial groups possess a lower growth of employment. Least growth of employment is recorded in Repairs industry.

Almost all industrial groups have good growth rate in value added. Highest growth rate of value added is seen in Beverage and Tobacco industry followed by Non-electrical machinery, Wool, Cotton textile and Non-metallic mineral. Least growth rate is seen in Basic metal industry.

The growth of capital in all industrial groups are satisfactory. There are non-electrical machinery, metal products, wood and Beverage & Tobacco industry. Least growth of capital is seen in Chemicals industry.

The growth of output in all industrial groups are well achieved. Non-electrical machinery, has the highest growth rate of output, followed by wood, metal products and electrical machinery. Rubber & Petroleum industry possesses least growth rate output.

Growth of output-capital ratio is not satisfactory. Negative growth rate is recorded in chemicals industry. Least growth rate is evident in cotton textile. Non-electrical machinery possesses maximum growth rate of output-capital ratio. Growth of capital intensity is seen almost higher in all industrial groups except Electrical machinery. Electrical machinery possesses negative growth of capital intensity.

Productivity per worker is increased in all industrial groups. The growth of productivity per worker is highest in Non-electrical machinery closely followed by Repairs, Electrical machinery and metal products. Lowest productivity growth is recorded in Beverage & Tobacco and Cotton textiles.

TABLE NO.2.1

ESTIMATED NUMBER OF ENTERPRISES (NADMEs & OAEs TAKEN TOGETHER) AS  
PER LISTING SCHEDULE FOR EACH STATE AND PERCENTAGE DISTRIBUTION OVER  
STATE FOR THE RURAL AREAS IN 1978-79 & 1984-85.

R U R A L						
NO.	STATE	1978-79		1984-85		1981
		ENTERPRISES NUMBER	PERCENTAGE	ENTERPRISES NUMBER	PERCENTAGE	PROPORTION OF POPULATION
1.	ANDHRA PRADESH	679991	11.06	1107627	7.73	8.02
2.	ASSAM	55128	0.9	209462	1.46	2.70
3.	BIHAR	645473	10.5	1252474	8.74	10.47
4.	GUJARAT	132461	2.16	210363	1.47	5.10
5.	HARYANA	115430	1.9	147054	1.03	1.93
6.	HIMACHAL PRADESH	61820	1.00	73710	0.52	0.64
7.	JAMMU & KASHMIR	91275	1.48	123225	0.86	0.89
8.	KARNATAKA	227466	3.7	474039	3.31	5.56
9.	KERALA	417070	6.79	395408	2.76	3.81
10.	MADHYA PRADESH	510241	8.3	803923	5.61	7.81
11.	MAHARASTRA	394888	6.43	843813	5.89	9.40
12.	ORISSA	338118	5.5	745402	5.20	3.94
13.	PUNJAB	96295	1.57	182984	1.28	2.51
14.	RAJASTHAN	128745	2.09	500889	3.50	5.13
15.	TAMILNADU	589320	9.59	916861	6.40	7.25
16.	UTTAR PRADESH	747944	12.18	4750758	33.16	16.60
17.	WEST BENGAL	911003	14.83	1587237	11.08	8.17
TOTAL		6142668	100.00	14325229	100.00	100.00

TABLE NO.2.2  
 PERCENTAGE OF OWN-ACCOUNT ENTERPRISES AND NON-DIRECTORY  
 ESTABLISHMENT TO TOTAL ENTERPRISES OF THE COUNTRY FOR RURAL AREAS,  
 1978-1979.

NO.	STATE	O.A.E.		N.D.MEs	
		ENTERPRISES NUMBER	PERCENTAGE	ENTERPRISES NUMBER	PERCENTAGE
1.	ANDHRA PRADESH	630895	11.18	49095	9.82
2.	ASSAM	48920	0.86	6207	1.24
3.	BIHAR	620428	10.99	25044	5.01
4.	GUJARAT	121042	2.14	11418	2.28
5.	HARYANA	104187	1.85	9950	2.00
6.	HIMACHAL PRADESH	55143	0.98	6676	1.33
7.	JAMMU & KASHMIR	80714	1.43	10560	2.11
8.	KARNATAKA	215978	3.83	11487	2.30
9.	KERALA	346418	6.14	70651	14.14
10.	MADHYA PRADESH	481718	8.54	28522	5.71
11.	MAHARASHTRA	362902	6.43	31986	6.04
12.	ORISSA	324356	5.75	13761	2.75
13.	PUNJAB	88899	1.57	7395	1.48
14.	RAJASTHAN	119733	2.12	9012	1.8
15.	TAMILNADU	522668	9.26	66652	13.34
16.	UTTAR PRADESH	696710	12.35	51234	10.25
17.	WEST BENGAL	820996	14.55	90007	18.01
	TOTAL	5641707	100.00	499657	100.00

TABLE NO.2.3

PERCENTAGE NUMBER OF OWN-ACCOUNT ENTERPRISES AND NON-DIRECTORY ENTERPRISES TO TOTAL ENTERPRISES OF THE COUNTRY SEPARATELY FOR RURAL AREAS, 1984-85.

NO.	STATE	O.A.E.		N.D.MES	
		ENTERPRISES NUMBER	PERCENTAGE	ENTERPRISES NUMBER	PERCENTAGE
1.	ANDHRA PRADESH	1021956	7.68	75672	7.52
2.	ASSAM	185518	1.39	23944	2.38
3.	BIHAR	1165551	8.75	86923	8.64
4.	GUJARAT	184159	1.38	26204	2.6
5.	HARYANA	138761	1.04	8293	0.82
6.	HIMACHAL PRADESH	66107	0.05	7603	0.75
7.	JAMMU & KASHMIR	112111	0.84	11114	1.1
8.	KARNATAKA	438191	3.29	35848	3.56
9.	KERALA	344233	2.59	51175	5.09
10.	MADHYA PRADESH	778838	5.85	25085	2.49
11.	MAHARASHTRA	778986	5.85	64827	6.44
12.	ORISSA	700613	5.26	44789	4.45
13.	PUNJAB	165490	1.24	17494	1.74
14.	RAJASTHAN	474777	3.57	26112	2.6
15.	TAMILNADU	795490	5.98	121371	12.07
16.	UTTAR PRADESH	4500944	33.82	249814	24.84
17.	WEST BENGAL	1457682	10.95	129555	12.88
	TOTAL	13309407	100.00	1005823	100.00

TABLE 2.4

PERCENTAGE OF NUMBER OF OWN-ACCOUNT ENTERPRISES AND NON-DIRECTORY ENTERPRISES TO TOTAL ENTERPRISES FOR EACH STATE SEPARATELY FOR RURAL AREAS IN 1978-79 & 1984-85.

NO.	STATE	R U R A L			
		1978-79 PERCENTAGE OF		1984-85 PERCENTAGE OF	
		OAES	NDMES	OAES	NDMES
1.	ANDHRA PRADESH	92.78	7.22	93.10	6.89
2.	ASSAM	88.74	11.26	88.56	11.43
3.	BIHAR	96.12	3.88	93.06	6.94
4.	GUJARAT	91.38	8.62	87.54	12.46
5.	HARYANA	90.26	9.74	94.36	5.64
6.	HIMACHAL PRADESH	89.2	10.8	89.68	10.31
7.	JAMMU & KASHMIR	88.43	11.57	90.98	9.02
8.	KARNATAKA	94.95	5.05	92.44	7.56
9.	KERALA	83.06	16.94	87.06	12.94
10.	MADHYA PRADESH	94.41	5.59	96.88	3.12
11.	MAHARASHTRA	91.9	8.01	92.32	7.68
12.	ORISSA	95.93	4.07	93.99	6.01
13.	PUNJAB	92.32	7.68	90.44	9.56
14.	RASJASTHAN	93.00	7.00	94.79	5.21
15.	TAMILNADU	88.69	11.31	86.76	13.24
16.	UTTAR PRADESH	93.15	6.85	94.74	5.26
17.	WEST BENGAL	90.12	9.88	91.84	8.16
	TOTAL	91.86	8.13	92.97	7.03

TABLE NO.2.5

PERCENTAGE CHANGE IN RURAL UNORGANISED INDUSTRIES OVER THE  
PERIOD 1978-79 TO 1984-85.

NO.	STATE	OAES	NDMES		COMBINED		
		A.A.GR.	A.A.GR.	A.A.GR.	A.A.GR.		
1.	ANDHRA PRADESH	61.98	10.33	54.13	9.02	62.89	10.48
2.	ASSAM	279.23	46.54	285.76	47.62	279.95	46.66
3.	BIHAR	81.86	14.64	247.08	41.18	94.04	15.67
4.	GUJARAT	52.14	8.69	129.49	21.58	58.81	9.08
5.	HARYANA	33.18	5.53	16.65	2.77	27.4	5.57
6.	HIMACHAL PRADESH	19.88	3.31	13.88	2.31	19.23	3.2
7.	JAMMU & KASHMIR	38.89	6.48	5.24	0.87	35.00	5.83
8.	KARNATAKA	102.88	17.15	212.07	35.34	108.4	18.07
9.	KERALA	-0.63	-0.01	27.57	-4.59	-5.19	-0.86
10.	MADHYA PRADESH	61.68	10.28	12.05	-2.01	57.56	9.59
11.	MAHARASHTRA	114.65	19.1	102.67	17.11	113.68	18.95
12.	ORISSA	116.00	19.33	225.48	37.58	120.46	20.08
13.	PUNJAB	86.15	14.36	136.56	22.76	90.02	15.00
14.	RAJASTHAN	296.53	49.42	189.75	31.62	289.05	48.17
15.	TAMILNADU	52.19	8.7	82.1	13.68	55.58	9.26
16.	UTTAR PRADESH	546.03	91.00	387.59	64.6	535.17	89.19
17.	WEST BENGAL	77.55	12.92	43.94	7.32	74.23	12.37
	TOTAL	135.91	22.65	101.03	16.88	133.37	22.23



TABLE NO.2.6

ESTIMATED NUMBER OF WORKERS (OAEs AND NDMEs TAKEN TOGETHER) AS  
PER LISTING SCHEDULE FOR EACH STATE AND PERCENTAGE DISTRIBUTION OVER  
STATE FOR THE RURAL AREAS IN 1978-79 & 1984-85.

R U R A L

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NO.	STATE	1978-79		1984-85	
		NUMBER	PERCENTAGE	NUMBER	PERCENTAGE
1.	ANDHRA PRADESH	1127553	10.77	1673086	7.61
2.	ASSAM	85246	0.81	323442	1.47
3.	BIHAR	1022076	9.77	1119474	5.09
4.	GUJARAT	210564	2.01	193931	0.88
5.	HARYANA	174412	1.66	223928	1.02
6.	HIMACHAL PRADESH	84382	0.81	97296	0.44
7.	JAMMU & KASHMIR	132044	1.26	115639	0.52
8.	KARNATAKA	464188	4.44	641388	2.92
9.	KERALA	723808	6.92	612581	2.79
10.	MADHYA PRADESH	787638	7.53	718819	3.27
11.	MAHARASHTRA	568504	5.43	1118783	5.09
12.	ORISSA	658463	6.29	1480665	6.73
13.	PUNJAB	138870	1.33	261580	1.19
14.	RAJASTHAN	194880	1.86	739312	3.36
15.	TAMILNADU	1147984	10.97	1678475	7.63
16.	UTTAR PRADESH	1168437	11.68	8124816	36.95
17.	WEST BENGAL	1773234	16.95	2863510	13.02
	TOTAL	10462283	100.00	21986725	100.00

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TABLE NO.2.7

PERCENTAGE OF WORKERS IN OWN-ACCOUNT ENTERPRISES AND NON-DIRECTORY ENTERPRISES TO TOTAL RESPECTIVE WORKERS OF THE COUNTRY FOR RURAL AREAS, 1978-79.

NO.	STATE	WORKERS IN O.A.E.		WORKERS IN N.D.M.E.	
		NUMBER	PERCENTAGE	NUMBER	PERCENTAGE
1.	ANDHRA PRADESH	984196	10.86	143357	10.23
2.	ASSAM	684888	0.75	16758	1.02
3.	BIHAR	955459	10.54	66617	4.76
4.	GUJARAT	181563	2.00	29001	2.07
5.	HARYANA	147945	1.63	26467	1.89
6.	HIMACHAL PRADESH	67826	0.75	16556	1.18
7.	JAMMU & KASHMIR	100892	1.11	31152	2.22
8.	KARNATAKA	436275	4.81	27913	1.99
9.	KERALA	519627	5.73	204181	14.58
10.	MADHYA PRADESH	717759	7.92	69879	4.99
11.	MAHARASHTRA	497175	5.49	71329	5.09
12.	ORISSA	619519	6.83	38944	2.78
13.	PUNJAB	120013	1.32	18857	1.34
14.	RAJASTHAN	173612	1.91	21268	1.52
15.	TAMILNADU	946029	10.44	201955	14.42
16.	UTTAR PRADESH	1031130	11.38	137307	9.08
17.	WEST BENGAL	1494212	16.49	279022	19.92
	TOTAL	9061720	100.00	1400563	100.00

TABLE 2.8

PERCENTAGE OF WORKERS IN OWN-ACCOUNT ENTERPRISES AND NON-DIRECTORY ENTERPRISES TO TOTAL RESPECTIVE WORKERS OF THE COUNTRY FOR RURAL AREAS, 1984-85.

NO.	STATE	WORKERS IN O.A.Es		WORKERS IN N.D.M.Es	
		NUMBER	PERCENTAGE	NUMBER	PERCENTAGE
1.	ANDHRA PRADESH	1521947	7.75	151139	6.42
2.	ASSAM	266107	1.35	57335	2.44
3.	BIHAR	884920	4.51	234554	9.97
4.	GUJARAT	111521	0.57	82410	3.5
5.	HARYANA	202518	1.03	21410	0.91
6.	HIMACHAL PRADESH	79050	0.4	18246	0.77
7.	JAMMU & KASHMIR	95249	0.48	20390	0.87
8.	KARNATAKA	561670	2.86	79718	3.39
9.	KERALA	467377	2.38	145204	6.17
10.	MADHYA PRADESH	680431	3.46	38388	1.63
11.	MAHARASHTRA	991944	5.05	126839	5.39
12.	ORISSA	1367901	6.97	112764	4.79
13.	PUNJAB	221290	1.13	40290	1.71
14.	RAJASTHAN	680752	3.47	58560	2.49
15.	TAMILNADU	1307326	6.66	371149	15.78
16.	UTTAR PRADESH	7680072	39.11	444744	18.9
17.	WEST BENGAL	2514138	12.8	349372	19.85
	TOTAL	19634219	100.00	2352512	100.00

TABLE NO.2.9

PERCENTAGE OF NUMBER OF WORKERS IN OWN-ACCOUNT ENTERPRISES AND  
NON-DIRECTORY ENTERPRISES TO TOTAL WORKERS FOR EACH STATE SEPARATELY  
RURAL AREAS IN, 1978-79 & 1984-85.

		R U R A L			
NO.	STATE	1978-79		1984-85	
		PERCENTAGE OF WORKERS		PERCENTAGE OF WORKERS	
		OAES	NDMES	OAES	NDMES
1.	ANDHRA PRADESH	87.92	12.71	90.97	9.03
2.	ASSAM	80.34	19.66	82.27	17.73
3.	BIHAR	93.48	6.52	79.05	20.95
4.	GUJARAT	86.23	13.77	57.05	42.49
5.	HARYANA	84.82	15.17	90.44	9.56
6.	HIMACHAL PRADESH	80.38	19.62	81.25	18.75
7.	JAMMU & KASHMIR	76.41	23.59	82.37	17.63
8.	KARNATAKA	93.99	6.01	87.57	12.43
9.	KERALA	71.79	28.21	76.3	23.07
10.	MADHYA PRADESH	91.13	8.87	94.66	5.34
11.	MAHARASHTRA	87.45	12.55	88.66	11.34
12.	ORISSA	94.08	5.91	92.38	7.61
13.	PUNJAB	86.42	13.58	84.06	15.4
14.	RAJASTHAN	89.09	10.91	92.08	7.92
15.	TAMILNADU	82.41	17.59	77.89	22.11
16.	UTTAR PRADESH	88.25	11.75	94.53	5.47
17.	WEST BENGAL	84.26	15.73	87.08	10.07
	TOTAL	86.61	13.39	89.3	10.07

TABLE NO. 2.10

PERCENTAGE CHANGE IN RURAL WORKERS IN OAEs, NDMEs AND COMBINED ENTERPRISES OVER THE TIME, 1978-79 TO 1984-85.

NO.	STATE	GROWTH OF RURAL WORKERS					
		OAEs	A.A.Gr.	NDMEs	A.A.Gr.	COMBINED	A.A.Gr.
1.	ANDHRA PRADESH	54.64	9.11	5.43	0.9	48.38	8.06
2.	ASSAM	288.54	48.09	242.13	40.35	279.42	46.57
3.	BIHAR	-7.38	-1.23	252.09	42.01	9.52	1.59
4.	GUJARAT	-38.58	-6.43	184.16	30.69	-7.89	-1.32
5.	HARYANA	36.89	6.15	-19.11	-3.18	28.39	4.73
6.	HIMACHAL PRADESH	16.55	2.76	10.21	1.07	15.3	-2.07
7.	JAMMU & KASHMIR	-5.59	-0.93	34.55	-5.76	12.42	2.07
8.	KARNATAKA	28.74	4.79	185.06	30.09	38.17	6.36
9.	KERALA	-10.05	-1.67	28.88	-4.81	-15.36	-2.56
10.	MADHYA PRADESH	-5.02	-0.87	45.06	-7.51	-8.74	-1.46
11.	MAHARASHTRA	99.05	16.58	77.82	12.97	96.79	16.13
12.	ORISSA	120.08	20.13	189.55	31.59	124.87	20.81
13.	PUNJAB	84.39	14.06	113.66	18.94	88.36	14.76
14.	RAJASTHAN	292.11	48.68	175.34	29.22	279.37	46.56
15.	TAMILNADU	38.19	6.36	83.78	13.96	46.21	7.7
16.	UTTAR PRADESH	644.82	107.47	223.09	37.32	595.36	99.22
17.	WEST BENGAL	68.26	11.36	25.21	4.2	61.48	10.25
	TOTAL	116.67	19.44	67.97	11.3	110.15	18.36

TABLE 2.11

PER ENTERPRISE ESTIMATE OF NUMBER OF PERSONS EMPLOYED, VALUE OF  
FIXED ASSETS, VALUE OF OUTPUT AND VALUE ADDED FOR OWN ACCOUNT  
ENTERPRISES AND NON DIRECTORY ESTABLISHMENTS FOR RURAL AREAS IN 1978

STATES	OAEs				NDMEs			
	NO.OF EMPLOYEES	FIXED ASSETS (Rs.)	OUTPUT (Rs.)	VALUE ADDED (Rs.)	NO.OF EMPLOYEES	FIXED ASSETS (Rs.)	OUTPUT (Rs.)	VALUE ADDED (Rs.)
1. ANDHRAPRADESH	1.56	1041	1736	1126	2.92	12214	8939	5117
2. ASSAM	1.04	1215	2877	1993	2.7	78584	12130	7678
3. BIHAR	1.54	900	2726	1420	2.66	8613	11784	5743
4. GUJARAT	1.5	2580	3165	2034	2.54	9979	11624	5818
5. HARYANA	1.42	3156	3731	2277	2.66	11822	10917	5567
6. HIMACHAL PRAD.	1.23	1942	2610	1598	2.48	11962	7921	4957
7. JAMMU & KASHMIR	1.25	2260	4035	2269	2.95	4962	10873	7447
8. KARNATAKA	2.02	2065	2160	1418	2.43	9260	8371	3592
9. KERALA	1.5	649	1984	1129	2.89	2639	8233	3710
10. MADHYA PRADESH	1.49	1384	2143	1336	2.45	8164	6607	3487
11. MAHARASHTRA	1.37	1359	2353	1458	2.23	78754	8055	4053
12. ORISSA	1.91	5.98	1431	707	2.83	6321	6321	3955
13. PUNJAB	1.35	2243	2966	2141	2.55	10931	12141	6713
14. RAJASTHAN	1.45	2237	2990	1771	2.36	11148	9009	4321
15. TAMIL NADU	1.81	824	1947	1202	3.03	8596	7467	3804
16. UTTAR PRADESH	1.48	1214	2085	1295	2.68	6365	8116	4664
17. WEST BENGAL	1.82	6420	4164	1533	3.10	4179	14014	5518
TOTAL	1.61	1172	2514	1370	2.80	7103	9557	4685

TABLE 2.12

PER ENTERPRISE ESTIMATE OF NUMBER OF PERSONS EMPLOYED, VALUE OF  
FIXED ASSETS, VALUE OF OUTPUT AND VALUE ADDED FOR OAEs AND NDMEs FOR  
RURAL AREAS IN 1978

STATES	NO. OF	FIXED	OUTPUT	VALUE	NO. OF	FIXED	OUTPUT	VALUE
	EMPLOYEES	ASSETS	(Rs.)	ADDED	EMPLOYEES	ASSETS	(Rs.)	ADDED
1. ANDHRAPRADESH	1.5	2309	4031	2729	1.99	12730	12435	7279
2. ASSAM	1.43	2209	3034	2503	2.39	7566	16730	9405
3. BIHAR	0.76	8030	5093	7956	2.7	11210	16531	7605
4. GUJARAT	0.6	6644	6931	4356	3.14	20817	1914	29458
5. HARYANA	1.46	20238	5928	3860	2.58	16124	25171	11903
6. HIMACHAL PRAD.	1.19	4707	4903	3052	2.40	16292	22119	12111
7. JAMMU & KASHMIR	0.85	4155	6353	3403	1.83	13979	20156	101173
8. KARNATAKA	1.28	3956	4101	2562	2.22	11716	14320	8171
9. KERALA	1.36	18124	4808	2889	2.84	58210	28741	10308
10. MADHYA PRADESH	0.87	2313	4207	2679	1.53	11153	14283	8076
11. MAHARASHTRA	1.27	4398	5451	1458	2.23	78754	8055	4053
12. ORISSA	1.95	2104	4501	2104	2.52	13410	10445	5670
13. PUNJAB	1.34	68925	6056	4545	2.30	74652	19478	10052
14. RAJASTHAN	1.43	7910	5972	3182	2.24	14506	15920	8098
15. TAMIL NADU	1.64	2012	4093	2415	3.06	9443	13179	6794
16. UTTAR PRADESH	1.71	2989	4089	2516	1.78	12029	14570	9056
17. WEST BENGAL	1.72	4779	8758	2973	2.07	7886	24654	8521
TOTAL	1.05	11498	6667	2817	2.34	25158	17406	15683

TABLE NO. 2.13

PERCENTAGE OF ENTERPRISES AND WORKERS FOR EACH  
INDUSTRIAL GROUPS TO TOTAL RESPECTIVE  
ENTERPRISES AND WORKERS OF THE  
COUNTRY FOR RURAL AREAS  
1978-79 TO 1984-85

	1978-79		1984-85	
	PERCENTAGE OF ENTERPRISES	PERCENTAGE OF WORKERS	PERCENTAGE OF ENTERRISES	PERCENTAGE OF WORKERS
20-21 FOOD	19.37	21.14	17.65	19.31
22 BEVERAGE AND TOBACCO	2.52	2.06	7.23	6.97
23 COTTON TEXTILES	8.48	11.64	12.96	19.48
24 WOOL	1.17	1.42	1.73	2.01
25 JUTE	0.94	2.60	0.40	0.49
26 APPAREL	17.12	16.1	17.83	14.4
27 WOOD	21.04	18.99	18.19	16.29
28 PAPER	0.16	0.19	0.15	0.20
29 LEATHER	3.39	2.74	2.85	2.12
30 RUBBER & PETROLEUM	0.61	0.47	0.14	0.18
31 CHEMICALS	0.51	87.2	0.26	0.24
32 NON-METALLIC MINERAL	7.06	7.26	5.64	7.72
33 BASIC METAL	0.19	0.20	0.11	0.09
34 METAL PRODUCTS	4.18	3.84	3.08	2.89
35 NON-ELECTRICAL MACHINERY	0.53	0.47	0.41	2.36
36 ELECTRICAL MACHINERY	0.07	0.02	0.02	0.02
37 TRANSPORT EQUIPMENTS	0.58	0.46	0.17	0.16
38 OTHERS	3.16	3.06	2.82	2.53
39 REPAIRS	9.12	6.81	8.36	4.54
TOTAL	100.00	100.00	100.00	100.00



TABLE NO. 2.14

PERCENTAGE CHANGE IN ENTERPRISES AND WORKERS IN EACH  
INDUSTRIAL GROUPS OVER SIX YEARS  
(1978-79 TO 1984-85)

INDUSTRY GROUP	PERCENTAGE OF GROWTH ENTERPRISES	A..A.Gr	PERCENTAGE OF WORKERS	GROWTH OF A..A.Gr
20-21 FOOD	111.06	18.5	75.64	12.6
22 BEVERAGE AND TOBACCO	564.09	94.15	550.4	91.73
23 COTTON TEXTILES	253.99	42.33	221.6	36.93
24 WOOL	243.05	40.58	117.56	28.59
25 JUTE	-2.10	-0.35	-63.80	-10.63
26 APPAREL	141.2	23.53	71.92	11.99
27 WOOD	100.39	16.73	64.94	10.82
28 PAPER	115.63	19.27	100.29	16.71
29 LEATHER	94.57	15.76	47.95	7.99
30 RUBBER & PETROLEUM	-48.56	-8.09	-27.42	-4.57
31 CHEMICALS	87.2	14.53	-9.7	-1.62
32 NON-METALLIC MINERAL	85.17	14.2	104.5	17.42
33 BASIC METAL	28.7	4.78	-10.99	-1.83
34 METAL PRODUCTS	70.66	11.78	45.11	7.52
35 NON-ELECTRICAL MACHINERY	81.7	13.61	45.02	7.25
36 ELECTRICAL MACHINERY	-54.68	-9.11	33.29	5.55
37 TRANSPORT EQUIPMENTS	-33.14	-5.52	-30.7	-5.12
38 OTHERS	106.84	17.8	58.53	9.75
39 REPAIRS	112.43	18.74	27.98	4.66

TABLE 2.15

RATIOS OF OUTPUT-CAPITAL, CAPITAL LABOUR AND LABOUR  
PRODUCTIVITY PER WORKER FOR EACH INDUSTRY FOR  
THE RURAL AREAS IN 1978-79

INDUSTRY GROUP	OUTPUT-CAPITAL RATIO	CAPITAL LABOUR RATIO	LABOUR PRODUC- TIVITY
20-21 FOOD	0.92	1808.12	899.96
22 BEVERAGE AND TOBACCO	1.70	651.78	1041.96
23 COTTON TEXTILES	1.07	767.20	753.45
24 WOOL	1.15	782.45	987.73
25 JUTE	2.71	68.27	114.56
26 APPAREL	0.13	2844.16	844.48
27 WOOD	0.68	497.61	822.40
28 PAPER	0.47	1794.64	1075.06
29 LEATHER	1.75	692.51	977.33
30 RUBBER & PETROLEUM	1.94	678.73	472.13
31 CHEMICALS	1.04	840.17	575.70
32 NON-METALLIC MINERAL	0.47	759.14	664.75
33 BASIC METAL	3.15	1180.54	1503.82
34 METAL PRODUCTS	0.51	765.61	971.42
35 NON-ELECTRICAL MACHINERY	0.36	1193.55	1063.51
36 ELECTRICAL MACHINERY	0.28	2535.94	2347.63
37 TRANSPORT EQUIPMENTS	0.94	1006.21	1301.76
38 OTHERS	0.74	967.72	846.94
39 REPAIRS	0.33	972.89	1190.14

TABLE 2.16

RATIOS OF OUTPUT-CAPITAL, CAPITALINTENSITY LABOUR  
PRODUCTIVITY PER WORKER FOR EACH INDUSTRY FOR  
THE RURAL AREAS IN 1984-85

INDUSTRY GROUP	OUTPUT-CAPITAL RATIO	CAPITAL LABOUR RATIO	LABOUR PRODUC- TIVITY
20-21 FOOD	0.89	7681.02	2165.7
22 BEVERAGE AND TOBACCO	0.94	2564.00	1779.4
23 COTTON TEXTILES	0.31	5700.14	1185.3
24 WOOL	1.15	2567.5	1850.9
25 JUTE	3.71	1862.2	1991.6
26 APPAREL	0.03	10224.9	2256.6
27 WOOD	0.34	10306.9	2167.4
28 PAPER	1.66	3800.1	2383.2
29 LEATHER	0.66	14001.4	4184.2
30 RUBBER & PETROLEUM	0.27	20245.5	1960.9
31 CHEMICALS	1.19	2136.7	2214.9
32 NON-METALLIC MINERAL	0.29	8196.3	1661.3
33 BASIC METAL	0.76	8489.2	3257.9
34 METAL PRODUCTS	0.24	18621.7	2704.5
35 NON-ELECTRICAL MACHINERY	0.2	32057.3	4422.9
36 ELECTRICAL MACHINERY	1.12	7781.8	4602.3
37 TRANSPORT EQUIPMENTS	0.93	9803.3	4956.8
38 OTHERS	0.38	9454.1	2555.2
39 REPAIRS	0.3	15595.3	3291.7

TABLE NO. 2.17

PER ENTERPRISE ESTIMATE OF NUMBER OF PERSONS EMPLOYED,  
VALUE OF CAPITALS, VALUE OF OUTPUT AND  
VALUE ADDED FOR EACH INDUSTRY GROUP  
FOR RURAL AREAS.

INDUSTRY GROUPS	1978-79			1984-85			OUTPUT (Rs.)	VALUE ADDED (Rs.)
	NO. OF EMPLOYEES	VALUE OF CAPITAL (Rs.)	OUTPUT (Rs.)	NO. OF EMPLOY EES	VALUE OF CAPITAL (Rs.)	VALUE ADDED (Rs.)		
20-21 FOOD	2.09	3785	3490	1.74	13381	11946	3772	
22 BEVERAGE & TOBACCO	1.57	1024	1741	1.53	3940	3721	2734	
23 COTTON TEXTILES	2.63	2020	2161	2.4	13634	4280	2835	
24 WOOL	2.33	1828	2109	1.85	4742	5442	3419	
25 JUTE	5.3	362	983	1.96	3646	13526	3889	
26 APPAREL	1.8	5132	653	1.29	13150	3895	2902	
27 WOOD	1.73	862	586	1.42	14692	5044	3089	
28 PAPER	1.35	4225	1972	2.19	8311	13765	4993	
29 LEATHER	1.55	1071	1908	1.17	16466	10871	4921	
30 RUBBER & PETROLEUM	1.47	999	1941	2.08	42071	11459	4075	
31 CHEMICALS	3.05	2565	2607	1.47	4619	5523	3262	
32 NON-METALLIC MINERALS	2.0	1498	704	2.18	17862	5157	3621	
33 BASIC METAL	1.9	2297	4935	1.34	11421	8688	4383	
34 METAL PRODUCTS	1.8	1349	688	1.05	27899	6642	4052	
35 NON-ELECTRICAL MACHINERY	1.72	2048	734	1.37	43911	8847	6058	
35 ELECTRICAL MACHINERY	0.51	1304	366	1.51	11773	13200	6963	
37 TRANSPORT EQUIPMENTS	1.53	1536	1447	1.58	15515	14479	7845	
38 OTHERS	1.86	1298	967	1.43	13483	5136	3644	
39 REPAIRS	1.43	1394	461	0.86	13467	4063	2842	

TABLE NO. 2.18

## COMPOUND GROWTH RATES - 1978-79 TO 1984-85

INDUSTRIAL GROUP	EMPLOYMENT	VALUE ADDED	CAPITAL	OUTPUT	OUTPUT CAPITAL	CAPITAL INTENSITY	LABOUR PRODUCTIVITY
20	8.38	27.32	39.10	39.04	11.76	28.26	28.29
21	12.98	26.49	44.47	38.99	9.93	31.58	23.03
22	36.63	46.61	71.76	54.64	2.62	27.44	13.92
23	21.49	31.02	69.71	38.34	0.31	60.58	13.87
24	18.12	31.15	43.99	43.86	9.33	24.43	21.79
25	-15.61	35.83	46.42	54.24	14.58	65.89	82.77
26	9.45	28.93	35.47	55.98	16.23	7.72	42.51
27	8.70	27.75	80.13	60.72	12.95	40.11	47.86
28	12.27	27.29	27.23	57.13	10.00	14.87	39.95
29	6.75	36.02	76.19	49.32	7.59	75.68	39.89
30	-5.20	20.19	66.94	20.34	27.01	33.44	26.24
31	-1.69	24.96	22.45	25.26	-2.95	32.30	27.41
32	12.66	31.24	67.49	54.44	20.75	38.09	37.08
33	-1.92	11.57	36.26	14.61	4.80	48.38	16.85
34	6.40	26.20	81.11	59.51	19.62	45.88	49.91
35	6.39	34.92	84.11	67.26	35.33	79.19	57.22
36	4.90	17.36	26.46	59.33	28.87	-9.47	51.88
37	-5.93	17.55	37.48	37.27	8.31	55.02	45.92
38	7.98	29.80	66.74	49.11	9.71	37.13	38.09
39	4.20	23.45	65.46	62.92	22.37	54.83	56.36

CHAPTER III

STRUCTURE OF UNORGANISED INDUSTRY  
A REGIONAL PROFILE

## INDUSTRIAL BASE:-

India is a land of diversities. It's economy is multiregional in character. Varieties of resource endowments in different regions, made this sub-continent varied in nature as well as it's development. Some parts of it, lag behind in resource endowments that resulted in backwardness of the particular region. This tendency made unbalanced development and consequently, brought wide regional disparities among the various regions. Locational diversification of manufacturing activity and promotion of industrial growth in backward areas have been considered as important instruments in the programme for reducing inter and intra-regional disparities in development.

In this chapter, an attempt has been made to study the comparative assessment of the industrial base of different regions in unorganised sector of rural India using location quotient techniques. In a multiregional economy, a region would tend to specialise in those industries for which it has some comparative advantage over other regions. Thus, for a proper understanding of economic structure of a particular region and to make inter-state comparisons, industrial base studies are useful. Industrial base is calculated with the help of Location Quotients. Location Quotient indicates the degree of relative concentration of an industry and broadly conveys an idea about the industrial base of a particular region. It is defined as the ratio of proportional share of employment of a particular industry in the total workers employed in a particular region and the

proportional share of employment in that particular industry of the regions in the total working population. If the value of Location Quotient is more than one, it indicates higher concentration of that particular industry than other industries in a particular region. A Quotient value equal to one, indicates that a particular region has neither less nor more of the industry than its overall volume of manufacturing in the country as a whole. A quotient value less than one advocates that an industry is less developed than manufacturing in general, of a particular region.

In this study, the Location Quotient is found out for employment and value added separately for seventeen major states of India. Value added is taken because it suggests the income concentration rather than employment. To measure the comparative advantage of a region, for a particular industry, it is essential to consider its income generation capability which ultimately determines the level of value added is the difference between total output and total input of an industry. It can be considered as one of the scales of economic returns.

In present study, Location Quotients of the major industrial groups for the rural areas of each state have been found out separately for employment and value added. Industrial groups which are showing Location Quotient values more than one, indicate that these are highly concentrated than other industries in a particular region. Those industries having Location Quotient values more than one



are generally said to form the industrial base of the region. The related data has been shown in Appendix 1 to 4, which has been attached in the last part of the dissertation. Only five industries are to be considered according to ranking system, for the convenience of interpretation.

Andhra Pradesh:- As the data of Andhra Pradesh in the year of 1978-79 for employment shows, there are eight industrial groups which form the industrial base, in which, five industrial group have been ranked according to descending order in the text table. These major industrial groups are

Repairs, Non-electrical machinery, Transport equipments, Electrical machinery and Leather. First three industrial groups show Location Quotients value of more than 2. It means the distribution of these three industries are very highly concentrated in this region. For value added, Location Quotient values are more than one in five industrial groups. These are Basic Metal, Leather, Beverage & Tobacco, Metal products and Wood industry. In 1984-85 for employment in the rural areas of Andhra Pradesh five industries have been ranked in descending order. These are Leather, Non-metallic mineral, Apparel, Repairs and Metal products. Value added concentration is more in Leather, Non-metallic mineral, Rubber & Petroleum, Metal products and Wood industry. Leather and Non-metallic mineral occupy first and second places respectively in both the variables of employment as well as value added.

**Assam:-** In 1978-79, the Location Quotient value of employment for rural areas of Assam shows higher value in Basic metal, Leather, Metal product, Apparel and Non-metallic mineral industry. All of them have more than one value of Location Quotient and possess the characteristic of base industries. In the case of value added the five industries have been ranked in descending order. These are Repair followed by Chemicals, Transport equipments, Basic metal and Food industry. Concentration of value added is more than one in these industries. In 1984-85 the scenario is different than that of 1978-79. The five base industries according to highest rank for employment are. Paper industry occupying the first position followed by Basic metal, Wood, Repair and Cotton textile. However, Wood and Textile industry emerged for the first time. In case of value added the five top ranked industries are Paper industry followed by Basic metal, Food, Repairs and Wood. Both in term of employment as well as value added Paper industry occupies first rank.

**Bihar:**

In 1978-79 the top five base industries are Leather, closely followed by Beverage & Tobacco, Non-metallic mineral, Food product and others. Beverage & Tobacco occupies second rank because north Bihar experiences good cultivation of Tobacco. In terms value added the five top ranked industries are Beverage & Tobacco followed by Food, Non-metallic mineral, Non-electrical machinery and Wood

industry. Beverage & Tobacco occupies first rank in terms of value added whereas second in employment.

In 1984-1985 the five top base industries are Beverage & Tobacco, Basic metal, Repair, Non-electrical machinery and Metal products. Beverage & Tobacco occupies first rank in 1984-85 while it was on second position in 1978-79. For the value added, five industries are ranked as Non-metallic mineral followed by Beverage & Tobacco, Food, Others and Wood industry.

Gujarat: Gujarat is industrially developed state. Concentration of Cotton Textile industry and various Processing Oilseed industries are very dominant in nature. In 1978-79, in rural area of Gujarat, the position of unorganised sector is not very significant. But still some industries are leading in term of Employment. Five more concentrated industries are Basic metal, Repair, Transport equipments, Non-metallic mineral and Cotton Textile. For value added the five other industrial groups ranked are Non-electrical machinery, Others, Leather, Paper and Non-metallic mineral.

In 1984-85 the five top basic industrial groups are ranked as Leather, Repair, Food, Apparel and Non-electrical machinery for employment. In term of value added, these are Others, Chemicals, Electrical machinery, Apparel and Non-electrical machinery.

Haryana: Although the proportion of unorganised

industries in Haryana is comparatively less in terms of total number of enterprises and employment, the dominant industrial groups forming industrial base of the rural part of Haryana should be looked into. In 1978-79 the five top ranked industrial groups are Rubber&petroleum, Chemical, others, Transport equipments and Non-electrical machinery in term of employment. For the value added the five top ranked industrial groups are Chemical,Leather,Repair, Non-electrical machinery and Metal products. Chemical industry has highest concentration of value added.

In 1984-85 the scenario has changed now the five leading top five base industries are Repairs,Non-electrical machinery,Wool,Leather and Metal products. For value added the five base industries are Repairs,Non-electrical machinery, Apparel, Leather and Food industry. Repair industry occupies first rank in both for employment and value added.

Himachal Pradesh: Himachal Pradesh has least developed unorganised sector in rural areas.Because the proportion of enterprises and employment is not very high.In 1978-79 the five top base industries are Wool, Chemicals, Food, Metal products and Non-metallic minerals. For value added these five industrial groups are Wool, Metal products,Food,Wood and Rubber & petroleum . Wool occupies first rank in both employment and value added.

In 1984-85, the first rank is occupied by Leather industry, followed by Metal products, Food, Repairs and Wool

industry. For value added, the five top industrial groups are Chemicals followed by Metal products, Leather, Wool and Apparel industries.

Jammu & Kashmir: Jammu & Kashmir is known for Wool industry. In 1978-79, the top five industrial groups are ranked in which Wool industry occupies the first rank, followed by Non-electrical machinery, Repair, Food and Transport equipments. In terms of value added the five industries are grouped the following way. The Apparel industries is placed at the top rank followed by Wool, Food, Basic metal and Non-metallic mineral. In 1984-85, the Wool industry again occupies top position followed by Apparel, Metal products, Electrical machinery and Food industry. Wool industry shows dominant feature in Jammu & Kashmir. For value added purpose the top five industrial groups are Electrical machinery, Wool, Apparel, Food and Metal products. Except forest resources, the state is poor in other resources. Some traditional industrial groups are present almost regularly such as Wool, Apparels and Wood industries.

Karnataka: Karnataka is a state of natural and mineral resources endowment. 20 percent of the state is under cover of forest, it is natural to find Wood & wood products group as a part of industrial base. In 1978-79, the top five industrial groups are being ranked. The Cotton textile occupies the top rank followed by Wood, Apparel, Non-metallic mineral and Metal products. In terms of value added Jute industry occupies first rank followed by Cotton

textile, Metal products, Wood and Wool industry.

For the year of 1984-85, the previous structure is changed completely. Now the first rank is occupied by Leather industry, followed by Wool, Transport equipments, Chemicals and Non-electrical machinery. The value added criteria is shown in appendix, in which Wool industry occupies first rank followed by Transport equipments, Leather, Chemical and Apparel industry. Diversified feature of industries under unorganised sector is found in this state.

**Kerala:** In 1978-79, the five top ranked industrial groups are Electrical machinery, Paper, Beverage & Tobacco, Basic metal and Apparel. For value added purpose, the other five industrial groups are Chemicals, Paper, Basic Metal, Electrical machinery and wood products. As Kerala has got abundance of cash crops and it has well known Varieties of timber in its forests, employment problem in rural areas can be eased if above mentioned resources can be exploited fully. But a matter of concern is that these industries are less as compared to other in terms of value added. In 1984-85, Electrical machinery has got the same position as before, followed by Paper, Chemical, Basic metal and Apparel industry. In term of value added the Rubber & petroleum industry occupies the first rank, followed by Electrical machinery, Paper, Chemical and Basic metal. However, Rubber is grown in the state. But in the term of employment it does not take any place among top five industries.

**Madhya Pradesh:** Madhya Pradesh is the largest state of India in term of area. The state is covered under forests and constitutes 32 percent area itself. In spite of a vast resources of forest it could not take place among five top industrial groups. In 1978-79, the top five industrial groups are Non-electrical machinery, followed by Leather Repairs, Non-metallic mineral and Metal product. In term of value added the other five groups of industry are Leather, Transport equipments, Non-electrical machinery, Non-metallic mineral and Metal product.

In 1984-85, the five industries are ranked. These are Beverage & Tobacco, Basic Metal, Leather Rubber & Petroleum and Metal products in term of employment. In term of value added other five groups are Basic metal, Beverage & Tobacco, Non-electrical machinery, Metal product and Leather industry.

**Maharashtra :** Maharashtra is the leading industrial state of India. However in unorganised sector there are only six industrial groups, which form the industrial base. The five ranked industrial groups are placed in the table. These are Metal products, Non-metallic mineral, Apparel, Wood and Leather products in term of employment. In term of value added Paper industry occupies first rank followed by Transport equipments, Leather, Apparel and Wood products.

In 1984-85, the scenario has changed. Now Electrical machinery occupies the first rank in term of employment, followed by Transport equipments, Basic metal Leather and

Beverage & Tobacco. Basic metal industry is the major one, because it also occupied the second rank in 1978-79. In term of value added the five industrial gorups are arranged. Transport & equipments industry occupies first position, followed by Electrical machinery, Basic metal, Rubber & Petroleum and Paper industry.

**Orissa:** Out of five ranked industrial gorups only two industrial groups form industrial base. These are Apparel and Food products (21). Other ranked industrial groups are Basic metal, Metal products and Food products(20). Orissa is industrially backward state but is endowed with varied natural resources. The state is rich in minerals. As these industries are generally Capital intensive, their employment potential is less. Development of agriculture may create more employment opportunities in future through labour intensive agro based industries. In term of value added five goups of ranked industries each possesses industrial Base status. These are Jute industry followed by Basic metal, Food, Wood and Non-metallic mineral.

In 1984-85, the significant changes in industrial structure is found out. Six industrial groups of industrial Base status is recorded, five of them are arranged in ranking order. These are Wood, Food(21), Metal products, Non-metallic mineral and Others. Wood products occupies the first rank among five industrial groups .In term of value added the different five industrial groups are ranked . These are Chemicals, Wood, Non-metallic mineral, Metal products and Food (21) industry. Wood products still has good position in term of employment as well as value added.



**Punjab:** Punjab is the most developed state in India and its per capita income is the highest one. However, industrial development lags behind agricultural development. Only five industrial groups form base industry in 1978-79. These are Cotton industry followed by Food(20), Wood products, Non-metallic mineral and Metal products. The Cotton industry shows dominance in unorganised sector in term of employment. In term of value added the five ranked industrial groups are Non-metallic mineral, Rubber, Transport equipments, Leather and Food (20) products. In 1984-85, the situation is changed. Repairs industry occupies the first rank among five industrial groups closely followed by Leather, Apparel, Electrical machinery and Non-electrical machinery. In term of value added, Rubber industry is leading followed by Non-electrical machinery, Food(20), Leather and Apparel industry. Repair industry is leading among unorganised industries in term of employment and value added. In spite of agriculturally advanced state the Food product occupies third rank in unorganised sector. The proportion of unorganised enterprises to total unorganised enterprises of seventeen states is very low. Similarly rural employment in unorganised sector is also low in comparison to total rural employment in unorganised industries.

**Rajasthan:** Industrial base in unorganised sector of Rajasthan comprises of seven industrial groups but five of them are ranked. These are electrical machinery, Apparel, Wool, Rubber & Petroleum and Chemicals. In term of value

added, Leather industry occupies the first position followed by Other, Non-electrical machinery, Non-metallic mineral and repair industry. In 1984-85, Rubber & petroleum occupies the first rank followed by Wool, Basic metal, Transport equipments and Repair. In term of value added, Leather industry comes first in the rank of top five industrial base industries groups, followed by Wool, Transport equipment, Repairs and Non-metallic mineral. Apparel, Wool and Leather industries are very important industrial groups, which can be enhanced by the policy of state Government as well as Central Government. Because these state fall under arid zone and cultivation of agricultural crops are not possible except some areas. However, the construction of Indira Canal will be more useful for agriculture in the long run. Some part of Rajasthan, especially north-western part, are under cover of complete sand-dunes. Even drinking water is not available. In such a situation unorganised sector will be useful for the people to sustain their life.

**Tamil Nadu:** Tamil Nadu is the peninsular state of India. Coastal area experiences continental type of climate. South-West monsoon does not affect this state because of leeward location of Western Ghat. North-west retreating Monsoon, in the month of October and November, brings good rainfall over the coastal belt. Basically, the state experiences good agriculture and crop-yield. The State possesses 9.55 per cent enterprises in unorganised sector. The proportion of rural employment in this sector is also similar as enterprises. There are twelve industrial groups in unorganised sector, that possess the status of industrial

base. Five of them are ranked. These are Leather industry, followed by Transport equipments, Non-electrical machinery, Cotton textile and Metal products. In term of value added, these are Transport equipments, Cotton textile, Others, Chemicals and Wood industry. In 1984-85, the five ranked industrial groups are Chemicals, Other, Transport equipments, Beverage & Tobacco and Repair term of value added, Chemicals industry occupies the first rank followed by Transport equipments, Rubber and Petroleum Beverage and Tobacco and Metal Product. Chemicals, Beverage & Tobacco and Rubber & Petroleum are leading industrial groups of the state.

**Uttar Pradesh:** Uttar Pradesh is the most populous state of India. Indo-Gangetic plain crosses west to east of the state, consequently its maximum area is covered under Indo-Gangetic Plain. Agriculture is the main occupation and varied crops are being sown in this plain. According to 1984-85 it possesses maximum proportion of enterprises and employment in unorganised sector. In 1978-79 it was on second rank just after West Bengal. In this year eleven industrial groups form the status of Industrial base. Five ranked industrial groups are Wool industry, followed by Transport & equipments, Food (21), Apparel and Leather. In term of value added, these are Non-electrical machinery, Wool, Metal products, Repairs and Apparel industry.

In 1984-85, the situation has changed. Only three industrial groups form industrial base. However, five industrial groups are ranked in descending order. These are

Cotton textile, Jute, Food (21), Non-electrical machinery and Apparel. Cotton textile, Jute and Food products (21) form industrial-base, remaining two industrial groups have least proportion of industrial concentration in comparison to the seventeen major states. In terms of value added, Jute industry occupies first rank followed by Cotton textile, Non-electrical machinery, Apparel and Food(20) products.

**West Bengal:** West Bengal Constitutes 11.08 per cent share of enterprises to total rural enterprises of seventeen major states. More than 13 per cent proportion of rural workers are involved in these enterprises. Jute industry takes the first position in ranking order, followed by Beverage & Tobacco, Food (20), Basic metal and Cotton textile. In terms of value added, Electrical machinery is the leading one followed by Rubber and Petroleum, Wool, Beverage and Tobacco and Paper industry. Jute is the leading industry of Unorganised sector in term of employment. In 1984-85, Jute industry is replaced by paper industry closely followed by Food (20), Jute, Beverage & Tobacco and Wool industry. In terms of value added the other five ranked industrial groups are Wool industry, followed by Paper, Food(21), Food (20) and Beverage and Tobacco.

It is natural to find Jute, hemp and mesta dominating the base scene, jute is governed extensively in West Bengal. It seems that industrial base can be expanded in rural areas, because of backward linkage effect of big industries

as well as agriculture.

#### Locational spread of Rural industries:-

Location of a particular industry depends mainly upon the availability of raw materials and factors of production. But there are some exceptional industrial groups, that violate the general rule of industrial location. To understand the feature of industrial concentration of a particular industry or its diversified nature, the study of each industrial group is essential. So Localisation Co-efficient helps in study of spatial spread of each industrial group. It indicates, whether a particular industry is widely spread, dispersed or concentrated in few places. Higher the value of Localisation Co-efficient, higher is the concentration of a particular industry and lower value indicates wider spread of an industry. It can be defined as half of the sum of the absolute difference between the regional proportions of workers in the particular industry and the corresponding regional proportion of workers in all the industries. Table 3.3 shows the Co-efficient of Industrial Localisation in the rural area for 1978-79 and 1984-85. The value of Localisation Co-efficient is ranked. Ranking is done in reverse order, meaning there by, lower the value of industrial group, wider will be the spread of that particular industry.

For the analysis purpose, the entire industrial groups are categorised in to three. The major group having

Localisation Qco-efficient 0 to 20 has been placed under diversified category or wider spread of industrial groups. The group having value from 20 to 40 has been categorised as "moderately concentrated" and above 40 under "highly concentrated".

In 1978-79, only two industrial groups come under the category of diversified industries. These are Wood products and Non-metallic mineral. The constituent of Wood products are furniture and fixtures. However, it includes entire handiwork of wood and bamboo products. Madhya Pradesh has largest area under of forest cover. Each state has some area under forest cover. Thus raw material is easily available for this industries. Non-metallic mineral products includes manufacture of stone goods, stone crushing, manufacture of earthen and plaster statues and other products, asbestos, cement and other cement Product, slate, graphite, mineral Wool, silica and other metallic mineral products. Entire products are based on locally available raw material.

Nine industrial groups are moderately concentrated. These are Repairs, Food (20), Metal product, Wearing Apparel, Basic metal, Other manufacturing, Food (21), Cotton textile and Wool, Silk & Synthetic fibres It is found that in almost all the above mentioned industries' Capital/Labour ratio is comparatively low. This is the main reason of their being moderately spread out. Besides this, most of these are agro-based.

Remaining nine industrial groups are highly concentrated. These are Paper & paper products, Beverage & Tobacco, Non-electrical machinery, Transport equipments, Chemical products, Leather products, Electrical machinery, Rubber & Petroleum and Jute textile industry. All these industrial groups are concentrated in few pockets of the country, because of availability of raw materials and skilled labour. Basic infra-structural facility is also required for these industrial groups. Forward & backward linkages of these industrial groups with the Urban centres are essential. In this way, their concentration in few pockets can be justified.

In 1984-85, the situation is changed. There happens a major upheaval in categorisation. Various industrial groups come under the category of diversified industrial groups. These are; Wearing apparel; Non-electrical machinery; Food (20) and Metal products. This shows the tendency of a particular industrial group to be diversified in the long run. It is a good symbol for industrialisation.

Out of 20, 8 industrial groups are moderately concentrated. These are Wood products, Food (21), Other manufacturing, Basic metal, Repair, Wool, Silk & Synthetic fibres Jute textile and Beverage & Tobacco. Most of industrial groups which were in highly concentrated category in 1978-79 are now in moderately concentrated category. These industries are Beverage & Tobacco and Jute industry.

Seven industrial-groups are highly concentrated and

there Their locations are in few pockets of the country. These are Cotton textile, Transport equipments, Electrical machinery, Leather products, Paper and paper products, Chemical products and Rubber & Petroleum.

Chemical products and Rubber & Petroleum are highly concentrated industries having the higher value of Localisation Coefficient. The above analysis is based on the involvement of rural workers in Industrial groups and accordingly it's spatial distribution over the space. Further result is based on Value added concentration. Three categories of classification is being applied as per employment. Value from 0 to 20 Indicates show the lower concentration of value added; Value, having 20 to 40, moderately concentration of value added and the value above 40 constitutes higher concentration of value added.

In 1978-79, there are six industrial groups that constitute low concentration of value added industries. These industrial groups are Food (20), Wood products; Repairs, Non-metallic mineral, Wearing apparel and Metal products. These industries are of low concentration of value added.

Six industrial groups constitute moderate concentration of value added. These are Other manufacturing, Food (21), Basic metal, Paper & paper products, Cotton textile and Non-electrical machinery.

Out of 20, 8 industrial groups highly value added. These are Wool, Silk and Synthetic fibres, Chamical



products, Transport equipments, Beverage & Tobacco; Rubber & Petroleum; Leather products; Electrical machinery and Jute textile.

In 1984-85, out of 20 industrial groups, six are of low value adding. These are Food (20), Repairs, Wood products, wearing apparel, Metal products and Food (21) products industry.

Moderate value added are found in Non-electrical machinery, other manufacturing, Non-metallic mineral, Rubber & Petroleum Wool Silk and Synthetic and cotton textile industries. High proportion of value added are found in eight industrial groups. These are Beverage & Tobacco, Basic metals, Chemical products Jute textile Leather products Paper & paper products, Electrical machinery and Transport & equipments.

#### Profiles of Rural Industrial Specialisation :-

Industrial pattern has been broadly analysed on the basis of industrial groups in previous topic. This analysis is not upto-mark.

To make inter-regional comparisons easier and more analytical, it is necessary to know the pattern of distribution of different types of industrial units in a particular region. It indicates the structure of industries of a particular region in relation to that of a whole (seventeen major states).

Specialisation coefficient indicates the pattern of distribution of different industries in a particular region. The regions, having only one or two types of industries, are called highly specialised regions and the regions, having different types of industries, are called diversified region. It gives value for different regions, which in the present case are rural areas of seventeen major states. Broadly, it indicates the degree of specialisation or diversification of industrialisation. Higher the value of this coefficient, higher will be the specialisation and vice versa.

Table 3.3 deals with the inversely ranked value of specialisation coefficient in the rural sector. Higher rank indicates high specialization of industry in the particular region and vice versa. For analytical purpose, these values are categorised in three major groups. Coefficient value showing more than 40 have only one or two types of industrial groups. In other words, industrial pattern is not diverse. Coefficient value lying between 30 to 40 are moderately specialised. Lastly, states showing coefficient value between 20 to 30 are least specialised, which means the states have diverse nature of industrial groups.

Here table shows that in unorganised sector, Haryana and Jammu & Kashmir are highly specialised states. It shows that factors of production are not suitable for the growing up of different types of industries in these states or different types of raw materials are not available. In other way it can be said that traditional pattern of industries

are found here without using new technology as mode of production. However, one of the progressive and highly agricultural states, Haryana specialises mainly in metal based industries, whereas agrobased industries, are supposed to be seen for agricultural advancement. In Jammu & Kashmir only traditional industries are found, despite changing technologies and changing demand patterns.

Seven states fall in the category of in moderately specialised groups. These are Andhra Pradesh, Madhya Pradesh, Rajasthan, Punjab, Kerala, Himachal Pradesh and Karnataka. Industries of diverse pattern are found in Tamil Nadu, Assam, West Bengal, Orissa, Bihar, Maharashtra, Uttar Pradesh and Gujarat as coefficients for these states are between 20 to 30.

Similar method has been applied in value added terms. Only the value of three categories have been changed. Higher value indicates higher concentration of value added in one or two industrial groups. Lower value indicates diversified value added pattern, which means the value added is spread out in each industrial group in a particular region. The value greater than 30, signifies higher concentration of value added in few industrial groups. The value of 20 to 30 indicates moderate concentration in terms of value added in industrial groups. It means some industrial groups have more value added and other have less. Here distribution of value added is larger than previous one. Value below 20 indicates a diversified spread of value added in all industrial groups.

Jammu & Kashmir, Haryana and Gujarat depict highly concentrated value added in few industrial groups. It shows that one or two industrial groups occupy high concentration of value added. Jammu & Kashmir and Haryana are the highly specialised states, where industrial pattern is not diverse. Gujarat is in value added terms. Eleven states are considered as examples of moderately distribution of value added. These are Himchal Pradesh, Punjab, Orissa, West + Bengal, Bihar, Karnataka, Rajasthan, Kerala, Andhra Pradesh, Tamil Nadu and Assam.

Maharashtra, Uttar Pradesh and Madhya Pradesh are the state of value added. Here the value added is diversified among all the industrial groups. In other ways it can be said that all industrial groups are advantageous and profitable. Diversified nature of value added is good indicator of economic development. Every industrial group of these three states are fully advantageous in spreading it's scope.

Table 3.1

THE DOMINANT INDUSTRIES OF THE RURAL SECTOR: 1978-79  
(For Employment)

	Rank I	Rank II	Rank III	Rank IV	Rank V
All India	27	26	20	23	32
Absolute Criteri	(18.98%)	(16.1%)	(14.9%)	(11.64%)	(7.26%)
1. Andhra Prades	26	27	23	32	20
Absolu	(23.57%)	(20.86%)	(11.79%)	(9.44%)	(7.89%)
Criter	39	35	37	36	29
L.Q. Criter	(3.9)	(3.11)	(2.03)	(1.64)	(1.3)
2. Assam	27	26	20	39	23
Absolut	(20.88%)	(15.92%)	(14.75%)	(14.13%)	(13.93%)
Crit	33	39	34	26	32
L.Q. Criter	(2.62)	(1.83)	(1.5)	(1.46)	(1.3)
3. Bihar	20	27	21	32	34
Absolute Criteria	(22.53%)	(19.71%)	(13.49%)	(12.28%)	(6.59%)
Criteria	29	22	35	21	38
L.Q. Criteria	(5.38)	(3.19)	(2.83)	(2.16)	(1.75)
4. Gujarat	26	20	23	27	32
Absolute	(21.34%)	(15.65%)	(14.53%)	(12.26%)	(12.12%)
Criteria	33	39	37	32	23
L.Q. Criteria	(4.19)	(2.07)	(1.97)	(1.8)	(1.25)
5. Haryana	39	26	20	32	29
Absolute crit	(20.71%)	(17.88%)	(15.65%)	(13.13%)	(9.31%)
L.Q..Criteria	30	31	38	37	35
	(6.19)	(3.83)	(3.63)	(2.11)	(1.16)
6. Himachal Pradesh	20	32	26	27	34
Absolute criteria	(34.4%)	(14.31%)	(14.04%)	(13.8%)	(8.12)
criteria	24	31	20	34	32
L.Q. criteria	(4.07)	(2.92)	(2.31)	(1.72)	(1.69)
7. J&K	26	20	27	24	39
Absolute	(42.15%)	(21.56%)	(10.98)	(7.36)	(7.06)
Criteria	24	35	39	20	37
L.Q. criteria	(5.18)	(2.37)	(1.63)	(1.45)	(1.36)
8. Karnatiaka	23	27	26	32	34
Absolute	(36.74%)	(21.99%)	(13.02%)	(7.91%)	(4.07%)
Criteria	23	29	32	24	39
L.Q.criteria	(3.16)	(1.84)	(1.67)	(1.64)	(1.49)

9. Kerala	26	27	20	39	21
Absolute	(38.2%)	(26.75%)	(12.77%)	(3.77%)	(3.16%)
Criteria	36	28	22	33	26
L.Q.Criteria	(3.38)	(3.14)	(1.31)	(1.10)	(0.98)
10. Madhya Pradesh	27	29	26	32	39
Absolute	(23.42%)	(13.66%)	(12.17%)	(9.68%)	(8.21%)
Criteria	35	29	39	32	34
L.Q.Criteria	(4.04)	(3.4)	(3.05)	(1.81)	(1.48)
11. Maharashtra	26	27	20	32	39
Absolute	(26.39%)	(23.64%)	(10.45%)	(10.09%)	(9.51%)
Criteria	34	32	26	27	29
L.Q.Criteria	(2.12)	(1.97)	(1.87)	(1.73)	(1.61)
12. Orissa	25	27	21	20	32
Absolute	(30.13%)	(23.26%)	(14.16%)	(12.02%)	(5.95%)
Criteria	26	21	33	34	20
L.Q.Criteria	(2.62)	(2.27)	(0.92)	(0.82)	(0.81)
13. Punjab	39	20	23	26	27
Absolute	(26.55%)	(18.11%)	(16.62%)	(13.58%)	(11.78%)
Criteria	23	20	27	32	34
L.Q.Criteria	(1.43)	(1.22)	(1.16)	(1.09)	(1.06)
14. Rajasthan	26	29	32	20	27
Absolute	(22.57%)	(14.72%)	(11.06%)	(10.64%)	(10.63%)
Criteria	36	26	24	30	31
L.Q.Criteria	(3.23)	(2.37)	(2.31)	(2.02)	(1.77)
15. Tamil Nadu	23	27	38	20	26
Absolute	(28.38%)	(17.13%)	(11.14%)	(10.97%)	(7.14%)
Criteria	29	37	35	23	34
L.Q. Criteria	(4.99)	(3.88)	(2.94)	(2.44)	(1.86)
16. Uttar Pradesh	26	27	23	20	21
Absolute	(16.93%)	(14.46%)	(13.27%)	(12.44%)	(11.54%)
Criteria	24	37	21	26	29
L.Q. Criteria	(2.44)	(2.33)	(1.85)	(1.65)	(1.56)
17. West Bengal	20	27	26	23	21
Absolute	(27.43%)	(16.41%)	(15.77%)	(15.07%)	(6.39%)
Criteria	25	22	20	33	23
L.Q. Crit.	(11.58)	(2.05)	(1.84)	(1.51)	(1.29)

Table 3.2

THE DOMINANT INDUSTRIES OF THE RURAL SECTOR:-1984-85

(For employment)

	Rank I	Rank II	Rank III	Rank IV	Rank V
All India	23	27	26	20	32
Absolute Crit.	(19.48%)	(16.29%)	(14.4%)	(12.56%)	(7.72%)
1. Andhra Pradesh	26	27	32	23	29
Absolute	(24.3%)	(18.58%)	(18.54%)	(10.65%)	(5.96%)
Criteria	29	32	26	39	34
L.Q. Criteria	(3.61)	(2.4)	(1.69)	(1.58)	(1.29)
2. Assam	27	23	20	26	39
Absolute	(26.53%)	(26.39%)	(15.19%)	(11.33%)	(6.57%)
Criteria	28	33	27	39	23
L.Q. Criteria	(3.36)	(2.98)	(1.63)	(1.45)	(1.36)
3. Bihar	27	22	20	32	26
Absolute	(19.34%)	(17.73%)	(16.21%)	(9.66%)	(9.47%)
Criteria	22	33	39	35	34
L.Q. Criteria	(2.54)	(1.7)	(1.65)	(1.42)	(1.41)
4. Gujarat	26	20	27	39	32
Absolute	(23.09%)	(22.89%)	(13.77%)	(12.0%)	(6.57%)
Criteria	29	39	20	26	35
L.Q. Criteria	(2.83)	(2.65)	(1.82)	(1.6)	(1.59)
5. Haryana	39	26	20	24	32
Absolute	(32.23%)	(12.74%)	(10.95%)	(8.18%)	(8.11%)
Criteria	39	35	24	29	34
L.Q. Criteria	(7.11)	(4.78)	(4.08)	(2.81)	(2.79)
6. Himachal Pradesh	20	27	26	29	34
Absolute	(26.95%)	(20.44%)	(15.27%)	(8.5%)	(8.49%)
Criteria	29	34	20	39	24
L.Q. Criteria	(5.15)	(2.93)	(2.14)	(1.65)	(1.52)
7. Jammu & Kashmir	26	20	27	24	34
Absolute	(46.57%)	(14.64%)	(12.36%)	(10.42%)	(5.42%)
Criteria	24	26	34	36	20
L.Q. Criteria	(5.19)	(3.23)	(1.87)	(1.5)	(1.17)
8. Karnataka	27	26	29	24	39
Absolute	(25.46%)	(20.8%)	(9.9%)	(8.29%)	(6.46%)
Criteria	29	24	37	31	35
L.Q. Criteria	(5.99)	(4.13)	(3.92)	(2.74)	(2.54)

Table 3.2

THE DOMINANT INDUSTRIES OF THE RURAL SECTOR: -1984-85

(For employment)

	Rank I	Rank II	Rank III	Rank IV	Rank V
All India	23	27	26	20	32
Absolute Crit.	(19.48%)	(16.29%)	(14.4%)	(12.56%)	(7.72%)
9. Kerala	27	26	22	20	23
Absolute	(33.58%)	(29.84%)	(6.82%)	(6.54%)	(4.71%)
Criteria	36	28	31	33	26
L.Q. Criteria	(6.17)	(3.59)	(3.09)	(3.02)	(2.07)
10. Madhya Pradesh	22	27	26	20	39
Absolute	(27.06%)	(16.55%)	(11.65%)	(7.38%)	(6.00%)
Criteria	22	33	29	30	34
L.Q. Criteria	(3.88)	(3.07)	(2.97)	(2.6)	(2.00)
11. Maharashtra	26	27	22	20	32
Absolute	(24.74%)	(22.34%)	(12.2%)	(11.5%)	(7.17%)
Criteria	36	37	33	39	22
L.Q. Criteria	(7.28)	(4.83)	(1.83)	(1.8)	(1.75)
12. Orissa	27	20	21	23	32
Absolute	(32.72%)	(11.97%)	(10.85%)	(10.41%)	(10.15%)
Criteria	27	21	34	32	38
L.Q. Criteria	(2.01)	(1.61)	(1.35)	(1.31)	(1.24)
13. Punjab	26	39	20	23	27
Absolute	(27.42%)	(22.84%)	(13.59%)	(11.79%)	(9.38%)
Criteria	39	29	26	36	35
L.Q. Criteria	(5.04)	(2.01)	(1.9)	(1.8)	(1.6)
14. Rajasthan	26	27	30	24	20
Absolute	(19.9%)	(15.81%)	(13.89%)	(12.35%)	(11.25%)
Criteria	30	24	33	37	39
L.Q. Criteria	(22.02)	(6.15)	(1.69)	(1.69)	(1.62)
15. Tamil Nadu	27	23	22	26	32
Absolute	(19.52%)	(14.96%)	(14.05%)	(10.61%)	(9.04%)
Criteria	31	38	37	22	39
L.Q. Criteria	(7.63)	(3.37)	(2.86)	(2.01)	(1.35)
16. Uttar Pradesh	23	26	20	21	27
Absolute	(42.01%)	(12.64%)	(10.39%)	(10.38%)	(7.02%)
Criteria	23	25	21	35	26
L.Q. Criteria	(2.16)	(1.82)	(1.54)	(0.94)	(0.88)
17. West Bengal	20	27	26	22	21
Absolute	(27.47%)	(20.08%)	(9.53%)	(9.24%)	(7.7%)
Criteria	28	20	25	22	24
L.Q. Criteria	(4.03)	(2.19)	(1.73)	(1.33)	(1.26)



Table 3.3

CO-EFFICIENTS OF INDUSTRIAL LOCALISATION IN THE RURAL SECTOR  
For Employment (1978-79) - (1984-85)

Ind-Group Number & Names	(1978-79)		(1984-85)	
	Household Segment	Rank	Household Segment	Rank
20. Slaughtering, Preservation of Meat Diary products, Vegetables, Fish, grains mills, bakery, products, Sugar factories, Confectionary, Cocoa, Chocalate	21.32	IV	19.2	IV
21. Oil, Vanaspati, Edible Oils, Tea Processing, Coffee processing, ice products, cashewnut, processing, animal fodders	31.29	IX	25.63	VII
22. Beverage & Tobacco	41.81	XIII	38.47	XIII
23. Cotton Textiles	31.60	X	40.47	XIV
24. Wool, Silk & Synthetic fibres	32.93	XI	36.82	XI
25. Jute Textiles	80.46	XX	38.25	XII
26. Wearing Apparel	22.21	VI	16.68	II
27. Wood Products	9.83	I	21.11	VI
28. Paper & Paper products	41.67	XII	51.26	XVIII
29. Leather Products	54.69	XVII	49.97	XVII
30. Rubber & Petroleum	61.45	XIX	73.78	XX
31. Chemical products	53.05	XVI	59.64	XIX
32. Non-Metallic Minerals	19.66	II	16.51	I
33. Basic Metals	26.99	VII	27.58	IX
34. Metal Products	21.74	V	19.42	V
35. Non-electrical Machinery	43.46	XIV	18.59	III
36. Electrical Machinery	59.57	XVIII	49.64	XVI
37. Transport Equipment	45.39	XV	46.02	XV
38. Other Manufacturing	31.09	VIII	27.42	VIII
39. Repair	20.57	III	29.18	X

Table 3.4

CO-EFFICIENTS OF INDUSTRIAL SPECIALISATION IN THE RURAL SECTOR  
For Employment - (1978-79) - (1984-85)

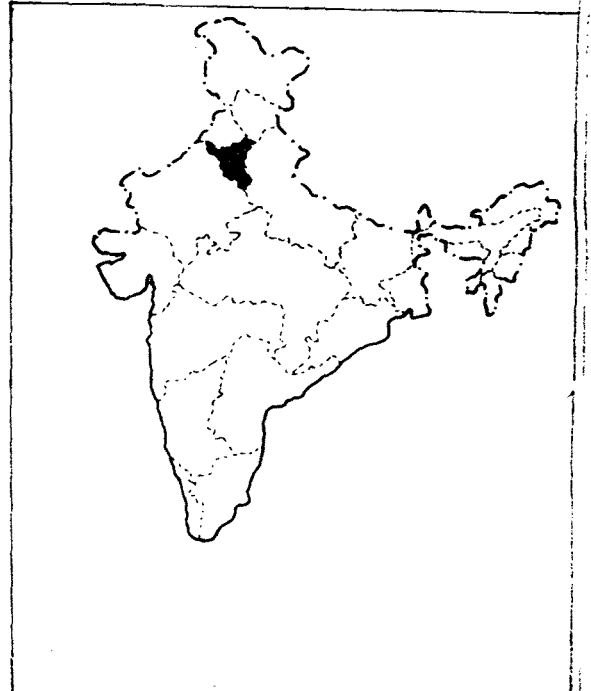
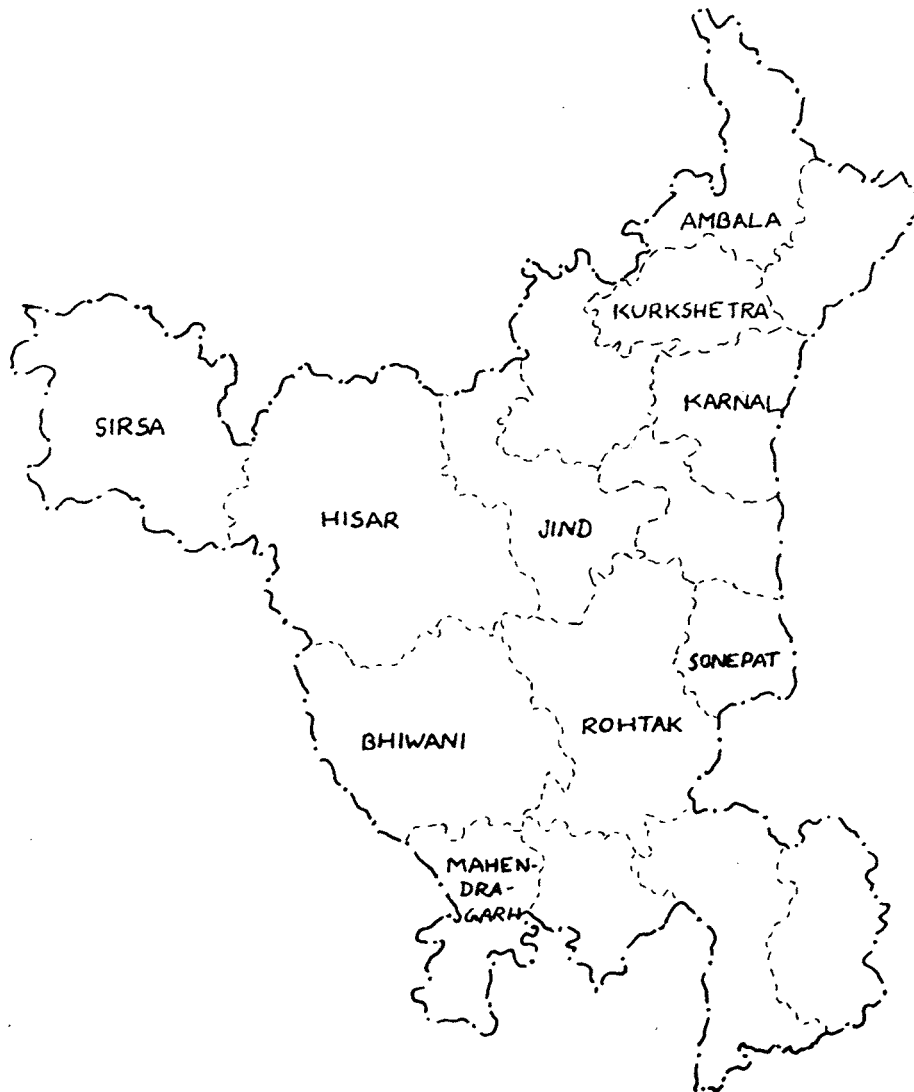
	1978-79		1984-85	
	Household Segment	Rank	Household Segment	Rank
1. Andhra Pradesh	16.38	II	30.11	IX
2. Assam	18.40	III	22.47	II
3. Bihar	28.88	VIII	24.71	V
4. Gujarat	19.64	V	29.78	VIII
5. Haryana	32.28	XIV	43.79	XVI
6. Himachal Pradesh	35.19	XV	35.85	XIV
7. Jammu & Kashmir	38.91	XVI	45.23	XVII
8. Karnataka	29.92	X	37.56	XV
9. Kerala	31.52	XIII	35.20	XIII
10. Madhya Pradesh	26.00	VII	30.41	X
11. Maharashtra	22.85	VI	26.45	VI
12. Orissa	39.82	XVII	24.62	IV
13. Punjab	30.22	XII	34.26	XII
14. Rajasthan	29.95	XI	33.38	XI
15. Tamil Nadu	29.55	IX	21.74	I
16. Uttar Pradesh	15.51	I	26.57	VII
17. West Bengal	18.86	IV	23.42	III

CHAPTER IV

STRUCTURE OF RURAL UNORGANISED  
MANUFACTURING OF HARYANA

-A Case Study

HARYANA  
STUDY AREA



0 10 20 30 40 50 KMS.

## HARYANA - A CASE STUDY

Agriculture is the most important sector of Haryana. At the time of re-organisation of the erst while Punjab, the region known as Haryana was most backward and underdeveloped in term of agriculture. After the reorganisation, the period of regeneration started, development plans were prepared and significant improvement could be seen within a few years. Now it is highly developed and earned the repuation of the "Green Bowl of India" second only to Punjab.

4.1 Physiographically Haryana can be divided into three major divisions on the basis of local topography and the distribution of sandy and Cakareous sierozemic soils. The three major divisions are<sup>32</sup>:-

- I. Eastern Haryana Plain Covering the districts of Ambala, Kurukshetra, Jind, Karnal and Sonapat
- II. Western Haryana Plain Covering the districts the Sirsa, Hissar and Bhiwani.
- III. Southern Haryana Plain Covering the district to Mahendergarh, Gurgaon and Faridabad.

4.2 The climate of the state is semi-arid in the south-west and Gangetic type in the rest of the state. Monsoon brings rain from July to Spetember. From October to June weather is dry except for a few showers received from westerly cyclones.

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32. Census of India, Regional Division of India - A Cartographical Analysis, Series-I, Vol.Vi, Haryana, 1981.

South and South-Western Haryana is marked with low rainfall and it increases gradually towards the north-east. The contrast between rainfall pattern of eastern Haryana, western Haryana and southern Haryana has a clear effect on agricultural practices e.g. raising of crops like sugarcane, rice, wheat in eastern plains, Cotton, oil seeds are grown in western plain and bajra, gram in souther plain.

4.3 The soil pattern of Haryana can be divided into six category on the basis of agronomic condition<sup>33</sup>:

- i) **The Very Light Soil** - In the South-West, where the great Indian Desert makes an entry into the plains of Haryana severe aridity prevails. The most predominant component in these stretches is desert sand of quartz origin having well rounded, grains with a fair proportion of calcium. The soil covers Bhiwani (Sandy), Western Mahendragarh district (Sandy) and Hissar (Loamy Sand).
- ii) **The Light Soils** - The light soils have two sub-divisions - (a) the relatively sandy loam and (b) the sandy soft loam. The relatively sandy loam belt stretches between the sandy soils and loams. It covers the area of Fatehabad, Hissar, and Bhiwani. The sandy loam is found in Sirsa.

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33. Singh, Jasbir, "An Agricultural Geography of Haryana". Vishal, Kurukshetra, 1976, pp.81-96.

- iii) **Medium Soils:-** Medium soils constitutes the major part of Haryana and comprises soils of widely different nature resulting from varying physical compositions in terms of silt, sand and clay proportions. These are three types (a) Light loam (b) Coarse Loam (c) Loam Light loamis.

Light loam covers north Gurgaon, Rewari, coarse loam is found in Firojpur. The Loam is found in South-eastern part of Hissar district, Jind, some parts of Faridabad, Rohtak, Kaithal, Sonapat, Panipat and Karnal district.

- iv) **Moderately Heavy Soils:-** This type of soils are designated as Khadar. Khadar soil is very inferior, poor, grey coloured. This soil covers small part of north-eastern part of the state.

- v) **The Heavy Soils:-** These soils are found along the Ghaggar - Markanda seasonal drainage system. The heavy soil is clayey silt which forms a good area of alluvium known as Bet.

- vi) **The Very Heavy Soils:-** The very heavy soils consist of silty clay or stiff loam, which is confined to drainage lines.

4.4 Though agriculture is the mainstay of the people of this region, some industries are quite sizable. However, with the exception of a few large-scale industries such as the manufacturing of woollen fabrics, bicycles, fertilizers, engineering goods,

paper, sugar and cotton textiles, industries of this region are essentially small scale ones. Rural industrial activity in the state is well diversified. According to the NSSO, Survey in 1978-79 for unorganised enterprises, the total enterprises under unorganised sector, constitutes 1.85 per cent to total unorganised enterprises in rural areas. The proportion of state population to total population was 1.89 per cent in 1981 census. This shows a balance proportion between population and unorganised enterprises. The NSSO Survey OF 1978-79 (33rd Round) show diversified features of industrial groups under unorganised sector. Except Beverage & Tobacco manufacturing enterprises, almost all industrial groups are there. Repair manufacturing constitutes the single largest product group having 23.87 per cent enterprises to total rural enterprises of the state. It is closely followed by Apparel manufacturing (19%), Food products (12%) and Leather manufacturing (11%). The main reason of largest proportion of repairs manufacturing is concentration of vehicles in the State. The state has a high proportion of tractors and agricultural technology, which requires repair work off and on. Food products include dairy products item, horticulture, grain mills, production of sugar and so on. There are a large number of drought Cattle



of different varieties in the state Per cattle milch-yield is high. It promotes two manufacturing groups at a time dairy product and leather manufacturing.

Non-metallic minerals, metal products, wood products and cotton textiles are manufacturing groups, that comes under moderate concentration of enterprises. Remaining industrial groups fall under lower concentration of enterprises to total of the state. Table 4.1 shows structure of industrial activity in rural areas. .PA

TABLE 4.1

STRUCTURE OF INDUSTRIAL ACTIVITY  
IN RURAL AREAS: HARYANA

Concentration	Industrial groups
High (10% and above)	- Repairs, Apparel, Food products (20), Leather manufacturing.
Moderate (5% to 10%)	- Non-metallic mineral, Metal products, Wood, Cotton textile.
Low (Below 5%)	- Food (21), Wool, Jute, Paper, Rubber & Petroleum, Chemicals, Basic metals, Non-electrical machinery, Electrical machinery, Transport equipments and others.

The case study is based on NSS question aire of Haryana for the year 1978-79 (33rd round).

800 households of second sub-round is being taken into consideration. Basic purpose of this study is to see the

variation of industrial groups and it's various indicators (employment, fixed assets, value added, output, working capital and so on). Table 4.2 is related with percentage of enterprises and workers. The proportion of enterprises in Repairs manufacturing is the highest, followed by Food products, Leather and Apparel products.

TABLE 4.2

PERCENTAGE OF ENTERPRISES AND EMPLOYMENT - HARYANA  
1978-79

Industrial Groups	No. of enterprises	Percentage	Total employment	Percentage
20&21 Food Product	150	18.8	306	24.29
23 Cotton textile	19	2.4	32	2.54
25 Jute	1	0.1	4	0.32
26 Apparel	102	12.8	147	11.67
27 Wood	54	6.8	88	6.98
28 Paper	1	0.1	1	0.00
29 Leather	131	16.4	161	12.78
30 Rubber & Petroleum	1	0.1	2	0.16
32 Non-metallic mineral	47	5.9	91	7.22
34 Metal Product	33	4.1	55	4.36
35 Non-electrical machinery	6	0.8	15	1.19
38 Others	17	2.1	20	1.59
39 Repairs	238	29.8	338	26.82
TOTAL	800	100.00	1260	100.00

Table 4.3 shows per enterprise estimated number of employment, fixed assets, working capital, total output and value added. Jute manufacturing industries has the highest employment per enterprise. As only one suitable is enumerated in this manufacturing. It is not sufficient to make hypothesis over this manufacturing. Food products possesses higher concentration of fixed assets in an enterprise, followed by non-electrical machinery and jute products. Food products require a large area of land and capital to invest in an enterprise. This is the reason behind higher proportion of fixed assets. Manufacture of machinery, machine tools and parts except electrical machinery come under manufacturing of Non-electrical

machinery. All these manufacturing includes are capital intensive industry. Jute product requires Land, Labour and Capital. This might be leading towards high or concentration of fixed assets. Apparel manufacturing includes knitting mills, all types of threads, ropes, weaving carpets, rugs and other similar textile products, all type of garments including wearing apparel and so on. This manufacturing shows less investment on fixed assets per enterprise. These manufacturing industries are labour intensive.

Per enterprise estimated value of working capital is high in Non-metallic minerals which includes manufacturing of structural clay, glass and glass products, earthen ware, earthen pottery, cement, lime and plaster, mica products, structural stone goods, stoneware, stone crushing and so on. Each manufacturing enterprise is labour intensive and require low input of capital. Capital is invested the form of working capital for material, fuel and lubricants.

Total output share of an enterprise is higher in Non-electrical machinery and lowest share is in Paper industry.

Value added indicates the difference between total output and total input. The difference is higher in Non-electrical machinery and lowest in the paper industry. It shows, paper industry is less profitable and Non-electrical machinery makes high profit.

TABLE 4.3

PER ENTERPRISE ESTIMATED NUMBER OF EMPLOYMENT, FIXED ASSETS,  
WORKING CAPITAL, TOTAL OUTPUT AND VALUE ADDED - HARYANA

Industry Group	Estimated per Enterprise				
	NO. of employees	Fixed Assets (Rs.)	Working Capital (RS.)	Total output (Rs.)	Value Added (Rs.)
20&21 Food Product	2.04	11808	430	10840	5744
23 Cotton textile	1.68	2547	59	2926	2216
25 Jute	4.0	10600	200	7800	5100
26 Apparel	1.44	1913	121	3918	3422
27 Wood	1.64	4190	385	6221	4645
28 Paper	1.0	3400	55	2600	1760
29 Leather	1.23	2584	347	6236	3005
30 Rubber & Petroleum	2.0	4050	400	3000	1850
32 Non-metallic mineral	1.94	4374	1475	6818	4192
34 Metal Products	1.67	3709	586	5193	3971
35 Non-electrical machinery	2.5	10925	1201	13758	6388
38 Others	1.18	6188	717	11241	4360
39 Repairs	1.42	3517	350	4688	3704
TOTAL	1.57	4916	425	6411	4035

To set up an enterprise, it is essential to see the various aspects of its inception in terms of employment, capital, output, productivity per worker and so on. It can be simply measured in terms of ratios of these items.

TABLE 4.4

RATIOS OF EMPLOYMENT, FIXED ASSETS, WORKING CAPITAL, OUTPUT  
AND VALUE ADDED - HARYANA

Industrial Groups	Productivity per worker	Capital-output Ratio	Fixed assets to working capital
20&21 Food Product	2816	1.12	27.45
23 Cotton textile	1316	0.89	42.56
25 Jute	1275	1.38	53.00
26 Apparel	2375	0.52	15.76
27 Wood	2850	0.73	10.88
28 Paper	1760	1.33	61.81
29 Leather	2445	0.47	7.43
30 Rubber & Petroleum	925	1.48	10.12
32 Non-metallic mineral	2165	0.86	2.96
34 Metal Product	2383	0.83	6.32
35 Non-electrical machinery	2555	0.88	9.09
38 Others	3706	0.61	8.63
39 Repairs	2608	0.83	10.02
TOTAL	2562	0.83	11.68

Table 4.4 shows ratios of productivity per worker, capital output ratio and fixed assets to working capital for the 800 selected enterprises. The figures for Haryana are Rs.2562, Rs.0.83 and Rs.11.68 respectively. This has been categorised under three sub-groups of high, moderate and low.

High productivity per worker is found in Food product, Wood, Leather, Non-electrical machinery, others and repairs enterprises. High productivity indicates higher labour efficiency. Wages of labour should be high in this respect and profit maximisation for entrepreneurship. Finally the number of labourers should be less, that is not fit for absorption of more employment.

Apparel, non-metallic mineral and metal product enterprises consist of moderate productivity per worker. Remain industrial groups come under lower productivity per worker. Capital-output is the amount of capital required to produce one unit of output. Food product, Jute, paper and rubber and petroleum manufacturing enterprises require more than one unit of capital to produce one unit of output. Fixed assets required to circulate one unit of working capital is termed as Fixed assets to working capital. High fixed assets is required in Food product manufacturing. Non-metallic mineral shows less requirement of fixed assets. For an enterprise, working capital is treated as movable capital or earning capital and is beneficial to that enterprise.



## Nature of enterprise

It is essential to understand the nature of enterprise in term of organisation, ownership and power used. Table 4.5 shows the nature of enterprises - types of organisation, ownership and power used are categorised in four groups.

Types of Organisation:- Code 1 indicates self proprietary undertaking.

Code 2 indicates partnership enterprise of two or more members of the same household run enterprise on a partnership basis. Code 3 indicates partnership with other households and code 4 shows unregistered partnership where there is tacit understanding about the distribution of profits amongst the so-called partners. A large number of enterprises are belong to propriety undertaking. Only nine enterprises on the basis of partnership within same household.

TABLE 4.5

NATURE OF ENTERPRISES

	Code				Total No.of ent.
	1	2	3	4	
Type of Organisation	791	9	-	-	800
Type of Ownership	790	2	5	3	800
Type of power used	209	14	69	508	800

Type of Ownership :- Code 1 indicates private enterprise, Code 2 represents the enterprises belonging to wholly central/ state/ local government, code 3 for central/ state or local government and private enterprise jointly and code 4 for others includes trusts etc. A large number of enterprises are to privately owned.

Type of Power used :- Code 1 indicates Light electricity, Code 2 for steam, Code3 for other motive power and Code4 represents no motive power. The enterprises, belonging to no motive power is largest in number. One-fourth enterprises are being run by light electricity. Above analysis is based on broader perspective of the state. Various features of unorganised industries can not be understood at state level therefore district-wise analysis becomes imperative. District-wise analysis provides accuracy in spatial concentration of enterprises and workers. 800 households, cover ten districts of Haryana except Gurgaon and Faridabad. Serial number of districts given in Table 4.6 are according to NSS 1978-79 in Haryana

TABLE 4.6

DISTRICT-WISE PERCENTAGE OF ENTERPRISES AND WORKERS.  
HARYANA 1978-79

Sl.No.	Districts	Enterprises	Percentage	Workers	Percentage
1.	Ambala	146	18.25	241	19.12
2.	Karnal	58	7.25	83	6.59
3.	Rohtak	39	4.87	77	6.11
4.	-	-	-	-	-
5.	Mahendragarh	89	11.12	117	9.28
6.	Hissar	5	0.62	8	0.63
7.	Jind	89	11.12	134	10.63
8.	Bhiwani	118	14.75	177	14.04
9.	Kurukshetra	116	14.50	185	14.64
10.	Sonepat	69	8.06	155	9.13
11.	Sirsa	71	8.87	123	9.76
	TOTAL	800	100.00	1260	100.00

Table 4.6 shows the proportion of enterprises and workers. Ambala possesses maximum proportion of enterprises under unorganised sector consisting of 18.25 percent, followed by Bhiwani, Kurukshetra, Mahendragarh and Jind. A low proportion of enterprises are recorded in Hissar, followed by Rohtak. Proportion of workers are higher in Ambala, followed by

Kurukshetra, Bhiwani and Jind. The proportion of workers varies with the proportion of enterprises. Bhiwani has the second highest concentration of enterprises, whereas in terms of workers it ranks third. .pa

TABLE 4.7

DISTRICT-WISE PROPORTION OF WORKERS CONCENTRATION IN EACH INDUSTRIAL GROUP - 1978-79.

Districts	INDUSTRIAL GROUPS			
	Rank I	Rank II	Rank III	Rank IV
1. Ambala	Food(Prod.)	Repair	Apparel	Non-met.min.
2. Karanal	Repairs	Food(Prod.)	Leather	Wood
3. Rohtak	Non-met.min.	Food(Prod.)	Leather	Repair & Apparel
4. -	-	-	-	-
5. Mahendra garh	Leather	Repairs	Non-met. min.	Apparel
6. Hissar	Food	Repairs	Apparel	Cotton text
7. Jind	Leather	Food(Prod.)	Metal Prod.	Apparel
8. Bhiwani	Apparel	Wood	Leather	Repair
9. Kuruks-hetra	Repairs	Food(Prod.)	Non-met. min.	Apparel
10. Sonapat	Repairs	Food	Cotton text	Metal prod.
11. Sirsa	Repairs	Food(Prod.)	Apparel	Wood

Table 4.7 indicates district-wise proportion of workers in each industrial group. Each industrial group has been shown by ranking method. Proportion of workers is highest in Repairs manufacturing as four districts possess. Food and Leather manufacturing industries occupy first rank in the districts of Ambala, Hissar and Mahendragarh & Jind respectively. Proportion of workers in food and leather industries is next to Repairs manufacturing. The proportion in case of non-metallic mineral manufacturing is highest in Rohtak. Bhiwani is leading in Apparel manufacturing. Generally Food, Repair, Non-metallic mineral and Apparel, manufacturing are very common in these districts.

Food products and Repairs enterprises are leading manufacturing centre and occupy first or second place in almost all the districts. Bhiwani and Rohtak are exceptional districts of the state, where these two enterprises ranked fourth.

TABLE 4.8

INDUSTRY-WISE PROPORTION OF WORKERS CONCENTRATION IN EACH DISTRICT 1978-79.

20	Food Products	Ambala	Kurukshetra	Sonepat	Jind
21	"	"	"	"	"
23	Cotton text.	Sonepat	Ambala	Jind	Hissar
25	Jute	Jind	-	-	-
26	Apparel	Bhiwani	Ambala	Mahendragarh	Sirsa
27	Wood	Bhiwani	Ambala	Kurukshetra	Mahendragarh
28	Paper	Ambala (only)	-	-	-
29	Leather	Jind	Mahendra- garh	Bhiwani	Kurukshetra
30	Rubber & Petroleum	Sonepat (only)	-	-	-
32	Non-met.min.	Rothak	Ambala	Mahendragarh	Kurukshetra
34	Metal Product	Jind	Bhiwani	Rohtak	Sonepat
35	Non-elect. machinery	Ambala	Kurukshetra	Jind	-
38	Others	Sirsa	Bhiwani	Jind	Ambala & Rohtak
39	Repairs	Kurukshetra	Ambala	Sirsa	Sonepat



Table 4.8 indicates industrial group wise proportion of workers in each district. In food product manufacturing Ambala is the leading district of Haryana, followed by Kurukshetra, Sonapat and Jind. Jute, Paper and Rubber & Petroleum manufacturing is concentrated in Jind, Ambala and Sonapat district respectively. Repairs manufacturing in the districts of Ambala, Kurukshetra, Sonapat and Sirsa have highest concentration of enterprises and workers proportion. Agricultural equipments which form part of the Repairs industry gets added advantage because in Haryana agriculture is highly mechanised . Workers concentration in wood and apparel manufacturing is highest in Bhiwani district. Rubber & petroleum manufacturing enterprises are confined in Sonapat only. Sonapat is leading in concentration of workers in cotton textile followed by Ambala, Jind and Hissar. Rohtak is leading in proportion of workers in non-metallic mineral manufacturing closely followed by Ambala, Mehendragarh and Kurukshetra.

Above analysis is based on proportion of enterprises and workers. Industry-wise proportion of fixed assets, working capital, total output and value added have been undertaken for further analysis.

TABLE NO. 4.9

INDUSTRY-WISE PROPORTION OF FIXED ASSETS, WORKERS CAPITAL,  
TOTAL OUTPUT AND VALUE ADDED - HARYANA (1978-79)

Industry	Fixed Assets	Working Capital	Total Output	Value Added
21&22 Food Prod.	45.03	19.11	31.70	26.70
23 Cotton text.	1.23	0.33	1.08	1.30
25 Jute	0.27	0.05	0.15	0.16
26 Apparel	4.96	3.66	7.79	10.82
27 Wood	5.75	6.16	6.55	7.77
28 Paper	0.90	0.02	0.05	0.05
29 Leather	8.60	13.49	15.92	12.02
30 Rubber & Petroleum	0.10	0.12	0.06	0.06
32 Non-met.-min.	5.22	20.52	6.24	6.10
34 Metal Product	3.11	5.73	3.34	4.06
35 Non-elec.mach.	1.66	2.45	1.61	1.19
38 Others	2.67	3.61	3.72	2.29
39 Repairs	21.28	24.72	21.75	27.32

Concentration of fixed assets is in food products manufacturing, constituting 45.03 percent to total fixed assets of the state. Repairs manufacturing follows the in terms of fixed assets. Other manufacturing enterprises viz. leather, wood and non-metallic mineral show a moderate consumption of fixed assets. Remaining manufacturing enterprises are not significant, which form less than 5 percent of fixed assets of the state.

Repairs manufacturing is leading in concentration of working capital which constitutes 24.72 percent followed by Non-metallic mineral manufacturing and Food products respectively. These are various industrial groups, where the proportion of working capital is higher than that of fixed assets. These are wood, leather, non-metallic mineral, metal products, non-electrical machinery, others and repairs manufacturing. The proportion of total output is highest in Food products followed by Repairs and Leather manufacturing. Moderate proportion of output is concentrated in Apparel manufacturing, wood and non-metallic mineral manufacturing. Remaining industrial groups constitute a small fraction of total output. Value added concentration is highest in repairs manufacturing closely followed by Food products. Moderate concentration of value added is found in Leather, Apparel, wood and non-metallic mineral products. Rest of the industrial groups possess low proportion of value added each constituting less than 5 percent of it.

TABLE 4.10

PROPORTION OF HIGHEST RANKING DISTRICT IN FIXED ASSETS,  
WORKING CAPITAL, OUTPUT AND VALUE ADDED

Industry Groups	Fixed Assets	Working Capital	Total Output	Value Added
20&21 Food Prod.	Sirsa	Kurukshetra	Sirsa	Kurukshetra
23 Cotton textile	Sonepat	Sonepat	Sonepat	Sonepat
25 Jute	Jind	Jind	Jind	Jind
26 Apparel	Bhiwani	Rohtak	Ambala	Ambala
27 Wood	Bhiwani	Karnal	Mahendra garh	Ambala
28 Paper	Ambala	Ambala	Ambala	Ambala
29 Leather	Mahend- ragarh	Mahendragarh	Mahend- ragarh	Mahendragarh
30 Rubber & Petroleum	Sonepat	Sonepat	Sonepat	Sonepat
32 Non-met.min.	Rohtak	Jind	Rohtak	Karnal
34 Metal Products	Rohtak	Rohtak	Jind	Jind
35 Non elec.mach.	Kuruks- hetra	Kurukshetra	Kuruksh- etra	Ambala
38 Others	Sirsa	Jind	Jind	Ambala
39 Repairs	Kuruks- shetra	Kurukshetra	Ambala	Sirsa

Table 4. 10 depicts ranking of districts according to fixed assets, working capital, total output and value added.

In food product manufacturing the highest proportion of fixed assets concentration is in sirsa. Sirsa also occupies number one place in Others manufacturing. Sonapat district has the maximum concentration of fixed assets in cotton textile and Rubber & Petroleum manufacturing. Bhiwani leads in apparel and wood products. Jute manufacturing is concentrated in only one district called Jind, while paper manufacturing in Ambala. Rohtak has highest proportion of fixed assets in non-metallic mineral and metal products, while Kurukshetra leads in Non-electrical machinery and repairs manufacturing. The proportion of fixed assets, working capital, total output and value added in Leather manufacturing is maximum in Mahendragarh.

The proportion of working capital in Food product is highest in Kurukshetra and this district also leads in Non-electrical machinery. Sonapat has the maximum proportion of working capital in cotton textile and Rubber & Petroleum. The maximum proportion of working capital in Jute, non-metallic mineral and others manufacturing is concentrated in Jind district. Rohtak leads in apparel and metal product manufacturing.

The proportion of total output in Table 4.10 suggests that Sirsa district is leading in food products manufacturing whereas Sonapat in cotton textile and Rubber &

Petroleum manufacturing Jind comprises the highest proportion of total output in three manufacturing enterprises, namely Jute, metal products and others. Ambala has the maximum proportion of total output in apparel, paper and repairs manufacturing. Mahendragarh leads in proportion of total output concentration in wood and Leather manufacturing. Rohtak leads only in non-metallic mineral manufacturing. In food products, the proportion of value added is highest in Kurukshetra. Jind district leads in Jute manufacturing and metal products. Ambala has the maximum proportion of value added in apparel, wood, paper, non-electrical machinery and others manufacturing enterprises. Sonapat leads in cotton textile and rubber & petroleum manufacturing.

Above stated analysis gives a broader framework of rural unorganised sector manufacturing in Haryana for 1978-79. It highlights some special features, which are stated below :

- (1) Agriculturally, Haryana is highly developed state of India, next only to Punjab. It contributes 1.93 percent population share to the country's population and the proportion of rural unorganised sector is almost same, consisting 1.9 percent to total rural unorganised sector of the seventeen major states.
- (2) Food products and repairs manufacturing enterprises are leading industries under unorganised sector. Both the Food products and repairs manufacturing support agricultural comonmy of the state. Food products are

dependent on locally available resources.

- (3) Beverage and Tobacco manufacturing is totally absent in Haryana. Non-availability of locally available raw materials is one of the main reasons for the absence of these industries. Tobacco is not grown there. Manufacture of bidi also requires tendu leaves, that are not available as in the states like M.P. & Orissa.
- (4) Jute manufacturing is only found in Jind district. Only one enterprise is available in the district. Therefore, it is difficult to formulate the hypothesis for the Jute manufacturing enterprise. Similar situation prevails in paper manufacturing and rubber & petroleum manufacturing.
- (5) Investment in fixed assets is higher in food products manufacturing but concentration of workers is highest in repairs manufacturing. It shows, the opportunity of employment is more in repairs manufacturing. Repairs manufacturing has highest proportion of enterprises as well as workers concentration in the state.

CHAPTER V

CONCLUSION



## CONCLUSION

In the preceding chapters some of important aspects of rural unorganised manufacturing enterprises were dealt with. Employment generation as well as reducing the population pressure over cultivated land is the prime objective of rural unorganised sector, which generates economic resources and contributes towards healthier economy of the country. All kinds of industries are found in rural areas of practically every state but shares of different industries vary significantly among them. It is very difficult to find an explanation of these variations in the differences in the regional resources base. However, there is always food processing activity in a region that manufactures food stuffs from locally agricultural available raw materials like food grains, oilseeds and sugarcane. Food products are found to constitute a significant component of rural industrial structure in most states. This activity is found to have much higher share in West Bengal, Tamil Nadu, Punjab, and Haryana than in other states. In spite of a high share in production of oilseeds, the state like Andhra Pradesh, Gujarat, Tamil Nadu and Karnataka, have very small proportion of unorganised sector enterprises. Under producing edible oil.

Wood products and furniture is again found to a significant extent in most of the states. All states have forest area, although the extent varies and in rural areas everywhere Wood and timber is used for manufacturing of certain tools and furniture. Assam and Kerala have a

relatively higher specialisation in the forest-based rural industries. But at the same time, Orissa and Madhya Pradesh with much larger proportion of area under forests do not have similar specialisation in the forest-based industries. Thus, it seems that the major part of the rural industrial activity in different states has continued mainly as a part of the tradition without necessarily being differentiated on the basis of linkages and integration with the local resources and changing demand patterns. This may be one important reason as to why the most rural industrial enterprises are carried out as means of family subsistence rather than business.

The performance of rural industrial enterprises differs significantly among the states. Difference may be seen in term of technology and power used. Units in some of the states with high value added per worker such as Tamil Nadu, Gujarat, Haryana and Punjab use electric power to a significant extent and Punjab, Haryana and Kerala also have a relatively high value of fixed assets per units. Madhya Pradesh and Orissa, the states with lowest value added per worker also employ very small amount of capital per unit and a very small percentage of units using electricity. Thus it becomes clear that technology and power use play an important role in the performance of rural industrial enterprises in different states.

For this study, the aim was to have an idea about the industrial groups which are capable of generating employment. So the industrial base of rural areas of each

state (Seventeen major states) were systematically analysed. The analysis revealed a varied picture of existing rural industries in 17 major states of India. Further, spatial spread of a particular industry was shown. This indicates, whether a particular industry is widely spread or concentrated among the states. Industrial groups such as Jute and Hemp, Rubber and Petroleum and Electrical machinery were highly concentrated while on the other hand, the industries like food products, non-metallic mineral and wood products were highly diversified. Further the question of pattern of distribution of different types of industries in a particular region was examined. It reveals the structure of industries of a particular region in relation to that of the all India, which in our case is the sum of the seventeen major states. Most specialised states were Jammu & Kashmir, Himachal Pradesh and Haryana, where one or two industrial groups were dominant in nature. On the other hand Tamil Nadu, Uttar Pradesh and West Bengal were the states where the manufacturing activity well diversified.

Some states like Haryana, Punjab have not agro-based economy but their rural industrial base is dominated by non-agro-based industries. 'Repairs' activity is dominated in Haryana both in proportion of enterprises and workers. However, their interlinkages with agriculture is quite natural, due to the onset of 'Green Revolution' in mid sixties based on bio-chemical and mechanical innovation. This led to sudden increase in the repair activity in the rural areas due to higher demand because of mechanisation of

agriculture.

Some states which are rich in minerals, are well diversified in capital intensive mineral based industry group. They generally have broad industrial base. Agrobased industries should also be developed in there areas so that these two can give boost to other activities through forward and backward linkages.

A contrasting feature, found from the study is that some of the industries which are ubiquitously found in most of the states are comparatively more capital intensive i.e. they are using more capital per enterprise than others such as food products.

Though rural industrial development programmes are vigorously implemented almost in all the states, only in Uttar Pradesh considerable effect of rural industrial development is felt as is suggested by the 40th round of NSS i.e. 1984-85. Proportion of unorganised manufacturing enterprise as well as workers is very high in Uttar Pradesh even compared to its porportion of population in Rural India.

Lastly, a case study of Haryana state was carried out to find out the, various characteristics of rural unorganised manufacturing enterprises. Evaluation was based on NSS household questionnaires for the 33rd round i.e. 1978-79 for the state of Haryana made available by the office of Statistical and Economic Organisation of Haryana at Chandigarh. As expected the major concentration of

enterprises and workers were found in Repairs and Food products manufacturing. Scope of other manufacturing enterprises were found in Non-metallic mineral, Leather and Wood products, where expansion should be extended.

The main focus of the study are presented below:-

Non-directory manufacturing enterprises should be expanded, because they provide higher level of employment of the household members as well as the hired workers as compared to Own-account enterprises. However, the base of Own account enterprises is very strong. The proportion of OAEs are more than 70% to total rural enterprises. This might be due to subsistence nature of economy where agricultural sector is not able to fully absorb the family labour and large amount of seasonal and disguised Unemployment exists.

Last, but not least, the rural industrialisation i.e. unorganised manufacturing activity should properly be developed as residual sector in area where agriculture can not be developed due to harsh climate and soil types.

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Appendix-1

THE DOMINANT INDUSTRIES OF THE RURAL SECTOR: 1978-79  
(For Value Added)

	Rank I	Rank II	Rank III	Rank IV	Rank V
All India Absolute	27 (18.32%)	20 (17.79%)	26 (15.96%)	23 (10.29%)	39 (9.51%)
1. Andhra Pradesh Absolute	27 (20.83%)	26 (17.4%)	20 (16.23%)	23 (10.6%)	39 (7.59%)
Criteria	33	29	22	34	27
L.Q. Crit.	(1.94)	(1.42)	(1.38)	(1.29)	(1.14)
2. Assam Absolute	20 (23.6%)	39 (21.73%)	26 (19.83%)	27 (17.45%)	32 (5.44%)
Criteria	39	31	37	33	20
L.Q. Crit.	(2.28)	(2.25)	(1.54)	(1.52)	(1.33)
3. Bihar Absolute	27 (21.78%)	20 (19.27%)	21 (11.41%)	39 (9.6%)	32 (9.5%)
Criteria	22	21	32	35	27
L.Q. Crit.	(2.86)	(2.51)	(1.68)	(1.2)	(1.19)
4. Gujarat Absolute	26 (20.45%)	20 (18.55%)	27 (15.24%)	39 (11.03%)	32 (8.73%)
Criteria	35	38	29	28	32
L.Q. Crit.	(2.66)	(1.63)	(1.62)	(1.06)	(1.54)
5. Haryana Absolute	39 (21.08%)	20 (19.72%)	26 (17.09)	29 (11.59%)	34 (8.09%)
Criteria	31	29	39	35	34
L.Q. Crit.	(3.83)	(3.69)	(2.22)	(2.07)	(2.04)
6. Himachal Pradesh Absolute	20 (32.39%)	27 (25.59%)	26 (14.37%)	34 (8.79%)	39 (5.27)
Criteria	24	34	20	27	30
L.Q. Crit.	(2.18)	(2.01)	(1.82)	(1.04)	(1.00)
7. Jammu & Kashmir Absolute	26 (41.39%)	20 (30.14%)	27 (9.96%)	39 (4.48%)	24 (4.08%)
Criteria	26	24	20	33	32
L.Q. Crit.	(2.59)	(2.48)	(1.69)	(0.66)	(0.57)
8. Karnataka Absolute	23 (31.81%)	27 (21.25%)	26 (10.64%)	34 (6.71%)	20 (5.75%)
Criteria	25	23	34	27	24
L.Q. Crit.	(4.96)	(3.09)	(1.53)	(1.16)	(1.11)

9. Kerala	27	26	20	39	34
Absolute	(28.55%)	(23.96%)	(12.72%)	(6.62%)	(5.76%)
Criteria	31	28	33	36	27
L.Q. Crit.	(5.23)	(2.07)	(2.18)	(2.07)	(1.56)
10. Madhya Pradesh	27	26	20	29	39
Absolute	(21.76%)	(17.86%)	(11.14%)	(10.74%)	(10.51%)
L.Q.Crit.	29	37	35	32	34
	(3.42)	(3.03)	(1.86)	(1.44)	(1.36)
11. Maharashtra	27	26	20	39	32
Absolute	(24.3%)	(21.6%)	(19.31%)	(9.77%)	(7.03%)
L.Q.Crit.	28	37	29	27	27
	(1.99)	(1.8)	(1.72)	(1.86)	(1.33)
12. Orissa	27	21	20	23	39
Absolute	(24.15%)	(16.47%)	(12.68%)	(9.91%)	(8.12%)
L.Q. Crit.	25	33	21	27	32
	(18.07)	(3.85)	(3.63)	(1.32)	(1.14)
13. Punjab	39	20	27	23	26
Absolute	(31.08%)	(26.43%)	(10.1%)	(8.69%)	(8.67%)
L.Q.Crit	35	39	37	29	20
	(3.57)	(3.27)	(2.13)	(1.65)	(1.49)
14. Rajasthan	26	29	27	32	20
Absolute	(17.09)	(13.58%)	(13.3%)	(11.73%)	(11.17%)
L.Q.Crit	29	38	35	32	39
	(4.33)	(3.15)	(2.75)	(2.07)	(1.16)
15. Tamil Nadu	23	20	27	26	38
Absolute	(27.57%)	(16.15%)	(13.69%)	(8.19%)	(7.17%)
L.Q.Crit.	37	23	38	31	24
	(3.23%)	(2.68%)	(2.35%)	(1.61%)	(1.43%)
16. Uttar Pradesh	26	20	27	39	23
Absolute	(21.85%)	(18.1%)	(13.77%)	(13.14%)	(7.81%)
L.Q.Crit.	35	24	34	39	26
	(2.03)	(1.79)	(1.41)	(1.38)	(1.37)
17. West Bengal	20	23	27	26	22
Absolute	(21.9%)	(17.3%)	(15.8%)	(12.95%)	(6.23%)
L.Q.Crit	36	30	24	22	28
	(3.81)	(3.34)	(2.27)	(2.21)	(1.76)

Appendix 2

THE DOMINANT INDUSTRIES OF THE RURAL SECTOR:-1984-85  
(For Value Added)

	Rank I	Rank II	Rank III	Rank IV	Rank
All India	27	20	26	23	39
Absolute	(17.24%)	(16.4%)	(15.86%)	(11.27%)	(7.28%)
1. Andhra Pradesh	29	27	26	32	23
Absolute	(19.07%)	(17.08%)	(15.47%)	(13.24%)	(8.32%)
Criteria	29	32	30	34	27
L.Q. Criteria	(4.43)	(2.11)	(1.3)	(1.27)	(0.99)
2. Assam	27	20	26	23	39
Absolute	(21.39%)	(19.54%)	(15.49%)	(13.43%)	(12.15%)
Criteria	28	33	21	39	27
L.Q. Criteria	(9.81)	(2.72)	(2.02)	(1.67)	(1.24)
3. Bihar	27	20	32	22	26
Absolute	(18.27%)	(16.97%)	(16.14%)	(15.34%)	(9.35%)
Criteria	32	22	21	38	27
L.Q. Criteria	(2.58)	(2.53)	(1.48)	(1.41)	(1.06)
4. Gujarat	26	38	20	27	39
Absolute	(27.25%)	(21.67%)	(16.53%)	(9.53%)	(7.23%)
Criteria	38	31	36	26	35
L.Q. Criteria	(6.87)	(3.68)	(1.91)	(1.72)	(1.02)
5. Haryana	26	39	20	27	29
Absolute	(29.71%)	(23.07%)	(16.06%)	(8.58%)	(7.29%)
Criteria	39	35	26	29	20
L.Q. Criteria	(3.17)	(2.22)	(1.87)	(1.69)	(0.98)
6. Himachal Pradesh	27	26	20	39	34
Absolute	(25.91%)	(25.24%)	(13.02%)	(8.95%)	(8.5%)
Criteria	31	34	29	24	26
L.Q. Criteria	(3.65)	(2.22)	(1.74)	(1.71)	(1.59)
7. Jammu & Kashmir	26	20	27	39	24
Absolute	(42.41%)	(23.31%)	(10.44%)	(5.67%)	(5.36%)
Criteria	36	24	26	20	34
L.Q. Criteria	(3.22)	(2.96)	(2.67)	(1.42)	(1.05)
8. Karnataka	26	27	29	20	39
Absolute	(22.24%)	(21.47%)	(10.86%)	(9.77%)	(6.58%)
Criteria	24	37	29	31	26
L.Q. Criteria	(3.34)	(2.75)	(2.52)	(2.51)	(1.4)
9. Kerala	27	26	20	34	22
Absolute	(26.62%)	(20.95%)	(16.14%)	(7.09%)	(6.8%)
Criteria	30	36	28	31	33
L.Q. Criteria	(6.81)	(6.13)	(4.55)	(3.46)	(2.57)
10. Madhya Pradesh	22	26	27	20	32
Absolute	(20.44%)	(15.21%)	(14.81%)	(12.3%)	(6.68%)
Criteria	33	22	35	34	29
L.Q. Criteria	(4.37)	(3.37)	(2.34)	(1.4)	(1.3)

Appendix - 2

11.	Maharashtra	27	26	20	39	22
	Absolute	(22.51%)	(21.57%)	(14.92%)	(7.62%)	(6.92%)
	Criteria	37	36	33	30	28
	L.Q. Crit.	(6.17)	(4.8)	(3.44)	(1.86)	(1.79)
12.	Orissa	27	20	23	32	26
	Absolute	(33.94%)	(14.19%)	(12.5%)	(9.76%)	(7.37%)
	Criteria	31	27	32	34	21
	L.Q. Crit.	(2.18)	(1.97)	(1.56)	(1.52)	(1.15)
13.	Punjab	39	20	26	27	23
	Absolute	(32.9%)	(17.31%)	(14.6%)	(13.53%)	(5.35%)
	Criteria	39	35	20	29	26
	L.Q. Crit	(4.51)	(1.22)	(1.06)	(0.99)	(0.92)
14.	Rajasthan	29	26	27	20	39
	Absolute	(18.84%)	(18.11%)	(17.95%)	(12.92%)	(9.39%)
	Criteria	29	24	37	39	32
	L.Q. Crit.	(4.38)	(2.09)	(1.34)	(1.29)	(1.23)
15.	Tamilnadu	27	23	22	26	20
	Absolute	(22.2%)	(13.34%)	(11.87%)	(10.69%)	(9.48%)
	Criteria	31	37	30	22	34
	L.Q. Crit.	(3.29)	(2.56)	(1.98)	(1.96)	(1.83)
16.	Uttar Pradesh	23	20	26	27	39
	Absolute	(25.7%)	(17.7%)	(17.4%)	(11.6%)	(7.04%)
	Criteria	25	23	35	26	20
	L.Q. Crit.	(2.41)	(2.28)	(1.62)	(1.1)	(1.08)
17.	West Bengal	20	27	22	23	26
	Absolute	(27.19%)	(19.9%)	(9.22%)	(8.8%)	(8.78%)
	Criteria	24	28	21	20	22
	L.Q. Crit.	(3.09)	(2.99)	(1.81)	(1.66)	(1.52)

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## Appendix-3

## CO-EFFICIENT OF INDUSTRIAL LOCALISATION IN THE RURAL SECTOR

FOR VALUE ADDED - (1978) - (1984-85)

Industrial group number & Name	(1978-79)		(1984-85)	
	Household Segment	Rank	House Segment	Rank
20. Slaughtering, Processing of Meat during products Vegetables, Fish, grain mills, bakery products, sugar factories, confectionary, etc.,	10.40	I	11.01	I
21 Oil, vanaspati edible oils, Tea processing Coffee processing, ice products, cashewnut processing,	26.18	VIII	19.86	VI
22 Beverages & Tobacco	44.79	XVI	40.49	XIII
23 Cotton Textiles	33.87	XI	39.32	XII
24 Wool, Silk & Synthetic fibres	40.27	XIII	37.14	XI
25 Jute Textiles	63.58	XX	43.54	XVI
26 Wearing Apparel	17.23	V	14.03	IV
27 Wood Products	12.30	II	13.26	III
28 Paper & Paper Products	33.29	X	53.14	XVIII
29 Leather Products	46.84	XVIII	49.57	XVII
30 Rubber & Petroleum	45.85	XVII	36.45	X
31 Chemical Products	42.84	XIV	41.23	XV
32 Non-metallic Minerals	17.04	IV	30.16	IX
33 Basic Metals	27.70	IX	40.81	XIV
34 Metal Products	19.30	VI	15.88	V
35 Non-electrical Machinery	39.20	XII	26.51	VII
36 Electrical Machinery	58.52	XIX	53.25	XIX
37 Transport Equipment	43.74	XV	53.67	XX
38 Other Manufacturing	23.64	VII	28.46	VIII
39 Repairs	17.02	III	12.93	II

**Appendix-4**  
**CO-EFFICIENT OF INDUSTRIAL SPECIALISATION IN THE RURAL SECTOR**

FOR VALUE ADDED - (1978-79) - (1984-85)

	1978-79		1984-85	
	Household Segment	Rank	Household Segment	Rank
1. Andhra Pradesh	8.35	I	22.84	VI
2. Assam	22.86	VIII	20.65	IV
3. Bihar	21.59	VII	24.25	X
4. Gujarat	14.86	III	30.79	XV
5. Haryana	30.18	XV	33.56	XVI
6. Himachal Pradesh	28.23	XIII	29.54	XIV
7. Jammu & Kashmir	40.23	XVII	37.27	XVII
8. Karnataka	28.43	XIV	24.00	IX
9. Kerala	24.03	IX	23.19	VII
10. Madhya Pradesh	20.46	VI	19.23	III
11. Maharashtra	17.83	IV	16.68	I
12. Orissa	25.66	XI	24.34	XII
13. Punjab	34.57	XVI	26.70	XIII
14. Rajasthan	26.69	XII	23.39	VIII
15. Tamil Nadu	24.04	X	21.04	V
16. Uttar Pradesh	14.35	II	18.70	II
17. West Bengal	18.00	V	24.28	XI

## Appendix-5

## PRODUCTIVITY PER WORKER

Industrial group having higher productivity per worker      Industrial group having low productivity per worker

States	1978-79			1984-85			1978-79			1984-85		
	1	2	3	1	2	3	1	2	3	1	2	3
1. Andhra Pradesh	30	20	22	33	29	30	25	32	28	26	24	25
2. Assam	31	29	38	28	39	32	21	23	32	24	23	22
3. Bihar	33	37	35	38	30	31	31	24	25	23	37	28
4. Gujarat	36	37	35	31	38	21	23	30	32	22&36	24	30
5. Haryana	30	31	37	28	37	26	23	24	28	22	24	30
6. Himachal Pradesh	22	28	30	31	38	33	25	32	23	25	32	20
7. J & K	38	20	33	36	33	32	28	24	35	36	33	32
8. Karnataka	21	28	36	21	37	20	30	32	24	36	33	38
9. Kerala	28	29	33	20	36	34	25	30	26	23	29	25
10. Madhya Pradesh	20	26	39	35	33	20	25	22	21	30	25	28
11. Maharashtra	28	36	20	31	37	33	33	35	25	24	25	22
12. Orissa	36	33	37	37	33	29	25	35	27	30	21	25
13. Punjab	28	31	36	31	34	35	30	25	23	28	30	24
14. Rajasthan	28	31	38	28	31	37	24	22	21	24	23	22
15. Tamil Nadu	36	33	28	37	34	35	30	31	38	21	33	25
16. Uttar Pradesh	30	28	33	35	29	39	25	21	23	28	21	32
17. West Bengal	29	36	37	36	24	30	25	31	28	32	25	28



## Appendix-6

## CAPITAL-OUTPUT RATIO

States	Industry having high ratio 1978-79						Industry having low ratio 1984-85					
	1	2	3	1	2	3	1	2	3	1	2	3
1. Andhra Pradesh	31	30	29	29	30	33	20	32	22	25	20	36
2. Assam	22	29	37	21	32	35	21	20	38	24	28	38
3. Bihar	23	21	22	25	31	30	36	31	28	37	35	29
4. Gujarat	29	22	38	22	31	29	28	36	24	30	33	38
5. Haryana	26	25	24	30	37	28	31	29	37	36	25	38
6. Himachal Pradesh	22	33	29	20	31	26	32	23	25	22	23	24
7. J& K	28	33	37	22	36	33	24	36	25	35	24	23
8. Karnatka	25	31	24	25	29	21	20	28	23	36	28	32
9. Kerala	29	21	34	33	36	35	30	28	31	25	39	30
10. Madhya Pradesh	29	30	37	22	23	35	36	25	20	30	28	20
11. Maharashtra	31	23	29	20	29	25	35	20	28	23	30	36
12. Orissa	25	33	36	24	37	29	28	29	20	33	39	26
13. Punjab	31	36	21	33	27	36	30	22	20	35	29	23
14. Rajasthan	28	22	35	25	29	37	30	23	21	32	28	22
15. Tamil Nadu	25	29	22	29	25	32	35	28	30	35	20	23
16. Uttar Pradesh	36	30	29	25	29	35	28	20	25	28	36	23
17. West Bengal	24	22	29	29	20	36	25	28	35	38	32	22

Appendix-7

RATIO OF FIXED ASSETS TO WORKING CAPITAL

States	High Fixed Assets						Low Fixed Assets					
	1978-79			1984-85			1978-79			1985-85		
	1	2	3	1	2	3	1	2	3	1	2	3
1. Andhra Pradesh	20	26	38	30	38	20	22	28	31	25	39	36
2. Assam	20	38	28	22	28	20	37	22	31	32	39	38
3. Bihar	36	28	31	21	28	25	37	23	24	36	22	30
4. Gujarat	20	26	39	36	33	20	37	22	28	31	26	23
5. Haryana	26	24	21	24	30	39	31	36	37	38	36	27
6. Himachal Pradesh	23	24	20	23	21	24	28	30	27	31	37	33
7. J & K	24	36	25	23	24	35	31	23	38	22	32	38
8. Karanataka	33	20	23	32	33	23	36	37	34	28	27	36
9. Kerala	35	30	28	25	30	26	36	29	37	38	23	29
10. Madhya Pradesh	36	25	20	22	21	38	37	38	29	37	30	35
11. Maharashtra	20	35	26	23	36	22	31	30	36	31	28	25
12. Orissa	28	38	23	33	26	36	25	29	33	23	31	25
13. Punjab	30	25	24	35	20	29	38	31	27	33	31	28
14. Rajasthan	24	23	26	25	24	23	28	29	37	28	37	31
15. Tamil Nadu	20	33	28	30	35	23	37	31	22	27	22	29
16. Uttar Pradesh	25	20	21	31	20	22	36	37	30	37	27	24
17. West Bengal	25	28	35	38	22	32	31	29	30	37	27	31

Appendix 8

RATIO OF FULL TIME WORKER TO TOTAL WORKER

States	Industry having high full time worker						Industry having low full time worker					
	1978-79			1984-85			1978-79			1984-85		
	1	2	3	1	2	3	1	2	3	1	2	3
1. Andhra Pradesh	25	31	35,37	30	33	36	28	26	22	28	29	25
2. Assam	22	24,28	29,37	28	34	32	21	31	26	35	24	22
3. Bihar	30	36	33	25	22	35	31	34	38	28	29	30
4. Gujarat	24	33	36,37	28	30,31	33,35	32	26	31	37	34	23
5. Haryana	24,25	28,30,33	36,37,38	28	30	37	23	35	31	24	34	27
6. Himachal Prad.	22	25,31	33,38	22,23	25,28,	33,37,38	24	37	20	31	34	24
7. J & K	23	30	36,38	22	30,31	33,36	29	39	33	25	32	29
8. Karnataka	25	36	23	25	28	33,36	32	30	31	27	26	20
9. Kerala	25	29,33	35,37	25	29	36	30	26	36	26	32	27
10. Madhya Pradesh	25	30	33	28	30	31,33	28	29	21	20	34	26
11. Maharashtra	28	29	30	28	31	33,36	35	23	25	23	20	26
12. Orissa	36	37	23	25	29	36	25	29	22	33	35	23
13. Punjab	22,25	28,30	31,33,36	28	30,31	33,36	24	21	20	24	37	32
14. Rajasthan	22,30	31,33	35,37	22	31	36	26	28	23	20	25	23
15. Tamil Nadu	25	28,33	37	35	39	38	31	22	34	25	28	31
16. Uttar Pradesh	30	31	28	28	36	37	25	37	24	31	30	22
17. West Bengal	24	35	37	30	29	35	38	29	31	25	28	31