GROWTH OF RURAL INDUSTRY IN INDIA : STRUCTURE AND SPREAD

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CERTIFICATE

This is to certify that the dissertation entitled "**GROWTH OF RURAL INDUSTRY IN INDIA : STRUCTURE AND SPREAD**" submitted by **Partha Pratim Sahu**, in fulfillment of six credits out of the total of twenty four credits for the award of 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.

Prof. Ashok Mathur   24.7.98

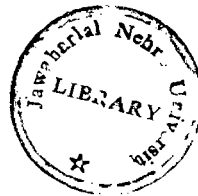Supervisor

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CONTENTS

CHAPTER –I

INTRODUCTION

The 50th anniversary of Indian Independence is an appropriate point in time to review and examine the achievements and problems of the growth of rural industries and explore new strategies for correcting regional imbalances and reducing levels of poverty. Even with the ongoing thrust towards globalisation of trade and structural adjustment of the domestic economy, the development goals of growth, equity, employment, reduction of poverty and food security continue to be the guiding principles of Indian planning.

The importance of 'rural industrialisation' as a strategy of economic development was recognised in India as early as her time of independence. The inability of the modern large sector industry to serve as a vehicle for employment and income generation, as a means to alliviate poverty and a need to relieve agriculture of its traditional role as the primary source of livelihood for the bulk of the increasing population has prompted a search for alternatives to the traditional development strategies. The remarkable development of rural industries in several Asian countries has highlighted the potential of this sector as an engine for economic development. Hence, rural-industrialisation has been recognised as an escape route from the predicament caused by diminishing returns to labour in agriculture on one hand and low employment elasticity in the large scale manufacturing

industry on the other.

Although the crop sector of India holds the potential of a substantial increase in the demand for labour. The realisation of this potential would be conditional upon a suitable technological, institutional and organizational improvements of this sector. It is also true that for a long time to come, on-farm employment will remain a major source of income for the rural households. Nevertheless, the moot point that needs to be underscored is that "even if such technical possibilities are realized the agriculture sector in some of the land-scarce countries will be unable to fully employ the rural labour force in the foreseeable future."[1] An additional fact to be noted is that the size of the modern industrial sector and other urban sectors is small (the former using relatively capital-intensive techniques). Under any conceivable rate of growth, the potential for labour absorption in these sectors is extremely limited in the short and medium run. The potential role of rural non-crop activities, particularly rural industries, has to be seen in the context of the facts mentioned above. It is clear that the expansion of rural non-farm activities will have to play a crucial role for overcoming rural poverty and under employment. Although the rural non-farm sector encompasses a wide variety of economic activities, i.e. industry/manufacturing, construction, transport, communication and storage, trade and services, yet industry is usually the most dominant constituent, in terms of

value of output and quantum of employment. No wonder, therefore, in official parlance the approach to rural non-farm development becomes synonymous with rural industrial development and rural industry occupies the central place in the long term rural development and employment and welfare policies.

A Case For Rural Industrialisation

Rural industries are seen to have a number of desirable properties. Following are some of the important arguments made for rural industrialisation:-

1. First and foremost property is their potential to generate employment and incomes, alleviate poverty and contribute towards a more equitable income distribution in rural areas. As is well-known, the problem of unemployment is an acute one in rural India. The Lewisian vision of a steady labour transfer from agriculture to industry has fallen far too short of expectations both because industrial growth itself has not been very high and because capital intensity in industry increased steadily under technological and commercial compulsions; the rate of labour absorption in the industrial sector has been much too low in relation to the rate of labour force expansion. Moreover, the future of rural India could not be tagged with agriculture alone. The labour absorptive capacity of agriculture gradually declines because of continuing population pressure and even declining

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[1]   Islam (1987), pp.1.

land: man ratio on the one hand, the small and fragmented holdings and their highly iniquitous distribution structure, on the other. Non-agricultural avenues of employment must gradually emerge for the rural workforce. Among non-agricultural activities, rural industry always stands out most robustly because of its strong forward-backward linkages. Thus, expansion of rural industry would be a logical way out of the rural employment impasse.

The contribution of rural industries with regard to poverty alleviation is no doubt positive. Firstly, there is comprehensive evidence of an inverse relationship among rural households between non-farm employment on the one hand and farm size and total income on the other suggesting that in the absence of non-farm income opportunities the rural poor would be even worse off and the income distribution even more skewed.[2] Secondly, a dynamic development of rural industries will eventually raise the wage floor through increased demand for labour. By weakening the link between access to land and employment and incomes, rural industries may clearly, benefit the rural poor and landless. However, in this context the size and nature of rural industries is important.

2. An allied objective of fostering rural industrial development is to keep rural urban migration under check. The problem

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Islam (1986), pp. 160-161.

4

generated by unregulated rural-urban migration are too serious, and are bound to worsen further if economic programmes for promotion of rural non-form employment are not executed in a big way. The burgeoning urban slums and squatter settlements, in and around all major cities of India, are a painful reminder of what may happen in the years ahead if rural to urban migration continues unabated. Rural industrialisation would not only ease the pressure on scarce urban resources but would stop the process of skill drain from rural to urban areas. Perhaps, rural investible surplus which, in many cases, are used to finance urban construction, trade transport and service activities, may stay back to sustain and reinforce rural non-form growth.

3.   Another positive attribute of rural industries is the broad based cumulative development effects that can be achieved through a symbiotic development of agriculture and local industrial and other non-farm economic activities. A diversification of the local economic base is conducive to agricultural development through improved backward and forward linkages, while a prospering agriculture provides a favourable environment for rural industries.[3] The cumulative development effect is further strengthened by an increased localisation of the multiplier effects.

4.   Given that the geographic mobility of production factors is

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[3]   Johanson and Ronnas (1996), p.2.

imperfect, dispersed industrial development will enhance the degree of utilisation of the available productive resources of the country through improved local resource mobilisation. The large seasonal fluctuation in the demand for labour in agriculture and the scope for rural industries to act as a counter cyclical force and to absorb under-utilised labour during the agricultural slack season has been put forward as a prime example of how rural industries can enhance the utilisation of local resources. However, this particular argument is somewhat ambiguous as the ability of the rural industries to adapt their rhythm of production to seasonal variations in supply of labour diminishes sharply with increasing size and sophistication of the enterprise. But there is ample evidence that rural industries primarily demand and employ full time labour.

5.   Rural industries are generally less capital-intensive and more labour-intensive. The social objectives of deriving higher employment and output gains from every unit of capital invested are readily fulfilled through a chain of rural industrial activities. The relative scarcity of capital and abundance of labour can get mutually strengthened out in a planned programme of rural industrialisation. Moreover, the social objective of promoting more and more of 'self-employment' is more certain to be fulfilled under rural industrial expansion rather than under the

more formal wage-labour-intensive urban industry.[4]

6.　It is often argued that rural industries provide a breeding ground for entrepreneurial talent and skills. Thus, apart from contributing significantly to industrial growth and employment generation, rural industry has played a major role in developing one of the major forces in economic development,viz stimulating the entrepreneurial drive and widening the entrepreneurial base. This argument rests on intuitive reasoning rather than on solid empirical evidence. Yet, it appears to be rather uncontroversial.

7.　Rural industries could utilize local talent and local slack resources which could not otherwise be used in urban, modern industry. The social cost of such raw materials is very low but the benefits could be quite high. A persuasive example is various types of waste recycling activities.

8.　The scale of production in case of rural industries is such that they are more flexible and better able to adapt to changing economic circumstances than large scale production. However, flexibility depends not only on the technical capability to swiftly change production in response to new economic circumstances, but also on an ability to identify and exploit economic opportunities, and thus on managerial competence, the skill level

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[4]　Chadha, (1996), pp. 3.

of the labour force and an efficient flow of information.[5]

Thus rural industrialization is widely viewed as an instrument for alleviating unemployment and mass poverty, for curtailing rural urban migration and for contributing towards a more equitable income distribution in rural areas.

The Diverse nature of Rural Industries:

The concept of rural industries is far from unambiguous and covers an exceedingly diverse variety of enterprises. Adequate definition and classification need to be established to make its contours less nebulous so that meaningful analysis is possible. Firstly, it should be noted that the concept of rural as opposed to urban industry is not very meaningful and may be outright misleading. The relevance of a definition of rural industries based on location in a designated rural area has been questioned by Saith[6] on somewhat different grounds. He argues that it is not the location per se, but linkages to rural economy and population that matter and that the key test is whether an industrial enterprise generates significant developmental linkages with the rural resident population. Thus, on a broad plane, location in and linkages with rural areas decide the nature of the industry. Accordingly, in a straight forward interpretation, all industrial

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[5]   Johanson and Ronnas (1996), pp.4.

[6]   Saith (1992), pp. 3-4.

8

activities located in the rural areas, irrespective of their size of operation, technology-in-use, market coverage etc., are entitled to be called 'rural industries'. In an allied interpretation, all industrial activities, irrespective of their locale of production, which, inter alia, provide employment to rural people, can also be called 'rural industries'. Clearly, in the second interpretation, the subtle distinction between 'industrialisation of the rural areas' and 'industrialisation for the rural areas' is not given much weightage while the first one satisfies both location and linkage consideration.

In the Indian context too, 'rural industry' is a conglomerate of diverse economic activities, satisfying different location-linkage specifications. In our view, there are three broad angles from which we can look into the problems of rural industry in India.[7] They are as follows:

(i) The official view : It looks upon rural industry specifically in the context of pre-specified socio-economic objectives. In official parlance, rural industry is covered under the composite expression Village and Small industry-VSI sector. It is divided into 8 sub sectors, namely, khadi, village industries, Handlooms, sericulture, Handicrafts, coir, small-scale industries and power looms. The VSI sector constitutes an important segment of the economy. Its rank as a provider of employment is next only to the

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[7] Chadha (1996), pp. 25-29.

9

agricultural sector. It is estimated to contribute about 50 percent
of the value added in manufacturing sector and accounts for
nearly 55 percent of the total exports of the country.[8] The eight
sub sectors of the VSI sectors have been devised for facilitating
the dispensing of official assistance under various development
programmes. Specialised institutions have been erected to look
after the promotion of each sub sector at national level, in
conjunction with parallel agencies operating at the state level.

(ii) An Analytical view: Analytically, rural industry consists of
three sub-sectors. At the bottom is a conglomerate of traditional
village industries including crafts and artisans industries. Cottage
and household industrial activities are clearly a part and parcel of
such industries. These are deeply rooted in village life, are
carried on mostly as household enterprises, usually with family's
own labour, using primitive technology generally based on local
resources and family skills, catering mostly to local villages and
nearby demand, operating at low levels of productivity and
earning and so on.

It is very important to point out that locationally not all the
three components are the exclusive preserve of rural areas alone.
While the first constituent, viz. village industries, is definitionally
a part and parcel of village economy, the other two sub sectors

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[8]   SSI, Census (1992), pp.1.

have their locale both in the rural and urban areas.

(iii) An Operational View

According to the operational view the rural industry is covered by the unorganised manufacturing units, which constitutes two types of industrial categories,viz. Own-account enterprises (OAEs) and Non-directory establishments (NDEs).[9] An enterprise owned and operated without the help of any hired workers, employed on a fairly regular basis, is described as own-account enterprise (OAE). An establishment which employs a total of not more than 5 workers is known as non-directory establishment (NDE).[10] Further, an establishment which employs a total of 6 or more workers is categorised as a directory establishment. Directory establishments which employ 10 or more workers and use power and those which employ 20 or more workers without using power, are required by law to register themselves under sections 2 m (i) and 2 m (ii) respectively of the Factory Act, 1948. Such industrial establishments are hence come under the purview of Annual Survey of Industries (ASI).

It is obvious from the above discussion that industrial categories such as OAEs and NDEs are more germane to our analysis both because a preponderant majority of rural industrial

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[9]   NSS Report, No. 396/1, pp. 4-5.

[10]   An establishment means an enterprise run with
       assistance of at least one hired worker, employed

enterprises are self-employing ventures and employ a very small number of working hands, usually not beyond the limit of 5 set by NDEs. Undoubtedly, this covers an over whelming majority of all the 3 subsectors visualised earlier under Analytical view.

Irrespective of the definition of 'rural', a key feature of rural industries from a general perspective is their extreme diversity in terms of key characteristics, such as technology, productivity, markets and linkages. The magnitude of this diversity is such as to make across-the-board analysis meaningless.

The present study centres on the 'unorganised manufacturing sector' falling under the category of operational view. Thus hence forth, 'rural industry' means unorganised manufacturing unit.

The Problem

Since independence India has been trying to attain a rapid rate of growth though rural industrialisation with the framework of a uneven spatial structure. This has further aggravatged the problem of inter-regional inequality in the level of rural industrial development.

Many attempts have been made in the literature to examine

on   a fairly regular basis.

12

the nature of rural-industrial dispersal across regions in India. But very few of them have attempted to offer some explanation for the location dynamics of rural industries across the states/regions. There is a dearth of information especially on the nature and the determining factors of the rural industrial spread across space in India. In the present study our endeavour is to bridge this gap to some extent.

Objectives of the study:

The specific objectives of the present study are:

1. to examine the regional rural industrial structure of various state economies with reference to national economy;

2. to ascertain the nature and pattern of the growth of rural industry by state and broad group of industry;

3. to assess the diversification and concentration of different industrial groups across rural areas;

4. to identify the industries providing employment opportunities as well as leading to over all rural development;

5. to examine the impact of over all rural development and agricultural growth on the level of rural industrialisation; and

6. to investigate as to how far the incidence of rural poverty is sensitive to the level of rural industrialisation.

Hypothesis:

In dealing with above objectives, this study has been designed to examine the following hypotheses:-

1. The development of rural industry becomes contingent upon growth in rural income, presumably through a faster agricultural growth.

2. There is a close connection between over all rural development and the level of rural industrialisation.

3. The development of rural industry constitutes an important element in a strategy of poverty alleviation.

Coverage And Data Base:

For the purpose of our analysis we have covered 16 major states.(Andhra Pradesh, Bihar, Gujrat, Harayana, Himachal Pradesh, Jammu and Kashmir, karnatak, Kerala, Madhya Pradesh, Maharastra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal) which, taken together, account for approximately 95 percent of the total number of units, employment, total fixed capital, value added or out put of the nation as a whole. Each state is a unit of observation in the study.

This study is based mainly on the secondary data published by National Sample Survey Organisation (NSSO) pertaining to

fortieth round (covering July 84-June 85) and 45th round (covering July 89-June 90). In addition to these data have also been obtained from the various issues of (i) Annual Survey of Industries (ii) Statistical Abstract of India and (iii) District profile published by Centre for Monitoring Indian Economy (CMIE).

NSS data at 2-digit level of disaggregation been used to specify 22 industrial sectors covered in the study. The data base and its nature has also been specified in the relevant chapters.

METHODOLOGY :

For different objective different statistical tools have been used.

For the purpose of temporal assessment of the growth performance of the rural industrial sector we have used simple statistical measures like percentage share, compound growth rate etc.

For computing compound growth rates we have used the following method:

$$Pt = Po(1+r)^t$$

where   Po = value in the base year,

Pt = value in the terminal year,

r = growth rate;

t = time variable, i.e. number of years.

In order to understand the rural industrial structure of the state, we have used location-quotients, specialisation coefficient and localisation coefficient technique following the works of Sergent Florence (1948) and Walter Isard (1960, 61)

Location Quotient : It indicates the degree of relative concentration of a particular industry. It gives us 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 working population. It has been derived by the following formula:

$$LQR_{ij} = \frac{E_{ij} \bigg/ \sum_{i=1}^{n} E_{ij}}{\sum_{j=1}^{m} E_{ij} \bigg/ \sum_{i=1}^{n} \sum_{j=1}^{m} E_{ij}}$$

i = industries

j = states

where, LQR ij denotes location quotient of rural industry i of state j

E_{ij} = employment in ith industry of jth region.

$\sum_{i=1}^{n} E_{ij}$ = total employment in jth region.

16

$$\sum_{j=1}^{m} E_{ij} - \text{total employment in ith industry in all region}$$

$$\sum_{i=1}^{n} \sum_{j=1}^{m} E_{ij} = \text{total employment in all industry in all region.}$$

Location quotient is a measure of relative regional concentration of a given industry compared to the total national magnitude, which provides the basis for a qualitative judgement about the structural base of the region's industrial economy. The industries with high location quotient (LQ > 1) constitute the industrial base of the region.

(iii).Localisation co-efficient: It indicates the spatial spread of a particular industry, i.e. whether a particular industry is widely spread or concentrated in few pockets. It is defined as the half the sum of the absolute differences between the regional proportion of workers in the particular industry and the corresponding regional proportion of workers in all the industries. Thus using the same notation as before it can be written as:

$$L_{ni} = 1/2 \sum_{j=1}^{m} \left| \frac{E_{ij}}{\sum_{j=1}^{m} E_{ij}} - \frac{\sum_{i=1}^{n} E_{ij}}{\sum_{i=1}^{n} \sum_{j=1}^{m} E_{ij}} \right| \times 100$$

Where Lni is the localisation co-efficient of rural industry i. The possible range of this co-efficient lies between 0 and 100%.

The higher (lower) its value, the greater (lower) will be the degree of spatial concentration of employment in a rural industry relative to the rural industrial employment as a whole and vice-versa.

(iii) Specialisation co-efficient: It indicates the pattern of distribution of different type of industries in a particular region. It broadly defines the structure of industries of a particular region in relation t that of a whole, which in our case, is the whole country.

Thus the extent of industrial diversification within rural industrial sector of each state has been measured with the help of the following formula:

$$L_{ni} = \frac{1}{2} \sum_{i=1}^{n} \left| \frac{E_{ij}}{\sum\limits_{i=1}^{n} E_{ij}} - \frac{\sum\limits_{j=1}^{m} E_{ij}}{\sum\limits_{i=1}^{} \sum\limits_{j=1}^{} E_{ij}} \right| \times 100$$

Where, Spj is the co-efficient of specialisation of rural industries of state(j) and all other symbols have the same connotation as before.

The lower and upper limit of the specialisation co-efficient are 0 and 100% respectively. if a region's rural industrial structure is as diversified as that of the nation, the co-efficient

will be zero, while if all its rural industrial activity is concentrated in one industry and which in turn is concentrated only in that region, the specialisation co-efficient will be equal to 100%, reflecting complete lack of diversification. In other words S.Q. nearer to zero more diversified will be the state be and value approaching 100 will indicate relative lack of diversification.

Localisation and specialisation co-efficient deal with two broader aspects of the rural industrial structure. The former studies the pattern across the regions and the latter studies the pattern across industries in a particular region.

Development Index:

To assess the potential of industries for growth of the rural economy an 'index of rural development' was found out. An attempt has also been made to examine the impact of overall rural development on rural industrialisation.

Development index for rural economy of each state was found out by using the method of Principal Component Analysis (PCA)-a branch of Factor Analysis. The PCA method of index construction offers a technique which combines numerous components into one index so that state (or regions/unit of study) on the index will be as similar as possible with respect to all the component characteristics which were condensed into one index. PCA reduces a large number of variables or indices into a small

number of conceptual variables through the inter correlations.

To construct the rural development index following indicators were choosen : (1) Yield per hectare of major crop (2) Gross irrigated area as a percentage of gross cropped area (3) Cropping intensity (4) Number of pumpsets and diesel sets per hectare of cultivated land (5) Rural literacy percentage (6) Per capita Rural Bank credit to agriculture (7) Percentage of villages electrified. (8) Electricity sold to agriculture per hectare of cultivable land (9) Fertiliser consumption per hectare of cultivated land.

The method of deriving composite indices/principal components is given below:

$$CI = \sum_{i=1}^{n} X^s W$$

or $CI = X^s_1 W_1 + X^s_2 W_{2+} \ldots\ldots\ldots\ldots\ldots\ldots + X^s_n W_n$

where CI = composite indices

where x^s = Standardised[11] values of the original figures of the vector (indicator) of the matrix

W = factor loading (weightage)

It can be clarified in a different way

$$CI = \sum_{i=1}^{n} X^s (\sqrt{\lambda^2} K)$$

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[11] Standardisation is done to get scale free figures or to get out of scale bias with the substraction

$$= X^s{}_1(\sqrt{\lambda_1}{}^2 \; K_1) + X^s{}_2(\sqrt{\lambda_2}{}^2 \; K_2) + \ldots\ldots\ldots\ldots + X^s{}_n(\sqrt{\lambda_n}{}^2 \; K_n)$$
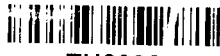
where X_s = standardised figure

$\sqrt{\lambda}{}^2$ = Eigen value (principal component)

K= vector of the respective eigen value

$\sqrt{\lambda_1}{}^2$ = Largest eigen value (first principal component)

K_1= Vector of the largest eigen value

This exercise has been done to compute factor scores to get composite indices for states to work out the over all levels of rural development.

Regression and Correlation:

For computing the strength of industries providing employment opportunities as well as leading to over all rural development and also to investigate the interdependence between various variables, i.e. level of rural industrialisation, overall rural development agricultural growth, rural poverty etc. the Ordinary Least Square Regression (OLS) and correlation have been used.

Co-efficient of variation : The relative variability in different variables is measured with the help of co-efficient of variation.

Plan of the study:

The present study is divided into 5 chapters. In chapter I the subject of rural industrialisation has been introduced.

by mean and division by standard deviation.

Concepts and their significance have been discussed. This chapter in the later part spells out the objectives and scope of the study, methodology adopted for the analysis and few shortcomings of the study. In the second chapter we review some of the existing literature on rural industrialisation and its various aspects. The dynamics of rural industrial structure of the national economy has been analysed in chapter III. An attempt has been made to identify the more important rural industries in the national economy which, in turn, have bearing on the regional growth profiles. The growth profile of various states has also been discussed in the backdrop of this analysis. Chapter; IV is designed primarily to study the rural industrial base of various states, locational spread of various rural industrial groups and specialisation of states in rural industries. All these aspects are on the basis of employment opportunities in rural area pertaining to one time period, 1989-90. It also analyses the level of rural development, agricultural growth and rural poverty vis-à-vis rural industrial development. In the last chapter (chapter : V) we have discussed the major findings of the study and their implications.

Limitations Of The Study:

There are many constraints in this study. The rural industrial sector is very heterogeneous, including a wide range of manufacturing units, dispersed all over the country in both rural and urban areas. This study covers only a segment of this broad field, i.e. unorganised manufacturing units, not covered by the Factory Act, 1948.

Due to inadequate information base of North-eastern states, they have been excluded from the study. Only sixteen major states have been taken into account.

Though micro level study might have led us to a different conclusion, state level study was made to make an inter state comparison of the levels of rural -industrial development. In stead of going into the micro level units of rural industries, only 22 major groups of industries have been considered at two-digit level of disaggregation.

There are also some technical problems, e.g. the levels of development is a subjective term. It depends upon the researchers perception to categorise, irrespective of the magnitude of composite indices, be it very close to zero or as the data can explain. The problem is that there are no threshold values to demarcate the various levels of development.

All the methods used to study the rural industrial structure (i.e. location quotient, localisation coefficient and specialisation coefficient) are either useful for measuring spatial concentration for a single industry or at a single point of time. But all these methods are silent about the process which lead to increases or decreases in the extent of concentration. Whether concentration is increasing because significant regions are appropriating larger share from the expansion of the rural industry or are just maintaining their rate of expansion. Moreover, these methods are unable to provide understanding of the changes in spatial manifestation of the entire sector.

Realibility of the empirical result depends on the nature, accuracy and consistency of the data used for the analysis. The data requirements of the present study are determined by the need for analysing (i) rural industrial growth across different industrial groups and states and (ii) evidence relating to various aspects of inter-state variations in the level of rural industrial development. We outline some of the major data limitation, in what follows:

(a)   The data provided by NSS are at current prices. Therefore, comparison overtime is not ideal without adjusting the series. One has to keep this in mind while viewing at the results.

(b)   Another problem was posed in NSS data by change in industrial classification.   The fortieth round is based on the

National Industrial Classification of 1970, whereas, the 45th round is based on the revised National Industrial Classification of 1987. As a result, industries under both the rounds do not bear one to one correspondence.

These limitations make comparison of industries over time and across states somewhat difficult. Despite the above mentioned shortcomings the data are rich enough to throw considerable light on the rural industrial sector.

CHAPTER-II

ISSUES AND REVIEW

A common characteristics of the most traditional societies is that a balance exists between the agricultural and non agricultural activities at a low level of technology. This means that productivity of land and labour in agriculture is low and thereby surplus that accrues is also low. This is superimposed by a significant proportion of population dependent on agriculture. Thus, increasingly in most of the developing countries agriculture alone is not able to absorb the expanding labour force. It leads to rural urban migration and rural migrants most notably the illiterate among them, are found to eke out their livelihood in the urban economic environment barely at a subsistence level. Rural employment and underemployment have thus been held responsible for urban poverty as well. In such a scenario, employment creation outside agriculture is essential and in this regard the importance of non-farm activities needs no emphasis. Although the rural non farm sector encompasses a wide variety of economic activities, i.e. industry/manufacturing, construction transport, communications and storage, trade and services, yet industry is most dominant constituent, in terms of value of output and quantum of employment. No wonder, therefore, that in official paralance, the approach to rural non-farm development becomes synonymous with rural industrial development and rural

industry occupies a central place in long term rural development, employment and welfare policies.

In this context, the present chapter browses the existing literature on growth of non-farm sector. The literature on rural non-farm sector in India is voluminous. So instead of going deep into the survey of literature ⌣ ·· ‥ ⁚⸱ on the whole non farm sector, in the present context a survey on the literature on the rural industrialisation is being made for which the present study is concerned.

Admittedly, the programme of rural industrialisation in India has suffered at the policy level. The issue of rural industrialisation can be approached in two different ways. One is to treat the issue as a problem of location and spatial diversification of manufacturing activity and to argue that spatial concentration of industries in urban areas does not promote an equitable pattern of growth between the rural and urban areas (Papola-Mishra, 1980). The other approach to rural industrialisation which has been most often adopted in India, views it not as a problem of industrial development of non-industrial areas including villages through diversification of location of industries, but mainly as a programme of protecting and developing traditional village industries (Gadgil, 1972). In this approach, the cottage industries and traditional crafts, are quite often projected as part of a glorious tradition and.

27

therefore, deserving special care for their preservation and growth. In this perspective, the development of rural industries sometimes attains the character of an article of faith and the programmes for this purpose are not necessarily based on an objective assessment of their role in development. Consequently, attention hardly gets paid to the possibilities of modernisaiton of rural economic structure by introducing modern and dynamic products for manufacture in the rural areas (Papola-Mishra, 1980). The Indian experience of rural industrialisation has been based on a mixture of both approaches, a sort of walking on two legs (Papola, 1982). Even when it was recognised, a second Five year plan, that the large scale modern industrialisation was essential for sustained development of the country, the need for protection and development of cottage industries in the rural areas was also vigorously pursued simultaneously. Interestingly,

, the two facets of the policy were pursued independently of each other. (Papola-Mishra), 1980).

Since the beginning at planning era India has all along emphasized the development and protection of rural industrial sector. Village and small scale industries were expected to play a crucial role in overcoming the problem of poverty and unemployment (Kashyap, 1988) However, though the village and small industries did receive attention in the various plans, with

varying intensity, a decline is observed in traditional manufacturing sector. This sector continue to decline further (Hann, 1980) and it is argued the primordial goal of the rural industrial sector is to retain or increase its own employment rather than to absorb surplus labour from agriculture. In contrast to this view Kashyap (1988) argues that rural industries are viewed as good absorber of surplus labour and important in achieving the goal of an equitable distribution of income. Because these industries grow relatively faster at first because of flexibility, subcontracting facilities and differentiated product.

Studies in the past have looked into various aspects of Indian rural industrialisation and the evidence is not so encouraging as regards the objectives of the sector.

Chadha (1996) examines the growth performance of rural industrial sector in the context of major thrusts in Indian's industrialisation strategy in general. He evaluates both the past record of rural industrial development and govt. policies intended to stimulate growth of rural industries in India. He traces the poor performance of this sector as follows "on the one hand, India's failure to develop adequate social and physical infrastructure in rural areas has meant that production, transaction and information costs have been persistently higher in rural than in urban areas. On the other hand, the special policies and programmes meant to protect, support and stimulate rural

industries have not always been well targeted and often ended up benefiting urban small industries".

. Reddy (1989), evaluating the growth performance of rural industries, recommends that mere increase in budgetary allocation does not seem to help in bringing about effective and substantial growth of rural industries. What is perhaps most important is to integrate rural industries through policy support with the overall industrialisation process of the country.

Popala and Mishra (1980) note with regard to traditional rural crafts/industries, that wherever they have survived it is due to factors external to village economies. In this respect, they point out that proximity to road connections and urban centres seems most important determinants of the state of industrial units in the village. The characteristics of the village economy, including its population size and structure shows no perceptible influence. Of late, due to failure of the agricultural sector, decline in traditional rural crafts and even the modern industrial sector to create employment for the increasing labour force, the stress is being laid on how to facilitate employment outside agriculture in rural areas and control rural urban migration.

Papola (1987) finds that in different states the performance of rural industrial sector is associated with agricultural productivity and has higher correlation with the growth of

agricultural output. He argues that rise in income levels, purchasing power and to an extent, the investible surpluses generated by agricultural growth improved the efficiency of the existing industries leading to the emergence of new and dynamic employment areas. Agricultural growth had contributed by supplying raw materials and creating demand for inputs and allied services and has directly affected rural non farm activities. Indirectly, it has influenced non form sector through raising consumption demand and generating surplus for investments. Papola finds more evidences for indirect relationship rather than direct one. He also states that in rural areas traditional industries still continue to cater to local consumption needs and to the small production requirements of agriculture. It is also argued 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 resource and changing demand patterns. It is because of this that most rural industrial enterprises are carried out as a means of family subsistence rather than business. Typically, 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.

Singh (1990), using the 1980 economic census data finds that own account enterprises (OAEs) predominate in Rajasthan.

However, the service and infrastructure sectors are not the main off-form activities in operation to cater to the needs of agriculture. This, in fact, indicates that an underdeveloped agriculture is effective in creating expanding avenues of work. In the arid districts of Rajasthan, OAEs dominate in agriculture related activities which is quite understandable because these districts have a large sheep and goat population. It is also found that primarily in the arid and tribal districts, the proportion of hired female workers is relatively large and is higher than the state average.

Minocha (1980) after making a study of industrial development in Madhya Pradesh says that unorganised sector has tremendous employment generating potential. So their base should be broadened to absorb teeming labour force. To him the development of small and cottage industrial is a must as a strategy of employment oriented industrialisation. Rastogi (1980) also puts forth similar arguments. He strongly favours only small scale and village industries which uses local resources optimally. To him a good number of items can be produced by the rural ·masses more efficiently in small scale sector then in large sector.

Papola (1982) fears that, though employment is important, there is a danger in laying exclusive emphasis in the quantum of employment, for it may result in the creation of host of low productivities. dead end jobs in which individuals have little

opportunity for advancement. Srivastava (1984) also feels that besides creation of employment opportunities rural industrialisation should also solve other problems. In another study Nakkiran (1986) opines that the future of India depends on rural industries. It is the only means through which increasing labour force can be absorbed as agriculture has already reached its saturation point. Similarly, Panditrao (1986) justifies the need for rural industrialisation as an alternative to agriculture considering the growing unemployment in rural areas.

The rural industrial sector is technically backward. But this should be no reason to deny if the access to technology or to hold back efforts to develop this sector. In a competitive environment, rural industrial development requires the upgrading of technical skills, and as the sector grows, rural labourer expectedly acquire increasingly advanced technologies. Rural industries need to co-operate with large urban industries.

Vani (1997) while estimating the production efficiency of rural industries finds that, in general, rural industries have higher labour intensity, lower labourer productivity and higher capital productivity than large scale industries, when judged in term of total productivity, however, rural industries are less efficient producers. In cases where rural industries are found to be as efficient as large industries it is also found that the former are no more labour intensive than the latter. In only very few cases are

rural industries found to be both labour intensive and more efficient. These findings lead to rather pessimistic conclusions ; promotion of rural industries need not necessarily increase the employment intensity of industrial growth and if it does, there is likely to be a cost in terms of slower industrial growth. To the extent that these conclusions are valid, it follows that in designing policies towards rural industries, the cost of persistent underemployment may have to be weighted against the cost associated with slower industrial growth.

A world Bank study (1978) suggests that requirements for more employment and higher incomes can be fulfilled by non-agricultural activities. It further points out that small manufacturing enterprises generate more divert and 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.

Bepin Behari (1976) recommends appropriate technology in relation to labour and other resource available in the area. He discusses about the improvement in technology used in rural industries, which is also supported by Arora (1978).

Rao (1978) suggests that intermediate technology should be introduced which will give a new dimension to the solution for the problem involved in rural areas. Singh (1982) traces for

popularising techniques, using labour intensive technologies, different agencies like Khadi and village commission   ‚ (KVIC) can take the initiative.

Any programme of developing rural enterprises will need the active support of financing institutions and commercial banks. More than the large and medium as well as urban located small enterprises, those in rural area will have to depend on moneylenders and traders for finance.

The industrialisation programme in the rural area does not seem to have any immediate alternative and it has to succeed and achieve its planned objectives. For this purpose, there is a need for basic change in the philosophy and attitude of all the institutions and organisations engaged in the promotion, financing and development of rural industrial units. Instead of confining one to the traditional highly protected and concessional financing approach to project formulation, there should be more open, competitive and market friendly approach to rural industrialisation. This would lead to a viable and competitive rural sector which can absorb increasing level of educated and skilled manpower (Moharana, 1997).

Bhattacharya (1980) discusses about the bankers' difficulty in financing rural industries in detail. He says problems are varying types such as : (1) personal (2) lack of leadership

involvement and (3) political. In this context he suggests some prerequisites which the bankers should have while financing the rural industries.

Kotadwala (1984) mentions that the role of state development agencies and financial institutions are complementary to each other. Their concerted efforts can take rural industrialisation towards a desired direction which will in turn reduce regional economic disparity.

Thus, lack of adequate and timely availability of credit is a big obstacle on the way of the steady progress of rural industrialisation process. Looking at the failure of the finance to reach the expected target Patel (1986) discusses the role of banks for different schemes, the problem being experienced and the steps to overcome these problems.

The development of rural industrial sector also depends on marketing. Some have local markets but for others outside markets have to be found. In many rural areas finding market is more difficult than getting capital. There are two problems here : first is the lack of the information, i.e. many do not know what products are marketable and profitable and second is the inability to break through the limited local market to seek wider sales.

It is argued that rural industries could not grow satisfactorily, because the demand for the products of these

industries do not grow fast. This argument has a far reaching consequence. If the major problem is the problem of demand for their products, the official measures taken to tackle the supply side problems would not be of much use, and the industries would fail to achieve satisfactory growth.

Majumdar, et. al. (1996) estimate the demand function of rural industrial products. The results they obtain seem to present a not too optimistic picture so far as the products of traditional rural industries are concerned. The demand for products of many of these studies appear to be relatively in elastic with respect to income (strictly speaking, per capita total consumption expenditure). The general picture which emerges from this exercise there are a few items for which the prospect of demand growth seems bright. There is not only seasonal variations in the demand for these products, but also the variation is more so pronounced across the states.

Islam (1987) explains demand for products of rural industries in 3 aspects viz. export demand, households demand and intermediate demand. These three demands are necessary to promote rural industrialisation. But generally, it is observed that rural industries fulfill households 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 high. The demand constraint is very closely related to the growth of agriculture. It implies that higher income in 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 income.

Bhattacharya (1980) is of the view that marketing is the most important aspect of productive activity of rural industrial product. Due to changing demand conditions and challenges posed by large scale industry there is an urgent need of marketing information system, marketing research centre etc. for rural industrial product.

Pathak (1982), on marketing, says that market should exist locally, which can help in reducing marketing expenditure and transportation cost. etc.

Johanson and Ronnas (1996) address to certain puzzles related to the economic liberalisation, i.e. whether the new economic environment will be more conducive to a healthy development of rural industries, than provided by any other economic regime.

"No matter how compelling the arguments for protecting existing rural industries may be such policies are defensive rather than offensive in nature and do not provide a viable basis for a

long term strategy. If rural industries are to play an effective and positive role in the long term economic development of a country, they must be allowed and be made to develop by their own force and in line with their particular advantages. "Some of the advantages of economic liberalisation are as follows -

1.   Firstly, a deregulated and liberalised open economy will induce the comparative advantages of rural industries to 'come out into open.' In particular, adjustment of relative factor prices in line with relative scarcities will benefit rural industries.

2.   Secondly, economic liberalisation reduces the scope for discretionary policy and decision making, red tape and rent seeking activities which will greatly favour these industries.

3.   Thirdly, economic liberalisation will promote the development of more efficient markets, which will benefit rural industries through reduced transaction costs.

4.   Fourthly, exposure to competition will foster rather the creation of linkages and network of contacts, which are instrumental to development of dispersed and rural industries.

Rural infrastructural development in terms of roads, water, power communication etc. is important. There is also the need to restructure different agencies engaged in the promotion of rural industries. In this direction, NGOs can play an important role both in terms of extending designing facilities and marketing

outlets. Above all, in the rural areas, lack of information about the market, state schemes etc. inhibits spread of rural industries.

The above discussion reveals that there are commonalties of factors explaining the different aspects of rural industrial sector. For instance , rural industries face capital shortage, their size is small, and they operate with backward technology. Also there is evidence that returns to various factors of production are still low. Outside linkages and infrastructural development are also important for growth of rural industrial sector. While positive links between economic liberalisation and long term development of rural industries provide grounds for cautious optimism and reason for reassessing the status and potential role of rural industries, they should not be interpreted as arguments for laissez-faire policies or complacency.

CHAPTER-III

PERFORMANCE OF THE RURAL INDUSTRIAL SECTOR

India has earned a rare distinction among the developing countries of having ardently supported the development of rural industries throughout the post independence period. In India the economic performance of rural industrial sector has been a subject of extensive discussion. The theme that rural industries can play a crucial role in overcoming the problem of poverty and unemployment. has been an integral part of the Indian development strategy. The rural industrial sector has been imbued with multiplicity of objectives, important among these being (i) the generation of immediate employment opportunities with relatively low investment , (ii) promotion of more equitable distribution of national income (iii) effective mobilisation of untapped capital and human skills and (iv) dispersal of manufacturing activities all over the country. leading to growth of village, small towns and economically lagging regions. The rural industry as commonly understood in India, includes a diverse range of manufacturing units which vary in size of employment, capital investment and value of output as well as in the level of organisation, technology source of power, type and quality of product and so on. The rural industrial sector is huge and heterogeneous as it covers manually operated tiny households

41

unites widely dispersed all over the country as well as urban based relatively large establishments using modern technology. The rural industries thus belong to 3 sub sectors- (a) village and small industry (VSI sector) ; (b) traditional village industries including handicrafts, artisans etc. (c) unorganised manufacturing (unregistered) units not covered by the factory Act, 1948.

Ours is an operational definition falling under category (c) of above classification. Thus in the present study we approximated the rural industrial sector in India by unorganised manufacturing sector. It is found to be a significant source of manufacturing employment. We are therefore investigating the determinants of relative importance of the unorganised manufacturing sector, even if information on this is very much scanty and scarce.

The following table shows the changing mode of manufacturing employment between 1984 and 1989-90 in the organised and unorganised sector.

Table 3.1

	1984-85		1989-90	
	Number (Lakhs)	Percentage to total	Number (Lakhs)	Percentage to total
A. Unorganised Sector	322.50	80.16	296.28	78.444
Rural	242.75	60.34	217.04	57.46
Urban	79.75	19.82	79.24	20.98
B. Organised Sector	79.81	19.84	81.42	21.56
Total	402.31	100	377.70	100

Source : NSS Report No. 363/1

NSS Report No. 396/1

Annual survey of Industries (various issues)

The above table shows that the Indian manufacturing sector was small and dominated by the unorganised sector ; the domination was indeed overwhelming in terms of persons employed rather than output contributed. Tale 3.1 clearly reveals that unorganised sector accounted for nearly 80 percent of manufacturing employment, while the organised sector constituted only 20 percent in 1984-85. The picture of manufacturing employment by and large remains unchanged in 1989-90, although the share of unorganised sector declined marginally by 2 percent.

In the unorganised sector the share of rural area was 60 percent in 1984-85. Even if the share of rural area declined in 1989-90, still it constituted more than 50 percent of the total manufacturing employment. It is interesting to note that the unorganised sector as a whole lost its share in favour of organised sector as a whole and that of rural area in particular do signify its importance in the industrial structure. The present study is motivated by above findings and hence the unorganised manufacturing sector must be looked upon as a hope for the ·future.

The National sample survey organisation (hence forth NSSO) is the main agency collecting data on the unorganised manufacturing industries. We will refer to and use NSS data at

tow points of time, (or rounds, to use NSS terminology) : 40th round (covering July 1984-June 1985) and 45th round (July 1989 – June 1990). The unorganised sector has been featuring in every major Industrial policy statements since 1984, because of its labor-using and decentralised character. Information on unorganised segment of the manufacturing sector is extremely score. Therefore most of the studies on the industrial dispersal across regions in India by and large. leave out this sector.

During the 40th and 45th round, NSSO collected information on major economic characteristics like number of units, number of units, number of person employed, value of fixed assets, output or value added etc. of the unorganised manufacturing sector separately for two broad groups of industrial Categories i.e. own account enterprises (OAEs) which means an enterprise owned and operated without the help of any hired worker, employed as a fairly regular basis. Non-directory establishment (NDE) which means an establishment which employs a total of not more than 5 workers. The information on major economic characteristics is also available separately for .rural and urban areas.

Table 3.2 gives the rural urban division for OAEs and NDEs in terms of number of units and number of workers engaged.

Table 3.2

	Rural				Urban	
	OAEs	NDEs	TOTAL	OAEs	NDEs	TOTAL
A. No. of Units						
	93.90	6.10	75.00	76.30	25.00	25.00
	93.86	6.14	76.40	76.04	23.96	23.60
B. No. of Units						
	90.30	9.70	75.27	66.60	33.40	24.73
	89.98	10.02	73.25	62.92	37.08	26.75

Source : NSS Report No. 363/1

NSS Report No. 396/1

Nearly 75 percent of the total number units and total workers are located in rural areas and rest in urban area. Within the rural areas. The OAEs command a clean sweep which is evident from a 94 percent share of OAEs against just about 6.0 percent of NDEs. The OAE in urban India also command a major share of 76 percent. Curiously, rural OAEs and NDEs employ nearly the same proportion of workers as is their respective numerical strength. In urban area the share of OAEs and NDEs was 75 percent and 25 percent respectively. The pattern of distribution of number of units as well as total person employed remained almost the same in both the round of NSS data.

We may look at the 20 two digit level industries drawn

from two NSS rounds, i.e. 40th and 45th round. There have been slight changes in the concept used. The changes in the concept may not cause distortions as far as the entire unorganised sector is concerned but will affect the comparison between the type of industries. The statistics on industry for 1984-85 are available for 20 two-digit industry groups and those for 1989-90 for 22. Of those 20 industry groups are common and have the same nomenclature and therefore the number against them are comparable.

Since NDEs donot prevail on a big scale both in term of number of units and number of workers employed, especially in rural areas, we have pooled the information for OAEs and NDEs across different segments to get the total picture of the full range of unorganised manufacturing sector at two digit level of disaggregation separately for rural and urban area.

Using the massive data available in the NSS reports the present chapter attempts to highlight some aspects of growth and structural changes in rural industry over the five years period between 1984-85 and 1989-90, i.e. the reference year of two NSS reports. In other words, we attempt to approximate the size, structure and growth of unorganised manufacturing sector at all India level at two digit level of disaggregation. However, we do not intend to investigate the causes of structural changes in

industrial spatial units. The attempt will be to find some clue to the diverse performance of various states in their respective rural industrial structure. The available statistics permit us to study above aspects in both rural and urban area and by state and major industry groups.

Growth performance of any sector in an economy can be measured in terms of various economic variables such as number of units, output or value added, employment, fixed asset etc. We have also taken these 4 variables which by and large represent investment, employment and income aspects of rural industrial sector respectively.

For the purpose of temporal assessment of the size, structure and growth of the rural industrial sector. We have used simple statistical measures like percentage shares and compound growth rates. Our estimate of growth rates are based on data collected at two points in time. So have to be cautiously interpreted.

Our approach is to note the coexistence of rural and urban firms in the same industry and what factors determine their relative shares. The rural urban comparisons would throw locational as well as scale advantages or disadvantages. As the govt. of India has often given oral support to the importance of

rural industry this kind of analysis is, of course of some interest.

This chapter has been divided into 3 sections, while section I examines the size, structure and growth of rural industrial sector, the issues related to the relative differential in different structural ratios across different segments are taken up in section II. ı Section III will deal with few important aspects of the multifarious problems of rural industries.

SECTION : I

It is an indubitable fact that rural industries have played an important role in generating employment opportunities as well as enhancing the standard of living of the rural masses especially in a country like India. This section seeks to look into some aspects of growth and structural changes in rural industry by considering the number of units, employment, value added and fixed capital.

UNITS[1] :

Table 3.3 (a) summarizes the data for the distribution of the number of units across different industry groups for rural and urban area. Lets consider the rural economy first. It is observed

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[1]   We shall use `unit' both for enterprise and
       establishment.

from the table that wood product (27) claimed the highest percentage (25.84%) of the total number of units in 1989-90, followed by food products (20-21) constituting 16.96 percent and beverages and tobbacco (22) with 13.86%. They claimed the same position in the previous period, even if their share have found to be declined. The major loser in rural area are wearing Apparel (26) which share declined from 17.67% to 7.56, repair of capital goods (39) which share declined from 8.25% to 1.53. Wood product (27) and beverages and tobbacco (28) gained in their respective share. In urban area almost all industry groups, witnessed a declining share, but the pattern of distribution is quite similar to that of rural area.

Table 3.3(a)

SECTORAL & RURAL - URBAN COMPOSITION & GROWTH OF NO.

OF UNITS- ALL NDIA

(In Percent)

NIC CODE	PERCENTAGE SHARE				COMPOUND GROWTH	
	1984 - 1985		1989 - 90			
	RURAL	URBAN	RURAL	URBAN	RURAL	URBAN
	1	2	3	4	5	6
20-21	17.69	13.18	16.96	11.61	-4.41	-7.31
22	7.19	6.49	13.36	11.29	9.08	6.18
23	12.93	9.40	8.59	7.53	-11.21	-9.06
24	1.70	1.66	1.22	4.28	-9.89	14.91
25	0.39	0.10	1.03	0.71	16.97	40.68
26	17.67	21.15	7.57	6.57	-18.65	-25.45
27	18.12	9.31	25.84	9.74	3.45	-4.07
28	0.15	1.96	0.28	3.27	9.81	5.22
29	2.81	2.41	2.12	1.55	-8.92	-13.01
30	0.13	0.81	0.82	2.12	38.17	15.05
31	0.26	1.58	0.17	1.16	-11.75	-10.70
32	6.14	2.61	6.62	2.61	-2.18	-4.94
33	0.12	0.52	0.03	0.32	-25.72	-13.98
34	3.05	2.63	1.99	4.05	-11.52	3.66
35	0.41	0.80	0.39	0.73	-4.70	-6.43
36	0.01	0.23	0.03	0.53	15.24	12.21
37	0.17	0.28	0.11	0.30	-11.75	-3.85
38	2.79	7.02	3.89	8.19	2.98	-1.94
39	8.25	16.85	1.53	2.92	-31.22	-33.03
97	--	--	7.37	20.40	--	--
99	--	--	0.05	0.12	--	--
All Industries	100	100	100	100	-3.63	-4.93

As a whole the growth of number of units declined both in rural and urban area at the rate of -3.63 and -4.93 percent respectively. Except industry groups 22, 28, 30 and 36 all other industry groups[2] have witnessed a negative growth rate both in rural and urban area. But the industry groups having high positive

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[2] See, table 3.11. Henceforth, only industry code will be mentioned for indicating any specific industry group.

growth rate constitute a very insignificant share of the total number of units. The industry group chemical and chemical product (30) registered the highest growth rate of 38.17% in rural areas where as in urban area jute textiles (25) witnessed the highest growth rate of 40.86 percent.

Table3.3(b)

STATEWISE RURAL URBAN COMPOSITION & GROWTH OF NO. OF UNITS

(In Percent)

STATES	PERCENTAGE SHARE 1984 – 1985		1989 - 90		COMPOUND GROWTH	
	RURAL	URBAN	RURAL	URBAN	RURAL	URBAN
	1	2	3	4	5	6
Andhra Pradesh	7.66	9.62	10.49	8.45	3.43	-7.35
Bihar	8.66	3.74	8.93	3.65	-3.02	-5.37
Gujrat	1.45	2.70	2.07	6.23	3.46	12.40
Haryana	1.02	1.42	0.91	2.23	-5.59	4.01
Himachal Pradesh	0.51	0.31	1.25	0.16	15.41	-16.52
Jammu & Kashmir	0.85	0.90	1.35	1.69	5.68	7.80
Karnataka	3.28	6.43	4.99	6.04	4.84	-6.10
Kerala	2.73	4.47	4.01	2.65	4.06	-14.36
Madhya Pradesh	5.56	7.29	4.47	4.25	-7.73	-14.66
Maharastra	5.83	10.39	5.46	8.95	-4.88	-7.72
Orissa	5.15	1.23	7.86	1.80	4.86	2.61
Punjab	1.27	2.11	1.30	3.21	-2.99	3.38
Rajasthan	3.46	4.29	3.50	5.79	-3.92	0.97
Tamilnadu	6.34	17.28	6.27	16.10	-3.81	-6.27
Uttar Pradesh	32.85	14.02	14.58	15.91	-18.06	-2.50
West Bengal	10.97	1.52	20.46	9.79	9.16	-6.29
All India	100	100	100	100	-3.63	-4.93
Coefficient of Variation	123.32	81.10	85.26	76.22	--	--

We shall look at the data for individual states, presented in Table No. 3.3 (b) As far as the concentration of number of units in rural area is concerned, West Bengal showed the highest figure (20.46%) followed by Uttar Pradesh (14.59%) Andhra Pradesh (10.49%). Bihar (8.93%). These four states together contributed

almost 60% of the total industries and the remaining was shared by other states. In case of most of the states the share has declined in 1989-90 compared to 1984-85. West Bengal is the only state which share have. increased from 10.97% to 20.46% in rural area. The major loser in rural area is Uttar Pradesh which share declined from 32.85% to 14.59%. All the other states have witnessed a very marginal change.

In urban area also most of the states have experienced decline in their share between 1984-85 and 89-90. In urban area Tamil nadu shows the highest concentration of enterprises with share of 16.10% followed by U.P. (15.91%) West Bengal (9.79%) and Maharashtra (8.95%). All other states have followed a similar pattern of distribution as in rural area in both the time periods, but their shares have declined during the reference period.

So far as the growth figures are concerned Himachal Pradesh in the rural area and Gujarat in urban area have registered highest rate of growth (15.41% and 12.40% respectively). In rural area besides Himachal Pradesh, west bengal Karnatak, Keralal, Andhra Pradesh and Jammu and Kashmir have witnessed a positive growth rate, where as in urban area states with positive growth rates are Gujarat, Haryana, Punjab and Rajasthan.

As a whole, it is evident that the five years brought about a setback to the number of units both in rural and urban area. The decline was experienced practically in each sector and state and therefore the growth of units as a whole fell steeply. Non availability of statistics on closed sick and weak units and their capacity utilisation there is add to the gloom picture. Because of finance and marketing problems many units were closed.

But a decline in coefficient of variation shows a decline in the interstate disparity in terms of number of units both in rural and urban areas.

Employment : The most avowed objective of promoting rural industrialisation has been to provide expanding avenues of employment to rural labour force.

Table 3.4 (a) shows the changing mode of employment between 1984-85 and 1989-90 in rural and urban area.

In 1984-85 maximum proportion of workers are found in industry group 20-21 (19.49%) in rural area followed by code no (19.30%) 27 (16.32%) and 26(14.16%). These four industrial group, taken together constitute 60% of the total workforce. In 1989-90 the highest concentration of rural workforce is found of percentage share in rural areas are 22. 27. 32. 38. where as all

other segments loose their share in 1989-90.

Table 3.4 (a)

SECTORAL & RURAL - URBAN COMPOSITION & GROWTH OF EMPLOYMENT - ALL INDIA

NIC CODE	PERCENTAGE SHARE				(In Percent) COMPOUND GROWTH	
	1984 - 1985		1989 - 90			
	RURAL	URBAN	RURAL	URBAN	RURAL	URBAN
	1	2	3	4	5	6
20-21	19.49	13.91	18.71	12.07	-3.01	-2.94
22	6.95	6.80	11.09	9.02	7.35	5.67
23	19.30	11.98	9.46	8.10	-15.20	-7.65
24	1.63	2.55	1.42	6.31	-4.85	19.70
25	0.49	0.14	0.99	0.64	12.70	36.67
26	14.16	19.97	7.98	6.79	-12.79	-19.52
27	16.32	8.89	25.61	9.27	7.10	0.68
28	0.22	2.22	0.30	4.32	4.47	14.08
29	1.98	2.59	1.62	1.63	-6.03	-9.02
30	0.17	0.87	0.97	2.12	37.72	19.47
31	0.25	1.82	0.13	1.36	-14.16	-5.79
32	7.22	2.92	8.09	3.02	-1.30	0.56
33	0.10	0.65	0.06	0.45	-11.33	-7.10
34	2.78	3.04	2.16	4.82	-7.01	9.50
35	0.32	0.87	0.28	1.00	-5.04	2.56
36	0.01	0.26	0.05	0.83	30.65	25.90
37	0.16	0.23	0.13	0.42	-6.94	12.55
38	2.48	6.43	4.36	8.12	9.57	4.63
39	5.30	13.72	1.40	3.22	-25.10	-25.28
97	--	--	5.14	16.42	--	—
99	--	--	0.05	0.11	--	—
All Indusries	100	100	100	100	-2.21	-0.13

Lets now peep into the urban scenario. In 1984-85 the largest concentration of workforce found in code no. 26 (19.97%) followed by witnessed a decline in their share. Industries code 26 and 39 lost pretty much in their share.

As a whole our analysis throws up many depressing signals. The declining shares are also confirmed by declining growth rates

in corresponding industry groups. The industries which registered high growth rates in both rural and urban area are wide no. 25, 30 and 36. The other industries which witnessed a positive growth both in rural and urban area are 22, 27 28, 30. The decline was experienced practically in each sector. No. wonder, therefore employment growth rate as a whole fell at a rate of -2.21 and -0.13 in rural and urban are respectively.

The employment record has been quite uneven among individual states. Table 3.4 (b) shows that in 1984-85 maximum rural workforce concentrated in Uttar Pradesh (35.86%), West Bengal (12.44%), Bihar (9.20%), Andhra Pradesh (7.42%) and Tamil Nadu (7.17%). These five states, taken together account for approximately 70% of rural workforce. In 1989-90, almost all states have witnessed a decline in their share. But the distribution pattern has remained the same. The share of Uttar Pradesh declined sharply from 35.86% to 15.49%. Besides Uttar Pradesh, other states which have registered an increase in their share in rural workforce are - Andhra pradesh, Orissa, etc.

In urban area Tamil Nadu accounts for maximum employment with 20.67% on 1984-85, followed by Uttar pradesh (15.92%), West Bengal (12.44%) and Andhra Pradesh (11.10%). The urban area too witnessed a deceleration is their shares. But the relative position of individual states did not change during

the time frame of our study.

Table 3.4(b)

STATEWISE RURAL URBAN COMPOSITION AND GROWTH OF 'EMPLOYMENT'

STATES	PERCENTAGE SHARE				(In Percent) COMPOUND GROWTH	
	1984 - 1985		1989 - 90			
	RURAL	URBAN	RURAL	URBAN	RURAL	URBAN
	1	2	3	4	5	6
Andhra Pradesh	7.42	11.10	9.83	7.86	3.43	-6.77
Bihar	9.20	3.87	8.01	3.24	-4.88	-3.59
Gujrat	0.71	2.10	2.00	7.50	20.28	28.87
Haryana	1.06	1.92	0.87	1.97	-5.92	0.49
Himachal Pradesh	0.42	0.41	1.21	0.14	19.15	-19.02
Jammu & Kashmir	0.50	1.01	1.39	1.42	20.02	7.00
Karnataka	2.87	6.09	4.22	5.91	5.62	-0.70
Kerala	2.71	5.62	3.55	2.56	3.25	-14.69
Madhya Pradesh	3.17	6.89	4.06	3.92	3.25	-10.77
Maharastra	5.06	6.71	5.30	10.47	-1.26	9.20
Orissa	6.64	1.41	10.02	1.90	6.16	4.22
Punjab	1.15	2.58	1.08	3.27	-3.28	4.71
Rajasthan	3.30	4.66	3.47	5.25	-1.22	2.26
Tamilnadu	7.17	20.67	6.38	15.44	-4.45	-5.79
Uttar Pradesh	35.86	15.92	15.49	15.30	-17.32	-0.93
West Bengal	12.42	12.44	18.64	10.28	7.57	-3.88
All India	100	100	100	100	-2.21	-0.13
Coeffiecnt of Variation	134.32	115.16	85.43	76.41	--	--

The growth figures also support the dismal employment scenario. The states where, rural employment expanded fast are Gujarat, Himachal Pradesh, Jammu and Karnatak, Kerala, Madhya Pradesh and west Bengal. But the above states have registered a negative growth rate in urban areas, except Himachal Pradesh, Maharashtra.

The coefficient of variation of employment in both rural and urban area has declined, showing decline in inter-state

56

disparities in terms of employment.

The employment as a whole hardly witnessed any growth e.g. against a compound growth rate of -2.21/ in rural area it fell just by (-0.13%) in urban area. Thus employment suffered both in rural and urban area. The sagging performance of employment is thus, a cause of worry. The dwindling proportion of employment in this sector points to the fact that employment aspirations of the increasing array of labour force are not met by this sector. In brief, the results provides a disappointing employment scenario both in rural and urban area.

Value Added :

Table 3.5. (a) summarizes the date for value added for all India by different industry groups. Let us first consider the rural economy. The table shows that the industry division code (IDC)no. 20-21, 26, 27, 23 and 39 account for an important proportion of the total value added in 1984-85. The same industry groups retain their position in 1989-90. But the proportion of value added declined in varying degree. We witnessed a sharp decline in proportion of value added in industry group 23, 26, and 39. While there is a significant rise in proportion in industry groups 20-21, 27, 22.

Turning to urban economy the IDC no. 20-21, 26, 27, and

39 account for approximately 60 percent of the total value added in 1984-85. But in 1989-90 these industry groups lost pretty much in their share. The above industry groups account for only 30 percent of the total value added. The industry groups which gained in their share are code no. 24 and 28. All other industry groups lost their share to the total value added.

Table 3.5(a)

SECTORAL & RURAL - URBAN COMPOSTION & GROWTH OF ' VALUE ADDED ' - ALL INDIA

(In ercen)

NIC CODE	PERCENTAGE SHARE				COMPOUND GROWTH	
	1984 - 1985		1989 - 90			
	RURAL	URBAN	RURAL	URBAN	RURAL	URBAN
	1	2	3	4	5	6
20-21	20.44	17.90	23.80	14.59	10.34	3.17
22	5.84	2.46	8.87	3.12	16.37	12.73
23	11.64	8.05	6.75	4.81	-4.01	-3.04
24	1.72	1.38	1.21	8.51	-0.20	54.73
25	0.44	0.06	0.38	0.11	3.89	21.16
26	14.91	15.46	7.12	4.94	-7.67	-14.13
27	19.58	7.32	22.32	7.88	9.89	9.11
28	0.21	2.76	0.34	4.85	17.67	20.33
29	4.08	3.06	2.21	1.62	-5.30	-5.28
30	0.17	1.07	0.52	1.48	34.19	14.69
31	0.24	1.36	0.32	1.78	12.95	13.32
32	6.42	2.58	6.00	2.02	5.58	2.26
33	0.15	0.80	0.11	0.64	1.34	2.54
34	3.67	5.20	2.94	6.16	2.45	11.16
35	0.74	1.51	0.36	2.03	-7.20	14.01
36	0.03	0.77	0.15	1.41	49.58	21.15
37	0.40	6.72	0.27	0.65	-0.89	-32.54
38	2.41	5.41	4.10	9.09	19.04	19.26
39	6.92	16.31	2.05	3.50	-16.09	-20.99
97	--	--	8.48	16.58	--	--
99	--	--	0.06	0.10	--	--
All Industries	100	100	100	100	7.04	7.47

The growth performance of value added grew at an annual growth rate of 7.04% and 7.47% in rural and urban area respectively. The industry groups which registered a fairly rate of growth in rural area IDC no. 26, 38, 31, 30, 28, 22 and 20-21. Besides these segments, the IDC no. 25, 27, 32, 33, 34 also

witnessed a positive growth rate. All other segments have experienced negative growth rate. In urban area the growth pattern is almost similar to that of rural area.

The data for individual state are presented in Table 3.5 (b). In 1984-85 Uttar Pradesh accounted for a maximum proportion of value added (22.75%) in rural areas followed by Bihar (13.47%) west Bengal (11.11%) Karnataka (8.28%) and Andhra Pradesh (6.88%). In urban area the position of individual states didn't change, subject to few exceptions. The year 1989-90 points a different picture. In rural area west Bengal remained at the top with 20.90% followed by Uttar Pradesh (12.81%). Bihar (11.98%), where as in urban area the maximum share of value added is contributed by Gujarat (18.54%) followed by Uttar Pradesh (12.98%) and Maharashtra (12.84%). In rural area the major loser are Uttarpradesh and Karnatak where as west Bengal has gained a cent percent increase in its share. In urban area Gujarat has gained significantly. The relative position of other states has remained the same.

So for as the growth record is concerned, except Uttar Pradesh, Jammu and Kashmir and Karnatak all other states have experienced a positive growth rates in their respective rural areas. While in urban area states witnessing negative growth rate are Gujarat Jammu and Kashmir, Punjab etc. .

Coefficient of variation in terms of value added decline in rural areas, while it increased in case of urban area. It indicates a decline in regional disparity in rural area while increasing in case of urban area.

Table 3.5 (b)

STATEWISE RURAL - URBAN COMPOSITION AND GROWTH OF 'VALUE ADDED'

STATES	PERCENTAGE SHARE				(In Percent) COMPOUND GROWTH	
	1984 – 1985		1989 - 90			
	RURAL	URBAN	RURAL	URBAN	RURAL	URBAN
	1	2	3	4	5	6
Andhra Pradesh	6.88	6.65	8.04	4.45	10.45	-0.79
Bihar	13.47	3.57	11.95	3.51	4.51	7.14
Gujrat	2.25	3.60	3.53	18.54	17.11	46.16
Haryana	1.30	4.32	1.14	2.01	4.50	-7.80
Himachal Pradesh	0.62	1.20	2.99	0.22	41.87	-23.16
Jammu & Kashmir	4.44	1.04	1.95	1.35	-9.12	13.46
Karnataka	8.28	4.36	3.86	4.06	-8.06	6.01
Kerala	3.11	8.19	4.13	1.74	13.37	-21.16
Madhya Pradesh	4.35	6.07	3.55	3.13	2.78	-5.82
Maharastra	6.75	11.49	6.51	12.84	6.42	9.89
Orissa	4.12	0.83	4.43	1.16	8.64	14.80
Punjab	1.56	3.49	2.09	4.59	13.3	13.53
Rajasthan	3.52	3.62	4.17	4.48	10.78	12.21
Tamilnadu	5.12	11.92	5.49	8.74	8.58	0.98
Uttar Pradesh	27.75	12.02	12.81	12.98	-8.28	10.84
West Bengal	11.11	8.56	20.90	8.10	21.49	6.30
All India	100	100	100	100	7.04	7.47
Coefficient Of Variation	98.68	64.57	81.83	87.11	--	--

Fixed Asset :

Table 3.6 (a) shows that the inter-industry distribution of fixed asset across rural and urban area.

In rural area the industry code no. 20-21, 23, 26, 27 accounted for maximum percentage of fixed asset during 1984-85

and 1989-90. But the share declined in case of code no. 23 and 26 where as the industry groups 20-21 witnessed a significant increase in the share. In urban area IDC no. 26 contributed 40.76% of the total fixed asset in 1984-85 but it has declined to only 4.24% of the total fixed asset in 1989-90. In addition to IDC no. 26 the share of 20-21 and 39 have also declined. In all other industry divisions the share has increased by small proportion. Except industry division 25 and 36 in rural areas and 22, 24, 25, 30, 32.33 and 38 in urban area all other segments have witnessed negative growth rates. As a whole the fixed asset is declining both in rural and urban area at the rate of −16.13 and −0.27 percent respectively.

Table 3.6(a)

SECTORAL & RURAL - URBAN COMPOSITION & GROWTH OF *FIXED ASSETS* - ALL INDIA

NIC CODE	Percentage Share 1984 – 1985		1989 – 90		(In Percent) Compound Growth	
	RURAL	URBAN	RURAL	URBAN	RURAL	URBAN
	1	2	3	4	5	6
20-21	20.67	17.26	35.15	16.25	-6.73	-12.33
22	1.95	1.00	4.56	3.24	- 0.56	12.33
23	12.37	5.16	7.99	6.2	-23.15	-7.9
24	0.59	0.61	1.37	8.56	-0.97	50.54
25	0.04	0.02	0.26	0.09	21.54	24.93
26	17.47	40.96	6.20	4.24	-31.81	-43.61
27	19.15	4.77	15.07	6.61	-20.05	-5.28
28	0.08	2.21	0.85	8.44	33.84	15.97
29	3.38	2.82	1.68	0.94	-27.06	-28.70
30	0.43	0.46	0.55	1.53	-11.94	-12.97
31	0.08	1.64	0.34	2.15	12.06	-6.31
32	7.20	0.75	6.38	2.55	-18.14	13.23
33	0.09	0.27	0.09	0.93	-16.07	13.28
34	6.20	5.84	2.34	9.67	-31.00	-1.84
35	1.39	0.73	0.64	2.85	-28.17	16.66
36	0.01	1.06	0.20	2.02	45.92	0.98
37	0.17	0.43	0.22	0.67	-11.30	-3.24
38	2.80	3.57	4.32	7.57	-8.49	3.13
39	8.16	10.46	1.92	3.39	-37.22	-29.18
97	--	--	7.54	12.17	--	--
99	–	--	0.06	0.12	--	--
All Industries	100	100	100	100	-16.13	-11.27

State wise distribution of fixed assets (Table 3.6 (b)) shows few striking results. In 1984-85 Bihar accounts for 50% of the total fixed asset in rural area, which has declined to only 1 3.12% in 1989-90. In urban area, similarly Kerala contributed 59.71 to the total value of fixed asset which has s declined to 2.02% in 1989-90. The states which have witnessed an increase in rural shares during this period are Andhra Pradesh, Maharashtra Pradesh, West Bengal. In urban area states experiencing increase

in their share are Gujarat Maharashtra, Uttar Pradesh.

Table 3.6(b)

STATE WISE RURAL - URBAN COMPOSITION AND GROWTH OF *FIXED ASSET*

STATES	PERCENTAGE SHARE				(In Percent) COMPOUND GROWTH	
	1984 - 1985		1989 – 90			
	RURAL	URBAN	RURAL	URBAN	RURAL	URBAN
	1	2	3	4	5	6
Andhra Pradesh	1.82	7.29	6.85	3.90	9.28	-21.71
Bihar	52.29	0.54	13.12	2.95	-37.32	10.09
Gujrat	0.96	1.35	4.89	13.05	16.05	39.75
Haryana	1.60	0.54	2.24	2.68	-10.29	22.07
Himachal Pradesh	0.24	0.21	4.77	0.46	52.86	4.22
Jammu & Kashmir	0.34	0.31	2.01	1.54	19.74	22.59
Karnataka	1.17	1.38	3.22	4.35	2.66	11.60
Kerala	4.80	59.71	3.77	2.02	-20.09	-54.92
Madhya Pradesh	1.21	1.76	3.48	3.94	3.67	4.22
Maharastra	2.38	8.04	7.89	12.54	6.58	-3.00
Orissa	3.20	0.31	3.50	0.90	-14.64	9.66
Punjab	6.28	0.56	2.58	6.38	-29.38	32.46
Rajasthan	2.25	2.39	7.17	5.26	5.71	3.89
Tamilnadu	1.52	7.10	5.46	10.40	8.18	-4.24
Uttar Pradesh	8.96	4.31	16.71	13.78	-5.01	11.95
West Bengal	4.31	1.69	10.20	5.49	-0.36	12.23
All India	100	100	100	100	-16.13	-11.27
Coefficient of Variation	216.27	229.09	65.73	76.65	--	--

In the rural area Bihar (-37.22%), Kerala (-20.09%), Orissa (14.64%) have witnessed steep decline, so far as the growth figures are concerned. In urban area Andhra Pradesh (-21.71%) , Kerala (-54.92%) Maharashtra (-3.00%), Tamil Nadu (-4.24% have shown negative growth rate. As many as 12 states have registered a positive growth rate in rural area. Still as a whole the fixed asset has witnessed a steep negative growth rate of – 16.13 and –11.27 percent in rural and urban area respectively. But a sharp decline in coefficient of variation in both rural and

63

urban area show a decline in the interstate disparities in terms of value of fixed assets.

To sum up : In the preceding analysis the rural urban components of number of industries, together with some important characteristics, namely, number of person employed, no. of units, value of fixed asset, value added have been presented at all India level across different industry groups and states. The performance of various industry groups and regions will vary according to variable considered.

On the whole, it is evident that this five years period brought a setback to the rural industrial sector. The growth deceleration is far more serious in case of rural areas. But five years is a short period to establish a trend.

No clear trend is discernible if we compare the growth profile of industries with their shares in the base years. Most of the high share industries experienced a lower growth in all important characteristics, while the majority of the industries having a low share registered a high growth rate between 1984-85 and 1989-90. Most of the industries reveal negative association between growth and share. Therefore, simply high growth of an industry does not signify its importance in the rural industrial structure and vice-versa. It mainly depends upon the weight, in

terms of its share an industry carries in the industrial sector.

It is observed that a few industries accounted for a bulk share in terms of all characteristics. In other words in industry were no. 20-21, 23, 26and 27 accounted for maximum share in term of key characteristics both in rural and urban area. The percentage share of the different states in respect of principal characteristics has also been discussed separately for rural and urban area, As far as the concentration of number of industries and number of persons employed in rural area are concerned west Bengal, Tamil Nadu, Uttar pradesh and Andhra Pradesh account 50 percent share. This situation has remained more or less unchanged in both the time period.

An attempt was made to analyse the performance of rural industrial sector at all India and regional level between 1984-85 and 1989-90. We observed that though the overall growth has been quite discouraging all industry groups does not behave informally. Moreover, industry groups with very high rate of growth are not necessarily very important in terms of their potential to a overall growth of this sector per sec. It is observed that the rural industrial structure of the country is heavily concentrated in a few industries as well as a few regions.

SECTION-II

There is a general belief that rural industrial sector uses inferior technology which results in low productivity, low profit levels and stagnation. The basis for such a belief stems largely from the nature of impact of the protective and promotional policies of govt. on this sector. In other words these protective and promotional policies of govt. on this sector. In other words, these protective measures have largely contributed to the ineffectiveness of this sector. In the present scenario of the deregulation, rural industries as well as other small scale industries will have to fact up completion from large scale industries and survive without much govt. support. One necessary condition for the existence and growth of these industrial units under condition of the deregulation will efficiency. This becomes all the more relevant when a strategic role is assigned to rural industries in the development process.

It is in this light we have worked out some structural ratios for major industries (covering both industrial categories, i.e. OAEs and NDEs), separately for rural and urban areas. Structural coefficients such as value added output ratio, capital labour ratio, per worker valued added, per enterprise value added, worker per enterprise etc. lend considerable insights about the relative efficiency of one industry group over the other. A few striking

features need to be underlined.

Table 3.7 (a, b) and 3.8 (a, b) give many useful statistics on different structural ratios notably separately for OAEs and NDEs as well as for urban areas. We will examine each structural ratio one by one-

A.   value added : output ratio :It looks after the consumption of material input per unit of output ; a lower (higher) value of this ratio suggests the use of higher (lower) quantum of materialfor every unit output. In 1984-85, value-added output ratio in all industries taken together, varied from 0.48 to 0.57 depending on the type of enterprise and rural urban locations. This ratio was generally higher in rural sector than urban sector in both OAEs and NDEs. This could be so mainly due to relatively higher output levels in urban areas. In rural areas, the above ratio varied from 0.28 (IDC-28) to 0.79 (IDC-22) for OAEs and 0.35 (IDC-25) to 0.72 (IDC-26) for NDEs. where as in urban area, this ratio varied from 0.17 (IDC-22) to 0.73 (IDC-39) for OAEs and 0.20 (IDC-25) to 0.89 (IDC-37) for NDEs.

In 1989-90 the ratio of value added to output for all industries taken together varies from 0.41 to 0.56 depending upon the type of enterprises and rural/urban location. In rural areas.

the above ratio varied from 0.32 (IDC-20-21) to 0.80 (IDC-39) for OAEs and 0.29 (IDC 29 and 31) to 0.73 (IDC 39 and 97) for NDEs. Where as in urban areas it varied from 0.33 to 0.97 (for IDC 29 and 97 respectively) for OAEs and 0.17 to 0.77 (for IDC 25 and 39 respectively) for NDEs).

It is observed that in both the periods the valued output ratio is higher in OAEs than in NDEs for rural as well as urban areas. The role of intermediate inputs is thus much more significant for every units of output turned out in NDEs than among OAEs. This also shows relatively stronger linkages with raw material and inputs markets in the case of NDEs than OAEs. In a broad sense, it also means a relatively better technological outfit among NDEs over OAEs.

B. Value Added per worker : Valued added per worker provides a rough measure of productivity of workforce. It is seen from the table that the productivity of labour is significantly higher in NDEs than OAEs for all the industry dividison in both areas. Value added per worker showed on upward trend over these years ranging from Rs. 18.26 to Rs. 28.61 and Rs. 36.81 to Rs. 5386 for OAEs in rural and urban area respectively. Similarly, it varied from Rs. 3798 to 5942/- and 8892/- to Rs. 11998 for NDEs in rural and urban area respectively. The rising trend in the ratio was obviously due to increase in the growth of value added and

declining growth of employment. Moreover it was due to the rise in price structure over the years. However some unexplained high values of this ratio were observed in case of some industries.

Because of better technological outfits, roughly encapsuled by markedly higher capital labour ratios. value added per worker are much higher in NDEs than OAEs.

C.   value added per enterprise : It gives a rough measure of enterprise productivity is also significantly higher in NDEs than in OAEs in both rural and urban areas. The value added per enterprise showed an increasing trend over the five years ranging from Rs. 2977 to Rs. 4953 and Rs. 45374/- to 9514 for OAEs in rural and urban areas respectively. Similarly for NDEs it varied from Rs. 8736 to 17518/- and 20897 to Rs. 39652/- in rural and urban area respectively.

D.   worker per unit : On an average every NDEs in the rural areas employs 2.30 persons against only 183 by an OAE. where as in urban area the above ratio are 2.35 and 1.46 for NDE and OAE respectively. In 1989-90, on an average every NDE in the ·rural area employs 2.94 persons against 1.73 only by an OAE. For urban area these ratios are 3.30 and 1.76 for NDEs and OAEs respectively. Even if over the time period 1984-85 to 1989-90. both the number of units and number of workers have

declined, still the worker per unit has increased. This is due to fact that the number of worker has declined less than that of the number of units.

E.   Capital Labour Ratio : Capital labour ratio will reveal as to whether the industry is labour-intensive or capital intensive. In other words, employment potential of an industry can be judged from capital labour ratio which gives the value of capital required for employing one person in the industry. Thus the lower the value of capital labour ratio higher is the employment potential of the industry.

Capital labour ratios are generally higher among urban OAEs compared with rural OAEs, This is all the more so between urban NDEs and rural NDEs, strong and exceptions not with standing. As expected the capital labour ratio for al industries declined over time. At the India level this ratio for all industries taken together ranged from Rs. 7303 to Rs. 3138 and Rs. 16593 to Rs. 7825 for OAEs in rural and urban area respectively. Similarly it ranged from Rs. 10026 to Rs. 9743 and Rs. 14175 to Rs. 56812 for NDEs in rural and urban area respectively. The increased capital labour ratio for with OAEs and NDEs as well as for rural and urban areas over the time period 1984-85 to 1989-90 is a matter of worry.

Thus the capital-labour ; · are generally higher among the urban OAEs compared with rural OARS and so is the case with NDEs. The result is yet another confirmation of the fact that locational advantage manifest themselves, inter alia, in technological betterment which ultimately reveals itself in higher labour productivity.

A more clear cut of scale advantages (a 1 a comparing OAEs with the NDEs within urban and rural locations) or locational advantages (comparing urban DAEs/NDEs with rural OAEs/NDEs) or both (comparing rural OAEs with urban NDEs) is available in Table 3.9 ( ) and 3.10 for 1984-85 and 1980-90 respectively. Columns 4 and 7 reflect productivity gains arising out of locational shifts ; columns and 8 and 9 are the outcome of sc ale shifts. Column 10 gives the combined benefit of both. The combined benefit is naturally much higher than either of the two, practically in each production line.

In 1984-85 the excessively higher locational-scale combined effect is clearly discressible for IDC no. 37, 32, and fairly high in the case of IDC no. 30, 28, 23 and 20-21. Where as in 1989-90 the highest locational scale combined effect is witnessed by IDC no. 30. followed by IDC no. 24. As a whole this combined effect has declined over the years.

In the preceding paragraphs, the pattern of different structural ratios for rural and urban area was discussed separately for different industry categories, i.e. OAEs and NDEs. Two conclusions follow from the above analysis. Firstly, there are locational advantages in being an urban unit, whether the OAEs or NDEs. Many points can be conjectured in favour of the edge that urban units have over their rural counterparts. Secondly, with in rural (and urban) area, there are scale advantages which come possibly through better production organisation, improved technology, better market linkages and so on.

SECTION III

1. PROBLEMS OF RURAL INDUSTRIALISATION :

In the preceding two sections some of the important issues relating to the development of rural industries were discussed. The rural industries occupy an important position in the Indian economy and hence importance to rural industilisation has been given since the beginning of the planning era. The government has two way approach to rural industrialisation through its programme and policies. One is promotional approach and govt. has been providing various facilities needed for the improvement of rural industries. The other one is protective approach where viability of some of the of th e industries are being ensured by

implementing some restrictive policies. Despite conscious effort

making by the government. The result so far has been

disheartening. A number of factors act as a constraint on the

growth of this sector. This section will focus some of them.

1. Technical know how

Inadequate access to technology has been the 'Achilles heel'

of rural industrial sector. They have functioned for long with

primitive tools and equipment and had to bear the responsibility

of creating employment opportunities on a large scale. Use of

mechanical methods, power etc. are very limited. constant effort

are being mode in the field of research and development for this

sector. But is found to be inadequate. The rural industries have

tremendous growth potential but owing to its traditional

character its development has been rather tardy..

2. Raw material constraints

Rural areas, itself by and large is the generator of raw

materials for a number of rural industries have been facing

major problem in processing raw materials. The organised

sector of urban areas has got full command over it. So rural

entrepreneurs have to face competition for it. Urban based

entrepreneurs due to their commanding position can make a

higher bid in rural raw material market. Rural

entrepreneurs have to pay a higher price as they are not able to purchase in bulk due to their disadvantageous position. Wide fluctuation is another harassing factor for rural entrepreneurs. The prices of raw materials are increasing at a higher rate than that of the output. Such price movements must have had a serious negative compact on the profitability of these industries.

3.   Problem of Marketing

The success of rural industries mostly depends on the potential of marketing. Owing to lack of infrastructural facilities in rural areas smallness of units scattered over wide areas and poor financial position of the rural entrepreneurs, marketing channels for rural industry product and raw materials are usually very underdeveloped. Owing to these problems, many rural industries have to undertake this activity themselves thereby reducing the rate of return to their labour. The alternative is to depend on the middleman who by virtue of their monopoly power, extract a high rate of marketing margins.

Hither to market for rural industrial product is very limited. It caters to local demand only, which is very low. Moreover, these products are consumed by low income groups, mostly in the

villages and areas around with whom deficiency of demand is a chronic problem. The paradox so far has been that demand for their products has been shrinking with rising rural incomes, because of conscience choice tilling in favour of goods produced by modern industrial units, with an urban locational bias. A growing market for rural industry will come if only product quality improves, prices becomes compretive, and consumers orientation gets diverted. The fundamental question of production technology thus comes up once again.

4.   Lack of credit facility :

Lack of credit facility is also a major problem in rural industrial activity and poses a hindrance in its growth. Any programme of developing rural enterprises will need the active support of financing institutions and commercial banks. We have noted that entrepreneurs of rural industries come from very poor economic background. the level of productivity and family income in these activities are also very low. It is thus natural for them to face serious shortage of finance in establishing and operating the enterprises, despite the low capital requirement. More than the large and medium as well as urban located small enterprises. those in rural areas will have to depend on money lenders and traders for finance at exorbitant rate of interest. The problem could be tackled by providing credit to the rural

entrepreneurs on easy terms. But they have very little access to institutional credit. The rural entrepreneurial base can be expanded only with sufficient credit flow.

5.   Organisational state : for provision of adequate guidance and support and exercise of effective supervision and control by government in connection with rural industries, it becomes necessary to create an organisational structure. Sincere effort has always been made to develop the organisational state of the rural industries. But it has always remained poorly organised inspite of specialised organisational network established exclusively for each industry.

6.   Lack of quality control

Qualitatively the rural industrial products are very poor. Owing to this reason these products loose the power of competitiveness. All aspects of a products quality, starting from packaging to design, everything is of low standard.

Owning to the above mentioned major problem, rural industrial programmes are found to fail miserably. Moreover, these problems are hindering the progress of existing industries. If it continues, then our objective will remain as distant dreams.

Structural Ratios by Industry type and Rural-Urban Location 1984-85

Table 3.7(a)

1984 - 85 (Rural)

Industry Division	OAE					NDE				
	A	B	C	D	E	A	B	C	D	E
20-21	0.29	1680	3057	1.81	6545	0.42	4290	8751	2.04	15374
22	0.79	1621	2592	1.56	1832	0.42	2429	7286	3.00	5120
23	0.75	1163	2908	2.3	4544	0.43	2372	6523	2.75	11572
24	0.66	1747	2988	1.71	2647	0.50	3999	11238	2.81	3880
25	0.33	1824	3812	2.08	633	0.35	2940	6732	2.29	3059
26	0.73	1920	2438	1.26	9969	0.72	3516	7559	2.15	5258
27	0.74	2265	3329	1.46	9046	0.52	4867	11777	2.42	6721
28	0.28	1330	2966	2.23	1317	0.50	3735	13596	3.63	7053
29	0.45	4140	4678	1.12	13835	0.44	4273	10939	2.56	2602
30	0.35	1035	1977	1.19	2790	0.38	4326	14015	3.24	29648
31	0.72	1220	1866	1.52	1169	0.48	6536	15687	2.40	9761
32	0.72	1631	3343	2.04	7001	0.50	2175	7048	3.24	7563
33	0.61	2145	2745	1.27	1977	0.41	6117	13946	2.28	25239
34	0.66	2449	3478	1.42	1937	0.48	3945	10691	2.71	2524
35	0.74	4642	5617	1.21	3674	0.49	4855	11797	2.43	8872
36	0.34	4768	6675	1.39	7999	0.53	3585	7063	1.97	6092
37	0.61	5353	7333	1.36	3441	0.48	4312	9444	2.19	14644
38	0.56	1859	2696	1.45	8782	0.50	3474	9068	2.61	4595
39	0.71	2453	2527	1.03	11632	0.65	4572	8778	1.92	12269
All Industries	0.57	1826	2977	1.63	7303	0.49	3798	8736	2.30	10026

A = Value - added : Output ratio
B = Value added per worker
C = Value added per enterprise
D = Worker per enterprise
E = Capital -labour ratio

Table 3.7 (b)

1984 - 85 (Urban)

Industry Division	OAE					NDE				
	A	B	C	D	E	A	B	C	D	E
20-21	0.35	4942	7810	1.58	18321	0.32	10208	21844	2.14	21730
22	0.17	1695	2881	1.70	1795	0.45	4904	12552	2.54	8042
23	0.64	2232	4530	2.03	7140	0.37	9025	23194	2.57	5598
24	0.51	2202	5395	2.45	3440	0.47	5304	15966	3.01	4876
25	0.40	1249	2598	2.08	1830	0.21	2168	10322	2.57	1912
26	0.62	3230	3908	1.21	45549	0.68	5142	14125	2.46	11502
27	0.66	3094	4362	1.41	6968	0.46	8223	20147	2.45	12611
28	0.54	2542	3914	1.54	3505	0.49	10139	23320	2.30	25667
29	0.36	5589	9843	1.60	14174	0.42	6984	17112	2.45	24003
30	0.55	3877	4187	1.08	3966	0.36	8079	20602	2.55	10666
31	0.68	1474	2772	1.88	2907	0.34	20218	43469	2.15	84657
32	0.69	4050	6804	1.68	2677	0.51	7142	19713	2.76	8390
33	0.58	4838	7789	1.61	6630	0.34	7843	19763	2.52	6623
34	0.43	6301	9263	1.47	6074	0.50	11109	29661	2.55	6666
35	0.63	5629	6980	1.24	8189	0.52	10804	24418	2.26	15041
36	0.48	10587	16833	1.59	6078	0.40	18544	38015	2.05	89200
37	0.53	9563	8320	0.87	11831	0.89	21645	37879	1.75	36601
38	0.50	3972	5640	1.42	8393	0.57	6375	13005	2.04	9908
39	0.73	6429	6879	1.07	11930	0.72	6464	14092	2.18	12197
All Industries	0.54	3681	5374	1.46	16593	0.48	8892	20897	2.35	14175

Table 3.8a 1989-90(Rural)

Industry Code		OAEs					NDEs				
		A	B	C	D	E	A	B	C	D	E
20-21		0.32	3384	6479	1.91	4542	0.3	6352	17711	2.78	18537
	22	0.75	2486	3692	1.48	1490	0.45	5052	14110	2.79	4504
	23	0.55	2126	4105	1.93	3078	0.54	5461	19031	3.48	4980
	24	0.62	2391	4759	2	3433	0.56	4575	14524	3.17	4788
	25	0.59	1185	1992	1.68	999	0.35	1750	6178	3.51	1397
	26	0.62	2435	4202	1.72	2927	0.67	4553	15947	3.5	3644
	27	0.66	2566	4524	1.76	2007	0.52	7275	19912	2.73	8100
	28	0.5	1994	3464	1.73	4526	0.51	8766	27644	3.15	30287
	29	0.37	4113	5601	1.36	4022	0.29	10715	33800	3.15	6642
	30	0.6	1092	2276	2.08	1459	0.33	9659	30033	3.1	15726
	31	0.4	3390	3147	0.92	3496	0.29	13600	58557	4.3	28066
	32	0.67	2238	4693	2.09	2982	0.42	3434	15574	4.53	3716
	33	0.68	4775	15267	3.19	1786	0.28	7674	29974	3.9	14416
	34	0.56	3354	6113	1.82	3115	0.38	8205	22948	2.79	9009
	35	0.68	3418	4185	1.23	5140	0.33	10157	21466	2.11	42935
	36	0.44	5412	14606	2.69	10496	0.48	10716	32819	3.04	17965
	37	0.62	4189	5844	1.39	5109	0.49	8722	29017	3.32	12670
	38	0.54	2629	5125	1.94	3488	0.51	6534	21546	3.29	7031
	39	0.8	4376	6727	1.53	4433	0.73	6250	18662	2.98	10133
	97	0.77	5239	6036	1.51	5733	0.73	5184	12894	2.48	5194
	99	0.73	4153	6388	1.53	4004	0.61	6045	17832	2.94	15539
All Industries		0.52	2861	4953	1.73	3138	0.44	5942	17518	2.94	9743

Table 3.8b 1989-90(Urban)

Industry Code		OAEs					NDEs				
		A	B	C	D	E	A	B	C	D	E
20-21		0.42	8156	15524	1.9	9769	0.26	11326	34938	3.08	62944
	22	0.78	2419	4003	1.65	3923	0.49	7307	23146	3.16	19577
	23	0.44	2880	5922	2.05	6141	0.28	10144	36571	3.64	52760
	24	0.57	4059	10178	2.5	8919	0.36	17544	75564	4.3	69027
	25	0.45	1105	2052	1.85	1750	0.17	4674	15107	3.23	12831
	26	0.49	4259	8144	1.91	5562	0.35	9409	34083	3.62	41065
	27	0.62	5069	8746	1.72	7071	0.41	9910	31244	3.15	41240
	28	0.6	3792	7885	2.07	12455	0.54	11817	42431	3.59	89522
	29	0.33	7202	13648	1.89	9402	0.39	9103	30816	3.41	20617
	30	0.56	2071	3937	1.9	11112	0.2	16590	60409	3.64	141297
	31	0.49	4166	7160	1.71	34649	0.32	14204	52440	3.69	87812
	32	0.6	3705	8580	2.31	8477	0.44	10905	35617	3.26	42505
	33	0.53	5469	12380	2.26	11517	0.25	13627	49812	3.65	119711
	34	0.55	8162	14671	1.79	12729	0.36	11186	38257	3.42	91784
	35	0.64	10702	17708	1.65	35811	0.39	17201	61638	3.58	114348
	36	0.56	7257	14960	2.06	11217	0.38	14480	54703	3.78	125277
	37	0.5	6015	12128	2.01	15149	0.28	12476	58161	4.67	102994
	38	0.53	6688	11618	1.73	9926	0.36	12589	44374	3.52	57253
	39	0.78	8327	14104	1.69	10706	0.77	8651	26443	3.05	31019
	97	0.79	7727	10461	1.35	7684	0.76	8190	23113	2.83	20593
	99	0.72	6851	10546	1.53	8129	0.49	8485	22615	2.67	67162
All Industries		0.56	5386	9514	1.76	7825	0.41	11998	39652	3.3	56812

Table 3.9

**LABOUR PRODUCTIVITY IN OAEs / NDEs BY RURAL - URBAN LOCATION AND INDUSTRY TYPE : -
1984 - 1985**

Industry Division	OAEs			NDEs			R-NDEs R-OAEs 5/2	U-NDEs U-OAEs 6/3	U-NDEs R-OAEs 6/2
	Rural	Urban	U:R 3/2	Rural	Urban	U:R 6/5			
1	2	3	4	5	6	7	8	9	10
20-21	1680	4942	2.94	4290	10208	2.38	2.55	2.06	6.08
22	1621	1695	1.05	2429	4904	2.02	1.50	2.89	3.03
23	1163	2232	1.92	2372	9025	3.80	2.04	4.04	7.76
24	1747	2202	1.26	3999	5304	1.33	2.29	2.41	3.04
25	1824	1249	0.68	2940	2168	0.74	1.61	1.74	1.19
26	1920	3230	1.68	3516	5742	1.63	1.83	1.78	3.00
27	2265	3094	1.37	4867	8223	1.69	2.15	2.66	3.63
28	1330	2542	1.91	3735	10139	2.71	2.81	3.99	7.62
29	4140	5589	0.78	4273	6984	1.63	1.03	2.17	1.69
30	1035	3877	3.75	4326	8079	1.87	4.18	2.08	7.81
31	1220	1474	1.21	6536	20218	3.09	5.36	13.72	16.57
32	1635	4050	2.48	2175	7142	3.28	1.33	1.76	4.38
33	2145	4838	2.26	6117	7843	1.28	2.85	1.62	3.66
34	2449	6301	2.57	3945	11109	2.82	1.61	1.76	4.54
35	4642	5629	1.21	4855	10804	2.23	1.05	1.92	2.33
36	4768	10587	2.11	3585	18544	5.17	0.75	1.84	3.89
37	5353	9563	1.79	4312	21645	50.20	0.81	22.62	40.44
38	1859	3972	2.14	3474	6375	1.84	1.87	1.60	3.43
39	2453	6429	2.62	4572	6464	1.41	1.86	1.01	2.64
97	--	--	--	--	--	--	--	--	--
99	--	--	--	--	--	--	--	--	--
All Industries	1826	3681	2.02	3798	8892	2.34	2.08	2.42	4.88

Table 3.10

LABOUR PRODUCTIVITY IN OAEs / NDEs BY RURAL - URBAN LOCATION AND INDUSTRY TYPE : 1989 - 90

Industry Division	OAEs		3/2	NDEs		6/5	R-NDEs R-OAEs 5/2	U-NDEs U-OAEs 6/3	U-NDEs R-OAEs 6/2
	R	U	U/R	R	U	U : R			
1	2	3	4	5	6	7	8	9	10
20-21	3384	8156	2.41	6352	11326	1.78	2.08	1.56	3.34
22	2486	2419	0.97	5052	7307	1.45	2.03	3.02	2.93
23	2126	2880	1.35	5461	10144	1.86	2.56	3.53	4.77
24	2319	4059	1.70	4575	17544	3.83	1.91	4.32	7.56
25	1185	1105	0.93	1750	4674	2.67	1.47	4.22	3.94
26	2435	4259	1.75	4553	9409	2.07	1.86	2.20	3.86
27	2566	5069	1.98	7275	9910	1.36	2.83	1.95	3.86
28	1994	3792	1.90	8766	11817	1.35	4.39	3.11	5.92
29	4113	7202	1.75	10715	9013	0.84	2.60	1.25	2.19
30	1092	2071	1.90	9659	16590	1.72	8.84	8.01	15.19
31	3390	4166	1.23	13600	14204	1.04	4.01	3.40	4.18
32	2238	3705	1.66	3434	10905	3.18	1.53	2.94	4.87
33	4775	5469	1.15	7674	13627	1.78	1.60	2.49	2.85
34	3354	8162	2.43	8205	11816	1.36	2.45	1.37	3.34
35	3418	10702	3.13	10157	17201	1.69	2.97	1.60	5.03
36	5412	7257	1.34	10716	14480	1.35	1.98	1.99	2.67
37	4189	6015	1.44	8722	12476	1.43	2.08	2.07	2.97
38	2629	6688	2.54	6534	12589	1.93	2.48	1.88	4.78
39	4376	8327	1.90	6250	8651	1.38	1.42	1.03	1.97
97	5239	7727	1.47	5184	8190	1.58	0.98	1.08	1.56
99	4153	6851	1.65	6045	8485	1.40	1.45	1.23	2.04
All Industries	2861	5386	1.88	5942	11998	2.02	2.07	2.22	4.19

Table 3.11

Industry Divison code :	Description of the Industry
20-21	Manufacture of the food products
22	Beverages, tobacco etc.
23	Cotton textiles
24	Wool, Silk, etc.
25	Jute textile
26	Wearing apparel
27	Wood and wood products
28	Paper and Paper products
29	Leather and Leather products
30	Chemical and Chemical products
31	Rubber, Plastic , Petroleum product
32	Non metallic mineral product
33	Metal and alloys industry
34	Metal products and parts
35	Non electrical machinery
36	Electrical machinery
37	Transport equipment
38	Other manufacturing Industries
39	Repair of capital goods
97	Repair services
99	Others including (not recorded cases)

CHAPTER: IV

THE RURAL INDUSTRIAL STRUCTURE:
A REGIONAL ANALYSIS

In many countries, any economic activity gets started at some point in space owing to some natural, historical or political reasons, and tends to get concentrated in and around that point. Though natural resources do play a crucial role in determining the economic activity the historical forces often assume a strategic role in the pattern of economic development of the country/region.

Since independence India has followed a path of rapid industrialisation in a very conscious planned manner. At the time of independence industrial production in the organised sector of the economy was concentrated in a few industries and in just a few regions only. At the same time, there was a relatively even spread of household industry across the country. Given this backdrop of the industrialisation pattern in the country there has been a long standing concern with the location of industry in India. It is probably the case this concern is of a more serious nature than in many other country since the pre independence concentration of industry was also linked with colonial domination and exploitation.

In this chapter an effort has been made to investigate the regional rural industrial structure of India in a comprehensive

manner. We have taken rural employment as the representative variable for the purpose of analysis in this chapter. The data have been obtained from the 45th round of NSS (covering July 89-June 90) for 16 major states. The level of industrial disaggregation is at 2-digit level of National Industrial Classification, 1987. For the purpose of our analysis we have taken 22 industry groups at the regional level.

This chapter has been divided into three sections. Section I deals with the structural dimensions of rural industrialisation in India, i.e. rural industrial base of different regions in India, spatial spread of various rural industries and the extent of industrial diversification within rural industrial sector of each state. All these aspects are on the basis of rural employment opportunities pertaining to one time period, i.e. 1989-90. Section II attempts to evaluate inter linkages between overall rural development and the magnitude as well as character of rural industrialisation in different regions of India. Section III takes up for examining relationship of rural development and agricultural growth to the level of rural industrialisation and the impact of the latter on level of rural poverty.

SECTION: I

Rural Industrial Base Of The States:

India is a land of diversities. Its economy is multi regional in character. Due to differential resource endowments, its development has always been unbalanced and lopsided. Depending on natural resources and other factors as well, different types of industries are found in different parts of the country. Types of industrial base varies from place to place. Before going to make any study of levels of development of any region, a broad idea about the industrial base of that region is needed. From the industrial base it can be known about the group of industries in which a particular area specialises. Thus for a proper understanding of economic structure of particular region and to make inter-state comparisons, industrial base studies are useful. Thus we attempt an assessment of the industrial base of different regions in rural unorganised sector of India. The readily available data are at the state level and hence it is only possible to evaluate dispersal across states rather than at a more disaggregated level across backward regions within states.

In the present context rural industrial base of each state are being taken into account. When ascertaining the dominance of different rural industries at the state level, there are two alternative criteria which can be used, and not one criterion, which was the case

85

at the country level. These are the absolute and the relative criteria. The former simply measures the proportion of rural industrial employment in different type of industries, for each state, as we have done at the all India level. In a relative measure the proportion of an industry within a state has to be judged in relation to the same proportion at the all India level. In order to take account of such relativities, the prominence of an industry within the rural sector of a state can be measured in terms of the location quotients of rural industries. Both the absolute measure and location quotients have advantages of their own. Absolute measure has the advantage that it conveys a more appropriate idea of the aggregate scale of operation of various industries in different regions. Therefore, from the point of view of resource requirements of different industries as well as for assessing their overall impact on the rural economy of a state, absolute measure alone can provide the correct perspective. On the other hand, the location quotient, being a relative measure, gives a more accurate idea of the comparative advantage of various industries in different regions. In view of the relative merits of both measures, we have made use of both these criteria.

The concept of location quotient has been discussed elaborately in the methodology section of chapter I. A brief mention of it is again in order here. It 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 all the regions in the total working population. A quotient value which is more than one is indicative of higher concentration of that particular industry in a particular region. A quotient value is equal to one, which provides the bench mark where a particular industry is just as important in a state, as at the all India level. And the industries with quotient value of less than one are relatively non-concentrated.

In the present context location quotients of major industrial groups of the rural areas of each state have been found out. As mentioned above, industrial groups which are showing location quotients value more than one, indicates that these are highly concentrated than other. Hence, these industrial groups with location quotients value greater than one constitute the rural industrial base of the region.

Table 4.1 depicts the rural industrial base of different states in India in the year 1989-90. From the industrial base 5 important industrial groups with highest location quotients and with large percentage share have been shown in the table.

Let us now take a look at the most prominent rural industrial

groups in different states in terms of both the criteria, i.e. absolute and the relative criterion.

1.   Andhra Pradesh: As we proceed state by state, we find that in rural sector of Andhra Pradesh only nine industrial groups form the industrial base. Of these 5 important are: Non-electrical machinery (35), Leather products (29), Rubber products (31), jute textiles (25) and wool, silk and synthetic fibres (24). But in terms are absolute criterion wood products (27), Beverages and tobacco (22), cotton textiles (20), wearing Apparel (26) and Non-metallic minerals constitute the industrial base of rural Andhra Pradesh.

2.   Bihar: In the rural sector of Bihar only 6 industrial groups form the industrial base. Of these 5 major are: food products (20), wood products (27), Non-metallic mineral (32), repair services (97) and Beverages and tobacco. But in term location quotient criteria other industries (99), repair services (97), non-metallic mineral (32), other manufacturing industries (39) and food products (20) provide the industrial base of rural Bihar.

3.   Gujrat: In Gujrat 9 industrial groups form the industrial base of the rural economy. Of these 5 important industry groups are: Rubber products (31), other manufacturing (38), repair of capital goods (39), Non-metallic minerals (32) and leather products (29). The other manufacturing activities holds the major share in

industrial base of rural industrial sector, as its location quotient is 2.00. It signifies that there is a possibility of emergence of large number industries which do not belong to the traditional categories. In terms of absolute criterion the wood products (27), food products (20), non- metallic minerals (22), other manufacturing (38) and repair services (97) constitute the dominant industries in Gujrat. Gujrat being drought prone area, agriculture is in a poor state in this state. Hence, agro based industries are not developed in rural areas. Mineral based and forest based industries are relatively more spread out and have been providing employment.

4.   Harayana: In Harayana the industrial base comprises 6 industrial groups in rural area. Important among them are Electrical machinery (36), repair services (97), non-metallic mineral products (32) and leather products (29). Though Harayana agriculturally one of the progressive states, agro-based industries hardly find any place in the industrial base. Industrial base is dominated by ancillary and allied industrial groups. So it is a contrasting feature. Probably these are catering to the needs of industrial towns around it. It seems in future, more and more of these industries are likely to crop up and generate more employment in rural sector. In other words. agro-based industries have got very insignificant presence in rural sector. Only non-agro based industrial groups are providing employment progressively.

5.   Himachal Pradesh: In Himachal Pradesh 6 industrial groups form the industrial base in rural sector of them 5 important industrial groups are other manufacturing (38), non-electrical machinery (35) food products (20), repair of capital goods (97) and jute textiles (25).   Of these five food products and other manufacturing (38) are also found to be dominant in terms of absolute criterion.   These industrial groups will provide vast scope for greater employment opportunities in rural areas.   Other manufacturing industries are found to be important because of the support of its typical climate.

6.   Jammu and Kashmir: As agriculture is the mainstay of this state, food products (20) also appears in the industrial base along with wearing Apparel (26), wood, silk and synthetic (24) and leather products (29).   Jammu and Kashmir is known for wool industry and it occupies the second rank followed by wearing apparel (26).   After an analysis of rural industrial base it is found that these above mentioned industrial groups are more concentrated due to historically determined factors.   Other industrial groups could not prosper probably due to traditional industrial groups were accorded much priority because of its demand.   Except forest resources. the state is poor in other resources, so employment potential is limited upto three-four traditional industrial groups.

7. Karnatak: In Karnatak 6 industrial groups form the industrial base

of the rural sector. In Karnatak agro-based industries dominate the industrial base of rural sector, i.e. Beverages and tobacco (22), wool, silk and synthetic (24), leather products (29). Besides these three non electrical machinery (35) and repair of capital goods (39) are also found to be dominant industrial groups in the state. Even if Karnatak is rich in forest and mineral resources forest-based or mineral based industrial groups are not prominently seen in the industrial base.

8.   Kerala: In Kerala nine industrial groups constitute the industrial base of rural area. Five important industrial groups are: jute textiles (25), Rubber products (31), paper and paper products (28), Rubber and petroleum products (30_ and Beverages and tobacco (22). Thus it is evident that agro-based, forest based and mineral-based all are significantly present in the industrial base. Development in agriculture and forest resources may improve employment situation as these are labour-intensive industries. It is conspicuous that industrial base of rural area is of diverse nature and it is mainly dominated by agro-based and forest based industries.

9.   Madhya Pradesh: Madhya Pradesh is the largest state of India in terms of area. Though forests cover 32 percent of the total area, forest-based industries hardly find any place in the industrial base. In Madhya Pradesh nine industrial groups constitute the industrial

base it rural area. Of these 5 major industries are: basic metals (33), metal products (24), non-electrical machinery (35), repair of capital goods (39), and leather products (29). Thus mineral based industries are relatively moye concentrated due to richness of minerals in the state. Development of agriculture and exploitation of forest resources may add more to employment potential in future, because agro-based and forest-based industries are mainly labour-intensive.

10. Maharastra: Maharastra is the leading industrial state in India. As many as 13 industrial groups constitute the industrial base of rural area in Maharastra. Of them five important industries are: transport equipment (37), electrical machinery (36), Basic metal (33). Rubber products (31) and repair of capital goods (39).

11. Orissa: In Orissa six industrial group constitute the industrial base of rural area. The major industrial groups are: other manufacturing industries (38), chemical products (30), food products (21), cotton textile (23), and non-metallic minerals (32). Though Orissa is industrially backward state it is endowed with varied natural and mineral resources. Relatively more concentration of these industries is due to the fact that Orissa is rich in minerals. As these industries are generally capital-intensive, their employment potential is less. Development of agriculture will create more employment opportunities in future through labour-intensive agro

based industries.

12.   Punjab: There are 10 industrial groups with location quotient value more than one. Among these 5 important industries are: repair of capital goods (39) leather products (29), Non-electrical machinery (35), paper products (28) and repair services (97). Though agriculturally it is the most advanced state of India, food products industry could not make it into industrial base. Rather some industries mainly depend upon forest resources are in the industrial base.

Diversion towards non agro-based industries is due to the fact that per capita income in Punjab is very high. So without opting for labour intensive industries capital intensive industries are opted. It may also be due to no severity in unemployment situation. Adoption of capital intensive techniques has added to the growth of rural economy through increase in value added.

13.   Rajasthan: Industrial base of Rajasthan comprises of six industrial groups in rural area. The top five industries are: leather products (29), non metallic minerals (32), wool, silk and synthetic fibre (24), other manufacturing (28) and repair services (97). Thus agro-based industries could not spring up in the industrial base.

14.   Tamilnadu: There are nine industrial groups in rural

        . that possess the status of industrial base. Five of them, are

as follows- chemical products (30), wool, silk and synthetic fibre (24), metal products (34) cotton textiles (23), and Beverages and tobacco (22).

15. Uttar Pradesh: The industrial base of rural Uttar Pradesh comprises of nine industrial groups. Five important *industry* groups are-wearing Apparel (26), other manufacturing (38), repair of capital goods 39), transport equipment (37) and food products (21). Even if agriculture forms the kingpin of Uttar Pradesh economy, agro based industries could not make headway in the industrial development of rural economy. The rampant unemployment situation in rural areas can be eased by opening new vistas in agro-based industries.

16. West Bengal: The important industry groups which form the industrial base of West Bengal are: paper product (28), electrical machinery (36), wood products (27), food products (20) and cotton textiles (23). As West Bengal is one of the major industrial states in the country above mentioned industries act as ancillary industry and cater to other big industries closer to urban center. It seems that the industrial base can be expanded in rural area because of backward linkage effect of big industries as well as agriculture.

To sum up: In terms of absolute criterion wood products (27) occupies the most dominant position among the rural industries in Andhra Pradesh, Gujrat, Madhya Pradesh, Maharastra, Orissa,

TABLE-4.1 **THE DOMINANT INDUSTRIES OF RURAL SECTOR : 1989-90**

		RANK1	RANK 2	RANK 3	RANK 4	RANK 5
All India Absolute criterion		25.61(27)	14.02(20)	11.09(22)	9.46(23)	8.09(32)
1.Andhra Pradesh	A	29.76(27)	17.10(22)	8.68(23)	8.46(26)	8.04(32)
	B	4.39(35)	2.35(29)	2.30(31)	2.11(25)	1.72(24)
2.Bihar	A	21.31(20)	19.89(27)	16.16(32)	12.07(97)	7.79(22)
	B	5.37(99)	2.35(97)	1.99(32)	1.73(39)	1.51(20)
3.Gujrat	A	24.01(27)	20.85(20)	14.58(32)	8.73(38)	7.99(97)
	B	2.08(31)	2.00(38)	1.92(39)	1.80(32)	1.74(29)
4.Haryana	A	33.04(32)	22.29(97)	12.63(20)	10.01(27)	6.32(26)
	B	7.52(36)	4.33(97)	4.02(99)	4.08(32)	2.97(29)
5.Himachal Pradesh	A	38.91(20)	23.12(38)	14.17(27)	10.17(97)	3.75(32)
	B	5.92(38)	3.95(35)	2.77(20)	1.97(97)	1.62(25)
6.Jammu & Kashmir	A	60.59(26)	15.69(20)	6.60(27)	3.53(24)	3.2(23)
	B	7.53(26)	2.48(24)	1.83(99)	1.14(20)	1.04(29)
7.Karnataka	A	45.43(22)	17.77(27)	6.21(20)	5.20(97)	4.84(32)
	B	4.09(22)	3.22(24)	2.16(29)	1.42(35)	1.34(39)
8.Kerala	A	21.04(22)	20.13(27)	13.44(25)	10.48(20)	6.57(26)
	B	11.55(25)	4.58(31)	2.41(28)	2.40(30)	1.89(22)
9.Madhya Pradesh	A	46.50(27)	8.90(22)	8.39(32)	6.00(22)	5.89(97)
	B	9.30(33)	2.64(34)	2.28(35)	2.11(39)	2.03(29)
10.Maharastra	A	27.21(27)	18.44(20)	9.19(21)	9.07(97)	8.52(26)
	B	6.71(37)	4.39(36)	4.30(33)	3.55(31)	2.29(39)
11.Orissa	A	20.72(27)	16.52(38)	15.52(23)	12.76(21)	11.33(32)
	B	3.83(38)	3.80(30)	2.72(21)	1.64(23)	1.40(32)
12.Punjab	A	19.03(97)	15.98(20)	12.87(27)	11.70(39)	10.43(23)
	B	8.37(39)	5.58(29)	5.10(35)	3.96(28)	3.70(97)
13.Rajastan	A	26.32(27)	24.84(32)	11.45(20)	9.83(29)	5.89(97)
	B	6.05(29)	3.07(32)	2.86(24)	1.33(38)	1.14(97)
14.Tamilnadu	A	22.62(27)	16.73(23)	13.09(32)	7.11(30)	6.83(20)
	B	7.35(30)	2.03(24)	1.83(34)	1.76(23)	1.18(22)
15.Uttar Pradesh	A	18.14(26)	15.71(27)	13.60(23)	13.24(20)	9.51(32)
	B	2.27(26)	1.83(38)	1.58(39)	1.48(37)	1.46(21)
16.West Bengal	A	13.50(27)	21.56(20)	10.67(23)	7.07(22)	5.74(26)
	B	2.57(28)	1.84(36)	1.57(27)	1.53(20)	1.12(23)

Notes
1   A: Absolute Criterion
     B: Location Quotient Criterion

2   Figures in parantheses indicate the industry code.

95

Rajasthan, Tamilnadu, west Bengal: food products (20) occupies that position in Bihar, Himachal Pradesh; wearing apparel (26) in Uttar Pradesh and Jammu and Kashmir; Beverages and tobacco (22) in Karnatak and Kerala; and repair services (97) in Punjab. The above mentioned industrial group occupy the first rank in corresponding states.

If we look at the rural industrial scenario in terms of location quotient criterion relative advantage at Rank I goes to varied industry groups in different states. The first rank in terms of this criterion goes to non electrical machinery (35) in Andhra Pradesh. Rubber products (31) in Gujarat, electrical machinery (36) in Harayana, other manufacturing industries (38) in Himachal Pradesh and Orissa, wearing apparel (36) in Jammu and Kashmir and Uttar Pradesh, Beverages and tobacco (23) in Karnataka, jute textiles (25) in Kerala, Basic metal (33) in Madhya Pradesh, transport equipment (37) in Maharastra, repair of capital goods (39) in Punjab, leather products (29) in Rajsthan, chemical products (30) in Tamilnadu and paper product f(28) in West Bengal. Thus, there appears to exist much greater differentiation among the states in terms of the dominant industrial base derived on the basis of the relative criterion than on the basis of absolute criterion. But it may be observed that on an average only 2-3 industry groups are common within the first five ranks on the basis of Absolute as well as

location quotient criteria within different states. Thus, those industries which figure near the top emerge to be quite different depending upon whether one follows the absolute or the location quotient criterion.

Spatial Spread Of Rural Industries:

The preceding analysis does not tell anything about the spatial spread of employment in individual industry group. Location of a particular industry depends upon the availability of factors of production and raw materials, availability of infrastructure, size and distance of market etc. But some industries violate the general rule and located in those places which are not compatible for them. Just to know the reason why an industry is not conglomerated in one place and not spread out spatially it is essentially to know the extent of spread of each industrial category. Thus it is useful to know the rural industry groups which are spatially diversified and hence are likely to respond to measures for promoting an even spatial spread rural industries. With this end in view, the spatial spread of industries across different states is assessed with the help of localisation co-efficient.

It can be defined as the half of the sum of the absolute difference between the regional proportion of workers in the particular industry and the corresponding proportion of workers in

all the industries. The possible range of this co-efficient lies between 0 and 100%. The higher its value, the greater the degree of spatial concentration of employment in a rural industry relative to the rural industrial employment as a whole. The value of this coefficient for each industrial group for 1989-90 are given in table 4.2 only for rural sector. Ranks are gives inversely to the value of this co-efficients so that rank 1 indicates spatially the most dispersed rural industry.

For the sake of simplicity the values of localisation co-efficient have been categorised as follows: The major groups having location co-efficient 0 to 20 percent have been placed under the category of 'least concentrated' or diversified category. Co-effecients having value ranging from 20 to 40 percent have been categorised as moderately concentrated (neither more concentrated nor more diversified) and the co-efficient value more than 40 percent have bee categorised as highly concentrated.

Table 4.2 (a)

Localisation Co-efficient	Industry division code.
0 < LOC < 20	27, 34
20 < LOC < 40	20,21,22,23,24,26,32,37,38,39and 97
LOC > 40	25,28,29,30,31,33,35,36 and 99.

Table 4.2 (a) shows that in rural area only two industry groups are evenly spread out. They are wood products (27) and metal products (34). Among these two is (code 27) a consumer good industry and the other one (34) is intermediate-capital good industry.

In the moderately concentrated category there are 10 industry groups. This category comprises of five consumer goods industry, i.e. food products (20-21). Beverages and tobacco (22), cotton textiles (23), wool, silk and synthetic fibre (24) and wearing apparel (26). Among the other five one is capital good industry, i.e. transport equipment (37) and rests are intermediate goods industries, namely, non metallic minerals (32), other manufacturing (38), repair of capital goods (39) and repair services (97).

The other nine industrial groups are least dispersed. They are jute textile (25), paper and paper product (28), leather products (29), chemical products (30), Rubber and petroleum product (31), Basic metals (23), non-electrical machinery (35), electrical machinery (36) and others (including not recorded case) (group 99). Among these nine, 5 industry groups, i.e. 25, 28.30.31 and 99 are intermediate goods industries. Three industry groups, e.g. 33, 35 and 36 are capital good industries.

Going industry by industry we discover from table 4.2 that leather and leather products (29) get concentrated in very few places, as it mainly depends on raw materials, i.e. where cattle population is very high. It finds firm base in Gujrat, Madhya Pradesh, Maharastra, Rajasthan, Punjab etc. Because the cattle population is much higher in the above states than any other state. So it could not spread to any other place due to non-availability of enough raw materials.

Chemical and chemical products (30) is also concentrated in very few places such as Kerala and Tamilnadu, but it dominates in the industrial base of only Tamilnadu. It is found that this industry is much capital intensive. That's why it is concentrated in very few places where capital is adequately available.

TABLE :4.2   Coeffiecients of Industrial Localisation in Rural Sector :1989-90

Industry Code		Rank	End Use Classification
20-21	24.08	4	Consumer goods
22	31.58	8	Do
23	21.08	3	do
24	37.91	10	do
25	55.32	20	Intermediate goods
26	28.95	7	Consumer goods
27	15.75	1	do
28	44.86	15	Consumer/Intermediate good:
29	52.89	18	Consumer goods
30	72.23	21	Intermediate goods
31	41.29	13	Producer/Intermediate goods
32	25.27	6	Intermediate goods
33	53.07	19	Capital goods
34	16.23	2	Intermediate/Capital goods
35	48.91	16	Capital goods
36	44.66	14	do
37	39.63	12	do
38	38.71	11	Intermedia te goods
39	36.58	9	do
97	24.14	5	do
99	50.04	17	do

Next comes the electrical and non electrical machinery (36.35). this group is mainly concentrated in Andhra Pradesh, Maharastra, Madhya Pradesh, West Bengal for this group too, it is found that the capital-labour ratio is very high. That is why it is not widely distributed as availability of capital in rural area is very low. Moreover, as this group is ancillary in nature, it is concentrated in

those places where either big industrial complex are there or sprouting up.

Out of 21 industrial groups, ten groups are moderately concentrated. Most of these industries are agro-based and forest-resource based. Smooth availability of raw materials from these sources has caused their spread across regions.

Only two industry groups, i.e. wood products (27) and metal product goods (34) are well dispersed. They are found in almost all states irrespective of the level of structure of economic activity. It is probably due to their universal demand.

Regional Rural Industrial Diversification:

To make inter regional comparisons easier and more analytical, it is essential to know the pattern of distribution of different type of industrial unit in a particular region. Thus we attempt to examine the relative extent of industrial diversification within rural industrial sector of the various regions by estimating the region specific co-efficient of specialisation.

Specialisation co-efficient indicates the pattern of distribution of different industries in a particular region. Regions, where only one or two types of industries are found, are called highly specialised regions and regions where different types of industries

are found and are spread out are called diversified regions. Unlike localisation co-efficient it gives value for different regions, which in the present case are the rural areas of each state. Co-efficient of specialisation indicates the degree of specialisation or diversification of industrialisation. Higher the value of specialisation co-efficient, higher will be the specialisation and vice-verse.

Table 4.3 provides the values of coefficients for the year 1989-90. We have classified states into 3 categories according to their specialisation co-efficient value. Co-efficient values showing more than 30 are highly specialised or less diversified regions. Co-efficient values lying between 20 to 30 are moderately specialised ore moderately diversified. Lastly, states showing co-efficient values between 0 to 20 are least specialised or highly diversified regions.

From the table no. 4.3(a) we find that Andhra Pradesh and Tamilnadu are more diversified states; Bihar, Gujarat, Kerala, M.P., Maharshtra, U.P. and West Bengal could be grouped in the middle level of diversification, whereas, the remaining regions are found to be less meversified.

TABLE : 4.3

Coefficients of Industrial Specialisation in the Rural Sector :1989-90

STATES	Coeffiecient	Rank
.Andhra Pradesh	16.09	16
Bihar	23.8	10
Gujarat	23.29	11
Harayana	46.09	3
.Himachal Pradesh	51.28	2
Jammu &Kashmir	56.49	1
Karnatak	40.06	4
Kerala	26.9	9
Madhya Pradesh	29.62	8
Maharastra	21.52	14
Orissa	32.45	6
Punjab	39.01	5
Rajasthan	30.51	7
Tamilnadu	19.09	15
Uttar Pradesh	23.01	13
West Bengal	23.15	12

It is evident that Himachal Pradesh and Jammu and Kashmir are highly specialised with specialisation co-efficient value of more than 50 percent. It is clear that probably factors of production are not suitable for the growing up of different type of industries in these states or different types of raw material are not available.

Table 4.3 (a)

Specialisation Co-efficient		States/Regions
SOC > 30	Highly specialised or least diversified region.	Harayana, Himachal Pradesh, Jammu and Kashmir, Karnatak, Orissa, Punjab, Rajasthan.
20<SOC<30	Moderately specialised or moderately diversified	Bihar, Gujarat, Kerala, M.P., Maharashtra, U.P., West Bengal.
0<SOC<20	Highly diversified or least Specialised regions	Andhra Pradesh, Tamil Nadu

Though Harayana, Punjab are agriculturally progressive states,

agro-based industries are not seen, rather they specialise mainly one

capital and intermediate goods. It is probably due to the growing need of intermediate goods by the industrial complexes around it. In Himachal Pradesh and Jammu and Kashmir only traditional industries are found. In these states industrial activity has not at all diversified on the basis of changing technologies and changing demand patterns. It is probably due to the availability of destriers hands, these states specialise in one or two traditional industry group.

States showing a moderate level of diversification are- Bihar, Gujrat, Kerala, M.P., Maharastra, u.p. and West Bengal; while Andhra Pradesh and Tamilnadu witnessed substantial diversification in their rural industrial structure. Due to development of urban areas, industrial growth, technological development and many other factors rural industrial scene of these states shows diverse pattern.

It is also interesting to observe that the nature of specialisation varies with the level of diversification in a region. In general, 'middle level' and 'less diversified' regions specialise in resource base industrial while more diversified regions have a wide range of industry groups, including capital and intermediate goods and demand oriented consumer goods industries. Jammu and Kashmir, Orissa and Bihar are the classic example of former groups, where as Tamilnadu, Andhra Pradesh of the latter.

Section-II

Inter-Industrial Rural Employment Expansion:

In the preceding analysis we have looked at the different aspects of regional rural industrial structure of India. Next, it may be useful to know the extent to which the importance of different industry groups in terms employment provided by them has been matched by the pace of expansion of these industrial groups. Secondly, it would also be of interest to investigate as to how far the industries which exhibit a `comparative advantage' in terms of location quotient (i.e. LQ > 1) in a particular state, have registered high growth rates of employment in those states.

For studying the first issue, national level compound growth rates of employment during 1984-85/89-90 in the twenty two-digit level industry groups were estimated, separately for rural and urban area. As may be seen from Table 3.4 (a), within the rural sector, a majority of industry groups witnessed negative rates of growth. Industry groups showing positive growth rates are- chemical products (30), electrical machinery (36), jute textiles (25), other manufacturing (38) and Beverages and tobacco (22).

For addressing the second issues, 5 industries exhibiting high employment growth rates in rural areas were identified for each state. These industries which may be thought of as the leading rural

industrial groups of different states, are listed in Table 4.4.

TABLE :4.4 High Growth Rural Industries :1984-85/1989-90

STATE / RANK	Code No. of High Growth Industries				
	1	2	3	4	5
.Andhra Pradesh	25*	22*	31*	36*	35*
Bihar	30	31	23	32*	28
Gujarat	38*	31*	28*	32*	23
Harayana	36*	30	29*	32*	28
.Himachal Pradesh	38*	25*	22	35*	20*
Jammu &Kashmir	23	29*	36	26*	32
Karnatak	22*	28	30	36	23
Kerala	25*	37*	30*	22*	38*
Madhya Pradesh	27*	33*	32*	21	35*
Maharastra	31*	21*	36*	28*	38
Orissa	30*	38*	29	23*	22
Punjab	28*	37	22	29*	35*
Rajasthan	38*	32*	25	27*	21
Tamilnadu	30*	25	35	29	24*
Uttar Pradesh	38*	36	37*	28	Negative
West Bengal	36*	32	27*	31	23*
All India	30	36	25	38	22

Note: Numbers with asterisks indicate the industries' code for which the rural Location quotients are greater than one.

Among these high growth industrial groups in different states, those industries which also possess `comparative advantage' (LQ > 1) in respective states, have been marked by an asterisk against their code numbers. As may be observed from Table 4.4., not all high growth industries, i.e. the fire fastest growing ones in different states, possess `comparative advantage'. On an average, growth of 2.3 out of the five high growth groups of each state can be explained in terms of their comparative advantage.

SECTION III

The Impact of Rural Development On Rural Industrialisation:

The basic objective of rural industrialisation is overall development of rural economy. The present section attempts to find out the relationship between rural industrialisation and rural development. In later part of this section an attempt has been made to find out industries from the industrial base those are contributing to rural development.

For assessing the above influences, an index of rural development was constructed by using nine indicators. Those are- (i) yield per hectare of major crop; (ii) Gross irrigated area as a percentage of gross cropped area. (iii) Cropping intensity (iv) Number of pumpsets and diesel sets per hectare of cultivated land (v) Rural literacy percentage (vi) per capita bank credit to agriculture (vii) percentage of villages electrified (viii) Electricity sold to agricultural sector per hectare of cultivated land (ix) fertiliser consumption per hectare of cultivated land.

Indicators (i), (ii), (iii), (iv) and (ix) are all related to agricultural attainment. Indicator (v) is a measure of the quality of human resources available. Per-capita rural bank credit is a measure of an important input into the development of rural economy, particularly the agricultural sector. Indicators (vii) and (viii) are

measures of rural infrastructure. The above indicators were composited in the form of first principal component and the resulting state wise index of rural development is listed in Table-4.5 (Column-2). The states which figure at the top in terms of this rural development index are Punjab, Harayana, Tamilnadu, Andhra Pradesh, while those falling at the bottom are Orissa, Bihar, Himachal Pradesh, West Bengal.

Moreover, it would be worth examining the influence exerted by agricultural growth on rural industrialisation. State-wise rates of agricultural growth during 1980-83 to 1992-95, based on data for 41 crops were obtained from G.S. Bhalla and Gurmail Singh's article entitled 'Recent Development in Indian Agriculture-A State Level Analysis. The statistics on agricultural growth are given in table-4.5 (column-4).

In order to assess the impact of rural development and agricultural growth on rural industrialisation, we have examined the relationship of these two variables with two alternative measure of rural industrialisation. Firstly, per capita output originated in rural industrial sector in rupee for each state, as presented in table 4.5 (column-6)

Secondly, the proportion of rural industrial worker to total rural workforce as listed in table 4.5. (column-7).

TABLE :4.5

STATES	RUDEV	RUPOV	AGRIL	PCLAN	RUIND1	RUIND2
1.	2.	3.	4.	5.	6.	7.
.Andhra Pradesh	1.07	20.92	3.08	0.21	169.74	9.26
Bihar	-0.63	52.63	2.08	0.1	136.23	7.62
Gujarat	0.56	28.67	1.96	0.34	106.49	4.4
Harayana	1.2	16.22	4.74	0.29	140.82	8.29
.Himachal Pradesh	-1.02	16.28	2.02	0.17	193.99	9.05
Jammu &Kashmir	-0.2	28.7	0.33	0.13	119.09	5.29
Karnatak	0.42	32.82	3.92	0.33	118.88	7.09
Kerala	0.68	29.1	2.24	0.1	261.18	12.5
Madhya Pradesh	-0.7	41.92	4.71	0.38	154.14	4.3
Maharastra	-0.11	40.78	2.87	0.37	109.51	5.39
Orissa	-1.39	57.64	1.15	0.23	169.95	5.76
Punjab	2.18	12.6	3.87	0.3	174.76	8.19
Rajasthan	-0.6	33.21	5.02	0.48	121.39	6.75
Tamilnadu	1.1	45.8	4.59	0.15	119.25	8.36
Uttar Pradesh	-0.14	41.1	2.83	0.16	104.13	9.8i
West Bengal	1.06	48.3	5.39	0.11	585.51	26.77

Notes RUDEV: Rural development Index
RUPOV:Rural Poverty In Percent)
AGRIL:Agricultural growth (Percent per annum)
PCLAN:Per capita land availability(in hects.)
RUIND1:Per capita output originated in rural industrial sector(in Rupees)
RUIND2:Percentage of rural industrial worker to total rural workforce.

The zero order correlation of these variables with state wise rural

development and agricultural growth are given below-

RUDEV and RUIND 1   :   r = 0.42

AGRIL and RUIND 1   :   r = 0.11

RUDEV and RUIND 2   :   r = 0.36

AGRIL and RUIND 2   :   r = 0.23

As may be observed, rural development reveals a strong

positive influence on the level of rural industrialisation in both the

cases. But the influence on agricultural growth is found to be quite

feeble. But overall development of the rural economy which is primarily dependent upon the agricultural sector, does get reflected substantially in the industrialisation of the rural sector.

These results underline the significance of overall rural development for promoting rural industrialisation and the need for effective steps to strengthen development of rural sector, embracing infrastructure and agricultural technology.

Influence Of Rural Development On Specific Industrial Groups:

After finding out the levels of rural industrial development of each state and contribution towards overall rural development, it is the chief concern now to find out which industries are mainly contributing towards rural development. With this aim in mind, the correlation and regression co-efficient have been found out between the rural location quotients and the development index. The significance of this kind of analysis needs a word of explanation. In section I of this chapter, we found out the industrial base of the rural areas of each state, which is determined by location quotient. So when the correlation between the location quotient and development index is found out, twin aim is satisfied. It conveys an idea as to which industries among industrial base are contributing towards rural development as well as generating employment. Ultimately, it will lead us to a policy framework which will be

projected towards the rural development and employment generation.

ABLE:4.6
Regression of rural location quotients on Index of Rural Development

Industy Code	Reg. coeff.	t-value	Corre. Coeff.
20	-0.2	1.3	-0.33
21	-0.29	1.59	-0.39
22	0.15*	0.62	0.17*
23	0.07	0.52	0.13
24	0.041	0.13	0.03
25	0.55***	0.62	0.16***
26	0.117	0.24	0.06
27	-0.134	1.31	-0.33
28	0.52	1.84	0.44
29	-0.81	1.81	0.43
30	0.241	0.45	0.11
31	0.345**	0.94	0.24**
32	-0.003	0.21	-0.006
33	-0.513	0.81	-0.213
34	-0.151	0.97	-0.25
35	0.69***	1.77	0.428***
36	0.88	1.73	0.421
37	0.088	0.2	0.055
38	-0.635	1.85	-0.45
39	0.839	2.54	0.563
97	0.586	2.19	0.506
99	0.147	34	0.091

Note: *,**,*** indicate the significance at 0.10,0.05, and 0.01 levels respectively.

Table 4.6 shows the correlation between the rural location quotient of different industrial group with the development index as well as the regression co-efficient which will show the degree of responsiveness of different industrial groups to rural development. As our aim is to look out potential industries capable of generating employment and contributing towards rural development, only positive co-efficient are being taken into account.

Thus table 4.6 gives a vivid description about the potential industries capable of contributing towards rural development. It

shows that there are 14 industry groups which show positive correlation to rural development. Among them some important are: jute textile (25), paper and paper product (28), non-electrical machinery (35), electrical machinery (36), and repair of capital goods (39).

Although all the co-efficient are not significant, but they do convey some idea of those industry groups which tend to gain prominence with rural development. Among the above industrial groups jute textiles (25) represents a major agro-based industries which caters to an essential consumer good demand of the rural sector. The non-electrical machinery (35) group produces capital goods and supplies all the agricultural as well as non-agricultural equipment's needed for transformation of rural economy.

It may be found out that some industries are showing positive correlation with development index but they are not viable, or more capital-intensive and less productive or they may account for an insignificant share of employment. So before adopting any strategy these factors should also be considered or else the objective will be nullified.

Rural Industrialisation Vs Rural Poverty

Rural industrialisation is widely viewed as an instrument of alleviating underemployment and poverty in rural areas as also of

curtailing rural-urban migration. It is therefore worth investigating as to how far the magnitude of rural poverty is sensitive to rural industrialisation.

The percentage of people below the poverty line in 1987-88 as estimated by the Expert Group of the Planning Commission, Govt. of India 1993-94, are given in table 4.5 (column-3). The influence of different variable on rural poverty relevant in this context was also examined, namely the influence of rural development, agricultural growth, cultivable area per capita (Table 4.5. Column 5) and rural industrialisation. The zero-order correlation co-efficients with rural poverty are given below:-

AGRIL   = -0.013   RUIND 1   = -0.14
RUIND 2   = -0.35   PCLAN   = -0.17
RUDEV   = -0.60

In the case of all these variables, although the relationship is in expected direction, the correlation values are not statistically significant.

The collective influence of above variables is captured in the following regression equation:

RUPOV = 39.60 + 1.78 AGRIL - 0.28 RUIND 2 - 31.01 PCLAN -
9.61 RUDEV   _____(Eq.1)
    R^2 = 0.41, F = 1.94
RUPOV = 56.13 + 2.94 AGRIL - 73.47 PCLAN - 0.06 RUIND 1[**] -
13.40 RUDEV[***] ,   ------- (Eq.2)
    R^2 = 0.81   F = 12.02

*, **, *** indicate significance at 0.10, 0.05 and 0.01 level

respectively.

In both eq.1 and eq.2, except agricultural growth, for all other variables we have found the desired sign, but it is only in the second equation the co-efficient of rural development and rural industrialisation are significant at 0.01 and 0.05 levels of significance.

The preceding analysis has revealed a close connection between overall rural development and rural industrialisation. It is those areas which have attained a high level of rural development that have also exhibited a rapid pace of expansion in rural industrial segment. As such, steps towards general improvement in rural economy are themselves likely to create conditions that shall help expansion of employment in rural industrial segment. Among the components of rural development that are vital for improving viability of rural enterprises, rural electrification and provision of roads occupy a prime place.

Moreover, rural industrial development can be proved to be an effective poverty alleviation programme through conscious policy measures. But is more important that planners appreciate that the rural industrial sector offers an income-earning opportunity to a large group of disadvantaged who have no access to formal avenues of income and employment.

CHAPTER –V

CONCLUSION

A major objective of planned economic development has been industrialisation and employment generation. The industrial policy resolutions had, from time to time encouraged the growth of rural industries in order to generate employment, promote balanced regional growth, alleviate poverty and have equitable distribution of wealth.

In this study we used NSS data to study some aspects of rural industry in India. We have draw on attention, at appropriate places, to several data problems involved in our analysis. Subject to consequent limitations, our findings may be summarized as follows :

Our excursion into the rural industrial sector does not suggest an unqualified success for the official policy. On the basis of available evidence it would be hard to accept the somewhat unusual and high grown of rural industrial sector has been accompanied with efficiency, innovativeness and social justice. Performance of rural industrial sector is so far not satisfactory. The absorbing capacity of workforce is very low.

A comparison is made between the performance of rural industrial sector and their urban counterpart. On the whole, it is

evident that during the time frame of our study. The rural industrial sector witnessed a major setback. The performance of this sector was analysed in terms of some important characteristics, namely, number of units value added and value of fixed asset though the performance of various regions (industry groups) will vary according to the variable considered; we found that the overall growth performance has been quite discouraging. Moreover the growth declaration is far more serious in case of rural areas.

All kinds of industries are found in rural areas, partially of every state, but sh ares of different industries vary significantly among them. But it is observed that very few industry groups account for a bulk share in terms of all characteristics; they are food products, cotton textiles wearing apparel and work products, in terms of very economic variables both in rural and urban area. The performance of different states in respect of principal characteristics has also been discussed separately for rural and urban area. As far as the concentration of number of units and number of workers employed in rural area are concerned west Bengal. *Andhra Pradesh*, Uttar pradesh and Tamil nadu account for 50 percent more. However, the performance of the various regional economies are uninspiring. But all regions did not perform like. Despite the fact that the less developed states grew at a higher than the national growth rate between 1984-85 and 1959-90, position of the dominant states

didn't alter significantly. However a decline was observed in the inter regional and industrial disparity during this period. Moreover, we observed that size of the states which h as developed considerably in terms of the urban industrial sector, didn't necessarily reved a corresponding high level of rural industrial development. This shows the weak rural urban industrial linkages.

Even though all most all industry groups (states) witnessed a decline in their respective share over the period 1984-85 to 1989-90, the structure of this sector has not undergone any substantial charge during the said period.

Although capital intensity is generally higher among urban units compared with their rural counterparts, yet the reverse is true is a few production lines. The convential argument of rural industries being always less capital intensive and ensuring a l lower quantum of employment per unit of capital is not true, for al branches of production.

No clear trend is discernible if we compare the growth profile of industries with their share in the base year. Most of the high share industries experienced a lower growth rate in all important characteristics, while the majority of the industries having low share registered a high growth rate between 1984-85 and 1984-90. Most of

the industry groups reveal negative association between growth and share. Therefore, simply high growth of an industry doesn't signify its importance in the ural industrial structure. It mainly depends on the weight, in term of the share, an industry carried in the industrial structure.

As regard efficiency of these units labour productivity has increases significantly both in rural and urban areas as well as in both industrial categories, ie.e. OAEs and NDEs. Fixed capital showed a sharp decline compared to employment or value added. It indicates increase in value added owing to more intensive use of labour. In terms of other structructural ratios, also the rural industrial sector has performed better in 1989-90 compared to 1984-85.

As employed generation is the prime objective of rural industrialisation programme, structure of rural industries on the basis of employment were formed out for all the states. The aim was to have an idea about the industrial groups which are capable of generating employment. So industrial base of rural areas of 10 major states were significantly analysed. The analysis revealed a varied picture of existing rural industries in these states. To find out the industrial groups which are contributing toward rural development, the role and performance of them were analysed.

Very few studies are spatially spread out. Through they have sample employment opportunities serious revenue constraints might

have posed an obstacle. So industrial base of states as well as location of industries should be spread out.

Most of the states are well diversified. Jammu and Kashmir found to be highly specialised. It is due to traditional outlook towards production. One or two type of industrial groups such as used products (2), cotton textile (23) etc. are ubignitously present in most of the states, irrespective of level and structure of economic activity. It is found that major part of the rural industrial activities in different states have confirmed as a part of tradition without necessirity being differentiated in the basis of linkages and integration with the local resources and changing demand pattern. So this pattern should be changed and rural industrialisation programme should adapt to changing pattern in demand and techniques.

Rural areas are found to have those industries in its base which have low capital labour ratio implying enough employment potential. But wherever possible and feasible, industries having high capital labour ratio are suggested to be introduced into rural areas, because these industries are generally highly productive and contribute to value added significantly.

Though some states like Haryana, Punjab have got agro based economy. Their rural industrial core is dominated by non agro based

industries.

In rural areas very groups (14 out of 22) have positive correlation with development index. As industrialisation contributes Substantially to rural development other industries should also be improved upon to generate sufficient income.

In many cases it was found that the rural industries aters only to local demand and labour intensive industries dominate the industrial structure. So productivity of this sector should be increased and marketing network should be expanded.

Those states which are mannerly rich, are well diversified in capital intensive mineral based industry group. They generally have broad industrial base Agro based industries should be developed in these states so these two can give boost to other activities through forward and backward linkages and symbiotic relationship can be maintained.

The relationship between the level of rural industrialisation and other variable i.e. rural poverty, agricultural growth etc. was examined. We found positive correlation between agricultural growth and the level of rural industrialisation and negative correlation between the latter and rural poverty. The analysis

signifies the importance of instrumental to alleviate poverty.

From the point of view of policy measures for giving support to future industrial growth in specific directions, for example, allocation of raw materials provision of electricity and other infrastructure credit facilities etc. Table 4.1 which gives the hierarchy of rural location quotients, can throw some light in arising at a broad order of industrial priorities while formulating rural industrialisation policy in different states.

Rural industries have in it the potential to change the social and economic fabric of the nation. A potential which everyone know exists, but few acknowledge and even fewer want to do anything about it. The tragedy lies int the fact that potential has remained dormant all along.

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