

Review of Rural Non-farm Sector in India

Recent Evidence

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During the period 1972-73 to 2004-05 in rural India, the total number of workers expanded more in the non-farm sector than the farm sector with the rise in male workers being sharper than that of female workers. This enquiry, primarily based on NSS data, throws up ample evidence of the distressed state of non-farm workers.

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The key to India's development lies in the development of its rural areas. There are as many as six lakh villages where about 70 per cent of the population live. The agricultural sector thus occupies a pivotal place in the national economy both in terms of its contribution to the gross domestic product and employment generation. However, segmenting rural employment growth into the farm and non-farm sectors would demonstrate that non-farm employment growth had been significantly higher than farm sector employment growth throughout the period 1972-73 to 2004-05. The objective of this paper is to assess trends in the level and nature of employment in the rural non-farm sector over this period.

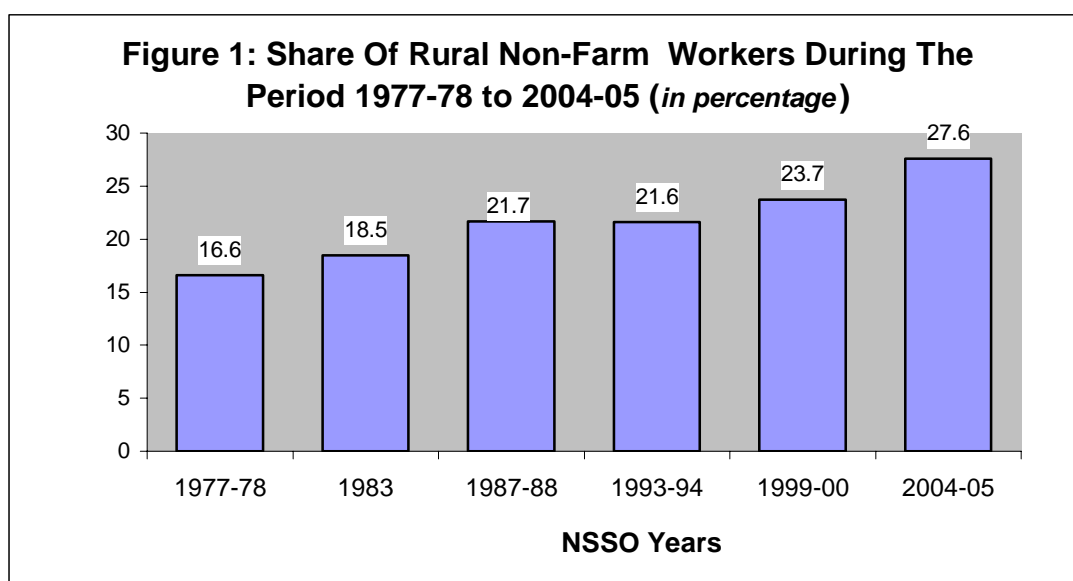
The statistics on employment and unemployment can be obtained either from the censuses of population and economic establishments or the national level sample surveys conducted by the NSSO. The Census data provide an inventory of human resources of the country showing their number, characteristics, occupation and distribution among various branches of the economy. Our enquiry, however, is primarily based on information obtained from the sample surveys conducted by the National Sample Survey Organisation which are considered to be more comparable and reliable [Vaidyanathan 1986; Krishnamurty 1984].

This paper is organised as follows. Section II examines the overall size of rural non-farm employment. Section III brings out the sectoral distribution of employment at one-digit industry level. The distribution of workers by their employment status is discussed in Section IV. Section V is focussed on reviewing the findings of the studies conducted in the Indian context. This section also examines the organised and unorganised sector employment in order to have a better assessment of non-farm

employment. Section VI brings out the links between non-farm employment and factors such as land ownership, education and social stratification. An analysis of such relationship is likely to provide further insights into the nature of rural non-farm employment. The main findings are provided in the last section.

II Size of the Rural Non-Farm (RNF) Sector

Figure 1 establishes that the proportion of non-farm employment in total rural employment has risen from 16.6 per cent in 1977-78 to 18.5 per cent in 1983; 21.7 per cent in 1987-88; 21.6 per cent in 1993-94 and finally to 27.6 per cent in 2004-05.¹ It must be noted that but for a brief period of stagnation between 1987-88 and 1993-94, the figure rose consistently to record a total increase of 11 percentage points between 1977-78 and 2004-05. The increase during the approximately 10 year long sub-periods between 1977-78 and 1987-88 and 1993-94 and 2004-05 amounted to 5.1 and 6 percentage points respectively.



Source: Various relevant NSSO rounds.

Table 1 reveals a much higher rate of increase in non-farm employment among male workers than their female counterparts during 1977-78 to 2004-05. The percentage of males rose from 16.7 per cent in 1972-73 to 33.5 per cent in 2004-05 whereas that of females registered a rise from 10.3 per cent to no more than 16.7 per cent. The increase in both categories was noticeably sharper during the period 1999-00 to 2004-05 than in.

Table 1: Distribution of Rural Workforce in Non-Farm Activities

Year	Persons	Males	Females
1972-73	N.A.	16.7	10.3
1977-78	16.6	19.3	11.8
1983	18.5	22.2	12.5
1987-88	21.7	25.4	15.3
1993-94	21.6	26.0	13.8
1999-00	23.7	28.6	14.6
2004-05	27.6	33.5	16.7

(in percentages)

earlier periods. Quite significantly, the male workers increased by 4.9 percentage points while the females by only 2.1 percentage points.

Table 1 reveals a much higher rate of increase in male workers than the female counterparts in non-farm employment during the period 1977-78 to 2004-05. The percentage of males rose from 16.7 per cent in 1972-73 to 33.5 per cent in 2004-05 whereas that of females registered a rise from 10.3 per cent to no more than more than 16.7 per cent. The increase in both categories was noticeably sharper during the period 1999-00 to 2004-05 than in earlier periods. Quite significantly, the male workers increased by 4.9 percentage points while the females by only 2.1 percentage points.

Given the wide *class-wise* and *region-wise* differences in the level, rate of growth and pattern of rural employment, the question which naturally arises is the degrees to which this diversification of rural employment is a result of *distress-push* as opposed to *demand-pull* factors. We hold the view that it is not feasible to answer the question on the basis of data on the aggregate level. But the all-India and state-level data are bound to point to tendencies that are indicative of which one of these two sets of predominantly influence employment growth in the rural sector.

Consider for example, the fact that the period between 1983 and 1987-88 was one of the two sub-periods in which the increase in the share of non-farm in total rural employment was the highest. While some of this increase must be the result of processes of economic diversification associated with growth, some of this unusually high rise

could be attributed partly to the severe drought in 1987-88 which affected large tracts of the country. This must have driven sections of the rural population to turn to non-agricultural employment even if it offered relatively low earnings, since they needed to earn enough to maintain a subsistence level of existence.

This perception that drought induced distress was responsible for both the high level of non-farm employment and its proportion in total employment is also supported by the differences in the gender-wise movements in non-farm employment. Considering the incidence of rural non-farm employment as a proportion of total employment throughout the country separately for males and females, the proportional increase of female non-farm workers was the sharpest between 1983 and 1987-88. This may be indicative of the fact that females were forced to move out of agricultural and allied activities and take up non-farm sources of employment because of drought-induced distress. In fact, at the end of the following quinquennium, the proportion of female rural non-farm workers was lower than in 1987-88.

The aggregate all-India figures on non-farm employment since 1993-94 can, however, be taken to suggest that demand-pull has played a greater role in the more recent periods. Since the sharp rise in the last two of these sub-periods occurred in a context of extremely high rates of expansion of the manufacturing and services sectors, this is partly seen as being driven by demand-pull factors, though prevailing unemployment and underemployment meant that this was not accompanied by substantial improvements in the quality of and earnings associated with such non-farm employment.

III

Industrial Distribution of the Workforce

An analysis of the industrial division of the workforce could help us assess whether this indication of a greater influence of demand-pull factors in the 1990s and after is valid. Table 2 essentially reviews the compositional importance of the sub-sectors in rural India at the one-digit level. The table shows that while agricultural activities continue to be the mainstay for the rural workers, their relative importance declined substantially by nearly 11 percentage points between 1977-78 and 2004-05 starting from 83.4 per cent in 1977-78. Their proportional share constituted 72.7 per cent of the workers in 2004-05. A closer perusal of the table reveals that primarily, it is the withdrawal of male workers (14.2 percentage points) rather than the female workers (5

percentage points) from agricultural activities that was responsible for the fall in the share of agriculture in rural employment.

**Table 2: Sectoral Distribution of the Workers in Rural India:
1977-78 to 2004-05**

(in percentages)

Sectors	1977-78	1983	1987-88	1993-94	1999-00	2004-05
Rural Persons						
Agriculture & Allied	83.4	81.5	78.3	78.4	76.3	72.7
Mining & Quarrying	0.4	0.5	0.6	0.6	0.5	0.5
Manufacturing	6.2	6.8	7.2	7.0	7.4	8.1
Electricity, gas & water	0.1	0.1	0.2	0.2	0.2	0.2
Construction	1.3	1.6	3.3	2.4	3.3	4.9
Secondary Sector	8.0	9.0	11.3	10.2	11.4	13.7
Trade, hotels and restaurants	3.3	3.4	4.0	4.3	5.1	6.1
Transport and communication	0.8	1.1	1.3	1.4	2.1	2.5
Other Services	4.5	4.9	5.1	5.7	5.2	5.0
Tertiary Sector	8.6	9.4	10.4	11.4	12.4	13.6
All	100	100	100	100	100	100
Rural Males						
Agriculture & Allied	80.7	77.8	74.6	74.0	71.4	66.5
Mining & Quarrying	0.5	0.6	0.7	0.7	0.6	0.6
Manufacturing	6.4	7.0	7.4	7.0	7.3	7.9
Electricity, gas & water	0.2	0.2	0.3	0.3	0.2	0.2
Construction	1.7	2.2	3.7	3.2	4.5	6.8
Secondary Sector	8.8	10.0	12.1	11.2	12.6	15.4
Trade, hotels and restaurants	4.0	4.4	5.1	5.5	6.8	8.3
Transport and communication	1.2	1.7	2.0	2.2	3.2	3.9
Other Services	5.3	6.1	6.2	7.1	6.1	5.9
Tertiary Sector	10.5	12.2	13.3	14.8	16.1	18.1
All	100	100	100	100	100	100
Rural Females						
Agriculture & Allied	88.2	87.5	84.7	86.2	85.4	83.3
Mining & Quarrying	0.2	0.3	0.4	0.4	0.7	0.3
Manufacturing	5.9	6.4	6.9	7.1	7.6	8.4
Electricity, gas & water	-	-	-	-	-	-
Construction	0.6	0.7	2.7	0.8	1.1	1.5
Secondary Sector	6.7	7.4	10.0	8.3	9.4	8.3
Trade, hotels and restaurants	2.0	1.9	2.1	2.1	2.0	2.5
Transport and communication	0.1	0.1	0.1	0.1	0.1	2.0
Other Services	3.0	2.8	3.0	3.4	3.7	3.9
Tertiary Sector	5.1	4.8	5.2	5.6	5.8	8.4
All	100	100	100	100	100	100

In the non-farm sector, manufacturing is the largest source of non-farm employment in rural India. Its proportion rose from 6.2 per cent in 1977-78 to 8.1 per cent in 2004-05. This kind of diversification does seem to tally with conventional expectations of diversification away from agriculture to more productive manufacturing, supporting the role played by demand-pull factors representing a degree of dynamism.

Until 1999-00, the second largest non-farm employment source was *other services* sector. While this could include some modern services, many of these activities may be in the nature of residual opportunities exploited when employment in the commodity producing sectors is not growing fast enough. The relative share of these services in total employment stood at 5.0 per cent in 2004-05 against 4.5 per cent in 1977-78. However, it is notable that their employment contribution registered a decline of 0.7 percentage points during the nineties, from 5.7 per cent in 1993-94 to 5.0 in 2004-05. That is when the proportion of employment in *manufacturing* sector is growing, that of *other services* is stagnant or on the decline supporting the perception of a degree of dynamism.

The share of the next most important sector *trade, hotels and restaurants* rose consistently from 3.3 per cent in 1977-78 to 6.1 per cent in 2004-05. *Construction and transport, storage and communications* were also emerging as important sectors in the provision of non-farm employment particularly in the nineties. These are sectors in which the growth of employment at the aggregate may be the result either of distress-push or demand-pull. On the other hand, employment in *mining and quarrying* and *electricity, gas and water* was static at a low level of employment.

In sum, trends in the sectoral distribution of non-farm employment at the national level do not help clearly identify whether distress-push or demand-pull factors dominated the direction of change. However, overall, it appears that at least since the mid-1990s demand-pull factors have played an important role.

Table 2 also shows the employment distribution for male and female workers. It is likely that separate male-female distribution of workers may correspond in some of the non-farm sectors. The common sectors for both gender groups in terms of quantum and trends are as indicated below. The *manufacturing* sector employment is crucially important both for male and female workers. The proportions were more than 7 per cent in 2004-05 for both the gender groups. *Other services* absorbed the majority of the rest of the workers though the relative position of this sector lessened later for the male workers. The proportions were 5.9 and 3.9 per cent respectively for male and female workers in

2004-05. Employment in *mining* and *electricity, gas and water* remained nominal at less than one per cent throughout the period.

The quantum and trends, however, were dissimilar in the *trade, hotels, restaurants, construction* and *transport, storage and communication* sectors. The proportion of male workers in *trade, hotels and restaurants* consistently rose by 4.3 percentage points over the three and a half decades, with the increase being sharpest during the quinquennium ending 2004-05. On the other hand, the proportion in case of female workers in this sector stagnated at 2 per cent during the three decades ending 1999-2000 and then rose by 0.5 of a percentage point in the next five years. Similarly, in the *construction* and *transport, storage and communications* sector, the proportion of male workers rose sharply from 1.7 per cent to 6.8 per cent and from 1.2 per cent to 3.9 per cent respectively between 1977-78 and 2004-05. On the other hand, female employment in transport and communication remained more or less stagnant till 1999-2000 and then rose sharply in 2004-05. In the case of construction the rise in the share of female employment was continuous, though much smaller than in the case of males. Thus, in aggregate, the level and buoyancy of female employment in non-agricultural activities was much lower than in the case of males, though there are signs of a change in the most recent five-year period with female non-agricultural employment registering significant increases in many sectors.

There could be a number of explanations for these genderwise trends. The most optimistic would be the argument that gender discrimination that keeps women out of opportunities in the market for non-agricultural labour is on the decline. However, the data on earnings do not support this view. In rural areas, the average decline in regular women workers' real wages over the first five years of this decade was by 32 per cent. Even if we ignore the outlier, *viz.* women with primary education, the decline in real wages in other categories was substantial. Illiterate women workers in regular employment in rural areas faced average wage cuts of 20 per cent, while those who had secondary and higher secondary education faced average cuts of nearly 30 per cent. More than 66 per cent of all rural women workers were illiterate.

The second explanation could be that a decline in real earnings in the principal source of employment in agriculture could be forcing rural women to take up non-agricultural activities to sustain family income. This does seem to be of relevance, especially since a major form of non-agricultural employment growth has been an increase in self-employment.

Finally, a third and complementary explanation could be that women's employment in non-agricultural has risen in recent times because the earnings from these activities is far below the reservation wage for men, leaving these sources of income open to women. The genderwise trends in rural non-agricultural employment seem to point to the role of distress-driven increases in such employment, especially among women.

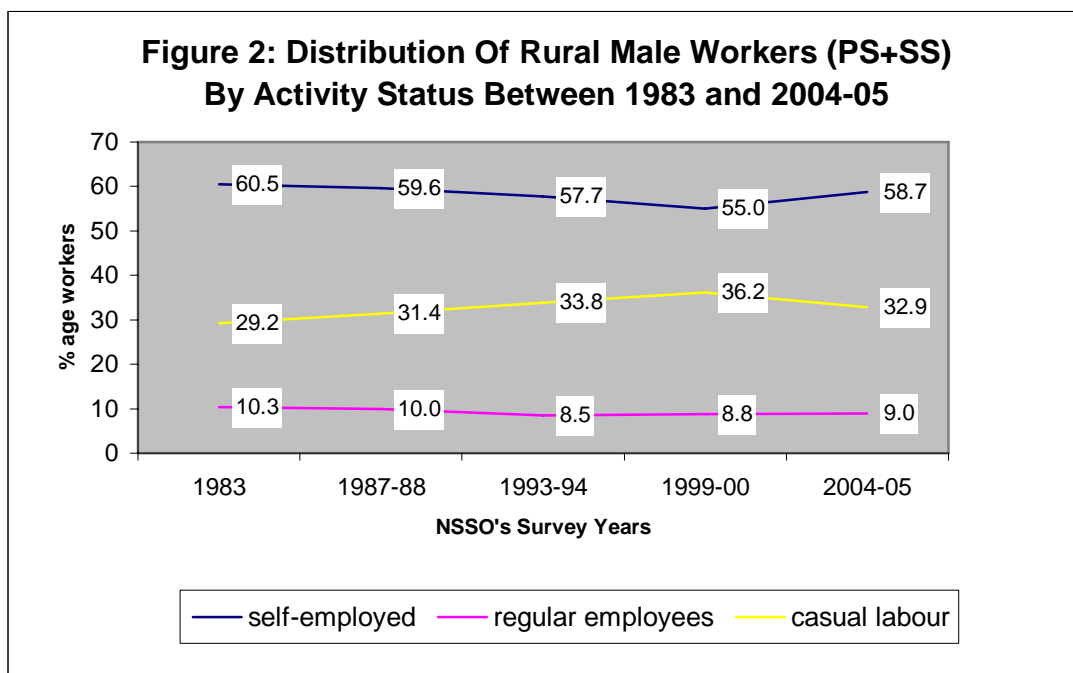
IV Employment Status of the Workers

Another phenomenon that needs to be noted along with the occupational shift towards non-farm activities is the change in the employment status of the workforce. Conventionally, change in the employment status of the workforce is studied by disaggregating total employment into self-employment, regular employment and casual mode of employment. In terms of earnings, the income from regular employment is considered secure. For the casual worker, neither employment nor income is assured. Casual workers undertake all kinds of work with different employers on a short-term basis and therefore are more vulnerable than those in self –employment, which offers scope for numerous activities and it is difficult to classify it either as *secure* or as *shaky*.

In rural India, the proportion of self-employed workers has been typically high followed by casual and regular mode of employment as shown in figures 2 and 3. In 2004-05, 58 percent of rural males and 63.7 per cent of rural females were self-employed. The proportion of casually employed workers was also large (33 per cent in case of both males and females). On the other hand, the remaining regular male and female workers were 9 and 3.7 per cent. Between 1983 and 1999-00, the proportion of self-employed workers had continuously been on decline, while the regular workers remained more or less same in proportion and consequently the proportion of casual employment increased.

But as shown in Figures 2 and 3, the percentage of self-employed workers has registered a significant increase since 1999-00 and 2004-05. The increase has been sharpest among the rural women, where self-employment now accounts for nearly two-thirds of all jobs. The proportion of regular male and female workers remained almost the same for both leading to the conclusion that the increase in self-employed workers was corresponded with the decline in proportion of casually employed workers, from 36.2 to 32.9 percentage points in case of rural males; and 39.6 to 32.6 percentage points for rural females.

Given this growing significance of self-employment, it is important to consider in greater depth the precise nature of self-employment, and to what extent it is a positive move of workers away from domination and control by employers, or a *refuge* form of employment forced upon workers by the inadequacy of generation of paid employment. However, this is a phenomenon to be welcomed, if it does indicate a shift to more productive and better remunerative activities than are to be found with casual contracts.



Source for Figures 2 and 3 is same as the for Figure 1.

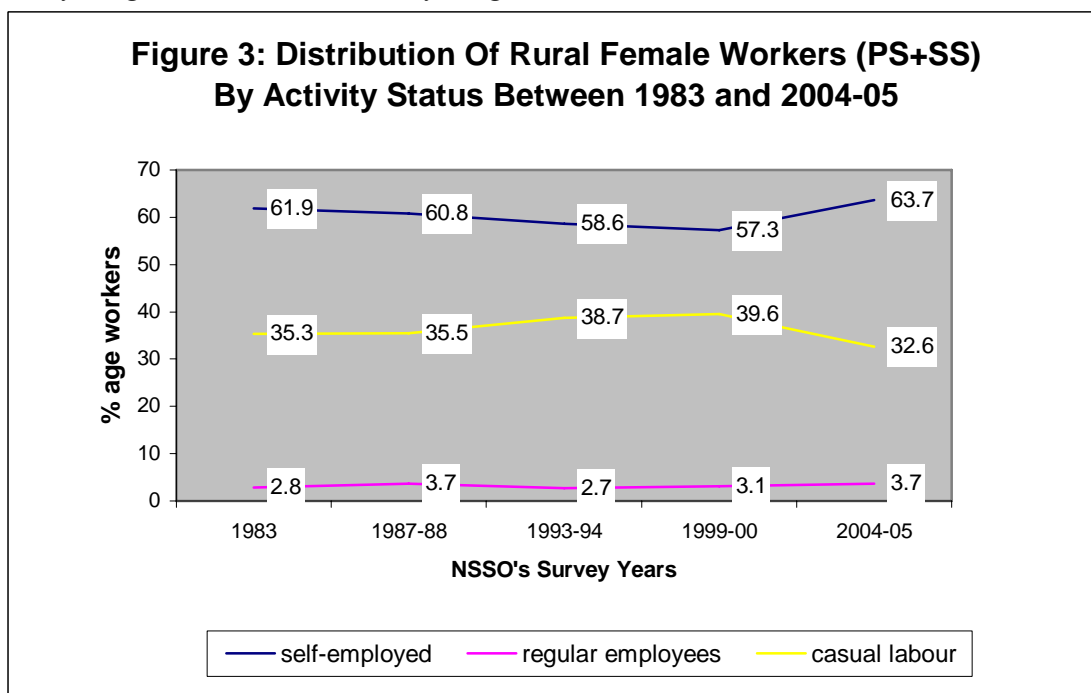
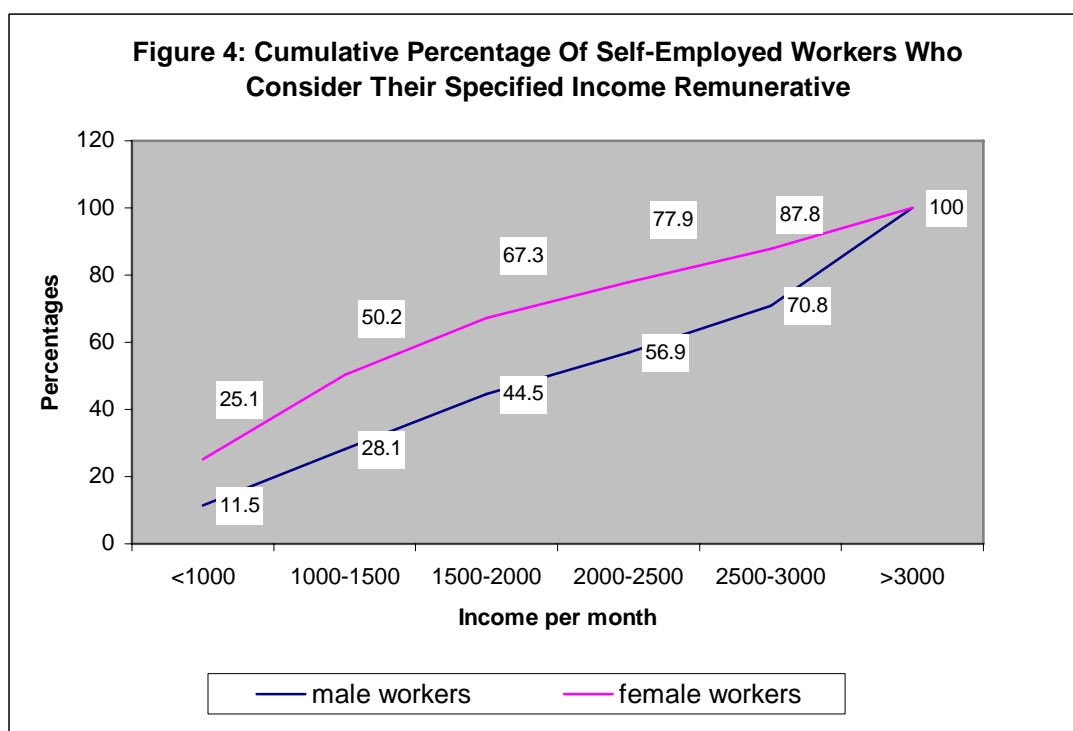


Figure 4 presents data from the 61st Round of the NSS on monthly income considered as adequately remunerative by the workers from self-employment. Two features of this figure are quite striking. *Firstly*, the low level of income expected from such work. In fact, a large proportion of workers would apparently be satisfied with monthly incomes that are below the minimum wages in the country and *secondly*, the very large gender gap in this indicator.

Clearly, wages for labour in India are relatively low. Often, the labourer receives wages much lower than the minimum wages prescribed by legislation, which differ from state to state. Legal minimum wages in India vary widely across states, but the range is from a low of around Rs 45 per day in rural areas of some states (such as in Jharkhand and Bihar) to a high of as much as Rs 120 in urban areas of other states (such as Kerala). Therefore, assuming that each month has 24 days working days, the legal minimum wages across India varies between Rs 1,080 and Rs 2,880 per month. Figure 4 shows that 11.5 per cent of male workers and 25.1 per cent of female workers would be content with the monthly incomes of less than Rs 1,000 which is lower than the lowest of the prescribed minimum wage of Rs 1,080.

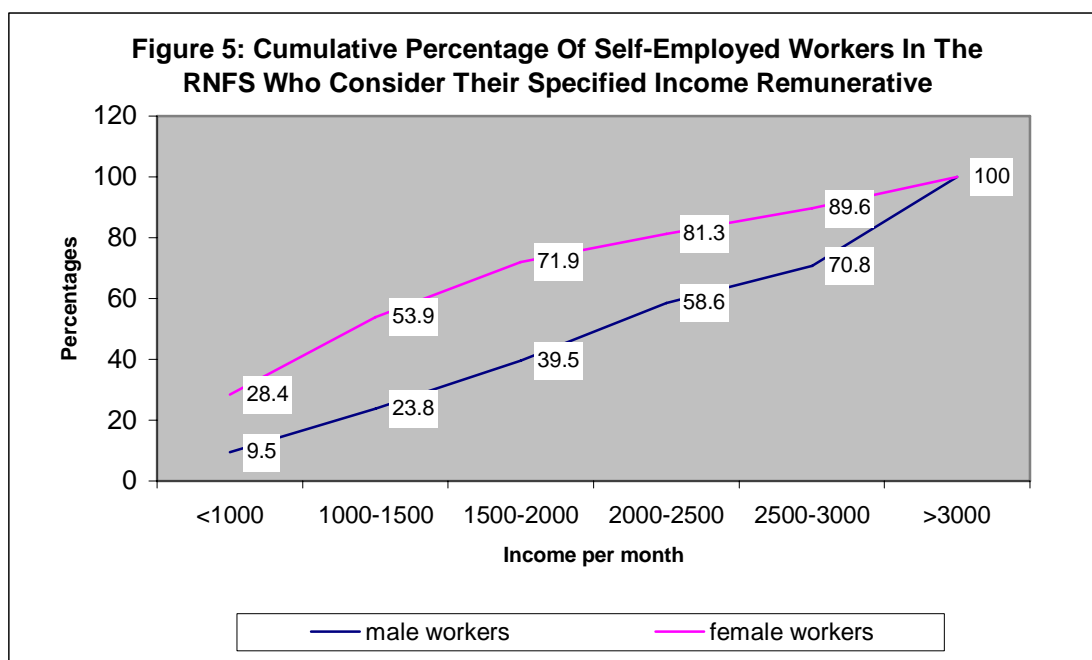


Source: Computed from the unit level Employment and Unemployment data on CD-ROM supplied by the NSSO, Government of India, 2004-05.

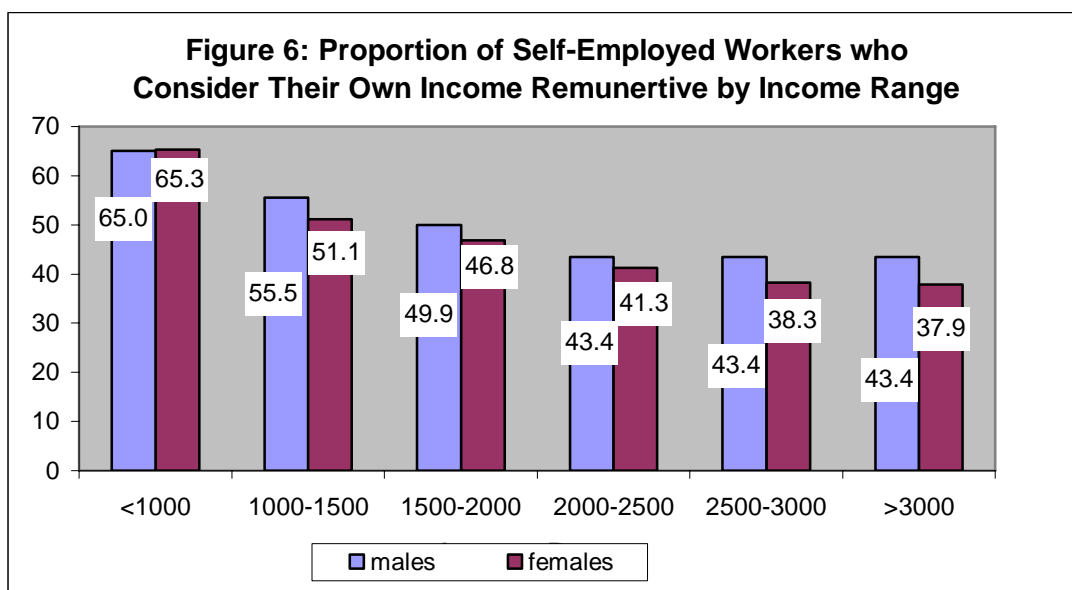
If the bar is raised to Rs 1,500 per month, then slightly over a quarter of male and around half of female workers would consider the amount to be remunerative. The

substantial gap in the expectations of female and male workers is another marked feature. The female workers figure also suggests of a widening gender gap in rewards to labour- a fact which is confirmed by the available wage data for both regular and casual work. The situation in non-farm sector (figure 5) is not much of difference. This speaks of the low expectations of self-employed workers.

The 61st Round NSSO also asked the question whether those in self-employment found their own activity to be sufficiently remunerative, by expected income category. Responses elicited from the NSSO survey (represented in Figure 6) demonstrate that presents the results which appear to be more interesting because it gives some pointers as to the actual income obtained through self-employment. It turns out that just under half of all self-employed workers do not find their work to be remunerative. This is despite low expectations of reasonable returns. It is significant that more than one-third of self-employed workers fail to get even this lowest of the low-prescribed wage. Female workers found self-employment less rewarding than their male counterparts.



Source: As for Figure 1.



Source: As for Figure 1.

But then, it could be argued that this is because self-employment provides the freedom to determine one's own working hours and days of work; that there are such low incomes from self-employment because people actually work less hard or for fewer days when they are self-employed. Unfortunately, this is not the case and self-employed workers do in fact end up working every day without a break. The latest data showed that over 90 per cent of male workers and 56.9 per cent of the female workers work all days of the week. It is true that the proportion is less for women workers, probably because of greater responsibilities of household work, but significantly, even among women workers, over 50 per cent work all days a week.

The distribution of rural workers by their employment status, both in the farm and non-farm sectors, during various periods between 1977-78 and 2004-05 is shown in table 3. The table shows that the overall distributional trends in agricultural and non-agricultural sectors were dissimilar from each other. It is notable that while a decline in self-employment and regular employment occurred in the farm sector, this decline was largely made up by the increase in self- and casually employed in the non-farm sector as well as casual workers in the agriculture sector. The trend was much sharper among the male than the female workers. The proportion of self-employed male workers declined by nearly 11 percentage points as compared with 4 percentage points in the case of female workers. Similarly, the proportion of male workers in regular employment in the farm sector over the period also declined by 4.0 percentage points (from 4.9 to 0.9 per cent).

Table 3: Trends in Employment Status of Rural Labour by Sector
(in percentage)

Years	Farm Sector			Non-Farm Sector		
	<i>Self-employed</i>	<i>Regular employed</i>	<i>Casually employed</i>	<i>Self-employed</i>	<i>Regular employed</i>	<i>Casually employed</i>
Males						
1977-78	51.5	4.9	16.0	10.5	6.1	3.8
1983	48.8	3.9	17.2	10.9	6.8	4.9
1987-88	45.4	3.1	20.1	12.3	7.3	7.3
1993-94	46.7	1.8	20.3	12.4	7.2	6.0
1999-00	42.5	1.8	20.4	13.0	7.8	7.4
2004-05	40.9	0.9	23.0	15.5	8.0	9.5
Females						
1977-78	48.9	1.5	25.4	8.7	2.6	3.9
1983	48.5	1.3	26.0	7.8	2.8	4.7
1987-88	46.9	2.0	25.7	8.6	3.1	6.7
1993-94	49.6	0.9	28.7	8.3	2.6	3.9
1999-00	45.9	1.4	29.6	9.6	3.2	3.6
2004-05	44.7	0.5	33.7	9.9	4.1	3.9

Source: As for Figure 1.1.

The shift in the mode of employment in the rural workforce during the period 1977-78 to 2004-05 was significant. The direction of the shift was primarily away from self-employment (and to some extent regular employment) in agriculture to self-employment, regular employment and casual employment in non-farm sector. Notably the number of casual workers increased not only in the non-farm sector but even in the farm sector. This phenomenon is known as *casualisation* of rural workforce.

Nonetheless, the evidence of casualisation of rural work force in the farm sector is a cause of serious concern because the declining incidence of self-employment is assumed to drive some people out of self-cultivation to bloat the ranks of the landless agricultural labourers. Haan (1980: Part II-2; Census of India: paper 3 of 1991: p.193) reported that the population census confirms the rising proportion of landless agricultural labourers from about 17.0 per cent in 1961 to as high as 32.0 per cent in 1991.

To sum up, we noted the highest number of the workers in the rural areas were self-employed workers followed by casually employed workers. Only a small proportion was regularly employed workers. But the presence regular workers was significant in the non-farm sector. The overall analysis with regard to the status of employment and their

expected level of earnings gives us sufficient reasons to believe that the employment activities of rural non-farm workers were dictated by miserable conditions.

V A Selected Review of Research

The above analysis points to the significant role of distress in the determination of rural non-farm employment at the national level. A number of scholars have sought to explain the character and determinants of RNFE in India. These studies have been undertaken at two levels of disaggregation. The first category uses regional data to analyse the relationship between macro indicators (unemployment, poverty, urbanization, agricultural development) and proportions of non-farm employment. However, this sort of aggregate level analysis, making use of either cross-sectional or pooled data, is *vulnerable to the fact that both sets of growth rates may differ across regions for many reasons, introducing biases which might swamp any relationship which exists* [Lanjouw and Lanjouw 1995].

The second category of studies is based on village surveys which collect quantitative data at the level of households and individuals. The usefulness of micro-level studies arises from the fact that regional level studies do not provide an adequate understanding of the micro realities. Though most micro-level studies only provide a point-of-time picture of the nature of non-farm employment and the characteristics of households engaged in such activities, cross-sectional analyses of the data do provide some indication of factors influencing processes of occupational diversification. The number of such studies is, however, relatively small. Yet, a survey of that literature could help improve our understanding of the rural non-farm economy and thereby inform our own analysis.

The literature on determinants of non-farm employment is focussed on probing certain broad relationships. However, a key question looked into is whether growth in rural non-farm employment is a consequence of distress-driven diversification, or the result of prosperity-induced processes; and the role of exogenous factors in this diversification.

RNF Employment: A Prosperity Induced Process

A number of Indian studies suggest that the growth of agriculture is likely to stimulate growth and development of rural non-farm employment through consumption

and production linkages. The operation of these linkages has been discussed in chapter I. The following section reviews those studies that advanced the argument that the growth of rural non-farm employment was prosperity-induced and driven by agricultural growth.

The initial efforts towards econometric testing of explanations of changes in rural non-farm employment in India based on region level data started with Sankarnarayan (1980). Sankarnarayan tested the linkage hypothesis using per capita (rural) consumer expenditure and value of crop output per agricultural worker as indirect and direct indices of agricultural prosperity respectively using data at the state level. The results did not establish any strong correlation between these indices and the proportion of rural non-agricultural employment. This was taken as suggesting that differences in the extent of agricultural prosperity by and large do not explain the variations in the share of non-agricultural workers in total. He also formulated an alternative hypothesis that it is the degree of commercialisation of agriculture that determines the level of non-agricultural activity in rural areas. The indices of commercialisation were highly and positively correlated with the percentage of rural non-agricultural workers, indicating a close relation of the latter with the development of commercial relations in agriculture.

Vaidyanathan (1986), Nachne *et al.* (1989), Dev (1990), Unni (1991) and Basant (1993), using several indices of agricultural development recognised its influence on the number and nature of rural non-farm activities. Dev (1990) found only land productivity, and not crop output per head of agricultural population, to be associated with non-farm employment. A high level of agricultural productivity facilitates the growth of non-agricultural employment by generating surplus and diversifying demand for non-agricultural goods and services.

Unni (1998), however, argued that land productivity is not a very good measure of rural incomes. The lack of correspondence between the two indices, namely *crop output per head of agricultural population* and *land productivity* arises because regions that are more fertile are also densely populated. Besides, migration into more agriculturally productive areas (the *suction* process) may neutralize the per capita productivity of these areas. However, it has been shown that the *suction* process is not verified by systematic empirical investigation [Basant 1987].

Vaidyanathan (1986) Shukla (1991, 1992), Eapen (1995), Deshpande (1996) and Samal (1997b) had also noted the presence of strong consumption linkages rather than production linkages in prosperity induced processes of employment diversification. On the other hand, Harris (1987) remarked that in Arni town of Tamil Nadu, production

linkages (backward and forward) were stronger than consumption linkages. Within production linkages, forward linkages were found more important than backward linkages.

However, several other Indian studies² noted weak linkages between agricultural growth and the rural non-farm sector. Harriss (1991) suggested that while agricultural growth may be a necessary condition for rural diversification of a non-involuntary kind it is certainly not a sufficient condition. Chadha's (1994) survey demonstrated that agricultural growth does not automatically foster local non-farm growth and employment expansion. A few studies also pointed to other factors influencing non-farm employment. Shylendra and Thomas (1995) found trends in the *non-farm proper* sub-sector as largely attributable to pull factors, which particularly consisted of increased local demand for goods and services and expansion of government activities. Saleth (1996) demonstrated that the potential response to growth opportunities is available to better-endowed groups, whilst distress factors such as unemployment commonly mediate the poor's non-agricultural activities. Like Saleth (1996), Unni (1996a) noted that financially well-off individuals specialize in non-farm activities yielding high-income earnings. On the other hand, the less endowed are prone to being engaged in varied activities, conceivably with the object of ensuring some minimum level of income for subsistence.

To sum up, the studies reviewed above present a mixed pattern of empirical evidence related to prosperity-induced growth of rural non-farm employment at various levels of aggregation. Besides, a few studies also brought out the importance of distinguishing between the traditional and modern sectors.

Distress Induced Growth of RNF Employment

The literature also investigated whether the growth in rural non-farm employment may attributed to distress conditions in the agricultural economy. It has been argued that the growth of rural employment in the non-farm sector could be a reflection of the sluggish growth in agricultural employment pushing work seekers into certain types of low productivity, non-agricultural work. There may be two kinds of distress situations reducing rural non-farm activity to a residual labour force. The first situation relates to supplementary workers who have no main occupation, but engage in subsidiary work to supplement household income; while in the second situation, workers are employed in a

main occupation but engage also in a subsidiary activity due to poor remuneration in the main occupation.

Saith (1991) asserts that the involvement of the rural poor in the non-farm activities is a *part of their household survival strategy*. The poor peasant households work usually for long hours on a regular basis in multifarious non-farm activities because of very low levels of labour productivity, coupled with technological and labour market reasons. Bhalla (1994) identified mining and construction activities as residual activities in which casual labour is highly concentrated, absorbing excess workers who cannot support livelihoods through cultivation. Fisher *et al* (1997) suggested that services such as retail trading, household manufacturing and personal services, which offer wages only slightly higher than that of agriculture, may also serving a similar role.

A number of studies based on NSS data and the Census data demonstrate that the process of labour absorption in the agricultural sector is strained in several regions resulting in *residual* activities in rural areas. Vaidyanathan's (1986) study is considered a seminal work initiating a lively debate on distress-induced growth in rural non-farm employment. His analysis discerned a strong and positive relationship between the unemployment rate and the proportion of non-agricultural workers across the states. This, according to him, would seem to give credibility to the notion that non-agricultural activities in rural areas may be acting to some extent as a residual sector absorbing labour that cannot find work in agriculture.

Following Vaidyanathan, various studies have tried to examine the importance of distress-induced growth of rural non-farm sector. Unemployment, poverty and population pressure have been the principal arguments for the operation of push factors out of the agricultural sector. Basant and Kumar (1989), Kumar (1992), Eapen (1995) Dev (1990) Bhaumik (2002) Sidhu and Toor (2002) Ghuman *et al* (2002) postulated that the *residual sector hypothesis is more applicable in the Indian case*. Shylendra and Thomas (1995) pointed to the growth in *non-farm migratory employment* activities as a consequence of distress-inducing factors like poverty and unemployment/under-employment in agriculture, and poor agro-ecological conditions of the region.

Unni (1991), however, raises questions about the positive association between the unemployment rate and the non-agricultural workers as capturing the *residual sector hypothesis*. She contended that developed regions would tend to be characterised by a higher rate of unemployment because the expectation of getting employment was greater in an advanced region than in an agriculturally backward area.

Basu and Kashyap (1992) also argue that unemployment rates are likely to be associated with relative agricultural prosperity and an outcome of job expectation.....and better reporting about employment status. They further argue that a generalized hypothesis equating rural non-farm employment growth with population pressure and unemployment rates conceals other factors, in addition to the role of the agricultural process, although it may be limited to certain regions of the country. They emphasize that generalization is not possible, as processes of growth would vary across space according to agro-ecological conditions that may be either enabling conditions like growth and level of land productivity, cropping pattern; or compulsive conditions like population pressure and stagnancy of farm yields.

Another key argument against distress-induced diversification, as pointed out by Visaria (1995) is that at the national level, the wage rates in the rural non-farm sector are higher than the agricultural wages. It indicates that rural non-farm activities are not necessarily low productivity, residual activities in India although one might expect such (residual) occupations likely to be under-enumerated due to their seasonal and self-employed character. Altogether, it appears that Vaidyanathan's residual sector hypothesis is difficult to test.

RNF Employment in Organised and Unorganised Sectors

An analysis of rural non-farm employment in terms of organised and unorganised³ sectors may throw some light on the prosperity- vs distress-induced debate. However, it may be noted at the outset that there is no rural urban breakdown available separately for the organised and unorganised segments of the Indian economy. This is because, firstly, the organised segment data is published only for rural and urban areas combined and secondly, the unorganised segment estimates are derived as a residual by subtraction of organised segment estimates from National Sample Survey estimates which cover employment in both segments without distinction. However, an overview of the relative role of the two sectors is important because of the following reasons. *Firstly*, the share of workers employed in the organised sector has remained more or less constant at a low level for many years. *Secondly*, there has been a continuous increase in the relative importance of unorganised segment employment particularly in the non-farm sector. Bhalla (2003: pp.3) showed that between 1993-94 and 1999-2000, farm as well as organised non-farm sector could generate around one million new jobs. On the other hand, the unorganised non-farm sector generated 22.33 million new jobs during the same

period. Thus, the unorganised non-farm sector has been a major source of additional employment for the growing Indian labour force.

Table 4 provides data on the shares of employment and income contributed during the nineties by the organised and the unorganised sectors. The table yields the following findings. *Firstly*, the employment shares in the organised and unorganised sectors remained almost steady at around 7 per cent and 93 per cent respectively in the period 1993-94 and 1999-00. However, the contribution of the organised and unorganised sectors to the national income stood at 39.5 and 60.5 per cent respectively in 1997-98.

Secondly, within the organised sector, the relative shares of agricultural and non-agricultural employment had also remained almost static at 0.3 and 6.7 per cent respectively. However, there were notable differences in income contribution between the agricultural and non-agricultural sectors. The income contribution of the organised agricultural sector was merely 1 per cent; it was 38.5 per cent in the organised non-agricultural sector. *Thirdly*, there had been notable shifts of employment between the agricultural and non-agricultural sectors in the unorganised sector. Employment in the unorganised agricultural sector declined from 63.56 per cent in 1993-94 to 59.95 per cent in 1999-00.

Table 4: Share of Unorganised and Organised Sectors in Employment and Net Domestic Product (NDP): All-India

Segment and Sector	Share in Employment		Share in NDP
	1993-1994	1999-2000	1997-1998
Unorganised agriculture	63.56	59.95	28.84
Unorganised Non-agriculture	29.17	33.00	31.62
All Unorganised	92.73	92.95	60.45
Organised agriculture	0.39	0.35	1.08
Organised Non-agriculture	6.88	6.70	38.47
All Organised	7.27	7.05	39.55
Organised and Unorganised Segments Combined	100.00	100.00	100.00

Notes: 1. The organised sector employment estimates are derived from the Quarterly Employment Review, published by the DGE&T. The figures are all as at the midpoints of the NSS Rounds. These figures are known to be underestimates because: (i) establishments employing 10 to 24 persons in the private sector in the metropolitan areas of Greater Mumbai and Kolkata are not covered at all; (ii) the data for these smaller establishments in other places are collected *on a voluntary basis*; (iii) part time employees are excluded; and (iv) new establishments may be left out of the lists of establishments maintained at the Employment Exchanges.

2. The unorganised sector employment estimates are derived as a residual sector by subtracting organized sector estimates from usual principal and subsidiary status (UPSS) employment estimates.
3. The *all sectors* employment figures are derived as the sum of the separate sectoral estimates. These figures differ from the 'all workers' figures by the number of workers counted in the NSS UPSS estimates for all workers, but not classified by sector and sub sector.
4. Net domestic product figures are derived from page 9 of "Measurement of Formal Sector- The Indian Experience- Country Paper India", Fourth Meeting of the Group on Informal Sector Statistics, Doc.14 ILO, Geneva 28-30 Aug. 2000.

Source: Bhalla (2003).

On the other hand, unorganised non-farm employment registered an increase of 3.9 percentage points, from 29.1 per cent to 33.0 per cent in the same period. However, their relative income contribution in national income was less inequitably distributed with the shares of the agricultural and non-agricultural sectors placed at 28.8 and 31.6 per cent respectively in 1997-98.

The recent trends in employment growth both in the organised and unorganised segments of Indian economy are given in table 5. The table shows that during the last two decades, employment growth in both the organised and unorganised agricultural sectors came down to an almost negligible level. On the other hand, the unorganised non-agricultural sector registered a substantial growth of over 3 per cent per annum as against a growth of less than 1 per cent in the organised sector during the period 1993-94 to 1999-00.

Within the unorganised non-agricultural sector, the manufacturing sector registered a slow increase of 1.7 per cent between 1993-94 and 1999-00, yet it was the most important sector of employment, next only to the *agricultural* sector. Unorganised sector manufacturing employment in 1999-00 was 39.36 million. Of these, nearly two-thirds of the workers were working in the rural areas. There are three layers of the rural unorganised manufacturing segment. At the bottom is *Own Account Manufacturing Enterprises* (OAMEs) which do not hire any labour on long-term basis and largely base themselves on family labour. The establishments employing upto five workers are known as *Non-Directory Manufacturing Establishments* (NDMEs); while the large sized ones with more than five workers are known as *Directory Manufacturing Establishments* (DMEs). In the year 2000-01, of the total enterprises, OAMEs, NDMEs and DMEs constituted 92.6 per cent, 5.3 per cent and 2.1 per cent respectively. It shows that rural OAMEs are ubiquitous in rural areas. Although OAMEs employed nearly 80 per cent of workers in the unorganised manufacturing sector, yet in terms of output, the total annual gross value added per worker was only

Rs 8783, substantially lower than Rs 19103 Rs 21210 in NDMEs and in DMEs respectively.

Table 5: Employment Growth in the Organised and Unorganised Sectors

Sector and Sub-sectors	Organised Segment			Unorganised Segment		
	1983/87-88	1987-88/	1993-94/	1983/87-88	1987-88/1993-94	1993-94/1999-00
Agricultural	1.39	0.77	-0.82	0.04	2.40	0.07
Non-Agricultural	0.95	1.14	0.59	5.68	2.71	3.15
Mining & quarrying	0.98	0.97	-1.37	15.87	2.89	-4.63
Manufacturing	-0.28	0.35	0.80	3.50	1.67	1.70
Electricity, gas & water supply	0.16	2.37	0.46	47.97	5.82	-34.11
Construction	1.63	-0.27	-0.75	17.32	-1.20	7.30
Trade, hotels & restaurants	0.81	1.49	1.26	4.61	3.23	6.27
Transport and communication	0.48	0.46	0.18	0.80	5.07	7.07
Services	0.65	1.81	0.85	6.11	4.76	-1.41
All Sectors	1.61	1.12	0.51	1.62	2.50	1.09

Source: The relevant organised sector estimates are derived from the Quarterly Employment Review, published by the DGE&T. The figures given above are at the mid-points of the NSS Rounds. Thus, the unorganised sector employment is residual sector estimates after deducting organised sector employment figures from the NSSO estimated total employment figures.

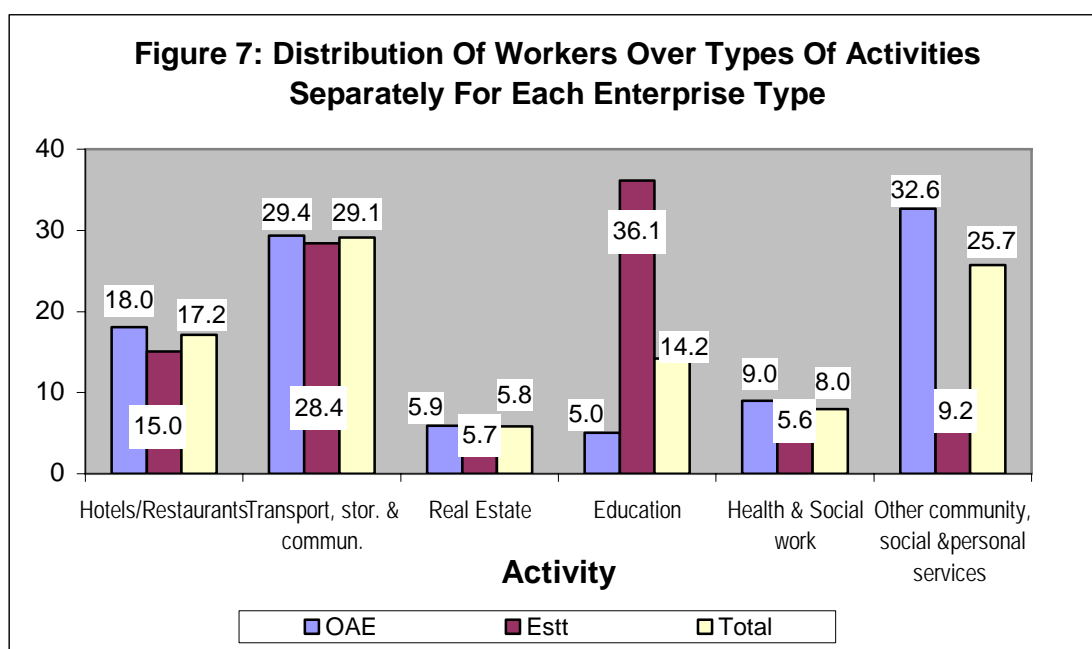
Clearly, the largest segment of unorganised non-agricultural employment was the one which offered the lowest returns per worker.

Further, a comparison of manufacturing establishments working in rural areas with those in urban areas showed that the annual gross value added values per worker in NDMEs and DMES of rural areas were almost half of NDMEs and DMEs operating in urban areas. These figures give us reason to believe that most of the rural enterprises, particularly the OAMEs, but also the rural NDMEs and DMES were petty enterprises operating in pitiable conditions.

In rural India, nearly 8.5 million enterprises were engaged in the activities pertaining to services other than trading and finance in 2001-02, and they belonged to the unorganised segment of the service sector.⁴ A large number of these enterprises, nearly

88 per cent, were OAEs which were operated without engaging any hired worker on a regular basis. The rest were establishments that employed at least one hired labourer on a regular basis. Nearly 14 million persons worked in these enterprises, of which nearly 70 per cent were employed in OAMEs and 30 per cent in other establishments.

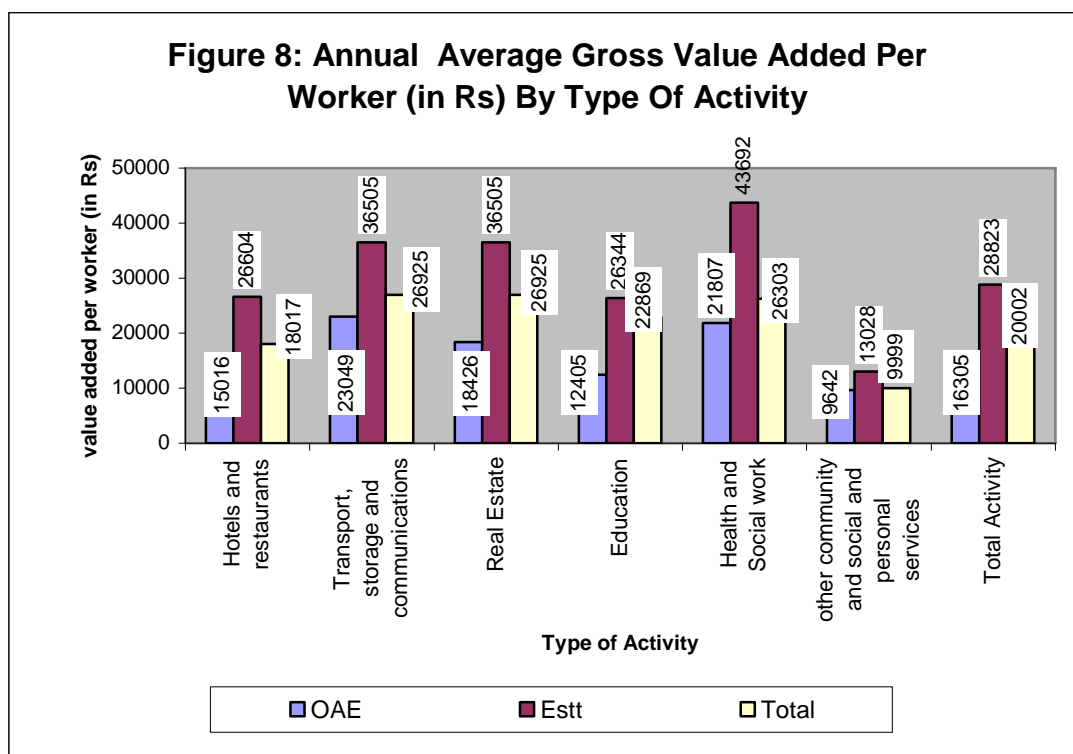
Figure 7 highlights the distribution of rural workers over the various sectors of activities. It may be noted that the proportion of workers engaged in the enterprises belonging to the *transport, storage and communications* (29.1 per cent) was the highest followed by the proportion employed in *other community, social and personal services* (25.7 per cent) and *hotels and restaurants* (17.2 per cent). The proportions were 14.2 per cent in *Education* and 5.8 per cent in *real estate and business activities*. Employment in establishments was exceedingly high in education (36.1 per cent) but low in other community, social and personal services (9.2 per cent).



Source: NSSO: 57th Round.

Figure 8 depicts a wide variation in GVAPW across the types of enterprises as well as types of activities. On an average, the value added by a worker in rural OAEs (which provided the majority of rural employment) was almost half of that by a worker in establishments. Further, within the OAEs, though the *transport, storage and communications* and *Health and Social work* sectors had GVAPW of Rs 23049 and 21807, the GVAPW, was lower than the average in rest of the activities where most of the workers were employed. Particularly, GVAPW was substantially lower in *Community*

and social and personal services, Hotels, restaurants, and Education OAEs which accommodated nearly 57 per cent of the workers. Thus, the low level of GVAPWP for a majority of rural workers in unorganised sectors is indicative of their distress-ridden conditions.



Source: As of figure 7.

Factors Outside the Agricultural Sector

In addition to validation of the prosperity- and /or distress-induced factors, the role of additional important factors like literacy, urbanization, rural infrastructure, social capital, caste, gender and government rural development schemes on rural non-farm employment have also been empirically studied. First, we study the effect of literacy on rural non-farm employment.

The level of education of the population is considered as a potent instrument in influencing the rural non-farm employment pattern. Samal (1997b) argued that education helps in increasing the productivity and skills of workers. This, in turn, stimulates the growth of the modern, particularly informal technology-intensive RNFE. Shylendra and Thomas (1995) found that it is the *non-farm proper* activities that are strongly influenced by education. Thus, formal jobs outside the locality in particular, are only available to

those with educational qualifications. Further, The positive association between literacy and rural non-farm employment were also noted by several other studies including those of Chadha (1993), Fisher *et al* (1997), Narayanmoorthy *et al* (2002), Basant (1993), Jayaraj (1994), Eapen (1995) and Samal (1997b).

Papola (1992) laid stress on the importance of the role of small towns in the rural hinterland in the employment of rural workers and in promoting non-farm employment in rural areas through backward and forward linkages facilitated by these towns. Further, he also contended that rural non-farm enterprises located in regions having widespread urban settlements in the rural hinterland yielded higher productivity and earning levels as compared to areas where only a few towns were concentrated. In addition, the small towns entail the potential of serving as catalysts for enhancing the viability and sustainability of rural enterprises. He remarked that productivity and incomes of non-farm enterprises in India are higher in regions where rural towns are more evenly spread than where there are only a few concentrated settlements. This he attributes to the action of forward and backward linkages.

Similarly, Bhalla (1993) also contended that switch to consumer demand in favour of better quality products, in tandem with the shift to urban produced inputs, led to significant growth of the non-farm sector in districts of high agricultural productivity in India. Shukla (1991, 1992) found that benefits from agglomeration, i.e. regional industrialisation at large, had translated into broad localisation benefits for similar activities leading to livelihood diversification in Maharashtra. number of other studies also emphasized the positive influence of urbanization on the growth of rural non-farm sector⁵.

At the same time, it was argued that urbanization should be backed up by adequate rural infrastructure in the enhancement of non-farm employment opportunities. In rural India, infrastructure development schemes are a source of supplementary income to many poor households and provide some stimulus to local construction activities [Dasgupta *et al*: 2002]. Although these programmes cannot be considered as true drivers of local growth, they contribute to sustaining the incomes of relatively poor segments of rural communities.

Various studies have highlighted the role of rural infrastructure in development of non-farm sector. Hazell and Haggblade (1991) pointed out the significance of rural infrastructure in augmenting the size of the income multipliers of agricultural growth on the non-farm sector in India. Shukla (1992) found in Maharashtra that *trading* and *non-*

household manufacturing particularly benefited from construction of roads whilst *household manufacturers* became disadvantaged. Jayaraj (1994) and Narayanamoorthy *et al* (2002) also emphasised the importance of the development of transport infrastructure for rural non-farm employment opportunities. Singh (1994) mentioned significance of rural electrification in the state of Uttar Pradesh. The village level study by Pandey *et al* (2002) in Orissa and Som *et al* (2002) in Madhya Pradesh mentioned poor road connections as an important marketing constraint in many communities and unreliable power supply as an impediment to the development of agro-processing at the village level.

Another important variable influencing rural non-farm employment is social capital. However, the data on social capital is rarely available, hence there are only a few studies that have tried to measure quantitatively the impact of social capital on rural non-farm employment in India. Dréze *et al.* (1998) is a notable study that had comprehended social capital in their village study in Palampur in Uttar Pradesh. They established in their study that a bribe-paying capacity and personal connections are important factors in the job-allocation process. They also observed regular non-agricultural jobs *clustering* around a small number of establishments where some village residents initially succeeded in making an entry and then helped others to enter. Those who follow generally either belong to same caste or are otherwise related to the nascent entrant. This role of personal contacts and influences in job search could have wide-ranging implications. It could, for example, explain the large gap which is often observed between agricultural and regular non-farm wages, the low turnover of regular non-farm jobs and the fact that persons with low social status seem to be at a disadvantage in the competition for regular non-farm jobs.⁶

In rural India, despite considerable changes over the past decades, the caste system remains a major stratifying force especially at the village level. Though participation in economic activity is gradually transcending the traditional caste-based division of labour, the latter still continues to play a significant role. Broadly, it is the menial and manual jobs like shoe making, blacksmithy, hair cutting, pottery, weaving, sheep rearing, carpentry and plough making belonging to informal non-farm sector which are done by lower castes whereas the upper castes, especially the Brahmins and Kshatriyas, are reluctant to engage in activities traditionally assigned to specific lower castes. In addition to it, the lower caste people also appear to face barriers to employment

in the attractive non-agricultural jobs. These characteristics of the labour market would unmistakably influence the distribution of non-agricultural incomes.

Dréze *et al.* (1998) noted that high-ranked Thakurs (previously landlords) had acquired a disproportionate share of non-agricultural employment through better contacts, status or by wealth. Unni (1997) observed that social status (proxied by caste) in rural Gujarat, after controlling for education and other personal characteristics, exercised an important, independent, influence on access to high-productivity non-agricultural occupations. Field research by Som *et al* (2002) in Madhya Pradesh and Rath *et al* (2002) in Orissa had established that particular lower castes and the tribes residing in the villages undertaking activities such as bamboo work, shoe making, tailoring and carpentry. Hardly any of the higher castes (especially the Brahmins and Kshatriyas) were engaged in these activities. Lanjouw and Shariff (2004) also noted that individuals belonging either to a scheduled caste or a scheduled tribe were relatively less likely to be involved in either non-farm own enterprise activities or well paid non-farm salaried employment.

In India, rural non-farm employment over the past decades has expanded rapidly for men. In general, average female participation rates in the non-farm sector are lower than those for men. However, there is a great deal of evidence of a gross under-enumeration of female non-farm employment. For example, Hazell and Haggblade (1991) criticize the Census for classifying women's work too readily as agricultural labour. Further, Fisher *et al* (1997) criticize the Census and NSS surveys for not capturing the complexity of much rural employment where households and individuals may pursue a number of different activities, and employment patterns may vary both seasonally and across different years.

Chadha (1997) reasoned out that women are culturally less mobile, and are thus disadvantaged in terms of rural non-farm employment because on-farm employment is available closer to their living abodes, and because they are not as well equipped (in terms of education and skills training) to compete for the limited, but remunerative, non-farm jobs as men are. It is particularly so in modern manufacturing activities which are skill-selective. Other barriers particularly faced by women are also well-documented. Singh and Kumar (1995) point out that numerous socio-economic factors, including familial responsibilities such as childcare and food preparation, poor health, limited access to education, lack of skills constrain the ability of women to devote considerable time to economic activities. Vyas and Bhargava (1995) found that social disapproval and family pressures faced by many women discourage them from entering into economic

activities outside the household. Srivastava *et al* (1995) suggest that participation of women in gainful rural non-farm activities could considerably increase through education, vocational training, formation of co-operative societies, fuller utilization of plant capacities in the public and the private sector, public investment in infrastructure and provision of incentives for self-employment and strict implementation of *equal pay equal work* policy.

The impact of government development programmes and public expenditure on rural non-farm employment was examined by a few studies. Sen (1997) argues that rapid diversification in employment growth during 1970s and 1980s was primarily on account of a very significant increase in public expenditure in rural areas. The case studies by Eapen (1994) in Kerala and Samal (1997b) in Orissa, confirm a positive role of administrative, development and social services in generating rural non-farm employment, both directly within such services, and indirectly as a consequence of their activities.

Hence, there is ample evidence in the literature to suggest that various factors, both internal and external to the rural economy, operate on rural non-farm employment. As noted above, these factors could go beyond the purview of agricultural linkages also.

VI Determinants of the RNFS: A Static Analysis

Based on various studies on rural non-farm employment, we have been able to identify a number of factors that exercised their impact on non-farm employment. Some of these factors are land ownership pattern, educational/skill level of workers, age, caste, religion and gender. We examine the interrelationship of these factors with rural non-farm employment on an all India level in the following sub sections.

We separate these factors into two sets: Those that are in the nature of economic and social endowments such as land owned, caste religion and gender; and those that permit the transcendence of constraints set by pre-existing endowments such as acquisition of education and skills, and age (since it is the younger age groups that are likely to use the opportunities to transcend social and economic constraints).

Land Ownership Structure

A priori access to land can influence non-farm employment in two diverse ways. Those endowed with land may not be driven to take up non-farm employment if such employment offers low returns and earnings. On the other hand, for rural landless households, income from agriculture is largely in the form of wage payment, and due to seasonal uncertainty and wage rate fluctuations, the workers may have to continually hunt for non-agricultural jobs, either inside or outside the village, for short or long duration. Similarly, the sub marginal, marginal and small farming households are also likely to pursue the non-farm activities, in varying forms and intensity because of inadequacy of farm income from their limited land base in comparison to the households who had a higher arable land base. Thus, Bhalla and Chadha (1983) remark that *the network of non-farm jobs had the effect of mollifying the highly inequitable distribution of income arising out of farming and its related activities.*

A second way in which land ownership can affect participation in non-farm activities is that surpluses earned from land could finance diversification into lucrative non-farm activities. However, evidence suggests that it is the former role that land ownership predominantly plays, pointing to the role of distress as being the predominant influence on non-farm employment.

Table 6 presents data on non-farm employment of rural households belonging to the six farm size categories from 1977-78 to 2004-05. It shows that in 2004-05, around one-third of the rural households were engaged in non-farm activities for the major part of households' income. Available evidence suggests that as the size of the landholding became smaller, the proportion of non-farm households increased consistently, from 8.7 per cent for larger sized to 44.6 per cent for the sub-marginal cultivating households and further to 45.9 per cent for the landless. In other words, there existed an inverse relationship between farm size and the proportion of rural households mainly engaged in non-farm activities. An inverse relationship was clearly evidenced in earlier years too. For instance, in 1983, the percentage of rural households mainly engaged in non-farm activities varied between 6.2 per cent and 43.4 per cent for larger and sub-marginal cultivating households respectively; in 1993-94, the figures were 7.1 per cent for the large cultivating households, 32 per cent for the sub-marginal cultivating households, and 52 per cent for the landless. The noted decline of landless non-farm households, from 52.7 in 1999-00 to 45.9 per cent in 2004-05 is because of the fact that the production of petty goods and services (which is what essentially what self-employment is) require

either some control over assets, however small, or access to credit which these households lacked.

Table 6: Distribution of Households in Non-Farm Employment by Size of Land Owned

<i>Size class of land Owned (in hectares)</i>	<i>Percentage Of Households In Non-Farm Employment</i>				
	1983	1987-88	1993-94	1999-00	2004-05
Landless	52.0	51.5	52.0	52.7	45.9
0.01-0.40	43.3	33.5	32.0	36.0	44.6
0.41-1.00	20.4	20.2	19.0	18.6	21.4
1.01-2.00	12.0	13.6	11.2	13.0	13.0
2.01-4.00	12.2	10.2	8.3	10.9	9.9
4.01 and above	6.2	8.0	7.1	9.0	8.7
All	28.6	31.6	31.9	35.1	33.7

Source: As for Figure 1.

Landless workers in rural areas generally opt for work rather than the pursuit of studies, particularly at a higher level. To make the Indian situation clearer, we cross tabulated the land ownership data vis á vis the workers' level of education for the year 2004-05. The results, presented in Table 7 suggest an important feature of non-farm activities in rural India. They show that the majority of the landless non-farm workers were either illiterate or educated only upto the primary level (47 and 32.6 per cent respectively). The situation is somewhat better for those who possess good piece of land. For instance, the corresponding illiteracy among the big and medium landowners was 31 and 32 per cent respectively (Table 7). As per table, the proportion varies from 29.1 per cent to 34.3 per cent who had level of education upto the primary level amongst all the landownership categories.

Understandably, the medium and large landowners were better educated. The proportions of those who had studied upto the higher secondary and graduate level and above were 9.6 and 16.1 per cent respectively. The proportions improved amongst the big landowners. However, the corresponding proportions amongst the landless and sub-marginal landowners were small. Among the landless, the respective figures were 4.8 and 4.8 per cent and amongst the sub-marginal landowners, it was 6.2 and 6.0 per cent respectively.

Thus, a high incidence of participation of the landless, illiterates or just literates and the rising incidence of sub-marginal and marginal non-farm households is indicative of undertaking non-farm jobs under duress. The reasoning is that these workers were driven to non-farm sector because of the increasing vogue of the process of farm mechanization resulting in declining levels of employment elasticity in individual crop

**Table 7: Percentage Distribution of Rural Non-Farm Workers
By Their Education Level**

Land Ownership	Illiterate	Upto Primary	Middle	Higher Secondary	Graduate and above
Landless	47.0	32.6	10.7	4.8	4.8
Sub-marginal	40.4	34.3	13.0	6.2	6.0
Marginal	38.1	32.3	13.7	7.6	8.4
Small	33.1	30.2	13.8	9.5	13.4
Medium	31.0	29.1	14.2	9.6	16.1
Big	32.0	29.8	11.4	9.1	17.7

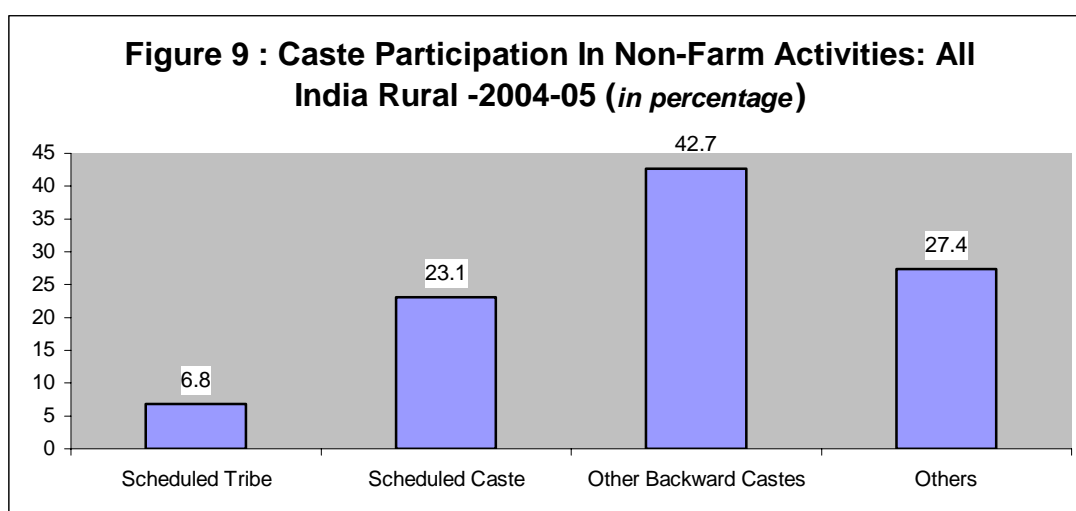
Source: As for Figure 4.

enterprises. But this did not mean that landownership did not help diversifying into non-agricultural activities. The entry of only a few large households into non-farm activities appears to be a favoured transition as there was no compulsion to leave farm jobs, unless and until investment and/or employment in non-farm enterprises secured higher incomes than in agriculture. Landownership does help, but it is the lack of land that seems to be predominantly responsible for the shift to non-agricultural activities. Distress, it appears, dominates over the push of prosperity in the move towards non-agricultural activities.

Social Stratification

Social stratification in terms of caste is an important *enabling* and/or *constraining* factor on participation in rural non-agricultural activities. Despite considerable changes over the past decades, the caste system remains a major stratifying force in participation, particularly in rural areas. However, when assessing the relative shares of those in different castes participating in non-farm activities, we must remember that the proportion of those in the low castes is high when compared to the upper castes. A smaller share of lower castes participating in non-farm activities need not conflict with

lower castes accounting for a larger number and a higher proportion of those in non-agricultural activities. This does seem to be the case. The empirical evidence suggests that the proportion of those participating in rural non-farm activities was low in households who are lower in the social hierarchy compared to the *other caste* household workers (figure 9). In 2004-05, the proportions of scheduled tribe and scheduled caste households in non-farm activities were 6.8 and 23.1 per cent respectively. The participation was substantially higher in *other backward castes* and *other castes* households respectively at 42.7 and 27.4 per cent.



Source: As for figure 4.

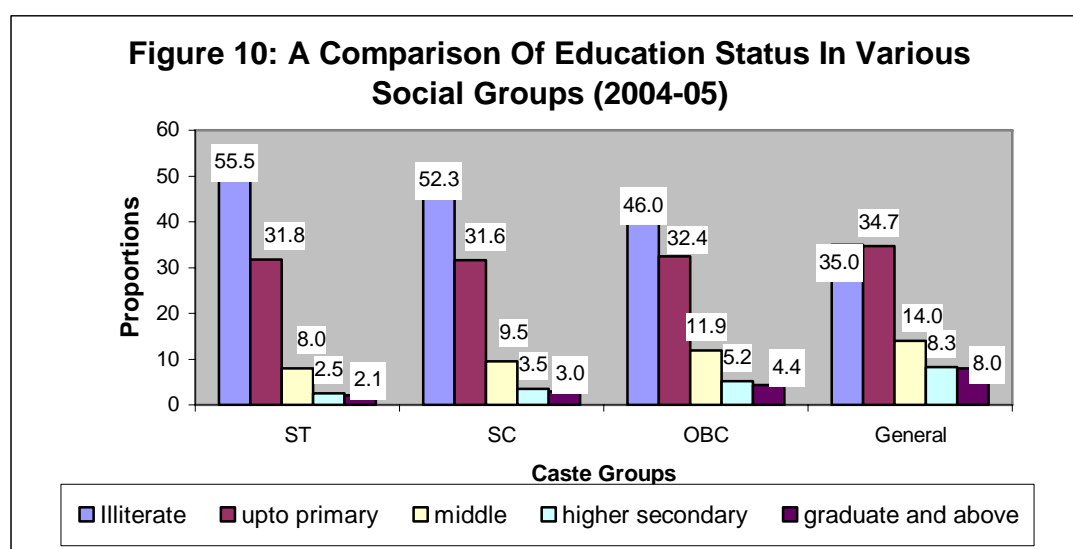
Several field studies have also shown that members of the upper castes dominate local power dynamics and enjoy better asset endowments, higher social status and capital and have favourable access to education and information. In contrast to this, persons from lower castes are devoid of such privileges and are a vulnerable lot. Table 8 affirms this position by showing that in 2004-05, the involvement of the scheduled tribes (STs) and scheduled castes (SCs) households mostly tend to be engaged as *agricultural labour*. The proportion of working households as agricultural labour among the scheduled tribes and scheduled castes was 32.5 and 39.1 per cent respectively as against the presence of households of *other castes* to the extent of 14.7 per cent. In such a situation, for the downtrodden workers, their employment status as self-employed in non-agricultural activities would be remarkably low; they tend to work as *agricultural labour* and *other labour* which is their last resort.

Table 8: Percentage Distribution of Non-Farm Workers by Caste vis-à-vis Their Employment Status, All India Rural 2004-05

Caste Group	S.employed in non-agriculture	Agricultural labour	Other labour	S.employed in agriculture	Others
Scheduled Tribes	6.7	32.5	11.8	43.3	5.7
Scheduled Castes	15.0	39.1	15.7	22.4	7.7
Other Backward Castes	18.7	20.2	9.7	43.9	8.3
Other Castes	18.9	14.7	7.3	47.3	16.8

Source: As of figure 4.

Furthermore, the socially downtrodden workers are poorly educated. For example, in 2004-05, nearly half of the non-farm workers of SC, ST and OBC categories were illiterate in comparison of 35 per cent among the *other castes* (Figure 10). Of the remaining non-farm workers, though most of them were just educated upto the primary level, the *others* category workers were better educated in comparison to SCs, STs and OBCs. Nonetheless, the opportunities over the years are widening up for these oppressed workers. The technological changes, for example, are gradually reducing the status and psychological barriers to entry into many economic activities which were previously



Source: As of figure 1.4.

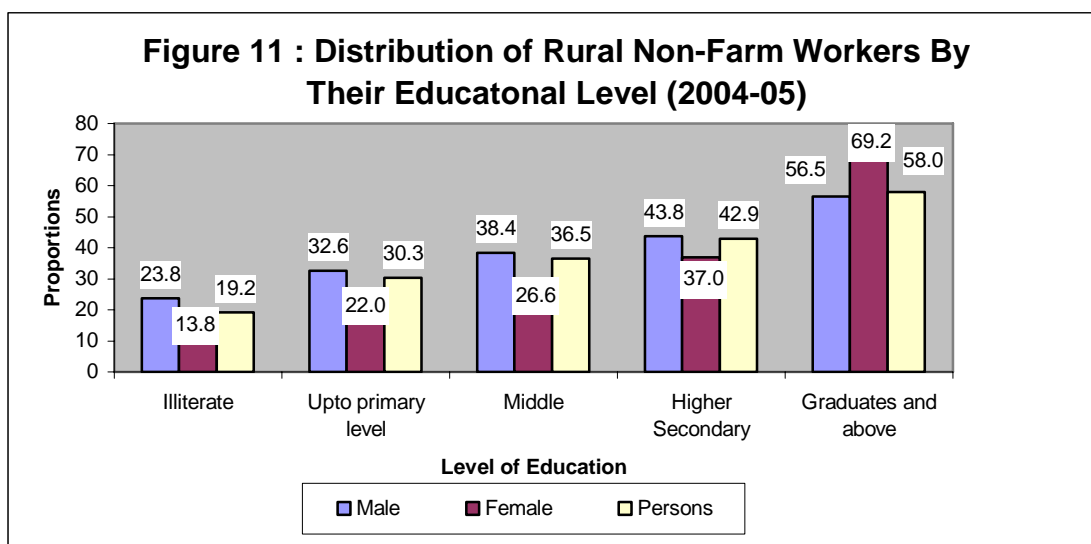
undertaken by other castes people only. Nevertheless, the overall evidence tends to suggest distress-induced circumstances of non-farm workers.

Education and skills

Education does help in overcoming constraints set by economic and social endowments. But access to education may be biased towards those better endowed, closing access to better non-farm jobs to the less well endowed. Education tends to help movement into non-farm employment, especially into better non-farm jobs. Better-educated individuals possess skills that facilitate successful involvement in non-farm activities, including the ability to manage the business, process relevant information and to adapt to changing demand patterns. Education also generates aspirations to explore the wider world outside the farm sector for a better quality of life. A positive association between education levels and non-farm employment is empirically established. Figure 11 confirms it by showing that as education levels increase, it results in greater leaning towards non-farm activities among the rural workers- amongst both the men as well as women. For example, among the illiterates, only 23.8 per cent of male workers took up non-farm activity, while proportions of non-farm workers who had studied upto the primary, middle, higher secondary and the degree level rose successively and were 32.6, 38.4, 43.8 and 56.5 per cent respectively. The proportions of female non-farm workers of different educational levels also showed a similar trend. The corresponding proportions of female workers engaged in non-farm activities were 13.8 per cent (illiterates); 22.0 per cent (upto primary); 26.6 per cent (middle); 37.0 per cent (higher secondary) and 69.2 per cent (graduates and above). Significantly, amongst graduates and above, the number of female workers increased much more than that of men. The number of such better-qualified women was however, very small. In 2004-05, there were nearly 25 and 15 per cent of the male and female workers, respectively who were educated upto the secondary level and above. The low educational level of non-farm workers is indicative of distress factors at work.

VII Summary

During the period 1972-73 to 2004-05, the total number of workers in rural India expanded more in the non-farm sector than the farm sector. The gender specific count showed that the rise in male workers was larger than the rise in female workers. The foregoing review led to conclude distress-induced circumstances of non-farm workers.



Source: As of figure 4.

Firstly, looking at the sector related employment situation, it was found that the manufacturing units in the non-farm sector continued to absorb the highest number of workers. These units absorbed most of the increase in employment in the non-farm sector. While this suggests the presence of demand-pull factors at work, the expansion of employment in sub-sectors-*construction, trade-hotels, restaurants, transport and communications* sectors hold promise of employment opportunities. The available data however, fails to substantiate employment growth in these sub-sectors. This is because expansion in these sectors could be due to both the push and pull factors. The genderwise distribution gives a clear impression of distress-driven employment increase. This impression is supported by the analysis of status distribution of workers. It was noticed that the majority of workers (also in the non-farm sector) were self-employed. Based on their responses, it was found that they had a very low expectation about the reward of their work, so much so that many would be satisfied if only they could earn no more than even the minimum prescribed wages.

Secondly, a survey of available literature on the subject was conducted in order to verify our perception of distress- induced growth of employment in the non-farm sector. The survey revealed that although linkages between the farm and non-farm sectors in rural India were *multifarious and strong*, yet there were examples of a vibrant non-farm sector that was emerging without the support of the agricultural sector. The scenario as a whole led us to believe of the role of both the demand and distress -pull as well as external factors in generation of non-farm employment. However, another significant feature

noted was that most of the non-farm activities took place in the unorganised sector. Although these activities were on a small scale and, in terms of gross value added, were not highly productive, yet at least some of them comprised last resort sources of income to those who were unable to access agricultural sources. This analysis strengthened our perception of distress-induced growth of employment in the non-farm sector.

Thirdly, coming to the factors that influenced the participation in non-farm activities, the analysis supported the theoretical assumptions showing the interrelationship of these factors with rural non-farm employment. It also provided evidence to suggest broad distress-induced circumstances of non-farm workers.

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¹ The Labour Force Participation Rates (LFPRs) in rural areas for the years 1977-78, 1983, 1987-88, 1993-94, 1999-00 and 2004-05 were 45.8, 45.2, 44.3, 44.9, 42.3 and 44.6 per cent respectively. The decline in the LFPRs particularly in 1990s has been attributed to a rise in school attendance rates, particularly for the young aged 10-24 years. However, that might not have led to decline to such an extent, if rural economy had the capacity to absorb more employment. Hard-pressed conditions in rural areas such as decelerating growth in farm output, increase in input costs and declining wage rates for both casual and regular employees were possibly the reasons instrumental in increase in LFPR and WPR between 1999-00 and 2004-05.

² For example Basant and Parthasarthy (1991), Kumar (1992), Chandrasekhar (1993) and Mecharla (2002)

³ In India's National Accounts Statistics, the *unorganised sector* includes units whose activity is not regulated by statute or legal provision, and/or those which do not maintain legal accounts. For the organised sector, we follow the Director General of Employment and Training (DGE&T) in the Ministry of Labour, Government of India which cover all establishments in the Public Sector, irrespective of their size and non-agricultural establishments in the Private sector employing 10 or more persons. Information in respect of all the Public Sector establishments and non-agricultural establishments in the Private Sectors employing 25 or more persons is collected simultaneously and information from small non-agricultural establishments in the Private Sector employing 10-24 persons is collected on voluntary basis.

⁴ The NSSO's 57th round survey on Unorganised Service Sector in India (July 2001-June 2002) excludes trading, financial enterprises, public administration and defence, private households with employed persons and extra-territorial organisations and bodies. The activities covered in the survey, therefore, included Hotels, Transport and Communications, real estate and business activities, health and social work and other community and social and personal service activities.

⁵ For example, Unni, 1991 for all-India; Shukla 1991,1992 in Maharashtra; Papola, 1992 for all India; Bhalla, 1993 and 1997 for all-India, Jayaraj, 1994 for Tamil Nadu; Ranjan, 1994 for Uttar Pradesh; Eapen, 1995 and 1999 for Kerala, Samal, 1997b for Orissa.

⁶ Probit models estimated by Bliss, Lanjouw and Stern (1998) indicate that Jatabs, the lowest caste in the hierarchy of castes were significantly less likely to be employed in regular wage employment outside the village, controlling education and wealth characteristics.