

Employment Growth in Rural India: Distress-Driven?

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The 61st round (2004-05) of the National Sample Survey showed that there was a turnaround in employment growth in rural India after a phase of jobless growth during the 1990s. Paradoxically, this employment growth occurred during a period of widespread distress in the agricultural sector with low productivity, price instability and stagnation leading to indebtedness. This paper reveals that employment growth in the rural areas was probably a response to the income crisis that is gripping farming. Under conditions of distress, when income levels fall below sustenance, then the normally non-working population is forced to enter the labour market to supplement household income. The decline of the agricultural sector has also probably created forced sectoral and regional mobility of the working population, with the non-working population complementing them.

Rural employment in the Indian economy had grown at a robust rate during the period 1999-2000 to 2004-05. Sundaram (2007) has estimated the usual principal and subsidiary status (UPSS) employment growth rate between 1999-2000 and 2004-05 to be 2.34%. Unni and Raveendran (2007) have estimated the usual principal status (UPS) based rural employment growth rates to be 2.67%. This rise in employment growth is being lauded since it occurred after a period of jobless growth, during 1993-94 to 1999-2000. However, the intriguing fact remains that such an impressive employment growth occurred during the phase of an almost complete stagnation of output growth in the agricultural sector, the mainstay of rural economy.

The agricultural sector is passing through a complex crisis of low productivity, poor competitiveness and adverse climatic conditions. The compound annual growth rate of agriculture and the allied sector from 2000-01 to 2004-05 was 2.02%, the lowest annual growth recorded in the sector since 1980-81 (Mathur et al 2006). Chand et al (2007) have also shown this decline in agriculture, putting the dates slightly earlier, starting from 1997-98. They have also shown the widespread decline in the sector, covering all subsectors.

How does employment growth pick up when output growth is stagnant? Under normal circumstances, this trend should have further reduced the employment in the rural economy. However, further probing reveals that the acceleration in rural employment growth is probably a response to the crisis that is gripping the sector. Under conditions of distress, when income levels fall below sustenance, then that part of the normally non-working population is forced to enter the labour market to supplement household (HH) income. In this paper, by analysing the trends and patterns of rural employment, it is argued that it is probably the distress in the agrarian sector that has led to the growth of employment in rural India. In other words, it can be argued that the recent growth in rural employment is "distress-driven employment" or "earnings capacity poor" driven employment.

Section 1 provides the analytical background for the paper. In Sections 2 and 3, while analysing the trends in rural employment, unemployment and composition of the workforce, the elements of poverty-driven employment are brought to the fore. The trends in wage rates and wage differentials, one of the central underlying factors for the increase in employment, are analysed in Section 4. In Section 5, the analysis is further deepened to provide a cross-sectional comparative picture of the labour market characteristics in the regions experiencing agrarian distress vis-à-vis regions

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without such distress, which clearly argues in favour of the distress-driven employment hypothesis. Section 6 sets out the conclusions.

1 Analytical Background

The neoclassical framework of analysing labour supply starts with the premise that labour supply decisions are entirely done by individual decision-makers. The neoclassical theory presumes that individual decision-makers maximise their satisfaction based on a division of time between leisure and work, which generate the typical backward bending labour supply curve (Robbins 1930). However, there is little truth in such an analytical structure, when it comes to traditional agriculture-based families living at subsistence levels. A choice between leisure and work based on one's earnings becomes pertinent only when an individual is trying to maximise his marginal utility, and he is well above the subsistence level. When, at subsistence level, the earnings level declines then the individual may need to work more hours per day and more days per week to keep his income levels constant. In line with this argument, Sharif (1991) has put forward the hypothesis that unlike developed economies, the labour supply curve in less developed economies has two sections – a forward section at lower wage rates and an upward rising section at high wage rates. At the upward rising section, a reduction in wages would indicate a reduction in standard of living, while in the lower end, it would imply physical impoverishment. Hence, a fall in wage in the lower end shows their attempt to maintain their minimum level of consumption, at which their labour supply elasticity is negative.

However, some argue that individual decision-making at subsistence income levels does not attempt to optimise the individual utility levels under conditions of poverty. Rather, members in households at subsistence level try to acquire the basic subsistence income for all members in the family. Thus the labour supply of a household is a joint utility function of the household. When the earnings of the working members of the poor household do not meet the subsistence level of the family, the workers may increase their total time of work, cutting down on leisure. Alternatively, if the main breadwinners' (or primary workers') earnings are not sufficient to meet the subsistence needs of the households, then non-workers (secondary workers) enter the labour market in search of employment, temporarily breaking down the intra-household division of labour. The secondary worker does not choose an employment in terms of work-leisure choices, rather on the basis of earning the basic minimum average subsistence income for the family (Dessing 2002). If the level of income rises and the primary earner's income would suffice to meet subsistence, then the secondary workers may withdraw from the labour market. The secondary workers may not continue in the labour market due to the existence of various socio-economic institutional rigidities and biological limits such as gender bias, age, etc. Thus, the normal non-participants enter the labour market to act as a buffer or as support for the households, when the wages earned by the income earners are not able to meet the minimum needs of the households any more. Evidence of such distress-induced labour supply is available among the poorest in most developing economies (Bardhan 1979; Singh et al 1986; Sharif 1991; Dessing 2002).

Dessing (2002), for instance, has showed that the wage elasticity of labour supply among poor Filipinos was near zero for primary workers, while negative and large for secondary workers.

The secondary workers or the normally non-working population in developing economies mainly consist of women, the elderly and children. Empirical evidence suggests that the labour participation of these population segments in households surviving at subsistence level tends to be high, when the earnings of their households are at subsistence levels. The U-shaped curve of the female labour participation rate as theorised and empirically tested (Mathur 1994; Goldin 1995; Mammen and Paxson 2000) essentially puts forward the argument that female labour participation rates are higher in traditional agricultural societies, where they participate mostly as unpaid family labour. At higher levels of development and institutionalisation of markets, women tend to withdraw from the labour market due to socio-cultural factors, and reappear at a later stage of economic development. The Report on Ageing (UN 2007) shows that in developed countries and in economies in transition, labour participation rates are about 13 to 14% for men aged above 65 and 6 to 8% for women aged above 65. In contrast, for Africa and developing countries in Oceania, the labour force participation remains at relatively higher rates, particularly for males over age 65. Among 37 African low-income countries, for example, 36 have labour force participation rates above 50% for men aged 65 years or over. In 12 of these countries, the labour participation rates exceed 80%. Lloyd-Sherlock (2004), in a study done on Brazil and South Africa, has estimated that the contribution of older people in poor families' income pool is crucial for subsistence.

The widespread stagnation in agriculture sector in India that set in the late 1990s and which continues even now has adversely affected the earnings of the farm households, demand for labour and rural wage rates. The slowdown in the growth of wage rates and farm incomes has, in turn, pushed a large number of these households already living at subsistence levels to even worse levels of poverty. The members of these households are then bound to increase their joint family labour supply at least to that level which will ensure the subsistence of all its members. In this case the participation of the normally non-working population, mainly women and older people, in the labour market may increase so as to supplement the earnings of the primary wage earners. Given the above analytical background, this paper would examine the trends and patterns in rural labour market and explore the labour market response to agrarian distress in India.

2 Trends in Rural Employment

The following section discusses the trends in rural employment between 1993-94 and 2004-05.

2.1 Resurgence of Employment Growth

After the decline in labour force participation and work participation rates (WPR) during 1993-94 to 1999-2000, both these indicators recovered during the period 1999-2000 to 2004-05 marking the resurgence of employment growth after the period of jobless growth. This was true in the case of both males and females. The male labour force participation rates (LFPR) in the rural

sector increased from 533 per 1,000 to 546 per 1,000 while for females it increased from 235 to 249. Similarly, the male WPR increased from 522 to 535, and for females it increased from 231 to 242 per 1,000. Prima facie it looks encouraging that both male and female participation rates have increased. Yet, the sudden spurt of female LFPR and WPR casts doubts on these encouraging trends. Since 1983, the highest recorded female LFPR was in the period 1987-88 at 254 per 1,000. It is common knowledge that 1987-88 was a year of severe drought in the economy, when the female LFPR peaked. Since that peak the female LFPR had continuously declined to reach the lowest in 1999-2000 at 235, thereafter, it suddenly shot up to 249 per 1,000 in 2004-05, the highest since 1987-88 peak of female LFPR. Similarly, the female WPR, which had a secular decline from 1983 to 1999-2000, the lowest 231, increased in 2004-05 to 242.

One cannot argue that this rise in female participation rates is due to cracking up of the traditional patriarchal system in India. Institutional changes in traditional social systems do not occur in a short period, but they evolve over a long period of time. A more plausible reason seems to be the distress-related feminisation of work. It is the submission of this paper that the new peak in female LFPR in 2004-05 is a phenomenon similar to the 1987-88 surge in female LFPR that occurred due to the drought. Women previously engaged in domestic work joined the primary income earner, mainly as unpaid family workers in the agricultural farms, replacing hired labour, as the farm output declined to subsistence level.

However, the male LFPR and WPR had also increased during the latest period, unlike the period 1983 to 1987-88 when it declined. This rise in male participation rates also, as argued later, is a sign of the distress-related employment. The stagnation in rural agricultural wages and low productivity has forced the male workers to search for employment in non-farm sector, while otherwise non-working males such as aged dependents have joined the workforce for subsistence.

2.2 Inflow of Females into Labour Market

The addition to the female labour force and workforce during the period 1999-2000 to 2004-05 came as a result of a substantial share of women entering the labour market, leaving their prior status of being engaged in domestic duties only. The part of the population not in labour force has undergone some changes during this period. Mainly, the share of females that did only domestic work recorded a large decline from 20.2% in 1999-2000 to 17.5% in 2004-05. On the other hand, share of females doing other outdoor household duties along with domestic duties increased from 15.5% to 17.8%. Together, share of women in domestic duties recorded a decline from 35.7% to 35.3%.

This decline in the share of women engaged in domestic work had been occurring since 1993-94. However, this was mainly due to the fact that the students' share in the total dependent population

increased considerably, which meant that girl children who were denied education earlier to attend domestic chores were finding more opportunities for education during this period, thanks to the increasing public attention on girl child education in the recent years.¹

However, despite the rise in student share of the female population from 18.3% to 21.3%, the labour force participation rate increased significantly during 1999-2000 to 2004-05. This share of workers came in mainly from those engaged in domestic work and "other" works. That the share of students did not decrease, and in fact, increased, is understandable given that rural education is being strongly promoted through various public

Table 2: Distribution of UPS Status Rural Population "Not in Labour Force"

	1987-88		1993-94		1999-2000		2004-05	
	Female	Male	Female	Male	Female	Male	Female	Male
(A) Total labour force	25.4	53.2	23.7	54.9	23.5	53.3	24.9	54.6
(B) Not in labour force	74.6	46.8	76.3	45.1	76.5	46.7	75.1	45.4
(1) Students	9.4	17	15	23.2	18.3	24.9	21.3	26.9
(2) Domestic work total	34.8	0.6	38.2	0.5	35.7	0.5	35.3	0.4
(2a) Domestic duties only	19.5	0.3	18.8	0.3	20.2	0.3	17.5	0.2
(2b) Domestic and other household work	15.3	0.3	19.4	0.2	15.5	0.2	17.8	0.2
(3) Others	30.4	29.2	23.1	21.4	22.5	21.3	18.5	18.1
Total (A) +(B)	100	100	100	100	100	100	100	100

Source: NSS Reports on Employment and Unemployment Situation in India.

intervention schemes that provide support not only to the child, but also to the family of the school attending child,² thus the child's school attendance is acting as an insurance against distress.

2.3 Increment in Aged Population

Another probable indicator of distress employment is the rise in WPR and LFPR among the older age cohorts, especially elderly age group of greater than 60. The LFPR among aged men had reached 684 per 1,000 in 1993-94 and declined to 622 in 1999-2000. But it increased to 631 in 2004-05 (Table 3, p 100). More interesting are the trends among aged women workers. The LFPR had gradually increased from 156 to 174 per 1,000 between 1983 and 1999-2000. The increase in aged women LFPR during the five-year period 1999-2000 to 2004-05 from 174 to 199 was much higher than the increase that was experienced during the 17-year period from 1983 to 1999-2000. This rise in work participation of aged population in the rural economy is an indicator of distress employment-seeking in the wake of poor earnings of the younger workers in the household and unavailability of productive employment.

During the period 1999-2000 to 2004-05, interestingly, the younger age group, below the age 24, had withdrawn from the labour market in some measure, while the increment in the labour market was in the age groups above 35. The largest rise was seen in the age group 45 to 59. And here too, the increment in female LFPR in the older age group was substantially higher than the increment in male LFPR. The gender difference in increment in WPR in the older age cohorts were even more distinct than that of LFPR. Similar to the LFPR trends, while women in the younger age groups are withdrawing from employment, the older age group, especially above age 45 are taking up employment. This is in contradiction to the expectations of the demographic dividend argument owing to the presence of a relatively younger labour force

in India. Clearly, the increment in labour force is from the older population than the younger, though the population structure is in favour of younger population. The entry/presence of elderly to the labour force also reflects the lack of adequate pension and social security measures in developing countries. In India, as in other liberalising economies that went for structural adjustment and fiscal consolidation, the rising elderly labour participation could also be a fallout of the shrinking welfare expenditure (Rajan 2006).

The rise in labour participation and employment of women and older age population in the rural areas are probable signs of normally non-working population being pushed into joining the labour market and taking up forced employment in the wake of acute distress in the rural sector.

It is this surge in WPR, entirely in the older population, especially female population, during the period 1999-2000 to 2004-05 that led to the rise in rural employment growth. Below given, in

Table 3: Changes in Rural LFPR and WPR during 1999-2000 to 2004-05

Age Group	Change in LFPR			Change in WPR		
	Male	Female	Persons	Male	Female	Persons
5-9	-3	-4	-4	-3	-5	-4
10-14	-27	-23	-25	-28	-25	-26
15-19	-16	-6	-12	-22	-12	-18
20-24	-3	-13	-6	-3	-26	-13
25-29	8	5	8	14	-6	6
30-34	3	10	-1	3	2	-6
35-39	5	34	14	5	29	11
40-44	1	17	8	-2	13	5
45-49	2	36	24	0	33	21
50-54	11	39	25	9	37	23
55-59	6	45	28	5	43	26
60 and above	7	25	13	8	23	13
15 and above	2	16	8	1	9	4
All	13	14	14	13	11	11

Source: NSS Reports on Employment and Unemployment Situation in India.

Table 4: Growth Rate and Increment in Workers in Rural India

		Annual Growth Rate (%)			Increment in Workers (in Millions)		
		1983 to 1993-94	1993-94 to 1999-2000	1999-2000 to 2004-05	1983 to 1993-94	1993-94 to 1999-2000	1999-2000 to 2004-05
		Sundaram (2007)	Males	1.58	1.33	1.79	28
UPSS-based	Females	1.09	0.51	3.36	11	3	19
	Persons	1.41	1.04	2.34	39	18	37
Unni and	Males	1.91	0.78	2.17	34	9	22
Raveendran (2007)	Females	1.39	-0.11	3.58	14	-1	20
UPS-based	Persons	1.72	0.47	2.67	48	8	42

Source: Based on Sundaram (2007) and Unni and Raveendran (2007).

Table 5: Unemployment and Underemployment Rate in Rural India

NSS	Rural Male				Rural Female			
	UPS	UPS+SS	CWS	CDS	UPS	UPS+SS	CWS	CDS
38 (January-December 1983)	2.1	1.4	3.7	7.5	1.4	0.7	4.3	9.0
43 (July 1987-June 1988)	2.8	1.8	4.2	4.6	3.5	2.4	4.4	6.7
50 (July 1993-June 1994)	2.0	1.4	3.1	5.6	1.3	0.9	2.9	5.6
55 (July 1999-June 2000)	2.1	1.7	3.9	7.2	1.5	1.0	3.7	7.0
61 (July 2004-June 2005)	2.1	1.6	3.8	8	3.1	1.8	4.2	8.7

SS: Subsidiary Status; CWS: Current Weekly Status; CDS: Current Daily Status.

Source: NSS Report No 515 Employment and Unemployment Situation in India.

Table 4 are the employment growth rates calculated by Sundaram (2007) based on the UPSS measure and Unni and Raveendran (2007) based on UPS measure, both using census based projections. Both the papers showed a resurgence of the employment growth rate from a low point during 1993-94 to 1999-2000 to a

high during 1999-2000 to 2004-05. However, it is interesting to note that most of this resurgence in employment growth was accounted by growth in female employment. Both studies show that female employment growth rate was substantially higher than male employment growth rate during the period. The study by Sundaram has recorded 3.36% female employment growth against male employment growth rate of 1.79%. Meanwhile, Unni and Raveendran have recorded female employment growth rate of 3.58% against male growth rate of 2.17%. These rates are also the highest in the period since 1983. The corresponding estimated increment of female workers was 19 million, the same as that of male workers from the study of Sundaram. Unni and Raveendran also show that the increment in the female workers was 20 million, almost close to the male workers increment. It is important to note that since 1983 this five-year period saw the single largest increment in female workers, more than the rise in a 10-year period from 1983 to 1993-94.

2.4 Rising Underemployment

The trends in underemployment reflect the type of employment being newly generated in the rural economy. The forced rise of labour force participation in the rural economy has generated severe underemployment among the workers. Even when women and older men are joining the labour market, the type of employment available for them are less productive and of poor quality. While open unemployment rates have remained at low levels, the degree of underemployment has shot up to one of the highest in the period since 1983. The open unemployment (UPS based measure) for males was stable at 2.1%, and primary sector + secondary sector (PS+SS) unemployment rates even reduced by a fraction from 1.7% in the 55th round to 1.6% in 61st round (Table 5). But the measure of underemployment (CDS) had increased from 7.2% in 55th round to the highest rate of underemployment recorded since 1983 for males at 8% in 2004-05, and for females at 8.7% during the same period. This is also the period that had experienced the largest increase in female labour supply, as mentioned above. The influx of female job seekers despite increasing open unemployment and underemployment brings out the dynamics of the labour market functioning in rural economies driven by acute distress.

3 Composition of Workforce

We discuss below various aspects of the composition of the workforce.

3.1 Declining Casualisation, Rising Self-employment

One of the sources of optimism, observed in the 61st NSS round in the labour market was the rise in self-employment and the decline in casualisation of the rural workforce. It is generally argued that, self-employment is a superior option for the workers compared to casual wage employment due to lesser degree of vulnerabilities. The casualisation of workforce, which continued throughout the late 1980s and 1990s seem to have been arrested as reflected in the latest round of NSS. The share of self-employed workers increased, both among male and female workers, from 544 to 576 and from 500 to 564 per 1,000, respectively

(Table 6). Correspondingly, the share of casual workers declined from 366 per 1,000 to 333 and from 461 to 389 per 1,000. However, the rise of self-employment as an employment option during a period of severe duress needs to be studied more carefully. As shown later in the study, the present rise in self-employment is, to a large extent, of precarious nature.

3.2 The Residual Nature of Rural Non-farm Employment

An analysis of the industrial composition of rural workers shows that the inertia among the rural male workers against inter-sectoral mobility seems to be gradually reducing. The total share of employment in the agriculture sector had declined from 77% of the workforce in 1983 to 66% in 2004-05 (Table 7). The largest decline was in the period 1999-2000 to 2004-05, where a reduction of 5% point was recorded. Correspondingly, the rural non-farm sector (RNFS) employment share among males increased from 23% in 1983 to 34% in the latest period. This increase in RNFS employment was spread within the manufacturing sector, construction sector, trade, hotel and restaurant, and transport, storage and communication. Such a rise in RNFS employment is to be suspected for its quality. The sudden spurt in RNFS employment in the period 1999-2000 to 2004-05 is probably a distress-driven strategy of households to seek employment in other sectors. Such a shift in industrial composition, owing to agrarian distress would make the RNFS a residual low value adding, low productivity sector. The trends broadly suggest that the agrarian distress has driven male workers out of agricultural sector in search of employment in the RNFS sector, while women substitute men in their previous agricultural employment.

This is corroborated from the fact that there has been hardly any shift to RNFS in the case of female employment. The female dependence on agricultural sector declined, by just 5% during the entire period, from 1983 to 2004-05. An overwhelming share of more than 81% still depend on agriculture as the main source of employment, while only 19% depend on RNFS employment. Whatever little shift in share had occurred, the mobility was mainly in manufacturing sector and other services.

3.3 Self-employment

Industrial classification of workers by worker status shows that the rise in self-employment had been mainly in the primary sector. The share of self-employed male workers in primary sector increased from 58% to 63% and that of female workers increased from 49% to 57% during 1999-2000 to 2004-05 (Table 8). In accordance with the rise in the share of self-employment, the share of casual workers declined in the sector as well.

Such a rise in self-employment in the primary sector is of precarious nature. The rise in self-employment in the rural sector has been mainly confined to the households with marginal landholdings with less than 0.4 hectares (Table 9). The share of self-employed workers in agriculture increased by 34 per 1,000, in the smallest size landholding class, 0-0.40 hectares, i.e., marginal landholders. Correspondingly, the share of all other size classes in self-employed agriculture declined by some measure, pointing towards the emergence of a group of self-employed agriculturists with very small holdings. This is also the case with rural agricultural

labour households, wherein the share of marginal landholders has increased. On the other hand, the trend almost reversed in the case of non-agricultural employment, wherein the share of marginal landholding households declined both in case of self- and wage employment. The trends suggest that the wage employment in the rural sector is not anymore remunerative for subsistence,

Table 6: Workers by Status of Employment

NSS	Rural Male			Rural Female			Rural Total		
	Self-employ	Regular	Casual	Self-employ	Regular	Casual	Self-employ	Regular	Casual
1983	595	106	299	541	37	422	581	80	339
1987-88	575	104	321	549	49	402	568	86	346
1993-94	567	87	346	513	34	453	552	72	376
1999-2000	544	90	366	500	39	461	533	74	393
2004-05	576	91	333	564	48	389	574	77	349

Source: NSS Report No 515 Employment and Unemployment Situation in India.

Table 7: Industrial Composition of Rural Workers (UPS) (in %)

		(0)	(1)	(2&3)	(4)	(5)	(6)	(7)	(8)	RNFS
Rural Male	1983	77.2	0.6	7.1	0.2	2.3	4.4	1.7	6.2	22.8
	1987-88	73.9	0.7	7.6	0.3	3.7	5.2	2.1	6.4	26.1
	1993-94	73.7	0.7	7	0.3	3.3	5.5	2.2	7.1	26.3
	1999-2000	71.2	0.6	7.3	0.2	4.5	6.8	3.2	6.1	28.8
	2004-05	66.2	0.6	8	0.2	6.9	8.3	3.9	5.9	33.8
Rural Female	1983	86.2	0.4	6.5	0	0.9	2.2	0.1	3.4	13.8
	1987-88	82.5	0.5	7.5	0	3.2	2.4	0.1	3.7	17.5
	1993-94	84.7	0.5	7.5	0	1.1	2.2	0.1	4	15.3
	1999-2000	84.1	0.4	7.7	0	1.2	2.3	0.1	4.3	15.9
	2004-05	81.4	0.4	8.7	0	1.7	2.8	0.2	4.6	18.6

Agriculture (0), Mining and Quarrying (1), Manufacturing (2&3), Electricity and Water (4), Construction (5), Trade, Hotel and Restaurant (6), Transport, Storage and Communication (7), Other Services (8), RNFS = Rural Non-Farm Sector.

Source: NSS Report No 515 Employment and Unemployment Situation in India.

Table 8: Industrial Distribution of Workers by Status (UPS) (in %)

	NSS Round	Rural Male			Total	Rural Female			Total
		Self-employed	Regular	Casual		Self-employed	Regular	Casual	
Primary	38	63.2	4.3	32.6	100	54.7	1.2	44.1	100
	43	61.4	4.2	34.4	100	56.7	2.5	40.9	100
	50	60.4	1.8	37.9	100	50.8	0.5	48.7	100
	55	58.1	1.9	40.1	100	48.5	1.0	50.5	100
	61	63.1	1.4	35.5	100	56.6	0.5	42.9	100
Secondary	38	50.4	30.4	19.3	100	52.6	18.4	28.9	100
	43	48.1	29.0	22.9	100	51.3	17.9	30.8	100
	50	36.7	18.3	45.0	100	52.4	9.5	38.1	100
	55	36.4	18.2	45.5	100	63.6	9.1	27.3	100
	61	34.5	15.5	50.0	100	61.5	7.7	30.8	100
Tertiary	38	na	na	na	na	na	na	na	na
	43	na	na	na	na	na	na	na	na
	50	54.9	34.1	11.0	100	56.3	31.3	12.5	100
	55	52.4	34.5	13.1	100	50.0	37.5	12.5	100
	61	57.7	32.0	10.3	100	50.0	44.4	5.6	100

For 38th and 43rd round, the figures in secondary sector include the tertiary sector as well. Source: NSS reports on Employment and Unemployment Situation in India.

Table 9: Change in per 1,000 Share of Households at Various Size Class by Employment Type (1999-2000 to 2004-05)

Size of Holding (in Hectares)	Self-employed			Rural Labour				
	Agriculture	Non-agriculture	All	Agricultural Labour	Other Labour	All		All
						All	Others	
0-40	34	-23	25	12	-12	11	63	1
0.41-1	-9	18	-3	-14	4	-12	-25	-2
1.01-2	-1	5	-3	2	4	2	-20	5
2.01-4	-7	-1	-7	-3	4	-1	-13	1
4.01 and above	-18	0	-13	0	0	1	-5	-4

Source: NSS Reports on Employment and Unemployment Situation in India.

evidence of which is following. Hence, it is the poorest among the rural households, probably casual workers earlier, that now have turned into being self-employed in their marginal landholdings. Thus viewed, the decline in casualisation and rise in self-employment need to be interpreted cautiously.

It may be interesting to note that even though casualisation had been declining in general, within the manufacturing sector casualisation had been increasing unabated since 1993-94 till 2004-05 from 45% to 50%. Correspondingly, the share of self-employed and regular workers declined by varying levels. This rise in casual workers in the manufacturing sector meant that of all male casual workers in rural India nearly 24% was in the manufacturing sector. Along with the decline in casual employment among rural males in the tertiary sector, there was a decline in the share of regular employment also, in place of which the share of self-employment had increased from 55% to 58%. However, notably the share of regular workers among female workers increased to 44% in the tertiary sector. The nature of this regular employment of female workers in the tertiary sector needs to be explored in detail.

4 Wage Rates and Wage Differentials

4.1 Stagnating Rural Wages

The direct fallout of the decline in agriculture yield and growth has been the stagnation in the growth of rural wages. Whether it is casual or regular employment between every round of NSS, there has been a secular deceleration in the growth of wage rates. For the regular workers, the growth rates declined from 6.11% per annum during the period 1983 to 1993, to 4.69% during 1993 to 1999, and by 2004, the rate turned out to be 2.05% (Table 10). For the casual workers, the rates had declined from 3.51% to 3.14% and 2.82% during the same periods. In both types of employment the greatest deceleration had been during the period 1999 to 2004. The rural male casual workers had experienced a marginal rise in the growth of wage rates during the 1993-99, but experienced a decline in the later period from 3.34% to 3.19%. The decline in growth of rural wages has come about probably due to the decline in demand for casual workers owing to farm yield diminution and the consequent entry of unpaid family workers as agricultural workers.

4.2 Sustained Sectoral Wage Differentials

Though the growth of wage rates had stagnated, the inter-sectoral wage differential in casual wage employment seems to be widening. The non-farm wage rates which were 1.33 times higher than the farm wage rates in 1983 had become 1.5 times more than the farm wage rates by 2004 (Table 11). The growth rate of wages in the non-farm sector had been consistently higher than the farm sector. Though the overall growth of wages had declined continuously during the period, the non-farm wage rates continued to be higher than the farm sector. This pattern of growth in wages has altered wage ratio of non-farm to farm sector such that the ratio had been continuously on the rise, when both males and females are taken together (Table 8). The wage differential among male casual workers had been stagnant during the entire period from 1983 to 2004-05, while that of females kept increasing gradually

from 1.06% to 1.30%. The stagnation in wage rates in the rural areas, declining employment opportunities in the agricultural sector and sustained wage differential between farm and non-farm sector together probably had pushed the rural non-farm sector employment as shown earlier.

5 Agriculture Distress and Employment Characteristics

The above-discussed characteristics of labour and employment during distress come out clearly, when a comparison is done between regions suffering from agriculture distress and normal regions. For such a comparison, the unit level data of the NSS 61st round for the year 2004-05 was utilised. The entire economy was divided into regions suffering from agricultural distress and other regions. The classification of regions into distressed and non-distressed regions was done at the district level. The Expert Group on Agricultural Indebtedness formed under the behest of ministry of finance, government of India; and headed by R Radhakrishna had identified 100 distress affected districts³ in the country.⁴ Using this list the distressed districts were identified and the residual was taken to be not affected by agricultural distress.

5.1 Increased Presence of Female Workers

In the non-distressed region the share of male workers in farm sector was 64%, but in the distressed regions the share was drastically lower at 56% (Table 12). Correspondingly, the share of women workers was higher at 45% compared to 36%. Even in the non-farm sector, the share of males was slightly lower in distressed region, 76%, compared to 78% in non-distressed regions,

Table 10: Real Wages Per Day in Rural Sector-Levels and Growth (1983 prices)

	Regular			Casual		
	Male	Female	Persons	Male	Female	Persons
1983	15.33	10.44	14.63	7.79	4.89	6.77
1993	28.33	18.9	26.94	10.69	7.31	9.56
1999	36.98	24.88	34.99	13.02	8.39	11.51
2004	41.72	25.7	38.73	15.23	9.04	13.23
Compound annual growth rate						
1983-1993	6.33	6.11	6.3	3.22	4.1	3.51
1993-1999	4.54	4.69	4.45	3.34	2.32	3.14
1999-2004	2.44	0.65	2.05	3.19	1.5	2.82
1993-2004	3.58	2.83	3.36	3.27	1.95	3

Source: Abraham, Vinoy (2007) as calculated from NSS unit level data, 38th, 50th, 55th and 61st round on CDROM published by Central Statistical Organisation, Government of India.

Table 11: Non-Farm to Farm Sector Ratio of Wage Rates

	Regular			Casual		
	Male	Female	Total	Male	Female	Total
1983	2.46	1.47	2.32	1.34	1.06	1.33
1993-94	2.49	2.05	2.45	1.34	1.14	1.37
1999-2000	2.04	2.08	2.10	1.38	1.23	1.47
2004-05	2.09	1.98	2.09	1.36	1.30	1.49

Source: Abraham, Vinoy (2007) as calculated from NSS unit level data, 38th, 50th, 55th and 61st round on CDROM published by Central Statistical Organisation, Government of India.

Table 12: Distribution of Workers in Distressed and Non-Distressed Regions by Sex

	Non-Distressed Region			Distressed Region		
	Farm	Non-farm	Total	Farm	Non-farm	Total
Male	64	78.31	69.74	55.5	75.77	63.06
Female	36	21.69	30.26	44.5	24.23	36.94
Total	100	100	100	100	100	100

Source: Calculated from NSS unit level data 61st round on CDROM published by Central Statistical Organisation, Government of India.

while that of females increased from 22% to 24%. In total employment, the share of males declined from 70% to 63%, while the share of females increased from 30% to 37%, when one moves from non-distressed region to distressed region. This essentially suggests feminisation of work in the regions experiencing agricultural distress. The incidence of this feminisation seems to be much higher in farm sector rather than non-farm sector. One probable reason is the distress-related male migration to other regions. Such distress male migration as a coping strategy under distress was observed in many micro studies. In Kerala's Wayanad district, which had witnessed one of the severest agrarian crises, male outmigration was increasing rapidly, and nearly 40% of the outmigrants belonged to the poorest households in the region (Nair and Menon 2007; Nair et al 2007). In Andhra Pradesh, Deshingkar and Start (2003) explain seasonal migration of the landless and marginal landholders as a coping strategy during droughts and famines.

5.2 Subsistence Consumption Expenditure

The households classified according to their monthly per capita consumption expenditure (MPCE), which is a proxy for their level of income earnings, show that the distribution of workers is distinctively different between the two regions. The workers in the distressed regions are more heavily concentrated in the poorer households. More than 60% of the workers in India's rural areas spend less than Rs 600 per month. The largest share of workers belonged to the consumption expenditure class Rs 300 to Rs 600. This brings out the kind of subsistence survival that Indian rural workers are experiencing. However, the severity of this poverty intensified much more in the distressed region. In the distressed regions the share of workers who earned less than Rs 300 were nearly 11%, while in non-distressed regions it was 7%. Moreover, the share of workers who earned less than Rs 600 was nearly 70% in distressed regions while in other regions it was nearly 58% (Table 13).

Be it distressed or non-distressed region, the share of female workers seem to be negatively related with household consumption expenditure. Lower the level of MPCE, higher the share of females in the total workers. For instance, in the non-distressed regions, the share of females in the poorest class was nearly 36% while in the richest class the share of females was only 30%. However, this relationship between poverty and female participation is stronger in the distressed regions. In the distressed regions, the share of female workers increased to 42% in the poorest class and it declined to 30% in the richest class. Yet, there is no evidence of a greater progression in the female shares in distressed regions in comparison to the non-distressed regions. The difference in the share of females between distressed and non-distressed regions remains consistently between 4% and 6%, suggesting that

irrespective of the income class, the crisis in agrarian sector has pushed the participation of females into the workforce.

5.3 Unpaid Family Workers

The share of workers according to their status shows that nearly 39% of the total workers are self-employed in non-distressed region, while the share declines substantially to 33% in distressed region (Table 15, p 104). Correspondingly, the segment that shows the maximum increase is unpaid family worker. The share of unpaid family workers in distressed region is higher by 4.5% points

Table 14: Gender Distribution of Workers according to Household MPCE

Monthly Per Capita Consumption Expenditure (Rs)	Non-Distressed Region			Distressed Region		
	Female	Male	Total	Female	Male	Total
Less than 300	35.86	64.14	100	42.21	57.79	100
300 to 600	31.37	68.63	100	37.89	62.11	100
600 to 900	28.69	71.31	100	34.9	65.1	100
900 to 1,200	27.34	72.66	100	30.78	69.22	100
Greater than 1,200	25.28	74.72	100	29.84	70.16	100
Total	30.26	69.74	100	36.94	63.06	100

Source: Calculated from NSS unit level data 61st round on CDROM published by Central Statistical Organisation, Government of India.

at 27.47%, when compared to 23% in non-distressed regions. The common practice in studies is to account unpaid family workers as part of the self-employed workers group. Hence, the rise in share of self-employed workers during 1999-2000 to 2004-05 was lauded as a positive signal from the labour market. However, it needs to be recognised that the apparent rise in the share of self-employed workers was mainly due to the increasing presence of unpaid family workers, pitching in labour to the household's own farm. This becomes all the more evident in the case of distressed regions, where the share of unpaid family workers is considerably higher than that of normal regions.

Casual employment also is higher in the distressed region at 28% in the distressed region compared to 24% in non-distressed region. On the other hand, the share of regular wage employees is higher in the non-distressed region compared to distressed region. Nair et al (2007) in their village level study have noted this increased participation of women workers in distressed regions, especially among small and medium households. However, the distress in agriculture sector seems to be keeping non-farm sector insulated in terms of status of employment, except that regular employees' share declined in distressed regions, while the unpaid family workers' share increased.

5.4 Severity of Underemployment

A look into the time dimension of employment of who reported "being employed" as their UPS shows that unemployment in their "minor time" (less than six months) was higher among the workers in the distressed region. While 79% of the workers in non-distressed regions were not seeking or available for employment, in distressed region the corresponding figure was 74% (Table 16, p 104). However, this underemployment is much more severe in the farm sector in general, and especially drastic in distressed regions. In the non-distressed region, nearly 24% of the farm workers suffered unemployment in their minor time period, while 32% of the farm workers in distressed regions faced unemployment in

their minor period. In the non-distressed region nearly 16% of the workers were unemployed for three to six months, while in distressed region it was much higher at 21%.

Table 15: Share of Workers by Status

	Non-Distressed Region			Distressed Region		
	Female	Male	Total	Female	Male	Total
Self-employed	25.81	44.44	38.80	15.08	43.78	33.18
Employer	0.85	1.81	1.52	0.70	1.79	1.39
Unpaid family worker	38.32	16.27	22.94	46.05	16.59	27.47
Regular wage employee	8.39	13.70	12.09	5.25	11.92	9.45
Casual labour in public works	0.21	0.28	0.26	0.20	0.48	0.38
Casual labour on other works	26.43	23.50	24.38	32.72	25.45	28.13
Total	100.00	100.00	100.00	100.00	100.00	100.00

Source: Calculated from NSS unit level data 61st round on CDROM published by Central Statistical Organisation, Government of India.

Table 16: Level of Unemployment among UPS Main Workers

	Non-Distressed Region			Distressed Region		
	Farm	Non-farm	Total	Farm	Non-farm	Total
Unemployed < than 1 month	1	1.24	1.09	1.17	0.77	1.02
Unemployed 1 to 2 months	6.93	5.69	6.43	9.55	5.91	8.2
Unemployed 3 to 6 months	16.17	8.76	13.2	20.89	9.04	16.48
Did not seek/not available	75.9	84.31	79.27	68.38	84.28	74.29
Total	100	100	100	100	100	100

Source: Calculated from NSS unit level data 61st round on CDROM published by Central Statistical Organisation, Government of India.

However, despite such a widespread distress in agriculture, studies show that there has been some decline in rural poverty during this period (Dev and Ravi 2007; Himanshu 2007; Sundaram 2007). These aspects need to be further explored. One probable

hypothesis on this decline in poverty points towards increased female employment and greater intra-household equity in resources. Sundaram (2007) shows that women workers experienced much larger decline in headcount ratio of poverty compared to males during the period. This again, however, needs to be validated empirically.

6 Conclusions

The turnaround in employment growth in the rural economy of India between 1999-2000 and 2004-05 needs to be seen in the light of the looming agrarian crisis during the period. The peculiar changes in the rural employment scenario seem to signal distress-driven employment. The increased participation of female population and aged population in work point to "forced participation" in the labour market, owing to the declining earning capacity of the normal income earners. The earning capacity being closely linked to agricultural yield in agrarian economies, the productivity stagnation in agriculture sector is compounding the misery, pushing people into the labour market in search of any form of employment. The decline in the agrarian sector has also led to substituting paid wage labour with unpaid family labour. The conditions of work in the agricultural distress-ridden regions also show feminisation of work, higher levels of underemployment and greater dependence on unpaid family labour. These trends give credence to the argument that the employment growth in rural India is distress- and poverty-pushed employment growth.

NOTES

- Gender issues, though were addressed previously in a piecemeal fashion at least from the Fifth Plan period, there has been a marked shift towards women's development. Various schemes such as Balika Samridhi Yojana (BSY) started in 1997; Kishori Shakti Yojana and the latest in the list, National Programme for Education of Girls at the Elementary Level, of the Sarva Shiksha Abhiyan launched in 2003 are part of this vision.
- For instance, the mid-day meal scheme, which provides one time food for the school attending child, the BSY which provides a scholarship of Rs 50 to girl children for attending schools, etc.
- The previous rounds of NSS data collected at the region level were not amenable to district level comparison. However, changes in sampling and regional spread of NSS survey in the 61st round makes it possible to do district level comparisons. Moreover, since this study utilises the household level data and not region level aggregates such a classification is possible. The NSS employment-unemployment survey carries a question on the district location of household. All households that belonged to any of the 100 distressed districts were accounted as households in distressed regions.
- GoI (2007). The criteria for identifying the distressed and less developed region were as follows. "The list includes the 31 distressed districts identified by the government, where the prime minister's special rehabilitation package is being implemented. The remaining 69 districts have been included in the following criteria: (1) the district ranks low on the three-year average land productivity for 2001-02 to 2003-04, (2) the credit-deposit ratio of the district is less than 60% for 2006, (3) the proportion of urban population in the district is less than 30% in 2001.

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