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Employment and poverty in rural India: Which way to go now?

G. K. Chadha

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Subregional Office for South Asia, New Delhi

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G. K. Chadha

G.K. Chadha (chadha2001in@yahoo.co.in) is a Member of the Economic Advisory Council of the Prime Minister of India and is also the Chief Executive Officer of the South Asian University being established in Delhi under the auspices of the 8 SAARC Countries. He had been conferred the title of Professor Emeritus at Jawaharlal Nehru University, New Delhi (from where he retired as Vice-Chancellor, in 2005). He holds a PhD. in Economics from Panjab University. He has written 16 books besides contributing 90 research papers to national and international research journals on various development issues relating to India and other developing countries of Asia, notably Indonesia and China. He is currently an Honorary Professor at Shenzhen University, China and Nihon Fukushi University, Nagoya-Japan and is also a member of the International Advisory Board of the Centre for Development Research, Colombo. He was a Visiting Fellow at Institute of Development Studies, University of Sussex, England, a Visiting Research Fellow at Institute of Developing Economies, Tokyo, and a Visiting Professor at University of Mauritius. Prof. Chadha has been a Consultant to several international development organizations including agencies such as FAO, ILO, UNCTAD, ESCAP, etc. besides serving on numerous other international and national expert committees. He has recently been elected as the President of the Indian Economic Association and has also been the President of the Indian Society of Agricultural Economics as well the Indian Society of Labour Economics. He has been honoured with numerous awards and distinctions for his contribution in the field of education, the latest being the D.Litt Degree (honoris causa) conferred by Panjab University, Chandigarh.

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Executive Summary

The paper "Employment and poverty in rural India: Which way to go now?" explores the cause and challenges of poverty, amongst rural masses in India. It goes on to establish the relation between rural poverty and various efforts to increase employment in rural India. Though recently there has been a decline in estimates of population below the poverty line, the absolute number of rural poor is still very high with agricultural labour households facing the worst brunt of poverty. The paper assesses the contribution of farm and non-farm sector in reducing poverty across the rural population. The paper also explores the role played by the National Rural Employment Guarantee Programme (NREGP) to help the rural poor at the level at which poverty is most virulent.

The paper suggests that there is tremendous scope, at the policy and implementation level, to improve rural employment and reduce poverty in India. Since agriculture and allied activities are still the mainstay of the rural people and will continue to be so in the near future, productivity improvement in this sector must be looked at as a far more decisive instrument to reduce poverty amongst the rural poor. Efficient management of natural resources and adoption of precision farming practices can facilitate the improvement of productivity. There is also an urgent need to improve the scope of non-agricultural employment in the rural areas, improved physical infrastructure and human capital base can pave the way for success.

Foreword

The problem of rural poverty poses a serious challenge for our policy makers. In this paper, the author analyses the incidence of poverty in India both in the pre and post reform period and delves into the profile of poverty spread and examines the state level effectiveness of poverty alleviation programs. He compares the performance of the 17 major states of India and sheds light on the factors that have led certain states to attain considerable progress in poverty reduction, where others have failed. While exploring the characteristic features of poverty, this paper establishes the relationship between the growth of employment and the reduction in poverty in rural India. The direct measures enacted by the government like the NREGA is critically examined in terms of their efficacy and impact on rural poverty.

This paper clearly shows that a lot can still be done to accelerate the alleviation of rural poverty and the major suggestions offered include a greater focus on the diversification of rural employment opportunities yet identifying agriculture as the epicenter of rural employment. There is a need to increase agricultural GDP and improvement of production technologies therein. Emphasis should be laid on increasing the productivity in the crop sector and also in the non-crop sector. Public investment and better implementation of the NREGA along with reducing the dependence on rains by focusing on dry land agriculture are important guidelines for the policy makers. Nonfarm employment creation is an important tool in handling rural poverty. Manufacturing industry in rural India shows great promise in terms of employment generation and poverty alleviation. It is of extreme importance that we identify the potential of textile and garment export and related industry. Thus poverty alleviation can be bifurcated into farm and nonfarm measures, both of which offer a wide range of possible improvements that need to be undertaken in order to reduce the incidence of poverty that currently affects more than two thirds of rural India.

This paper is part of a series of studies that have been launched by the ILO, Delhi Office, coordinated by Sukti Dasgupta, Employment and Labour Market Policies Specialist, to analyze and understand the current employment challenges in India.

Leyla Tegmo-Reddy
Director and ILO Representative in India
Sub Regional Office for South Asia, New Delhi
International Labour Organization

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1. Rural Poverty

Rural poverty poses the most serious concern to policy makers and public analysts in India for various reasons. First, more than 70 per cent of India's population still lives in the rural areas. Second, no fewer than three-fourths of the Indian poor live in villages. Third, in contrast to the numerous options open to urban dwellers, poverty alleviation among the rural masses is relatively difficult, most ostensibly because of the not-so-easy-to-change occupational distribution. Four, the highly iniquitous agrarian structure, on the one hand, and the relatively weak and biased functioning of public institutions, on the other, make it that much more difficult to conquer rural poverty. Finally, the weaker and the poorer sections of the rural society are confronted with caste and class divides and male-female disparities, in many aspects of employment and work environment, especially in job changes from less productive agricultural to more productive non-agricultural activities, almost on a day-to-day basis.

1.1 Rural Poverty Profile

Table 1 portrays the rural poverty profile for three points of time: 1983, 1993-94 and 2004-05. The figures show the usual head-count poverty estimates (Govt. of India, 2002). The changes between 1983 and 1993-94 can be taken to reflect the realities of the eighties (the pre-reform period) while those between 1993-94 and 2004-05 may be interpreted to reflect the post-reform picture. A number of features need to be underlined.

- At the national level, the number and the percentage of the rural people under poverty did witness a noticeable decline, first between 1983 and 1993-94, and then again, between 1993-94 and 2004-05. For example, while during the 1983 to 1993-94 period, 7.9 million rural people succeeded in freeing themselves from the clutches of poverty, a larger number - 11.9 million - did so during the 1993-94 to 2004-05 period. The decline was equally boldly discernible in proportionate terms, from 45.7 per cent in 1983 to 37.3 per cent in 1993-94, and further down to 28.3 per cent in 2004-05. In a broad sense, it is a fairly creditable national-level achievement that is the result of a combination of growth processes and a set of poverty eradication initiatives expressly put in place since the late 1970s.

- In spite of this creditable national-level achievement, in 2004-05, the absolute number of the rural poor was still as high as 232.2 million; the proportion too was high at 28.3 per cent. In the context of the global record of poverty alleviation, India has a middle-ranking position. India has reasons to be happy with its record in reduction of rural poverty compared to many countries in Africa and Latin America,. On the other hand, in relation to most developing countries in East and North-East Asia, India's record is hardly flattering, particularly vis-à-vis China. In total terms, India has still a long way to go in ridding itself of this human scourge.

It may be pointed out, in passing, that the Indian definition of poverty is rather mild, and the scourge would appear more frightening if international yardsticks, say, per capita income of US $2 a day, were invoked for separating the poor from the non-poor. It is precisely in this sense that poverty alleviation still remains a gigantic task for India; the lackadaisical performance in achieving the poverty reduction target under the Millennium Development Goals is reflective of genuine concerns.

- It is undoubtedly heartening to see that between 1983 and 2004-05, each of the 17 major states succeeded in curtailing the proportion of rural people in poverty. It is equally uplifting to see that, barring Bihar, Madhya Pradesh, and Uttar Pradesh, the absolute number of the rural poor also declined, by varying numbers, in each of the remaining 14 states. Nevertheless, in spite of this widespread decline, the number of the rural poor is astoundingly high in some of the states, understandably because the absolute size of their rural population in also very high. Bihar, Madhya Pradesh, Maharashtra, Orissa, Uttar Pradesh and West Bengal clearly fall in this category.

- The states where around one-third or more of rural population was still in poverty as late as 2004-05 are Bihar, Madhya Pradesh, Maharashtra, Orissa, Uttar Pradesh and West Bengal; no fewer than 74.6 per cent of India's rural poor live in these six states alone. On the other hand, most other states succeeded, in varying degrees, in reducing the incidence of their rural poverty. For some, especially the four southern states of India, the decline in the proportion of the rural poor was highly impressive. In others like Punjab, Haryana, Jammu and Kashmir, Himachal Pradesh and Kerala, rural poverty now appears as a marginal phenomenon - in 2004-05, the proportion of the rural poor in these states varied between 4.3 per cent in Jammu and Kashmir to 13.2 per cent in Haryana and Kerala.

Table 1 : Number (million) and percentage of rural persons below poverty : 1983, 1993-94 and 2004-05

State	1983			1993-94			2004-05		
	No. of Persons (million)	% of Persons	State's Share in the Poor	No. of Persons (million)	% of Persons	State's Share in the Poor	No. of Persons (million)	% of Persons	State's Share in the Poor
1	2	3	4	5	6	7	8	9	10
Andhra Pradesh	11.4	26.5	4.5	7.9	15.9	3.3	6.3	10.5	2.7
Assam	7.3	42.6	2.9	9.4	45.0	3.9	5.7	22.1	2.5
Bihar	41.8	64.4	16.6	45.1	58.2	18.5	45.3	42.6	19.5
Gujarat	7.3	29.8	2.9	6.2	22.2	2.6	6.7	18.9	2.9
Haryana	2.2	20.6	0.9	3.7	28.0	1.5	2.2	13.2	0.9
Himachal Pradesh	0.7	17.0	0.3	1.5	30.3	0.6	0.7	10.5	0.3
Jammu-Kashmir	1.3	26.0	0.5	1.9	30.3	0.8	0.4	4.3	0.2
Karnataka	10.1	36.3	4.0	9.6	29.9	3.9	8.7	20.7	3.7
Kerala	8.2	39.0	3.2	5.6	25.8	2.3	3.0	13.2	1.3
Madhya Pradesh	21.5	48.9	8.6	21.6	40.6	8.9	25.1	36.8	10.8
Maharashtra	19.4	45.2	7.7	19.3	37.9	7.9	18.0	29.6	
Orissa	16.5	67.5	6.5	14.1	49.7	5.8	15.8	46.9	6.8
Punjab	1.7	13.2	0.7	1.8	12.0	0.7	1.6	9.0	0.7
Rajasthan	9.7	33.5	3.8	9.5	26.5	3.9	9.1	18.3	3.9
Tamil Nadu	18.2	54.0	7.2	12.2	32.5	5.0	7.8	23.0	3.4
Uttar Pradesh	44.8	46.5	17.8	49.6	42.3	20.3	51.4	33.3	22.1
West Bengal	26.9	63.1	10.7	21.0	40.8	8.6	17.6	28.4	7.6
All India	252.0	45.7	2488.4	244.0	37.3	2400.4	232.2	28.3	2321.6

Source: 1. *For 1983 and 1993-94, Govt. of India, National Human Development Report, 2001, Planning Commission, March 2002.*
2. *For 2004-05, Dev. Mahendra and C. Ravi, "Poverty and Inequality: All-India and States, 1983-2005", Economic and Political Weekly, Vol. XLII, No. 6, January 10-16, 2007.*

In total terms, it is fairly evident that rural poverty in India did decline during the two decades beginning 1983, although the pace of decline did vary from state to state. It is also evident that, in spite of the decline, the proportion, as also the absolute number, of the rural poor continues to be fairly high, most discernibly in the more populous states of Bihar, Madhya Pradesh, Maharashtra, Orissa, Uttar Pradesh and West Bengal. In terms of India's march against rural poverty, the states stand broadly divided into three groups: one in which rural poverty has witnessed a fairly big decline, first during 1983 to 1993-94, and then during 1993-94 to 2004-05; second in which the decline has been of a moderate order, and the third group reporting low degree of decline. It is thus clear that the Indian experience of tackling rural poverty cannot be fathomed unless we look deeply into what has been going on in individual states. Temporally, we have a rich constellation of no fewer than 17 individual experiences which together can educate us about how some states could do so well while others failed to do much. In other words, most of the factors that determine the level of rural poverty, notably the rate at which the local economy is growing, the pace and pattern of employment growth, the working of the rural labour markets, especially in terms of the behaviour of real wages, among others, must essentially be seen at the level of individual states.

1.2 Poverty among Agricultural Households

Any discussion on rural poverty must also look into the poverty status of households engaged in agriculture and allied activities, primarily because no fewer than 70 per cent of rural workers are still employed in this sector. Although non-agricultural employment and earnings do matter a lot in determining the poverty status of rural households, a high growth of agriculture, on a sustained basis, provides the prime trigger for employment, earnings and poverty levels for such households. However, the poverty profile of the two major segments of agricultural workers, namely cultivators and wage labourers, must be looked at separately, essentially because the nature and intensity of poverty among agricultural labour households is *primarily* determined by the functioning of rural labour markets while for the cultivators, it is the combination of productivity per hectare/ worker and factor-product price ratios that matters the most. Table 2 gives the state-level picture for the two categories of agricultural households for 1983, 1993-94 and 2004-05. A few points need to be underlined.

First, as expected, the incidence of poverty is much higher among agricultural labourers, compared to cultivators. At the national level, 37 per cent of cultivators were poor in 1983 against 60.4 per cent of agricultural labourers; in 1993, the two figures were 28.6 per cent and 47.7 per cent and in 2004-05, these were 21.5 per cent and 46.4 per cent, respectively. It is thus clear that the most crushing burden of rural poverty in India is being borne by agricultural labour households. While the incidence of poverty is quite high even among the cultivating households, yet their break-up into various farm size categories would, most certainly, reveal that the most afflicted among them are sub-marginal and marginal farming households and to a lesser extent, the small cultivating households which together constitute an overwhelming proportion of the cultivating households. Many among these households share the work and earning conditions commonly associated with agricultural labour households, most markedly, the quantum of wage-paid employment and wage rates available outside their own farms.

Second, the proportion of the rural poor witnessed varying degrees of decline in 2004-05 compared with 1993-94, in as many as 14 of the 17 states, both among the cultivators and agricultural labourers; in three states (Gujarat, Orissa and Madhya Pradesh), a mixed pattern was in operation. In Gujarat, it increased slightly for agricultural labourers but remained unchanged for cultivators; in Orissa, it witnessed a slight increase for both categories and, in Madhya Pradesh, it increased slightly for agricultural labourers but declined for cultivators.

In overall terms, it is fairly evident that, during the post-1993 period, the process of poverty alleviation succeeded more widely, and more intensely, in the case of cultivating households compared with agricultural labour households. The point of substance is that in a big majority of states, the proportion of the poor among agricultural labourers declined side by side with cultivating households. Clearly, if the cultivating households were the beneficiaries of agricultural growth in all those states, so have been the wage-employed agricultural labourers. The stray cases where the poverty-reducing benefit of growth did not accrue commonly to both categories need further study.

Finally, it needs to be underlined that in spite of the progress in poverty alleviation in respect of agricultural households, the proportion of the poor among the wage-paid agricultural labourers was 45 per cent or more, in Bihar, Orissa, West Bengal, Madhya Pradesh, Maharashtra and Uttar Pradesh, even as late as 2004-05. The first four are the former zamindari[1] states which have a historical legacy of subjecting agricultural labourers to diverse types of exploitation, and such a high incidence of poverty among them even in 2004-05, may be a carry-over of this legacy. But then, the proportion of the poor among the cultivating households is also very high in these very states, especially in comparison with the green revolution states of Punjab and Haryana. Thus, the historical neglect of agriculture in these states seems to encompass all agricultural functionaries in the present times, the landless agricultural labourers much more furiously than the cultivators whose command over land has also witnessed considerable diminution during the post-Independence decades. As regards Madhya Pradesh and Maharashtra, they, along with the former zamindari states, have never witnessed high agricultural growth, on a sustained basis. The fall-out on agricultural labour households is, therefore, quite understandable.

In most of the Indian states, agricultural households dominate in the rural economies and rural labour markets. In that case, the picture on poverty among agricultural households should closely correspond with the one among rural households as a whole. This indeed is the story for rural India. Using the state-level time-series-cum-cross-section data, we discover that Spearman's rank correlation coefficient between poverty among agricultural households and that among rural households is 0.77 for 1983, 0.95 for 1993-94 and 0.97 for 2000-04; the corresponding values for Karl Pearson's coefficient are 0.99, 0.97 and 0.97, respectively. All the three coefficients are significant at 0.01 level. In plain terms, *the phenomenon of rural poverty can be authentically gauged through, and meaningfully addressed, only if the employment and earning conditions of agricultural households are analyzed in fine detail.*

[1] The system of employing zamindars to collect taxes from peasants, started by the Moghuls and continued even by the British

Table 2 : Percentage of the poor among agricultural workers and rural population: 1983/2004-05

State	Agricultural Labourers			Cultivators			Agricultural Workers			Rural Persons		
	1983	1993-94	2004-05	1983	1993-94	2004-05	1983	1993-94	2004-05	1983	1993-94	2004-05
Andhra Pradesh	34.4	18.5	15.9	17.4	9.6	8.8	27.4	15.2	12.9	26.5	15.9	10.5
Assam	49.0	57.5	36.6	35.2	35.1	15.6	40.8	45.3	19.1	42.6	45.0	22.1
Bihar	81.3	72.3	67.5	53.6	44.5	25.5	67.3	58.6	43.6	64.4	58.2	42.6
Gujarat	40.2	28.5	29.6	23.7	13.4	13.3	29.4	20.7	21.2	29.8	22.2	18.9
Haryana	43.0	50.0	28.0	16.7	14.3	5.3	22.7	25.0	10.7	20.6	28.0	13.2
Himachal Pradesh	12.9	45.8	35.0	17.8	30.1	9.3	17.6	29.0	10.1	17.0	30.3	10.5
Jammu and Kashmir	-	28.6	10.9	-	22.7	2.2	23.4	19.6	2.9	26.0	30.3	4.3
Karnataka	49.8	40.6	32.4	24.9	19.7	14.1	35.8	28.9	23.5	36.3	29.9	20.7
Kerala	57.1	33.9	23.9	26.2	15.4	5.7	37.7	20.8	14.6	39.0	25.8	13.2
Madhya Pradesh	65.0	55.3	56.5	44.0	32.8	27.1	51.2	40.9	37.9	48.9	40.6	36.8
Maharashtra	61.2	51.8	47.3	33.4	24.1	18.2	46.8	38.6	33.3	45.2	37.9	29.6
Orissa	81.9	63.5	64.5	65.3	45.8	46.1	73.5	52.9	54.5	67.5	49.7	46.9
Punjab	25.5	24.9	25.8	5.4	2.8	0.9	12.6	11.0	11.4	13.2	12.0	9.0
Rajasthan	44.4	38.7	37.0	32.7	20.7	14.1	33.7	22.6	16.6	33.5	26.5	18.3
Tamil Nadu	65.2	44.5	33.6	38.7	21.6	15.7	54.9	36.2	28.0	54.0	32.5	23.0
Uttar Pradesh	64.6	62.5	55.3	42.0	36.3	26.4	46.0	41.7	32.3	46.5	42.3	33.3
West Bengal	81.0	54.8	45.6	44.9	28.0	17.6	65.5	41.5	32.0	63.1	40.8	28.4
All India	60.4	47.7	46.4	37.0	28.6	21.5	45.5	35.7	31.1	45.7	37.3	28.3

Source: 1. *For extrapolated population figures, Govt. of India, Population Census Reports for 1981, 1991 and 2001, Registrar General, New Delhi.*

2. *Poverty figures derived from unit-level NSS data on consumer expenditure for 1983-84, 1993-94 and 2004-05.*

2. Employment-Poverty Linkages

Usually, a faster pace of employment growth is expected to result in a faster pace of decline in poverty. However, the post-reform experience in India does not bear this out. As analysis in this section shows, in an overwhelming majority of states, the faster pace of decline in the number of the rural poor during the 1993-94 to 2004-05 period compared with the 1983 to 1993-94 period is accompanied by varying degrees of decline (not increase) in the rate of growth of agricultural, non-agricultural or total rural employment. Is it, then, the rate of growth of productivity/worker - in and outside agriculture - that makes a more decisive dent into rural poverty rather than the mere rate of growth of employment? Other factors can also be thought of for explaining the post-reform pattern of decline in rural poverty. Let us, however, first see the relationship between the growth of rural employment and the rate of rural poverty decline.

2.1 Growth of Employment and Rural Poverty

Table 3 gives the state-wise picture on the growth of rural employment and the rate of decline of rural poverty. Here, rural poverty is measured in terms of the absolute number of the poor, first during the 1983 to 1993-94 period (pre-reform decade), and then during the 1993-94 to 2004-05 period (post-reform years). Growth of rural employment is seen under three broad categories: agricultural employment, non-farm employment and total rural employment. Whatever type of employment is considered, no neat relationship emerges between the rate of growth of employment and the rate of poverty decline.

Table 3 : Decline in the no. of the rural poor in relation to the growth rate of rural employment : 1983/2004-05

	Annual Rate of Decline(-)/ Increase(+) in the No. of the Rural Poor		Growth Rate of Rural Employment					
			Agricultural Employment		Non-Agricultural Employment		Total Employment	
State	1983/93	93/2004-05	1983/93	93/2004-05	1983-93	93/2004-05	1983-93	93/2004-05
Andhra Pradesh	-3.63	-2.05	2.16	0.15	2.68	3.58	2.27	0.75
Assam	2.50	-4.45	1.92	-0.89	2.14	4.61	1.96	2.76
Bihar	0.80	0.05	1.37	1.17	0.87	4.67	1.29	1.51
Gujarat	-1.60	0.68	0.92	1.89	5.09	2.73	1.65	2.08
Haryana	5.20	-4.63	1.83	2.03	4.63	5.31	2.54	3.07
Himachal Pradesh	8.10	-6.56	1.85	-0.15	7.30	4.83	2.72	1.08
Jammu-Kashmir	3.80	-13.23	2.47	0.20	5.09	5.19	3.05	1.68
Karnataka	-0.40	-0.92	1.83	1.45	3.54	2.03	2.12	1.56
Kerala	-3.70	-5.48	-0.92	-1.28	1.79	3.91	0.17	1.34
Madhya Pradesh	0.00	1.37	1.84	0.37	2.28	6.33	1.89	1.16
Maharashtra	-0.10	-0.66	1.26	1.25	3.61	2.81	1.63	1.54
Orissa	-1.50	1.02	1.96	0.03	0.84	6.13	1.74	1.50
Punjab	0.60	-0.89	-0.86	1.22	3.73	4.69	0.10	2.22
Rajasthan	-0.20	-0.39	1.38	0.83	6.31	4.43	2.18	1.66
Tamil Nadu	-3.90	-3.93	0.50	-1.38	2.52	0.62	1.06	-0.74
Uttar Pradesh	1.10	0.32	1.29	1.07	2.56	4.82	1.53	1.94
West Bengal	-2.40	-1.60	0.71	1.52	5.32	1.87	2.13	1.65
All-India	-0.30	-0.45	1.38	0.96	1.75	3.89	1.75	1.67

Source: 1 *Govt. of India, National Human Development Report, 2001, Planning Commission, March 2002.*

2 *Govt. of India, NSS Report No. 363/1, June 1989; NSS Report No. 409, March 1997; NSS Report No. 433, August 1998; and NSS Report No. 515, June 2006.*

Clearly, during the post-1993 years, varying degrees of decline in the number of the rural poor occurred in no fewer than 12 of the 17 states, varying degrees of increase occurred in four and the situation remained unchanged in one. In contrast, during the 1983 to 1993-94 period, varying degrees of decline occurred only in nine states, against an increase in seven and no change in one state. The pre- and post-reform employment scenarios bear no resemblance with the pattern of poverty decline. In no fewer than 13 states, the rate of growth of agricultural employment witnessed varying degrees of decline during the post-1993 period compared with the pre-1993 one, Gujarat, Haryana, Punjab and West Bengal being the four exceptions. In the case of non-agricultural employment growth rate, the post-reform decline occurred in as many as seven states while in the remaining ten states (Andhra Pradesh, Assam, Bihar, Haryana, Jammu and Kashmir, Kerala, Madhya Pradesh, Orissa, Punjab and Uttar Pradesh), the post-reform growth rates witnessed varying degrees of improvement. Finally, in the case of growth rate of total rural employment, the post-reform decline encompassed no fewer than ten states; Assam, Bihar, Gujarat, Haryana, Kerala, Punjab and Uttar Pradesh, were the seven states to witness some improvement.

Two things thus stand out in the employment-rural poverty relationship. First, the higher pace of decline in the number of the rural poor, during the post-reform years, does not owe itself *entirely* to a corresponding improvement in the rate of growth of agricultural employment, and a little less so, to non-agricultural employment. Most strikingly, the improved performance on the poverty alleviation front has occurred in spite of a decline in the rate of growth of agricultural employment, spread over no fewer than 13 of the 17 major states. Perhaps, it is not the level but the content or productivity of employment which provides a more convincing explanation for the faster pace of poverty decline in the post-1993 years. Second, during the post-1993 period, a higher growth rate of non-agricultural employment compared with that of agricultural employment, in as many as ten states, may have played a role towards the faster pace of poverty decline, most ostensibly because the productivity and earning content of non-agricultural employment is relatively higher than that of agricultural employment. *The rural non-farm sector thus holds a great promise towards rural poverty reduction.*

2.2 Labour Productivity and Rural Poverty

Table 4 lends adequate support to our argument that it is the earning content of employment, rather than the mere counting of number of persons employed, that makes a decisive impact on poverty. In particular, the impact that the higher level of productivity and earnings in rural non-farm employment makes on rural poverty is well documented.

Table 4 : Rural poverty, per worker productivity in agricultural and non-agricultural sectors in Indian states

State	% of rural persons under poverty			% of rural workers engaged in non farm activities			per capita NSDP in agriculture (1993-94 prices)			per worker productivity in rural industry (1993-94 prices)		
	1983	1993-94	2004-05	1983	1993-94	2004-05	1983	1993-94	2004-05	1984-85	1994-95	2004-05
Andhra Pradesh	26.5	15.9	10.5	19.7	20.7	28.2	2535	3380	3862	3874	4366	8069
Assam	42.6	45	22.1	20	21.2	25.7	2026	2444	2260	5441	4538	10658
Bihar	64.4	58.2	42.6	16.4	15.8	23.8	1591	1653	1268	6219	4752	7232
Gujarat	29.8	22.2	18.9	14.8	21.3	22.7	3749	3303	4725	12247	10805	12440
Haryana	20.6	28.2	13.2	22.3	28.1	35.9	4726	6364	6612	6854	13123	22355
Himachal Pradesh	17	30.3	10.5	12.4	19.8	30.4	1948	2198	2950	6765	6137	9625
Jammu and Kashmir	26	30.3	4.3	19.8	24.4	36.1	2670	2813	3472	7909	4684	20750
Karnataka	36.3	29.9	20.7	15.5	18.1	19.0	2767	4040	3772	4088	4495	13470
Kerala	39	25.8	13.2	36.9	43.9	58.0	2042	2865	2303	4897	7691	13688
Madhya Pradesh	48.9	40.6	36.8	9.7	10.1	16.7	2587	3210	2386	5747	5500	7564
Maharashtra	45.2	37.9	29.6	14.2	17.4	20.0	2586	3886	3443	5788	7678	13508
Orissa	67.5	49.7	46.9	20.8	19	31.0	2275	2195	2008	2702	2088	4589
Punjab	13.2	12	9	17.4	25.4	33.1	5668	8875	9837	5983	11242	13940
Rajasthan	33.5	26.5	18.3	13.3	20.2	27.1	1742	2691	3256	4583	8963	14539
Tamil Nadu	54	32.5	23	25.1	29.6	34.6	1932	3389	3409	3594	7848	12214
Uttar Pradesh	46.5	42.3	33.3	17.7	20	26.9	2306	2681	2442	3371	5789	8096
West Bengal	63.1	40.8	28.4	26.3	36.4	37.3	1858	2858	3434	3974	4580	6582

Note: 1. *Per capita net state domestic product (net state domestic product originating in agriculture divided by rural population) is in Rs. at constant 1993-94 prices;*
2. *Per worker productivity in rural industry (gross value added at constant 1993-94 prices divided by total workers in unorganised manufacturing sector)*

Source: 1. *Govt. of India, SARVEKSHANA, Sept. 1990.*
2. *Govt. of India, NSS Report No.363/1, June 1989; 409, Mar 1997; 433, Aug 1998; 526, Feb,2008.*

There are numerous studies to show that a fairly large proportion of the rural landless labour, and marginal and small cultivating households, is involved in a wide variety of non-farm activities; this adds to their limited earnings from agricultural wages and/or farming and helps many of them to tide over poverty. (Corner, 1986; Saith, 1992; Chadha, 2007). If such households, especially those without a land base of their own, were to depend on agricultural income alone, the incidence of poverty amongst them would indeed be substantially higher (Chadha, 2006).

Again, there are studies to show that the poverty alleviating role of the rural non-farm sector is fairly substantial if it is rooted in the growth of agriculture itself. But, some analysts make a distinction between distress-driven non-farm expansion, a la the residual sector hypothesis, and a market-driven non-farm expansion (Vaidyanathan, 1986). In the former case, the rural non-farm sector acts as a refuge for those who are mired in the quagmire of a backward and stagnant agriculture; here, it is the push from agriculture that triggers the process, and in terms of its earning content, the non-farm employment here bears no comparison to the one that is triggered by a fast growing agriculture.

Conceptually, therefore, regions in a country may stand divided in two broad groups. In one group, agriculture is growing, productivity levels are high, agricultural output per rural dweller is high, and consequently, through a chain of forward and backward linkages, a variety of local non-farm activities come up. In the other group, agricultural growth is sluggish and erratic, productivity levels are low, per capita agricultural output is low, and a majority of the rural people hunt around for any non-farm job, locally in the village or in the nearby urban and semi-urban centres, that can sustain them on day-to-day basis. In total terms, therefore, the level of rural poverty in any region depends on the combined effect of the pace of agricultural development, and the nature and spread of non-farm activities.

Table 5 shows the state-wise picture on rural poverty for 1983, 1993-94 and 2004-05, in relation to the level of agricultural development (surrogated by per capita national state domestic product in agriculture) and rural non-farm development. Rural non-farm development is presented in two ways: quantitatively, it is proxied by the percentage of rural workers engaged in non-farm activities, and qualitatively, by the level of per worker productivity, say, in rural industry.

Table 5 : Uneven spread of rural poverty across the states

State	% of rural poor [2004-05]	State's share (%) in India's rural poor [2004-05]	Share of rural poor in states's total poor [2004-05]	States's share (%) in India's rural population (1.3.2005)	State's share (%) in India's sub-marginal holdings [2003]	State's share (%) in India's marginal holdings [2003]	State's share in India's net irrigated area [2003-04]	% of farmers without membership of coops. [2003]
Orissa	46.9	6.8	85.6	4.2	4.1	6.8	2.4	78
Bihar	42.6	19.5	89.7	13.1	16.1	10.8	6.2	91
Madhya Pradesh	36.8	10.8	76.2	8.3	4	9.8	10.2	57
Uttar Pradesh	33.3	22.1	80.4	19.0	25.8	20	22.5	77
Maharashtra	29.6	7.7	56.8	7.4	3.4	6.4	5.4	46
West Bengal	28.4	7.6	79.6	7.7	12.7	7.9	5.4	77
Sub-Total	39.4	69.5	78.9	59.7	65.2	58.7	47	-
Tamil Nadu	23.0	3.4	42.1	4.3	4.6	4.9	4	56
Assam	22.1	2.5	97.4	3.1	2.5	3.4	0.3	83
Karnataka	20.7	3.7	56.5	4.6	2.2	5.3	4.3	64
Gujarat	18.9	2.9	72.4	4.3	2.7	3.9	5.5	51
Rajasthan	18.3	3.9	67.2	6.0	3.6	5	9.5	79
Sub-Total	22.6	24.6	60.7	22.3	20.6	33.2	35.2	-
Haryana	13.2	0.9	66.4	2.0	2.3	1.5	5.4	59
Kerala	13.2	1.3	62.8	3.10	5.2	1.6	0.7	40
Himachal Pradesh	10.5	0.3	96.1	0.7	1.4	1	0.2	43
Andhra Pradesh	10.5	2.7	53.4	7.4	4.3	7.7	6.6	69
Punjab	9.0	0.7	75.2	2.1	3	0.8	7.4	51
Jammu and Kashmir	4.3	0.2	74.1	1.0	1.3	1.3	0.6	75
Sub-Total	11.57	3.4	61.0	16.3	13.2	6.1	14.2	-

Source: 1. *Cols. 2-4 derived from Tables 1 & 2.*
2. *Col. 5, Govt. of India, Census of India 2001: Population Projections for India and States 2001-2026, National Commission on Population, Ministry of Health and Family Welfare, May 2006: 28-51*
3. *Cols. 6-7, Govt. of India, NSS Report No. 498, May 2005: A67-A81*
4. *Cols. 8-9, Govt. of India, Report of the Inter-Ministry Task Group on Redressing Growing Regional Imbalances; Planning Commission; January 2005: 32-35*

A number of interesting points emerge. First, the picture on rural poverty decline is far clearer for the post-1993 years in contrast to that for the period 1983 to 1993-94. For example, during 1983 to1993-94, the proportion of the rural people under poverty declined in 13 and increased in four states. However, during the 1993-94 to 2004-05 period, it declined in all the 17 states, the degree of decline notwithstanding.

Second, to comprehend the relationships in concrete statistical terms, a few correlation coefficients are computed from Table 5.

Correlation Coefficient between:

			1983	93-94	04-05
A.	Rural Poverty and:				
	(i)	Per person agriculture net state domestic product	-0.55* (-0.61*)	-0.65* (-0.61*)	-0.62* (0.54*)
	(ii)	Per worker productivity (rural industry)	-0.56* (-0.45**)	-0.50* (-0.57*)	-0.67* (-0.68*)
	(iii)	Percentage of rural non-farm workers	0.22 (0.18)	-0.43** (-0.30)	-0.44** (-0.39)
B.	Percentage of rural non-farm workers and per worker productivity in rural industry		-0.34 (-0.27)	0.37 (0.25)	0.23 (0.26)

* is significant at 0.05 level; ** is significant at 0.10 level; figures in parentheses are Karl Pearson's Correlation Coefficients while those outside are Spearman's Rank Correlation Coefficients.

A few interesting facts need to be underlined. First, given the usual limitations of the state-level cross-section data, significant (negative) correlation do not generally emerge between rural poverty and rural non-farm development, for any of the three points of time, the value of Spearman's rank correlation coefficient being 0.22, -0.43 and -0.28, and the one for Karl Pearson's coefficient being 0.18, -0.30 and -0.39, for 1983, 1993-94 and 2004-05, respectively. This upholds our contention that in some states, a sheer proliferation of rural non-farm employment may not make a dent into rural poverty if their agricultural base is weak, and the movement into the non-farm sector is a distress-driven phenomenon. Assam, Jammu and Kashmir, Tamil Nadu, Uttar Pradesh and West Bengal characterize this scenario for 1993-94, and Assam, Orissa, Uttar Pradesh and West Bengal are the examples for 2004-05. On the other extreme, there are states where low level of rural poverty goes hand in hand with medium to high level of rural non-farm as well as agricultural development. Andhra Pradesh, Gujarat, Haryana, Punjab, and Rajasthan are examples for 1993-94 and Andhra Pradesh, Gujarat, Haryana, Himachal Pradesh, Jammu and Kashmir, Karnataka, Kerala, Punjab, and Rajasthan provide illustrations for 2004-05. Finally, there are a group of states where rural poverty is high partly because their agricultural productivity is low and the rural non-farm sector is weak. Bihar, Himachal Pradesh, Karnataka, Madhya Pradesh, Maharashtra, and Orissa, illustrate this combination for 1993-94, and, Bihar, Madhya Pradesh, and Orissa provide examples for 2004-05. In sum, the rural non-farm development, surrogated merely by the proportion of rural non-farm workers, does not show its impact on rural poverty alleviation in all cases.

Second, if rural non-farm development is proxied by a more refined, and qualitatively superior, indicator, say, the level of per worker productivity in rural industry, its poverty alleviation impact comes up neat and clean. The rank correlation coefficient now rises to -0.56 for 1983, -0.50 for 1993-94 and as high as -0.67 for 2004-05. The corresponding value for Karl Pearson's coefficient rises to -0.45, -0.57 and -0.68, respectively. Each coefficient is significant at 0.01 level. This lends considerable support to the point that a mere shift of rural workers from agriculture to non-farm activities may not relieve many of the rural households of their poverty; the productivity levels of the non-farm activities to which they migrate are a more decisive touchstone. In plain terms, poverty alleviation comes if and only if the workers shift from low to higher productivity jobs. In an oblique sense, many of the state-sponsored poverty alleviation schemes that encourage rural households to undertake a variety of self-employing non-farm activities could make only a limited impact on rural poverty primarily because many of these 'self-employing' enterprises continue to suffer, inter alia, from low levels of productivity.

Third, to put added emphasis on the qualitative aspects of the rural non-farm development, we estimated the rank correlation coefficient between the two variants of the rural non-farm development, viz. the percentage of rural workers engaged in non-farm activities, representing the quantitative aspect (RNFqn), and the level of per worker productivity in rural industry, capturing the qualitative aspect of the RNF development (RNFqt). The coefficients are -0.34, 0.37 and 0.23 for 1983, 1993-94 and 2004-05, respectively; none is significant. Likewise, the corresponding Karl Pearson Correlation Coefficients are -0.27, 0.25 and 0.26; none of them is significant either. We are, once again, in a position to assert that a state where RNFqn is high is not necessarily the same where RNFqt is also high. It is a jumble of odd combinations: a high RNFqn and a high RNFqt (the green revolution states of Punjab and Haryana), a high RNFqn but a low/medium RNFqt (e.g. Assam, Kerala, Orissa, Tamil Nadu, Uttar Pradesh, and West Bengal), and a low/medium RNFqn but a medium/low RNFqt (e.g. Bihar, Karnataka, and Madhya Pradesh).

Finally, it is duly confirmed, once again, that agricultural development (again, measured in terms of qualitative gains such as higher levels of productivity/worker) does make a decisive dent into rural poverty; the rank correlation coefficient between rural poverty and agricultural production per rural person is -0.55, -0.65 and -0.62 for 1983, 1993-94 and 2004-05, respectively (the corresponding values of Karl Pearson Coefficient are -0.45, -0.57 and -0.68); all are significant. This result cautions the exclusive club of rural non-farm promoters against dismissing the poverty alleviation capability of agriculture. Agriculture still contributes nearly 55 per cent of rural net domestic product and any breakthrough in productivity/worker here is bound to show its effect on rural poverty, most ostensibly because no fewer than three-fourth of rural workers are still engaged in this sector.

3. National Rural Employment Guarantee Programme: Looking Back and Forth

The preceding analysis shows that the process of rural poverty decline has been highly uneven across states. There are pockets of high, medium and low poverty. Clearly, six out of the17 major states studied by us (Orissa, Bihar, Madhya Pradesh, Maharashtra, Uttar Pradesh and West Bengal) are high poverty pockets. As Table 5 shows, as late as 2004-05, around one-third to one-half of the rural population of these six states was still plagued by poverty, even by India's own modest criteria. Six out of 17 states is not a frightening number but the logic of ordinary numbers just does not apply here. In 2005, no fewer than 467 million people (nearly 60 per cent of India's rural population) lived in the rural areas of these six states; no fewer than 70 per cent of India's rural poor belonged to these states; in each of these six states, a preponderant majority of the poor belong to the rural areas so that the problem of poverty with them is largely a problem of rural poverty. Nearly two-third of India's sub-marginal and about 60 per cent of marginal farms are located in these states. A preponderant majority of farmers do not have membership of grass-roots institutional (cooperative) credit societies, and so on. More variables can be added to highlight the distress of these states. The moot point is that the agricultural base of nearly the whole lot of these six states is pretty weak, and the expansion of their rural non-farm sector is largely a distress-driven phenomenon. A high incidence of rural poverty is a natural offshoot of these factors.

At the other end of the poverty spectrum stand another group of states (Haryana, Kerala, Himachal Pradesh, Andhra Pradesh, Punjab and Jammu and Kashmir) where rural poverty is well under control, and looks like a marginal phenomenon. Although pleasing in its own right, this does not counter the menacing level of poverty in the first group of six states, firstly, because only about 16 per cent of India's rural people and just around 3 per cent of India's rural poor live in these 'well-off' states. In plain terms, the gratifying part of the rural poverty decline touches no more than 3 per cent of India's poor while the unfortunate part encompasses no fewer than 70 per cent of the poor. This unevenness needs to be rectified through numerous policy initiatives, most essentially, through strengthening their employment base.

Second, our exercise of clubbing states on the basis of the level of rural poverty does not mean that every part of an intensely poor state, say Orissa or Bihar, is poor or every part of a non-poor state, say Punjab or Haryana, is non-poor. For all practical purposes, each state has an uneven distribution of poverty among its districts or lower levels of administrative divisions. The issue of employment promotion, through government-sponsored programmes and institutional support, should, therefore, be focused more and more intensively on the districts that really need them. A positive development in recent times has been that policy makers have been tending to concentrate their attention on 'backward parts within states' (Govt. of India, 2005). Table 6 clearly shows that the high poverty states have a much larger number of backward districts, defined on the basis of three parameters: (i) proportion of scheduled caste/scheduled tribe (SC/ST) population; (ii) inverse of agricultural productivity per worker; and (iii) inverse of agricultural wage rate (*ibid*, 2005). To the extent that a significant majority of the rural poor, including those among the six poor-majority states, belong to the SC/ST population, and are most severely affected by the second and third parameters, the degree of backwardness of a district would, *ipso facto*, would reflect the severity of its rural poverty.

Table 6 : Progress of National Rural Employment Gurantee Programme (NREGP)

(As on August 21, 2006)

State	% of rural poor [2004-05]	total no. of districts [2001]	no. of backward districts in planning com. study [2005]	no. of districts selected for nregp [2006]	% of households in nregp districts [2006]	% of state's population in nregp districts [2006]	% of rural households interested in nregp employment [2006]	% of interested households already issued job cards(aug.06)
Orissa	46.9	30 (30)	15	19	57.96	55.73	78.4	76.2
Bihar	42.6	55(61)	53	43	70.17	70.59	33.6	53.2
Assam	22.1	23(27)	8	7	19.44	19.81	17.4	64.9
Madhya Pradesh	36.8	61(66)	29	29	47.49	46.62	100	95
West Bengal	28.4	18(19)	5	10	62.68	63.85	56.3	65.3
Uttar Pradesh	33.3	83(83)	30	25	34.18	33.46	31.3	91.9
Sub-Total		270(286)	140	133	52.74	51.49	51.3	76.8
Maharashtra	29.6	35(35)	-	12	33.23	33.12	30.7	96
Tamil Nadu	23.0	30(30)	-	6	24.96	26.02	29.9	98.9
Karnataka	20.7	27(27)	-	5	19.08	20.57	38.6	55.1
Rajasthan	18.3	32(32)	9	6	18.34	16.89	98.8	98.6
Gujarat	18.9	25(26)	-	6	23.36	25.16	42.1	90.7
Andhra Pradesh	10.5	23(23)	8	13	53.27	55.31	69	100
Sub-Total		172(173)	17	48	31.79	31.51	53.1	95.4
Kerala	13.2	14(14)	-	2	12.3	12.78	37.5	-
Haryana	13.2	19(20)	-	2	10.12	10.15	26.8	93.8
Himachal Pradesh	10.5	12(12)	-	2	13.96	15.27	47.2	96.5
Punjab	9.0	17(20)	-	1	7.93	7.38	16.6	92.8
Jammu-Kashmir	4.3	14(22)	-	3	20.65	21.21	58.4	85.2
Sub-Total		76(88)	-	10	11.81	12.07	33.5	90.1

Note: 1. *In Col.3, the figures in brackets are the number of districts (provisional) in 2008.*
2. *Number of districts in Col.5 total up to 191 only; remaining 9 districts come from the seven non-Assam North-Eastern States*

Source: 1. *Table 1 for Col.2;*
2. *The 2001 Population Census Data for Cols. 3,6 and 7.*
3. *Govt. of India, Report of the Inter-Ministry Task Group on Redressing Growing Regional Imbalances, Planning Commission, January 2005; 32-35, for Col. 4.*
4. *Govt. of India, The National Rural Employment Guarantee Act 2005 (NREGA), Annexure-I, Ministry of Rural Development; 2006: 27-30*

It is in this sense that the recently launched flagship National Rural Employment Guarantee Programme (NREGP) is to be interpreted as an attempt to help the rural poor at the level at which poverty is most virulent. The NREGP began to focus, consciously, on districts within a state rather than the state as a whole. Initially launched on February 2, 2006, in 200 most-backward or the poor-majority districts, the programme was extended last year to another 130 districts, and from April 1, 2008 onwards, has been extended to the whole of rural India.

The NREGP promises to provide a minimum of 100 days of guaranteed public wage employment in a financial year to every rural household whose adult members volunteer to do unskilled manual work, at the minimum wage rate fixed by the state. Unemployment allowance would be paid to the extent that the employment actually offered falls short of the promised employment. Creation of durable assets and strengthening the livelihood resource base of the rural poor are the two core elements of the NREGP. The Programme envisages a collaborative partnership between the Centre and the state governments, the panchayats[2] and the local communities. While the Programme draws its basic sustenance from the history of wage employment in India, "it is different in that it is a guarantee, not reversible with any changes of government. It also provides scope for implementation by local groups and agencies; devolves considerable powers to panchayats; mandates a high quality of conditions of work through provisions for medical aid, drinking water, shade and crèche, on the worksite; and encourages the use of the Right to Information and Social Audit to ensure transparent and effective implementation". (ILO-ISST, 2006).

The NREGP, in its ideal form, is expected to (i) increase employment, earnings and purchasing power of the rural poor; (ii) ensure greater participation of women in the workforce; (iii) strengthen rural infrastructure through creation of durable community assets; (iv) improve productivity in rural economic activities; (v) regenerate natural resources that provide the livelihood resource base of local rural economy, and (vi) reduce distress migration. In a sense, it opens a new chapter in pro-poor governance of rural India and, if implemented in letter and content, can steadily become an instrument of social and economic change in rural India. Above all, it does have the potential for restoring the poor people's faith in public sector delivery mechanisms. In overall terms, going by its design, content and operational make, we have reasons for investing our faith in NREGP.

- It seems that significant political dividends that can accrue from its rigorous and flawless implementation, most crucially because it is addressed upfront to the neediest people, are grasped well by the ruling coalition. The NREGP's non-bureaucratic design, economic content, operational flexibility, decentralized functioning, accountability procedures, and in-built social auditing and implementing mechanism, most obvious being the complete ban on the use of contractors are markedly different from those of the earlier initiatives and adequately reflect the awareness of the present government not only about what stops rural employment-promotion programmes from working but also about what makes them work. In fact, nearly the whole of the developing world is keenly watching the working of India's NREGP so that it is summarily a 'now or never' game. Thanks to the huge in-built political dividends of the NREGP, competition among political parties and ruling states is more than apparent (Dreze, 2006). In rural India, the economics of NREGP has already become politics of NREGP.

[2] *Indian local village level government*

- A fortunate combination of the involvement of gram[3] panchayats in the selection and execution of infrastructure development projects that are relevant to the needs of the village community or for breaking the structural bottlenecks for agricultural and rural development, and expectedly lesser incidence of 'leakages', 100 days of employment to every 'needy household' should make a noticeable improvement to employment and earning status of many a poor household. While some poor households may succeed in flipping over from below to above poverty line, other NREGP-beneficiaries may well end up as 'less poor' than before.

- In the ultimate analysis, the net economic gains that would accrue to the village community in general, and the rural poor in particular, on an enduring basis, would depend on the choice, execution and maintenance of infrastructure development projects. Happily, the field information on NREGP asset formation and infrastructural build-up available so far reflects correct choices far more than incorrect ones. Water conservation (mini irrigation development projects, water harvesting, watershed and wasteland development among others), rural roads/connectivity, drought proofing and plantation, and flood control, nearly sum up the whole range of the NREGP works. All these works are directly related to agricultural rejuvenation and, on their successful completion, may give a boost to agricultural production which, in turn, may start throwing up enhanced employment opportunities in agriculture and areas associated with it. A sustained process of agricultural growth may diversify the local economic and employment base. If all these ideal things happen, in the next few years, the employment and earnings of the rural poor may increase on a sustained basis, rural poverty may well witness a noticeable diminution, and the 'employment guarantee programme' may steadily liquidate itself.

- A relatively higher level of women's participation in the Programme would mean that they would have some cash in hand that would entail some economic independence (Dreze, ibid). Besides, men would be spared to scout for non-farm employment, including short-term migration to nearby towns and urban centres, so that the total addition to household employment and earnings would be greater than what would have been the case under NREGP alone. A spin-off could be that older children may start going to school.

- An extremely valuable fall-out of the NREGP is that distress migration from the poorer and depressed regions may decline, in varying form and degree. At the very least, if additional employment opportunities are available in and around the village - under the auspices of the NREGP to begin with and in the expanding local economy later on - the concept of off-season unemployment undergoes a change, and with that, the exigency for seasonal migration gets diluted. A switch-over from an uncertain mix of off-season wage-paid jobs in 'distant lands', to local 'wage-paid' NREGP employment followed by self-employing local jobs, inside or outside agriculture, is more effective in fighting the menace of poverty, besides harmonizing family life, child care and social relations.

In total terms, NREGP reflects a commitment by the state that is unprecedented in the post-independence history of India - both as a legally enforceable right and in terms of financial resources. The programme should not be looked upon as a dole-bearing welfare measure; it is a concrete development initiative, chipping in with crucial public investments for creation of durable assets, without

[3] *village*

which the growth process will not get the requisite momentum in the most backward regions of rural India.

What is the experience so far? It is, at best, a mixed one. The available field-based evaluation studies and official assessment reports do point towards tardiness in the issue of job cards, days and timings of employment offers, administering of muster rolls, delayed wage payments, non-payment of minimum wages, and so on, are the commonly reported lapses whose intensity varies sharply from region to region (Dreze, 2006, 2008; IHD, 2006; ILO-ISST, 2006; Shankar, 2006; Ambasta, 2008). Again, a recent official report summarizes the operational deficiencies and the consequent leakages of the programme as under:

> the main deficiency was the lack of adequate administrative and technical manpower at the block and GP levels. The lack of manpower adversely affected the preparation of plans, scrutiny, approval, monitoring and measurement of works, and maintenance of the stipulated records at the block and GP level. Besides affecting the implementation of the scheme and the provision of employment, this also impacted adversely on transparency, and made it difficult to verify the provision of the legal guarantee of 100 days of employment on demand. Planning was inadequate and delayed, which resulted in poor progress of works. Systems for financial management and tracking were deficient, with numerous instances of diversion/misutilization, and delay in transfer of state share. Monthly squaring of accounts at different levels to maintain financial accountability and transparency was also not being done. Maintenance of records at the block and GP levels was extremely poor, and the status of monitoring, evaluation and social audit was also not up to the mark (Comptroller and Auditor General, 2007).

Such initial infirmities are understandable, most ostensibly because the NREGP is only two years old. The implementation lacunae, thrown bare by field-based feedbacks, citizen voices and assessment/ evaluation reports, pouring in from different regions, and encompassing diverse perspectives and orientations, are remediable, and should dwindle as India goes deeper into the programme. Happily, the field-based critical assessments are becoming learning pads for the central and state governments to improve their understanding and performance, the occasional over-assertions such as 'tremendous successes' notwithstanding; the civil society organizations are determinedly intensifying their social audit campaigns; and the grass-roots democratic institutions are assimilating and more expressly addressing themselves to local development issues, with a far better understanding of the stakes involved and 'people's involvement for their own development'. Thanks to the dogged perseverance of the civil society organizations, there is a clear trend for regions to understand, and build upon, one another's strong points, as also to avoid their own implementation lacunae, when the programme proceeds to the next stage. The most redeeming fact is that large-scale misuse of funds, a dreadful reality with the earlier state-supported employment generation programmes, is nearly conspicuous by its absence. In brief, even during the short spell of its existence, the NREGP has shown itself to be ahead of, and substantially different from, most of its employment generation predecessors. It is for sure that some more unhappy insights and operational weaknesses may show themselves in the days ahead but the 'politics of NREGP' looks strong enough to absorb them well. The issue of rural poverty can no more stay in 'political wilderness'. Finally, the unrelenting support of intellectuals and other public men, at the national, state and village levels, conjunctly with the incessant watch, being exercised by numerous civil society groups and activists, over the on-going implementation procedures, adds its own weight to our optimism.

4. Looking Ahead, with Optimism

Our analysis clearly suggests that there is tremendous scope, at the policy and implementation level, to improve the situation for rural employment and poverty in India. The major policy concerns, such as that employment must now become a central issue in planning; that rural non-farm employment must be promoted as aggressively as possible, yet employment in agriculture and its associated sectors would have to stay back as the mainstay of the rural working people, for many years to come; that productivity improvement, especially in the farm sector, must be looked at as a far more decisive instrument for poverty reduction among the working poor, especially among the bottom layers (World Bank, 2007); that multiple strategies would be needed to effect a steady switch-over from agriculture to non-agricultural jobs, and so on, are well known, and duly accepted by policy makers (Govt. of India, 2006b). This concluding section sketches out a few issues that, in our view, should help our policy makers chisel out an effective poverty-reducing employment growth strategy for the Eleventh Plan.

4.1 Agricultural Employment

It bears reiteration that employment in agriculture and its allied sectors is crucial for earnings, well-being and poverty reduction among a vast majority of rural households. Agricultural employment has both quantitative and qualitative ramifications for rural poverty alleviation. Quantitatively, both labour-displacing and labour-absorbing tendencies are likely to be in operation. While yield growth, changes in relative prices and shift to higher value crops may create additional work opportunities, the steadily declining size of operational holdings and increasing mechanization may reduce the quantum and growth of agricultural employment. Clearly, a balance is called for.

Qualitatively, if the growth of agricultural gross domestic product (GDP) indeed goes up to 4 per cent per year, as envisaged, it will improve employment conditions in agriculture by raising real wages and reducing under-employment (Govt. of India, 2006b). For a decisive impact on rural poverty, improving per hectare or per person productivity, in crop and non-crop sectors, would have to be the most essential ingredient of the employment promotion strategy. Productivity improvement would have to be achieved through efficient management of natural resources and by adopting precision farming practices. Perhaps, a few examples are in order.

- On a broad plane, improvement in agricultural productivity can come through expanding **diversification within agriculture** or through introduction of **new production technologies**, or a varying combination of both. Diversification within agriculture can come about through cropping pattern changes, say, a shift from less labour-intensive and low value crops to more labour-intensive and higher value crops, or through shifts from less remunerative crop enterprises to more lucrative non-crop activities. Indian agriculture has been witnessing all these developments, in varying form and combination, in the recent past, and, as our analysis shows, their impact on rural poverty has also been felt, again in varying ways across regions. The challenge for the Eleventh Plan is how to harmonize the numerous policy initiatives already in operation, to ensure that agricultural employment does not remain a 'self-employing dumping ground' for many of the rural poor. Employment should essentially be productive employment if it has to ensure a decisive dent into poverty.

- As regards **productivity in the crop sector**, yield rate for wheat can improve substantially, especially in the eastern and north-eastern regions, through a balanced use of NPK fertilizers, precision farming, improved varieties (including higher seed replacement). Hybrid technology promises higher and stable yield rates for rice, especially in the poverty-stricken areas such as eastern Uttar Pradesh, Bihar, Orissa, West Bengal and Assam. Single cross hybrids have the potential to improve yield levels for maize, most notably in eastern Uttar Pradesh, Bihar, Jharkhand and West Bengal. Sugarcane for bio-fuel can considerably improve the earnings of farm operators. Productivity levels for pulses can be improved through improved short duration and disease resistant varieties, in varying combinations with the use of sulphur in deficient regions, integrated pest management (IPM) and life-saving irrigation. Systematically planned use of genetically-modified soyabean, sowing in permanently-raised beds with plastic mulching, one supplemental irrigation, effective control of weeds in respect of groundnut, emphasizing the potential of their cultivation in the eastern and north-eastern states and support of one irrigation (sprinkler), higher dose of fertilizers and IPM approach for rapeseed and mustard, among others, in Rajasthan, Haryana, Uttar Pradesh, Madhya Pradesh and West Bengal, may improve yield levels for oilseeds (Paroda, 2006). Again, the increasing emphasis on horticulture, vegetables and fruits is bound to push the cultivating households to higher levels on the value chain.

- Likewise, for **productivity in the non-crop sectors**, there are tremendous unexplored possibilities of promoting inland aquaculture through production and supply of quality seed, rural-based fish processing, improved packing, cold-storage and transportation, especially for promoting exports (Paroda, *ibid*). Likewise, the livestock sector promises a lot for rural poverty reduction, if only crop-livestock integration grows apace, especially in arid regions, or institutional innovations, such as linking farmers to markets and processing firms (*a la* NestleIndia, e-Chaupals), or forging farmers' cooperatives enterprises (Gujarat model), or healthy contract farming (Venkateshwara Hatcheries), are in place.

- The states must strive to strengthen their agricultural base, as also to undertake appropriate initiatives for agricultural diversification, mainly through reversing the recent downtrends in the rate of growth of investment. Although public-private sector partnership is bound to increase, and encompass a wider array of investment activities, yet the crucial role that **public investment** has to play in strengthening rural and agricultural infrastructure must be realized as an inescapable public choice, especially because, around 70 per cent of the rural workforce, in a majority of states, is still absorbed by agriculture, and it is this very sector that has to absorb the employment setbacks emerging in other sectors when globalization goes deeper. The issue of public investment is inescapably linked with the development of technology. Happily, in recent months, the policy makers themselves have been talking aloud, and concretizing their investment plans, to restore public investment for agriculture to its position of eminence (Govt. of India, 2006b).

- The policy makers must spare their attention and public resources for **rain fed agriculture** which is typically characterized by low, and highly fluctuating, productivity levels. The volatile nature of agricultural production has largely been the cause of employment uncertainties, high incidence of poverty, and a high rate of seasonal outflow of labour. A vast majority of districts included under the first round of NREGP typically portray such uncertain production and employment regimes. The NREGP may alleviate some of the distress, but agriculture in these depressed areas must look up, if poverty is to be conquered on an enduring basis. A concrete advance towards **dryland agriculture technology** is the real challenge for the Eleventh Plan.

- Policy makers must also realize the crucial significance of **agricultural biotechnology** towards improvement of productivity and earnings of farm population, and the future of India's food security for controlling rural poverty. Time has come for India to launch a gene revolution, perhaps through well-guarded and well-monitored public private partnership, especially from the view point of marginal/small farmers, on the one hand, and the health concerns of the consumers, on the other. A number of transgenic crops are already in the pipeline which can trigger a breakthrough in crop and livestock production, productivity, employment, and earnings, as also in agro-industrialization, all bound to make a sizeable impact on rural poverty. Another Green Revolution now awaits suitable policy initiatives and public investment. The world is moving fast in this regard; let India not stay behind.

- An issue of great public concern that bears serious ramifications for agricultural employment and rural poverty is the **drift of agricultural land for non-agricultural purposes**. It is true that since the early 1990s net sown area has remained nearly frozen at 140 million hectares at the all-India level while land for non-agricultural use has been witnessing a varying degree of increase in individual states. The worst fear now comes from proposals to set up **special economic zones** (SEZs) throughout the country for which fairly big portions of land would be weaned away from agriculture. Although the Central Government assures that SEZs would be built only on wasteland, barren land or single crop land, yet, the fears are not totally unfounded, essentially because barren and uncultivable land could never be so neatly separated, in a single block, from net sown area, when thousands of villages are involved in accommodating a single SEZ. Some ceiling on land acquisition is in order. From the point of view of rural poverty, the issue of compensation to the oustees is no less important.

4.2 Non-Farm Employment

It is now widely agreed that rural India, typically characterized by demographic pressures, an ever declining land:man ratio, small/fragmented holdings, highly iniquitous land distribution among others cannot rid itself of poverty, for many years to come, through development of agriculture alone. The significance of non-farm employment as a powerful instrument of rural poverty alleviation does command a respectable position in policy thinking. There is mounting evidence to show that a fairly big proportion of the landless and marginal/small farming households, who, amongst themselves constitute a preponderant majority of India's rural poor, do pursue various non-farm activities and this helps cope with the severity of poverty they would have otherwise faced with earnings from agriculture alone.

The size and composition of rural non-farm employment has been expanding steadily over time. At present, rural India's non-farm economy is well spread over different sectors and activities. For example, rural India now enjoys a sizeable presence in manufacturing activities, albeit heavily dominated by low-skilled tiny and small enterprises and a steadily rising share in construction, trade, transport and storage, and a host of community and social services. Rural economy no more begins and ends with agriculture alone. In total terms, the rural-urban continuum is now a thriving economic reality; for some aspects, rural economy has already become a part of the global economic system. That being so, all ideas and proposals for rural non-farm development must be couched against the total national economy as also the emerging international realities. A number of suggestions, partly emerging from rural India's own recent development experience, and partly tempered by outside realities, are currently under discussion, especially for framing the Eleventh Plan strategy for rural non-farm employment.

- A wide range of **manufacturing activities** (e.g. textile products, food processing and beverages, wood and leather products, metal products, non-metallic mineral products, basic metal industries), **construction, hotel-restaurant and tourism, transport-storage-communications**, and a wide range of activities under **community and social services** (e.g. education and scientific personnel, medical and health services) stand out as the most likely thrust areas, for the forthcoming Eleventh Plan. Perhaps, rural India can chip off a modest share in information technology-enabled services (ITES) as also in financial services (Govt. of India, 2006b).

- **Rural manufacturing** lends itself for special policy attention during the Eleventh plan, both for its employment potential and contribution to rural poverty alleviation. That rural manufacturing accounts for nearly one-third of India's net domestic product in manufacturing, that tiny and small enterprises constitute an overwhelming percentage of rural manufacturing units, that agro-based enterprises constitute a bulk of rural manufacturing units, and that food-processing commands pre-eminence, both in output and employment, among the rural agro-based manufacturing, indicate the nature and thrust of rural industrialization that should underlie the Eleventh Plan strategy for rural non-farm employment expansion. Agro-industry is a logical extension of agricultural development - it fosters forward and backward linkages with agriculture, enhances value adding to agricultural produce, and promotes rural people's shift to non-farm activities. Directly, it promotes cropping pattern improvements, on-farm product diversification, and employment, income and well-being of the rural people. Indirectly, it reduces demographic pressure on land, improves farm-non-farm linkages, makes people leave land but not the countryside, and helps urban decongestion. Most crucially, what ensures greater employability of the rural job-seekers in agro-industrial enterprises is their low skill-intensive operations; the advantage of low labour cost is readily realizable in such industries. In brief, under the totality of circumstances, the case for rural agro-industry merits a comprehensive policy attention.

It is a pity that agro-industry in India is still highly under-developed. A small proportion of paddy, wheat and pulses feed semi-processing agro-industries; a very insignificant proportion of fruit and vegetables go in for processing; not more than 20-25 per cent of milk and fish enter primary processing; not more than 10 per cent of value addition through processing is realized in India. A number of initiatives have been undertaken recently to lend a boost to agro-industrialization, more notably the launching of agro-processing zones (and now special economic zones), amendment of Agricultural Produce Marketing Acts, financial sector reforms and numerous other reforms for small and medium enterprise development, forging of institutional innovations such as farm-to-firm contract-farming linkages, and so on. Admittedly, much more needs to be done.

- With the end of the textile import quota regime in the industrialized world, India faces a huge opportunity for expanding **textile and garment exports** which can generate substantial additional employment some of which would accrue to rural households. Bold production- and trade-related policy initiatives are, however, needed to strengthen our competitiveness in these areas, especially vis-à-vis China. **Tourism** (both domestic and international) provides large possibilities for additional employment in **hotel, catering, entertainment, water support,** and **travel industries**. Understandably, it can also expand the market for **handloom and handicraft products** with consequential expansion of rural non-farm employment. Likewise, substantial additional employment can come off in, and because of, **construction sector** development. Building of rural roads, watersheds, educational and health buildings, market yards, wasteland reclamations, and others, can lend tremendous boost to agricultural production, on the one hand and resultant non-farm employment, on the other.

- Currently, a number of **self-employment schemes**, relying on the formation of **self-help groups**, seek to enable rural communities to take up diverse economic activities. These schemes are afflicted by overlaps and inefficiencies, involving as they do numerous departments, diverse procedures and guidelines. The Eleventh Plan would do well to harmonize such schemes and puts them under an integrated self-employment programme that cuts across ministerial boundaries, and has a special component for training and capacity building of educated unemployed youth, especially in rural areas (Govt. of India, 2006a).

4.3 Pre-requisites for Success

From among the numerous pre-requisites for making a success of our ideas, we are persuaded to lay the most heightened emphasis on two. One is the improvement of physical infrastructure, and the other one is improvement of human capital base.

Lack of adequate infrastructure has been a proverbial weakness that has thwarted a faster growth of India's rural economy. The list of bottlenecks is rather long. Power and transport are atop for industry, no less for agriculture. For rural industry, banking and credit, trading and marketing services, research and extension assistance, business information centres, product designing centres, repair workshops, have all along continued to be weak spots. To all this, one has now to add communication and information technology (IT) network that would govern the future working of the industrial systems, whether in rural or urban areas. We have neither time nor space to elaborate on what the policy makers are contemplating to do for bridging the gaps. The best we can do is to reiterate that ideas and proposals for rural employment expansion, inside as well as outside agriculture, would remain only a paper exercise, primarily because growth rates would not pick up, if the crucial infrastructure bottlenecks are not remedied. Power and transport are indeed the most restrictive bottlenecks.

The significance of **human capital** hardly needs to be emphasized. The emerging technology-institutional-human interfaces are likely to defy the frontiers of ordinary human capabilities, especially those revealed by the glaring educational deficiencies of the present generation of India's rural workforce and those likely to be reached during the next decade or so, thanks to newer and higher levels of intelligence and commercial acumen required to survive in the intensely competitive trade regime. The quality of workforce has to improve no less in agriculture than in other sectors; the new agriculture too cannot 'survive' with its army of illiterate and uneducated workers. And, for seeking entry into non-farm sectors, some critical minimum educational attainment is a must.

There is a lot that India has to do, through education, skill-formation and training, to make its emerging rural labour-force increase its employability, including sustainable and productive self-employability. As yet, there is no evidence of policy thinking for effecting mass improvement. On the contrary, the increasing pace of privatization of education (and health services) is threatening to widen the rural-urban, male-female and inter-regional human capital gaps. To the extent that access to 'decent work opportunities' varies directly with the level of educational accomplishments, the poor-non-poor divide in the Indian labour market in general, and rural labour market in particular, is likely to become a serious social matter, besides becoming a fetter on growth itself. The recent developments may catapult a handful of Indian workers to the world stage, but the multitude of those languishing behind in low education- and skill-intensive, low-productivity rural jobs would create new have-have-not dichotomies. Let us not kill the goose for the egg!

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For more information please contact:

Phone: +91 11 2460 2101
Fax: +91 11 2460 2111
Email: sro-delhi@ilodel.org.in

International Labour Office
Subregional Office for South Asia
India Habitat Centre, Core-4B, 3rd Flr
Lodhi Road, New Delhi-110 003, India
www.ilo.org/india