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## Recent Trends in Wages and Employment of Agricultural Labour\*

G. Parthasarathy†

### I

#### POVERTY SYNDROME AMONG AGRICULTURAL LABOURERS

Agricultural labour households constitute the historically deprived social groups, displaced handicraftsmen, and dispossessed peasantry. They are the poorest of the poor in rural India. Their growth reflects the colonial legacy of under-development and the inadequacies of planning interventions in the post-independent India. Overcrowding and growth of agricultural labour continued unabated, given poor labour absorption in the non-agricultural sector and also inadequacies of reforms in the agrarian structure. The poverty syndrome among agricultural labourers needs to be read against such a background of prolonged rural under-development.

Assetlessness, unemployment, low wages, under-nutrition, illiteracy and social backwardness constitute the poverty syndrome among agricultural labourers. These reinforce each other so as to constitute a vicious circle of poverty. There is little inter-generational upward mobility among agricultural labour households.

The asset-poor gain only under conditions of favourable effects of investments and technology on employment and wages. Further, the rapid erosion of common property resources and of access to fuel and fodder imposes severe disabilities on them. The asset-poor also have little access to institutional credit, except under target-oriented programmes, and pay a high price for consumption credit.

For the assetless, the significance of employment for poverty alleviation is noted to be far greater than for others (Tendulkar *et al.*, 1988, p. 338). These results continue to be valid. Unemployment, however measured, is far greater among the agricultural labour households than among the self-employed within agriculture.

The higher incidence of poverty among agricultural labour households is not due to larger average size of the households or due to lower worker participation rates. The average size of an agricultural labour household is smaller than that of either a household self-employed in agriculture or other rural labour households, partly because of the greater predominance of nuclear families and also because of higher incidence of infant mortality. The work participation rates among agricultural labour households are the highest. Female participation in the labour force is high. Adults work up to ripe old age. Work participation rates among children of school-going age are not insignificant. Yet, except in cases in which adults within the households exceed around 60 per cent or more, the agricultural labour

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† Director, Institute of Development and Planning Studies, Muvvalvanipalem, Visakhapatnam-530 017.

households are trapped into poverty. While a small family could help the household cross the poverty line, the basic problems are unemployment and low wages.

Poverty together with social backwardness traps males and females among agricultural labour households in illiteracy. Within rural areas they record the lowest levels of literacy and of education among all social groups. The low literacy levels among agricultural labourers have several implications. Fertility rates among illiterate and poor women are generally higher than among literate women (Government of India, 1985, p. 141). High fertility rates among poor and illiterate women are matched by high infant mortality rates among agricultural labour households. Infant mortality rates among households with illiterate women in the rural areas are noted to be 1.4 times the corresponding rates among households with literate women (Government of India, 1985, p. 158). Among illiterate households enrolment of children in the schools is low and illiteracy gets perpetuated over generation. The poor health status of the agricultural labour households is not unrelated to low levels of literacy.

Poverty among agricultural labour households gets reflected in the lowest consumption of cereals per capita and also very low calorie intake as compared to other groups within rural areas. Under-nutrition among agricultural labourers is matched by poor conditions of shelter. In addition, a significant proportion among them, viz., scheduled castes continue to face discrimination in access to housing, and to the sources of drinking water.

Literacy, health and nutrition are the basic needs, and they contribute to improved productivity of labour. In so far as these are not met among agricultural labour households, the conditions for improvement of labour productivity are not created. Empirical results of studies by International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) (Walker and Ryan, 1990, p. 129) highlight the importance of health status to labour productivity in agriculture.

Unemployment and low labour productivity create a labour market situation in which stagnant real wages form a longer historical perspective (Walker and Ryan, 1990, p. 129), occasionally marked by rise in real wages during periods of a slow to moderate rising food price index. Stability in food prices is critical for the upward rise in real wages as casualisation of labour and shifts in wage payments from kind to cash have been leading to growing market dependence.

In brief, the context of assetlessness, unemployment, low and stagnant wages, and poor access to basic needs constitute a vicious circle. The breakthrough requires an effective package and programmes with a focus on employment and wages, and within the context of a broadbased growth strategy.

It is against this context of the need for improved employment and wages that we discuss the following issues in this paper with focus on the phase of new economic policy. Section II of the paper discusses the trends in real wages with particular focus on the period 1990-91 to 1994-95 and provides a functional analysis of variables influencing real wages. Section III of the paper examines the rates of employment, unemployment of agricultural labour and variations across the states and provides analysis of variables influencing the level of employment and also unemployment. Section IV discusses the options in public interventions for improved conditions in agricultural labour.

## II

## TRENDS IN REAL WAGES

*Is There a Rising Trend in Real Wages of Agricultural Labour?*

Several scholars [Jose, 1988; Parthasarathy and Adishesu, 1982; Parthasarathy, 1987; Acharya, 1989; Krishnan, 1991; National Commission on Labour Study Group I (Government of India, 1991); and Sen, 1994] studied the trends in real wages. Parthasarathy and Adishesu's (1982) study was confined to Andhra Pradesh and covered the period 1958-59 to 1978-79. His conclusion was there was stagnation in real wages for the two decades. Parthasarathy (1987) studied real wages for male agricultural labour based on data on money wages for agricultural labour for 21 centres in the states of Bihar, Haryana, Madhya Pradesh, Karnataka, Kerala, Punjab, Tamil Nadu, Uttar Pradesh and Andhra Pradesh. The results showed a mixed trend.

Jose covered the period 1970-71 to 1984-85. He used statewise data for 1970-71 and concluded that from 1974-75 onwards wages seemed to have risen in all states. But only two states, namely, Andhra Pradesh and Assam displayed consistent rise in wages during the period. In all other states there was considerable fluctuation in real wages during the years 1974-75 to 1984-85.

Krishnan, Sen and National Commission on Rural Labour base their findings on the results of select years. Sen (1994) finds a rise in real wages based on data from Agricultural Labour Enquiries for 1964-65 and 1974-75 and National Sample Survey (NSS) data for 1977-78 and 1987-88. He used 1977-78 prices for obtaining real wages. Krishnan (1991) computes real wages at 1960 prices for the years 1960, 1970, 1980, 1984 and 1987. The National Commission on Rural Labour Study Group (Government of India, 1991) chaired by Pradhan H. Prasad compares real wages during the years 1956-57 and 1987-88 at 1956-57 prices and finds a rise. Though these studies could be said to provide some insights into the movements of real wages, these cannot be said to reflect a trend.

Acharya (1989) conducted the most disaggregated analysis of trends in real wages for 58 agro-climatic homogeneous regions in the country as defined by the NSS. He covered the period 1970-71 to 1984-85. He fitted trends for real wages and tested the significance for males and females separately. Out of the 58 observations, significant rise in the trend was noticed in 34 regions for male workers at less than 10 per cent significance level. These regions fall in the states of Andhra Pradesh, Assam, Madhya Pradesh and Maharashtra. In Punjab and Rajasthan, no region showed a significant rise in the trend. In Uttar Pradesh less than half of the regions showed a rising trend. Only two out of the four regions each in Tamil Nadu and West Bengal, only one out of the three regions in Karnataka, and only three out of the five regions in Gujarat showed a significant rise in the trend in real wages.

In the case of females, 45 out of the 58 regions showed a significant rise in the trend. It must be noted that the significance was measured at 10 per cent level or less. If the significance is measured at 5 per cent or 1 per cent level which is the usual practice, the number of regions showing significant trend will be found to be less. Further, when the rise in the trend is examined for the period 1975-76 to 1984-85 as different from 1970-71 to 1984-85 the rate of growth was found to be much less and the number of regions showing a statistically

significant rise in the trend was found to be less. It must further be noted that regions which showed a rising trend were depressed wage pockets, as in Madhya Pradesh and Orissa and the rise did not contribute to a significant improvement.

*Variations in Money Wage Rates across Regions: An Explanation*

The NSS data for 1982-83 show large variations in money wage rates of male agricultural labour across states, from Rs. 5.15 in Maharashtra to Rs. 12.42 in Punjab. The variations in male wage rates (MWR) are sought to be explained by (a) labour productivity (PVTY), (b) diversification of labour into other occupations (OTHH), (c) landlessness (LL), and (d) percentage of agricultural labour households in total rural households (AGLTH).

The data on labour productivity per capita for 1982-83 at 1970-73 prices were obtained from Dev (1990). We assume a positive relationship between money wage and labour productivity. Diversification to other occupations is measured by percentage of non-agricultural labour in total rural labour (NAGPR). The data on diversification are obtained from NSS for 1983. The percentage of agricultural labour households in total rural households measures supply of wage labour for agriculture. We assume a negative relationship between wage rate and supply of agricultural labour as percentage of total rural households. Landlessness here includes households with zero ownership holdings and others with less than 0.4 hectare. The data are drawn from Sawant (1992). We assume a negative relation between wage rate and landlessness, since the landed labour could be said to have a better bargaining capacity than the landless. An important variable which has relevance to the consideration of wage rate is trade union movement. Unfortunately, we could not include this variable as we did not have ready access to quantified data. The results of multiple linear regression function are as follows:

$$\text{MWR} = 5.3162 - 0.09 \text{ AGLTH} + 0.062 \text{ OTHH} + 0.0012 \text{ PVTY} + 0.052 \text{ LL}$$

$$\begin{matrix} & (-2.346^*) & (2.453^*) & (3.615^*) & (1.784) \end{matrix}$$

$$R^2 = 0.8495$$

Figures in parentheses are t-values.

The coefficient values have expected signs except in the case of landlessness which has a positive sign. It is because of the fact that high productivity areas are found to be positively correlated with landlessness. The equation explains 85 per cent of the variance and demand factors such as productivity and diversification appear to be much more important than supply factors in the determination of wage rate. But a reduction in supply influences the wage rate. A one per cent increase in AGLTH will bring about a decline of 0.09 per cent in money wage rate of male workers (MWR). Similarly, a one per cent increase in OTHH will result in an increase of 0.06 per cent in money wage rate. An increase in PVTY by one per cent will increase wage rate by 0.001 per cent.

We estimated a log-linear equation also. In this equation landlessness variable was dropped as it did not have a positive sign. The results of the equation are as follows:

$$\log \text{MWR} = 0.0041E - 02 - 0.19 \log \text{AGLTH} + 0.22 \log \text{OTHH} + 0.27 \log \text{PVTY}$$

$$\begin{matrix} & (-1.342) & (2.307^{**}) & (3.051^*) \end{matrix}$$

$$R^2 = 0.7386$$

The equation explains 74 per cent of the variance. A one per cent increase in AGLTH results in a decline in 0.19 per cent in money wage rate. A one per cent increase in OTHH will increase wage rate by 0.22 per cent. A one per cent increase in PVTY will increase wage rate by 0.27 per cent.

The log-linear equation confirms the determining factors such as diversification and productivity. Strictly speaking in the context of surplus labour, wage is at a subsistence level. A slight increase in wages from very low wage levels is a possibility as a consequence of demand factors. A rise in the wage rate beyond subsistence level cannot be expected in the absence of substantial rise in demand.

### *Post-1985 Scenario*

There is very little published work on post-1985 scenario on wages of agricultural labour. So we compiled information centrewise for nine states, namely, Andhra Pradesh, Karnataka, Bihar, Haryana, Madhya Pradesh, Punjab, Tamil Nadu, Uttar Pradesh and Kerala. The monthly data compiled for each centre for male labour are averaged for the year and the annual money wage is presented in Table 1 for the years 1985-86 to 1993-94 and Table 2 presents real wages at 1985-86 prices. Real wages are obtained using the Consumer Price Index of Agricultural Labour for the states concerned. It may be noted that reporting is not uniform for all the centres and for all the years. The number of months for which data are reported is very low for centres in Bihar and also a couple of centres in Madhya Pradesh. For some centres, wage is reported operationwise, in some other centres in Andhra Pradesh and Karnataka wage rate is not given operationwise but for field labour as a whole. We picked up only sowing, harvesting and field labour for the analysis.

In all the centres, money wages showed an increase. The growth rate of money wages along with real wages is shown in Table 3. The growth rate of money wages varied from 3.7 per cent per annum in Malayankulam (Tamil Nadu) for harvesting to 29.9 per cent for harvesting in Alangudi centre in Tamil Nadu. For most centres growth of money wage rates exceeded 10 per cent and is found to be statistically significant. Considering centres state-wise, in 1985-86 the highest wages were recorded in Kerala, followed by Punjab and the lowest wages were in Bihar. Real wage rates varied from Rs. 7 in Awajpur in Uttar Pradesh to Rs. 25 in Koduvally in Kerala. As in 1993-94 the money wage rate varied from Rs. 60 in Koduvally to a low rate of Rs. 20 in Madhya Pradesh.

Examining the movement of money wage rate, money wage rate shows a continuous rise in all the centres except for the dip noticed in one centre in 1986-87.

It is much more important to study the movement of real wages since changes in real wages influence the living conditions of agricultural labour. Unlike in the case of money wage many centres do not show significant rise in the growth rate of real wages. Several centres show negative signs. These include Arutla in Andhra Pradesh, two centres in Karnataka for field labour, two centres in Bihar for harvesting, one centre in Tamil Nadu for sowing and one centre for harvesting in Tamil Nadu. Out of 35 observations, as many as in nine centres spread over the states of Andhra Pradesh, Karnataka, Bihar, Punjab, Tamil Nadu and Kerala we observed negative rates of growth of real wages. Even among the remaining 26 observations, a significant rising trend is noted only in 16 observations.

TABLE 1 (A). AVERAGE MONEY WAGE RATES FOR MALE AGRICULTURAL LABOUR FOR FIELD LABOUR/SOWING, 1985-86 TO 1993-94

(Rs.)

State/ District (1)	Village (2)	Average wages								
		1985 -86 (3)	1986 -87 (4)	1987 -88 (5)	1988 -89 (6)	1989 -90 (7)	1990 -91 (8)	1991 -92 (9)	1992 -93 (10)	1993 -94 (11)
Andhra Pradesh										
Krishna	Ghantasala	13.22	11.50	14.00	17.88	21.29	22.36	27.10	29.54	37.50
Guntur	Tadikonda	13.20	15.00	15.00	15.00	18.57	21.36	22.50	25.00	30.00
Ranga Reddy	Arutla	12.50	15.37	17.75	18.00	18.00	20.91	20.00	20.00	20.83
Karnataka										
Bangalore	Harisandra	N.R.	10.00	N.R.	N.R.	-	-	-	12.00	30.00
Tumkur	Gadlchalli	N.R.	10.00	N.R.	12.60	13.77	14.50	11.33	20.00	23.33
Bihar										
Patna	Mahadevpur	8.00	12.50	13.00	21.38	23.89	29.00	18.50	20.55	21.00
Muzaffarpur	Narasinghpur	10.15	11.33	-	N.R.	14.00	21.25	20.00	20.00	N.R.
Ranchi	Gaitalsood	N.R.	9.00	-	10.00	12.00	14.00	N.R.	22.00	N.R.
Haryana										
Panipat	Uggarkheri	15.00	15.00	15.00	15.78	20.00	27.44	27.75	33.50	45.00
Kerala										
Kozhikode	Koduvally	25.00	27.18	31.43	35.38	36.00	39.75	44.67	56.36	60.00
Palghat	Elapully	15.00	15.00	16.08	18.00	20.00	20.00	25.00	20.45	34.29
Madhya Pradesh										
Hoshangabad	Sanga- kherakalan	8.00	9.00	11.22	13.00	13.75	17.00	17.38	20.00	20.00
Sarguja	Bastar/Basdei	-	12.00	15.00	-	15.00	17.33	20.00	25.00	25.00
Morena	Bijaipur	12.00	15.00	14.40	20.00	20.00	17.50	25.00	31.25	N.R.
Satna	Kotar	8.50	10.00	10.89	11.75	12.33	17.75	24.38	25.00	26.67
Punjab										
Ludhiana	Pakhowal	17.83	19.40	20.00	25.00	27.10	-	-	68.00	-
Rajasthan										
Baran	Dhoti	10.00	10.00	13.00	15.00	17.50	17.50	20.00	25.00	N.R.
Tamil Nadu										
Tanjavur	Pulavamatham/ Alangudi	8.00	8.00	8.00	14.40	17.00	19.95	29.25	25.00	30.00
Tirunelveli	Malayan- kulam	11.67	11.22	14.00	10.00	13.00	12.25	20.00	-	-
Uttar Pradesh										
Varanasi	Keshavpur	-	-	11.10	15.00	16.38	16.20	-	N.R.	25.00
	Awajpur	7.00	10.20	11.25	18.00	15.00	22.00	30.00	N.R.	-

Source: Government of India, *Agricultural Situation in India*, Directorate of Economics and Statistics, Department of Agriculture and Co-operation, Ministry of Agriculture, New Delhi (various issues: 1985-86 to 1993-94).

N.R. = Not reported.

TABLE 1 (B). AVERAGE MONEY WAGE RATES FOR AGRICULTURAL LABOUR FOR HARVESTING, 1985-86 TO 1993-94

(Rs.)

State/ District (1)	Village (2)	Average wages								
		1985 -86 (3)	1986 -87 (4)	1987 -88 (5)	1988 -89 (6)	1989 -90 (7)	1990 -91 (8)	1991 -92 (9)	1992 -93 (10)	1993 -94 (11)
Andhra Pradesh										
Krishna	Ghantasala									
Guntur	Tadikonda									
Ranga Reddy	Arutla									
Karnataka										
Bangalore	Harisandra									
Tumkur	Gadlchalli									
Bihar										
Patna	Mahadevpur	12.00	12.00	15.33	18.00	29.25	29.00	30.00	22.71	21.00
Muzaffarpur	Narasinghpur	21.25	15.00	-	N.R.	14.00	30.00	32.00	24.00	N.R.
Ranchi	Gaitalsood	N.R.	10.00	-	10.00	12.00	14.00	N.R.	15.00	N.R.
Haryana										
Panipat	Uggarkheri	15.00	14.55	15.00	17.40	20.00	27.44	27.75	32.25	40.00
Kerala										
Kozhikode	Koduvally	-	-	-	-	-	-	-	-	-
Palghat	Elapully	-	-	-	13.00	-	-	25.00	-	-
Madhya Pradesh										
Hoshangabad	Sanga- kherakalan	8.00	9.00	13.00	13.00	15.40	17.00	19.87	20.00	25.00
Sarguja	Bastar/Basdei	10.00	10.75	10.00	11.00	15.00	15.00	18.33	25.00	25.00
Morena	Bijaipur	10.00	11.20	11.40	14.00	14.25	21.25	22.50	29.17	N.R.
Satna	Kotar	9.33	-	12.00	10.50	11.44	18.00	25.00	25.00	25.00
Punjab										
Ludhiana	Pakhawal	-	28.67	33.00	-	37.50	47.50	45.00	50.00	50.00
Rajasthan										
Baran	Dhoti	10.00	-	13.00	15.00	17.50	20.00	22.00	27.50	N.R.
Tamil Nadu										
Tanjavur	Pulavamatham/ Alangudi	-	9.00	-	13.90	20.10	-	37.92	48.17	-
Tirunelveli	Malayankulam	6.00	-	-	30.00	18.75	10.00	-	15.00	-
Uttar Pradesh										
Varanasi	Keshavpur	11.00	11.00	14.70	20.00	18.00	25.00	22.50	N.R.	25.00
	Awajpur	9.33	12.00	23.10	15.00	-	25.00	N.R.	N.R.	N.R.

Source: As in footnote to Table 1 (A).

N.R. = Not reported.

TABLE 2 (A). REAL WAGE RATES OF MALE AGRICULTURAL LABOUR  
FOR FIELD LABOUR/SOWING, 1985-86 TO 1993-94

(Rs.)

State/ District (1)	Village (2)	Average wages								
		1985 -86 (3)	1986 -87 (4)	1987 -88 (5)	1988 -89 (6)	1989 -90 (7)	1990 -91 (8)	1991 -92 (9)	1992 -93 (10)	1993 -94 (11)
Andhra Pradesh										
Krishna	Ghantasala	13.22	11.05	12.12	13.49	16.18	15.88	14.90	14.18	18.37
Guntur	Tadikonda	13.20	14.40	13.05	11.25	14.11	15.16	12.38	12.00	14.70
Ranga Reddy	Arutla	12.50	14.75	15.44	13.50	13.68	14.85	11.00	9.60	10.21
Karnataka										
Bangalore	Harisandra	N.R.	9.80	N.R.	N.R.	-	-	-	5.76	15.00
Tumkur	Gadlehalli	N.R.	9.80	N.R.	9.32	9.91	9.86	6.12	9.60	11.66
Bihar										
Patna	Mahadevpur	8.00	11.76	10.40	16.03	16.96	18.85	9.99	10.28	9.66
Muzaffarpur	Narasinghpur	10.15	10.65	-	N.R.	9.94	13.81	10.80	10.00	N.R.
Ranchi	Gaitalood	N.R.	8.46	-	7.50	8.52	9.10	N.R.	11.00	N.R.
Haryana										
Panipat	Uggarkheri	15.00	15.00	13.20	11.99	14.60	17.84	16.10	18.09	20.70
Kerala										
Kozhikode	Koduvally	25.00	24.56	26.71	26.89	25.56	25.44	25.91	28.74	27.60
Palghat	Elapully	15.00	13.50	13.67	13.68	14.20	12.80	14.50	10.43	15.77
Madhya Pradesh										
Hoshangabad	Sanga- kherakalan	8.00	9.00	10.21	10.14	10.31	11.73	9.91	10.80	10.00
Sarguja	Bastar/Basdei	-	12.00	13.65	-	11.25	11.96	11.40	13.50	12.50
Morena	Bijaipur	12.00	15.00	13.10	15.60	15.00	12.08	14.25	16.88	N.R.
Satna	Kotar	8.50	10.00	9.91	9.16	9.25	12.25	13.90	13.50	13.33
Punjab										
Ludhiana	Pakhowal	17.83	19.40	17.60	19.00	19.78	-	-	36.72	-
Rajasthan										
Baran	Dhoti	10.00	10.50	11.69	12.15	13.48	11.72	11.60	14.00	N.R.
Tamil Nadu										
Tanjavur	Pulavarnatham/ Alangudi	8.00	7.47	6.72	11.23	12.58	13.57	16.67	13.00	15.00
Tirunelveli	Malayankulam	11.67	10.43	11.76	7.80	9.62	8.33	11.40	-	-
Uttar Pradesh										
Varanasi	Keshavpur	-	-	9.32	11.10	11.96	10.04	-	-	11.25
	Awajpur	7.00	10.20	9.45	13.32	10.95	13.64	15.90	-	-

Source: Government of India, *Agricultural Situation in India*, Directorate of Economics and Statistics, Department of Agriculture and Co-operation, Ministry of Agriculture, New Delhi (various issues: 1985-86 to 1993-94).

N.R. = Not reported.

TABLE 2 (B). REAL WAGE RATES FOR AGRICULTURAL LABOUR  
FOR HARVESTING, 1985-86 TO 1993-94

(Rs.)

State/ District (1)	Village (2)	Average wages								
		1985 -86 (3)	1986 -87 (4)	1987 -88 (5)	1988 -89 (6)	1989 -90 (7)	1990 -91 (8)	1991 -92 (9)	1992 -93 (10)	1993 -94 (11)
Andhra Pradesh										
Krishna	Ghantasala									
Guntur	Tadikonda									
Ranga Reddy	Arutla									
Karnataka										
Bangalore	Harisandra									
Tumkur	Gadlchalli									
Bihar										
Patna	Mahadevpur	12.00	11.28	12.26	13.50	20.77	18.85	16.20	11.36	9.66
Muzaffarpur	Narasinghpur	21.25	14.10	-	-	9.94	19.50	17.28	12.00	-
Ranchi	Gaitalsood	N.R.	9.40	-	7.50	8.52	9.10	N.R.	7.50	-
Haryana										
Panipat	Uggarkheri	15.00	12.80	13.20	13.22	14.60	17.84	16.10	17.42	18.40
Kerala										
Kozhikode	Koduvally	-	-	-	-	-	-	-	-	-
Palghat	Elapully	-	-	-	9.88	-	-	14.50	-	-
Madhya Pradesh										
Hoshangabad	Sanga- kherakalan	8.00	9.00	11.83	10.14	11.55	11.73	11.32	10.80	12.50
Sarguja	Bastar/Basdei	10.00	10.75	9.10	8.58	11.25	10.35	10.45	13.50	12.50
Morena	Bijaiapur	10.00	11.20	10.37	10.92	10.69	14.66	12.82	15.75	-
Satna	Kotar	9.33	-	10.92	8.19	8.58	12.42	14.25	13.50	12.50
Punjab										
Ludhiana	Pakhawal	-	28.67	29.04	-	27.38	30.87	26.10	27.00	23.00
Rajasthan										
Baran	Dhoti	10.00	-	11.70	13.50	13.48	13.40	12.75	15.40	-
Tamil Nadu										
Tanjavur	Pulavarnatham/ Alangudi	-	8.37	-	10.84	14.87	-	21.61	25.05	-
Tirunelveli	Malayankulam	6.00	-	-	23.40	13.88	6.80	-	7.80	-
Uttar Pradesh										
Varanasi	Keshavpur	11.00	11.00	12.35	14.80	13.14	15.50	11.92	-	11.25
	Awajpur	9.33	12.00	19.40	11.10	-	15.50	N.R.	-	-

Source: As in footnote to Table 2 (A).  
Real wages at 1985-86 prices.  
N.R. = Not reported.

The rates of growth of real wages for the period 1985-86 to 1993-94 are compared with the data presented in Parthasarathy (1987) for the period 1975-85. This shows that in about half of the observations there was a decline in the growth rate of real wage during the period 1985-86 to 1993-94 as compared to the preceding period.

TABLE 3. GROWTH RATES OF REAL AND MONEY WAGES OF AGRICULTURAL LABOUR FOR 1974-75 TO 1984-85 AND 1985-86 TO 1993-94

State/Centre (1)	<i>(per cent per annum)</i>			
	Money wages		Real wages	
	1974-75 to 1984-85 (2)	1985-86 to 1993-94 (3)	1974-75 to 1984-85 (4)	1985-86 to 1993-94 (5)
Andhra Pradesh (Field labour)				
Ghantasala	10.1*	15.3*	4.8*	4.5*
Tadikonda	12.7*	10.5*	7.3*	0.1
Arutla	13.2*	5.5*	7.8*	-4.4**
Karnataka (Field labour)				
Harisandra	9.7**	9.1**	8.0	-1.3
Gadlchalli	6.5*	9.8*	0.4	-0.3
Bihar (Sowing)				
Mahadevpur	6.4*	11.2**	0.3	0.8
Narasinghpur	11.7*	11.7*	5.2**	0.9
Gaitalsood	7.0*	14.1*	0.9	3.7**
(Harvesting)				
Mahadevpur	0.5	10.5	-6.2*	0.1
Narasinghpur	15.7**	8.4	9.6	-2.2
Gaitalsood	6.5**	7.3	0.4	-2.7
Haryana - Uggarkheri				
Sowing	8.3*	15.4**	1.7	4.5**
Harvesting	5.1*	14.3*	-1.3	4.1*
Kerala (Sowing)				
Koduvally	12.4*	11.5*	6.5*	1.3**
Elapully	6.7*	9.1*	3.7*	-0.9
Madhya Pradesh (Sowing)				
Sangakherakalan	10.1*	12.8*	5.1**	2.6
Basdei	11.5*	10.3*	6.4**	0.1
Bijaipur	10.3*	12.4*	4.3**	2.2
Kotar	9.7*	16.9*	4.7**	6.3*
(Harvesting)				
Sangakherakalan	10.0*	14.4*	5.0*	4.1*
Basdei	9.5*	13.7*	4.5**	3.5**
Bijaipur	8.1*	16.6*	3.2	6.0*
Kotar	9.1*	15.2*	4.1**	5.2
Punjab - Pakhowal				
Sowing	6.1*	22.0*	-0.4	10.7*
Harvesting	3.6	8.3*	-2.7	-1.6
Rajasthan - Dhoti				
Sowing	6.6*	13.9*	0.9	3.6**
Harvesting	8.4*	15.0*	2.5	5.2*
Tamil Nadu (Sowing)				
Alangudi	-	21.4	-	10.9*
Malayankulam	-	6.3	-	-2.5
(Harvesting)				
Alangudi	1.0	29.9*	-4.0	20.7*
Malayankulam	4.3*	3.7	-1.9	-4.6
Uttar Pradesh (Sowing)				
Keshavpur	10.0*	11.4*	3.4	6.7*
Awajpur	10.4*	24.7**	3.8	12.1**
(Harvesting)				
Keshavpur	6.9*	11.8*	0.5	0.4
Awajpur	8.1*	18.8**	1.6	8.4

\* Significant at 1 per cent level.

\*\* Significant at 5 per cent level.

The following conclusions follow from the preceding analysis. Changes in movement of real wages from year to year have not been smooth. Secondly, the rate of growth of real wages is perceptible only in irrigated areas. The rate of growth of real wages in most states fell behind corresponding rate of growth of either the agricultural production or per capita income.

### *Real Wages of Agricultural Labour and Phase of Economic Reforms*

The phase of economic reforms starting with 1991 has been marked by a higher rate of growth in the prices of foodgrains as compared to the earlier period. The annual rate of growth of Consumer Price Index of Agricultural Labour during the period 1985-86 to 1989-90 was 7.89 per cent per annum while for the period 1989-90 to 1993-94 it was 11.13 per cent per annum. When foodgrain prices are considered, the rate of growth is higher for the latter period as compared to the earlier period.

TABLE 4. RATE OF GROWTH OF PRICES OF FOODGRAINS

Commodity (1)	<i>(per cent per annum)</i>	
	1985-86 to 1989-90 (2)	1989-90 to 1993-94 (3)
Rice	7.40	12.00
Wheat	5.60	14.34
Pulses	10.53	10.58

*Source:* Government of India (1995).

Real wages for sowing and field labour showed generally a decline at 1985-86 prices. They showed a rise only in 1993-94 with a decline in the rate of growth of inflation. The sharpest fall in real wages was in 1991-92 and 1992-93, the years in which there was an unprecedented spurt in the prices of foodgrains.

We may also examine real wages with reference to expenses needed to meet the basic needs of an agricultural labour family. It was noted that a least cost balanced diet for a family at 1978-79 prices would be Rs. 16 per day (Parthasarathy, 1987). At 1985-86 prices, the wage required would be Rs. 28. In very few centres the male agricultural labour obtained this wage rate.

### III

#### EMPLOYMENT AND UNEMPLOYMENT OF AGRICULTURAL LABOUR

Unemployment rate of agricultural labour is the highest among all classes (Table 5). For instance, as in 1977-78 the rate of unemployment of agricultural labour was 14.69 per cent as against 2.82 per cent for self-employed in agriculture. There was a sharp drop in unemployment rate in 1987-88 mainly because of public intervention programmes. But even in this year the rate of unemployment was 6.27 per cent, nearly three times the rate of unemployment for self-employed agriculturists.

TABLE 5. UNEMPLOYMENT RATE BY EMPLOYMENT STATUS (per cent)

Unemployed (1)	Self-employed		Labourers		Others (6)	Total (7)
	Agriculture (2)	Non-agriculture (3)	Agriculture (4)	Non-agriculture (5)		
1977-78	2.82	5.16	14.69	12.51	8.28	7.11
1983	2.92	5.68	14.77	13.16	7.21	7.52
1987-88	2.45	3.94	6.27	8.10	7.97	4.56

Source: Sen and Ghosh, (1993, p. 59).

While the NSS data for 1987-88 show person-days of employment per worker as 323 days per year (Government of India, 1991, p. A-13), the corresponding employment for agricultural labour males as in 1983 was found to be 277 (Kumar, 1994, p. 644). The low employment coupled with low wages contributes to high level of poverty among agricultural labour, i.e., 57.22 per cent in 1987-88 (Kumar, 1994) as against 39.06 per cent (Government of India, 1993) for all rural persons. Further, the rate of decline in poverty per annum has been the least among agricultural labour.

#### *Employment among Agricultural Labour and Related Variables*

For functional analysis of employment of agricultural labour we use the statewide average annual rate of employment among male agricultural labour (MEMP) as cited in Kumar (1994) from NSS data in 1983 (Table 6). This is related to four independent variables, i.e., (a) male wage labour (MWL) as a proportion of total male workforce (Vaidyanathan, 1986), (b) male wage rate (MWR) (1983) as seen from 1982-83 data provided by Jose (Parthasarathy, 1991 a), (c) irrigated area per agricultural worker (IAW) (derived from 1977-78 irrigated area/1981 Census agricultural population) and (d) agricultural workers per hectare (AWH) (derived from agricultural worker 1981 Census/net sown area 1978-79). We expect a positive relation between irrigation and employment and negative relation between all other variables and employment. The results of linear multiple regression are as follows:

$$\text{Employment} = 411.795 - 1.93964 \text{ MWL} - 6.783 \text{ MWR} - 8.499 \text{ AWH} + 9.18481 \text{ IAW}$$

$$\quad \quad \quad (-3.600) \quad \quad (-3.030) \quad \quad (-0.599) \quad \quad (0.723)$$

$$R^2 = 0.7988$$

The equation explains 80 per cent of the variation in employment. The signs of independent variables are as expected. There is a negative relation between employment, on the one hand and (a) MWL, (b) MWR and (c) AWH and a positive relation between employment and IAW, on the other. The coefficients of MWR and MWL are statistically significant at one per cent level of significance.

An increase in wage rate by a rupee brings about a decline in male labour employment by 7 days. Similarly, an increase by one per cent in MWL brings about a decline of 2 days of employment for male labour. Thus increased supply of male wage labour brings about a decline in employment. A rise in wage rate also brings about a decline in employment. It is necessary to recall that a rise in wage rate, is positively associated with productivity. We could therefore infer that while productivity improves the wage rate, it brings about a decline

TABLE 6. EMPLOYMENT AND RELATED VARIABLES

State	Annual employ- ment of male agricultural labour in 1983 (man-days)	Male wage labour as per cent of total workforce	Male wage rate in 1983 (Rs.)	Irrigated area/ agricultural labour	Agricultural worker/ha
(1)	(2)	(3)	(4)	(5)	(6)
Andhra Pradesh	267	46.6	6.50	0.30	1.38
Bihar	295	42.8	6.37	0.23	1.92
Gujarat	290	40.4	7.26	0.23	0.79
Haryana	266	30.0	13.48	1.35	0.60
Karnataka	281	41.5	5.79	0.19	1.16
Kerala	215	54.5	11.19	0.13	1.72
Madhya Pradesh	309	33.7	5.21	0.16	1.23
Maharashtra	281	47.4	5.15	0.15	1.22
Orissa	282	43.7	5.17	0.25	1.06
Punjab	279	33.6	12.42	1.92	0.69
Rajasthan	299	20.5	9.70	0.48	0.47
Tamil Nadu	223	54.2	5.99	0.33	1.84
Uttar Pradesh	299	24.0	6.62	0.04	1.37
West Bengal	256	50.4	8.34	0.18	1.55

Sources: Col. (2): Kumar (1994); Col. (3): Vaidyanathan (1986); Col. (4): Parthasarathy (1991 a, p. 39); Col. (5): Derived by dividing irrigated area in 1978-79 (Government of India, 1982, p. 231) by agricultural workers: 1981 Census; Col. (6): Agricultural labour per hectare.

in employment. Hence, if higher wage should be consistent with higher employment, there is a need for raising the growth rate of agriculture and also for improving better diffusion of the benefits of growth.

### *The Gender Issue in Wages*

The gender issue has figured prominently in the discussions on employment and wages. It is suggested that modern growth process marginalises female labour and makes them more dependent on male heads. It is further suggested that this development has adverse implications for women's development and consequently, for total development, since women's development holds the key to total development via effects on literacy, health and nutrition. The evidence also shows that incomes of the women are spent on household and children much more than the income of the males.

Against this background, we examine the evidence on the wage rates of males and females as seen from the NSS data as also the data compiled by us from several centres as reported in *Agricultural Situation in India*, published by the Directorate of Economics and Statistics, Ministry of Agriculture, Government of India.

Real wages for males and females are as seen from the NSS data. The data show that in 1964-65 female real wages formed only 64 per cent of male wages. There has been a rise in the share in 1974-75, 1977-78, 1983 and 1987-88 as compared to 1964-65. But yet, the highest female wage rate as a proportion of male wage rate as seen from the NSS data was only 71 per cent.

The preceding data are based on an aggregation of all types of work. It may be argued that male wage rate and female wage rate are not for comparable operations. Therefore, we compare money wage rate for 1992-93 for comparable operations. These are shown in Table 7.

TABLE 7. MONEY WAGE RATES FOR MALES AND FEMALES FOR SELECT CENTRES FOR SOWING AND HARVESTING OPERATIONS, 1992-93

District (1)	Centre (2)	Wage rates (Rs.)		Percentage of female wage in male wage rate (5)
		Males (3)	Females (4)	
Irrigated				
Karnal	Uggarkheri	33.50	27.50	82.09
Ludhiana	Pakhawal	68.00	-	-
Thanjavur	Alangudi	37.92	-	-
Krishna	Ghantasala	29.54	22.50	76.17
Kozhikode	Koduvally	56.36	37.00	65.65
Palghat	Elapully	20.45	21.25	103.90
Unirrigated				
Patna	Mahadevpur	22.71	-	-
Muzaffarpur	Narasinghpur	24.00	-	-
Ranchi	Gaitalsood	15.00	-	-
Hoshangabad	Sangakherakalan	20.00	16.00	80.00
Sarguja	Basdei	25.00	-	-
Morena	Bijaipur	25.00	-	-
Satna	Kotar	25.00	15.00	60.00
Kota	Dhoti	25.00	20.00	80.00
Tirunelveli	Malayankulam	15.00	-	-
Varanasi	Awajpur	-	-	-
Varanasi	Keshavpur	22.00	17.00	85.00
Guntur	Tadikonda	25.00	20.00	80.00
Ranga Reddy	Arula	20.00	12.00	60.00
Bangalore	Harisandra	12.00	-	-
Tumkur	Gadlehalli	20.00	-	-

In several centres, female wage rate formed 80 per cent or more of male wage rate. With the sole exception of Palghat centre, female wage rate fell behind male wage rate for harvesting operation. Several reasons are given for this, none of which is convincing: Females come late for work and go earlier. Their productivity is less than male productivity. The major reason for discrimination of females is traditional bias against female workers.

The data also show that in the irrigated area male wages are better and female wages are also better as compared to wages in the unirrigated area showing the relevance of productivity for improvement of wage rate - male as well as female.

### *Rural Unemployment*

Rural unemployment rate (RU) varies across states widely from 24.31 per cent in Kerala to 2.07 per cent in Madhya Pradesh. We seek to explain the variations in rural unemployment across states by linear regression exercise. The related variables are rural wage labour as per cent of total labour force (WLPPOP), per agricultural worker Net State Domestic Product (PCNSDP), percentage of non-agricultural labour in total labour (NAGPR), per agricultural worker expenditure on agriculture and allied activities (PCEXA). We expect a positive relationship between WLPPOP and unemployment. In the case of WLPPOP, open unemployment by time measure will be greater while in the case of self-employed, time measure does not capture unemployment adequately. We expect a negative relation between per capita NSDP and unemployment rate. As per capita incomes rise we expect unemployment to be reduced through trickle down process of growth. We expect a negative relation between

unemployment and NAGPR. As NAGPR rises we expect employment to increase and unemployment to decline. The last variable used is per capita expenditure on agriculture. As public expenditure on agriculture and other activities rises, we expect a fall in unemployment. The signs were as expected in the case of the first two variables, i.e., WLPROP and PCNSDP. In the case of NAGPR, the results were unexpected. The relation was not only positive but significant, suggesting that high NAGPR is associated with high unemployment. A significantly positive relation between rural unemployment rate and incidence of NAGPR is found in other studies also (Vaidyanathan, 1986).

Per agricultural worker state expenditure on agriculture and allied activities is found to be positively related though not significant. We tried alternative variables to see whether a negative relationship could be obtained. The alternative variable used was per agricultural worker public expenditure on agriculture and other activities under the Plan. Even then the relation between unemployment and independent variable was unexpected. So we tried another variable including the items related to employment. The items included are (1) labour and employment, (2) housing, (3) village and small industry, (4) irrigation, navigation, and flood control, (5) road and water transport and (6) roads and bridges. Such expenditure in terms of per agricultural worker varied from Rs. 92 in Jammu and Kashmir to Rs. 26 in West Bengal. Even this measure did not give expected results. So we opted for the first equation in which we have used PCEXA as an independent variable. The results are as follows:

$$RU = 14.5347 + 0.22 \text{ WLPROP} - 0.04 \text{ PCNSDP} + 0.78 \text{ NAGPR} + 0.25 \text{ PCEXA}$$

(3.964)	(-2.010)	(7.547)	(1.674)
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$$R^2 = 0.9124$$

The equation explains 91.24 per cent of the variation in employment across the states. Three of the independent variables are found to be statistically significant. A one per cent increase in WLPROP brings about an increase of 0.22 per cent in unemployment rate and vice versa. An addition of Rs. 100 to PCNSDP results in a decline in unemployment of only two-fifth of a day. This suggests that the trickle down effect is very small and cannot be relied upon to reduce unemployment. Even an increase in NAGPR will not reduce unemployment rate. On the other hand, unemployment is seen to be positively related to NAGPR. This suggests the need for active public intervention to reduce unemployment. It is surprising that none of the public expenditure measures results in positive effects on employment. One may infer that this is due to considerable leakages.

### *Economic Reform*

It was seen earlier that real wages declined at several centres in economic reform phase. For the period subsequent to 1989-90 the NSS data were based on a small sample and therefore are not comparable with the other data. Further, the validity of the data is questionable in view of the small sample. However, it is possible to infer changes in employment rate during the reform phase by putting together the whole set of data on variables influencing employment and unemployment. The usual status unemployment rate for rural males showed a rise to 1.6 per cent in 1991-92. For rural females also there was an increase in unemployment

rate in 1991-92 to 1.2 per cent (Gupta, 1995, p. 1304). The weekly status unemployment rate for males however shows a decline from 2.6 per cent to 2.3 per cent. Similarly, the weekly status unemployment rate for females also shows a decline to 1.2 per cent. But the weekly status unemployment is not a good measure of unemployment rate since it captures only those who did not work for the entire week and does not capture the partially unemployed. The urban usual status unemployment rate for males and females shows a rise as compared to 1989-90 (Gupta, 1995, p. 1304). There are major reasons for the worsening unemployment and real wages in new economic policy phase. The first one relates to inflation particularly of wage goods and its impact on cost of living index. A reference is already made to higher level of cost of living index in economic reform phase. A related variable is movement of agricultural production and capital formation in agriculture. Agricultural production index which reached a peak in 1990-91, showed a drop in 1991-92. Capital formation in agriculture has also declined during the phase of economic reforms. Gross investment in real terms (1989-90 prices) in agriculture stagnated. It was Rs. 4,636 in 1980-81 and Rs. 4,070 in 1990-91 and the decline continued in 1992-93 also. The decline in real capital formation in agriculture in the public sector appeared more perceptible, as it has come down to Rs. 1,065 crores in 1992-93 from Rs. 1,796 crores in 1980-81. The share of private sector investment in agriculture in total gross domestic capital formation has declined significantly during the period 1980-81 to 1992-93 (Government of India, 1995, p. 130). All these should have affected employment in agriculture.

#### *Absorption of Unemployed in Agriculture*

The feature of agricultural sector currently causing concern is the role of employment (Sen and Ghosh, 1993). Such a concern is based on usual status NSS data on employment in agriculture for the years 1972-73, 1977-78 and 1983. The usual status rate of growth of agricultural employment for 1972-78 was 1.70, for 1977-83, it was 1.37 and for 1983-88, 0.40. It is seen from the data that not only the rate of employment is below the rate of growth of agriculture but the rate of growth of agriculture itself is declining. The elasticity of agricultural employment with respect to the value of output from agriculture for this period based on usual status data also shows a considerable decline. Sen and Ghosh (1993), who examined the elasticity of agricultural employment demonstrated that the rate of growth of daily status employment in agriculture showed a different picture, one of rise over time. Correspondingly, the elasticity of daily status was also higher. It is probably fair to say that the use of usual status measure overstates the extent to which labour absorption in agriculture has declined. The reason for this is that during the eighties the flow of agricultural work was expanding faster than the growth of agricultural workers.

A study by Sheila Bhalla (1994) for the National Commission on Rural Labour which is based on a comprehensive scheme for studying the cost of cultivation of principal crops gives the following results. During the period 1971-84 the overall factor behind increase in agricultural employment was a change in gross cropped area amounting to 8 per cent of additional employment. The employment elasticity with respect to yield in total value of output exhibits wide variations not only across states but also in the same state depending on the measure of elasticity used. The employment elasticity with respect to wages was

found to be significantly negative in most cases usually lying between 0.1 and 0.5. The prevailing tendency of labour use and technology spread in agriculture suggests that this sector cannot be used as a comfortable residual to take up the slack of other sectors.

### *Rural Non-Agricultural Employment*

A number of scholars in the past, for instance Mellor (1976), emphasised improvement of agricultural growth in creating employment in non-agriculture for rural people with backward and forward linkages. But in practice, excepting trade in inputs, rural people gain very little by way of employment in capital intensive industries like fertilisers and pesticides. Modern agro-processing while generating some employment displaces labour in traditional processing. Overall backward and forward linkages of production contrary to expectations are found to be minor. What has been much more important in generating employment is growth induced demand for consumption goods and allied products. For this to be effective growth must not only be at a higher rate but must be widely spread and equitable. An equitable high rate of agricultural growth is a necessary condition for the generation of rural non-farm employment particularly in trade and service through commercialisation.

The NSS data show that agriculture's share in the total workforce which was 84 per cent in 1972-73, was reduced by 5 percentage points to 78.7 per cent in 1987-88. Considering the rate of decline in agriculture in countries like Korea this rate of decline should not be considered very high. Absolute additions to labour force within agriculture continue unabated since the decline in the relative share is small. The NSS data suggest that almost the entire additions to the rural workforce between 1983 and 1990 were absorbed in non-agriculture (Table 8), suggesting constraints to absorption in agriculture at the current level of (a) infrastructural development, (b) irrigation and (c) productivity. This suggests the need for removal of the constraints. There is scope for absorption in agriculture through improvement in productivity, technology and development in infrastructure and through shift to high value and labour intensive crops such as horticulture, and also effective implementation of land reforms.

TABLE 8. PERCENTAGE OF ADDITIONAL EMPLOYMENT ACCOUNTED FOR BY NON-AGRICULTURE

Concept (1)	Males			Females		
	1972-83 (2)	1977-88 (3)	1983-90 (4)	1972-83 (5)	1977-88 (6)	1983-90 (7)
Usual	35.5	68.2	78.8	17.9	56.7	99.5
Weekly	41.9	65.5	62.0	34.1	60.9	64.1
Daily	48.1	54.1	N.A.	38.0	47.2	N.A.

Source: Sen and Ghosh (1993, p. 29).  
N.A. = Not available.

The state's role in creating non-agricultural employment will continue to be important. Government employment as percentage of all rural non-agricultural employment rose from 17.9 per cent in 1977-78 to 21.7 per cent in 1987-88 (Sen and Ghosh 1993, p. 33).

## IV

POLICY INTERVENTIONS<sup>1</sup>

The foregoing analysis shows that real wages are low in the unirrigated areas in which productivity of labour and agriculture is very low. A major policy intervention should be to influence the productivity of agriculture through (a) development of infrastructure, (b) cropping intensity and (c) productivity-raising appropriate technology. But there is a problem here. A rise in wage rate induced by productivity results in a decrease in demand for labour and more unemployment. Similarly, increased productivity through displacement of bullock power by tractor power results in unemployment. Therefore, there is a simultaneous need for improving the overall rate of growth of agriculture. Measures towards wide diffusion of benefits of agricultural growth are necessary to ensure that there are no demand constraints to production. It is in this context that land reforms become relevant. Even if no radical land reform is feasible it is necessary to ensure that the marginal and small farmers are not displaced by state policy. Land reform also assumes importance because all other intervention programmes such as Integrated Rural Development Programme (IRDP), National Rural Employment Programme (NREP), Jawahar Rozgar Yojana (JRY) are found to suffer from wide leakages. In one study, it is pointed out that the benefits of employment programmes are derived by the poor only to the extent of 15 paise for every rupee spent by the Government (Guhan, 1995). The data in Tables 9 (A) and 9 (B) show the relationship between poverty and unemployment. While usual status unemployment is not positively related to poverty, daily status unemployment is positively related to poverty [Table 9 (A)] and it suggests that employment generation is necessary for poverty alleviation [Table 9 (B)].

TABLE 9 (A). UNEMPLOYMENT TRENDS OF RURAL MALES BY STATUS AND QUINTILES: ALL-INDIA

Usual status Unemployed (1)	<i>(per cent to total labour force)</i>					
	0-20 (2)	20-40 (3)	40-60 (4)	60-80 (5)	80-100 (6)	All (7)
1977-78	1.00	1.16	1.23	1.36	1.52	1.26
1983	1.05	1.19	1.37	1.53	1.88	1.41
1987-88	1.41	1.51	1.67	1.87	2.38	1.79

TABLE 9 (B). UNEMPLOYMENT RATES OF RURAL MALES AND FEMALES BY STATUS AND QUINTILES: ALL-INDIA

Daily status Unemployed (1)	<i>(per cent to total labour force)</i>					
	0-20 (2)	20-40 (3)	40-60 (4)	60-80 (5)	80-100 (6)	All (7)
1977-78	12.68 (10.09)	9.81 (8.04)	8.43 (6.63)	7.65 (6.09)	5.84 (5.01)	9.18 (7.12)
1983	11.95 (10.13)	9.92 (8.17)	8.01 (7.16)	7.12 (6.72)	6.29 (5.59)	8.86 (7.51)
1987-88	8.26 (4.92)	6.59 (4.62)	6.52 (4.28)	6.60 (4.54)	6.08 (4.54)	6.85 (4.57)

Note: Figures in parentheses are for daily status males.

### *Minimum Wages and Organisation of Labour*

Our review has shown that wages paid to agricultural labour in ten states covering three-fourths of the agricultural labour households in rural India are less than 3 kg of cereals, even for the male worker (Parthasarathy, 1991 b). Such a wage leaves very little surplus over the cereal consumption for meeting other food, non-food needs. It is in this context that fixation of minimum wages, their periodical revisions, and effective implementation become relevant. Unlike in the organised manufacturing sector, implementation of minimum wages in the agricultural sector is difficult. In the peak seasons, when there are local shortages of labour, wages tend to be high. But this is only for short periods. In the slack season of agricultural activity, wages tend to be far lower. A number of conditions need to be met to make minimum wages effective in the slack season. Trade unions of agricultural labour should be in a position to use the legislated minimum to enhance their bargaining power. State agencies should not be hostile to trade union interests. The public employment programme should provide support to the minimum wage through meeting the deficiencies in private demand. Other policies such as improved access of consumption credit for the labour during the slack season, and reduced institutional credit for labour saving technology (with no land augmenting effects) except under conditions of tightened labour markets provide additional support to the maintenance of minimum wages. In the absence of all other supporting measures the creation and expansion of administrative machinery for implementation of minimum wages could not be of much help. The Kerala experience (Kannan, 1990, pp. 47-52) illustrates what effective trade union organisation and sympathetic state intervention in the labour market could achieve for labour within agriculture. It also illustrates the limits to such intervention in the improvement of the total household incomes in the absence of labour productivity and agricultural growth. Considerations of labour productivity in agriculture cannot be ignored in fixing minimum wages for agriculture.

### *Basic Needs*

Even among the poor households, whose usual activity is casual labour, only around 40 per cent of the main workers are available for work/additional work (*Sarvekshana*, April 1988, p. S-197, Table-63). The rest are not available either because they are voluntarily unemployed, or they are fully occupied at low wages or they are poor because of high dependency ratios. Those who are voluntarily idle may be considered as a small fraction. The rest will not benefit from the employment programmes. A substantial section of them will however benefit if the employment programmes and better implementation of minimum wages contribute to a rise in the wage levels. These hopefully will create conditions for better fulfilment of basic needs among agricultural labourers. But given the widespread poverty, around 60 per cent, and significant deficiencies in nutrition, enrolment in schools, shelter, and health, the national policy for agricultural labour should cover expansion and strengthening of programmes of assistance for fulfilment of basic needs.

In providing support to food security and nutrition, the extension of public distribution system has a critical role. Agricultural labourers are not automatically compensated for the rise in prices as the urban labour and salaried class through compensatory allowances. Maintenance of prices of foodgrains and other articles of essential consumption at stable levels is critical to ensure that real wages are not eroded. The eighties have witnessed extension of the public distribution system (PDS) to the rural areas. According to the NSS,

as in 1986-87, 16.76 per cent of rice purchased and 12.64 per cent of wheat purchased are from the PDS. Yet, these are lower as compared to urban areas in which the percentage of persons living in poverty are lower. Besides, the rural areas in some states like Bihar, Madhya Pradesh and Orissa have very little coverage by the PDS (*Sarvekshana*, April-June 1990, pp. S-161-S-171). Moreover, both in the rural and urban areas, the benefits of public distribution system are more for the fractile groups above the poverty line than for those below the poverty line. Further, coarse cereals, which are consumed in significant proportions by agricultural labour households and in the semi-arid dry areas of rural India, are not covered by the PDS. Moreover, the benefits of the PDS both in the rural and urban areas continue to be derived in larger proportions by the non-poor. There is need for a sharper targeting of distribution of foodgrains and other essential articles of consumption.

The achievement of the objective of universal primary education depends very largely upon the extent to which the constraints to enrolment of children within the school-going age are relaxed. A significant proportion of children in the age group 10-14 in the rural areas are in the labour force and large numbers of them are from agricultural labour households. For several agricultural labour households, particularly with more than average size of household, earnings from child labour provide a supplementary means of survival. Improved employment and wages for adults will reduce the compulsions on employing child labour. But there is an additional cost of shift of children from labour to the school for the household. This is not easily borne, given the tradition of illiteracy. Further, female work participation among the agricultural labour households requires that the children of school-going age should look after the babies when mothers are at work. The enrolment could be increased and the drop-out rates could be reduced if alternative provision in the form of creches either at school or at workspot is made. The cost on incentives for shift and on provision of creches should be considered a social responsibility for achieving universal primary education.

Improvement of health care along with improvement in primary education should have high priority. The key issues of health policy relate to (1) health infrastructure, (2) primary health care and (3) integration of health system with the rest of the social system including nutrition. The stake in resolving these issues is much more for agricultural labour households and other rural poor than for the rural elite who are increasingly relying on private services for health and medical care. The policy shift to primary health care has been fruitful and effective and improvement in the functioning of Integrated Child Development Scheme (ICDS) is critical. It needs to be strengthened with much more attention to the requirements of the pregnant mothers and the pre-school children.

Access to safe drinking water supply and improved shelter are important components of the minimum needs programme. It needs to be ensured that the scheduled caste localities in particular have access to protected water supply since they continue to be discriminated against in several parts of the country. Provision of house sites and of shelter to the labour households and improvement of their habitat need to be integrated with the employment and Training of Rural Youth for Self-Employment (TRYSEM) programmes; involvement of beneficiaries in the design and implementation of rural housing programme, which is now lacking, is necessary.

Erosion of common property resources and commercialisation of agricultural waste products have increased the burden on agricultural labour households, particularly women, who now spend longer time in gathering fuel. Wasteland and degraded forest development

could not only provide employment help and sustain resources, but could also satisfy the needs of fuel for agricultural labour households with appropriate institutional forms of controls, vested with labour groups, over the use of such assets.

### *Social Security*

In Kerala, the most important of the welfare schemes for labour is the pension scheme for agricultural labour above the age of 60 as well as for the physically disabled. As in 1986-87, one person out of every 3.7 agricultural labour households got pension (Kannan, 1990, p. 12). The Kerala experience provides a model for remuneration for social security for agricultural labourers in other states.

The implementation of the foregoing programmes is feasible only with a decentralised system in which empowerment of agricultural labour is obtained. Kisan and labour organisations have a great role to play in ensuring the benefits of the decentralised system to agricultural labour through helping their empowerment at the grassroot level.

## V

### SUMMARY AND CONCLUSION

#### *Real Wages*

Contrary to the general impression of a rising trend in real wages we find no firm evidence on the rise in real wages of male agricultural labour even for the period preceding 1985. The year-to-year changes in male wages, depending upon prices of wage goods, are much more dominant than a rising trend in real wages. The post-1985 scenario, particularly the phase of economic reform, was marked by worsening of real wages since the prices of wage goods rose faster than in the earlier period. The functional analysis of money wage rates suggests that labour productivity, percentage of agricultural labour households in total rural households, diversification as measured by percentage of non-agriculture in total rural households, and landlessness influence variations in wage rates and explain 85 per cent of the variation across the states. Wage rate could be raised only by increasing productivity, by decrease in the supply of agricultural labour, and diversification of non-agricultural occupations. Real wage rate showed a faster rise in the irrigated area as compared to the unirrigated area, suggesting the relevance of irrigation infrastructure for influencing wage rate. As regards gender issue, except in Kerala where trade union organisations have been able to benefit women workers, women workers get only around 70 per cent of male wage rate. When wage rates are studied for the same operation, there is some improvement but discrimination persists.

#### *Employment*

Employment of agricultural labour is found to be negatively related to money wage rate, to male wage labour as percentage of total workforce, to agricultural worker per hectare and is a positive function of irrigated area per agricultural worker.

Male wage rate is seen to be positively related to productivity and negatively related to employment. This suggests that sustaining increase in employment is possible only with high rate of growth of agriculture.

Rural unemployment rate is related to (1) wage labour as percentage of total workforce, (2) per agricultural worker expenditure on agriculture, (3) per agricultural worker NSDP. Rural unemployment is positively related to the supply of agricultural labour and negatively related to growth. Surprisingly, PCEXA is not found to be related to unemployment rate. The positive relationship between rural unemployment and NAGPR suggests the possibility of self-employed drifting into non-agriculture in areas with high unemployment.

### *Economic Reform and Real Wages and Employment*

The result of worsening of both real wage and unemployment is an increase in the poverty of agricultural labour in particular and in the rural areas in general. There was a reversal in trends in poverty and absolute figures showed a rise in the economic reform phase.

### *Labour Absorption in Agriculture*

Employment in agriculture by usual status measure showed little absorption in the 1980s. By daily status measure there was an improvement in absorption in agriculture but even this showed a lag between the rate of growth of labour force and the rate of growth of absorption in agriculture.

The low absorption rate in agriculture suggests poor backward and forward linkages in production. The more important effect of agricultural growth on employment is shift in consumption demand from foodgrain to a more diversified consumption inducing in employment generation in allied products and service. But this depends on (a) a much higher rate of growth and (b) a wider diffusion of benefits of agricultural growth.

### *Policy Options*

Among policy options the most important is an equitable agricultural growth resulting in higher productivity and higher demand for labour. This will imply effective implementation of land reforms to sustain the growth process. The public intervention programmes such as NREP, IRDP, JRY and TRYSEM are found to suffer from leakages. One study shows that only 15 paise was obtained by the poor in every rupee spent on employment programmes. These leakages could be plugged only by decentralisation within a Panchayati Raj frame. Kisan organisations have a great role which they have neglected so far, in contributing to empowerment of agricultural labour at the grassroot level. In protecting the real income of agricultural labour, the extension of public distribution system has a critical role. Currently, several lapses are found in PDS which make it an ineffective instrument for providing food security to the poor. There is a need for sharper targets for distribution under PDS. Among agricultural labour there is no inter-generational mobility due to lack of education and lack of skills. Universal primary education among agricultural labour must be given top priority. The policy shift to primary health centre has been fruitful and effective and an improvement of ICDS is critical. It needs to be strengthened with much more attention to the requirement of pregnant mothers and pre-school children. With a shift from joint family system to nuclear family system the old, disabled and sick do not get benefit of support from the family or from the rural communities. Social security measures will be needed on a much larger scale. The Kerala experience provides a model which could be adopted by other states.

## NOTE

1. Section IV draws heavily on Parthasarathy (1991 a).

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