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Pro-Poor Growth in India: What do we know about the Employment Effects of Growth 1980–2000?

S. Mahendra Dev
Centre for Economic and Social Studies
Hyderabad

Working Paper 161
Results of ODI research presented in preliminary form for discussion and critical comment

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Acronyms

CDS	Current daily status*
CSO	Central Statistical Organisation
CWS	Current weekly status*
DME	Directory Manufacturing Establishments
DTE	Directory Trading Establishments
EQI	Employment Quality Index
GDP	Gross Domestic Product
HHs	Households
IRDP	Integrated Rural Development Program
JFM	Joint forest management
NCAER	National Council for Applied Economic Research
NCRL	National Commission on Rural Labour
NDME	Non-Directory Establishments
NSS	National Sample Survey
OAME	Own Account Manufacturing Units
RNFS	Rural non-farm sector
Rs	Rupees
UMS	Unorganised Manufacturing Sector
US	Usual status*

* See Annex for further explanation

1. Introduction

Poverty alleviation is a major component of the national policy agenda for many developing countries. India has been experimenting with several development policies since independence – including substantial liberalisation since 1991, and poverty has declined over time since the early 1970s (see Table 1). However, it is now recognised that growth needs to be more explicitly pro-poor if poverty is to be reduced further. One of the main means of achieving this is to ensure that economic growth generates employment, because labour is the main asset for the majority of the poor.

Table 1 Official estimates of poverty in India: 1973/4 to 1999/2000

Year	Total	Rural	Urban
1977–8	51.3	53.1	45.2
1983	44.5	45.7	40.8
1987–8	38.9	39.1	38.2
1993–4	36.0	37.3	32.4
1999–2000	26.1	27.1	23.6

Source: Economic Survey, 2000-1, Government of India, based on NSS data.

Poverty remains concentrated in rural areas in India. Over 76% of the poor (around 200 million people) were in rural areas in 1999–2000. Datt and Ravallion (1998), comparing the effects of urban and rural growth on poverty in India, show that growth in urban incomes has no effect on rural poverty, but also only a modest effect on urban poverty. On the other hand, rural growth reduces rural poverty and reduces urban poverty.

International experience shows that it is rural and agricultural growth that brings a sharp decline in poverty, through creating jobs in related sectors and services in local towns. Although rural households have traditionally depended on agriculture for their livelihoods, growth in the rural non-farm sector (RNFS) is expected to shift the workforce from agriculture to non-agriculture. It is now recognised that households can diversify their activities to rural non-agriculture and work in multiple activities. However, growth in organised industry and organised services (defined in India as government and private establishments employing more than 10 people) may not help the majority of poor workers in India, because they work in informal sectors.

The aim of this Working Paper is to investigate the extent that the economic growth that has occurred in India is pro-poor. We do this by assessing various quantitative and qualitative aspects of the employment that has been generated, specifically: employment elasticities of growth; labour productivity and wage rates; job security (casualisation and multiplicity); and access. For economic growth to generate the kind of employment that contributes directly to poverty alleviation, it must be in sectors that have relatively high elasticities of employment (numbers of jobs created per unit of economic growth); workers must share in the benefits of increased labour productivity through increased wage rates; it should not only be casual, part-time employment at the expense of regular, full-time jobs; and the jobs created must be relatively unskilled in order to be accessible to the poor. Our focus is on trends in rural areas because this is where most poor people live and work.

There are important second round effects of employment generation on poverty alleviation, for example the knock-on demand for goods and services from the unskilled sector arising from increased

skilled employment. However, there are significant gaps in the data needed to make a full investigation. In this Working Paper, we present the available data on first round effects, using proxies and partial indicators where necessary, in order to carry out an initial assessment of this important issue.

After this Introduction, Section 2 presents summary data on economic growth trends by sector in India from 1980. This sets the scene for an examination in Section 3 of the extent that this growth has generated jobs in different economic sectors. Section 4 examines the impact of growth on the relative balance between self-employment and paid labour. Section 5 moves on to set out changes in labour productivity by sector between 1993/4 and 1999/2000 and to assess whether these have been matched by changes in wage rates. Section 6 looks at changes in security of employment, including casualisation and multiplicity, whilst Section 7 assesses the implications of growth for access to employment, in terms of the skills required for the jobs it has generated, and the location of new jobs. An analysis of the implications of the data for lessons about economic growth and pro-poor employment generation is given in Section 8, followed by implications for various components of policy in Section 9.

2. Economic Growth

There has been a significant decline in the share of agriculture in GDP from 38% in 1980/1 to 26% in 1999/2000. The share of industry increased from 21% to 28% while the share of services increased from 40% to 46% during the same period.

India's economic growth in the last two decades has been more than 5% per annum (Table 2). Overall GDP showed higher growth in the 1990s. There was no significant change in the growth rates of agriculture and industry; the higher growth seems to be mainly due to services.

Table 2 Growth in GDP by sector (% per annum at constant prices)

Sectoral	**1980/1 to 1991/2**	**1992/3 to 1999/2000**
Agriculture and Allied Sector	3.9	3.3
Industry	6.3	6.5
Mining and Quarrying	8.4	4.0
Manufacturing	6.1	7.4
Electricity, Gas and Water Supply	9.0	5.9
Construction	5.2	5.7
Services	6.4	8.2
Trade, hotels and restaurants	5.5	8.3
Financial, Insurance etc.	9.4	8.8
Community, social services	5.6	7.4
Total GDP	**5.4**	**6.4**

Source: Economic Survey, 2000–1, Government of India
Note: Government statistics include construction under services. Most public works activity falls under construction.

Land pressure has been increasing significantly in India. With its share of 30% in GDP, agriculture has to bear the burden of more than 60% of workers. Urban areas have their own problems of demographic pressures. As a result, the rural non-farm sector becomes an escape route for agricultural workers. In order to increase wages in agriculture and to shift workers to more productive areas, rural diversification is advocated. There has been considerable diversification in the rural sector in India in recent years, as the data in subsequent Sections demonstrates. To what extent this diversification does in fact benefit the poor and vulnerable sectors is a key focus of this Working Paper.

Diversification of the rural economy has two components. First, the transformation or adaptation of rural livelihoods – how are livelihood sectors and employment changed from farm to non-farm, from rural to non-local, from bonded/ self-employed/ regular to casualised? This relates to analysis at the household and rural economy level. Second, the increasing diversity of income sources that contribute to an individual's or household's livelihood work portfolio throughout a week, month or year. This depends on how individuals or households access opportunity in the market place. We explore both these issues in subsequent Sections.

In the next Section, we explore the extent that India's recent economic growth and rural diversification has generated jobs for the poor.

3. Employment

There were fears that employment growth would decline significantly after liberalisation. The data in Table 3 for 1987/8 to 1993/4 show that this was not the case.

However, subsequently rural employment growth declined from 2% in 1987/8 to 1993/4 to 0.7% p.a. during 1993/4 to 1999/2000. Similarly, urban employment growth declined from 3% to 1% during the same period. The reasons for this decline in the growth of employment are not very clear.

Table 3 Employment growth (% per annum)

Period	Rural	Urban
1983 to 1987–1988	1.36	2.77
1987–1998 to 1993–1994	2.03	3.39
1993–1994 to 1999–2000	0.67	1.34

Source: compiled from Chandrasekhar and Ghosh (2001)

Rural non-agricultural employment increased from about 18% to 24% of total rural employment over the whole period (Table 4)[1]. Job creation was particularly strong in sectors like construction, trade, hotels and restaurants, transport, storage, communications. Diversification has been much slower for females compared to males: 85% of females still work in agriculture.

The stagnation in rural non-farm employment during the period 1987/8 to 1993/4 has been attributed to economic liberalisation in the country. Sen (1998) indicates that public expenditure in rural areas seem to be an important factor in raising rural non-farm employment till 1987/8. Due to stabilisation and structural adjustment, public expenditure declined in the early 1990s and this could be one reason for the stagnation.

[1] Disregard the numbers in 1987/8 because it was a drought year so many agricultural workers shifted to construction and the share of non-agriculture workers particularly for females increased significantly.

Table 4 Distribution of workers by sector in rural India (%)

	Total percentage					Percent difference	
Sectors	**1977/8**	**1983**	**1987/8**	**1993/4**	**1999/00**	**1977–93**	**1994–00**
Agriculture and allied	83.4	81.5	78.3	78.4	76.3	-5.0	-2.1
Mining and quarrying	0.4	0.5	0.6	0.6	0.5	0.2	-0.1
Manufacturing	6.2	6.8	7.2	7	7.4	0.8	0.4
Electricity, gas and water	0.1	0.1	0.2	0.2	0.2	0.1	0.0
Construction	1.3	1.6	3.3	2.4	3.3	1.1	0.9
Trade, hotels and restaurants	3.3	3.4	4	4.3	5.1	1.0	0.8
Transport, storage, communications	0.8	1.1	1.3	1.4	2.1	0.6	0.7
Services	4.5	4.9	5.1	5.7	5.2	1.2	-0.5
All	100	100	100	100	100		
	Male						
Agriculture and allied	80.7	77.8	74.6	74	71.4	-6.7	-2.6
Mining and quarrying	0.5	0.6	0.7	0.7	0.6	0.2	-0.1
Manufacturing	6.4	7	7.4	7	7.3	0.6	0.3
Electricity, gas and water	0.2	0.2	0.3	0.3	0.2	0.1	-0.1
Construction	1.7	2.2	3.7	3.2	4.5	1.5	1.3
Trade, hotels and restaurants	4	4.4	5.1	5.5	6.8	1.5	1.3
Transport, storage, communications	1.2	1.7	2	2.2	3.2	1.0	1.0
Services	5.3	6.1	6.2	7.1	6.1	1.8	-1.0
All	100	100	100	100	100		
	Female						
Agriculture and allied	88.2	87.5	84.7	86.2	85.4	-2.0	-0.8
Mining and quarrying	0.2	0.3	0.4	0.4	0.7	0.2	0.3
Manufacturing	5.9	6.4	6.9	7.1	7.6	1.2	0.5
Electricity, gas and water	–	–	–	–	–	–	–
Construction	0.6	0.7	2.7	0.8	1.1	0.2	0.3
Trade, hotels and restaurants	2	1.9	2.1	2.1	2	0.1	-0.1
Transport, storage, communications	0.1	0.1	0.1	0.1	0.1	0.0	0.0
Services	3	2.8	3	3.4	3.7	0.4	0.3
All	100	100	100	100	100		

Source: Visaria, 1999 and NSSO, 2000

High employment growth RNFS sub-sectors are given in Table 5. Of these high growth sub-sectors, construction, public administration, land transport and mining started from a significant employment base in 1977/8 and are therefore clearly important for rural employment.

The data in Table 5 indicate a significant growth in rural employment in agricultural processing (jute, hemp and mesa products); real estate, business and legal services; land transport; and construction.

In 1987–93, employment growth rates were static or lower in all the sub-sectors except in real estate and business, jute, hemp and mesa products. However, most of the sub-sectors, except electrical, construction, chemical and public administration, showed more than 3% growth even during this period.

Table 5 High employment growth RNFS sub-sectors

Description	NIC code	Estimated jobs			Annual growth rate (%)	
		1977–8	1987–8	1993–4	1977–8 to 1987–8	1987–8 to 1993–4
Electrical equipment	36	37	239	292	20.6	3.4
Activities allied to construction	51	54	239	584	16.0	16.1
Construction	50	2732	7653	6423	10.9	-2.9
Paper and paper products	28	94	239	292	9.8	3.4
Chemical and chemical products	31	195	478	292	9.4	-7.9
Recreational and cultural services	95	106	239	292	8.5	3.4
Land transport	70	1488	2870	3795	6.8	4.8
Real estate, business and legal services	82–3	127	239	584	6.5	16.1
Miscellaneous services	99	262	478	584	6.2	3.4
Wholesale trade in food, animals, textiles and beverages	60	267	478	584	6.0	3.4
Electricity, gas and water	40–2	272	478	584	5.8	3.4
Jute, hemp and mesa products	25	137	239	584	5.8	16.1
Public administration and defence	90	1958	3348	3503	5.5	0.8
Retail trade in textiles	66	287	478	584	5.2	3.4
Mining and quarrying	10	883	1435	1752	5.0	3.4

Source: based on Ghose, 1999

3.1 Elasticity of employment with respect to GDP

As Bhalla (1998) noted, elasticities that approach unity are not desirable: high elasticities may imply very low productivity and therefore wage rates. He maintains that under Indian conditions, elasticity of the order of 0.5 to 0.6 at the aggregate level is sufficient.

The overall elasticity of employment has recovered in the 1990s, after a significant fall in the 1980s. But at 0.47 it is still not ideal for India according to Balla's parameters. Agriculture and services led the recovery of elasticities. The elasticity of manufacturing has persisted at about the same low level as established in the 1980s. The big swing in elasticity for construction is a result of the 1987/8 drought, which made many workers from agriculture move to construction and then move back again once the drought was over.

Table 6 Employment elasticities with respect to GDP by sector

	1977/8 to 1983	1983 to 1987/8	1987/8 to 1993/4
Agriculture and allied	0.49	0.26	0.54
Mining and quarrying	0.67	0.81	0.36
Manufacturing	0.68	0.35	0.39
Electricity, gas and water	0.74	0.74	0.53
Construction	1.00	3.43	0.01
Transport, storage, communications	0.92	0.39	0.62
Trade, hotels and restaurants	–	0.76	0.59
Services		0.39	0.76
(Services including trade)	(0.90)	(0.52)	(0.68)
All sectors	**0.55**	**0.32**	**0.47**

Source: Bhalla (1998)

3.2 Summary and conclusions

The rate of growth in employment has been positive over time, although more modest than economic growth. It actually declined between 1994 and 2000, at a time when rates of economic growth were increasing in most sectors except utilities.

Within the rural sector, RNFS employment has increased as a proportion of total employment, although women are still more concentrated in agriculture and allied activities. Construction, public administration, transport and mining are the largest employers that have experienced high employment growth. Growth in these sectors deteriorated 1987–93 due to a combination of drought in 1987 and on-going cuts in public administration as part of the economic reform and liberalisation programme, but continued at at least 3% p.a.

As long as economic growth continues at current levels, the prospects for rural job creation remain strong as both agriculture and most of the big employers have reasonable employment elasticities. But note that agriculture is the biggest employer but has the weakest economic growth: there will need to be significant job creation in the RNFS sector to compensate for this.

4. Relations of Production

In India, 90% of the workforce is in the informal sector. In this Section, we explore what we know about changes in relations of production in this sector, using as a proxy changes in numbers of workers and of self-employed in informal manufacturing and trade (as these two sectors are the largest rural employers after agriculture and dominate the rural informal sector).

NSS and CSO collect information on 3 categories of informal sector enterprises: (i) own account enterprises (owned and operated without the help of any regularly employed or hired workers) (OAE); (ii) non-directory establishments (enterprises which employ 5 workers or fewer, of which at least one is a regularly employed hired worker (NDE); (iii) directory establishments (which employ 6 or more workers, of which at least one is hired) (DE). Own account enterprises form the clear majority in terms of units and workers, with non-directory establishments constituting the second largest group.

Bhalla (2000) examined the trends in number of units and workers for the period late 1970s to early 1990s and drew the following conclusions:

- In the rural informal manufacturing sector, both the number of units and workers more than doubled between 1978/9 and 1984/5. However, between 1984/5 and 1994/5, both the number of units and employment declined: more than 4 million informal manufacturing jobs were lost and just over 4 million units were closed down.
- In rural areas, where more than 80% of all informal sector manufacturing units are located, own account enterprises accounted for the overwhelming majority of job losses (Tables 7 and 8).
- Two significant changes in non-farm informal sector workforce structure seem to be taking place in India:
  - a shift of non-farm jobs from rural areas to urban areas (Table 9)
  - in the rural informal sector, manufacturing is losing more jobs than trade. Further, within both manufacturing and trade, job losses are concentrated among the self employed in family operated enterprises.

Table 7 Rural unorganized sector manufacturing enterprises and employment, growth rates per annum by category of enterprise

Description	Period	Enterprise category			
		OAME	NDME	DME	TOTAL
Units	1978–9 to 1984–5	15.28	12.59	4.23	14.80
	1984–5 to 1989–90	-3.44	-6.37	4.56	-3.52
	1989–90 to 1994–5	-3.31	-1.97	5.61	-3.03
Workers	1978–9 to 1984–5	15.52	9.06	0.96	13.17
	1984–5 to 1989–90	-2.27	-1.64	6.66	-1.42
	1989–90 to 1994–5	-1.79	-3.41	-2.28	-1.98

Source: Bhalla (2000)
Note: OAME = Own Account Manufacturing, NDME = Non-Directory Manufacturing, DME = Directory Manufacturing

Table 8 Rural unorganized sector trading enterprises and employment, growth rates per annum by category of enterprise

Description	Period	Enterprise category			
		OATE	NDTE	DTE	TOTAL
Units	1979–80 to 1985–6	8.80	10.06	–	8.60
	1985–6 to 1990–1	3.95	3.61	18.00	3.91
	1990–1 to 1995–6	-1.77	-3.34	-0.88	n.a.
Workers	1979–80 to 1985–6	9.85	10.55	-	8.93
	1985–6 to 1990–1	2.85	2.19	11.57	2.76
	1990–1 to 1995–6	-3.01	-3.31	0.85	n.a.

Source: Bhalla (2000)
Notes:
1. OATE = Own Account Trade, NDTE = Non-Directory Trade, DTE = Directory Trade
2. No DTE data is available yet for 1995–6.

Table 9 Informal sector job losses in manufacturing and trade, numbers by category of enterprise

Sector	Rural or Urban	OAE	NDE	DE	All enterprises
Manufacturing	Rural	4,067,803	533,418	299,522	4,900,743
	Urban	497,921	nil	nil	497,921
Trade	Rural	1,330,671	122,728	n.a.	1,453,399
	Urban	nil	nil	n.a.	n.a.

Source: Bhalla (2000)
Notes:
1. The gross numbers given here exclude the effect of any gains in other segments.
2. OAE = Own Account Enterprise, NDE= Non-Directory Enterprise, DE = Directory Enterprise
3. No DTE data is available for 1995–6 yet.
4. All enterprises rural trade figure does not include DTE.

4.1 Female participation

Women form an important component of the rural informal manufacturing sector workforce, both as workers and self-employed in own account enterprise (Tables 10 and 11): just under 40% of the total, and up until recently over 50% in ‘traditional’ primary processing activities such as beverages, cotton and jute. Most recently, their share in these traditional activities has fallen in favour of more modern sub-sectors such as chemicals, electricity, transport, and textiles.

Table 10 Female workers in the unorganised manufacturing sector

Industry	Rural			
	1989–90		1994–5	
	Female workers to total workers[2]	Percentage share to total females[3]	Female workers to total workers[2]	Percentage share to total females[3]
Food	32.83	15.66	31.31	16.70
Beverages	68.45	20.03	57.40	14.68
Cotton	50.48	12.16	52.27	9.75
Wool	43.89	1.71	37.89	2.97
Jute	70.48	1.82	64.25	1.59
Textiles	41.88	8.97	53.20	13.32
Wood	38.11	22.51	35.03	18.24
Paper	32.72	0.28	34.17	0.54
Leather	13.69	0.51	16.05	0.37
Chemicals	46.78	1.47	64.05	1.20
Rubber	39.75	0.25	28.98	0.19
Non-metals	36.94	9.28	35.79	9.57
Basic metals	9.04	0.02	10.13	0.02
Metal products	9.88	0.54	12.88	0.77
Non-electricals	3.21	0.03	3.99	0.04
Electrical	14.84	0.02	22.68	0.07
Transport	0.55	0.00	5.47	0.01
Other manufacturing	35.04	4.34	48.95	9.29
Repair of capital goods	7.08	0.23	6.06	0.31
Repair services	1.46	0.17	2.45	0.34
NEC	14.33	0.01	11.76	0.02
All industries	39.07	100.00	37.85	100.00
Total workers (mn.)[4]	24.46	9.55	22.13	8.37

Source: Lalitha (1999)

Notes:
1. NEC = units not recorded elsewhere
2. Percentage share of female workers to total workers (male and female) in each industrial group.
3. Percentage share of female employment in each industrial group to total number of female employees in all the UMS.
4. Total workers in this row refers to total workers in all industries in the UMS.

Table 11 Female workers in own account manufacturing enterprises

Industry	Rural			
	1989–90		1994–5	
	Female workers to total workers[2]	Percentage share to total females[3]	Female workers to total workers2	Percentage share to total females[3]
Food	39.80	15.56	36.10	16.18
Beverages	71.43	19.80	58.92	15.29
Cotton	55.49	12.48	57.31	9.19
Wool	52.16	1.62	47.59	2.36
Jute	69.53	1.65	67.54	0.98
Textiles	53.13	8.82	62.75	13.91
Wood	40.14	25.10	36.71	19.99
Paper	41.93	0.24	54.03	0.56
Leather	13.92	0.56	17.40	0.41
Chemicals	52.32	1.20	88.81	1.11
Rubber	59.50	0.11	48.58	0.14
Non-metals	40.65	7.60	38.36	8.20
Basic metals	10.23	0.01	17.24	0.03
Metal products	12.30	0.54	14.83	0.76
Non-electricals	0.87	0.01	4.54	0.05
Electrical	35.21	0.02	22.54	0.01
Transport	0.67	0.00	9.14	0.01
Other manufacturing	41.72	4.22	54.61	10.11
Repair of capital goods	8.37	0.26	7.24	0.34
Repair services	1.69	0.19	2.70	0.37
NEC	15.48	0.02	13.01	0.02
All industries	43.61	100.00	41.70	100.00
Total workers (mn.)[4]	19.53	8.51	17.84	7.44

Source: Lalitha (1999).

Note:
1. NEC = units not recorded elsewhere
2. Percentage share of female workers to total workers (male+female) in each industrial group.
3. Percentage share of female employment in each industrial group to total number of female employees in all the UMS.
4. Total workers in this row refer to total workers in all industries in the UMS.

4.2 Summary and conclusions

The number of rural manufacturing and trade units and jobs declined very significantly between 1984 and 1994, particularly in manufacturing and particularly in family-operated (own account) enterprises, due to a movement of these units to urban areas.

This will have had a marked effect on rural women, because they find it hard to move out of agriculture, as we saw in the previous Section, and have not traditionally worked in the high employment growth sectors (construction, mining, transport and public administration). Instead, they have relied on working in the informal manufacturing sector.

5. Wage Rates

Changes in wage rates should mirror changes in labour productivity, if workers are receiving a fair share of the returns to production. To what extent has this been the case in India?

5.1 Labour productivity

Bhalla's (2000) study shows that labour productivity declined or showed slower growth in many sectors between 1987 and 1993, but Sundaram (2001) (see Table 12) shows that most recently labour productivity increased significantly in most sectors except construction. The poor performance in construction has been due to the influx of workers in recent years, partly as a result of the 1987 drought (note that public works construction activity as well as private sector activity is included in the published figures).

Table 12 Labour productivity (GDP per worker) by sector

	GDP per worker (Rupees at 1993–4 prices)		Growth in Labour Productivity
	1993–4	1999–2000	% per year
Agricultural and allied	10120	12323	3.34
Mining and quarrying	74942	118010	7.86
Manufacturing (less repair services)	30767	43970	6.13
Electricity, gas and water	135989	271655	12.22
Construction	33418	33647	0.11
Trade, hotels and restaurants	34864	41116	2.79
Transport, storage and communications	47462	57770	3.33
Financing, insurance etc. (less GDP in dwellings)	127329	190921	6.98
Community, social services including repair services	26549	47263	10.01
All Activities	19708	28120	6.10

Source: Sundaram (2001)

5.2 Changes in real wages

Here, we use changes in real wages in casual employment as a proxy for rural wage rates, as casual labour dominates the rural labour force.

Real wages for rural casual workers are highest in the secondary sector and in public works (Tables 13 and 14). In all sectors, they have been increasing again (Table 14) in the 1990s, after a lull in the late 1980s (Table 13). Casual wages for women have been significantly lower at all stages, although they have been increasing faster than casual wages for men in the 1990s (Table 14).

Table 13 Trends in real earnings of rural casual labour (at 1993/4 prices)

	Real wages (in Rs.)			Compound growth per annum (%)	
	1983	1987–8	1993–4	1983 to 1987–8	1987–8 to 1993–4
Casual labour in public works	16.62	20.17	22.38	4.40	1.75
Other casual labour					
(a) Primary sector	13.95	17.29	18.98	4.89	1.57
(b) Secondary sector	20.43	24.05	27.08	3.69	2.00
(3) Tertiary sector	14.82	19.07	20.21	5.76	0.97

Source: Computed from NSS data

Table 14 Trends in real earnings of rural casual labour by gender and activity (at 1993/4 prices)

	Males			Females		
	1993–4 (Rs.)	1999–2000 (Rs.)	Growth (% p.a.)	1993–4 (Rs.)	1999–2000 (Rs.)	Growth (% p.a.)
Public works	24.65	30.89	3.83	18.52	24.87	5.04
Casual labour in agriculture	21.59	25.48	2.80	15.12	17.99	2.94
Casual labour in non-agriculture	30.15	37.49	3.70	17.46	23.49	5.07
Casual labour in all activities	23.18	28.65	3.59	15.33	18.51	3.19

Source: Sundaram (2001)
Notes: adults = 15–59 years

5.3 Summary and conclusions

Growth in labour productivity is reported as having slowed 1987–93, and data for 1993–2000 show all the high employment RNFS sectors have significantly below average labour productivity (except mining, the least important of these sectors in terms of numbers employed). The poor performance in the construction sector is partly the result of the influx of public works and private sector labour following the 1987 drought.

Therefore, we should not expect significant increases in wage rates in these sectors. The data sets available to us are not directly comparable, but – using casual labour wages as a proxy – appear to show a significant fall in growth in wage rates 1987–93 compared to 1983–7, but then an improvement. Thus, changes in wage rates appear to lag behind changes in labour productivity, particularly for non-agricultural activities. This leads us to question where the surplus is being accumulated.

6. Security of Employment

Security of employment can be assessed using indicators such as casualisation and multiplicity. Here we assess the available evidence.

6.1 Employment quality index

Ghose (1999) estimates a national employment quality index (EQI) for the period 1977/8 to 1993/4 (Table 15) by applying weights to the data recorded by NSS on regular employment, self-employment and casual labour. This reveals that (a) quality of employment has been highest in services and lowest in agriculture; (b) quality of employment has deteriorated over time in all three economic sectors; (c) the deterioration has been slower in services; (d) the deterioration has been higher for males compared to females.

Table 15 Trends in employment quality index

	1977–8	**1983**	**1987–8**	**1993–4**
Males	0.74	0.73	0.72	0.72
Females	0.69	0.68	0.69	0.67
Aggregate economy	0.72	0.72	0.71	0.71
Agriculture	0.69	0.69	0.69	0.67
Industry	–	0.75	–	0.71
Services	–	0.79	–	0.78

Source: Based on Ghose (1999)

6.2 Changes in rural employment

NSS data on the principal status and subsidiary statues of usually employed workers[2] show that the proportion of the total rural workforce employed on a casual basis has increased significantly over time, particularly for males, at the expense of self-employment and regular employment (Table 16).

[2] See Annex 1 for further explanation of term used in Indian employment data.

Table 16 Trends in employment status of usually employed rural labour (%)

Period	Principal status			Principal and subsidiary status		
	Self employ't	Regular employ't	Casual labour	Self employ't	Regular employ't	Casual labour
	Male					
1983	59.5	10.6	29.9	60.5	10.3	29.2
1987–8	57.5	10.4	32.1	58.6	10.0	31.4
1993–4	56.9	8.5	34.6	57.9	8.3	33.8
1999–00	54.4	9.0	36.6	55.0	8.8	36.2
	Female					
1983	54.1	3.7	42.2	61.9	2.8	35.3
1987–8	54.9	4.9	40.2	60.8	3.7	35.5
1993–4	51.3	3.4	45.3	58.5	2.8	38.7
1999–00	50.0	3.9	46.1	57.3	3.1	39.6

Source: NSSO (2000)

The decline in self-employment and regular employment has occurred mainly in agriculture, whereas there has been a modest increase in self-employment and regular employment in RNFS (Table 17). Casual employment in RNFS has declined marginally for female workers but increased significantly for male workers. Most of the changes occurred prior to 1993/4, after which changes have been more muted.

Table 17 Trends in employment status of rural labour by sector (%)

Years	Self emp. agric.	Self emp. non-agric	Regular agric.	Regular non-agric	Casual agric.	Casual non-agric.	Unemployed
	Males						
1977–8	51.54	10.53	4.90	6.06	16.02	3.84	7.12
1983	48.84	10.94	3.87	6.76	17.22	4.86	7.51
1987–8	45.40	12.28	3.09	7.29	20.05	7.33	4.57
1993–4	46.68	12.38	1.77	7.21	20.30	6.00	5.66
1999–00	42.52	13.01	1.75	7.77	20.39	7.38	7.18
	Females						
1977–8	48.92	8.68	1.45	2.56	25.35	3.85	9.18
1983	48.51	7.83	1.29	2.82	25.96	4.73	8.86
1987–8	46.92	8.63	2.04	3.13	25.69	6.74	6.85
1993–4	49.56	8.26	0.87	2.61	28.70	3.91	5.22
1999–00	45.91	9.55	1.36	3.18	29.55	3.64	6.82

Source: Various Rounds of NSS on Employment and Unemployment

6.3 Unemployment

Rates of unemployment for all categories of employment declined between 1977/8 and 1993/4 for all workers except rural males (Table 18), long-term unemployment amongst urban females declining very significantly. However, most recently there has been a marginal increase in the daily unemployment rate for all workers except urban females, indicating an increase in casualisation.

Table 18 Trends in unemployment rates (%)

	Male			Female		
	US	CWS	CDS	US	CWS	CDS
	Rural					
1977–8	2.2	3.6	7.1	5.5	4.1	9.2
1983	2.1	3.7	7.5	1.4	4.3	9.0
1987–8	2.8	4.2	4.6	3.5	4.4	6.7
1993–4	2.0	3.1	5.6	1.3	2.9	5.6
1999–00	2.1	3.9	7.2	1.5	3.7	7.0
	Urban					
1977–8	6.5	7.1	9.4	17.8	10.9	14.5
1983	5.9	6.7	9.2	6.9	7.5	11.0
1987–8	6.1	6.6	8.8	8.5	9.2	12.0
1993–4	5.4	5.2	6.7	8.3	7.9	10.4
1999–00	4.8	5.6	7.3	7.1	7.3	9.4

Source: NSS Employment and Unemployment Surveys
Note: US = usual status – long term unemployment rate, CWS = current weekly status - weekly unemployment rate, CDS = current daily status - daily unemployment rate.

6.4 Employment status across income groups

For rural males, diversification of employment status has been much higher for the top three quintiles (Table 19). Although casualisation increased for these quintiles, they are much better off than the poorer classes. The dependence on agriculture for the bottom 20% has increased over time and within this casual labour has increased at the expense of regular employment.

Table 19 Trends in employment status by income quintile and sector (%)

	0–20	20–40	40–60	60–80	80–100
Self employed, agriculture					
1977–8	37.39	46.46	54.37	57.58	63.00
1983	40.42	45.70	50.00	53.34	54.08
1987–8	38.84	42.59	46.13	48.46	49.69
1993–4	39.05	43.92	47.78	50.74	50.42
Self employed, non-agriculture					
1977–8	9.18	10.46	11.32	11.07	10.51
1983	8.78	10.41	11.45	11.81	12.08
1987–8	8.41	11.11	12.77	14.07	14.35
1993–4	8.60	11.10	12.89	13.56	14.98
Regular, agriculture					
1977–8	7.32	5.39	4.23	3.93	3.83
1983	4.80	5.38	1.38	3.39	3.55
1987–8	4.18	3.31	2.96	2.64	2.52
1993–4	1.93	1.91	1.59	1.72	1.73
Regular, non-agriculture					
1977–8	2.56	3.68	5.35	6.91	11.35
1983	2.70	3.41	5.71	7.54	13.19
1987–8	2.93	3.66	5.15	7.88	15.49
1993–4	2.25	3.42	5.31	7.65	15.93
Casual labour, agriculture					
1977–8	28.57	21.36	14.28	11.07	6.05
1983	27.70	22.30	16.94	12.72	7.46
1987–8	32.48	26.58	20.59	15.08	8.26
1993–4	35.00	26.02	20.56	15.19	7.93
Casual labour, non-agriculture					
1977–8	4.90	4.61	3.83	3.35	2.63
1983	5.39	5.51	4.94	4.48	4.05
1987–8	8.23	8.14	8.12	7.32	5.15
1993–4	6.35	7.14	6.39	6.03	4.32
Total agriculture					
1977–8	73.28	73.2	72.87	72.58	70.50
1983	72.97	71.21	70.74	69.46	65.09
1987–8	75.51	72.48	69.68	66.18	60.47
1993–4	75.98	71.86	69.63	67.65	60.08
Total casual labour					
1977–8	33.46	25.97	18.11	14.42	8.68
1983	33.09	27.81	21.88	17.20	11.52
1987–8	40.71	34.72	28.71	22.40	13.41
1993–4	41.35	33.17	26.95	21.21	12.25
Unemployed					
1977–8	10.09	8.04	6.63	6.09	5.01
1983	10.13	8.17	7.16	6.72	5.59
1987–8	4.92	4.62	4.28	4.54	4.54
1993–4	6.81	6.46	5.48	5.13	4.68

Source: Rearranged from Sen (1998)
Note: data is for daily status rural males

6.5 Multiple activities

A household may diversify its activities by the participation of each member in more than one economic activity. Multiple activities are generally associated with casualisation. Large scale NSS surveys do not capture these multiple activities of households; micro surveys are needed to understand diversification at the household level. Unni (1996) examined this aspect with the help of a primary survey conducted in 30 villages of Gujarat in 1987/8.

Less than half the households had agriculture as their major source of income (although the proportion of households undertaking non-agricultural activities as their primary source of income may be high due to the drought that prevailed during 1987/8) (Table 20).

Table 20 Major sources of household Income in Gujarat (% of household)

Major Source	**Sample villages**					
	Bhavnagar	Mehsana	Panchmahals	Valsad	Vadodara	All Districts
All agricultural HHs	**22.0**	**50.6**	**40.3**	**49.6**	**57.1**	**45.2**
Cultivators	10.3	30.6	29.1	16.6	24.0	22.6
Allied agriculture	5.8	3.5	0.4	2.0	1.8	2.6
Agricultural labour	5.9	16.5	10.8	31.0	31.3	20.0
All non-agricultural HHs	**78.0** (48.2)	**49.4** (22.9)	**59.7** (50.6)	**50.4** (50.0)	**42.9** (40.2)	**54.7** (41.4)
Scarcity work	29.8	26.5	9.1	0.4	2.7	13.3
Other non-agricultural labour	17.0	3.3	6.1	16.2	5.8	9.3
Regular employment in non-agriculture	10.9	6.7	25.1	23.5	24.5	18.1
Self-employment in manufacturing	6.1	4.1	4.8	2.6	2.7	3.9
Self-employment in trade, etc	9.4	4.9	10.5	3.7	5.0	6.4
Others	4.5	3.9	4.1	4.1	2.1	3.7
All HHs	**100**	**100**	**100**	**100**	**100**	**100**
Number of sample HHs	664	779	716	801	800	3760
Estimated no. of HHs	2,282	3,097	2,426	2,847	3,052	13,704

Source: Unni (1996)

Notes:

1. Figures in parenthesis report the proportion of non-agricultural households excluding those engaged in scarcity work.
2. HHs = Households.

Households had an average of 2 sources of income (Table 21). In general, households primarily engaged in scarcity relief work and other non-agricultural labour reported more than the average number of sources of income.

Table 21 Average number of economic activities per worker by major source of household income

Major source of household income	Sample villages of											
	Bhavnagar		Mehsana		Panchmahals		Valsad		Vadodra		All Districts	
	M	F	M	F	M	F	M	F	M	F	M	F
Cultivation	2.0	2.1	1.7	1.8	2.2	2.2	2.0	2.0	2.0	2.0	2.0	2.0
Allied agriculture	1.5	1.6	1.7	1.4	2.0	2.0	1.6	1.6	2.1	1.6	1.7	1.6
Agricultural Labour	2.1	2.1	1.7	1.6	2.1	2.1	1.8	1.8	1.8	1.9	1.8	1.9
All agricultural households	1.9	2.0	1.7	1.7	2.2	2.2	1.8	1.9	1.9	1.9	1.9	1.6
Scarcity work	2.1	1.9	1.9	1.8	2.7	2.6	2.7	3.0	2.8	2.6	2.1	2.0
Non-agricultural wage labour	1.4	1.5	1.8	1.9	2.4	2.3	1.9	1.9	1.8	1.7	1.8	1.8
Regular employment in non-agriculture	1.6	1.7	1.4	1.5	1.4	1.5	1.3	1.5	1.4	1.5	1.4	1.5
Self-employment in manufacturing	1.4	1.4	1.6	1.5	1.5	1.5	1.6	1.6	1.6	1.9	1.5	1.6
Self-employment in trade, hotel, etc	1.3	1.5	1.5	1.4	1.4	1.5	1.4	1.6	1.5	1.6	1.4	1.6
Others	1.5	1.4	1.2	1.2	2.1	1.9	1.2	1.5	1.3	1.0	1.5	1.5
All non-agricultural households	1.7	1.7	1.8	1.7	1.8	2.0	1.5	1.7	1.6	1.7	1.7	1.8
All Households	1.7	1.8	1.7	1.7	2.0	2.1	1.7	1.8	1.8	1.9	1.8	1.8

Source: Unni (1996)

Note: M = Male; F = Female.

Unni (1996) examines the determinants of households taking up multiple activities. The results show that the chances of diversification into multiple activities are higher among agricultural households and individual agricultural workers. Access to land is one of the important determinants of multiple activities. Seasonality in agriculture, uncertainty and risks in production also lead to diversification of activities. In far away and under developed villages diversification is due to uncertain and low incomes from one economic activity.

NSS data also shows that at least some of the workers who are having principal status are engaged in more than one economic activity. In 1993/4, the proportion of Usual principal status workers reporting participation in another subsidiary economic activity was about 34% in rural areas and a little over 6% in urban areas (Sundaram, 2001). It is also shows that, while the participation in non-agricultural activities of principal status workers in agriculture was quite marginal (about 6% for rural males and 3% for rural females), 31% of rural male and 21% of rural female principal status workers in non-agricultural were engaged in agriculture as an additional subsidiary economic activity.

6.6 Multiple activities by income group

The share of income derived from different activities can be used as a proxy for the amount of time allocated to them. Table 22 shows data on income shares by income quintile derived from a survey conducted by the National Council for Applied Economic Research (NCAER) in 35,000 rural Indian households from 1,700 villages in 16 states in 1993/4.

Table 22 Income shares in rural India by income quintile, 1993/4

Quintile	Cultivation	Agricult. wage labour	Total agric. income	Casual non-farm labour	Non farm self emp.	Non-farm regular emp.	Total non-farm sources	Other sources	Real per capita income (Rs.)
Lowest	38.2	28.2	**66.4**	15.8	11.4	4.4	**31.6**	2.0	1,146
Q2	38.0	21.3	**59.3**	14.7	16.8	7.0	**38.5**	2.3	2,113
Q3	45.2	13.4	**58.6**	10.1	16.3	11.7	**38.1**	3.2	3,141
Q4	50.1	7.5	**57.6**	6.1	14.6	18.6	**39.3**	3.2	4,712
Highest	64.5	2.1	**66.6**	2.0	7.9	21.1	**30.9**	2.5	11,226
Total	54.9	8.0	**62.9**	5.9	11.5	17.1	**34.4**	2.7	4,468

Source: Lanjouw and Shariff (2000)

Notes: quintiles are based on real per capita income.

All quintiles rely on agriculture for around 60% of total income, however the bottom and top quintiles are particularly dependent on this sector, with agricultural wage labour increasing in importance relative to cultivation for the lower quintiles. Non-farm income is nonetheless significant, making up around 35% of total income for all quintiles and particularly important for the middle quintiles. Within this category, casual non-farm labour and non-farm self-employment is important for the lower quintiles.

6.7 Summary and conclusions

The quality of employment appears to have declined in all three economic sectors, but particularly in agriculture and particularly for women.

There has been a significant increase in casual labour as a proportion of total rural employment, mainly in the early liberalisation period, particularly in agriculture. Poorer groups are especially reliant on casual labour.

There has been a decrease in unemployment in all categories except rural males, although an increase in under-employment, probably related to the increase in casualisation.

There has been a move out of own account agriculture but poorer groups are still very reliant on agricultural employment as wage labourers, which we saw earlier is subject to slow growth and low wages.

Multiple activities are now much more prevalent in rural areas and are know to be correlated with involvement in agriculture. It is not clear from the available data whether this increase is due to the increase in casual work or is a structural response to risk in agriculture.

7. Access to Employment

7.1 Education

Education is important for workers in order to get good quality employment and is one of the key factors determining the success of rural diversification. Literacy alone is at best only one indicator. Literacy definition covers anyone who can write their name and this means many people may be classified as literate although they may not understand simple written instructions. Unless we have these abilities for workers, the efficiency of the labour force in many occupations is likely to remain low.

Illiteracy has declined over time (Table 23). However, even in 1999–2000, 68% of rural males and 91% of rural females are either illiterate or have been educated only up to primary level.

Table 23 Education status of all rural workers (% of workers)

Category	Rural male		Rural female	
	1977–8	1999–2000	1977–8	1999–2000
Not literate	55.0	40.3	88.1	74.9
Literate and up to primary school	30.8	27.7	9.1	15.7
Middle school	8.5	15.9	1.6	5.6
Secondary and higher secondary	4.7	13.0	1.0	3.0
Graduate and above	1.0	3.1	0.2	0.7
Total	100.0	100.0	100.0	100.0

Source: NSS Rounds on employment and unemployment
Note: workers = 5 years and above

Table 24 shows that only 4% of the casual labourers and 14% of self employed are educated in rural areas.

Table 24 Education status by category of rural worker, 1999–2000

Status	Rural		
	Male	Female	Both
Employed			
Self employed	17.5	3.3	13.5
Regular employed	46.9	39.3	45.7
Casual labour	6.2	1.1	4.4
Total	16.0	3.7	12.4
Unemployed	55.2	62.7	56.9

Source: NSSO, 2000

This data implies that potential for rural workers to obtain better paid employment, i.e. in sectors requiring some education, is extremely limited.

7.2 Migration

Census and NSS capture permanent and semi-permanent migration. These data sources indicate that national level decadal or intercensal migration declined relative to population from 12% to 10% between 1981 and 1991. Of the 226 million persons who changed places of residence within the country as per the 1991 Census, only 9% persons moved for employment reasons and 2% moved for business reasons. While inter-state migration accounted for 12% of all migrants, it accounted for 29% of those who migrated for employment or business reasons. Among those migrating for employment, the rural-urban stream is important but it does not constitute the dominant stream, accounting for 45% of all such migrants.

Both the Censuses and NSS ignore or severely underestimate short duration (circular) migrants and commuting labour. The National Commission on Rural Labour (NCRL) estimates more than 10 million circular migrants in the rural areas alone. These include an estimated 4.5 million inter-state migrants and 6 million intra-state migrants. The Commission notes that there are large numbers of seasonally migrant workers in agriculture and plantations, brick-kilns, quarries, construction sites and fish processing. In addition, large numbers of seasonal migrants work in the urban informal manufacturing, construction, services or transport sectors – as casual labourers, head-loaders, coolies, rickshaw-pullers, hawkers and so on. Information is not available on the trends in circulation of labour over time but the few studies on migration over several decades that exist suggest a growth in labour circulation (e.g. Breman, 1996).

Some studies have examined the impact of labour migration in the source and destination areas. Srivastava's study (1998) shows that in the source areas, increased labour mobility has contributed to breaking down the isolated nature of rural labour markets and a greater integration between rural and urban labour markets. The overall impact of labour outmigration in the recent period has been to put an upward pressure on wages and accelerate changes in production relations. Remittances to rural areas are quite sizeable in many areas (e.g. U.P. Hills). On the other hand, in the destination areas, labour migration is principally to the rural and urban informal sectors. Migrant labour in these areas operates in a setting in which there is segmentation and fragmentation in the labour market and enables the employers to lower wage costs, and exercise greater control over the labour process.

Micro-studies suggest an increase in labour mobility via seasonal migration and commuting. A micro study in Uttar Pradesh indicates a diversification in employment from agriculture to non-agriculture. An important component of non-agricultural employment opportunities is non-local, linked to migration, both on an individual and household basis[3]. In many study areas, non-agriculture has emerged as a major source of employment.

A study by de Haan (1999) on the role of migration in promoting livelihoods indicates that it may not be possible to generalise about the characteristics of migrants, or about the effects of migration on broader development, inequality and poverty. For example, there is no one-to-one relationship between status of migrants and land ownership. In some places, landless workers dominate migrants while in other places there is a positive relationship between landholding and migration.

[3] See Srivastava (1999). On rural labour relations in some states of India, see the special issue of *The Journal of Peasant Studies*, Vol.26, Nos. 2 and 3, 1999

7.3 Summary and conclusions

The very low education levels in rural areas limits access to better-paid employment, leaving rural workers with low skill, low productivity (therefore probably low wage) jobs in construction, mining and transport. These are also sectors that have not traditionally attracted women.

Low education levels could be one of the reasons informal sector manufacturing and trade units are moving to urban areas: as they move from traditional agricultural processing to more 'modern' activities, requiring a more educated workforce.

Migration seems to have benefited the source areas in improving rural livelihoods while in the destination areas migrant labour are being exploited. However, a very small proportion of total migration is for work reasons, the majority of this being intra-state and circular migration and not predominantly rural – urban. Permanent migration appears to have declined over time, whilst seasonal migration and commuting has increased. The available evidence does not indicate the reasons for low migration and the extent that it forms a barrier to accessing work. Other factors – particularly lack of education – may act as a constraint to rural workers to seeking paid work away from home.

8. Analysis

8.1 Trends in poverty

Whilst poverty among rural and urban workers has declined over time, it is still substantial (Table 25). Poverty among urban workers declined faster than for rural workers. Most recently, the rate of decline has slowed.

Table 25 Poor among employed (%)

Year	Percentage of poor among employed	
	Rural	Urban
1977–8	51.81	37.99
1983	45.25	39.69
1987–8	38.02	36.94
1993–4	35.25	30.61

Source: Planning Commission

Nearly 80% of the poor are concentrated in agriculture and this has not changed significantly in recent years (Table 26). Most of these are agricultural labourers rather than cultivators – although the proportion of labourers below the poverty line appears to have declined slightly since liberalisation (Table 27). Construction workers are the other rural group with significant numbers below the poverty line. Thus, for agricultural labourers, shifting to any other sector seems to be a better option. On the other hand, if cultivators shift to manufacturing or construction, they would be worse off.

Table 26 Trends in share of rural poverty by sector (%)

Sector	Year	Share in all rural poor
Agriculture	1987–8	78.77
	1993–4	77.22
Mining	1987–8	0.55
	1993–4	0.66
Manufacturing	1987–8	5.38
	1993–4	5.26
Electricity, gas, water supply	1987–8	0.16
	1993–4	0.13
Construction	1987–8	4.03
	1993–4	3.74
Trade	1987–8	3.46
	1993–4	4.11
Transport	1987–8	1.36
	1993–4	1.75
Services	1987–8	4.20
	1993–4	4.93
Others	1987–8	1.77
	1993–4	1.65
Total	1987–8	100.00
	1993–4	100.00

Source: Bhalla (2000)

Table 27 Trends in rural poverty ratios by sector

Ref year	Cultivators	Agricultural labourers	Construction	Manufacturing	Trade	Transport	Health and education	Other services
1987–8	28.25	57.86	44.25	33.33	24.88	26.83	10.77	25.91
1993–4	26.35	54.65	42.42	32.24	24.85	27.69	8.41	23.91

Source: Computed from NSS data

8.2 Trends in growth and employment

The overall rate of growth in GDP in India was higher in the 1990s compared to the 1980s. The growth rate in agriculture declined marginally in the 1990s while there was marginal increase in industry and construction. Within industry, manufacturing sector's growth rate increased in the 1990s while those of mining and quarrying, and electricity and water declined. Significant growth occurred in services particularly in trade, hotels, restaurants and community and personal services. Employment trends in rural areas are consistent with these growth trends.

The data on rural employment show that there has been diversification from agriculture to non-agriculture, although diversification has been much slower for females compared to males. Construction, transport and mining[4] are sectors employing large numbers of people that show high employment growth rates and thus increasing employment shares over the period. Construction and transport have high employment elasticities, which bodes well for continued job creation in these sectors. However, even with these high elasticities, they will provide only a fraction of the total jobs traditionally provided by agriculture, and the construction sector is notable for a high incidence of poverty.

Furthermore, there has been a worrying decline in the number of rural manufacturing and trade units and jobs, which have traditionally accounted for about 11% of rural jobs – the next most significant source of work after agriculture. These units appear to be moving to urban areas. One could hypothesise that this is partly due to the very low literacy levels in rural areas: we presented evidence that rural manufacturing and trade have been diversifying from traditional agro-processing to modern sector activities, in which case the prevailing education level of rural labour may no longer be sufficient. The fact that the majority of rural manufacturing and trade units are family operated enterprises, but most of the new rural jobs are casual, is one factor contributing to the increasing casualisation of the rural labour force or – in the case of women – a withdrawal from the labour market (there is evidence that women withdraw from the labour market rather than register as unemployed).

The decline in rural manufacturing and trade units particularly affects women, who are not moving out of agriculture as much as men and are not major participants in the current high employment growth sectors. Perhaps the prevailing mode of self-employed cottage-industry style rural manufacturing fits better with women's domestic obligations than does going out to work in construction, mining or transport. How are women going to cope, now that manufacturing and trade are moving to urban areas?

[4] And public administration, but data was incomplete for this sector so we have not attempted to consider it further in our analysis.

Construction, transport and mining are not mobile in the same way as manufacturing and trade, so jobs in these sectors can be expected to stay put. This is good for poor rural job-seekers as these sectors have relatively high employment generation potential for (presumably) relatively unskilled work, although providing only a fraction of the number of jobs traditionally provided by agriculture. However, the construction and transport sectors are very dependent on stimuli from overall economic growth and can be expected to decline exponentially in times of economic downturn – not a solid base on which to build rural diversification.

In addition, labour productivity is below average in both agriculture and all the high employment growth RNFS sectors (except mining). This implies that wage rates will not be high, and is borne out by the high incidence of poverty in agriculture and construction. Neither are the new high employment growth sectors particularly accessible to women.

Generally, although there has been an overall decline in unemployment, this has been accompanied by an increase in casualisation of jobs and underemployment. And the poorest segments of the population continue to rely on wage labour in agriculture, which as an economic sector is growing only slowly and does not have high employment generation potential (employment elasticities), in addition to being subject to low wages.

More needs to be found out about why rural manufacturing and trade is moving to urban areas, as these have been significant employers in rural areas traditionally, have experienced good economic growth and wage rates, and are accessible to women (although manufacturing in particular does not show high employment elasticities).

8.3 Rural diversification and poverty alleviation

Recent economic growth in India has been accompanied by marked diversification in rural areas. What appears to have caused this, and what effect has it had on employment opportunities for the poor?

Various studies have identified several ‘push’ and ‘pull’ factors that determine growth in rural non-farm employment. Among them are agricultural growth, unemployment, commercialisation of agriculture, urbanisation, real wages, and public expenditure[5].

There has been a debate whether the diversification has been due to pull factors or push factors. It is generally believed that if the diversification is due to higher agricultural growth, pull factors may be operating in the economy. On the other hand, if it is distress-related diversification, for example due to unemployment, push factors seem to be more important and the rural non-farm sector may be acting as a residual sector (for more on this, see Vaidyanathn (1986) and (1994)). In the 1980s, this residual sector argument was refuted because real wages were rising in rural areas. Also it has been noted that non-agricultural wages are higher than that for agricultural workers in rural areas (Papola, 1991).

Although the fact that, on average, non-agricultural workers are better off than agricultural workers does weaken the case for the ‘residual sector’ hypothesis, matters are more complicated (see Sen, 1998). Chandrasekhar (1993) suggest much more complex non-linear relationships between

[5] For more details on the determinants of rural non-agricultural sector growth, see Vaidyanathan (1986), Visaria and Basant (1993) Mahendra Dev (1993), Chandrasekhar (1993), Chaddha (1999), Unni (1996), Sen (1998), Lanjouw and Shariff (2000).

agricultural prosperity and rural non-agricultural employment: increasing when villages manage to escape a stage of involution but have yet to enter a phase of sustained agricultural growth, and decreasing as they go through a phase of sustained irrigation-induced expansion in agricultural output, and increasing again in the mature green revolution phase when growth of land productivity tapers off and mechanisation reduces the demand for agricultural labour.

There are also problems with the argument that if wages rates are higher in non-agriculture than in agriculture, then the former cannot be a ‘residual sector’. The problem is that any wage differential must be caused either by some barrier to entry into higher wage sectors due to skill, location, contacts leading to job access or some other specificity; or be a compensation for harder work or higher expenses such as commuting. Due to all the above reasons, movements out of agriculture may not always be likely to improve the overall quality of employment.

9. Policy Implications

In India unemployment rates are not high. The rate is around 6%. This is because unemployment rates are based on time criterion. Poor people are too poor to be unemployed for a long time. Instead, we have the concept of ‘working poor’. In other words many people are working at low wages and low working conditions in agriculture and the informal sector. Therefore, the challenge is to shift these workers to higher productivity (therefore higher wage) sectors and also create new jobs in the non-agriculture sector. Thus, the real nature of the unemployment problem is not that people are not 'employed' in some activity but that large number of those classified as employed are engaged in low quality employment, which does not provide adequate income to keep a family above the poverty line. The employment strategy we need therefore is not a strategy that ensures an adequate growth in the volume of employment, but one that ensures a sufficient growth in quality employment opportunities.

Allowing the poor to contribute to and benefit from increased growth rates will pose particular challenges, as employment in India is largely unorganised, rural and non-industrial in nature. It will be necessary to ensure that government policy and programmes recognise the perceptions and priorities of the poor, improve productivity and create diversified opportunities to earn income.

We discuss options for employment creation and diversification in different sectors[6].

9.1 Sector policies

Agriculture and food processing

Several studies have mentioned that agriculture growth is pro-poor and directly helps in reducing poverty. Almost 80% of the rural poor are engaged in agricultural activities. However, this is not a sector where we should expect or plan for large increase in the total number of people employed. On the contrary, the problem we face is precisely that agriculture has become a residual absorber with too many people locked into low wage employment, much of which is seasonal and characterised by considerable under-employment.

Within the agricultural sector our aim should be to increase agricultural production and also diversify production so that agricultural productivity and income expand giving a boost to rural income and therefore demand for labour in rural areas. The combined effect of (a) reduced dependence of population on agriculture and (b) improved production capability of agriculture should help to increase real wages and incomes per head of those employed in the agricultural sector. Some of the policies needed for higher growth in agriculture are: raising public investment in agriculture; removal of domestic and external controls on agriculture; liberalising leasing of land; development of non-cereal crops etc.

The shift of population from agricultural to non-agricultural activities is a process that has occurred in all developing countries. But this process has been much slower in India than in other countries. Although India is one of the largest producers of raw material for the food processing industry in the

[6] For a discussion on the avenues for improving quality employment opportunities in India, see The Report of the Prime Minister’s Task Force on Employment Opportunities (forthcoming).

world, the industry itself is underdeveloped. Less than 25% of fruit and vegetable production is processed compared with 30% in Thailand, 70% in Brazil, 78% in the Philippines and 80% in Malaysia. By any standards therefore the unutilised potential of food processing in India is enormous. Expansion of this sector is an ideal way of bringing industry to rural areas, expanding the value chain of agricultural production, providing assured markets for farmers enabling them to diversify into higher value horticultural crops and expanding employment by creating high quality non-agricultural work opportunities in rural areas.

Livestock sector

Dairy and other livestock are considered more pro-poor than crop agricultural sector. Basically landless, marginal and small farmers own livestock. Development of this sector will help the poor. Supply side factors like feed and marketing are the major constraining factors in this sector. Government has to help in removing these constraints.

Forestry sector

Forestry is the second largest land use after agriculture. It is estimated that approximately 275 million of the rural poor in India depend on forest lands to varying degrees. For approximately 100 million people, forests (fuelwood, non-timber forest products, construction materials etc.) are the main source for sustaining livelihoods and generating cash income. Half of India's 70 million tribal people, the most disadvantaged sections of the society, subsist from forests. Direct dependency of a large population on forests combined with increasing pressures on an already degraded resource base is the central challenge in the sector. Joint forest management or community forest management has to be encouraged in a big way to arrest the degradation of natural resources.

Industry and services

For the last 50 years, the organised industrial sector has not created work opportunities for the majority of the poor. It is the small-scale industries and informal sector which absorbed the poor labour force. There is a need for providing an enabling environment for these workers.

Providing higher wages, removing legal hurdles, and quality social security measures are some of the measures needed to help the poor. Generally, there are three constraints for the industrial sector: (a) physical infrastructure – power, water, telecom and transport; (b) regulatory constraints – in the starting stage, day-to-day operations; and (c) factor market rigidities – land, labour and credit markets. The Governments at the centre and state levels should try to relax these constraints to improve productivity in the industrial sector.

For small-scale industries, reservation is not the solution. The Government should give promotional support to small-scale industries. The small industries sector does not face a level playing field vis-à-vis large industries because of innumerable market imperfections, so it is necessary to take positive steps to remove or at least to mitigate these disadvantages. International experience suggests that technical assistance, market assistance and information have to be available as a package to have the

desired results. Similarly, there is a large scope for diversification into services in rural areas. Here also, rural infrastructure has to be improved to create work opportunities in rural services.

One has to distinguish between *poor* and the *poorest*. Many micro enterprises may not be suitable for the poorest. In fact, forcing them to undertake micro enterprises may make them more vulnerable. Therefore, policies for the poorest have to be framed separately. For example, forest based activities like bamboo making can be viable for the poorest.

9.2 Enabling environment

Liberalisation and economic reforms

Economic reforms provide opportunities and challenges. There will be some gainers and losers. We have seen that casualisation has been increasing even before the economic reforms started. However, it seems to have got accentuated in the post-reform period. Also employment growth has been lower in the post-reform period. Government interventions in the form of more public investment in agriculture and non-agriculture, and some kind of security for unorganised workers are needed to improve the livelihoods of the poor.

Rural workers in small towns

NSS and Census do not include employment in rural small towns in the rural non-farm employment statistics. These small towns have a significant role in promoting employment in the rural areas through backward and forward linkages. Productivity and earning levels in rural non-farm enterprises are generally higher in the regions where urban settlements are widely spread in the rural hinterland than in the regions where the urban population is concentrated in a few large towns. Growth of such towns has a direct bearing on the viability and sustainability of rural enterprises. Economics of size, technology, infrastructure and linkages are tending to lead to a shift of certain rural enterprises from villages to these towns. Expansion of productive employment in these enterprises in the rural towns is most likely to generate sustainable productive employment for workers from the villages in the area. The obvious implication is that the issue of non-farm rural employment should not only be approached in terms of availability of work opportunities for rural workers in the towns in the rural hinterland. Employment for rural workers has to be viewed keeping the entire rural space, including rural towns, in view – and rural development as an integrated and linked development of these towns and the villages.

Anti-poor laws

The experience of grassroots workers shows that often certain government policies harm the poor much more than the benefit that accrues to them through money-oriented schemes like IRDP. These anti-poor laws are more applicable to forests and common property resources. In tribal areas where land for agriculture is scarce, some of the well-intended clauses of the Indian Forest Act and Forest Conservation Acts might actually be more harmful to the tribals, who need to make a transition to silviculture if not agriculture. Deregulation has made no impact at the state level. The systems of buying and selling land, getting a ration card or your security back, and rent control acts all need thorough revision. One can set up an industry worth billions of rupees in India without any license

today, but a farmer can neither set up a brick kiln unit, nor a rice-selling plant, nor a cold storage without bribing officials. In the urban informal sector also there are many legal hurdles.

Thus, there are many anti-poor laws and policies that hurt the poor, and there is a need to liberalise or change these laws and policies. There is also need to collect information on anti-poor policies in the country for public action.

Social sector policies

In the case of the informal sector, relying only on conventional social security programmes like old age pensions, may not be sufficient. We need to have both promotional measures (employment schemes, health and education) and protective measures (old age pensions, maternity benefits). There are schemes to protect the entitlements of those employed in the informal sector of the state. These cover downside risks arising out of (a) famine, floods and other natural calamities (e.g. public works programmes) and (b) household factors such as destitution, old age, maternity etc., and (c) a persistent shortage of nutrition/income.

In general, social security is available with a degree of certainty to those in government employment and in specific industries and classes of establishment in private sectors. It is its availability to those in the informal sectors or the unskilled unemployed that is subject to budgetary constraints and far from certain. There is a need to have some sort of social security for unorganised workers.

Encouragement to women

There are many constraints to women shifting to high productive sectors. Men normally shift to non-farm activities if there are opportunities and women are left behind in less productive agriculture. An enabling environment has to be provided to home-based workers and other self employed workers in the informal sectors. The medium to long run solution is education and training.

Skill improvement

Public policies on skill development have so far focused mainly at vocational training institutions. While everyone has to take to work at some stage, the mode of acquiring skills is not uniform. Any person who is economically active, or seeks to become one, acquires the working skills through one or more of the following modes of training: (a) hereditary skills acquired in the family; (b) on the job training or informal apprenticeship; (c) education relevant to work; (d) formal vocational training in an institution; and (f) retraining as the nature of work changes. The first two modes will not give high productive jobs while the last three are important for acquiring higher skills. The challenge in the future is to match the supply with demand for youth employment.

A major effort to promote literacy and more importantly to bring about improvement in the skill levels of those in the working age group consistent with their level of education should therefore have high priority. One weakness of government supplied and directed education and training has been a divorce of the supply of skills from the demands of the market for skills.

Annex 1: Further information on Indian employment data

The Population Census, conducted once in ten years, and the quinqennial sample surveys of the National Sample Survey Organization (NSSO) on Employment and Unemployment are two main sources of data on overall employment and unemployment in the country. While there are some other agencies which also collect information on employment aspects, their scope and coverage is limited to a particular sector of the economy or a particular segment of the labour force.

The Decennial Census provides information about population and workers. However, given the size of the operation involved in the decennial Census, it is not possible to gather detailed information on employment related aspects through the Census. The quinquennial surveys of NSSO on the other hand, provide reasonably detailed information and the concepts used in these surveys have also remained similar in various rounds of surveys on employment and unemployment conducted since the first such survey in 1972/3. In this study we basically rely on NSS data on employment and unemployment.

Alternative concepts of employment suggest different criteria for its measurement. The question of measurement of employment is not straightforward because there are different aspects to employment. Amartya Sen (1975) provides three concepts: (a) the income aspect – employment gives an income to the employed; (b) the production aspect – employment yields an output; (c) the recognition aspect – employment gives a person recognition of being engaged in something worth his or her while. Rajkrishna (1976) mentions four criteria: time, income, willingness and productivity.

In the NSS labour force surveys, employment, unemployment and under-employment have been measured mainly on the basis of the time criterion. Time at the disposal of a person is identified as associated with a set of work-related activities, and distribution of time across the activities is used to determine whether the person is in the labour force, employed, unemployed or underemployed.

In order to capture the complexities of the employment situation in a predominantly agrarian and unorganised economy like India, the estimates of employment and unemployment by NSSO are based on three concepts: Usual Status (US); Current Weekly Status (CWS); and Current Daily Status (CDS). The three concepts are based on three different reference periods for ascertaining the activity status of a person. Under the US concept, the reference period is one year and the activity status of a person as employed, unemployed or out of labour force is determined on the basis of activity pursued by him for the major part of the year. On the CWS criterion, a person is considered as employed or unemployed if he has worked or has not worked though was available for work, respectively, even for one hour during the week. Under the CDS approach, the unit of classification is half a day. Under this approach the person days are distributed by activity category during an average week.

A deficiency of the present time criterion based estimates of employment is that one gets to know little about how well employed (income etc.) are the persons who are seen as employed. This criterion also does not provide information on multiple activities by persons/households.

Underemployment is commonly defined as the underutilisation of workers' labour time. Some of the persons categorised as usually employed do not have work throughout the year due to seasonality in work or otherwise and their labour time is not fully utilised – they are, therefore underemployed. A measure of *visible underemployment* is obtained by cross classifying persons by their usual and current daily statuses.

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