

# Size, Contribution and Characteristics of Informal Employment in India<sup>1</sup>

Jeemol Unni

The Gujarat Institute of Development Research, Ahmedabad, India

[gidrad1@sancharnet.in](mailto:gidrad1@sancharnet.in)

## 1. Introduction

India has enjoyed a growth rate of gross domestic product of about 6.5 percent over the last decade. Such consistent growth over a decade is exceptional. Statistics on poverty ratios showed a clear reduction in poverty since the mid-nineteen eighties, with further acceleration in fall in the last five years. However, a recent Task Force on Employment Opportunities set up by the Planning Commission (2001) in India pointed out that even a continuation of the GDP growth at this rate is not likely to bring about significant improvement in the employment situation due to low employment elasticities of output growth. The quality of employment generated is also rather poor.

The Task Force further pointed out two structural features of the employment situation in India that made the situation in this country different from others. The first is the distinction between the formal and informal sector employment, or the organized and unorganized sectors as it is called in India, and the second is between wage and self-employment. Large proportions of the work force are engaged in the unorganized sector and are self-employed, as we shall see below. Both these features make it more difficult for the economic policies of the Government of India to have a direct and quick impact on the economy. The positive impact of economic growth may reach the organized sector and wage employed workers faster while making the process of the percolation of the benefits to the rest of the economy more difficult.

The purpose of this country case study is to provide estimates of the informal sector and a broader concept of informal employment (defined later) using the official secondary data sources. Some evidence from micro studies will be presented to focus on the kind of workers we refer to and their working conditions.

### Change in Share of the Informal Sector in GDP and Employment

A picture of the aggregate growth of the economy in India in terms of output, employment and productivity can be misleading due to the structural features presented above. A large proportion of the workforce is in the informal sector. These workers are engaged in economic activities with lower productivity resulting in lower incomes. They are also engaged in activities with less stable employment contracts (including the self employed) and fewer social security benefits. While the wages and salaries of the formal sector workers are revised periodically to counter inflation, no such benefits accrue to the large proportion of workers in the informal sector.

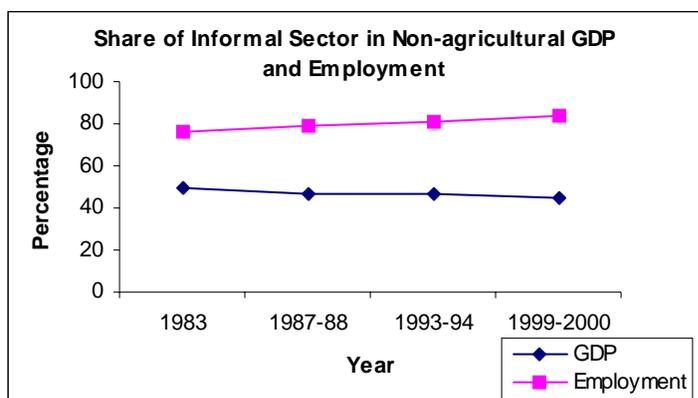
The share of the informal (unorganized) sector in the non-agricultural gross domestic product and employment are presented in Figure 1 for the period 1983 to 1999-2000<sup>2</sup>. The share of the

---

<sup>1</sup> Country Case Study , commissioned by the International Labour Organization, Geneva, for document relating to the International Labour Conference, June 2002.

unorganized sector in non-agricultural GDP declined from 49 percent in 1983 to 45 percent in 1999-00. The share of the unorganized sector in non-agricultural employment, however, rose from 76 percent in 1983 to 83 percent in 1999-00<sup>3</sup>. The unorganized sector is thus absorbing employment at a faster rate than it is generating output compared to the organized sector. This obviously implies a decline in the labour productivity or incomes per worker that the unorganized sector has been generating over the period.

**Figure 1**



While this sector constitutes the vast majority of the workforce in India, it is by no means homogeneous. The heterogeneous nature of the composition and characteristics of these workers, incomes earned and linkages to poverty are brought out in sections three and four of this paper.

### Labour Force Characteristics of the Population

The population in India reached one billion at the turn of the century. The population in the age group 0-5 years was about 15.2 percent or about 153 million. The population in the working age groups 5 years and above stood at about 853 million in 1999-2000 (Table 1), with nearly 411 million women and 442 million men. We have computed the absolute number of persons in the labour force and workforce (employed) using the labour force and workforce participation rates from the labour force survey, National Sample Survey Organisation (NSSO 2001a), Employment-Unemployment Survey, 1999-00) as these are considered to capture the number of workers better than the Population Census in India. About 398 million persons employed (5 years and above) and 9 million unemployed. The employed persons consisted of nearly 123 million women and 274 million men. The distribution of this workforce by rural and urban location is presented in Table 1.

<sup>2</sup> In India, the National Accounts Statistics (NAS) has a clear and practical definition of the organised sector. The organised sector units are enterprises in the public (government) sector, private corporate sector and co-operatives, manufacturing units registered under the Indian Factories Act, 1948 or the Bidi and Cigar Workers Act, 1966 and recognized educational institutions. Enterprises that do not belong to any of these categories are unorganised sector units. The break-up of national product by organized and unorganized sectors is obtained only for the Net Domestic Product, that is, Gross Domestic Product minus depreciation.

<sup>3</sup> This estimate of employment is obtained by the residual method and actually refers to a broader concept of informal employment as described in the next section. If one takes the economy as a whole, including the agricultural sector, the share of the unorganized sector in GDP fell from 67 to 60 percent, while its share in employment remained more or less the same at 92-93 percent.

**Table 1: Labour Force Characteristics of Population, 1999-00 (in millions)**

	Women	Men	All
<b>TOTAL</b>			
Total Population of which	485.36	520.50	1005.86
Non-working age population (0-5 years)	74.26	78.08	152.89
Working Age Population (5 years and above) of which	411.10	442.43	852.97
Not in the labour force (5+)	285.70	161.05	446.19
In the Labour force of which (5+)	125.40	281.38	406.78
Unemployed (5+)	2.13	6.93	9.06
Employed (5+)	123.27	274.45	397.72
Employed (15-59 years)	107.91	243.01	349.10
<b>URBAN</b>			
Total Population of which	136.62	149.16	285.78
Non-working age population (0-5 years)	18.58	19.39	37.72
Working Age Population (5 years and above) of which	118.04	129.77	248.06
Not in the labour force (5+)	97.96	48.92	147.13
In the Labour force of which (5+)	20.08	80.85	100.93
Unemployed (5+)	1.09	3.58	4.67
Employed (5+)	18.99	77.27	96.26
Employed (15-59 years)	16.59	69.97	86.11
<b>RURAL</b>			
Total Population of which	348.74	371.34	720.08
Non-working age population (0-5 years)	55.45	58.30	113.77
Working Age Population (5 years and above) of which	293.29	313.04	606.31
Not in the labour force (5+)	187.97	112.51	300.46
In the Labour force of which (5+)	105.32	200.53	305.85
Unemployed (5+)	1.04	3.35	4.39
Employed (5+)	104.28	197.18	301.46
Employed (15-59 years)	91.32	173.04	262.99

**Note:**

1. Population for the mid-point of the year 1999-2000 was computed using interpolating population in the Population Census 1991 and 2001.
2. Population in working non-working age (0-5 years) was computed using the proportion obtained from the Population Census 1991.
3. The labour force and employed persons was computed using the labour force and workforce participation rates as obtained from the NSS 1999-00 Employment-Unemployment Survey.

**Sources:**

1. GOI, Census of India 2001, Provisional Population Tables, Paper 1 of 2001, Register General and Census Commissioner of India, New Delhi.
2. GOI, Census of India 1991, India, Socio Cultural Tables, Vol. I, 1997, Register General and Census Commissioner of India, New Delhi.
3. NSSO, 2001a, Employment and Unemployment Situation in India, Part I, 55th Round, 1999-00, May, New Delhi.

## **Definition of Informal Sector and Informal Employment**

The SNA (1993) characterizes the informal sector as part of the household sector as unincorporated enterprises owned by households. This definition of the informal sector is based on the legal status of the enterprise. To distinguish employment in the informal sector one will have to assume that all persons working in such units are workers in this sector. That is, informal employers, and employees in the enterprises of informal employers, own account workers and unpaid family helpers in informal enterprises. This definition of the informal sector, focusing on the enterprise tends to miss out a large proportion of workers in equally informal low quality work situations, but either unable to distinguish their status by enterprise or remain undeclared by the formal and informal enterprises.

While retaining this definition of the informal sector, in this study we also use a wider concept of informal employment to include both workers in the informal sector (as defined by the SNA) and other forms of low quality employment. The latter, would include both workers undeclared by the informal sector units (that is, within the definition of the informal sector) and certain vulnerable groups of workers not included in the concept of the 'informal sector', such as 'homeworkers' (outworkers), domestic workers and precarious workers in the formal sector. This is in keeping with the new framework of the ILO discussed in the ILO Booklet on Informal Sector Statistics prepared for the International Labour Conference, 2002.

## **2. Size of the Informal Sector and Informal Employment**

By the traditional data collection methods and using the existing national secondary data sources it is possible to arrive at estimates of employment in the informal sector and informal employment.

**Informal Employment:** The residual balance technique is based on a comparative analysis of statistical sources, household surveys, enterprise surveys and administrative records. While this has been the traditional way of estimating the size of the informal sector, it actually gives an estimate of informal employment. It consists in a systematic comparison of sources of data on employment (for a detailed presentation of the method, see Charmes, 2000). The total labour force disaggregated by industry and status in employment is known from the labour force survey or the population census. The method assumes that an estimate of workers in the formal sector can be obtained from enterprise survey sources (the annual survey of enterprises recording the main enterprises by their size or their value added) or from the administrative records (that is from the demand side), or Economic Censuses. An estimate of informal employment is obtained by subtracting the formal sector workers from the total workforce, separately for each industry group.

In India information on the size of the total workforce is available from the Population Census, but this is considered an underestimate. Hence we have applied the workforce participation rates, obtained from the Employment and Unemployment Survey, NSSO (2001a) (that is, the labour force survey), on the population interpolated for the inter-census years to obtain the workforce in the survey years (Sundaram, 2001). This is done separately for rural male, rural female, urban male, and urban female and then aggregated to obtain the total workforce (Table 1).

Using the estimate of the total workforce (5 years and above computed in Table 1) and the industrial distribution of the workforce in the NSS 1999-00, we have arrived at the estimates for the total workforce in the one-digit industry group. Estimate of employment in the organized sector from the

DGE&T<sup>4</sup> has been subtracted to obtain the informal employment by industry-group. Estimate of the size of informal employment for the year 1999-2000 using this method is presented in Table 2.

**Table 2: Estimates of Informal Employment by Gender and Location, 1999-00 ('000)**

Industry Group	Rural + Urban			Urban			Rural		
	All	Male	Female	All	Male	Female	All	Male	Female
<b>All Informal Workers<sup>1</sup></b>	369755	251533	118220	84654	67928	16726	285098	183604	101494
<b>Non Agriculture</b>	133355	106751	26601	76312	62928	13384	57041	43823	13218
<b>Agriculture</b>	236779	145056	91723	8420	5078	3342	228359	139979	88380
<b>Mining &amp; Quarrying</b>	1262	1049	214	417	399	18	845	649	196
<b>Manufacturing</b>	41698	30329	11369	21888	17674	4214	19810	12654	7156
<b>Electricity, Gas, Water</b>	63	63	0	40	40	0	23	23	0
<b>Construction</b>	16505	14646	1859	7229	6383	846	9276	8263	1013
<b>Trade, Hotels &amp; Rest.</b>	36758	31554	5166	23262	20140	3121	13458	11414	2044
<b>Transport, Storage etc.</b>	11645	11622	23	6906	6883	23	4739	4739	0
<b>Financial Services</b>	3210	3081	307	3173	2871	307	37	210	0
<b>Community, Social, Personal Services</b>	22249	14407	7664	13397	8537	4856	8852	5870	2808

Note:

1. All informal workers includes agricultural and non-agricultural workers
2. The absolute figures are adjusted for the Population Census estimates of population and workforce derived from it.

Source: Computed from

1. NSSO, 2001a, Employment-Unemployment Situation in India, 1999-2000, Part I, 55<sup>th</sup> Round, May, New Delhi.
2. Directorate General of Employment and Training (DGE&T), Ministry of Labour, Government of India, obtained from the Monthly Abstract of Statistics, Government of India, November 2001.

By this residual method approximately 370 million workers were engaged in informal employment in 1999-2000 (Table 2). Non-agricultural workers in informal employment (excluding agriculture, fishing, forestry etc) were estimated at 133 million in 1999-2000. This implied that the informal employment constituted nearly 93 percent of the total workforce and 83 percent of the non-agricultural workforce in 1999-2000<sup>5</sup> (Table 3).

A gender dis-aggregation of the informal workforce showed that about 252 million male and 118 million female workers were engaged in such employment, including agriculture. The informal segment in the non-agricultural sector alone engaged 107 million men and 27 million women. The women workers constituted about 32 percent of the workforce in informal employment, including

<sup>4</sup> The Directorate General of Employment and Training (DGE&T), Ministry of Labour provides estimates of employment in the organized sector based on information collected through a network of employment exchanges in the country under the Employment Market Information (EMI) Programme. This covers all establishments in the public sector irrespective of size and enterprises in the private sector with 10 or more workers. While information from public sector and private establishments hiring 25 or more workers is mandatory under the law, private enterprises employing 10-24 workers file this information on a voluntary basis. This could lead to a large underestimation of the organized sector work force (Kulshreshtha and Singh, 1999). In the residual method this information is subtracted from the estimate of the total workforce, obtained as above, to arrive at the size of employment in the informal sector (Visaria and Jacob, 1995).

<sup>5</sup> These results are similar to recent estimates by Kulshreshtha and Singh (2001). In 1993-94, 93 percent of the total workforce and 82 percent of the non-agricultural workforce were estimated to be in the informal sector

agriculture. Among the non-agricultural workers, women constituted about 20 percent of the informal workers.

Dis-aggregation by industry groups showed that besides agriculture, nearly 90 percent or more of the workers in construction, trade and hotels were in informal employment. Informal employment was a little less dominant in the transport, storage, communications, financial and other services (Table 3). About 22 percent of informal workers including agriculture and 55 percent of non-agricultural workers were located in the urban areas. The proportion of informal workers in each industry group was similar in rural and urban areas.

**Table 3: Percentage of Workers in Informal Employment to the Total Workforce in Each Segment, 1999-00**

Industry Group	Rural + Urban			Urban			Rural		
	All	Male	Female	All	Male	Female	All	Male	Female
<b>All Informal Workers</b>	93.0	91.6	95.9	87.9	87.9	88.1	94.6	93.1	97.3
<b>Non Agriculture</b>	83.4	82.9	85.6	86.8	87.1	85.6	79.2	77.4	85.6
<b>Agriculture</b>	99.4	99.4	99.4	99.5	99.6	99.4	99.4	99.4	99.4
<b>Mining &amp; Quarrying</b>	55.7	55.8	55.0	54.1	57.4	23.6	56.5	54.9	62.6
<b>Manufacturing</b>	86.3	84.7	90.8	90.4	90.1	91.7	82.2	78.3	90.3
<b>Electricity, Gas, Water</b>	6.0	6.2	0.0	6.1	6.5	0.0	5.8	5.8	0.0
<b>Construction</b>	93.5	93.9	90.3	94.7	95.0	92.8	92.6	93.1	88.3
<b>Trade, Hotels &amp; Rest.</b>	98.7	98.7	98.3	99.0	99.1	98.4	98.1	98.1	98.0
<b>Transport, Storage etc.</b>	78.7	81.0	5.2	82.4	85.7	6.7	73.9	75.1	0.3
<b>Financial Services</b>	66.0	69.0	53.0	80.4	82.6	64.6	4.0	21.3	0.0
<b>Community, Social, Personal Services</b>	65.9	60.6	78.4	71.4	67.0	80.7	59.1	53.2	74.8

Note: Same as Table 2.

The industrial distribution of the non-agricultural workers within informal employment indicated that more than 27 percent each of the male and total workers were concentrated in trade and hotels and the manufacturing sectors. A much higher concentration of informal women workers was found in the manufacturing sector. Both these sectors were the dominant employers of informal workers in the rural and urban areas, with trade and hotels being more important in the urban areas.

**Employment in the Informal Sector:** Labour force surveys as a source for measuring employment in the informal sector have been widely used by ILO in Latin America. In these surveys, workers were asked questions about the characteristics of the enterprise in which they worked, especially the size (and eventually the legal status and the type of accountancy) and whether they were registered at social security funds. Until recently no such attempt was made in the labour force surveys in India. However, in the last Employment Unemployment Survey Round, 1999-2000, (NSSO, 2001b), an explicit question was asked to all workers about the registration status of the enterprise in which they worked. The options explicitly provided were proprietary, partnership, public sector, semi-public sector and others (private corporate etc). Persons reporting working in proprietary and partnership firms were considered to be in the informal sector by the registration status. It is generally believed that paid employees are not usually able to respond to such a question because they are not aware of the characteristics of the firm for which they work. However, only about 4 percent of the non-agricultural workers were not able to respond to this question in this survey.

We estimated the absolute number of workers in the informal sector using the proportion of workers engaged in proprietary and partnership enterprises. This was adjusted for the total workforce as computed using the workforce participation rates of the NSSO and the population estimates of the census (5 years and above) as described earlier. According the labour force survey, we estimated a workforce of 110 million in the non-agricultural informal sector (Table 4). This was about 23 million less than the estimate by the residual method. We shall analyze the reasons for the difference later. About 88 million males and 22 million females non-agricultural workers were engaged in the informal sector.

**Table 4: Estimates of Employment in the Informal Sector by Gender and Location, 1999-00 ('000)**

Industry Group	Rural + Urban			Urban			Rural		
	All	Male	Female	All	Male	Female	All	Male	Female
<b>All Workers</b>	110034	87834	22200	59350	48640	10706	50705	39194	11494
<b>Mining &amp; Quarrying</b>	1190	939	251	178	195	32	963	745	218
<b>Manufacturing</b>	34262	23390	10872	15965	12063	3918	18355	11327	6954
<b>Electricity, Gas, Water</b>	88	88	0	59	49	0	51	39	0
<b>Construction</b>	12365	11212	1153	5638	5059	578	6693	6153	575
<b>Trade, Hotels &amp; Rest.</b>	36724	32110	4614	23028	20234	2741	13690	11876	1874
<b>Transport, Storage etc.</b>	9895	9721	174	5401	5253	139	4462	4468	34
<b>Financial Services</b>	2633	2406	226	2077	1897	203	507	510	23
<b>Community, Social, Personal Services</b>	12877	7967	4910	7003	3891	3094	5983	4076	1816

Note: The absolute figures are adjusted for the Population Census estimates or population and workforce derived from it.

Source: NSSO, 2001b, Non-agricultural Workers in Informal Sector based on Employment-Unemployment Survey, 1999-00, 55<sup>th</sup> Round, Report No. 460, July, Table 9.2

Estimation of employment in the informal sector from the labour force survey indicated that it constituted about 69.1 percent of the total workforce in the country (Table 5). Male and female informal sector workers constituted about 68.4 and 72 percent of the workforce in the country, respectively, by this method. The highest proportion of informal workers was found in the trade, hotels and restaurants followed by manufacturing. As in the case of the residual method about 54 percent of the informal workers were located in urban areas.

Dis-aggregation of the workers in non-agriculture by industry groups showed that nearly 98 percent of the workers in trade and hotels and 70 percent in manufacturing were in the informal sector. Only about 40 percent of the workers in community, social and personal services were in the informal sector (Table 5). The proportion of informal workers in each industry group was similar in rural and urban areas.

The industrial distribution of the workers in the informal sector is more or less similar to that obtained by the residual method, that is, in informal employment. Almost 50 percent of the women in the informal sector were engaged in the manufacturing sector. The manufacturing sector was also more important in the rural areas. The male workers in the informal sector were mainly in trade, hotels and restaurants (nearly 37 percent).

**Table 5: Percentage of Workers in Informal Sector to the Total Workforce in Each Segment, 1999-00**

Industry Group	Rural + Urban			Urban			Rural		
	All	Male	Female	All	Male	Female	All	Male	Female
All Workers	69.1	68.4	72.0	67.5	67.3	68.5	70.4	69.3	74.5
Mining & Quarrying	52.5	50.0	64.4	23.1	28.0	42.3	64.4	62.9	69.8
Manufacturing	70.9	65.3	86.8	65.9	61.5	85.3	76.2	70.1	87.7
Electricity, Gas, Water	8.4	8.7	0.0	9.0	7.9	0.0	12.9	9.9	0.0
Construction	70.0	71.9	56.0	73.9	75.3	63.4	66.8	69.3	50.1
Trade, Hotels & Rest.	98.6	100.5	87.8	98.0	99.6	86.4	99.8	102.1	89.8
Transport, Storage etc.	66.9	67.8	38.9	64.5	65.4	40.7	69.6	70.8	33.1
Financial Services	54.1	53.9	39.1	52.6	54.6	42.8	55.3	51.7	22.0
Community, Social, Personal Services	38.2	33.5	50.2	37.3	30.5	51.4	40.0	36.9	48.4

Source: Same as Table 4.

### Comparison of Estimates Informal Sector and Informal Employment

In this study while retaining the definition of the informal sector we have also used a wider definition of informal employment and provided estimates of the workforce in both. The estimate of informal employment includes both informal sector employment, as defined narrowly by the SNA 1993, and other forms of low quality employment not declared by formal and informal firms because it is casual, sub-contracted, outsourced, put out, home-based or because it is forbidden by law (child labour for instance), as well as independent self employed/wage workers. **Informal employment** can then be defined as the sum of employment in the informal sector and a residual not included in the estimate based of the characteristics of the enterprise. Informal employment is captured by the residual method. The estimates derived from the labour force survey measure the workers in the informal sector.

This is depicted in the diagram presented in Figure 2. The total nonagricultural workforce is split into the formal workforce and informal employment. Informal employment includes the workers in the informal sector by SNA 1993 definition and a residual.

**Figure 2**

<b>Non-agricultural Workforce (160 Million)</b>		
<b>Formal Workforce (27 Million)</b>	<b>Informal Employment (133 Million)</b>	
	<b>Residual (23 Million)</b>	<b>Informal Sector (SNA-1993) (110 Million)</b>

What is the content of this overall residual formed by the difference in estimates of informal employment and employment in the informal sector? An analysis of this residual and a

comparison of the difference in the two estimates will further highlight the need for a wider definition of informal employment.

The difference in the estimates of the size of the informal employment by the residual method and informal sector by the labour force survey was 23 million non-agricultural workers, of whom nearly 19 million or 81 percent were men (Table 6). This constitutes about 14.5 percent of the estimated total non-agricultural workforce (160 million) and 17.5 percent of all informal employment. This residual arises due to two kinds of problems: (1) Definitional and (2) Measurement.

**Definitional Problem:** We have discussed the SNA-1993 definition of the informal sector in detail. This definition is based on the status of the enterprise in which the worker works. Two types of workers are left out of this definition, but are included in the definition of informal employment. These are outworkers or homeworkers who are engaged by formal sector units and domestic workers engaged by households, such as maids, gardeners and security staff. Both these types of workers are included in the residual and constitute part of informal employment.

**Measurement Problems:** A second set of workers that might be included in the residual is created by measurement errors.

1. Persons engaged as casual workers working for more than one employer may find it difficult to respond to a question in the labour force survey on the nature of the employer, formal or informal. Such workers may be engaged as labourers, masons, plumbers etc. in the construction industry or as barbers, tailors and other service workers without a fixed place of work. They thus tend to get excluded from the measurement of the informal sector and fall in the residual constituting informal employment.
2. The residual method of estimating informal employment is crucially dependent on the estimate of number of workers in the organized (formal) sector provided by the DGE&T. The workers in the organized sector may be under-enumerated for two reasons. First, over the years the number of units not reporting employment data has been increasing due to the voluntary nature of the reporting procedure noted earlier. Second, the formal units that do report themselves to the DGE&T may not declare the number of workers engaged on a casual or temporary basis. This part of the residual is what we have earlier termed workers undeclared or unregistered by the formal enterprises (Charmes and Unni, 2001). Both these types of workers are included in the residual. Such deficiencies in the enumeration of formal workers could imply that informal employment is over-estimated by the residual method.

Both these kind of measurement problems would lead to their inclusion in the residual category as the difference between informal employment and employment in the informal sector.

A comparison of the absolute estimates by industry group provides further clue to the source of under-enumeration by sectors. The magnitude of under-enumeration in the manufacturing sector was nearly 7.4 million workers or 18 percent of informal employment. These are likely to be workers either undeclared by the formal sector units or outworkers/homeworkers who are unable to identify their employer as enterprises in the informal sector. Almost 93 percent of such workers were men.

Major under-enumeration appeared to be in the construction sector. In the construction sector the under-enumeration by the enterprise-based method in the labour force survey was 4.1 million, or 25

percent of informal employment. As discussed earlier, most construction workers working for more than one employer are unlikely to report themselves as informal enterprises. Similarly the contractors who hire the workers do so on a casual basis and are unlikely to report both themselves as enterprises or their workers as employees. Mis-identification of construction workers in the labour force survey and further inability to capture employment in this industry through the enterprise survey led to a major under-enumeration of informal workers in this sector.

Estimation of the size of the informal sector through the labour force survey also appeared to have undercounted workers in the community, personal and social services. Here again most of these workers are engaged as wage or salaried workers and are unlikely to be counted in an enterprise based effort. Independent wage or salaried workers who provide services to more than one employer is the norm in the developing world. These workers cannot be classified as proprietary or partnership enterprises and thus get left out in a count of informal enterprises.

**Table 6: Comparison of Estimates of Informal Employment and Informal Sector (Rural + Urban)**  
(\*000)

(1) Industry Group	(2) Informal Employment	(3) Informal Sector Employment	(4) = (3) -(2) Residual
<b>All Informal Workers</b>			
<b>Manufacturing</b>	41698	34262	7436
<b>Construction</b>	16505	12364	4141
<b>Industry</b>	59493	47905	11588
<b>Trade</b>	36758	36724	34
<b>Services</b>	37104	25404	11700
<b>Non-agriculture</b>	133355	110034	23321
<b>Male</b>			
<b>Manufacturing</b>	30329	23389	6940
<b>Construction</b>	14646	11212	3434
<b>Industry</b>	46087	35627	10460
<b>Trade</b>	31554	32110	-556
<b>Services</b>	29110	20094	9016
<b>Non-agriculture</b>	106751	87834	18917
<b>Female</b>			
<b>Manufacturing</b>	11369	10872	497
<b>Construction</b>	1859	1153	706
<b>Industry</b>	13443	12274	1169
<b>Trade</b>	5166	4614	552
<b>Services</b>	7996	5310	2686
<b>Non-agriculture</b>	26605	22200	4405

Source: Same as Tables 2 and 4.

While the residual method may have over-estimated informal employment it definitely provides the broad outer limit of the **size of the informal employment**. The limits of the enterprise-based methods are also clearly brought out by this presentation of the residual by the two concepts and methods of estimating informal employment and informal sector. The labour force method, through directly questioning the workers regarding the kind of enterprise in which they are engaged is

subject to a number of limitations, but provides at least the lower limit of the employment **size of the informal sector**.

### **Contribution of the Informal Sector to National Income**

The National Accounts Statistics in India provides the estimation of the national income. It also provides a break-up of the national income<sup>6</sup> into the organised and unorganised sectors. The National Accounts Statistics follows a residual approach to obtain data on the unorganised sector. That is data easily obtainable from the official sources, such as government/semi-government organisations and enterprises registered under the Indian Factories Act, Bidi and Cigar Workers Act, Co-operative Societies Act, Provident Fund Act, and recognised educational institutions are considered to be in the organised or 'formal' sector and the rest is assumed to originate in the unorganised (informal) sector. In reality this estimate is closer to the estimate of informal employment by the residual method since the DGE&T uses similar sources to obtain data on employment in the formal sector. Hence in the comparisons of share of the unorganised sector in GDP and employment we shall use the concept of informal employment.

In 1997-98 the GDP in India was Rs 12339210 million. The contribution of the unorganised sector, including agriculture, was Rs. 7459450 million or 60 percent of the GDP (Table 7). The non-agricultural sector's contribution to the GDP was Rs. 8648010 million, 45 percent of which originated from the unorganised sector (Rs. 3901290).

By industrial sector, 84 percent of the GDP in trade was from the unorganised sector. The share of informal employment in trade was nearly 99 percent (Table 3). About 62 percent of the GDP in the transport sectors originated from the unorganised sector, while its share in informal employment was about 79 percent. In contrast, while the share of the unorganised sector in manufacturing sector in GDP was only 37 percent, its share in informal employment was 86 percent. Thus while large sections of the workforce in trade, transport and manufacturing sectors were engaged in informal employment the relative contribution of the manufacturing sector to GDP from the unorganised sector was lower. In other words, the GDP or value added per worker in the organised sector in manufacturing was very high compared to trade and transport. This probably implies that there was a distinct difference in the product/service of the organised manufacturing sector compared to the unorganised unlike the trade and transport sectors.

National income estimates are not dis-aggregated by gender. In India, a further complication in such dis-aggregation is that a large component of the incomes are derived from self-employed enterprises. In such enterprises it is difficult to separate the contribution of the individual entrepreneur or employer from that of the other family workers and wage employees. That is, the share of factor incomes from workers cannot be estimated. A simple method adopted by most studies that attempt to dis-aggregate national income by gender, is to distribute it by the gender distribution of the workforce. A similar method is adopted in this paper to distribute the GDP contribution by gender. Since the residual method is the most comprehensive and closer to the concept of unorganised sector used in the National Accounts, we have used the percentage of women in informal employment to the total workforce to split the GDP in each sector by gender. The underlying assumption in this method is that the productivity and earnings of the male and

---

<sup>6</sup> The National Accounts Statistics of India provides an estimate of the Net Domestic Product, NDP (Gross Domestic Product minus depreciation) into the organized and unorganized sectors (as defined in footnote 2) by the factor income method. In this study we report the share of the unorganized sector in NDP as a proxy for the share of the informal sector in GDP.

female workforce in the unorganised sector is the same. Obviously this is an extreme assumption. However, due to lack of a better method we adopt this methodology.

The contribution of women to the GDP in the unorganised sector works out to 32 percent including agriculture and only 20 percent in the non-agricultural sector alone (Table 7). The women's share in GDP is about 27 percent in manufacturing and 34 percent in community, social and personal services. It is lower in the other non-agricultural sectors.

**Table 7: Contribution of the Informal Sector to GDP, 1997-98 (Rs. million)**

	GDP (Rs. Million)			Percentage Unorganised	Women's Share of Unorganised
	Organised	Unorganised	Total		
<b>Agriculture.</b>	133000	3558200	3691200	96.4	1378369 (38.7)
<b>Mining &amp; Quarrying.</b>	230850	14890	245740	6.1	2525 (17.0)
<b>Manufacturing</b>	1156930	665670	1822600	36.5	181496 (27.3)
<b>Elect, gas &amp; water</b>	152600	9800	162400	6.0	(-)
<b>Construction</b>	349140	401210	750350	53.5	45189 (11.3)
<b>Trade</b>	275610	1472260	1747870	84.2	216711 (14.0)
<b>Restaurants. &amp; Hotels</b>	37360	70170	107530	65.3	
<b>Transport</b>	221410	356670	578080	61.7	72324 (0.2)
<b>Storage &amp; Warehousing</b>	4380	4950	9330	53.0	
<b>Communications</b>	163010	-	163010	-	
<b>Financial, Insurance, Real Estate.</b>	803590	605690	1409280	43.0	57927 (9.1)
<b>Community, Social, Personal Services.</b>	1351880	299940	1651820	18.2	103319 (34.4)
<b>All Non-agriculture</b>	4746760	3901250	8648010	45.1	776349 (19.9)
<b>All Sectors</b>	4879760	7459450	12339210	60.5	2387024 (32.0)

Note:

1. The figures are of net domestic product computed by the factor incomes method.
2. The contribution of women was computed by splitting the unorganised sector GDP by the proportion of women in the informal employment by the residual method, presented in parentheses.
3. The proportion of women in trade and hotels sector, and financial and community services, are assumed to be the same.

Source: National Accounts Statistics, 2000, Central Statistical Organisation, Government of India, July

## Estimation of Informal Enterprises or Micro-enterprises in India

The Economic Census in India is the only source that identifies and lists all enterprises in the country through a census of enterprises. It is conducted nearly every ten years. The Economic Censuses in India were conducted in 1970, 1980, 1990 and 1998. The Economic Census distinguishes the enterprises by size of employment. These data can be used to show the importance of micro-enterprises, mainly unregistered, in the national economy.

In 1998 the Census distinguished own account enterprises (OAE), non-directory (NDE) and directory enterprises (DE). Own account enterprises are enterprises operated by the family members without any hired workers on a regular basis. Non-directory and directory enterprises are enterprises that engage at least one hired worker on a regular basis and have 1-5 and more than 5 workers respectively. In order to arrive at an estimate of the number of informal enterprises in the country we have defined micro-enterprises to include own account enterprises (without hired workers) and non-directory enterprises (with 1-5 workers). We also provide a separate estimate of the proportion of own account enterprise alone (Table 8).

In 1998 there were about 25 million non-agricultural micro-enterprises in the country. They constituted about 94 percent of all non-agricultural enterprises (about 27 million). Further, there were 18 million own account enterprises recorded, constituting nearly 68 percent of all enterprises. Obviously the over-whelming proportion of enterprises is tiny own account enterprises in India. The percentage of such enterprises in all enterprises by industry group and location (rural-urban) are presented in Table 8.

**Table 8: Percentage of Micro-enterprises to All Non-agricultural Enterprises, 1998**

	Rural		Urban		Combined	
	Own Account Enterprises	Own Account + Enterprises with 1-5 workers	Own Account Enterprises	Own Account + Enterprises with 1-5 workers	Own Account Enterprises	Own Account + Enterprises with 1-5 workers
Mining & Quarrying	52.6	71.9	46.5	74.4	51.5	72.4
Manufacturing	78.5	93.6	52.7	84.1	69.1	90.2
Electricity, gas & water	19.8	87.1	18.7	67.4	19.4	80.6
Construction	82.2	94.9	65.0	90.0	75.0	92.9
Wholesale trade	76.1	96.9	45.2	90.2	57.4	92.8
Retail trade	87.0	99.4	69.8	97.4	78.2	98.4
Restaurants. & Hotels	74.1	97.3	50.4	88.8	62.6	93.2
Transport	77.5	98.3	74.8	94.9	76.2	96.6
Storage & Warehousing	46.2	91.2	44.1	88.1	44.7	89.0
Communications	20.6	95.8	61.9	93.0	46.6	94.0
Finance & Real Estate	56.1	90.6	46.2	83.4	49.5	85.8
Community, Social & Personal Services	53.6	93.0	55.2	88.6	54.3	91.2
Others (Unspecified)	96.1	98.7	87.2	98.5	94.1	98.7
All Non agricultural Enterprises	73.9	95.8	61.1	91.9	68.0	94.0
Number of Non-agricultural Enterprises ('000)	10714	13902	7558	11363	18273	25265

Source: Economic Census, 1998

### 3. Composition and Characteristics of Informal Employment

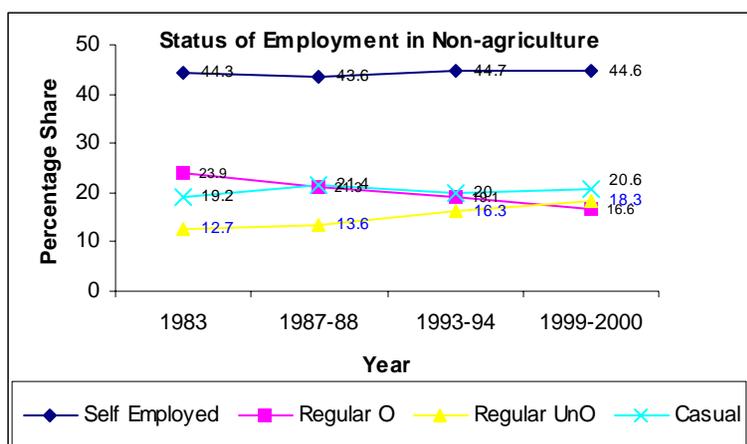
In the previous section we provided estimates of the size of informal employment and employment in the informal sector. We also described the characteristics of this employment in terms of its industrial distribution and contribution to GDP. As pointed out in the introduction, workers in informal employment do not constitute a homogeneous category. In this section we shall further describe the characteristics of such employment in order to get a sense of the kind of workers who work in the informal economy.

#### Status Distribution of Workers

Two distinct structural features of employment in the Indian economy pointed out by the Planning Commission (2001), Task Force on Employment, were the distinction between organised and unorganised sectors and between wage and self-employment. Non-wage employed or self-employed, consisting of employers, own account workers, and contributing family members, can more or less be identified as workers in the informal sector, though this is not true for all employers. However, employers form a relatively tiny proportion of the self-employed workers. The Indian labour force survey further classifies the employees into regular and casual workers. Casual workers can work for both formal and informal enterprises, but can clearly be considered to be part of informal employment to the extent they do not receive the benefits accruing to workers in the formal sector.

Regular workers could also belong to the formal and informal sectors, and we shall show through micro survey data, they often do not receive all the benefits due to the formal sector workers such as provident fund benefits. In fact a part of such regular workers constitute informal employment. If we assume that all organised sector workers, reported by the DGE&T, are regular workers, we can split the regular workers into formal and informal components by subtracting the organised sector workers from the regular workers. The change in the distribution of non-agricultural workers by status of employment over the period 1983 to 1999-00 is presented in Figure 3.

Figure 3



Self-employed workers form the largest component of the non-agricultural workers in India. Their proportion in the non-agricultural workforce has remained more or less stable over the period 1983 to 1999-00 at around 44 percent. The next largest component is the casual workforce whose share rose marginally from 19.2 in 1983 to 20.6 in 1999-00. While the proportion of regular workers as a whole declined from nearly 37 percent in 1983 to 35 percent in 1999-00, the most striking decline was in the proportion of regular organised sector workers from 22.9 to 16.6 during the period.

This decline in regular formal workers is in line with the decline in share of the formal sector employment noted in the introduction. It implies a falling quality of employment with the better earning jobs, with more stable contracts and benefits (including protection against inflation), fast declining during the last two decades.

**Self-Employed and Casual Workers** At a more dis-aggregated level by gender and location we present the status of employment of all and non-agricultural workers in 1999-00 in Table 9. A distinct feature of the work force in India is a very large component of self-employed workers. In 1999-00 nearly 53 percent of the total workforce (agriculture and non-agriculture) was self-employed (Table 9). A larger proportion of women workers were self-employed, 56 percent compared to 52 percent of the men. This was true in both rural and urban areas. Further, about 33 percent of the work force was casual workers, with 37 percent of the women and only 31 percent of the men being so. That is, the proportion of regular workers was relative small, 14.0 percent, with only 7 percent of the women and 17 percent of the men having regular salaried employment. Of all regular workers only about 7 percent were in regular formal sector jobs.

In the non-agricultural sector, nearly 45 percent of the workers were self-employed and 21 percent were casual workers. A larger proportion of the workers, 34 percent, had regular salaried jobs, that is, they were in relatively stable employment. Of the regular workers, however, only 16 percent were in the organised sector jobs. A higher proportion of women workers in the non-agricultural sector were self-employed.

**Table 9: Status Distribution of All and Non-agricultural Workers, 1999-00 (Percentage)**

	Rural		Urban		All Areas		
	Male	Female	Male	Female	Male	Female	All
<b>All Workers</b>							
<b>Self-employed</b>	54.9	57.4	41.5	45.4	51.5	55.7	52.8
<b>Regular</b>	8.9	3.1	41.7	33.3	17.2	7.1	14.0
<b>Organised</b>	6.9	2.9	11.7	12.0	7.8	4.0	6.6
<b>Unorganised</b>	2.0	0.1	30.0	21.3	9.4	3.1	7.4
<b>Casual</b>	36.2	39.6	16.8	21.4	31.3	37.1	33.2
<b>All</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Non-agricultural Workers</b>							
<b>Self-employed</b>	45.7	62.0	40.1	43.9	42.7	53.6	44.7
<b>Regular</b>	26.5	17.0	44.2	39.9	35.8	27.6	34.3
<b>Organised</b>	22.5	16.3	12.5	14.5	16.6	14.9	15.9
<b>Unorganised</b>	4.0	0.7	31.7	25.4	19.2	12.7	18.4
<b>Casual</b>	27.9	21.0	15.7	16.2	21.5	18.8	21.0
<b>All</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: NSSO, 2001a, Employment-Unemployment Situation in India, 1999-2000, Part I, 55<sup>th</sup> Round, May, New Delhi.

In India, thus the majority of the workers were engaged in not very stable economic activities without regular contracts and social security benefits. This tallies with the statistics presented earlier of the large proportion of informal sector workers and informal employment in the country. Women were somewhat worse off in terms of access to regular stable jobs in the formal sector.

**Unpaid Time** We were not able to get the break up of unpaid helpers among the self-employed workers from the labour force survey. However, the NSSO conducted a Time Use Survey in 1999-2000 and estimated the time spent on SNA (production of goods and services), extended SNA (mainly household and care work) and non-SNA (personal upkeep and leisure) activities in six states of India (Table 10). On average about 50 percent of the time spent by women in SNA activities was unpaid whereas only 33 percent of the men's time remained unpaid. SNA activities included primary production activities, secondary activities such as construction and manufacturing and services.

**Table 10: Unpaid Time Spent on SNA Activities in India, 1999-2000**

States	Percentage of Unpaid time on SNA Activities		
	Male	Female	Persons
Haryana	35.38	85.99	51.58
Madhya Pradesh	44.25	52.40	46.67
Gujarat	24.21	44.67	29.70
Orissa	41.77	69.44	49.90
Tamil Nadu	24.39	32.45	26.89
Meghalaya	67.12	76.39	70.64
All States	33.15	50.52	38.29

Source: CSO, 2000, Report of the Time Use Survey, Central Statistical Organization, Table 5.7

Another method of assessing the unpaid contribution of women to society was through the average time spent on these three kinds of activities. Of a total of about 168 hours per week, while men spent 42 hours on SNA activities, women spent only about 19 hours (Table 11). Further, women were engaged in extended SNA activities for about 35 hours compared to men who spent only about 4 hours on such activities. Extended SNA activities included household maintenance, care of children, sick and elderly. The extended SNA hours were clearly unpaid and helped in the economic well-being of the household indirectly through reducing expenditures. The extra hours put in by the women in SNA and extended SNA activities were obtained by sacrificing the non-SNA time on personal upkeep and leisure activities.

**Table 11: Weekly Average Time Spent (in hours) on SNA, Extended SNA and Non-SNA Activities in India, 1999-2000**

Activities	Male	Female	All
<b>All Areas</b>			
SNA	41.96	18.72	30.75
Extended SNA	3.65	34.63	18.69
Non-SNA	122.42	114.58	118.62
<b>Total</b>	<b>168.03</b>	<b>167.93</b>	<b>168.06</b>
<b>Rural</b>			
SNA	42.31	22.53	32.72
Extended SNA	3.74	33.95	18.40
Non-SNA	121.98	111.50	116.89
<b>Total</b>	<b>168.03</b>	<b>167.98</b>	<b>168.01</b>
<b>Urban</b>			
SNA	41.06	9.16	25.77
Extended SNA	3.44	36.44	19.26
Non-SNA	123.47	122.44	123.03
<b>Total</b>	<b>167.97</b>	<b>168.04</b>	<b>168.06</b>

Source: CSO, 2000, Report of the Time Use Survey, Central Statistical Organization, Table 5.3

**Home Based Workers, Homeworkers and Street Vendors** The status distribution of workers provided us with the broad classification of workers with some indication of their quality of employment. Some specific groups of workers tend to be more vulnerable and invisible due to the nature of their place of work. There has been an international focus on groups of workers such as home-based workers, homeworkers (or outworkers) and street vendors.

In India the recent labour force survey, 1999-00, canvassed a question on the place of work. About 23 percent of the non-agricultural workers in India were found to be home-based or working in their own dwelling (Table 12). Home-based workers were an over-whelming 57 percent of the workforce among women. Further, about 7 percent of the workforce did not have any fixed location of work while about 3.4 percent had a fixed location on the street. Such workers were mainly men. It needs to be clarified that all workers on the street or mobile were not street vendors. Many such workers mainly men were transport workers engaged in plying buses, trucks, auto-rickshaws, cycle rickshaws, animal and hand drawn carts.

Overall, less than half of the non-agricultural workers, about 45.7 percent, had a designated place of work outside their own or the employer's dwelling. Among women only about 23 percent of the non-agricultural workers worked in enterprises outside their own or the employer's homes. Lack of a designated place of work forms a part of the informality of the work status of these workers and add to their vulnerability.

**Table 12: Percentage Distribution of Non-Agricultural Workers in the Informal Sector by Location of Workplace, 1999-00**

Location of Workplace	Rural		Urban		All Areas		
	Male	Female	Male	Female	Male	Female	All
No Fixed Place	9.9	3.5	5.1	2.5	7.4	3.4	6.9
<b>Workplace in Rural Areas</b>							
Own Dwelling	20.7	58.6	1.7	4.3	12.2	53.7	17.8
Own Enterprise/Unit etc. But Outside Own Dwelling	19.4	9.5	4.3	1.9	10.2	8.8	10.0
Employer's Dwelling	2.8	4.7	0.6	1.7	1.7	4.4	2.0
Employer's Enterprise/Unit etc. But Outside Employer's Dwelling	17.8	11.0	2.6	1.7	9.9	10.2	9.9
Street with Fixed Location	2.8	1.4	0.5	0.4	1.6	1.3	1.6
Construction Site	11.5	3.4	1.0	0.8	6.0	3.2	5.7
Others	6.5	3.1	0.8	0.5	0.3	2.9	3.4
<b>Rural Areas</b>	<b>8.2</b>	<b>9.2</b>	<b>11.4</b>	<b>11.3</b>	<b>45.1</b>	<b>84.6</b>	<b>50.5</b>
<b>Workplace in Urban Areas</b>							
Own Dwelling	0.5	0.4	10.7	35.7	5.8	3.6	5.5
Own Enterprise/Unit etc. But Outside Own Dwelling	1.6	0.2	24.4	9.5	13.4	1.0	11.7
Employer's Dwelling	0.3	0.2	2.6	12.3	1.5	1.3	1.5
Employer's Enterprise/Unit etc. But Outside Employer's Dwelling	2.6	1.0	28.3	17.9	15.9	2.5	14.1
Street with Fixed Location	0.3	0.0	3.6	2.6	2.0	0.2	1.8
Construction Site	1.3	0.5	7.3	4.3	4.4	0.8	3.9
Others	0.5	0.1	5.5	2.6	3.1	0.3	2.7
<b>Urban Areas</b>	<b>7.1</b>	<b>2.5</b>	<b>82.4</b>	<b>84.9</b>	<b>46.2</b>	<b>9.9</b>	<b>41.2</b>
Not Recorded	1.5	2.2	1.0	1.2	1.2	2.1	1.4
<b>All</b>	<b>100.0</b>						

Source: NSSO, 2001b, Non-agricultural Workers in Informal Sector based on Employment-Unemployment Survey, 1999-00, 55<sup>th</sup> Round, Report No. 460, July, Table 10.2.

**Homeworkers:** Homeworkers or outworkers are persons working at home, or on the premises of his choice other than the employer's, to produce goods or services on a contract or order for a specific employer or contractor. They constitute a part of the home-based workers. About 54 percent of the women in the non-agricultural sector were self-employed in 1999-00 compared to about 43 percent of the men (Table 9). While 23 percent of all non-agricultural workers were home-based (Table 12), about 36 percent of self employed non-agricultural workers were home-based (Table 13), with about 25 percent of the men and 67 percent of the women.

Among these home-based workers nearly 38 percent undertook production under some form of specification from an outside agency, that is, they were homeworkers. Nearly 49 percent of the women homebased workers were undertaking production under some form of sub-contracting arrangements, while only about 29 percent of the men were so engaged (Table 13). Self-employed workers located in premises other than their home also undertook sub-contract work. About 20 and 37 percent of all male and female non-agricultural workers respectively were engaged in such activities. Women were predominantly undertaking such contractual activities. About 79 percent of women and 63.5 percent of the men homeworkers were paid on a piece-rate basis (NSSO, 2001, Non-agricultural Workers in Informal Sector based on Employment-Unemployment Survey, 1999-00, 55<sup>th</sup> Round, Report No. 460, July, Table 16).

**Table 13: Percentage of All Self employed Non-agricultural workers Working at Home and on Subcontracting Arrangements, 1999-00**

Place of Work / Type of Contract	Rural		Urban		All Areas		
	Male	Female	Male	Female	Male	Female	All
<b>Homebased to all self-employed workers</b>	31.6	70.3	20.4	61.8	25.1	67.0	35.7
<b>No contract</b>	63.6	47.5	63.1	47.7	63.4	47.6	56.4
<b>Homeworkers (Production under specification)</b>	29.1	49.2	30.0	47.4	29.4	48.5	37.9
<b>All Homebased Workers</b>	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>Production under specification among all workers</b>	20.3	38.9	20.6	34.3	20.4	37.1	24.3

Note: The figures do not add to 100 due to not known/reporting cases.

Source: NSSO. 2001, Non-agricultural Workers in Informal Sector based on Employment-Unemployment Survey, 1999-00, 55<sup>th</sup> Round, Report No. 460, July, Table 14.

It is clear that the women workers in non-agriculture, particularly the self-employed workers, are more likely to be working at home. They are also more likely to be engaged in sub-contract work on a piece-rate basis. Both these factors, their location of work and the nature of the contract arrangements make these women open to exploitation as workers. This large proportion of women in homebased sub-contract work is a classic recipe for poverty. One of the main areas where poverty is generated is among such homebased workers in the manufacturing sector.

**Street Vendors:** It is difficult to obtain empirical data on the street vendors. Conceptually the labour force survey would capture street vendors as persons engaged in trade by the industrial classification. Chances of under-enumeration are high due to non-reporting, the seasonal nature of their work etc. However, unless the labour survey canvasses a question on the 'place of work', it is not possible to estimate the proportion of traders who are also street vendors. Further a cross-classification of workers by industrial distribution and place of work is required to identify the street vendors. The occupational classification at the three-digit level, however, has a specific code (431) for street vendors, canvassers and new vendors. However, published data at this level of dis-aggregation or such cross-classified data are difficult to obtain.

**Micro-Evidence:** GIDR-SEWA conducted a study of Ahmedabad district in Gujarat, 1998-99, where a special effort was made to estimate separately, homeworkers, home based workers, street vendors, other workers on the street and estimate the size of informal employment<sup>7</sup> (Unni, 2000). We obtained estimates of the homebased workers and street vendors by cross-classifying the industry divisions and the place of work. In order to estimate homeworkers the survey included an extra question on the nature of contract for persons engaged in home based manufacturing.

The non-agricultural workers constituted about 98.7 percent of all workers in urban areas and 24 percent in rural areas. This proportion was 99.1 for males 97.5 for females in urban areas and 32 for males and 12 for female in rural areas. Among the non-agricultural workers we present the distribution of all workers, formal and informal in rural and urban areas (Table 14). Wage employment constituted about 60 percent of the work force in rural and 68 percent in urban areas, consisting of formal and informal employees and homeworkers. The self-employed workers constituted 39 and 32 percent of the workforce in rural and urban areas respectively. Percentage of self-employed among the non-agricultural workers was 36 for males and 51 for females in rural areas and 32 and 34 in urban areas.

Among women workers, home based own account workers constituted only about 8 percent of the non-agricultural workforce in both rural and urban areas, while among males they were about 26 and 23 percent respectively. A large proportion of women workers were homeworkers and unpaid helpers, 24 per cent each, in urban areas. In rural areas homeworkers or outworkers was not so important, but unpaid family workers constituted 38 percent of the female workforce. Neither homeworkers nor unpaid workers were important categories among men. The men were mainly employees in formal and informal enterprises and self employed own account workers. Obviously the men had a more independent status of work than the women.

---

<sup>7</sup> A limitation of the GIDR-SEWA (Gujarat Institute of Development Research and Self employed Women's Association) Survey was that it under-enumerated large enterprises mainly in manufacturing, trade and transport industries. The methodology and procedures for the stratification of households used in this study helped in selecting households with female self-employed workers and thus it guaranteed that these groups were not missed out. However, in our design we did not provide for the stratification of enterprises by size. In the enterprise surveys, for example, the NSSO Enterprise (Unorganised Sector) Surveys, stratification is done on the basis of activity and size of enterprise. This allows for the representation of all types and sizes of enterprises. To some extent the precision of the estimates of the informal sector by activity and type of enterprise may be affected. However, this is not the limitation of the methodology. A further stratification by activity and type of enterprise will improve the sample design. (For details see Unni, 2000).

**Table 14: Distribution of Workers in Formal and Informal Employment in Non-Agricultural Sector in Ahmedabad, 1997-98**

Derived Work Activity Status	Rural			Urban		
	Male	Female	All	Male	Female	All
<b>Wage Employment</b>	<b>63.4</b>	<b>49.3</b>	<b>60.5</b>	<b>68.3</b>	<b>65.6</b>	<b>67.7</b>
<b>Employees Formal</b>	12.9	12.7	12.9	15.7	14.2	15.3
<b>Employees Informal</b>	49.4	34.7	46.4	50.1	27.3	44.6
<b>Homeworkers</b>	1.1	1.9	1.2	2.5	24.1	7.8
<b>Self Employment</b>	<b>36.5</b>	<b>50.7</b>	<b>39.5</b>	<b>31.7</b>	<b>34.5</b>	<b>32.3</b>
<b>1. Employer</b>	4.9	-	3.9	2.7	0.1	2.1
<b>2. Own Account Worker</b>	25.8	12.2	23.1	23.7	10.3	20.3
<b>a. Home Based OAW</b>	6.1	8.3	6.5	3.3	7.9	4.4
<b>b. Street Worker</b>	4.7	1.1	4.0	15.4	2.2	12.1
<b>i. Street Vendors</b>	1.9	1.0	1.7	6.3	2.2	5.3
<b>ii. Others on Street</b>	2.8	0.1	2.3	9.1	-	6.8
<b>c. Own Business Premises</b>	15.0	2.8	12.6	5.0	0.2	3.8
<b>3. Unpaid Family Worker</b>	5.8	38.5	12.5	5.3	24.1	9.9
<b>All</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Number of Sample Persons</b>	534	222	756	1095	411	1506

Source: Unni and Jacob, 1999 and Unni, 2000

About 5 and 15 percent of the male non-agricultural workers were working on the streets in rural and urban areas. Among women workers, this proportion was relatively small, 1-2 percent. Street vendors constituted almost all the women workers on the street in urban areas, but only part (6.3 percent) of the male workers. The rest of the male workers on the street were mainly auto-rickshaw and cycle rickshaw drivers and handcart pullers about 9 percent in urban areas. Self-employed workers with a separate business place constituted only about 15 and 5 percent of all male workers in rural and urban areas and a negligible proportion of women. This lack of a designated place of work is one of the main factors contributing to the vulnerability of informal workers, particularly women.

### **Benefits to Employees**

The formality or informality of the wage and salaried workers, employees, can be determined by the criteria of various economic and social security benefits derived from the job. As discussed earlier a large proportion of regular workers with apparently more stable contracts did not receive all the benefits due to formal sector workers, as observed in a micro survey in Ahmedabad city. Only a small proportion of the workers in urban areas received all the benefits due to workers in the formal sector such as provident fund, paid leave and medical benefits (Unni and Uma Rani, 1999). In the GIDR-SEWA survey we found that even among regular employees, only 35 percent had a written or oral contract, 35 percent were entitled to paid leave, 29 percent to provident fund or pensions and 25 percent to medical and other benefits (Table 15). Further, only 30 percent of the workers were likely to get a notice of at least one day before termination. Workers without such benefits are included in the category of informal employment even while they have regular salaried jobs. The casual employees obviously were entitled to very few benefits.

**Table 15: Percentage of Employees (Wage and Salary Earners) Receiving Different Benefits by Employment Status and Sex, Ahmedabad City, 1997-98**

Status of Employment / Sex	Benefits					
	Assurance of Employment	Written or Oral Contract	Paid Leave	PF/Pension	Medical and Other Benefits	Notice for Termination
<b>Regular Employees</b>						
Male	89.7	36.1	32.5	29.9	23.4	28.0
Female	92.2	32.2	50.6	24.2	30.0	35.7
All	90.1	35.4	35.4	28.9	24.5	29.3
<b>Casual Employees</b>						
Male	59.2	4.8	4.3	1.3	0.9	0
Female	69.5	0	2.6	0	0	0
All	61.2	3.9	4.0	1.1	0.7	0
<b>All Employees</b>						
Male	80.3	26.4	23.8	21.1	16.4	19.4
Female	84.5	21.2	34.3	16.0	19.8	23.5
All	81.0	25.5	25.6	20.2	17.0	20.1

Source: Unni, 2000.

### **Income of Workers in Informal Enterprises**

In India the official statistical offices do not collect data on incomes of workers. Hence it is not possible to obtain reliable data on the income earned by formal and informal workers. However, the recent NSSO Informal Sector Survey (NSSO, 2001c) collected data on the value added of informal enterprises. Value added per worker computed in this survey can be considered a proxy for estimate of incomes earned by workers, both self-employed and employees, in the informal sector. Value added per worker has been computed separately for own account enterprises, establishments and all enterprises. Own account enterprises do not hire workers on a regular basis, while establishments hire at least one worker on a regular basis.

While data on incomes are not collected by the official statistical agency, information on the monthly per capita household expenditure is collected along with the NSSO Employment-Unemployment Survey. This information is used to compute the percentage of population below the poverty line using the official poverty line estimates. In 1999-2000 the official all India poverty line was drawn at US \$ 7.0 per capita per month in rural and US \$ 9.4 in urban areas. Taking an average household size of 5 persons we work out annual household income poverty lines of US \$ 420 in rural and US \$ 564 in urban areas. This can be used as a norm to evaluate the incomes earned in the informal enterprises.

**Income in Informal Enterprises:** The average annual value added per worker in all informal enterprises was US \$ 505 in 1999-00 (Table 16). The scale of operation made a definite difference to productivity and the capacity to earn and generate incomes. While workers in own account enterprises earned only \$ 375, workers in establishments earned \$ 816 per annum. Further, own account enterprises and establishments in the urban areas obtained higher incomes per worker compared to enterprises in rural areas. In rural areas the average annual income of US

\$ 313 in all enterprises was below the poverty norm of US \$ 420. Workers in own account enterprises were most vulnerable with very low incomes per worker, while workers in establishments on average obtained incomes above the poverty norm. In urban areas the average incomes in all enterprises \$ 697 was above the urban poverty norm of \$ 564. Own account enterprises in urban areas on average also could not stay above the poverty norms.

Across industry groups some did much better than others, whereas informal enterprises in certain sectors were clearly faring badly. Financial intermediaries among own account enterprises and workers in trading and health and social work establishments were the highest earners by industry groups. Some of the lowest earnings were received in the manufacturing sector and in community, social and personal services. In rural areas such manufacturing sector activities are often the traditional artisans engaged in pottery, carpentry and blacksmithy. Personal services such as barbers, tailors etc. also earn very low incomes in rural areas. Many of these activities are traditional economic activities of these households and lack of demand leads to very low incomes. Further, lack of opportunities or lack of a capacity to seize opportunities due to low levels of education, skill and social and economic standing prevents them from moving to new and more remunerative trades.

**Incomes in a City Economy:** In 1997-98, the city of Ahmedabad employed about 1.5 million persons and generated an income of US \$ 1253 million (Table 17), according to estimates obtained by the GIDR-SEWA study. The informal sector employed about 1.1 million persons, i.e., 76.7 per cent of the employment in the city<sup>8</sup>. The informal sector generated an annual income of about US \$ 587 million, i.e., 46.8 per cent of the city income. The formal sector employed 350 thousand persons, 23.3 per cent of total employment, and generated an income of about US \$ 666 millions, 53.2 per cent of the total income.

We computed the annual value added per worker in the formal and informal sector by each industry group in the city. This is used as a proxy for the incomes in the two sectors. In the city as a whole the average annual incomes was US \$ 833. While income in the informal sector was US \$ 508, that in the formal sector was US \$ 1903. The income obtained in the informal sector in the micro-study of Ahmedabad was lower than the average urban value added per worker obtained by the NSS Informal Sector Survey, US \$ 697. The average income per worker generated in the informal sector in the city was also below the all India urban poverty norm of US \$ 564. The average incomes in the formal sector were well above this norm. Incomes per worker were the highest in the transport industry in the informal sector, followed by trade, hotels and restaurants. In the formal sector the incomes was the highest in trade, hotels and restaurants followed by the financial sector.

While the informal sector is a source of employment and incomes to a large proportion of the workforce, the average incomes generated per worker leaves much to be desired. This is true for Ahmedabad city as well as own account enterprises in the country as a whole.

---

<sup>8</sup> In the GIDR-SEWA study the informal sector was defined as in the National Accounts Statistics to include government/semi-government organisations and enterprises registered under the Indian Factories Act, Bidi and Cigar workers Act, Co-operative Societies Act, Provident Fund Act, and recognized educational institutions.

**Table 16: Value Added per Worker in Non-agricultural Informal Enterprises, 1999-00 (in US \$)**

Industry Group	Rural		Urban		All Areas	
	Value added per Worker	Workers per Enterprise	Value added per Worker	Workers per Enterprise	Value added per Worker	Workers per Enterprise
<b>Own Account Enterprises</b>						
Manufacturing	187	1.7	325	1.7	224	1.7
Construction	473	1.1	656	1.2	540	1.1
Trade	364	1.3	617	1.5	486	1.4
Hotels/Restaurants	308	1.7	431	1.8	365	1.7
Transport/storage/Communications	444	1.1	578	1.1	509	1.1
Financial	565	1.2	1029	1.5	910	1.4
Real Estate/Business	456	1.3	664	1.4	603	1.4
Education	229	1.2	400	1.3	330	1.2
Health/Social Work	472	1.1	869	1.2	611	1.1
Community/Social/Personal Services	180	1.5	384	1.5	244	1.5
All	280	1.4	509	1.5	375	1.4
<b>Establishments</b>						
Manufacturing	473	4.6	735	4.9	654	4.8
Construction	519	4.8	770	5.3	664	5.1
Trade	598	3.0	1238	3.6	1157	3.5
Hotels/Restaurants	525	3.9	732	5.0	691	4.7
Transport/storage/Communications	813	2.7	996	3.6	924	3.2
Financial	592	4.3	817	4.0	785	4.0
Real Estate/Business	372	2.9	865	3.8	811	3.7
Education	267	6.6	474	7.3	410	7.0
Health/Social Work	648	2.6	1076	3.4	1004	3.2
Community/Social/Personal Services	247	4.5	572	4.0	496	4.1
All	509	4.0	913	4.3	816	4.2
<b>All Enterprises</b>						
Manufacturing	232	1.8	543	2.6	358	2.1
Construction	483	1.3	702	1.7	577	1.4
Trade	381	1.4	846	1.9	650	1.6
Hotels/Restaurants	358	2.0	606	2.8	510	2.4
Transport/storage/Communications	517	1.3	698	1.4	610	1.3
Financial	575	1.6	914	2.2	846	2.1
Real Estate/Business	434	1.6	773	2.1	703	2.0
Education	254	2.5	455	3.3	387	3.0
Health/Social Work	501	1.2	1001	2.0	778	1.5
Community/Social/Personal Services	184	1.5	443	1.8	284	1.6
All	313	1.6	697	2.1	505	1.8

Source: NSSO, 2001c, Informal Sector in India, 1999-2000, 55<sup>th</sup> Round, May, Table 11.

**Table 17: Formal and Informal Sector Employment, Income and Annual Income per Worker in Ahmedabad City, 1997-98**

Industry Group	Employment		Income		Annual Income per Worker (in US \$)		
	Total	Informal <sup>1</sup>	Total	Informal <sup>1</sup>	Formal	Informal	Total
Manufacturing	36.0	67.4	36.4	43.1	1493	547	856
Electricity	0.8	-	2.3	-	2307	-	2307
Construction	9.3	100	3.6	100	-	321	321
Transport	12.7	91.5	11.7	80.5	1760	672	764
Storage	0.1	-	0.2	-	2095	-	2095
Trade, Hotels and Restaurants	20.0	90.5	18.9	63.1	3239	578	829
Communications, Banking and Insurance	3.9	-	12.5	-	2635	-	2635
Services	16.4	81.5	11.6	48.9	1343	354	501
All	100	76.7	100	46.8	1903	508	833
Estimated workers and Income	1504033	-	1253 <sup>2</sup>	-	-	-	-

Note:

1. Share of the informal sector in each industry group.
2. US \$ in millions.

Source: Uma Rani and Jeemol Unni (2000).

#### 4. Informality, Gender and Poverty

In the earlier sections we observed that women workers were more likely to be in the informal sector or in informal employment compared to men. A larger proportion of them were in economic activities without stable contracts and steady incomes, that is in self-employment and casual work rather than regular salaried employment. They spent more time on unpaid SNA activities than men. The women in the informal sector were less likely to have a designated business place. All this point to a clear link between gender and informality, which leads to women at work being in more vulnerable situations than men.

The data on income and earnings in the informal economy dis-aggregated by gender are more difficult to obtain from the official statistics. It is therefore difficult to demonstrate a clear link between gender, informality and poverty. It has, however, been observed that average wage rates are lower for women among the casual workers (Sundaram, 2001).

Using the poverty norm, discussed earlier, as a cut-off point we computed the proportion of workers who were poor by gender, location and activity status. Overall 31 percent of the workers were poor. In general a larger proportion of the female workers were poor, 35 percent (Table 18). A larger proportion of the self-employed and casual workers, 26 and 45 percent, were also poor

compared to the regular salaried workers (only 16 percent). This was true for all workers and workers in non-agricultural activities. Taking self employed and casual workers as constituting informal employment this clearly demonstrates that these workers are more likely to be poor.

In rural areas, 34 percent of the women compared to 30 percent of the men were poor. In non-agricultural activities in rural areas and among all workers in urban areas the gender difference was more marked. The highest proportion of poor workers was found among the casual workers in urban areas, with women casual workers being the most vulnerable to poverty.

**Table 18: Percentage of Poor among Workers by Activity Status, Gender and Location, 1999-00**

Activity Status	Rural		Urban		All Areas		
	Male	Female	Male	Female	Male	Female	All
	<b>All workers</b>						
<b>Self Employed</b>	24.2	26.9	30.0	42.3	25.3	28.6	26.4
<b>Regular</b>	14.4	18.4	16.4	19.4	15.6	19.0	16.2
<b>Casual</b>	42.3	47.2	52.9	61.3	43.7	48.3	45.4
<b>All</b>	29.9	34.7	28.3	38.7	29.5	35.2	31.3
	<b>Non-agricultural Workers</b>						
<b>Self Employed</b>	25.0	33.8	29.0	40.9	27.0	36.6	29.2
<b>Regular</b>	11.8	15.0	16.4	25.4	14.7	22.0	15.9
<b>Casual</b>	30.0	39.0	49.8	55.5	37.6	45.6	39.0
<b>All</b>	22.7	31.4	26.8	34.5	24.8	32.9	26.4

Source: Computed from NSSO, 2001a, Employment-Unemployment Situation in India, 1999-2000, Part I, 55<sup>th</sup> Round, May, New Delhi.

Another way of analysing the links between informality, gender and poverty is to compare the shares of men and women among the poor workers. Since the women's work participation in India is much lower than that of men, the share of women in the total workforce would be relatively low. Similarly the proportion of women among the poor workers would also be lower. Hence, we need to compare the share of women workers among the poor workers with the share of all women workers in the total workforce.

Among all workers while 31 percent are women (Table 19), the share of women among poor workers is nearly 36 percent (Table 20). Similar gender differentials were observed among the total and poor workers in rural and urban areas. Among the total informal workers, 32 percent were women (Table 19). While we do not obtain direct estimates of poor workers in the informal economy, we use the proxy of self-employed and casual workers for informal workers. We found that a much larger proportion of poor self-employed and casual workers, 36 and 38 percent respectively, were women (Table 20).

Among the total non-agricultural workforce while 19 percent were women (Table 19), 24 percent of the poor non-agricultural workers were women (Table 22). While 19 percent of the informal non-agricultural workers were women, 28 percent of the poor self-employed workers were women.

Therefore while the share of women in the total and informal workforce was not overwhelming, especially in the non-agricultural sectors, their share among the poor informal workers was larger. Thus a clear link between informality, gender and poverty is established based on the published official secondary data system in the country.

**Table 19: Share of Women Workers in the Total, Informal and Formal Workforce, 1999-2000**

	Rural	Urban	Total
<b>All Workers</b>			
<b>Total Workforce</b>	34.6	19.7	31.0
<b>Informal Workforce</b>	35.3	20.0	32.0
<b>Formal Workforce</b>	17.6	18.3	18.0
<b>Non-agricultural Workers</b>			
<b>Total Workforce</b>	21.4	17.8	19.4
<b>Informal Workforce</b>	22.5	17.9	19.9
<b>Formal Workforce</b>	16.0	17.4	16.8

Note: The informal workforce is based on the residual method.

Source: Same as Table 2.

**Table 20: Share of Women Workers Among the Poor Workers, 1999-2000**

	Rural	Urban	Total
<b>All Workers</b>			
<b>All</b>	38.2	25.1	35.6
<b>Self Employed</b>	38.4	27.4	36.1
<b>Regular Employed</b>	19.6	18.8	19.1
<b>Casual Employed</b>	39.4	26.2	37.6
<b>Non-Agriculture</b>			
<b>All</b>	26.6	21.7	23.9
<b>Self Employed</b>	32.1	24.8	28.4
<b>Regular Employed</b>	18.4	23.4	22.1
<b>Casual Employed</b>	20.8	19.5	20.1

Source: Computed from NSSO, 2001a, Employment-Unemployment Situation in India, 1999-2000, Part I, 55<sup>th</sup> Round, May, New Delhi.

## 5. Conclusion

The purpose of this country case study of the informal sector in India is to provide estimates of employment in the informal sector and a wider concept of informal employment. Besides estimating the size of the sector, it draws on both the national official data and micro studies to give a picture of who constitute informal workers and describes their characteristics.

The size of informal employment, including agriculture, was estimated at 370 million workers, nearly 93 percent of the total workforce. About 83 percent of the non-agricultural workforce were in informal employment and was estimated at 133 million workers. Of these 27 million (20 percent) were women and 73 million (55 percent) lived in urban areas. This was estimated using the residual method.

The size of the informal sector (in non-agriculture) was estimated at 110 million, about 69 percent of the non-agricultural workforce. Of these 22 million or 20 percent were women and 59 million, or 54 percent, lived in urban areas. This was estimated through a direct question in the labour force survey to the workers on the registration status of the enterprise in which they worked. The informal workers were concentrated in the manufacturing sector and in trade, hotels and restaurants.

The contribution of the informal sector, or unorganised sector in the official terminology, to the national income was 60 percent of the gross domestic product including agriculture. The informal sector contributed 45 percent of the gross domestic product in the non-agricultural sector. These estimates are based on the National Accounts Statistics, compiled by the Central Statistical Organisation of the country.

Besides this large dominance of the informal sector or unorganised sector, a second distinctive feature of the workforce in India is the large proportion of self-employed workers. About 53 percent of the workforce, including agriculture, was self-employed. Further, about 33 percent were engaged in casual wage employment. In the non-agricultural sector about 45 percent of the workers were self-employed and 21 percent were casual workers. Thus, the majority of the workers in India were engaged in activities with no regular contracts and social security benefits.

One of the features of workers in the informal sector was the lack of a designated place of work. Only about 46 percent of the non-agricultural workers worked either in their own or the employer's enterprise that was separate from the dwelling. Further, 23 percent operated within their own dwelling and 10 percent were either mobile or operated on the street at a fixed location. Among the home-based self-employed non-agricultural workers (constituting 36 percent), 38 percent undertook production on a sub-contract basis or were homeworkers.

The insecurities of informal sector workers in terms of lack of regular stable contracts, lack of a designated place of work and subcontracted nature of work all compounded into low incomes per worker in the informal enterprise. In fact a large majority, particularly the own account enterprises and enterprises in rural areas, were found to operate on average at incomes per worker below the official poverty norms.

Finally the paper explores empirically the relationship between gender, informality and poverty. We found that the proportion of women workers who were self employed or casual, without a designated place of work and engaged in sub-contract work was clearly larger than the male workers. Gender and informality of the workforce were clearly linked. While the Indian Statistical Office do not collect data on incomes at the household level, data on per household monthly consumer expenditure is used to arrive at poverty norms. Using these cut-off points we noted that women workers, and particularly self employed and casual workers, were more likely to be poor. The share of women in the poor informal workforce was also found to be greater than the share of women in the total workforce. Thus, the most disturbing characteristic of the workforce structure in India is the link between gender, informality and poverty.

## References

- Charmes J. (2000), **Procedures for Compiling Data on Informal Sector from Various Sources in Developing Countries**, WIEGO, ERF, 8p.
- Charmes, Jacques and Jeemol Unni (2001), 'Employment in the Informal Sector and Informal Employment: New Insights from Recent Surveys in India, Kenya and Tunisia', Paper presented at the 5<sup>th</sup> Meeting of the International Expert Group on Informal Sector Statistics (Delhi Group), New Delhi, 19-21 September.
- CSO (2000), **Report of the Time Use Survey**, Central Statistical Organisation, Ministry of Statistics and Programme Implementation, Government of India, New Delhi.
- GOI, Census of India (2001), Provisional Population Tables, Paper 1 of 2001, Register General and Census Commissioner of India, New Delhi.
- GOI, Census of India (1991), India, Socio Cultural Tables, Vol. I, 1997, Register General and Census Commissioner of India, New Delhi.
- Kulshreshtha, A.C. and Gulab Singh (1999), 'Gross Domestic Product and Employment in the Informal Sector of the Indian Economy', **The Indian Journal of Labour Economics**, 42(2).
- Kulshreshtha, A.C. and Gulab Singh (2001), 'Informal Sector in India: Its Coverage and Contribution', in Amitabh Kundu and Alakh Sharma (edited), **Informal Sector in India: Perspectives and Policies**, The Institute of Human Development, New Delhi.
- NSSO, (2001a), Employment-Unemployment Situation in India, 1999-2000, Part I, 55<sup>th</sup> Round, National Sample Survey Organisation, Government of India, May, New Delhi.
- NSSO, (2001b), 'Non-Agricultural Workers in Informal Sector Based on Employment-Unemployment Survey, 1999-2000', NSS 55<sup>th</sup> Round, Report No. 460, National Sample Survey Organisation, Government of India, May, New Delhi.
- NSSO, (2001c), Informal Sector in India, 1999-2000, 55<sup>th</sup> Round, National Sample Survey Organisation, Government of India, May, New Delhi.
- Planning Commission, 2001, **Report of the Task Force on Employment Opportunities**, Government of India, New Delhi.
- SNA, 1993, **System of National Accounts 1993**, Commission of European Communities, Eurostat, International Monetary Fund, Organization of Economic Co-operation and Development, United Nations and World Bank, Washington D.C.
- Sundaram, K. (2001), 'Employment and Poverty in 1990s: Further Results from NSS 55<sup>th</sup> Round Employment-Unemployment Survey, 1999-2000', **Economic and Political Weekly**, 36(32).

- Uma Rani and Jeemol Unni (2000), “Urban Informal Sector: Size and Income Generation Processes in India, Part-II”, SEWA-GIDR-ISST-NCAER, **Contribution of the Informal Sector to the Economy, Report No.3**, National Council of Applied Economic Research, New Delhi, May.
- Unni, Jeemol (1998), ‘Wages and Employment in the Unorganised Sector: Issues in Wage Policy’, **The Indian Journal of Labour Economics**, 41(4).
- Unni, Jeemol (2000), “Urban Informal Sector: Size and Income Generation Processes in India, Part-I”, SEWA-GIDR-ISST-NCAER, **Contribution of the Informal Sector to the Economy, Report No.2**, National Council of Applied Economic Research, New Delhi, April.
- Unni, Jeemol (2001), ‘Gender and Informality in the Labour Market in South Asia’, **Economic and Political Weekly**, 36(26).
- Unni, Jeemol and Paul Jacob (1999), “Informal Sector Activities in Rural Areas: A Methodological Study”, Gujarat Institute of Development Research and Self Employed Women’s Association, Ahmedabad, Mimeo, September.
- Unni, Jeemol and Uma Rani (1999), “Informal Sector: Women in the Emerging Labour Market” **Indian Journal of Labour Economics**, Conference Issue, 42 (4).
- Visaria, Pravin and Paul Jacob (1995), ‘The Informal Sector in India: Estimates of its Size and Needs and Problems of Data Collection’, Working Paper 70, Gujarat Institute of Development Research, December.