

**GROWTH AND STRUCTURE
OF EMPLOYMENT IN INDIA**
**Long-Term and Post-Reform Performance
and the Emerging Challenge**

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IN THE INDIAN ECONOMY**
Macro-economic Implications of Emerging Pattern

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Preface

Institute for Studies in Industrial Development (ISID) has been carrying out a 3-year Research Programme on “Structural Changes, Industry and Employment in Indian Economy: Macro-economic Implications of Emerging Pattern” with the sponsorship of the Indian Council of Social Science Research (ICSSR) since March 2009. The Programme envisages undertaking studies on various aspects of the structural changes in the Indian economy under the following six major themes:

- i) Growth and Structural Changes in Indian Economy
- ii) Employment: Implications of Structural Changes
- iii) Growth and Structure of Industry
- iv) Structure of Services Sector
- v) Income Distribution, Demand Supply Balances and Price Stability
- vi) Trade

The Programme team which consists of several faculty members of the Institute has identified over a dozen different sub-themes within the above major themes for study. The present paper on “Growth and Structure of Employment in India: Long-Term and Post-Reform Performance and the Emerging Challenge” is the outcome of the study under theme (ii). An earlier draft of the paper was presented at a national workshop, organised to discuss 10 studies at different stages of progress under the Programme, during 7–8 July 2011. We have immensely benefited from the comments and suggestions made by participants, especially by Dr Ajit Ghose, who chaired the discussion on it and also made detailed comments and Prof. Sheila Bhalla and Prof. Niti Mehta who acted as the main discussants on the paper.

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I. Introduction

Employment has always featured as an element of development policy in India. The priority and attention it has received in development plans have, however, varied from time to time and so have the approaches and strategies as well as policies and programmes for employment generation. When India embarked on a strategy of industrialisation-based development in 1950's, employment was not perceived to be a major issue in so far as a relatively faster growth of economy as envisaged in the consecutive Five Year Plans was expected to generate enough employment, particularly in industry, to take care of a small backlog of unemployment at the time and increase in labour force that was expected to be relatively modest. Ensuring a regular and adequate supply of suitably skilled workforce was conceived to be a matter of greater concern. Improving the quality of employment, in terms of reasonable and rising level of wages and a minimum measure of social security against the common risks of work and life was, however, considered an important concern of state policy.

Public sector, providing conditions of good quality employment, was regarded as 'model employer' and expanded its workforce continuously for about four decades. Also, where the private sector failed to continue operations of enterprises and employment of workers, the government took over such enterprises, with a view to, *inter alia*, protecting employment. The private sector was expected to follow the rules of employment as laid down in various legislations and agreements so as not only to protect employment but ensure its quality.

Growth of employment emerged as an important concern in development planning around the middle of 1970s, when it was realised that economic and demographic performance of the economy had fallen short of earlier expectations and as a result unemployment had been on an increase. The problem was sought to be tackled through a two-pronged strategy: on the one hand, efforts were initiated to make development more employment oriented, by encouraging growth of employment intensive sectors and including employment among the objectives of

macro-economic and sectoral policies, and, on the other, special employment programmes, for creating both short-term wage employment and self-employment were introduced. This approach was continued over the next one and a half decade¹.

The beginning of 1990's saw initiation of economic reforms, involving deregulation of domestic economic activities and liberalisation of foreign trade and investment regimes. Public sector was no longer seen as an employment provider; it has, in fact, experienced a continuous decline in employment since mid-1990s. Higher growth of the economy induced by liberalisation, was expected to lead to a faster expansion of employment. Growth rate accelerated but employment growth saw a deceleration. And most new jobs were located in the informal sector with low earnings and no social protection. Start of the new millennium, however, seemed to have brought in a turnaround, suggesting an end of the period of 'jobless' growth and beginning of the positive result of liberalization in terms of a high employment growth. Doubts about the quality of employment based on NSSO estimates for 2004-05, on which this optimism was based, however, made such a conclusion sound rather hasty (see e.g. Unni and Raveendran, 2007). Results of the last NSSO Round (2009-10) suggesting a virtual stagnation in employment during 2004-05/2009-10 have proved a dampener in this regard.

The present paper describes the growth and structural changes in employment in the long and short periods, with a special focus on the period since economic liberalisation. It assesses the employment challenge in its quantitative and qualitative dimensions and examines the prospects of generating productive employment of adequate quantity and quality. It concludes with indication of some broad measures of policy for faster growth of productive and decent employment.

¹ For some details on the treatment of employment in development planning and policy in India, see, Papola, 1992 and Papola, 2004.

II. Employment Performance of the Indian Economy: The Long-Term Experience

Employment has grown at an average annual rate of two per cent in India during the past four decades since 1972-73 when comprehensive information on employment and unemployment started becoming available from the NSSO quinquennial surveys. In itself this could be regarded as a significant record, as such an employment growth has not been recorded by many countries historically or in recent periods. In fact, most countries in general, and developed countries in particular, have had very low employment growth in recent years. According to ILO data, most of them saw an increase of less than one per cent per annum in their employment during the 1990s. It was 0.45 per cent in United States, 0.18 per cent in United Kingdom, 0.32 per cent in France, 0.41 per cent in Germany and -0.15 per cent in Japan. In the case of developing countries strictly comparable data are not available, but broad assessment places their average employment growth at around 1.5 per cent per annum during that period (ILO, KILM, 2007 and Ghose *et al*, 2008). During the past decade, 2001-2010, employment is estimated to have grown globally at about 1.5 per cent per annum: the developed countries registering a growth rate of barely one per cent during 2001-08, which also seems to have been more than negated by a large decline during the next two years. The developing countries in East and South East Asia, and transition economies of Eastern Europe also saw very little growth in employment. But Latin America and Africa performed better. South Asia maintained a steady growth of employment of 2.4 per cent in which India had a major contribution (ILO, KILM, 2011).

India's significant record on employment growth has, however, not been adequate in view of a faster growth of labour force. Further, there are a few disconcerting features of employment growth in recent years. First, employment growth has decelerated. Second, employment content of growth has shown a decline. Third, sectors with higher employment potential have registered relatively slower growth. Fourth, agriculture, despite a sharp decline in its importance in gross domestic product, continues to be the largest employer as the non-agricultural

sectors have not generated enough employment to effect a shift of workforce. Fifth, most of the employment growth has been contributed by the unorganised, informal sector which is characterised by poor incomes and conditions of work. And, sixth, employment growth in the organised sector which seems to have picked up in recent years, has been mostly in the categories of casual and contract labour.

II.1 Employment Growth

II.1.1 Long and Short Term Trends

Long-term employment growth over the period of about four decades, as noted earlier, has been around 2 per cent per annum. It has, however, seen a declining trend from one decade to another: it was 2.44 per cent during 1972-73/1983, 2.02 per cent during the next ten year period and 1.84 per cent during 1993-94/2004-05 (*Table 1*). In between, these decadal periods, some fluctuations were noted in shorter periods of five years. Of these, a sharp rise in employment growth during 2000-2005 to 2.81 per cent over 1.00 per cent during 1993-94/2004-05, is most striking. The most favourable interpretation of this upturn in employment growth in post-2000 period is that the teething troubles of the economic reforms which led to slow growth of employment initially were over by 2000 and globalisation started having its beneficial effect on employment with the start of the millennium. The facts that GDP growth was no better—was, in fact lower—during 2000-2005 than during 1994-2000, that most employment growth recorded during the later period was in the informal sector of which a large part was as self-employment in agriculture, and, organised sector employment, in fact, saw an absolute decline, however, raise doubts about the high employment growth during 2000-05 being demand-led and productive. A virtual stagnation in employment during 2004-05/2009-10 as revealed by the latest round of NSSO survey casts further doubt on the veracity of the 2004-05 estimates. We will turn to this aspect later while dealing in some detail with the issue of employment growth in the post-reform period.

Table 1
Growth of Employment (UPSS)

Sector	1972-73/77-78	1977-78/83	1983/87-88	1987-88/93-94	1993-94/99-2000	1999-00/2004-05	2004-05/2009-10	1972-73/83	1983/93-94	1993-94/2004-05	1999-00/2009-10
1	2	3	4	5	6	7	8	9	10	11	12
Primary Sector	1.78	1.56	0.28	2.16	0.05	1.40	-1.63	1.70	1.35	0.67	-0.13
Mining & Quarrying	4.36	7.14	5.34	1.69	-2.11	2.41	3.00	5.92	3.24	-0.08	2.70
Manufacturing	5.43	3.08	4.66	0.05	1.62	5.06	-1.06	4.28	2.00	3.17	1.95
Utilities	2.78	12.39	7.21	4.37	-5.89	3.22	1.02	7.86	5.58	-1.86	2.11
Construction	1.67	6.84	13.91	-0.11	6.38	8.18	11.29	4.43	5.67	7.19	9.72
Secondary Sector	4.78	3.95	6.44	0.19	2.44	5.83	3.46	4.43	2.82	3.97	4.64
Trade, Hotelling etc.	6.40	2.87	3.96	3.62	6.28	4.01	1.10	4.62	3.77	5.24	2.54
Transport & Communication etc.	6.21	5.36	3.02	3.67	5.09	5.23	2.14	5.88	3.39	5.16	3.68
Financing, Insurance, Real estate & business services	6.84	7.68	1.41	5.24	5.28	9.62	5.77	7.43	3.58	7.23	7.68
Community, social and personal services	3.24	3.01	0.31	6.68	-1.48	2.71	0.99	3.18	3.91	0.40	1.85
Tertiary Sector	4.86	3.46	2.11	5.03	2.85	4.08	1.59	4.21	3.77	3.41	2.83
All Non-Agricultural	4.82	3.67	4.09	2.82	2.68	4.81	2.41	4.30	3.36	3.64	3.61
Total	2.61	2.19	1.53	2.39	1.04	2.81	0.22	2.44	2.02	1.84	1.50

Source: Own estimates based on various rounds of NSS data on employment and unemployment.

II.1.2 Growth in Employment and GDP

The long-term trend of a decline in the rate of employment growth is, however, a fact that can not be ignored. What is particularly intriguing is that this decline has accompanied an acceleration in the rate of economic growth. Thus when GDP grew at 4.7 per cent per annum during 1972-73 to 1983 (*Table 2*), employment growth was 2.4 per cent; GDP growth increased to 5 per cent; but employment growth declined to 2.0 per cent during 1983/1993-94; during 1993-94/2004-05 GDP growth accelerated to 6.3 per cent, but employment growth further declined to 1.8 per cent and during the 2004-05/2009-10 quinquennium, when GDP growth was as high as 9 per cent employment grew at an insignificant rate of 0.22 per cent! The declining trend in the employment content of growth is quite clearly seen in terms of the values of employment elasticity (ratio of employment growth to growth in value added) in *Table 3*. It was 0.52 during 1972-73/1983 declined to 0.41 in the next ten-

year period and further to 0.29 during 1993-94/2004/05. During 2004-05/2009-10, it declined to almost zero.

Table 2
Growth of GDP (at constant 1999-2000 Price): 1972-73/2009-10

Sector	1972-73/77-78	1977-78/83	1983/87-88	1987-88/93-94	1993-94/99-2000	1999-00/2004-05	2004-05/2009-10	1972-73/83	1983/93-94	1993-94/2004-05	1999-00/2009-10
1	2	3	4	5	6	7	8	9	10	11	12
Primary Sector	4.34	2.47	-0.03	4.67	3.31	1.56	3.10	3.66	2.76	2.51	2.33
Mining & Quarrying	4.94	7.28	5.58	6.51	5.20	4.80	4.11	6.85	6.14	5.02	4.46
Manufacturing	4.83	5.06	4.62	5.15	6.90	6.46	9.50	5.47	4.94	6.70	7.97
Utilities	7.40	6.85	9.20	8.37	6.98	4.22	7.18	7.83	8.70	5.71	5.69
Construction	4.57	1.34	4.30	5.26	6.36	9.17	9.23	3.08	4.88	7.63	9.20
Secondary Sector	4.91	4.38	4.98	5.59	6.62	6.74	8.82	5.09	5.35	6.68	7.78
Trade, Hotelling etc.	6.02	4.53	5.65	5.54	9.29	7.87	9.07	5.74	5.58	8.64	8.47
Transport & Communication etc.	6.06	5.72	6.69	5.60	8.66	12.90	16.12	6.48	6.03	10.57	14.50
Financing, Insurance, Real estate & business services	4.39	6.23	8.77	9.28	7.78	6.71	12.30	5.95	9.07	7.29	9.47
Community, social and personal services	3.21	4.80	6.85	5.21	7.83	5.00	8.18	4.49	5.86	6.53	6.58
Tertiary Sector	4.70	5.15	6.90	6.37	8.35	7.58	11.15	5.46	6.58	8.00	9.35
All Non-Agricultural	4.79	4.85	6.17	6.08	7.74	7.30	10.41	5.31	6.12	7.54	8.84
Total	4.60	3.92	3.99	5.65	6.51	5.98	9.08	4.66	4.98	6.27	7.52

Source: Own estimates based on National Accounts Statistics, CSO, various years.

Table 3
Employment Elasticity With respect to GDP

Sector	1972-73/77-78	1977-78/83	1983/87-88	1987-88/93-94	1993-94/99-2000	1999-00/2004-05	2004-05/2009-10	1972-73/83	1983/93-94	1993-94/2004-05	1999-00/2009-10
1	2	3	4	5	6	7	8	9	10	11	12
Primary Sector	0.41	0.63	-9.10	0.46	0.02	0.90	-0.53	0.46	0.49	0.26	-0.05
Mining & Quarrying	0.88	0.98	0.96	0.26	-0.41	0.50	0.73	0.86	0.53	-0.02	0.61
Manufacturing	1.12	0.61	1.01	0.01	0.24	0.78	-0.11	0.78	0.41	0.47	0.25
Utilities	0.38	1.81	0.78	0.52	-0.84	0.76	0.14	1.00	0.64	-0.32	0.37
Construction	0.37	5.09	3.23	-0.02	1.00	0.89	1.22	1.44	1.16	0.94	1.06
Secondary Sector	0.97	0.90	1.29	0.03	0.37	0.87	0.39	0.87	0.53	0.59	0.60
Trade, Hotelling etc.	1.06	0.63	0.70	0.65	0.68	0.51	0.12	0.81	0.67	0.61	0.30
Transport & Communication etc.	1.03	0.94	0.45	0.66	0.59	0.41	0.13	0.91	0.56	0.49	0.25
Financing, Insurance, Real estate & business	1.56	1.23	0.16	0.56	0.68	1.43	0.47	1.25	0.39	0.99	0.81

Sector	1972-73/77-78	1977-78/83	1983/87-88	1987-88/93-94	1993-94/99-2000	1999-00/2004-05	2004-05/2009-10	1972-73/83	1983/93-94	1993-94/2004-05	1999-00/2009-10
1	2	3	4	5	6	7	8	9	10	11	12
services											
Community, social and personal services	1.01	0.63	0.05	1.28	-0.19	0.54	0.12	0.71	0.67	0.06	0.28
Tertiary Sector	1.03	0.67	0.31	0.79	0.34	0.54	0.14	0.77	0.57	0.43	0.30
All Non-Agricultural	1.01	0.76	0.66	0.46	0.35	0.66	0.23	0.81	0.55	0.48	0.41
Total	0.57	0.56	0.38	0.42	0.16	0.47	0.02	0.52	0.41	0.29	0.20

Source: Own estimates based on various rounds of NSS data on employment and unemployment and National Accounts Statistics, CSO, various years.

II.1.3 Employment Growth in Major Economic Activity Sectors

Employment growth in the secondary sector, consisting of mining, manufacturing, electricity, water and gas, and construction, has been relatively high, in fact the highest among the three sectors, during the period under study, 1972-73 to 2009-10. It has declined over the longer period with some fluctuations over the shorter periods, but has shown a significant increase during 1994-2005. Even during 2004-05/2009-10, when overall employment has virtually stagnated, it has grown at around 3.5 per cent in the secondary sector. Employment growth in the tertiary or services sector, has also been relatively high but has consistently declined over the three periods of 10 years each since 1972-73. Growth of employment in the primary sector, as expected, has been the lowest and seen the sharpest decline. It has, in fact, turned negative in recent years. Slow and declining growth of employment in agriculture, is a result both of slow and declining rate of GDP growth and a decline in employment elasticity. In the secondary sector, a high employment growth despite moderate rates of GDP growth has been possible due to relatively high and rising employment elasticity. But in the tertiary sector, even a high GDP growth has not been able to maintain a high growth in employment due to a steep decline in employment elasticity.

Let us look at the employment performance of different activities within the secondary and tertiary sectors (*Table 1*). Within the secondary or industry sector, construction experienced a relatively high and increasing rate of employment growth; it was as high as over seven per cent during 1994-2005, almost similar to its GDP growth (*Table 2*). It has maintained 11 per cent employment growth during the

2004-05/2009-10, when total employment has virtually stagnated. Employment growth in manufacturing has also been moderately high, and after declining during 1983/1993-94 over the earlier ten year period, it registered an increase in the next period, 1994-2005. But it experienced a decline in employment during 2004-05/2009-10. Employment elasticity in manufacturing, has been relatively high except in the last period (*Table 3*). Mining and utilities (electricity, water and gas), the minor activities contributing 0.56% and 0.26% to total employment, have each experienced a decline in employment during 1994-2005, after registering a high growth in earlier periods. Both registered a small positive growth in employment during 2004-05/2009-10, with relatively low GDP growth.

In the services sector, trade and transport have shown the best employment performance, both registering a growth of over 5 per cent during 1994-2005, after having seen a decline in growth rate, sharper in transport than in trade, during 1983-94, over 1973-83. These trends are in line with respective GDP growth rates in the two activities, though the dip in employment growth is deeper than in GDP growth, while the jump in employment growth is lower than in GDP growth. Thus in transport, for example, while GDP growth declined from 6.5 to 6 per cent, employment growth declined from 5.8 to 3.5 per cent; but when in the next period GDP growth rose sharply from 6 to 10.5 per cent, employment growth increased from 3.5 to 5.3 per cent. Financial services, however, have recorded the highest increase in employment over the longer period 1983-2005 except during 1983/1993-94. Even during 2004-05/2009-10, this sub-sector of services has registered an employment growth of about 6 per cent, while trade and transport sub-sectors experienced only about 1 to 2 per cent growth in employment. Thus it appears that all sub-sectors of the tertiary sector with the possible exception of community, social and personal services have shown reasonably high potential for employment generation. It must, however, be noted that in most sub-sectors of services, while GDP has seen a high and increasing growth rate, employment growth has been on a declining rate. Employment elasticity has, therefore, declined sharply from 0.81 during 1972-73/1983 to 0.30 during 1999-2000/2009-10 in trade, from 0.91 to 0.25 in transport, from 0.71 to 0.28 in community, social and personal, services, although in financial services it increased during 1993-94/2009-10.

II.1.4 Employment Growth in Rural and Urban Areas

It is interesting to note that while in aggregate urban areas have experienced a much faster growth than the rural areas, employment has seen significantly high growth in rural areas in most non-agricultural activities. But since agriculture accounts for an overwhelmingly major share in rural economy and growth in employment in agriculture has been small, overall employment growth turns out to be low in rural areas. Aggregate employment in rural areas grew at a rate of 2.1 per cent during 1972-73/83, but saw a decline to 1.7 and 1.4 per cent in the two subsequent periods (Table 4). It has declined in absolute terms during 2004-05/2009-10 at a rate of 1.65 per cent per annum. Urban employment growth has been higher in all periods, but saw decline in growth rate from 4.1 during 1972-73/83 to 3.2 per cent during 1983/93-94 recovering slightly to 3.3 per cent during the next period. In

Table 4
Growth of Rural Employment (UPSS)

Sector	1972-73/77-78	1977-78/83	1983/87-88	1987-88/93-94	1993-94/99-2000	1999-00/2004-05	2004-05/2009-10	1972-73/83	1983/93-94	1993-94/2004-05	1999-00/2009-10
1	2	3	4	5	6	7	8	9	10	11	12
Primary Sector	1.66	1.49	0.28	2.17	0.20	1.29	-1.65	1.60	1.35	0.69	-0.19
Mining & Quarrying	5.82	6.11	5.58	1.09	-1.25	2.11	5.21	6.09	2.99	0.26	3.65
Manufacturing	5.36	3.50	4.33	0.35	1.62	4.09	-2.74	4.47	2.04	2.74	0.62
Utilities	17.17	1.66	11.12	5.15	-8.29	1.83	1.19	8.95	7.66	-3.82	1.51
Construction	0.92	6.32	18.45	-3.50	6.44	10.50	13.61	3.79	5.36	8.27	12.04
Secondary Sector	4.71	4.08	7.57	-0.53	2.55	6.03	4.65	4.47	2.87	4.11	5.34
Trade, Hotelling etc.	7.62	3.19	4.06	3.37	3.76	6.23	0.66	5.38	3.67	4.88	3.41
Transport & Communication etc.	6.77	8.07	5.13	3.79	6.75	6.33	2.58	7.60	4.36	6.56	4.44
Financing, Insurance, Real estate & business services	10.62	15.32	-7.21	4.45	4.27	8.41	2.07	13.33	-0.72	6.13	5.20
Community, social and personal services	4.08	2.26	0.40	5.99	-0.99	1.38	0.16	3.19	3.56	0.08	0.77
Tertiary Sector	5.72	3.58	2.13	4.64	2.12	4.52	0.90	4.69	3.56	3.20	2.70
All Non-Agricultural	5.23	3.82	4.91	1.98	2.32	5.25	2.83	4.58	3.22	3.64	4.03
Total	2.21	1.89	1.19	2.12	0.67	2.29	-0.34	2.08	1.72	1.40	0.96

Source: Own estimates based on various rounds of NSS data on employment and unemployment.

the quinquennium 2005-10, urban areas recorded an employment growth of 1.8 per cent per annum (Table 5).

Table 5
Growth of Urban Employment (UPSS)

Sector	1972-73/77-78	1977-78/83	1983/87-88	1987-88/93-94	1993-94/99-2000	1999-00/2004-05	2004-05/2009-10	1972-73/83	1983/93-94	1993-94/2004-05	1999-00/2009-10
1	2	3	4	5	6	7	8	9	10	11	12
Primary Sector	5.01	3.27	0.42	1.99	-3.48	4.47	-1.17	4.18	1.32	0.05	1.61
Mining & Quarrying	1.54	9.23	4.88	2.79	-3.69	3.00	-1.87	5.61	3.68	-0.70	0.53
Manufacturing	5.51	2.65	5.01	-0.26	1.63	6.05	0.45	4.08	1.97	3.61	3.21
Utilities	-8.86	24.12	4.73	3.77	-4.16	4.05	0.93	7.29	4.18	-0.51	2.47
Construction	2.90	7.62	5.91	6.26	6.29	4.68	6.60	5.45	6.11	5.56	5.64
Secondary Sector	4.86	3.80	5.13	1.04	2.32	5.60	2.01	4.39	2.77	3.80	3.79
Trade, Hotelling etc.	5.50	2.61	3.88	3.82	8.08	2.53	1.43	4.05	3.85	5.52	1.98
Transport & Communication etc.	5.96	4.02	1.78	3.59	3.94	4.36	1.77	5.04	2.81	4.13	3.06
Financing, Insurance, Real estate & business services	5.73	4.45	5.43	5.49	5.59	9.96	6.67	5.16	5.47	7.55	8.30
Community, social and personal services	2.52	3.66	0.24	7.24	-1.87	3.75	1.58	3.17	4.18	0.65	2.66
Tertiary Sector	4.23	3.38	2.10	5.32	3.37	3.78	2.06	3.86	3.93	3.56	2.92
All Non-Agricultural	4.47	3.54	3.33	3.61	2.99	4.44	2.04	4.06	3.49	3.65	3.23
Total	4.55	3.50	2.91	3.40	2.30	4.44	1.78	4.08	3.19	3.27	3.10

Source: Own estimates based on various rounds of NSS data on employment and unemployment.

As mentioned above, employment performance of the rural areas has been better than that of the urban areas in so far as the non-agricultural activities are concerned. Employment in all non-agricultural activities together grew at 4.58 per cent per annum in rural areas and 4.08 per cent per annum in urban areas during 1972-73/1983; growth rates for rural and urban areas were similar at 3.65 during 1994-2005. Only during 1983/93-94 urban growth rate was higher at 3.5 as compared to 3.2 for rural areas. Again, during 2005-10, rural areas did better than the urban areas in growth of non-agricultural employment. In general, the pattern of employment growth in terms of rates of employment growth in different activities is found to be similar in rural and urban areas. Construction registered the fastest growth and the growth rate has increased over the years in both rural and urban areas. During 1993-94/2004-05, employment growth in construction has been much higher at 8.3 per cent per annum in rural than in urban areas at 5.6 per cent. Transport ranks second and trade third in employment growth in rural areas. In

urban areas trade has performed better than transport, but both have registered high employment growth. Financial services had an employment growth of 6.30 per cent in rural and 7.54 per cent per annum in urban areas. Other services have had the lowest growth in employment in both areas; it has been particularly low, 0.64 per cent in urban and 0.25 per cent in rural areas, during the period, 1994-2005. The two minor activities mining and utilities saw a decline in employment in urban areas and utilities in rural areas during 1994-2005 after growing fast in the earlier two decades, in both areas. Despite a decline in aggregate employment, construction employment grew at 13.6 per cent per annum in rural areas during 2004-05/2010. In urban areas construction and financial services were the best performers with an employment growth rate of 6.6 per cent each during this period.

The fact that the non-farm employment has registered a fast growth in employment in rural areas, even faster than in urban areas, for most of the period under consideration, has significant implications for growth of rural employment in future. It is, therefore, interesting and useful to probe the status and dynamics of the rural non-farm activities in some detail.

11.1.5 Employment in Rural Non-Farm Sector

It needs to be noted that with about one-third contribution to employment and over 60 per cent in GDP, the non-farm sector is now an important segment of the rural economy of India. And it has shown significant dynamism, in so far as its growth, both in terms of employment and output has been not only faster than in agriculture but also faster than in urban areas. As a result, its share in rural employment increased from 15 per cent in 1972-73 to 27 per cent in 2004-05. It further increased to 32 per cent in 2009-10. In rural NDP the share of non-farm sector increased from 28 per cent in 1970-71 to 49 per cent in 1999-2000 and 62 per cent in 2004-05 (*Table 6*). There have been large changes in the structure of NDP and employment. Share of manufacturing in total rural NDP increased from 5.9 per cent in 1970-71 to over 8 per cent in 1993-94 and about 12 per cent in 2004-05. The share of construction in rural NDP increased from 3.5 per cent in 1970-71 to 7.9 per cent in 2004-05. The share of transport that was just 1.3 per cent in 1970-71, rose to 5.8 per cent in 2004-05. Share of trade increased from 2.7 to 15 per cent,

make it the largest non-agricultural activity in rural areas and of community, social and personal services from 6.4 to 8.3 per cent.

Table 6
Sectoral Distribution of Rural NDP (%)

<i>Sector</i>	<i>1970-71</i>	<i>1980-81</i>	<i>1993-94</i>	<i>1999-00</i>	<i>2004-05</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
Agriculture and allied	72.37	64.36	56.99	51.42	38.34
Mining & Quarrying	0.85	1.24	2.60	1.82	3.70
Manufacturing	5.87	9.16	8.15	11.13	11.86
Utilities	0.37	0.56	0.88	1.43	0.66
Construction	3.47	4.05	4.61	5.59	7.91
Trade, hotels & restaurants	2.72	6.68	7.77	8.72	14.98
Transport, storage & communication	1.26	1.32	3.41	4.03	5.81
Banking & Insurance	0.54	0.81	1.73	1.93	1.96
Real estate and business services	6.18	4.55	4.26	4.60	6.46
Community, Social & Personal Services	6.36	7.27	9.58	9.35	8.31
Total rural nonfarm	27.63	35.64	43.01	48.58	61.66
Total	100	100	100	100	100

Source: Own estimates based on National Accounts Statistics, CSO, various years.

According to the NSSO estimates rural non-farm activities employed 28.51 million workers in 1972-73, the number went up to 56.11 million by 1987-88 and to 93.53 million in 2004-05. According to the NSSO survey of 2009-10, the number stood at 107.51 million in that year. While the growth rate of employment in the total economy and rural areas as a whole declined in the period 1994-2005 over the earlier 10-year period, in the rural non-farm sector, it showed an increase. And when during 2004-05/2009-10, total employment stagnated and rural employment declined, rural non-agricultural employment showed a significant growth of 2.8 per cent per annum. It may be argued that a high growth of employment in non-farm activities could have been induced by declining employment opportunities in agriculture, which grew at slow rate, slower (at 0.87 per cent during 1994-2005 as compared to 1.39 per cent) during preceding 10-year period. And in this sense, the growth of employment in non-farm sector may be seen as driven by 'distress' in agriculture. A significantly higher productivity per worker in the non-farm activities than in agriculture (the ratio was 4.4:1 in 2004-05, according to the sectoral distribution of NDP and workers), however, casts serious doubt on such a hypothesis and suggests that employment increase in rural non-farm activities was driven by productive employment opportunity arising in them.

Let us briefly look at the pattern of employment in the rural non-farm sector in terms of shares of major activities and how they have changed in recent years. First, it appears that the non-farm segment of the rural economy was more or less equally distributed between the secondary (industry) and tertiary (services) sectors in terms of shares of employment, the former accounting for 49.5 and the latter 50.5 per cent in 2004-05 (Table 7). There has been an increase in the share of secondary and decline in the share of tertiary activities during 2004-05/2009-10, with former now accounting for 54 and latter 46 per cent. Manufacturing constitutes, by far, the largest segment of the rural non-farm sector, but its share in employment has declined from 32 per cent in 1993-94 to 29 per cent in 2004-05, and further to 22 per cent in 2009-10. Construction gained significantly raising its share from 11 per cent in 1993-94 to 18 per cent in 2004-05. In 2009-10, it has jumped to 29 per cent, making the largest non-farm activity in the rural areas. Among services, trade constitutes the largest, and among all divisions, the second largest, activity accounting for 20 per cent of non-farm employment in 2009-10, down from 23 per cent in 2004-05, back to the same share as in 1993-94. Transport has gained substantially from 7 per cent in 1993-94 to 9 per cent in 2009-10. Community, social and

Table 7
Composition of Rural Non-Farm Employment (UPSS)

<i>Sector</i>	<i>1993-94</i>	<i>1999-00</i>	<i>2004-05</i>	<i>2009-10</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Agriculture	78.43	76.23	72.58	67.93
Non-agriculture	21.57	23.77	27.42	32.07
Distribution within non-agriculture:				
Mining & Quarrying	2.58	2.09	1.79	2.01
Manufacturing	32.46	31.15	29.47	22.32
Utilities	1.06	0.55	0.47	0.43
Construction	11.02	13.96	17.81	29.32
Secondary Sector	47.12	47.74	49.53	54.08
Trade, Hotelling etc.	19.86	21.59	22.62	20.33
Transport & Communication etc.	6.71	8.66	9.11	9.00
Financing, Insurance, Real estate & business services	1.36	1.52	1.76	1.70
Community, social and personal services	24.96	20.49	16.98	14.89
Tertiary Sector	52.88	52.26	50.47	45.92

Source: Own estimates based on various rounds of NSS data on employment and unemployment.

personnel services have seen a steep decline in their share in employment from 25 per cent in 1993-94 to 17 per cent in 2004-05 and to 15 per cent in 2009-10.

Construction as noted above, has emerged as the largest rural non-farm activity in terms of employment, now accounting for over 29 per cent of total non-farm employment in 2009-10. It has registered a fast increase, raising its share from 11 per cent in 1993-94 and 18 per cent in 2004-05. It is not clear how much of it is in terms of housing and how much in infrastructure. But it is likely that a large part of it may be in public programmes of infrastructure building including under Mahatma Gandhi National Rural Employment Guarantee Act (MGNREA). That a good part of it must have taken place in building road connectivity is also reflected in relatively sharp increase in employment in transport: from 6.7 per cent to over 9 per cent during 1993-94/2009-10. Trade, however, is the largest non-farm activity in rural areas in terms of contribution to rural GNP, with a 15 per cent share, having increased from 8 per cent in 1993-94 and 9 per cent in 1999-2000. Its share in rural employment, has, however, not increased.

Manufacturing is the second largest segment of the rural non-farm sector accounting for 22 per cent of employment. In terms of NDP also, it is the second largest segment: it accounted for over about 20 per cent for rural non-farm NDP. Even though employment growth in manufacturing has been lower than overall employment growth in rural non-farm sector during 1994-2010 and has thus lost its position of largest non-farm sector, it is noteworthy that its share in rural NDP has significantly increased over the years. It is, therefore, reasonable to see the rural manufacturing as an important source of productive employment in rural areas. It must, however, be seen to consist not only of 'village industries', but to include such modern industries which have comparative advantage in terms of raw material and labour in rural areas. It is estimated that industries based on agricultural raw material or rural skills account for 83 per cent of all rural industrial enterprises and 78 per cent of all rural manufacturing employment (Sarkar and Karan, 2005) and they should obviously become the focus for a strategy of employment expansion in rural manufacturing activities.

II.1.6 Employment Growth in the Organised Sector: Reversal of a Declining Trend?

In aggregate, growth rate of employment in the organised sector has registered a continuous decline from one quinquennial period to another during

1972-73 to 2004-05 (Table 8). It has prompted characterization of growth in organised sector, particularly, in manufacturing, during the period 1981-82 to 2004-05 as 'jobless' (see e.g. Kannan and Raveendran, 2009) It was 2.7 per cent during 1972-73/77-78; for the subsequent four consecutive sub-periods the figures are 2.2, 1.4, 1.1 and 0.4 and turned negative (-1.1) during 2000-2005. An absolute decline in employment during 2000-2005 has been common to most divisions of economic activity except agriculture, mining, trade and financial services. Financial services have the highest growth rate in all sub-periods since 1978-83 and saw an acceleration from one per cent per annum during 1994-2000 to 3.1 per cent during 2000-05. Employment in trade has also increased at a reasonably high rate (2.5%) during this period.

Table 8
Growth of Employment in Organised Sector

		1973/78	1978/83	1983/88	1988/94	1994/2000	2004/05	2005/08
1		2	3	4	5	6	7	8
Public Sector								
0	Agriculture, hunting etc.	15.5	-5.4	3.1	-0.3	-1.0	-0.7	-5.4
1	Mining and quarrying	11.7	3.1	1.6	1.0	-1.6	1.9	13.0
2&3	Manufacturing	7.1	3.8	2.7	-0.8	-2.5	-5.9	-3.4
4	Electricity, gas and water	3.9	3.8	3.3	1.7	0.1	-1.9	-1.3
5	Construction	-0.4	2.3	1.6	-0.7	-1.1	-3.6	-1.9
6	Wholesale and retail trade	-27.6	7.3	3.3	2.5	0.2	2.5	-1.1
7	Transport, storage & communication	1.8	2.3	1.3	0.4	0.0	-2.2	-2.8
8	Finance, insurance and real estate etc		8.5	4.7	2.5	0.3	1.7	-1.3
9	Community, social & personal services	2.7	2.4	2.0	1.6	0.5	-1.1	-0.8
	Total	3.8	2.6	2.2	1.0	-0.1	-1.4	-0.7
Private Sector								
0	Agriculture, hunting etc.	1.1	-0.1	-0.1	0.8	0.4	1.7	4.6
1	Mining and quarrying	-12.7	-1.1	-5.0	1.4	-3.6	-0.5	20.3
2&3	Manufacturing	1.0	1.5	-1.1	0.9	1.6	-2.5	1.3
4	Electricity, gas and water	-5.5	1.7	2.1	-0.4	0.4	3.6	-18.4
5	Construction	-14.0	-3.9	-6.0	0.3	1.9	-3.0	12.2
6	Wholesale and retail trade	-2.5	0.1	0.6	1.1	1.5	2.6	3.2
7	Transport, storage & communication	-5.0	-0.7	-2.9	1.6	3.8	4.0	2.4
8	Finance, insurance and real estate etc		2.8	2.8	2.9	4.1	7.9	24.7

		1973/78	1978/83	1983/88	1988/94	1994/2000	2004/05	2005/08
	1	2	3	4	5	6	7	8
9	Community, social & personal services	0.6	2.9	1.7	2.1	1.4	1.1	3.2
	Total	0.6	1.4	-0.4	1.2	1.5	-0.5	3.8
Total= Public + Private								
0	Agriculture, hunting etc.	5.9	-2.2	1.1	0.4	-0.1	0.8	1.2
1	Mining and quarrying	5.2	2.6	0.9	1.0	-1.7	1.7	13.5
2&3	Manufacturing	2.3	2.1	-0.1	0.4	0.5	-3.2	0.4
4	Electricity, gas and water	3.3	3.7	3.3	1.6	0.2	-1.6	-2.2
5	Construction	-2.0	1.9	1.2	-0.6	-1.0	-3.5	-1.1
6	Wholesale and retail trade	-13.3	1.9	1.4	1.6	1.1	2.5	1.8
7	Transport, storage & communication	1.6	2.3	1.2	0.4	0.0	-2.1	-2.6
8	Finance, insurance and real estate etc	2.7	7.3	4.3	2.6	1.0	3.1	5.7
9	Community, social & personal services	2.4	2.5	2.0	1.6	0.6	-0.7	-0.2
	Total	2.7	2.2	1.4	1.1	0.4	-1.1	0.7

Source: Own estimates based on Economic Survey, various years.

Decline in employment during 2000-2005 has been faster in public sector than in the organised private sector; in the former, all divisions of activity except mining, trade and financial services have seen a decline, in the latter, all except mining, manufacturing and construction experienced a growth in employment. In the midst of overall decline, employment in financial services in the organised private sector grew at a rate of 7.9 per cent per annum, that in transport at 4 per cent, and in trade at 2.6 per cent.

It is interesting to note that there has been a reversal of the trend of a decline in total organised sector employment since the year 2005-06. Overall employment in the organised sector saw a positive growth of 0.7 per cent per annum during 2005-08, fastest of this at 5.7 per cent was in the financial services followed by trade at 1.8 per cent, leaving out an extraordinarily high rate of 13.5 per cent in the minor sector of mining. In the public sector all activities except mining experienced a decline, with an overall rate of -0.7 per cent per year. In the organised private sector, employment growth was positive and high at 3.8 per cent: financial services registered a growth rate of as high as 24.7 per cent and construction of 12.2 per cent. If this upturn in employment growth continues, the organised private sector can be viewed as an important source of new jobs in coming years, and within

it financial services, trade, construction, transport, other services and even manufacturing which in earlier years showed limited employment potential, can be expected to play important role.

II.1.7 Employment Growth in Manufacturing: Role of Export Growth

Rate of employment growth in manufacturing sector as a whole—including both organised and unorganised segments—as noted earlier, has been reasonably high over the long period. (See *Table 1*). Employment in manufacturing grew at 4.3 per cent per annum during 1972-73/1983, the growth rate fell to around 2 per cent during 1983-1994, but accelerated to 3.2 per cent during 2000-05. It has declined during 2004-05/2009-10, but still turns out to be around 2 per cent during 2000-2010. Different product groups have obviously shown different rates of employment growth (*Table 9*). For examining the products growth wise growth in employment, let us concentrate on the period since 1983. For the whole period 1983-2005, employment growth rate in manufacturing was 2.7 per cent per annum.

What are the product groups that have experienced high rates of employment growth? For the entire period of 1983-2005, rubber, plastic and coal products, textile products and leather products were the best performers with over 4 per cent annual average growth rate of employment. Machinery, transport equipment, chemical products and paper products were close second with employment growth rate between 3.5 and 4.0 per cent. Basic metals and wood products were not far behind with growth rates between 3.0 and 3.5 per cent.

Most industries saw an acceleration in employment growth in the period 1994-2005 over 1983-94. Fastest acceleration was seen in textile products (from -2.95% to 11.46%), followed by leather products (from 1.08% to 7.20%), chemical products (from -2.28% to 9.38%), transport equipment (from 0.36% to 6.96%), leather products (from 1.08% to 7.20%) and basic metals (from 0.19% to 6.10%). Rubber, plastic and coal products and food products, on the other hand, saw a sharp deceleration in employment growth: from 17.87 per cent to -5.39 per cent in the case of former and from 2.90 to -0.59 per cent in the case of latter product group.

Table 9
Growth of Manufacturing (Organised & Unorganised) Employment: 1983/2004-05

<i>NIC, 1987 Code</i>	<i>Description</i>	<i>1983-84/93-94</i>	<i>1993-94/2004-05</i>	<i>1983-84/2004-05</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
20-21	Food Products	2.90	-0.59	1.06
22	Beverages, etc.	2.90	2.63	2.76
23+24+25	Cotton, Wool, Jute etc	1.37	-1.12	0.06
26	Textile Products	-2.95	11.46	4.35
27	Wood Products	1.91	4.17	3.09
28	Paper Products	2.20	5.25	3.79
29	Leather Products	1.08	7.20	4.24
30	Chemical Products	-2.28	9.38	3.66
31	Rubber, Plastic, Coal Products etc	17.87	-5.39	5.05
32	Non-metallic Mineral Products	1.00	1.44	1.23
33	Basic Metal Ind.	0.19	6.10	3.25
34	Metal Products	2.89	2.05	2.44
35+36	Machine tool & Elect. Machinery	3.90	3.97	3.94
37	Transport Equipment	0.36	6.96	3.76
38	Other Manufacturing	5.30	0.03	2.51
39+97	Repair Services	6.79	1.45	3.95
	All Industries*	2.27	3.12	2.71

Note: * Estimate of all industries relate to total of industries listed in the table.

Source: As in Table 1.

Has employment growth in manufacturing industries been related with export growth of different commodities? As exports have played a very important role in growth in recent years and the share of manufactured goods has increased (from 65% in 1990-91 to 70 % in 2009-10) it is plausible to hypothesise that most exports would be based on comparative labour advantage and, therefore, fast export growth would lead to rapid growth in employment in the export-oriented sectors. It is observed that exports of most of the products in which employment growth has accelerated have also grown fast (except, of course, in the year 2009-10 when there was a decline in exports, in aggregate and in individual product categories). Thus exports of chemicals and chemical products grew at 20 per cent per annum during 1980's, 13 per cent per annum during the 1990s and 22 per cent per annum during 2001-05. Exports of this sector have grown fast during 2005-10 also and maintained a positive growth even in 2009-10, when other products registered a decline in exports. Machinery (engineering goods) had export growth rates of 9.8, 15.7 and 25.4 per cent respectively during the earlier three periods and has maintained high export growth in all years after 2005, except in 2009-10. Figures for textiles

products (ready made garments) were 13 and 11 per cent during the earlier two periods, though it fell to a low of 4 per cent during 2000-05. Since then it has shown high but fluctuating growth in exports till 2009-10 when a decline took place. (Table 10)

Table 10
Growth of Manufacturing Exports (Major Items) (Growth rates, % per annum)

	19881-91	1990-2000	2001-05	2005-06	2006-07	2007-08	2008-09	2009-10
1	2	3	4	5	6	7	8	9
Total	8.3	11.1	17.0	23.4	22.6	28.9	13.6	-3.5
Mfg. Goods	11.4	11.8	16.9	18.9	19.8	21.8	23.1	-5.9
Leather and Leather Products	14.7	5.4	5.5	11.1	12.1	13.4	1.5	-40.8
Chemicals & Chemical Products	20.1	13.0	21.7	17.3	19.1	28.5	15.0	1.8
Engineering Goods	9.8	15.7	25.4	23.4	38.1	13.5	19.8	-12.9
Ready Made Garments	12.9	11.1	4.3	20.4	5.7	8.9	12.9	-2.1
Textiles	4.6	12.7	--	--	--	*	*	*
Gems & Jewellery	16.0	12.4	16.8	12.8	2.9	23.2	42.1	3.7

* included in garments.

Source: Own estimates based on Economic Survey, various years.

It, however, appears that a high employment growth in export-oriented sectors is mostly a result of fast growth of exports, not necessarily due to the labour intensive nature of export products. It is true that textile products and leather products have all the three characteristics: that is, they are labour intensive, have experienced relatively fast growth in exports and also have recorded high growth of employment. But chemical products and machinery (engineering goods) also experienced high growth in exports and employment but cannot be regarded as labour intensive. And rubber, plastic and coal products and basic metals both of which saw high employment growth are neither export oriented nor labour intensive. Labour intensive commodities accounted for about half of the total exports in 2003-04, down from 65 per cent in 1995-96, during which period the share of 'knowledge intensive' products increased from 18 to 23 per cent and that of medium technology intensive products from 12 to 20 per cent (RIS, 2006). Growth rate of exports of labour intensive products has been around 7 per cent as against 19 per cent in the case of medium technology products and 14.5 per cent of knowledge intensive products (Table 11). According to another study (Veeramani, 2012), the share of capital intensive products has increased from 25.4 per cent in 1993 to 36.6

per cent in 2002 and to 53.5 per cent in 2010 and that of unskilled labour intensive products has declined from 27.8 per cent in 1993 to 26.3 per cent and 14.8 per cent in 2002 and 2010 respectively. Share of human capital intensive products has increased from 13.4 per cent in 1993 to 17 per cent in 2010 and that of technology intensive products from 10.2 to 19.4 per cent. Thus export growth cannot necessarily be viewed as a special source of employment growth, though there is no doubt that it will be accompanied by growth of employment as any other component of economic growth, in general.

Table 11
Growth and Structure of India's Merchandise Exports (1995-96 to 2003-04)

Category of Exports	Annual Growth (%)	Share of Exports (%)	
		1995-96	2003-04
1	2	3	4
Labour Intensive	7.2	65.0	49.2
Resource Intensive	11.9	3.7	3.7
Medium Technology Intensive	18.9	12.1	19.8
Knowledge Intensive	14.4	17.9	23.0
Other Commodities	31.9	1.0	4.0

Source: RIS (2006).

II.1.8 Employment Growth in Emerging Services

The services sector is now the dominant part of the Indian economy accounting for about 59 per cent of Gross National Product. Its performance in employment generation has not been as spectacular as in its contribution to GDP. Employment in this sector has grown at an average of about 3.5 per cent per annum over a longer period of about 40 years, thus raising its share in total employment from around 15 per cent in 1972-73 to 26 per cent in 2009-10. In the latest ten years period for which data are available, i.e. 2000-2010, employment in the services sector grew at a rate of 3.6 per cent per annum, as against the aggregate employment growth of 1.5 per cent. As already noted, all activities in the sector, trade, transport and finance except community social and personal services, registered over 2.5 per cent growth rate of employment.

Two service activities, namely Information Technology (IT) and Tourism have attracted special attention of policy makers as source of rapid expansion of employment opportunities. The former, though still a small contributor to total employment, has been growing at exponential rate. It is not possible to have an

independent estimate of employment in the IT sector as it does not feature as an item in official data on employment. Tourism also does not constitute a sector as it is made up of various activities which are parts of different sectors in the classification of economic activity. In view of their emerging importance, we attempt here some estimation and assessment of employment generation in these sectors, utilising limited data that are available or can be derived.

Information Technology Sector consists of two main segments: information technology services (ITS) known as the software services and information technology enabled services (ITeS) also often referred to as business process outsourcing (BPO). As mentioned above, the official data collection system does not distinctly and fully capture the employment situation in the various facets of IT activity. Employment statistics from Directorate General of Employment and Training (DGET) of Ministry of Labour and Employment (MoLE) reports employment under the NIC Code 892: computer and related sector, but its coverage is limited to the organised sector. In 1997-98, for example, employment under this category was reported to be 36071, constituting 0.3 per cent all employment in the sectors covered by DGET. It must be noted, however, that it had more than doubled in a short period of three years, from a figure of 17686 and from a share of 0.06 per cent in 1994-95. Thus though miniscule in size, it was growing very fast. NSSO estimate which includes both organised and unorganised segment of the ITS sector was 2,29,000 workers for the year 1999-2000 representing 0.3 per cent of total urban employment. Employment in the ITeS is likely to be included in the sectors in which these services are provided e.g., banking, education, trade etc. Thus even the NSSO estimates do not fully account for employment in IT.

The National Association of Software and Service Companies (NASSCOM), the sector's promotional body, has been collecting information on different aspects, including employment, of the sector, on the basis of survey among all software companies listed by them. Their estimate of the IT software and services professionals employed in 1999-2000 was 2,42,000, with another 42,000 estimated for the ITeS sector. NASSCOM estimates of employment for the recent years for which they are available are given in (*Table 12*).

Table 12
Employment in IT and ITeS Services, India 1999-2009

Year	Employment			
	Software & Services Exports		Total	Share of Exports in Total
		Of which, ITeS	(including Domestic)	(2)/(4)*100
1	2	3	4	5
1999-00	152,000	42,000	284,000	53.5
2000-01	232,000	70,000	430,100	53.9
2001-02	276,000	106,000	522,200	52.9
2002-03	385,000	180,000	670,000	56.9
2003-04	512,000	216,000	833,000	61.5
2004-05	706,000	316,000	1,058,000	66.7
2005-06	928,000	415,000	1,293,000	71.8
2006-07	1,243,000	553,000	1,621,000	76.7
2007-08	1,560,000	700,000	2,010,000	77.6
2008-09	1,736,615	789,806	2,236,614	77.6

Source: IT Industry Fact Sheet by NASSCOM.

As can be seen from the figures in the *table 12*, employment in IT sector has been growing very fast. It may also be noted that the growth has been particularly fast in the export segment of IT and within that in the information technology enabled services (ITeS), often referred to as BPO. Employment coefficient derived on the basis of data on revenue and employment from IT companies was computed to be 29.90 employees per million US Dollar, (and higher at 69.83 employees in the ITeS segment) for 2003-04. Applying these coefficients on the projection of output, employment in IT is estimated to become 36.89 lakhs in 2012. About three-fourths of employment in the IT sector is likely to be in the ITeS export segment alone. An alternative to this NASSCOM estimate places IT employment at 32.8 lakhs in 2015. (Pais *et al*, 2006). In either estimate, growth of employment is projected to be very fast. A set back in exports during 2009-10 resulting in a 42.7 per cent decline in exports of software services (though exports of non-software services grew at 40.1 per cent in that year), may weaken the strength of these optimistic estimates. It should also be noted that the exports of software services recovered quickly and grew at 64.5 per cent during of April – September 2010-11, over the same period in 2009-10 (*Economic Survey*, 2010-11, Table 7.14, p. 173).

Growth of IT sector, particularly of its exports and, therefore, generation of employment in this sector would, however, be dependent on various factors. Most important of these factors are availability of sufficient number of appropriately skilled workers to meet the emerging global demand, ability of the Indian IT service

providers to meet competition from others particularly China in exports of services in general and of low skill intensive services, in particular; capacity to continue competing in BPO exports to English language area, and to compete in the newly emerging markets in non-English language areas; linkages of IT services with rest of the economy particularly with hardware industry, which are weak, particularly when compared with China and availability of *Mode 4* export of services, namely, “temporary movement of natural persons”, which is threatened by increasing visa restrictions by the developed countries (Pais et al, 2006).

Tourism is another activity which is seen as having large potential for growth and also with high employment potential. There are, however, no separate data available from official sources either on income or employment generated in tourism because it does not feature as a sector in the classificatory scheme of economic activities. Income and employment generated by tourism are accounted for in such different activities as hotels and other accommodation units, restaurants, travel agents and tour operators, transport services, tourist resorts and complexes, entertainment facilities, shopping facilities including sales outlets for curios, handicrafts, souvenirs etc., conference and convention facilities, adventure and recreational sports facilities and guide services, which feature as sectors and subsectors in National Accounts Statistics. It must be noted that only a part of income and employment is generated due to tourism in several of these activities. There is no basis on which the contribution of tourism could be directly separated from the total output and employment in these cases. It is possible to estimate such contribution indirectly on the basis of pattern of expenditure by tourists: total expenditure by tourists on an item is taken as income arising out of tourism and using employment coefficient (number of persons employed per given volume of output (income)) employment generated due to tourism in the production of that item is estimated. Some surveys have generated such estimates in the case of foreign tourists (e.g. MoT, 2006). Since the pattern of expenditure of domestic tourists may vary from that of the foreign tourists, estimates have generally been made only of employment generated due to foreign tourism. Also while Ministry of Tourism maintains data on foreign tourists on a regular basis, no such data base exists for domestic tourists.

According to one study, expenditure of one million of rupees by foreign tourists in India generated 44.9 year round jobs in 2000-01, and 39.3 jobs in 2004-05. Using survey data on per tourist expenditure and applying it on the total number of tourists during a year, total employment generated by foreign tourism is estimated at 4.93 million in 2000-01 and 6.2 million in 2004-05. Assuming the growth of tourism receipts at the same rate as during 2000-01/2004-05, but a declining trend in employment coefficient as seen in the past, this study has projected employment due to foreign tourism in India at 10.7 million in 2009-10 (Pais, 2006). A decline in the exports of travel (0.9%) and transport (9.9%) services in 2009-10 would, no doubt, affect these expectations. But it must also be noted that a quick recovery seems to have occurred reflected in a 16 per cent and 33 per cent growth in the export of these items during April – September, 2010, over the corresponding period of earlier year (Economic Survey, 2010-11). One can, therefore, expect the growth of tourism to accelerate and more visitors coming for reasons of business, as well as health² and education, the emerging areas of tourism, and, therefore, the actual employment generated to be even higher than projected in future.

² CII estimated 1,50,000 foreign patients coming to India for treatment in 2004 (CII, 2004). About 2.2 lakhs of foreign tourists, making 5 per cent of all tourists interviewed in a 2003 survey of foreign tourists reported “health and treatment” as main purpose of visiting India (MoT, 2003);

III. Employment Growth in the Post Reform Period

III.1 Expectations and Apprehensions: Initial Shock and Quick Recovery?

Introduction of major economic reforms in India in 1991 evoked diverse views on the employment implications of post-reform growth. To begin with, it was apprehended that the immediate impact of reforms may be felt in the form of a slow down in the state of economic growth which will also mean a slower growth of employment. This view was held commonly by the proponents and critics of economic reforms. Consensus, however, ended here and sharply divergent prognoses were put forward by different groups with respect to growth and quality of employment in medium term. Advocates of reforms argued that reforms will soon result in higher economic growth which will also lead to faster expansion of employment opportunities. It will be further strengthened by increase in global trade, with the liberalised trade providing India an opportunity to increase labour – intensive exports. Critics of reforms, on the other hand, argued that internal and external competition ushered in by domestic and trade liberalisation will compel industry to adopt more and more capital intensive technologies and also necessitate more liberal labour policy to allow flexibility in the use of labour. As a result even if a higher growth rate is achieved it will not be accompanied by higher growth of employment. There may, in fact, be a decline, specially in organised sector, as a result of retrenchment and downsizing both in private and public sector. Similarly divergent views were held in respect of the structure and quality of employment: Reformists projected more regular wage/salary jobs in the organised sector while the detractors of reforms predicted increasing casualisation and informalisation and declining social protection, with another middle view expecting increase both in formal and informal employment, after an initial bout of informalisation and casualisation.

As we have seen in the earlier section, employment growth has shown a declining trend over relatively longer period, but sharply fluctuated in the shorter periods. We have comprehensive data from four rounds of NSSO in the post-reform

period (1993-94, 1999-2000, 2004-05 and 2009-10) to assess the employment performance of the post-reform economy. Employment grew at 1.84 per cent per annum during 1993-94/2004-05, as against 2.02 per cent in the preceding ten year period, and during the period 2004-05/2009-10, employment growth, has been abysmally low, 0.22 per cent per annum (*Table 1*). This deceleration in employment growth has taken place with an acceleration in GDP growth, which was about 5 per cent during 1983-84/1993-94, rose to about 6.3 per cent during 1993-94/2004-05 and accelerated to as high as 9 per cent during the period 2004-05/2009-10, (*Table 2*) when employment virtually stagnated. Even if one disregards the 2004-05 estimates which seem “outliers” in several respects – a point to which we shall return later – growth rate of employment during the first decade of the 21st century, 1999-2000/2009-10, turns out to be only 1.50, still showing a long term deceleration, with the highest GDP growth of 7.5 per cent, the highest in any short or long periods before.

Within a long-term declining trend, of employment growth has shown a intriguingly fluctuating trend in the shorter periods. The 6-year period following the introduction of reforms for which point to point data are available, viz., 1993-94 to 1999-2000, showed a steep decline in the rate of employment growth (to 1.04%) over the preceding 6-year period, 1987-88/1993-94 (at 2.39%). Over the next five years (1999-2000/2004-05) employment growth was estimated to be high at 2.81 per cent and in the next five years no significant growth in employment is recorded. Among these four periods change in growth rate of employment has been in inverse relationship with the change in GDP growth rate. Employment elasticity sharply declined in the years following the reforms, it increased during 2000-2005 and was almost zero during 2005-10 (*Table 3*).

III.2 Employment Growth in Different Sectors

Let us note a few other features of employment growth during the post-reform period. First, as expected, fastest employment growth has taken place in the secondary sector, at an annual average rate of about 3.5 per cent over the entire period 1993-94/2009-10. Even during 2005-10 when there has hardly been any growth in employment in aggregate, secondary sector employment grew at 3.5 per

cent per annum. Agriculture, understandably, did not experience any significant increase in employment; during recent years; it has in fact seen a decline in employment. Services sector registered relatively high employment growth, averaging at about 3 per cent per annum over the entire post-reform period, though it was not commensurate with its GDP growth which has been over 10 per cent per annum. As a result, employment elasticity in this sector has been relatively low and has sharply declined particularly since 2004-05. Most divisions of economic activities have registered a decline in the rate of their employment growth in the post-reform period, but construction has seen an acceleration in the rate of employment growth. Trade, transport and financial services also saw an acceleration in employment growth during 1993-94/2004-05, but the rate declined during 2004-05/2009-10.

It is also interesting to note that the deceleration in the rate of employment growth in the post-reform period can primarily be attributed to a decline in employment growth in rural areas where employment grew at 1.4 per cent during 1993-94/2004-05 and actually declined during 2004-05/2009-10, against a growth of about 2 per cent per annum in earlier 20 year period. In urban areas employment growth rate was higher in the first post-reform decade, 1993-94/2004-05 and declined to 2005-10, but was still positive and significant at 1.80 per cent per annum. All divisions of activity in the secondary and tertiary sectors except, mining and community, social and personal services, recorded reasonably high employment growth in the post-reform period in urban areas. In rural areas, construction was the biggest contributor to employment growth, followed by transport. Overall employment growth has been low and at a declining rate in rural areas primarily because of the low and declining, and recently a negative, growth in employment of agriculture (*Table 4 and 5*).

III.3 Steep Decline in Employment Growth, 2005-10: Result of a Positive Development – Increase in Enrolment?

A steep decline in the employment growth during 2004-05/2009-10, as estimated on the basis of the 61st and 66th rounds of NSSO surveys has not only led to dampening of the optimistic prospects projected earlier, around the start of the Eleventh Five Year Plan (EAC, 2007, Planning Commission, 2008), but has also proved intriguing for those interested in the study of employment growth and also

for policy makers. It seems particularly puzzling in the face of an unprecedentedly high economic growth during this period. Also several labour market developments during this period suggest an increase in demand for labour. For example, organised sector employment has shown an increase during this period for the first time since 1997. Real wage rates of workers in all sectors and categories have recorded a rapid increase. There has been a faster decline in poverty, during this period than during the earlier two quinquennia (Planning Commission, 2011). Also, as shown by NSSO figures, a highest ever increase occurred in the proportion of regular employee category in the total workforce.

The most obvious explanation for an insignificant increase in employment between 2004-05 and 2009-10 is seen in the decline in labour supply itself as indicated by sharp decline in Labour Force Participation Rates (LFPR), from 42.85 per cent in 2004-05 to 39.80 in 2009-10, (Table 13) resulting into an increase only of 11.7 million in labour force in a five year period as compared to over 12 million per year during 1999-2000/2004-05! As a result, in spite of a slow growth in employment, unemployment rates in 2009/10 are estimated to be significantly lower than in 2004-05. (See Table 22) Unemployment, in fact, declined in absolute term by 6.3 million (Planning Commission, 2011).

Table 13
Labour force Participation Rate (% to Population)

	1993-94	1999-00	2004-05	2009-10
1	2	3	4	5
LFPR All age groups (UPSS)				
Male	55.62	54.06	55.94	55.69
Female	28.74	26.01	28.86	22.87
Total	42.68	40.52	42.85	39.80
LFPR for age group 15 - 24				
Male	68.55	65.07	64.98	53.70
Female	35.45	30.33	32.55	22.20
Total	52.80	49.06	49.56	38.80

Source: Own estimates based on various rounds of NSS data on employment and unemployment.

What has caused such a sharp decline in labour force participation rates? Looking at its different components, it may be noted that it is primarily a result of a decline in LFPR of women and of those in the age group 15 to 25 years (Table 13). LFPR among men of all ages changed very little (from 55.94 to 55.69), that among women declined from 29 to 23 per cent. In the age group 15 – 24, male LFPR

declined from 65 to 54 per cent but female LFPR declined much faster from 33 to 22 per cent. This decline has been attributed mainly to increase in enrolment in education system, more for women and than men. The 12th plan Approach Paper, in fact, highlights “the dramatic increase in the number of young people in education, and therefore, out of the workforce—causing a drop in the labour force participation rate as “one of the most remarkable things” brought out by the 66th round (2009-10) of NSSO survey on Employment”. (Planning Commission, 2011, pp. 9-10). Some other observers have also attributed the decline in LFPR during 2004-05/2009-10 to increase in enrolment (see EPW, 2011, Chaudhuri, 2011, Rangarajan *et al*, 2011). It appears that not only many of the new entrants in the working age group did not join the labour force but there was a large withdrawal from the labour force. According to one study (Rangarajan *et al*), 44 per cent of them did not join or withdrew from the labour force due to the reasons of education and 31 per cent due to domestic work. A good number of them (15 per cent) consisted of children withdrawing from child labour activities. Another study, while concluding that 45 per cent of decline in labour force was due to additional enrolment in education, points out that while entire decline in the case of men can be attributed to increase in enrolment, 73 per cent of decline in the case of women, for other reasons, basically to go back to domestic work. That this is specially true of the poor rural women, does not support the hypothesis that the withdrawal of women could be due improvement in economic conditions (Kannan and Raveendran, 2012).

There is no doubt however, that enrolment in education has vastly increased in recent years. The number of persons in the age-group 15-24 years who continued in education streams increased from 30 million in 2004-05 to 60 million in 2009-10 (Planning Commission, 2011, p. 10). As can be seen from the figures in (*Table 14*), percentage of the people in the age group 15 – 24 attending educational institutions increased from 29.5 per cent in 2004-05 to 40 per cent in 2009-10. Increase was sharper, from 24 per cent to 32.5 per cent in the case of women, than of men, from 34.5 to 45.5 per cent. It must be noted that increase in enrolment was much slower in earlier years: 25 per cent of the 15–24 age group were attending educational institutions in 1993-94, percentage increased only to 29.5 per cent in 2004-05, but jumped to 40 per cent in 2009-10. It seems that a very high economic growth,

resulting into unprecedented, about 7 per cent, annual increase in per capita income made a significant impact on enrolment in secondary and post-secondary education.

Table 14
Current Status of Attending Educational Institutions (15 -24 age group)

	1993-94	1999-00	2004-05	2009-10
1	2	3	4	5
Male				
Not Attending	68.57	66.91	65.47	54.59
Up to Primary	1.47	1.16	0.68	0.45
Middle level	3.83	5.07	3.83	2.76
Secondary & above	26.13	26.85	30.02	42.20
Female				
Not Attending	82.76	79.32	76.03	66.60
Up to Primary	0.95	0.88	0.57	0.50
Middle level	2.13	2.95	2.81	2.11
Secondary & above	14.16	16.86	20.59	30.79
Total				
Not Attending	75.37	72.82	70.53	60.25
Up to Primary	1.17	1.05	0.63	0.48
Middle level	3.02	4.03	3.34	2.45
Secondary & above	20.44	22.11	25.50	36.83

Source: Own estimates based on various rounds of NSS data on employment and unemployment.

At the same time, it also needs to be noted that the labour force and employment situation in 2004-05 as revealed by 61st round of NSSO survey showed certain features which were unusual if seen in relation to the longer term trend. LFPR, particularly of women and in the age group of 15-24 years, which had shown a declining trend over the period since 1971-72 to 1999-2000, registered a significant increase in 2004-05. The share of the self employed has been declining and that of casual labour increasing from one NSS round to another, the trend is reversed in 2004-05. Overall employment growth was the highest ever at around 3 per cent per annum taking the total workforce to a high of 464 million, up from 398 million in 1999-2000 – an increase of 66 million. That GDP growth rate of less than 6 per cent, lower than 6.5 per cent attained in the previous quinquennial period, could have led to such a boom in employment generation, sound rather intriguing.

It is, in fact, a relatively slower growth, particularly in agriculture during 2000-05 that seems to explain the unusual features of labour force and employment situation in 2004-05. Agriculture growth averaged to 1.5 per cent during this period and was less than one per cent during 2004-05. It appears that food-grains production particularly suffered as the per capita availability of cereals and pulses

declined from 462 grams per day in 2004 to 422 grams per day in 2005. With declining incomes, it appears that more and more women (who would otherwise have been in domestic work) and children (who would otherwise have been in schools) joined the labour force and participated in workforce, swelling the figures of employment. As a result, employment growth was of poor quality, mostly in the self-employed category and was poorly remunerative as reflected in decline in real wages (Unni and Raveendran, 2007). In other words, the 2004-05 estimates of labour force and work force seem to have been significantly inflated as a good part of employment could be regarded as 'spurious'. Even with a 'high' rate of employment growth, unemployment rates (by any status) in 2004-05 were higher than in 1999-2000.

It thus appears that the year 2004-05 was an aberration from the longer term trends and an outlier in so far as comparison between different NSS rounds is concerned. The fact that the long term trends – decline in LFPR, decline in the share of the self employed and increase in that of casual workers – have been restored during 2004-05/2009-10, supports the hypothesis regarding the unusual nature of 2004-05 situation. It can be argued that 'distress' led participation in labour force could have also taken place in 2009-10 as agricultural growth in that as also the previous year was very low. It should, however, be noted that the average growth in agriculture during 2004-05/2009-10 was quite high at over 3 per cent per annum and even in the years of low agricultural growth, food grains production was high enough to prevent a decline in per capita availability of food grains. In any case, overall economic growth was very high, between 8.5 and 9 per cent and could have provided good enough buffer to absorb sectoral stocks.

A very slow growth of employment as revealed by the data for 2009-10 over those for 2004-05 should, therefore, be viewed with caution. It may not necessarily be reflecting a worsening situation; it could even be interpreted like by the Planning Commission as a result of a positive developments, namely, a larger number of young persons particularly women, going through secondary and higher education. Taking only the persons in the working age (15-59) group and using usual Principal Status (UPS) concept, an analyst has estimated a reasonably high rate (1.71 per cent per annum) of employment growth during 2004-05/2009-10 (Ghose, 2011). He has

also argued that employment quality has substantially improved during this period as indicated by a fast growth (7.24% per annum) of employment in the organised sector than in the unorganised (0.95% per annum) and a reasonably high growth of formal employment (4.02% per annum).

It may be advisable to disregard the estimates for 2004-05 for a longer term analysis and an assessment of the post-reform growth in employment, for the reasons elaborated above. A low employment growth in the immediate post-reform period 1993-94/1999-2000 was expected as mentioned in the beginning of this section. Has employment growth recovered since and got accelerated over the years? It seems to have slightly improved, but has been in line with the long term declining trend. Employment growth during 1999-2000 to 2009-10 has been 1.5 per cent per annum, lower than any ten-year period earlier and for the entire post-reform period it would still be lower, as employment growth during 1993-94/1999-2000 was only about one per cent per annum. So, the reforms, inspite of high growth of GDP, do not seem to have delivered on employment front.

III.4 Impact of Global Economic Slowdown

Let us briefly look at the impact of 2008 global financial crisis on Indian economy and employment. The global crisis adversely affected the Indian economy, but impact is not as severe as was felt globally. GDP growth slowed down from over 9 per cent during the three year period ending with 2007-08, to 6.8 per cent during 2008-09. What impact this slowdown had on employment?

No comprehensive data are available for assessing impact of the slow down on employment. Limited surveys by Labour Bureau of the Ministry of Labour and Employment (MoLE), based on a sample of about 3000 Annual Survey of Industries (ASI) covered units in the manufacturing sector and in IT/BPO segment of the services sector, indicates some, though not very severe, impact. According to these surveys, there was a loss of 5 lakh jobs in the quarter October – December 2008, a gain of 2.8 lakhs jobs during the next quarter and again a loss of 1.3 lakh jobs during April-June 2009. The subsequent surveys for quarters June-September 2009 and September 2009-December 2009 revealed significant increase, the estimates for the two periods being 5.0 and 6.4 lakhs respectively. After initial decline of 5 lakhs during

October-December 2009, employment was estimated to have increased by 12.8 lakhs during the year 2009 (see Table 15). It is significant to note that initially export-oriented sectors and units had a setback and those focussing on domestic market, in fact, saw a positive growth in employment. Major part of increase in employment has been accounted for by only two sectors – textiles during first quarter and third quarter and IT/BPO during the last quarter of 2009.

Table 15
Changes in estimated employment based on various quarterly survey results (in Lakhs)

<i>Industry Group</i>	<i>Dec, 08 Over Oct, 08</i>	<i>Mar, 09 Over Dec, 08</i>	<i>Jun, 09 Over Mar, 09</i>	<i>Sep, 09 Over Jun, 09</i>	<i>Dec, 09 Over Sep, 09</i>	<i>Dec, 09 Over Dec, 08</i>	<i>Dec, 09 Over Oct, 08</i>
1	2	3	4	5	6	7	8
Textile including apparels	-1.07	2.08	-1.54	3.18	0.16	3.88	2.81
Leather	0.06	-0.33	0.07	-0.08	0.09	-0.25	-0.19
Metals	-1.00	-0.29	-0.01	0.65	0.23	0.58	-0.42
Automobile	-1.69	0.02	0.23	0.24	0.06	0.55	-1.14
Gems & Jewellery	-1.59	0.33	-0.20	0.58	0.07	0.78	-0.81
Transport	0.04	-0.04	-0.01	0.00	-0.02	-0.07	-0.03
IT-BPO	0.66	0.92	-0.34	0.26	5.70	6.54	7.20
Handloom-Powerloom	-0.16	0.07	0.49	0.15	0.09	0.80	0.64
Overall	-4.77	2.76	-1.31	4.97	6.38	12.80	8.03

Source: Labour Bureau, Report on effects of slowdown on employment in India, various quarterly reports.

On the whole, it appears that adverse effect on growth and employment in India has not been as severe as elsewhere and also appears to have been of a relatively short-term nature. Growth rate of GDP declined from an average of 9.5 per cent during 2005-06 to 2007-08 to 6.8 per cent in 2008-09, but recovered to 8 per cent in 2009-10 and increased to 8.6 per cent in 2010-11. The year 2011-12, which is again afflicted by debt-driven crisis in developed world, specially Europe, is likely to produce an impact on Indian economy, but not of a large order. Growth of GDP is projected to be lower than 2010-11, but is still expected to be around 7.5 per cent. The period of the Eleventh Plan (2007-12) is expected to end with an average growth of 8.2 per cent per annum (Ahluwalia, 2011) Whether these positive trends in GDP growth will have similarly positive impact on employment is rather uncertain, as similarly high growth during 2005-10 is found to have generated hardly any growth in employment. In so far as the slow down in employment growth is caused by a slow down in exports or a decline in employment intensity of exports, decline in employment growth could be attributed to the global economic

slowdown. That, however, is only part of the story as the employment intensive exports contribute a small part to total employment whereas the decline in employment growth during 2005-10 all sectors of economic activity except construction.

IV. Structure of Employment: Changes and Implications

Any assessment of the employment performance of the Indian Economy is not meaningful without an analysis of the structural dimensions of employment. These dimensions define and determine the substantive meaning of employment in terms of its nature and quality. Only a small segment of the workforce is employed on a regular basis at reasonable levels of wages and salaries. A large part is self-employed in agriculture which continues to be the major source of employment and livelihood for majority of the Indian workers. And an overwhelming majority works in what is called the unorganised or the informal sector. These qualitative dimensions are, of course, interrelated and reinforce each other in the direction of keeping the quality of employment low. We look at these aspects of employment particularly focusing on the nature and extent of structural changes that have taken place in the recent decades, in this section.

IV.1 Sectoral Employment Shares

As is well known, majority of Indian workers are engaged in agriculture and allied activities. With economic development, agriculture is expected to decline in importance in terms of its share in employment and output. Proportion of agriculture in total employment has declined over the years: from 74 per cent in 1972-73 to 68 per cent in 1983, 60 per cent in 1993-94 and to 57 per cent in 2004-05. It has declined further to 51 per cent in 2009-11 (*Table 16*).

It is particularly important to note that the decline in the employment share of agriculture has been much slower than the share of gross domestic product (GDP) from agriculture. Thus, while share of agriculture in GDP declined from 41 per cent in 1972-73 to 15 per cent in 2009-10 (*Table 17*), that in employment declined from 74 per cent to 51 per cent. And rate of decline in GDP share has been faster during 1993-94 to 2009-10, from 30 to 15 per cent; while the rate of decline in employment share has been relatively slow, from 64 per cent to 51 per cent.

Table 16
Employment (UPSS) Share of Major Sectors (%)

Sector	Sectoral share in employment							
	1972-73	1977-78	1983	1987-88	1993-94	1999-00	2004-05	2009-10
1	2	3	4	5	6	7	8	9
Primary Sector	73.92	70.98	68.59	64.87	63.98	60.32	56.30	51.30
Mining & Quarrying	0.43	0.47	0.61	0.72	0.69	0.57	0.56	0.64
Manufacturing	8.87	10.16	10.66	12.22	10.63	11.01	12.27	11.50
Utilities	0.16	0.17	0.28	0.36	0.40	0.26	0.27	0.28
Construction	1.84	1.75	2.24	3.76	3.24	4.41	5.69	9.60
Secondary Sector	11.30	12.55	13.78	17.04	14.96	16.24	18.78	22.02
Trade, Hotelling etc.	5.11	6.12	6.35	7.06	7.59	10.27	10.89	11.38
Transport & Communication etc.	1.77	2.11	2.49	2.66	2.87	3.63	4.08	4.48
Financing, Insurance, Real estate & business services	0.51	0.62	0.83	0.82	0.97	1.24	1.71	2.25
Community, social and personal services	7.39	7.62	7.96	7.54	9.64	8.29	8.24	8.57
Tertiary Sector	14.78	16.47	17.63	18.09	21.07	23.43	24.92	26.67
All Non-Agricultural	26.08	29.02	31.41	35.13	36.02	39.68	43.70	48.70
Total	100	100	100	100	100	100	100	100

Source: Own estimates based on various rounds of NSS data on employment and unemployment.

Table 17
Sectoral Share in GDP (%)

Sector	Sectoral share in GDP (constant at 1999-2000 prices)							
	1972-73	1977-78	1983	1987-88	1993-94	1999-00	2004-05	2009-10
1	2	3	4	5	6	7	8	9
Primary Sector	40.92	40.41	37.15	31.72	30.01	24.99	20.20	15.23
Mining & Quarrying	1.83	1.86	2.25	2.39	2.51	2.33	2.20	1.74
Manufacturing	13.45	13.60	14.52	14.87	14.46	14.78	15.12	15.41
Utilities	1.27	1.45	1.71	2.08	2.43	2.49	2.29	2.10
Construction	6.77	6.76	5.81	5.88	5.76	5.71	6.62	6.67
Secondary Sector	23.32	23.67	24.30	25.23	25.15	25.31	26.24	25.92
Trade, Hotelling etc.	10.39	11.11	11.51	12.26	12.18	14.23	15.54	15.53
Transport & Communication etc.	5.05	5.40	5.99	6.64	6.62	7.47	10.25	14.00
Financing, Insurance, Real estate & business services	7.35	7.28	8.31	9.94	12.17	13.07	13.53	15.64
Community, social and personal services	12.97	12.13	12.75	14.21	13.86	14.93	14.25	13.67
Tertiary Sector	35.75	35.92	38.56	43.05	44.84	49.69	53.56	58.84
All Non-Agricultural	59.08	59.59	62.85	68.28	69.99	75.01	79.80	84.77
Total	100	100	100	100	100	100	100	100

Source: Own estimates based on National Accounts of Statistics, CSO, various years.

The decline in employment share of agriculture was mostly being compensated by an increase in the share of secondary sector in the pre-reform period, but since the economic reforms the tertiary sector has been the main gainer

of the shift in employment. Yet increase in its employment share has not been commensurate with the increase in its share of GDP during 1993-4/2009-10. The share of secondary sector in employment has increased at a relatively faster rate while its share in GDP has remained constant at about one-fourth of the total. Within the secondary sector construction has sharply increased its share in employment particularly since 1999-2000, but its share in GDP has stagnated throughout the period under-reference, pre- and post-reform. Manufacturing increased its share both in employment and GDP, but rather slowly. In the tertiary sector, trade experienced a fast increase in its share in employment, and a significant though somewhat smaller increases in its share in GDP in the post-reform period but saw only a small increase in its employment share. Financial services registered a fast increase both in its employment and GDP share, though its share in employment is small (2.25) about one-seventh of its share in GDP (15.64%). Community social and personal services which used to be the largest activity in the tertiary sector, both in terms of employment and GDP, in the pre-reform period, saw a marginal decline in their share both in employment and GDP and is now the smallest in regard to GDP, though it continues to be the second largest, after trade, in terms of employment.

The asymmetry in the rate of change in employment and GDP shares of different sectors and divisions, particularly between decline in P and employment shares of agriculture and correspondingly between rate of increase in GDP and employment in non-agricultural part of the economy, has serious implications in terms of differences in earnings and income between different sectors. Let us first look at the changes in the shares of agriculture and non-agricultural sectors in GDP and employment. In 1972-73, agriculture employed 74 per cent workers, but it also produced 41 per cent of GDP. Per worker productivity and income in agriculture was significantly lower than in non-agricultural activities even then; the ratio being 1:3.6. In 2004-05 the share of agriculture was much lower at 20.2 per cent, but it was still employing 56.5 per cent of workers. The ratio between agricultural and non-agricultural productivity in that year works out to 1:5.9. In 2009-10 the ratio has gone up to 1:6. Thus there has been a large decline in the relative earnings of agricultural workers. That is partly because agricultural growth has been consistently much lower than that in the non-agricultural sectors, but, mainly, because a shift of

workers from agricultural to non-agricultural activities as expected in the process of economic development has not taken place. Agriculture has grown at an average rate of 2 to 3 per cent per annum as against 5 to 6.5 per cent growth in the non-agricultural sector during the period under consideration. It is not generally realistic to expect a much higher growth rate in agriculture. But even if it grew at a rate of about 4 per cent per annum, as envisaged in the Eleventh Plan, it cannot employ many more persons productively. In fact, productivity per worker in agriculture is so low that even with a higher growth rate, it would need to reduce its workforce so as to provide a reasonable level of income to those engaged in it. It is precisely for this reason that the Planning Commission projected no increase in the number of workers in agriculture during the Eleventh Plan (2007-12) and a decline of 4 million during the Twelfth Plan period (2012-17). (Planning Commission, 2008, Vol. I, pp. 76-77).

In other words, new jobs that are required to be created are not likely to be in agriculture, they have to come from the non-agricultural sectors. In a 25 to 30 years perspective, employment structure must be envisioned as consisting of about 30-35 per cent in agriculture and 70-75 per cent in non-agricultural activities as against of 51 per cent in agriculture and 49 per cent in non-agriculture in 2004-05. It would imply that all the new employment opportunities will be located in non-agricultural activities in the coming years.

IV.2 Employment Categories

The concept of employment is commonly understood to mean a job with a wage or salary. In India, major part of employment, however, consists of self-employment. Even though the share of this category in total employment has been declining, as is expected in the process of modern economic development, it still accounts for majority of workers. In 2009-10, the self-employed accounted for 50.6 per cent of the total employed persons. It has declined continuously from 61.4 per cent in 1972-73 to 52.6 per cent in 1999-2000, but showed an increase to 56.5 per cent in 2004-05. Estimates based on NSSO survey for 2009-10, however, shows a resumption of the long-term declining trend (*Table 18*).

Table 18
Distribution of UPSS Workers by Category of Employment (%)

<i>Year</i>	<i>Self-Employed</i>	<i>Regular Employees</i>	<i>Casual Labour</i>
1	2	3	4
1972-73	61.37	15.37	23.26
1977-78	58.89	13.94	27.18
1983	57.31	13.82	28.87
1987-88	55.98	14.44	29.58
1993-94	54.70	13.53	31.77
1999-00	52.61	14.65	32.75
2004-05	56.38	15.35	28.27
2009-10	50.58	16.63	32.79

Source: Own estimates based on various rounds of NSS data on employment and unemployment.

In terms of quality of employment, work for regular wage or salary is found to have the best score. It generally provides regularity and stability of employment, relatively better earnings and job and social security. Casual labour category is the worst in these terms. Self employment is a mixed bag: includes work in own large farms and enterprises, with high income as well as own account work in tiny farms and enterprises often resulting in earnings even lower than the poverty line income. In 2004-05, 32 per cent of those working as casual labour were earning less than a poverty line income, the corresponding figure for the self-employed was 17.5 per cent and for regular employees 11 per cent. The self-employed seem to be in a relatively better position in rural areas than in urban areas: among the urban self-employed 23 per cent are poor, among the rural self employed their proportion is lower at 16 per cent (Planning Commission, 2008, Vol. I, p. 85). In rural areas, most self-employed are cultivators, in urban areas many of them failing to secure a wage/salaried job for which they aspire, resort to petty production and sale of goods and services to survive.

There was an increase in the proportion of the self-employed and decline in that of the casual labour during 2000-2005. Does it imply that there was an upsurge in remunerative self-employment opportunities to which workers working as casual labour shifted? Does this shift suggest that more employment opportunities in future will be in the category of the self-employed? Or, is it a result of shrinkage of job opportunities as wage labour and thus inability of those belonging to households engaged in on-account farming or small businesses to move out to alternative jobs? There is no evidence to suggest that new self-employment opportunities with high earnings emerged during this period. If anything, there is evidence to the contrary. It

is observed that a large number of on-account enterprises in the unorganised manufacturing sector closed down resulting in loss of 1.4 million jobs, mostly in the self-employment category during 2000-2005. appears that the increase in the proportion of self-employed was primarily a result of the inability of workers getting added to farming households to find wage labour in agriculture or move out to non-agricultural wage employment. They may not have necessarily been needed to work on their farms but were not able to get productive employment elsewhere. Plausibility of this explanation is established by the fact that the increase in self-employment category was mainly accounted for by agriculture. It increased from 58 per cent in 1999-2000 to 64 per cent in 2004-2005 in agriculture while increase in self-employment was from 45 to 46 per cent only in the non-agricultural activities.

Estimates based on the data from the 66th round (2009-10) of NSSO Survey suggest that the picture emerging from the survey for 2004-05 was an aberration in the long term trend in the changes in workforce structure by employment categories. They show a resumption of the trend of a decline in the share of the self-employed and an increase in that of the casual labour. In other words, a deterioration in the quality of employment in aggregate continues. Even a different trend during 1999-2000/2004-05 did not necessarily reflect any improvement as argued above. But the continuation of an increase in the share of casual labour directly testifies to the deterioration. It is, however, to be noted that a gradual increase in the share of regular employees in the post-reform period promises to deter this trend to howsoever small an extent.

IV.3 Organised Versus Unorganised Sector Employment

Organised or formal sector is defined to consist of the entire public sector and the private sector enterprises employing 10 or more workers. It accounted for only about 14 per cent of total employment in 1999-2000 as also in 2004-05. The proportion is found to have slightly increased to 16 per cent in 2009-10. Still that leaves 84 per cent of workers in the 'unorganised' or 'informal' sector, with no job security or social security. Even in the formal sector, over half the workers are in 'informal' category, with no secured tenure of employment, nor any protection against the contingent risks during or after employment. What is further distressing

to note is that their proportion has been rising: 'informally' employed workers constituted 42 per cent of those employed in the formal sector in 1999-2000, the figure increased to 47 per cent in 2004-05 and stood at 51 per cent in 2009-10. A small proportion (about half a per cent) of those employed in the informal sector enjoyed a measure of job security and social security. Thus of all the workers in the formal and informal sectors together, 92 per cent were in 'informal' employment. Only 8 per cent were in employment with secured job tenure and with social security against contingent risks of work and life. Their proportion has remained more or less constant during the decade 1999-2000/2009-10. (Table 19).

Table 19
Percentage Distribution of Workers in Formal/Informal Sectors/Employment

Year	Informal Workers			Total
	Informal Sector	Formal Sector		
1	2	3	4	
1999-00	93.6	6.4	100	(362.75)
2004-05	93.1	6.9	100	(422.61)
2009-10	91.2	8.8	100	(423.17)
Formal Workers				
1999-00	5.3	94.7	100	(33.64)
2004-05	4.1	95.9	100	(34.85)
2009-10	4.5	95.5	100	(37.25)
Total Workers				
1999-00	86.2	13.8	100	(396.39)
2004-05	86.3	13.7	100	(457.47)
2009-10	84.2	15.8	100	(460.42)

Note: Figures in paranthesis are the absolute number in millions.

Source: NCEUS, 2009 and Kannan, 2011.

A near constant share of the informal/unorganised sector in total employment is obviously due to the lack of a faster growth of employment in the informal than in the formal sector. In fact, the organised sector employment saw a continuous decline for a number of years since mid-1990s. After continuously increasing and reaching the highest figure of 283 lakhs in 1997, it recorded a continuous decline since then till 2005, but has shown some increase since 2005. It stood at 275 lakhs in the year 2008 the latest year for which data are available (Table 20). It should be noted that the earlier decline has been mainly in public sector employment which has continued to decline even in post-2004 period. So far as private sector is concerned it showed a small decline during 2001-2004, but has increased to an all time high at 98.75 lakhs in 2008, leading to an increase of about 11 lakhs in total organised sector employment despite a decline in public sector

employment, during 2004-2008. And decline in public sector employment has been in all division of activity namely, manufacturing, construction, transport as well as community, social and personal services (Table 21), as a part of the policy to downsize the government, reduction in overstaffing of public enterprises and withdrawal from commercial activities. Mining is the only sector where some increase has taken place in public sector employment in recent years.

Table 20
Employment in Organised Sector

(Lakh persons as on March 31)

Year	Public Sector	Private Sector	Total
1	2	3	4
1981	154.84	65.00	219.84
1991	190.58	76.77	267.35
1997	195.59	87.48	283.07
2000	193.14	86.46	279.60
2005	180.07	84.52	264.59
2006	181.88	88.05	269.93
2007	180.02	92.40	272.42
2008	176.74	98.38	275.12

Source: Economic Survey, various years.

Table 21
Employment in Organised Public Sector

(Lakh persons as on 31 March)

	1981	1991	1997	2000	2004	2008
1	2	3	4	5	6	7
Agriculture	4.63	5.56	5.33	5.14	4.93	4.71
Mining	8.18	9.99	9.78	9.24	10.30	11.21
Manufacturing	15.02	18.52	16.61	15.31	11.09	10.44
Electricity, Gas & Water	6.83	9.05	9.56	9.46	8.74	7.96
Construction	10.89	11.49	11.34	10.92	9.32	8.52
Trade	1.17	1.50	1.64	1.63	1.81	1.65
Transport	27.09	30.26	30.92	30.77	28.15	26.34
Finance, Insurance & Real Estate	7.48	11.94	12.94	19.95	14.08	13.47
Community, Social & Personal Services	73.55	92.27	97.87	97.71	92.76	88.54
Total	154.84	190.58	195.59	193.14	181.97	172.84

Source: Economic Survey, various years.

Employment in organised private sector saw an increase till 1997 and after hovering around the figure of 87 lakhs for some years, saw a decline during 2000-2004. It has registered a significant increase since then reaching a figure of 98 lakhs in 2008, about 13 per cent higher than in 1997 (Table 22). Manufacturing is the main activity accounting for over half the total organised private sector employment. It has seen a decline of about 8 per cent over the period 1997-2008. The next most

important activity, namely, community, social and personal services, has registered a continuous increase in employment. Financial services have shown a much faster increase, of about three and half times in its employment during 1997-2008. All other activities have also shown an increase in employment during this period.

Table 22
Employment in Organised Private Sector

(Lakh persons as on 31 March)

<i>Industry</i>	<i>1991</i>	<i>1997</i>	<i>2000</i>	<i>2004</i>	<i>2008</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
Agriculture	8.91	9.12	9.04	9.17	9.92
Mining	1.00	0.92	0.81	0.65	1.11
Manufacturing	44.80	53.89	50.85	44.89	49.70
Electricity Gas & Water	0.40	0.41	0.41	40.47	0.51
Construction	0.73	0.54	0.57	0.45	0.69
Trade	3.00	3.17	3.30	3.51	2.72
Transport	0.53	0.63	0.70	0.81	1.04
Finance, Insurance & Real Estate	2.54	3.22	3.58	4.58	10.96
Community, Social & Personal Services	14.8	16.44	17.23	17.92	21.73
Total	76.77	86.86	86.46	82.46	98.38

Source: Economic Survey, various years.

It is important to keep these variations between the public and private sector, on the one hand, and among different activity divisions on the other, in mind, while discussing the trends and potential of employment in the organised sector. Not much is gained by questioning declining aggregate employment in the organised sector: a decline in public sector employment is a policy-induced phenomenon propelled by the reforms towards economic liberalisation. Private sector has been a minor contributor to the decline in aggregate employment. Employment in all activity segments of the private sector except manufacturing has continuously risen since 1991, and even in manufacturing the trend appears to have reversed with an increase since 2004. Looked from this perspective, it is not unrealistic to expect better employment performance of the organised private sector in future and not to expect the public sector to generate new jobs to any significant extent.

V. The Employment Challenge: Quantitative Dimensions

The dynamics of employment growth specially in relation to economic growth and juxtaposed with the growth and changing composition or labour force, on the one hand, and composition and structural changes in employment, on the other, as described in preceding sections makes an assessment of the problem of employment that India faces, a difficult task. The employment problem has both quantitative and qualitative dimensions. In quantitative terms, it is indicated by the magnitude of employment opportunities that need to be generated over a period of time so that everyone available and looking for work is able to secure it. It consists of two elements: the number of unemployed in the initial period and additions that take place to labour force over the period under consideration. The former is arrived at on the basis of prevalent rate of unemployment and the latter by applying the expected labour force participation rate on the projected population figures.

V.1 Unemployment Rates

Unemployment rates measured by different criteria are found to be quite low in India and have not changed much over the years. Measured as unemployed persons as percentage of labour force they varied between 2.09 percent among all workers (main and subsidiary) on a yearly reference period to 3.61 on a weekly reference period, in 2009-10, the latest year for which data are available (*Table 23*). In terms of persondays of unemployment the estimates are higher at 6.52 percent. But that includes unemployment days not only of those completely unemployed during the week, but also of those among the employed who are unemployed for different length of time, from half day onwards during the reference week.

These rates seem to have maintained a remarkable stability over the years. The UPS rate has in fact, shown a decline; so, it was around 4 per cent during 1970's and 1980's, around 3 per cent during 1990's but has declined to lowest ever of 2.5 per cent in 2009-10 UPSS rate has mostly fluctuated between 2 and 2.5 per cent.

CWS rate has been strikingly constant at around 4 per cent and CDS rate has mostly fluctuated between 6 and 8 per cent.

Table 23
Unemployment Rates: % of Labour Force

	<i>Usual Status</i>	<i>Usual ADJ</i>	<i>CWS</i>	<i>CDS</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
1972-73	3.80	1.61	4.32	8.32
1977-78	4.32	2.58	4.57	8.22
1983	2.77	1.93	4.52	8.27
1987-88	3.80	2.74	4.90	6.15
1993-94	2.78	1.96	3.67	6.03
1999-00	2.75	2.25	4.35	7.28
2004-05	3.19	2.40	4.49	8.23
2009-10	2.51	2.09	3.61	6.52

Notes: UPS: Usual Principal Status. A Person is considered unemployed according to this concept if available for but without work for major part of the year.

UPSS: Usual Principal and Subsidiary Status includes, besides UPS, those available but unable to find work on a subsidiary basis, during a year.

CWS: Current Weekly Status. A person is unemployed if available for but unable to find work even for one hour during the reference week.

CDS: Current Daily Status measures unemployment in terms of persondays of unemployment of all persons in the labour force during the reference week.

Source: As in Table 1.

As already noted, the Indian economy has maintained a long term average growth of about 2 percent in employment. For a long time, however, it has fallen short of labour force growth which hovered around 2.5 percent during 1970's and 1980's, declined to about two percent during 1990's and after continuing to be around 1.9 percent during the decade of 2000, is expected to decline to 1.7 percent during 2011-17 (Planning Commission, 2008, Vol. I). With an employment growth more or less similar to labour force growth on an average, rate of unemployment has not significantly changed over the years. For the year 2012-13, when the Twelfth Five Year Plan starts, labour force is estimated to be 482 million on the CWS criterion. If the unemployment rates as obtained from the 2009-10 NSSO data i.e. 3.61 per cent is applied to this figure, we can estimate unemployment to be 17.4 million for that year.

V.2 The Underemployed and the Working Poor

Unemployment estimates on the basis of these rates do not adequately reflect the magnitude of the employment problem, that is, the number of persons that need new employment opportunities at any point of time. There are persons

recorded as employed but are 'severely' underemployed, having work only for a minor part of the time. And then there are 'working poor' who are employed but are able to earn only a fraction of what is regarded as minimum necessary to overcome poverty. This category forms a large proportion of 'employed' worker: was estimated to be about 20 per cent in 1999-2000 and 21 per cent in 2004-05 and in fact, constitutes the core part of the employment problem in India (Ghose, 2004). In case of the former category of workers their present activity (wage-labour or self-employment) is not able to provide them closer to full time work; while in the case of the latter, it may be engaging them more or less full time, but is not productive enough to generate even subsistence level income nor is it likely to become so due to the declining market for their products. A large number of workers are engaged in production of goods and services which face a negative income elasticity of demand due to their 'inferior' nature and replacement by 'modern', and often cheaper, products. Products of traditional village and cottage industries would, by and large, fall in this category. And the number of persons engaged in these industries is quite large.

It is not possible to precisely estimate the number of workers who are in need of alternative employment due to either of the above reasons, because of non-availability of relevant data. Some rough estimates can, however, be made with certain assumptions, on the basis of available data. It may be assumed that those having work for less than half the time (e.g. less than 3 days in a week) are "severely underemployed", and in need of alternative employment. Similarly, those earning less than one-half of the poverty line income may be regarded as 'working ultra-poor' also in need of alternative employment. An exercise on the basis of these assumptions placed the estimate of those in need of employment in 2007 at about 58 million, and not just 21.6 million estimated as unemployed (Papola and Sahu, 2008). Results of the exercise are summarised in the *Box 1* below.

There could be some overlap between the category of 'severely underemployed' (estimated at 10.5 million) and 'employed ultra-poor' (26.0 million), which could be corrected by including only the 'fully employed' in the later, if data availability permitted. But the argument that employment problem at any point of

time is of a much larger magnitude than reflected in the conventional estimates of unemployment, holds.

Box 1

Employment Challenge 2007-2012

- a) Unemployed – 4.5% of the Labour Force (CWS) = $479.6 \times 0.045 = 21.6$ million
 - b) Severely Under Employed – 2.3% of the Work force = $457.9 \times 0.023 = 10.5$ million
 - c) Working Poor in need of alternative employment = 26.0 million
 - d) Persons needing employment as in the beginning of the year 2007(a+b+c) = 58.1 million
 - e) Additions to Labour Force – 1.8% per year = $479.6 \times 0.018 \times 5 = 44.7$ million
 - f) Persons looking for employment during the 5-year period 2007-2012(d+e) = 102.8 million
- Total = 76.8 Million

V.3 Growth of Labour Force

The other component of the quantitative dimension of the employment problem consists of the increase in labour force. Growth rate of labour force depends on the growth of population (in earlier periods) and labour force participation rate (LFPR). Population growth in India has been relatively high but has slowed down since 1990's. It was 2.32 per annum during 1961-71, 2.22 during 1971-81 and 2.14 during 1981-91; but the decade 1991-2001 saw a significant decline in the growth rate to 1.93 and the last census conducted during March 2011, reports a growth-rate of 1.76 per cent during 2001-2011. Estimates of population growth for the periods corresponding to NSSO surveys on employment and unemployment are: 2.11 per cent for 1983 to 1993-94, 1.98 for 1993-94 to 1999-2000, 1.69 for 1999-2000 to 2004-05, and 1.68 per cent for the decade of 1993-94 to 2004-05. For the period 2004-05 to 2009-10, it estimates at 1.70 per cent. Growth of labour force during these four periods has been 2.28, 1.47 and 2.84 and 2.09 per cent per annum respectively. Labour force growth during 2004-05/2009-10 is recorded to be virtually zero due to a steep fall in LFPR.

Such sharp fluctuations in the growth of labour force are a result of changes in LFPR, either real or caused by conceptual and survey problems. The long-term trend in participation rates over the last three decades has been one of a decline. (Table 24). It was about 43 in 1983, declined to 42.7 and 40.5 in 1993-94 and 1999-2000, but saw an increase to 42.9 per cent in 2004-05. In 2009-10 it is estimated to

be 39.8. That the estimate for 2004-05 reflected an abnormal situation and was an overestimate is suggested by the estimates for 2009-10, which are lower at 39.8 conforming to the long-term declining trend. It appears that if the hypothesis postulating a U-shaped relationship of LFPR with increase in per capita income is valid, the dynamics of the Indian labour force is still on the declining phase of the curve!

Table 24
Labourforce Participation Rates (UPSS)

<i>Year</i>	<i>Male</i>	<i>Female</i>	<i>Person</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
1983	55.11	29.96	42.98
1993-94	55.62	28.74	42.68
1999-00	54.06	26.01	40.52
2004-05	55.94	28.86	42.85
2009-10	55.69	22.87	39.80

Source: Own estimates based on various rounds of NSS data on employment and unemployment.

Labour force is accordingly expected to grow at a declining rate over the years both because of a deceleration in the rate of population growth and a declining trend in LFPR. Yet, it would not slow down at the rate it did during 2004-05/2009-10 (Planning Commission, 2011, p.10). It would be realistic to assume continuation of the long-term growth rate of labour force of about 1.7 per cent per annum. The labour force is projected to be 482 million in 2012-13 and growing at this rate it would be 525 million in 2016-17 (Planning Commission projections for the XII Plan). Addition to labour force is thus estimated to be around 8.6 million per year during the Twelfth Five Year Plan period. Going by these estimates and projections, the Twelfth and the Thirteenth Plans would need to provide about 13 million employment opportunities every year to generate productive employment to almost every one looking for work. It would imply an annual employment growth rate of about 3 per cent per annum. With a targeted growth rate of 9 per cent it would imply an employment elasticity of 0.33 which does not seem to be out of the realm of feasibility that, in fact, means that employment planning needs to have a 10-15 year perspective.

If we apply the same assumptions and methodology, as illustrated in Box 1 above for the period 2007-12, employment challenge for the Twelfth Five Year Plan (2012-17) period would be as in Box 2.

Box 2

Employment Challenge 2012-2017 (An Illustrative Exercise)

- a) *Unemployment as in April 2012 (CWS) - 3.61% of the Labour force = (482 million) =17.4 million*
- b) *Severely Under Employed – 2.3% of the work force (464.64 million) =10.69 million*
- c) *Working 'ultra-poor – 5% of the workforce = 23.25 million*
- d) *Persons needing employment in the beginning of the period = (a+b+c) = 51.35 million*
- e) *Additions to Labour force, 2012 – 2017 = 43 million*
- f) *Persons looking for employment during the 5-year period: (d+e) = 94 million*

VI. The Employment Challenge: Qualitative Dimension

Relatively low unemployment rates and declining labour force participation rates and consequent slowdown in growth of labour force have sometimes prompted the policy makers to believe that the employment challenge in India consists not so much of the quantity as of the quality of employment. Thus, the Economic Advisory Council (EAC) to the Prime Minister in one of its reports in 2007 reckoned that by 2010, workforce would become equal to labour force, thus eliminating the problem of unemployment in terms of numbers; the quality of employment in terms of productivity, particularly in agriculture and the informal sector would be the new challenge (EAC, 2007). The Eleventh Five Year Plan (2007-2012) document, even while emphasizing employment as an element of its strategy for 'inclusive growth' and targeting creation of 58 million employment opportunities, against an addition of 45 million in the labour force, primarily focused on the improvement in the quality of employment in its substantive part (Planning Commission, 2008).

Such an assessment regarding the quantitative dimension of the employment challenge was not realistic due to the following two reasons. One, the growth rate of employment over the recent past five years has not been as high as assumed or envisaged: it has, in fact, been virtually insignificant, going by the estimates based on 2009-10 NSSO survey. The Eleventh Plan envisaged a 2.73 per cent growth in employment during 2007-12; it is likely to be lower due to the lower growth (8 per cent) of GDP than targeted (9 per cent) and also due to adverse employment effects of global financial crisis in 2008 and the ongoing global economic slowdown in 2011. Second, and more important reason for underestimation of quantitative challenge lies in assuming that the challenge at any point of time is confined to the magnitude of unemployment as recorded. A much larger number of persons are in need of alternative employment, as explained earlier.

VI.1 Quality Deficit: Earnings

The quantitative challenge of employment creation is thus much larger than commonly understood. But the qualitative dimension of the employment challenge is as much if not more, serious as the need to create new jobs. Even if all those unemployed, severely under-employed and working 'ultra-poor' are counted as candidates for new jobs, the number still estimates to about 12 per cent of the labour force. But, over one-fifth of those employed are poor. One reason for poverty among the employed workers could be that they do not have full time work. Those severely underemployed may need alternative employment, as argued earlier. But others may have the potential of raising their income by working full time in their present activity or in supplementary work in other activities. Additional work can also be provided in government funded employment programmes like under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) to alleviate their current poverty. Degree of underemployment as revealed by the data from surveys on employment and unemployment is one measure of lack of regularity of employment. According to the data for 2004-05, about 4 per cent of all the persondays of those in the labour force belonged to those employed (out of over 8 per cent for all – employed and unemployed). But in the case of some worker groups under-employment is quite high. For example, agricultural labourers were reported to be in the labour force on an average for 312 days out of which they were unemployed for 51 days, in 2004-05, making the persondays of unemployment (or underemployment) to be 16 per cent.

But most often the reason for poverty amongst the employed lies in low earning out of their work-either on a self-employed, or wage/salary basis. Data on earnings of the self-employed are not available, but according to a survey among farmers who constitute the majority among the self-employed about 48 per cent earned on an average less than the poverty line expenditure of Rs 1,800 per month in 2003 (NSSO, 2005, Bhalla, 2006, Papola, 2010). Average daily earnings of casual workers constituting 31 per cent of all workers and were estimated to be Rs 49 in rural and Rs 58 in urban areas as against per capita per day income of Rs 64 for the entire population in 2004-05. Earnings of a regular worker were relatively higher at Rs 134 in rural and Rs 194 in urban areas. Average daily earnings of casual workers

in agriculture were only about 65 per cent of those in non-agriculture. And among the non-agricultural sectors, workers in transport and communications, utilities, and financial and social services earned much better than those in construction, trade and manufacturing. (NCEUS, 2007 Appendix Tables A3.1 to A 3.6, pp 259-262). Within manufacturing sector, a relatively better paying segment of the Indian economy, average annual earnings of workers in its organized segment, worked out to be Rs 56,000 in 2006-07, which compared very favourably with the per capita income of Rs 35,800 in that year. Petroleum products, motor vehicles, basic metals, machinery and other transport equipment industries paid high, but earnings in tobacco products, wood products and food products were lower than the per capita income (Table 25).

Table 25
Wages Per Worker in Organised Manufacturing Industries

Industry Code	Industry Description	Wage Per worker (Rs.) per annum				Annual percentage change (%)			
		2000-01	2004-05	2006-07	2007-08	00-01/04-05	04-05/06-07	06-07/07-08	00-01/07-08
		3	4	5	6	7	8	9	10
01	Agriculture, Hunting and Related Service Activities	13490	13033	14711	15299	-0.85	6.44	3.99	1.92
14	Other Mining and Quarrying	20169	24886	20059	17644	5.85	-9.70	-12.04	-1.79
15	Food Product	30501	30304	31344	32923	-0.16	1.72	5.04	1.13
16	Tobacco Prod	16185	15943	15745	15888	-0.37	-0.62	0.91	-0.26
17	Textiles	41755	39757	36683	39130	-1.20	-3.87	6.67	-0.90
18	Wearing Apparel	27512	31950	34450	34565	4.03	3.91	0.33	3.66
19	Leather Prod	29888	31056	32607	32778	0.98	2.50	0.52	1.38
20	Wood Prod	23824	25920	27792	28314	2.20	3.61	1.88	2.69
21	Paper Prod	47912	49808	46650	37547	0.99	-3.17	-19.51	-3.09
22	Printing	54558	55880	54801	55815	0.61	-0.97	1.85	0.33
23	Coke & Petro Prod	149801	124061	127013	114468	-4.30	1.19	-9.88	-3.37
24	Chemical Prod	56335	58091	57247	58002	0.78	-0.73	1.32	0.42
25	Rubber Prod	41290	44544	44939	43432	1.97	0.44	-3.35	0.74
26	Mfg of Other Non-Metallic Mineral Products	36770	33871	32792	34289	-1.97	-1.59	4.56	-0.96
27	Basic Metals	80801	80454	70551	79527	-0.11	-6.15	12.72	-0.23
28	Metal Prod	45441	46379	44846	46906	0.52	-1.65	4.59	0.46
29	Machinery	65313	65027	64852	64652	-0.11	-0.13	-0.31	-0.14
30	Office/Computing Equipments	53842	58104	52798	63057	1.98	-4.57	19.43	2.45
31	Electrical & Apparatus	70088	63158	59060	60062	-2.47	-3.24	1.70	-2.04
32	Radio, TV and	57492	61417	66314	60064	1.71	3.99	-9.43	0.64

Indus- try Code	Industry Description	Wage Per worker (Rs.) per annum				Annual percentage change (%)			
						00-01/ 04-05	04-05/ 06-07	06-07/ 07-08	00-01 07-08
		2000-01	2004-05	2006- 07	2007-08				
1	2	3	4	5	6	7	8	9	10
	Communication Equipments								
33	Medical Precision/Optical Instruments	55065	62018	58704	65994	3.16	-2.67	12.42	2.84
34	Motor Vehicles	79446	78986	73765	72298	-0.14	-3.30	-1.99	-1.29
35	Other Transport Equipment	58982	67614	64586	69400	3.66	-2.24	7.45	2.52
36	Furniture/N.E.C	46870	52087	53379	54712	2.78	1.24	2.50	2.39
37	Recycling	34328	42145	29057	36406	5.69	-15.53	25.29	0.86
>=40	other	36346	41129	47296	46623	3.29	7.50	-1.42	4.04
	Manufacturing (NIC 15 to 37)	45756	45965	45345	47222	0.11	-0.68	4.14	0.46
	All	45101	45400	44963	46802	0.17	-0.48	4.09	0.54

Note: Figures are at constant prices, (CPI for industrial worker, 2001 = 100)

Source: Own estimates based on Annual Survey of Industries, CSO and RBI Handbook of Statistics on Indian Economy: 2010-11.

Levels of earnings in different sectors and activities are, of course, primarily a function of differences in productivity. Utilities, with over eight times the average productivity thus pay the highest emoluments, followed by financial and social services and transport and communication with about 2.7 times the average productivity. Workers in agriculture with only about one-third of the average productivity level earn the lowest. Ratio between the agriculture and non-agricultural productivity stood at 1:6 in 2009-10 (Table 26). In the unorganized segment of the manufacturing sector productivity per worker was estimated to be as low as Rs 12993 (at constant 1993-94 prices), almost one-twentieth of that in the organized sector (Rs 2.55 Lakhs) in 2006-07 (Papola et. al., 2011). Workers in the unorganized segment of services (excluding trade) are similarly worse off with an average productivity of Rs 35438 (at constant 1993-94 prices) as against the average of about Rs66995 for the entire sector, in 2006-07 (Own estimate based on National Accounts Statistics and NSS Survey on Unorganized Service Sector: 2006-07).

Thus it appears that while a part of the quality deficit in employment in India is found in the lack of full time employment among the employed persons, low earnings and low productivity, all pervasive characteristics of work in agriculture and the unorganized sector of the non-agricultural economy, constitute the major features of poor quality of employment. By these criteria, a large proportion of the

Table 26
Level of Per Worker Productivity (Rs at constant 1999-2000 prices)

<i>Sector</i>	<i>1993-94</i>	<i>1999-00</i>	<i>2004-05</i>	<i>2009-10</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Primary Sector	15330	18579	18724	23676
Mining & Quarrying	119281	183771	206289	217678
Manufacturing	44447	60219	64326	106812
Utilities	198673	428684	449818	604761
Construction	58137	58089	60802	55400
Secondary Sector	54964	69875	72931	93871
Trade, Hotelling etc.	52495	62084	74500	108843
Transport & Communication etc.	75514	92257	131181	249056
Financing, Insurance, Real estate & business services	409332	471198	411787	555613
Community, social and personal services	46993	80790	90199	127197
Tertiary Sector	69571	95090	112167	175911
All Non-Agricultural	63506	84767	95308	138811
Total	32685	44841	52189	79742
Index of per worker productivity relative to national average (Total = 100)				
Primary Sector	47	41	36	30
Mining & Quarrying	365	410	395	273
Manufacturing	136	134	123	134
Utilities	608	956	862	758
Construction	178	130	117	69
Secondary Sector	168	156	140	118
Trade, Hotelling etc.	161	138	143	136
Transport & Communication etc.	231	206	251	312
Financing, Insurance, Real estate & business services	1252	1051	789	697
Community, social and personal services	144	180	173	160
Tertiary Sector	213	212	215	221
All Non-Agricultural	194	189	183	174
Total	100	100	100	100

Source: Own estimates based on various rounds of NSS data on employment and unemployment and National Accounts Statistics, CSO, various years.

Indian workers could be regarded as suffering from the quality deficit in their employment, though exact estimates are not possible due to lack of data and also the clarity regarding the norm. If poverty line income is seen as the norm, the estimates for 2004-05, for example, was 21 per cent (i.e. 21 per cent of the employed were poor). But it is also very well recognized that the poverty line in India is pitched at a rather low level and if it is revised upwards at a more reasonable level the incidence of poverty and the estimates of the working poor would turn out to be much higher. A case in point is the recent revision of poverty estimates by Committee headed by Professor Tendulkar, which placed poverty in 2004-05 at 37 per cent as against 27.5 per cent estimated earlier. Similarly, the National Commission for Enterprises in the Unorganised Sector (NCEUS) estimated that

about 77 per cent of the Indian population survives on less than Rs 20 per day (NCEUES, 2009)!

VI.2 Social Protection

If the criterion of social protection is added to the characteristics of good jobs, the quality deficit in employment becomes much larger. According to the estimate made by the National Commission for Enterprises in the Unorganised Sector (NCEUS), only about 8 per cent of all workers enjoy any statutory protection against such risks as sickness, maternity, disability and old age, through various central and state level legislations on conventional social security (NCEUS, 2006). This is particularly disconcerting because the universalized provisions of social protection for population at large, such as public health and old age pension, are rather limited and poorly delivered.

Practically all the workers in the unorganized sector, which employs about 86 per cent of the total workers, are without any statutory social security benefit. But almost one-half of workers in the organized sector, also do not enjoy such benefits. Of late, there have been some initiatives to increase universal social protection in respect of health and old age (e.g. National Health Insurance Scheme and Old Age Pension Scheme, both launched in 2007) as well as to extend the social security available to the formal workers to informal workers (e.g. Unorganised Workers' Social Security Act, 2008). The coverage and effectiveness of delivery of services, however, continue to be poor.

VI.3 Workforce Structure and Quality of Employment

While the overall quality of employment in terms of regularity, earnings, productivity and social protection is poor, it nevertheless varies among sectors, industries and types of employment as was already indicated by some broad statistics in the preceding section. These variations not only reflect the differences in quality, but in a way are responsible for poor quality of employment for a large mass of workers. The first of such structural aspects of employment quality consists of the continuing dominance of agriculture in employment. Even though its share in employment has declined over the years, it still accounted for over half the workers

in 2009-10. Its share in GDP, on the other hand, has declined from about 43 per cent in 1972-73 (when its employment share was 74 per cent) to 15 per cent in 2009-10. Lack of similar structural change in workforce as in the national output has meant a steep relative deterioration in the quality of employment in agriculture.

The second structural characteristic of the Indian economy that signifies poor employment quality is the predominance of the informal employment. Productivity per worker in large part of the informal sector is miserably low. For example, in manufacturing, as it was noted earlier, it was one-twentieth of that in the organized sector. Virtually all the employment in agriculture is informal, but in manufacturing also about 88 per cent of employment is in this category. Average earnings per worker were Rs 62 in the unorganized sector as against Rs 239 in the organized sector in 2004-05. In terms of social protection, only about 0.4 per cent of the workers in the unorganized sector were covered under any statutory social security scheme, though even in the organized sector the extent of such coverage was only 53 per cent (NCEUS, 2006). According to the latest estimates it has declined to less than 50 per cent in 2009-10. (Kannan, 2011).

The third aspect of workforce structure with direct implications for quality of employment is the dominance of the self-employed and casual labour categories, the regular employer category forming a small percentage of total workers. It is only the last category that generally provides an assurance of reasonable quality of employment in terms of regularity of work, reasonable level of earnings and a measure of social security. By definition, the workers in this category have regular employment. Estimates of earnings of the self-employed are not available, but earnings of the casual workers were only one-fourth of the wages of regular workers (Rs. 51 as against Rs. 200) in 2004-05. Incidence of poverty was as high as 32 per cent among the casual labour, and 17.5 per cent among the self-employed, but lower at 11 per cent among the regular workers, with an average of 20.51 per cent for all employed workers. (Planning Commission, 2008, Chapter 4, Annexure 4.7). Any social security benefits that are statutorily available to workers are only to regular employees of establishments, very rarely to the casual workers or the self-employed. Given these differences between the regular workers and other categories of workers, the facts that they constitute less than one-sixth of total

workers and that their share has remained virtually constant over a long period of time while that of the casual labour, the category scoring lowest by different criteria of quality employment, has been increasing, go to show that the overall quality of employment is low and has been deteriorating over the years.

VI.4 Large Quality Deficit in Employment: The Case of Women Workers

Within the overall low quality of employment, there are groups of workers that face particularly large quality deficit in employment in so far as they tend to be concentrated in employments with low productivity, low earning and irregular and uncertain availability of work with no or very little social protection. The most conspicuous of these groups consists of women. But workers from social groups like SC/STs and other low caste Hindus and Muslims also face similar disadvantage (See e.g. Bordia Das, 2010 and NCEUS, 2007). And workers without education and skills also fall in this category with very little prospects of improvement in quality of their employment.

Only about one-third of India's workforce consists of women, but a large majority of them, about 67 per cent are engaged in agriculture. Of male workers only 55 per cent were in that sector in 2009-10 (Table 27). Utilities, the sector that

Table 27
Sectoral Distribution of Male and Female Workers (UPSS)

Sector	MALE				FEMALE			
	1993-94	1999-00	2004-05	2009-10	1993-94	1999-00	2004-05	2009-10
1	2	3	4	5	6	7	8	9
Primary Sector	57.43	53.53	48.64	45.27	77.52	75.36	72.26	66.99
Mining & Quarrying	0.85	0.68	0.69	0.77	0.34	0.31	0.28	0.30
Manufacturing	11.22	11.46	12.51	11.57	9.41	10.01	11.75	11.34
Utilities	0.53	0.37	0.38	0.35	0.13	0.03	0.03	0.08
Construction	4.15	5.66	7.51	11.33	1.35	1.64	1.89	5.11
Secondary Sector	16.76	18.16	21.09	24.02	11.24	12.00	13.96	16.82
Trade, Hotelling etc.	9.70	13.02	14.13	14.00	3.22	4.19	4.14	4.55
Transport & Communication etc.	4.12	5.11	5.84	6.04	0.27	0.35	0.40	0.43
Financing, Insurance, Real estate & business services	1.27	1.60	2.24	2.71	0.35	0.45	0.63	1.05
Community, social and personal services	10.72	8.57	8.07	7.96	7.41	7.65	8.61	10.16
Tertiary Sector	25.81	28.31	30.27	30.71	11.25	12.64	13.78	16.19
All Non-Agricultural	42.57	46.47	51.36	54.73	22.48	24.64	27.74	33.01
Total	100	100	100	100	100	100	100	100

Source: Own estimates based on various rounds of NSS data on employment and unemployment.

meets the criteria of good quality of employment most often, employ only 0.08 per cent of women workers while 0.35 per cent of total male workers work in this sector. Similar is the situation in transport and communication, another sector providing reasonably good quality employment, where only 0.43 per cent of women workers work; the corresponding percentage of male workers is 6.04. Only about one per cent of women workers but over 2 per cent of male workers are in financial services. Women workers are, however, more likely than men to be in the community, social and personal services: over 10 per cent of them are in this sector, as against 8 per cent of male workers. The share of agriculture in employment has been declining over the years but the rate of decline has been slower in the case of women workers than of men. Share of community social and personal services, on the other hand, has been declining in male employment, while it has shown an increase among female workers.

Taking regular wage and salary jobs as the best quality employment, women are at a large disadvantage as compared to men. While 19 per cent of male workers belong to this category, the corresponding figure for women was only 11 per cent in 2009-10 (Table 28). Thus, the likelihood of a woman worker finding a regular wage or salaried job is much smaller than that of a male worker. The relative position of women, however, seems to be improving over the years, in so far as the proportion of regular workers has been increasing faster among female than among male

Table 28
Distribution of Workers (UPSS) by Their Status of Employment: Male, Female and Total

<i>Gender</i>	<i>Year</i>	<i>Self-Employed</i>	<i>Regular Employees</i>	<i>Casual Labour</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Male	1993-94	53.75	16.95	29.29
	1999-00	51.28	17.86	30.86
	2004-05	54.17	18.34	27.49
	2009-10	49.57	18.81	31.52
Female	1993-94	56.65	6.44	36.91
	1999-00	55.53	7.54	36.92
	2004-05	60.99	9.10	29.91
	2009-10	52.95	10.97	36.08
Person	1993-94	54.70	13.53	31.77
	1999-00	52.61	14.65	32.75
	2004-05	56.38	15.35	28.27
	2009-10	50.58	16.63	32.79

Source: Own estimates based on various rounds of NSS data on employment and unemployment.

workers. Thus the proportion of regular employees rose from 6.4 per cent in 1993-94 to 10.97 per cent in 2009-10, among the women workers, the increase was much less from 16.95 to 18.81 per cent in the case of male workers. Women are more often than men in the category of casual labour, though the share of this category has been increasing in case of men, while it has seen some decline in the case of women workers. Overall, there appears to be an improvement in the quantity of employment among women, though they continue to be distinctly disadvantaged as compared to men.

Of the estimated 136 million women workers in India in 2007-08 about 5.3 million, or about 4 per cent were in the organized sectors. The corresponding percentage for all, male and female workers work out to be around 6 per cent. Thus the likelihood of a woman worker finding a job in the organized sector, which is expected to fulfil the criteria of good employment, is about 0.67 of a male worker. This is corroborated by the fact that while women accounted for about 30 per cent of total workforce, their share in organized sector employment was 20 per cent only. The share of women in the organized sector workforce has, however, been increasing over the years; it was 15.4 per cent in 1995, increased to 17.6 per cent in 2000, further to 18.6 in 2004 and 19.5 per cent in 2007 (See GOI-MoF, Economic Survey, 2010-11).

Where do women workers find jobs in the organized sector? Over half of them (56 per cent) are in community, social and personal services. And within that division, a woman worker is likely to find job three times out of four in the public sector. Manufacturing also employs about 18 per cent organized sector women workers. In this division, it is the private sector that is likely to employ a woman worker eleven times more often than the public sector (*Table 29*). It is a positive point in favour of quality of women's employment that about 8 per cent of women in the organized sector work in financial services, both in public and private sectors; the latter almost three times more often than the former, employ women workers.

What is the proportion of women workers in different sectors of economic activity? As pointed out earlier, women make up about 20 per cent of the organized sector employment. They constitute large percentage (about 34 per cent) in

agriculture related establishments, mostly in the private sector. Community, social and personal services, which employ more than half of all organized sector women workers employ women in 27 per cent of their positions. Manufacturing, especially in private sector, also has significant share of women among its workers. Particularly notable is the relatively large proportion of women in the employees in financial services, especially in the private sector. About 18 per cent of workers in this division are women, the percentage is higher at 36 in the private sector.

Table 29
Women Workers in Organised Sector

A: Women Workers in Organised Sector by Industrial Activity in 2007 (Fig in thousands)

<i>Code</i>	<i>Industry Activity</i>	<i>Public Sector</i>	<i>Private Sector</i>	<i>Both</i>
1	2	3	4	5
0	Agriculture, hunting etc.	52.7	437.9	490.6
1	Mining and quarrying	76.5	7.2	83.7
2&3	Manufacturing	77.9	866.9	944.8
4	Electricity, gas and water	51.5	1.8	53.3
5	Construction	61.6	3.8	65.4
6	Wholesale and retail trade	13.6	38	51.6
7	Transport, storage & communications	183	11.9	194.9
8	Finance, insurance, real estate etc.	199.5	213	412.5
9	Community, social & personal service	2254.9	706.1	296.1
	Total	2971.2	2286.6	5257.8

B: Distribution of Women Workers in Organised Sector by Industrial Activity in 2007 (%)

<i>Code</i>	<i>Industry Activity</i>	<i>Public Sector</i>	<i>Private Sector</i>	<i>Both</i>
1	2	3	4	5
0	Agriculture, hunting etc.	1.77	19.15	9.33
1	Mining and quarrying	2.57	0.31	1.59
2&3	Manufacturing	2.62	37.91	17.97
4	Electricity, gas and water	1.73	0.08	1.01
5	Construction	2.07	0.17	1.24
6	Wholesale and retail trade	0.46	1.66	0.98
7	Transport, storage & communications	6.16	0.52	3.71
8	Finance, insurance, real estate etc.	6.71	9.32	7.85
9	Community, social & personal service	75.89	30.88	56.32
	Total	100.00	100.00	100.00

Source: Central Statistical Office, Women and Men in India, 2010, 12th Issue.

VII. Employment Prospects: Promising Sectors and Activities

The Eleventh Five Year Plan (2007-12) projected 58.07 million additional employment opportunities over the five year period. Taking the 2007 estimates of employment (on CDS basis) at 402.24 million, it implied an employment growth rate of 2.75 per cent per annum. The Plan further projected additional employment opportunities of 57.89 million during 2012-17, which again implied an employment growth rate of about 2.5 per cent per annum. Employment growth of the projected magnitude was expected to largely take care of backlog of the unemployed (estimated at 36.71 million) as on April 1, 2007 and additions to labour force (projected to be 44.71 million during 2007-12 and 40.40 million during 2012-17), and reduce the number of unemployed to only 5.85 million or 1.12 per cent of labour force by 2017.

From the figures revealed by the 66th round of NSSO Survey, it does not seem likely that the employment growth projected in the Eleventh Plan would be realised. Going by the Plan estimates of CDS employment at 402 million for 2007 and 404 million for 2009-10 based on the NSSO survey, growth of employment in the first three years of the Plan could be placed at 0.49 per cent per annum with a somewhat improved employment growth during the last two years of the Plan, the CDS employment in 2012-13, is estimated to be 428 million. An apparently brighter side of the picture revealed by the 2009-10 survey data is that labour force has shown even a lower growth than employment during 2004-05/2009-10, thus leading to a decline in unemployment rates. Going by these figures the number of unemployed in 2012-13 are estimated to be lower in 2012 than in 2007: 17.4 million as compared to 21.6 million by the CWS criterion. Also the growth in labour force is also likely to be relatively low due to the long-term trend of decline in population growth and declining labour force participation rate. It must, however, be noted, as explained earlier, the employment challenge is much larger than these figures of unemployment and additions to labour force indicate. As estimated earlier, about 94

million persons would be looking for employment, not just 60 million (17 million unemployed + 43 million new entrants to the labour force) during 2012-2017.

VII.1 Projections and Prospects: The Twelfth Five Year Plan (2012-2017)

Can the Twelfth Plan which regards decent employment as an essential condition for achieving its central motto of “more inclusive growth” meet this challenge? In the first instance, it is necessary that growth rate of the economy is high enough to lead to a reasonably high employment growth. Taking employment elasticity of 0.33 as observed over a longer period (1983-2010) (Table 30) as continuing, a growth rate of 9 to 9.5 per cent per annum being envisaged for the Twelfth Plan will result in employment growth of 3 to 3.12 per cent per annum. It would translate to about 13 million new employment opportunities per year. That will take care of challenge equivalent to the backlog of unemployment in 2012 and additions to labour force during 2012-17, but would still leave part of the problem represented by the severely underemployed and working ‘ultra poor’ unattended. That is why it is necessary, as argued earlier, to have a longer-term, 10-15 year, perspective to achieve decent employment for all.

Table 30
Long Term (1983/2009-10) Employment Elasticities

<i>Sector</i>	<i>Employment Elasticity</i>
<i>1</i>	<i>2</i>
Agriculture	0.350
Mining & Quarrying	0.266
Manufacturing	0.405
Utilities	0.203
Trade etc.	0.654
Trans etc.	0.532
Others Services	0.393
All	0.327

Source: As in Table 3.

VII.2 Growth Rate: Composition and Employment

Continuation of a high growth rate of 9 to 10 per cent should be able to tackle not only the quantitative dimension of the employment challenge, but also take care of part of the qualitative dimension as well, over a period of ten years. In order that it happens earlier, growth is required to be more employment intensive. In other words, aggregate employment intensity needs to rise. As already mentioned

this should not and cannot be done by raising employment elasticity of growth of production of each product and service. An increase in productivity, which implies a decline in employment elasticity is necessary in the case of a large number of activities. But it is possible to have an increase in employment elasticity in aggregate, even with a decline in employment elasticity at individual product level, by making products with high elasticity grow faster than those with low elasticity.

For example, the long term employment elasticity is observed to be high in, construction, trade, transport and manufacturing and a faster growth in these sectors would lead to a faster growth of employment. Construction, however, often shows an employment elasticity of more than one implying a decline in productivity. With low labour productivity, lowest among all activities barring agriculture, any further increase in employment in this sector must be only at an increasing level of productivity. Employment generated in manufacturing, financial services and transport, each with the highest levels of productivity, and employment elasticity will, on the other hand, be highly productive. Utilities have the highest productivity, but the lowest employment elasticity. Agriculture may have an above average long-term employment elasticity, but with the lowest, less than one third of aggregate, productivity, it would not be advisable to expect any new employment generation in this activity. Employment must in fact decline in agriculture. Recent short-term employment elasticity (*Table 3*) of different activities show similar pattern, though a lower value, as the long-term elasticities. Aggregate elasticity during 2005-10 turns out to be almost zero due to negligible employment growth during that period. It was high at 0.42 during 2000-2005 due to an almost 3 per cent annual growth in employment. For the entire 2000-2010 period, employment elasticity works out to be relatively low at 0.20 due both to low (1.5%) growth rate of employment and high (8%) growth rate of GDP. But as in the long-term, construction, manufacturing, trade, and transport and financial services have shown relatively higher employment elasticities.

VII.3 Manufacturing: The Sector with Highest Employment Potential

An assessment of employment potential of different divisions of economic activity places manufacturing among the activities with the high potential for

productive employment generation, for the following reasons. One, after agriculture, it accounts for the largest share of employment at 11.5 per cent among different divisions of economic activity; and a faster growth of employment in it, therefore, means addition of a large number of jobs. A one per cent growth in employment in manufacturing sector would mean over 6.85 lakh new jobs. Second, employment elasticity of this sector has not only been much higher than average (0.40) as against 0.32 during 1983/2009-10), it also showed an increase for most of the post reform period (1994-2004-05) as compared to earlier decade, though it declined like in most other activities during 2005-10. All other divisions of economic activity except financial services registered a decline in employment elasticity (Table 3). Third, it has a reasonably high labour productivity, about 34 per cent higher than the average and has shown a significant increase, in productivity during the post-reform period, 1993-94/2009-10. Thus employment growth in this sector is creating jobs with increasing levels of productivity.

It is probably a realisation of the importance of manufacturing for, *inter alia*, generation of productive employment that the Approach Paper to the Twelfth Plan proposes to place it on the highest growth pedestal. It is targeted to grow at 10 per cent per annum in the 9 per cent growth scenario and at 11.5 per cent per annum in the alternative 9.5 per cent growth scenario (Planning Commission, 2011, p.25). An 11.5 per cent annual growth in GDP in manufacturing would mean a 4.6 per cent annual growth in employment (on daily status basis) translating into 32 lakh new jobs every year and over 16 million jobs over the Plan period.

It could be higher if the aggregate growth in manufacturing is based on a faster growth of products groups like textile products, food products, beverages, and leather products. Faster growth of even industry groups like metal products, machinery and chemicals, which are commonly considered to be less labour intensive, is likely to contribute significantly to employment growth due to their relatively high employment elasticity.

VII.4 Economic Services: Trade, Transport and Finance

Services have made a significant contribution to employment growth in the post-reform period. Their share in total employment has increased from 21 per cent

in 1993-94 to 27 per cent in 2009-10. Employment growth in the tertiary sector, however, has not been commensurate with its GDP growth. The share of services in GDP rose much faster from 45 to 59 per cent during this period. Employment elasticity in this sector has been lower than in the secondary sector, and has declined continuously. Employment elasticity in the tertiary sector is estimated to be 0.30 as compared to 0.60 in the secondary sector in the last decade. But within the services sector, financial services have shown high employment elasticity, followed by trade and transport sub-sectors. Community social and personal services, had the lowest employment growth and employment elasticity, primarily on account of a decline in the public sector employment in these services. Employment growth in these services in the private sector has been positive, but it is rather small.

According to the Approach paper for the Twelfth Five Year Plan, GDP in services is targeted to grow at 10 per cent per annum. With a long term elasticity of 0.40 and short term elasticity of 0.30, it can be expected to lead to a 3.5 per cent growth in employment, which translates to 45 lakhs new jobs per year. Major part of this increase is expected to be in trade and transport which together are to grow at 11 per cent per annum. With an employment elasticity of 0.40, employment in these sectors can grow at over 4 per cent per annum, leading to creation of about 32 lakh employment (on daily status basis) opportunity per year. Financial services, another subsector to grow fast, and with its high employment elasticity, will also have fast employment growth. But it, is a relatively small sector, as compared to trade, transport and other services.

VII.5 Social and Personal Services: Vast Scope and Need for Expansion

Education and health constitute an important part of the community, social and personal services which have had relatively poor performance in respect of employment. As noted earlier, employment growth in these services has been very low. Should that mean that they will not be creating any significant magnitude of jobs in future? It would not be desirable to take that view because of the huge requirements of expansion of education and health in the country. Large investment both in public and private sector, in the area of education are needed and are being envisaged to meet the current and growing requirements of these services. The

Twelfth Plan envisages an 8 per cent growth in this subsector. With a rather low (0.30) employment elasticity, employment growth in this subsector could be around 2.5 per cent translating into about 12 lakh new jobs every year. It, however, seems important that the social services sector should get a higher priority than is envisaged in the Approach Paper and its growth should be pegged up to 10 to 11 per cent, which would also mean its larger contribution to employment growth.

In an economy that is expected to grow at over 9 per cent per annum, resulting at over 7 per cent increase in per capita income, demand for personal services will grow at an unprecedented rate. Media and entertainment services and, even if for the wrong reasons, security services, for example, have seen enormous growth and likely to grow even faster in future. Services towards household management and personal care are also emerging fast, particularly in urban areas. Many of these services at present are provided by semi-skilled and low-paid workers on an unorganised basis. Their increasing demand warrants that appropriate institutional and organisational mechanisms are developed to ensure services of reasonable standard to the consumers, on the one hand, and reasonable earnings to those rendering these services, on the other. Existence of such mechanisms is likely to increase demand for these services and, therefore, create more employment.

VIII. Improving Quality of Employment: Productivity Increase, the Key Issue

It is quite clear that employment opportunities have to grow at a reasonably high rate to ensure quality employment to an increasingly larger number of Indian workers. A high employment growth will ensure jobs to the unemployed and new entrants in the labour force, on the one hand, and will improve the quality of employment of those already at work, by enabling them to shift to better quality jobs and increasing the demand pressure in the labour market, on the other. It is, however, most important that employment growth is accompanied by increase in productivity. While a “jobless” growth is a matter of concern in an economy with large labour surplus and high growth in labour force, it is of little use to create jobs that do not result in production of a reasonable level of output in an economy that is characterized by low labour productivity and with a large proportion of the employed as “working poor”. In other words, of the two components of economic growth – productivity growth and employment growth – the former needs to contribute as much as, if not more than the latter.

In this perspective, employment elasticity need not become a fetish; a low employment elasticity can even be seen as a desirable phenomenon, as it implies growth with increasing productivity per worker! A declining trend, in employment elasticity that has been observed over the years (see Table 3), therefore, need not be seen, as is often done, as a danger signal. But, a reasonably high employment growth with increasing productivity (low employment elasticity) requires a high growth of GDP. For example a 2.5 per cent growth in employment will require a 10 per cent GDP growth if employment elasticity is only 0.25. It must, however, be recognized that it is possible to have a reasonably high employment elasticity in aggregate without sacrificing the growth of productivity in individual sectors and activities by making those among them grow faster which have relatively high, even if declining, employment elasticity. The most preferred ‘quality-employment-creating-growth strategy’ should consist of a high rate of GDP growth derived from faster growth of sectors with relatively high employment elasticity and high productivity and primarily productivity-led growth in sectors with low productivity.

VIII.1 Structural Shift in Workforce

Thus prospects for faster growth of quality employment, at least in terms of labour productivity, would depend, in the first instance, on the degree of structural shifts of work force from low productivity sectors to high productivity sectors. The major component of this shift would be from agriculture to non-agriculture which has been taking place rapidly in terms of GDP but rather slowly in respect of employment. As a result, productivity per worker in agriculture is low and has been increasing at a very slow rate. It was about one-fourth of the non-agricultural sector in 1993-94, and after growing at much slower rate than average, declined to one-sixth in 2009-10. Combined with rather low extent of other attributes of quality employment, such as regularity of work and social protection, the low earnings of agricultural workers place them at the lowest rung of the quality ladder. And constituting the majority, they pull down the overall quality of employment in the country.

Non-agricultural employment, of course, has been growing faster than in agriculture, the former on an average has grown at around 3.5 per cent per annum as compared to around 1 per cent in the latter during 1993-94/2009-10. But it has not been sufficient to draw workers from agriculture to non-agricultural sectors on a large scale. Construction has experienced the highest growth in employment averaging at about 7 per cent per annum and it has low productivity level and has also recorded a decline in productivity, in recent period i.e. 1999-2000 to 2009-2010 (Table 26). But transport with high growth of employment and high level of and rapid growth in productivity stands out as the strongest candidates for special focus for accelerating the growth rate so as to achieve a faster growth of quality employment. Financial services come next in this category. Manufacturing, and trade with a relatively low, but rising productivity, are other strong candidates for special attention particularly because these two are the largest employment sectors, together accounting for 23 per cent of total and almost one half of the non-agricultural employment.

VIII.2 Exports: The Question of Employment Intensity

Exports, specially after economic reforms and globalization have been regarded not only an important engine of growth but also a major source of good quality employment. Export oriented sectors are found to pay better wages and provide better conditions of work including social protection. In so far as the Indian exports have rapidly grown, increasing from only 5.8 per cent of GDP in 1991 to about 15 per cent in 2009-10, and major part of them has been in the category of labour intensive products, they can be presumed to have made a significant contribution to the growth of quantity and quality of employment. The experience during the global financial crisis which seems to have adversely affected employment, more than the GDP growth, has raised questions on placing too much reliance on exports for employment growth, as the adverse effect on employment was primarily found in export-oriented labour intensive lines of products. Also, it may be noted that the share of labour intensive products has significantly declined in the Indian exports: it declined from 65 per cent in 1995-96 to less than 50 per cent in 2004-05. By 2009-10, it has further slid down to about one-third (Veeramani, 2012). It is becoming rather doubtful if the cheap labour advantage India enjoyed is sustainable, given that labour productivity in Indian manufacturing is abysmally low as compared to UK, USA, France and Japan; and significantly lower than in China and somewhat comparable only to Brazil and Indonesia, among the major trading countries (ILO, 2007, KILM). And technological up-gradation to raise productivity will make Indian products lose their labour advantage!

Services exports, which have been growing in importance over the years, now making over 36 per cent of value of all exports, however, seem to hold relatively better promise for sustained growth and therefore, for quality employment. Growth in all segments of services exports like travel, transportation and other services has been quite fast during the recent years, but exports of software services and business and financial services have seen the fastest increase.

Information Technology (IT) services which consist of Information Technology Services (ITs) and Information Technology Enabled Services (ITeS), latter also referred to as Business Process Outsourcing (BPO), now constitutes about 75

per cent of service exports. Software services which constitute about 40 per cent of service exports have seen an export growth of about 33 per cent per annum during 2001-2007, financial services exports have grown at about 100 per cent per annum, and business services at 90 per cent per annum (GOI, MOF, Economic Survey, various years). The last, constituting about 25 per cent of service exports, are particularly seen as an important source of quality employment. Wages in this sector at around Rs. 100,000 per year were double those paid by the organized manufacturing sector in 2007. Average wages in sector increased at a rate of about 16.5 per cent per year during 2005-2007. Regularity of employment seem quite assured particularly due to the shortage of skilled workers at present. A high rate of attrition observed in the industry may, in fact, be reflecting voluntary mobility on the part of workers. BPO industry also provides social security benefits including liberal facilities of medical and accident insurance. It also spends significantly in training of workers (www.nasscom.in).

Employment in the IT sector has grown similarly rapidly: from a small figure of 2,84,000 in 1999-2000, it is estimated to be 2,236.614 in 2008-09, of which 78 per cent is estimated to be in the exporting establishments. And within the export-based employment 45 per cent is in the BPO (ITeS) sector (*Table 12*). What is particularly significant to note is that while employment in different industries, particularly the export-oriented ones like textiles, leather, gems and jewellery saw a decline in employment, the IT BPO sector saw a large increase in employment during October 2008 to December 2009, when the adverse impact of global financial crisis was in operation (*Table 15*). This probably shows the resilience and sustainability of BPO sector in export market and its potential to continue to generate quality employment on a larger scale.

VIII.3 Organised Sector: Can Recent Trends be Strengthened?

Organised sector is the major provider of quality employment. Its share in total employment is less than ten per cent. There has been a decline not only in its share over the years, but also in absolute number of workers since the mid-1990 (*Table 19*). It may, however, be noted that the decline has mainly been in the public sector; in the private sector a decline was seen only for a few years, during 2001-

2004 (Table 20 & 21). What is particularly significant to note is that since 2004, the declining trend in organized sector employment has seen a reversal, thanks again to a growth of about 3.8 per cent per annum in the private sector; public sector employment has, in fact, continued to decline even during this period (Table 8). Among different activity divisions, financial services, with a nine percent share in employment had the fastest growth in employment. Trade, with about 3 per cent of organised sector employment, recorded the next highest (1.8%) growth rate in employment. Manufacturing which made about 22 per cent of total organized sector employment and about 50 per cent in the private sector, had an employment growth of 0.4 per cent per annum during the period 2004-08. Here again it is the private sector which has contributed all the employment growth, public sector employment has continued to decline. Employment growth in private organized manufacturing during 2004-2008 has been about 3.8 per cent per annum.

Continuation of the recent trend of growth in organized sector employment should lead to an improvement in the quality of employment in manufacturing. It is, however, noted that the growth of organized sector employment over the longer periods of time, 1983-2005, or 1993-2005 has been much smaller (less than one per cent per annum) than of the total employment (2.7 and 3.1 respectively Table 31). Yet, industries which saw high employment growth in aggregate, also experienced relatively high growth of employment in the organized sector. Thus, textile products registered 11.5 per cent average annual growth in total employment during 1993-2005. It also saw a growth rate of 9.3 per cent in organized sector employment. Taking a longer period, 1983-2005, it, in fact, had a faster growth of organized (9.7 per cent) than of total (4.4 per cent) employment. Similarly, leather products, rubber and plastic products, metal products and 'other manufacturing' registered high growth rate of employment both in total and the organized segment. Coefficient of co-relation between growth rates of total and organized sector employment in different industries turned out to be 0.45 during the period 1983-2005 and 0.35 during 1993-2005, both significant at 0.05 level. Thus it appears that though there could be other factors to determine the employment growth in the organized segment of any industry, a faster growth of employment in aggregate appears a necessary condition for it. A faster growth of manufacturing sector, which has a relatively high employment elasticity, along with a higher than average levels of and rising trend in productivity, will, therefore, be a key factor in improving the quality of employment.

Table 31
Growth of Manufacturing Employment: Total and Organised Sector, 1983/2004-05

NIC, 1987	Description	Total Manufacturing (NSS Data)		Organised Manufacturing (ASI Data)	
		1993-94/ 2004-05	1983-84/ 2004-05	1993-94/ 2004-05	1983-84/ 2004-05
Code					
1	2	3	4	5	6
20-21	Food Products	-0.59	1.06	0.53	0.91
22	Beverages, etc.	2.63	2.76	1.00	0.98
23+24 +25	Cotton, Wool, Jute etc.	-1.12	0.06	-2.51	-2.11
26	Textile Products	11.46	4.35	9.29	9.74
27	Wood Products	4.17	3.09	0.59	-0.15
28	Paper Products	5.25	3.79	-0.66	-0.39
29	Leather Products	7.20	4.24	2.59	4.33
30	Chemical Products	9.38	3.66	1.86	2.15
31	Rubber, Plastic, Coal Products etc	-5.39	5.05	2.83	3.53
32	Non-metallic Mineral Products	1.44	1.23	1.68	0.84
33	Basic Metal Ind.	6.10	3.25	-0.74	-0.35
34	Metal Products	2.05	2.44	3.24	2.53
35+36	Machine tool & Elect. Machinery	3.97	3.94	-0.25	0.09
37	Transport Equipment	6.96	3.76	0.54	0.28
38	Other Manufacturing	0.03	2.51	5.66	5.33
39+97	Repair Services	1.45	3.95	-1.44	1.09
	All Industries	3.12	2.71	0.82	0.81

Source: Own estimate based on NSSO Survey on Employment and Unemployment, (various years); and Annual Survey of Industries, various years.

VIII.4 Productivity in Informal Sector

While growth of employment in the organized sector is very important, widespread improvement in the quality of employment cannot be achieved without at the same time raising the productivity in informal sector enterprises including agriculture, as a large majority of workers work and will continue to be in these sectors. Agriculture, particularly requires special focus specially for improving productivity in rain-fed areas and on the small and marginal farms. Rural non-farm sector has shown positive trends towards generating productive employment that need to be strengthened. In the case of urban informal sector increase in the access and provision of inputs and credit and policy initiatives to forge links between informal enterprises and larger organizations operating in wider, national and international markets need to be ensured to achieve improvement in their productivity.

IX. Conclusion: Some Elements of a Strategy for Faster Growth of Productive Employment

As the employment challenge that India faces consists both of creating of new jobs and improving the quality of existing jobs, a faster economic growth is the key to meet this challenge. A faster growth even with relatively low employment elasticity can generate reasonably high employment growth with significant increase in productivity. With a view to making employment growth faster, sectors and activities with relatively higher employment elasticity could be targeted for particularly high economic growth. But the compulsion of raising productivity with a view to improving employment quality in major part of the economy makes it imperative that economy grows at a high rate to generate the required number of new employment opportunities. Thus the strategy for creating quality employment essentially consists of a strategy for a rapid and diversified economic growth.

A faster growth of agriculture derived from geographically and crop wise diversification is an essential element of such a strategy in the Indian case. Agricultural growth is to be achieved not for a quantitative increase in employment but for a qualitative improvement in employment of those working in the farm sector, through increase in productivity and income. So far as the numbers of workers in agriculture are concerned one should expect them to decline as more and more of them move out to other sectors. Manufacturing offers itself as the best candidate for absorbing those moving out of agriculture as also other job seekers in relatively good quality employment and, therefore, must be the another major sector to be targeted for higher growth. Transport and trade are other sectors with significant potential for generating productive employment.

A major proportion of workers in non-agricultural economic activities work in the informal sector where they suffer from a large quality deficit in employment, in terms of low productivity, low earnings, poor conditions of work and lack of social protection. A number of measures to improve the quality of employment – of both self-employed and wage earners– in the informal sector have been suggested some

time back by the government-appointed National Commission for Enterprises in the Unorganised Sector (NCEUS, 2009). Those of them relating to productivity enhancement, such as provision of technology support, input supply, access to credit and marketing need to be adopted on a priority basis.

It is, however, important that employment in the formal sector increases to ensure improvement in quality of employment on a sustainable basis. 'Restrictive labour laws' have often been identified among the factors that constrain increase in investment and employment. For example, several studies over the years have concluded that employment in organized manufacturing sector in India would have been significantly larger if the provision relating to prior government permission for retrenchment, lay off and closure, under the Industrial Disputes Act (IDA) was not made applicable to all enterprises employing 100 or more workers (e.g. Fallon and Lucas, 1991, Besley and Burgess, 2004). World Bank Doing Business Reports classified India as a country with stringent regulations, including labour regulations. (For a detailed account of the findings of studies and reviews on the subject, see World Bank, 2010). Though restrictive labour laws do not get listed among the most severe constraints by the employers, it is widely agreed, including by the government (See e.g. Economic Survey, 2005-06, Planning Commission 2008, Vol. III, pp. 49-50) that some of the legal provisions including the above mentioned one in IDA and restrictions in the use of contract labour under the Contract Labour Regulation and Abolition Act (CLRA), which specially hinder the operations of firms that produce primarily to meet fluctuating export orders, constrain expansion of production and employment. Political compulsions seem to have made the government refrain from taking any initiative to change the law. However, some states have taken steps to modify laws and rules to make employment of labour more flexible. Also, a generally relaxed attitude to implementation has prevailed in recent years (See Papola, et al 2008). In fact, in a recent speech, the Prime Minister stated that "...this view (that the labour laws are unduly protective of labour) has lost its importance in recent years as more and more state governments have become considerably more flexible in their approach to labour restructuring and rationalization (Speech at 44th Session of the Indian Labour Conference, New Delhi, 14th February 2012).

Some recent studies (e.g. Hasan, et al 2003, Goldar 2011) have found that states, having made industry friendly changes in laws and rules have higher employment elasticities or have experienced higher growth of employment in the organized manufacturing sector. There are studies which have questioned the findings of the earlier as well as recent studies (see e.g. Bhattacharjea, 2006 and Nagraj, 2011). It appears that restrictive labour laws are, but not the most important constraints in expansion of organized sector employment.

At the same time, it seems, necessary to bring in changes in the labour law regime in India to ensure expansion of and improvement in overall quality of employment. First, IDA provision on prior government permission for retrenchment, lay – off and closure needs to be removed with corresponding enhancement of compensation from the present 15 days wages for each completed year of service. Second, provisions of CLRA need to be relaxed to permit more flexible use of contract labour where labour is not required on a stable long term basis, while, at the same time, ensuring stricter compliance of provisions relating to payment of wages and social security. Third, multiplicity of labour laws and variations in concepts and definitions in different statutes need to be removed by streamlining, simplifying and codifying them, so as to reduce transaction costs and minimize the avoidance of compliance. Fourth, a time-bound programme of legislation to guarantee the minimum quality of working conditions and basic social protection to workers in the informal sector needs to be evolved. In this respect the recommendations made by the National Commission for Enterprises in the Unorganized Sector (NCEUS) both in respect of conditions of work and social security deserve serious consideration.

In addition to the foregoing demand side measures, an important initiative relating to the supply side of the labour market that needs special attention is development of adequate quantity and quality of skills. Most workers – employed and looking for work – have not had any vocational training for acquiring skills. Institutional capacity needs to be vastly expanded for training of young entrants to the labour market and realisation of the ‘demographic dividend’ India potentially possesses. It also needs to be oriented towards greater flexibility in timing and regularity to suit the requirements of the employed, specially those in the informal

sector, to enable them to upgrade their skills. Training requires to be made demand – induced for which it would be necessary to have an important role for industry in its planning and execution. A public – private partnership mode is necessary for this purpose as well as for sharing the financial cost by the users. It is hoped that the nationally launched Skill Development Mission, establishment of the National Skill Development Corporation and formation of a Council under the chairmanship of the Prime Minister to monitor progress will place the subject on the high enough priority to give effect to adequate expansion in the skill base of the Indian workforce and better matching of skill supplies and demand, both in quantity and quality.

X. MGNREGA: Some Observations

The story of India's employment experience in recent years would not be complete without a reference to the National Rural Employment Guarantee Programme which has been in operations since 2006 under the National Rural Employment Guarantee Act (NREGA), now rechristened as Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). India has a long history of special employment programmes, specially since 1970's when such wage employment programmes, along with subsidized self employment programmes were started as a part of the strategy to combat poverty. The unique feature of the employment programmes under MGNREGA is the provision of manual work up to 100 days per rural household in a year, as a matter of a statutory right. It primarily aims at enhancing livelihood security of rural households by supplementing their income through wage employment. Side by side, it is also expected to create infrastructure such as rural connectivity and irrigation, enhance the livelihood and natural resource base to mitigate poverty and environmental degradation and strengthen grass roots processes of democracy and infuse transparency and accountability of governance. Programmes under the Act have now been in operation for over five years. Starting with 200 districts in 2006, they are now implemented in all the rural districts of the country. Major outcomes of the programmes during the first five years are summarized in *Table 32*.

The programme could be regarded as having significant achievements in terms of coverage of households, inclusion of women and socially disadvantaged groups as well the relevance of the types of assets created. Average number of days or employment provided to participating households has been increasing from year to year till 2010-11 when it reached 54. It is however, significantly lower than maximum provision of 100 days. And in 2010-11, it declined to 47. Average wages per day of work stood at Rs 117 in 201-011 rising steadily from Rs 65 in the first year (2006-07). Average earnings of participating households from the work in the programme now are thus around Rs 5500 which is a significant addition to the incomes of poor households in rural areas. According to a study based on household

survey, earnings from NREGA work made 15 per cent of household income in Andhra Pradesh and 12 per cent in Rajasthan, though only 5.2 per cent in Bihar (IHD, 2011). These differences to a large extent reflect the average number of days of employment provided to participating households in different states.

Table 32
MGNREGA: Progress and Performance

<i>Item</i>	<i>2006-07</i>	<i>2007-08</i>	<i>2008-09</i>	<i>2009-10</i>	<i>2010-11</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
I Districts Covered	200	330	615	619	626
II Employment Provided					
No. of HHS demanding Employment (million)	21.2	34.3	48.8	52.9	55.7
No of HHS provided employment (million)	21.0	33.9	45.1	52.6	54.9
% of workers					
– Women	40	43	45	49	48
– SC	25	27	29	30	31
– ST	36	29	25	22	21
Total employment provided (million person days)	905.0	1435.9	2163.2	2835.9	25715
Employment persondays per household	40	42	48	54	47
III Financial Performance					
Budget Outlay (Rs. billion)	113	120	300	391	412
Expenditure (%)	73	82	73	68	58
Expenditure on Wages (%)	66	68	67	69	72
Average wage per workday (Rs.)	65	75	84	91	117
IV Physical Achievements (works break-up %ages)					
Water Conservation	54	49	46	51	50
Irrigation	10	15	20	17	18
Road Connectivity	27	17	18	16	21
Land Development	11	16	15	14	9
Others	4	3	1	2	2

Source: <http://nrega.nic.in/Netnarega.mpr>

Numerous studies evaluating the programmes under NREGA have been undertaken in different parts of the country. It is not in the scope of this paper to give an account of their coverage and findings here. It may, however, be noted that most of them have related to the implementation processes. Weaknesses identified in implementation include: non-provision of work on demand, lack of transparency in calculating wages based on schedule of work, non-payment of minimum wages, non-payment of wages within stipulated 15 days of work, use of contractors inspite of prohibition, non-payment of employment allowance, non-provision of worksite facilities etc. Cases of “fudging” of muster rolls to ‘sell’ entitlements are also reported. (For a discussion on different issues involved in implementation see Khera, 2011).

At the same time, it is generally agreed that in spite of its scale of operations and generally poor management capability of village councils who are supposed to be responsible for its implementation, NREGA programmes are better implemented than similar programmes in the past. That is probably because of the provision of elaborate monitoring of the process and large scale and high-pitch awareness campaign that has been undertaken for it. The five-year experience of its implementation, however, has thrown up some questions regarding the design of the programme, based on aggregate outcome indicators and findings of various studies. First, the programme has led to an increase in wages of casual labour particularly in agriculture. In itself it may be considered to be a desirable outcome of NREGA. But to the extent inability of farmers to pay higher wages leads to shortage of labour for agricultural operations, it may have an adverse effect on agricultural production. The question of suspending NREGA operations, during busy agricultural months in certain areas may, therefore, have to be considered, as one of the options. Second, the average number of days of work per participating household is rising and percentage of households having availed of their quota of 100 days is also increasing. Still, there would be households who do not get work for all the days they are in need of it, because of the ceiling of 100 days. Should, then, the removal of this limit not be considered?

Third, inspite of the fact that there is no budgetary constraint as it is an open-ended demand-driven programme, why the average days of work per participating households continues to be much less than the limit of 100 days? In fact, the percentage of expenditure to available funds has been declining over the past four years. Is there no more demand for work? There is, of course, large variation in average number of employment per household across states, e.g. from 69 days in Rajasthan and 66 days in Andhra Pradesh to 28 days in Bihar and Punjab, against the nationwide average of 54 days, in 2009-10. In 2010-11 variations seem to have reduced, still the figure is high at 54 per cent in Andhra Pradesh and Tamil Nadu and 51 in Rajasthan and low at 27 in Punjab, 31 in West Bengal and 34 in Bihar, among major states. Is it due to the differences in administrative capacity of the states to implement the programme? Or, is it that the labour market situation differs among states and “one-size-does not fit-all”? For example, in several states, as market wages are much higher than the NREGA rates, men are not generally available for work in

its programmes, and it is mostly women who offer to work in them. Women making up 90 per cent of workers in Kerala and 83 per cent in Tamil Nadu against the nationwide average of 48 per cent, in 2009-10 probably reflects this phenomenon. Sometimes an increase in wages is suggested for raising participation, in general, and of men, in particular. That, however, may not be in line with the very objective of the programme, which is to supplement and not substitute the main source of employment and incomes of the households and their members.

Finally, an assessment of the programme, on the basis of its six year long functioning, towards its contribution in enhancing the capacity of the rural areas to generate sustainable quality employment is necessary. It appears that while the programme is successful to a significant extent in meeting its main objective, namely, to enhance the livelihood security of the poor households, in the long run, its contribution in enhancing skills and capacity of the poor on the one hand, and in increasing the productive capacity of the local resources, on the other will be of great significance in creating employment on a sustainable basis. To the extent, the present design and scheme of the programme are inadequate in this regard, suitable changes to enhance its potential to create productive assets and skills need to be introduced. In other words, the possibility of utilising the programme for not only enhancing the livelihood security for the poor, but towards building capacities for sustainable productive employment opportunities need to be seriously explored.

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