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ECONOMIC GROWTH
AND EMPLOYMENT LINKAGES
The Indian Experience

T.S. Papola

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ECONOMIC GROWTH AND EMPLOYMENT LINKAGES The Indian Experience*

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[Abstract: Conventional growth models incorporate capital but not labour as the determining variable. An alternative way to look at growth is to treat it a function of growth of employment and productivity: growth is derived from increase in either or both. A balance between the two is essential, especially in a labour abundant low productivity economy of India. Over the year, the contribution of employment has declined and that of productivity increased in the growth of GDP, so that during the last decade 80 per cent of growth was accounted for by productivity increase and only 20 per cent by employment growth. Long term employment growth in India has been about 2 per cent per annum but has declined to about 1.5 per cent during the last decade, when GDP growth has accelerated to around 7.5 per cent Services, which have been the major source of recent growth have particularly seen a sharp decline in employment elasticity. A steep rise in export has also not delivered on employment front as expected. A rebalancing of growth with focus on manufacturing industry and greater domestic orientation is now necessary to improve its employment content.]

I. Introduction

In the mainstream growth theory, economic growth is postulated to be a function of capital investment and incremental capital-output ratio (ICOR). Labour input and employment do not feature as variables in the neo-classical growth models. An alternative and equally, if not more, meaningful way of looking at economic growth is to view it as function of employment and productivity. Aggregate growth in output in this approach is the outcome of increase in employment and that in productivity. It is derived either by employing more people, or improving output per worker or both. This linkage between employment and growth is often forgotten and the two are treated as

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independent of each other. Such an approach sends misleading signals to policy makers who then treat growth as a productive process and employment as a welfare measure.

In an economy like India with large surplus labour, importance of an employment oriented growth is obvious. 'jobless;' growth is certainly not the most desirable form of growth. At the same time, an over-emphasis on employment generation without any regard to productivity and incomes of workers is also not desirable, particularly in an economy where productivity and income levels are generally low. Emphasis has to be on 'productive' and 'remunerative' employment: the new employment that is generated has to be at increasing levels of productivity in order that it does not assume poverty-perpetuating or poverty-generating nature. In other words, economic growth should result from a suitable combination of employment growth and productivity growth. It implies that employment-oriented growth in a country like India would have, of necessity, to be at a high rate.

Economic growth in India has generally failed to strike a desirable balance between growth of productivity and employment. During the first thirty years after embarking on the planned path of economic development, the economy, in any case, grew at a relatively low rate averaging about 3.5 per cent per annum. Major part of it was contributed by employment, which grew at about 2 per cent per annum, productivity contributing the remaining 1.5 per cent. While a 2 per cent employment growth was not seen as adequate because labour force was growing at higher rate of 2.5 per cent, thus leading to an increase in unemployment, a lower rise in productivity was also not a very healthy sign given already very low levels of productivity and incomes of workers. The problem basically lay in low rate of growth: only a higher rate of growth of GDP could have afforded reasonably high increase both in productivity and employment.

Economic growth has been at a high rate in post-1980, and specially in post-1990 period. But it has been characterized by the other kind of imbalance: most of it has been derived from rise in productivity and only a little from increase in employment. During 1980's, of the 5.5 per cent annual growth in GDP, 2 per cent was accounted for by growth of employment, and 3.5 per cent by growth of productivity. In the 6 per cent growth achieved during 1990's, contribution of employment was only 1.8 per cent with that of productivity rising to 4.2 per cent. And during the first decade of this century, in the 7.5 per cent growth rate the respective contributions of employment and productivity have been 1.5 and 6 per cent. Thus though the relatively high growth has not actually been 'jobless', its employment content has been low and has sharply declined over the decades since 1980.

The present paper attempts an elaboration of the above story of growth-employment linkages in India over the past four decades. It reviews the employment performance of the Indian economy in the long and short run prospective and relates it with the growth of GDP using the concept of employment elasticity. It also reviews employment growth

and its relationship with GDP growth in different sectors of the economy. Employment growth in rural and urban areas and in the rural non-farm sector has been specially analyzed. Special focus is also placed on the growth of employment in the organized sector, in exports of manufacturing, and some emerging services. Finally outline of an employment-oriented growth strategy has been attempted.

II. Employment Growth in India: Long-Term and Contemporary Perspectives

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 affect 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.

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

Table-1
Growth of Employment (UPSS)

<i>Sector</i>	72- 73/77- 78	77- 78/83	83/ 87- 88	87- 88/93- 94	93- 94/99- 2000	99- 00/04- 05	04- 05/09- 10	72- 73/83	83/93- 94	93- 94/04- 05	99- 00/09- 10
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, Hostelling 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 & 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.

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.

III. 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 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

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

<i>Sector</i>	72- 73/77- 78	77- 78/83	83/87- 88	87- 88/93- 94	93- 94/99- 00	99- 00/04- 05	04- 05/09- 10	72- 73/83	83/93- 94	93- 94/04- 05	99- 00/09- 10
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 & Comm. 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.

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-3
Employment Elasticity with respect to GDP

<i>Sector</i>	72-73/77-78	77-78/83	83/87-88	87-88/93-94	93-94/99-00	99-00/04-05	04-05/09-10	72-73/83	83/93-94	93-94/04-05	99-00/09-10
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, Hoteling 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 services	1.56	1.23	0.16	0.56	0.68	1.43	0.47	1.25	0.39	0.99	0.81
Community, social & 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.

IV. 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.

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

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.

Table-4
Growth of Rural Employment (UPSS)

<i>Sector</i>	72-73/77-78	77-78/83	83/87-88	87-88/93-94	93-94/99-00	99-00/04-05	04-05/09-10	72-73/83	83/93-94	93-94/04-05	99-00/09-10
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 & 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.

Table-5
Growth of Urban Employment (UPSS)

<i>Sector</i>	72- 73/77- 78	77- 78/83	83/87- 88	87- 88/93- 94	93- 94/99- 00	99-00/ 04-05	04-05/ 09-10	72- 73/83	83/93- 94	93-94/ 04-05	99-00/ 09-10
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.

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.

VI. 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 (Per Cent)

<i>Sector</i>	70-71	80-81	93-94	99-00	04-05
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)

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

<i>Sector</i>	<i>93-94</i>	<i>99-00</i>	<i>04-05</i>	<i>09-10</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.

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 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.

VII. 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.

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.

Table-8
Growth of Employment in Organised Sector

<i>Sector</i>		73/78	78/83	83/88	88/94	94/00	04/05	05/08
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
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.

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.

VIII. 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

NIC, 1987 Code	Description	83-84/93-94	93-94/04-05	83-84/04-05
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 Cent Per Annum)

	81-91	90-00	01-05	05-06	06-07	07-08	08-09	09-10
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 (%)	
		95-96	03-04
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).

IX. 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).

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.

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

Year	Employment			
	Software & Services Exports	Of which, ITeS	Total (including Domestic)	Share of Exports in Total (2)/(4)*100
	1999-00	152,000	42,000	284,000
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.

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 (GOI, 2011, 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 health¹ and education, the emerging areas of tourism, and, therefore, the actual employment generated to be even higher than projected in future.

X. Towards an Employment-Oriented Growth Strategy

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

¹ 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).

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.

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