

Sector-Wise Changes in Output and Employment in Rural India: A Case Study

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Agriculture

The results presented in the earlier sections show that contribution of agriculture in rural output gradually declined. This is considered a desirable change for the progress in economic development. However, over-dependence on agriculture for employment emerged as a major challenge. Between 2004-05 and 2011-12, India first time witnessed reduction in workforce in agriculture. The rate of decline was 2.04 per cent. Despite this, agriculture employed 64 per cent of the total rural workforce who produced only 39 per cent of the total rural output during the year 2011-12. It is estimated that for bringing convergence between the share of agriculture in total output and employment, 84 million agricultural workers were required to be shifted to non-farm sectors in rural areas in the year 2011-12. This amounted to almost 70 per cent increase in non-farm employment, which looks quite challenging.

Manufacturing

Manufacturing output in rural areas registered annual growth rate of 5.18 per cent between 1970-71 and 1993-94. The post-reform period (1993-94 to 2004-05) witnessed higher growth rate of 8.38 per cent, which further accelerated sharply to 15.87 per cent during 2004-05 to 2011-12 . Significantly higher growth in manufacturing compared to other sectors raised its share in rural NDP from 5.9 per cent in 1970-71 to 18.4 per cent in 2011-12 pointing to a clear trend towards industrialization in rural areas.

However, the signs of industrialization in rural areas were not visible through the changes in employment structure. Between 1972-73 and 1993-94, manufacturing sector added 10.29 million jobs (29% of incremental non-farm jobs) and its share in total rural employment increased from 5.3 per cent in 1972-73 to 7.0 per cent in 1993-94. During the next decade (reforms period) the sector added 7 million jobs (23.4% of incremental non-farm jobs) and its share in total rural employment increased only by 1 percentage

point to 8.1 per cent in 2004-

5. During the recent period between 2004-05 and 2011-12, employment in the manufacturing sector increased merely by 1.2 million jobs (4.9% share in incremental non-farm jobs). Growth rate in manufacturing employment slowed down from 3.55 per cent in first period to 2.79 per cent in the second period and to 0.65 per cent in the third period .

The results further reveal that rural areas contributed 58 per cent of the incremental manufacturing sector output in the country as compared to only 25 per cent share in incremental employment (5.3 million) between 2004-05 and 2011-12. This leads to the inference that manufacturing sector in rural areas used more capital-intensive production technology as compared to the urban areas after 2004-05. As the new industry in rural areas relied much more on capital than labour, it failed to address the goal of employment generation for rural labour-force.

Table 1 Sub-sector wise changes in employment (usual status) in manufacturing and services sectors

Sub-sectors	Employment: usual status (million)		Compound growth rate (%)	Share in total employment (%)	
	2004-05	2011-12		2004-05	2011-12
Wearing apparel	3.4	4.2	2.9	12.3	14.5
Tobacco products	3.4	3.6	0.8	12.3	12.5
Textile	4.5	3.6	-3.2	16.0	12.3
Non-metallic mineral products	3.4	3.6	0.8	12.3	12.5
Food products and Beverages	3.4	3.4	0.0	12.3	11.8
Machinery, metal products and transport equipment	2.1	3.0	5.7	7.4	10.4
Wood and wood products	4.1	2.8	-5.4	14.8	9.6
Furniture	1.7	1.5	-2.1	6.2	5.1
Chemical products	0.7	0.6	-2.6	2.5	2.0
Rubber and plastic products	0.3	0.4	1.1	1.2	1.3
Paper and printing, etc.	0.3	0.3	-0.3	1.2	1.2
Leather and related products	0.3	0.3	-1.8	1.2	1.0
Others	0.0	1.7	-	0.0	5.8
Manufacturing sector- Sub total	27.6	29.0	0.67	100	100
Wholesale and retail trade; repair of motor vehicles	18.5	18.8	0.3	38.9	36.0
Transport, storage and Communication	8.6	10.0	2.3	18.0	19.2
Education	5.5	7.0	3.4	11.5	13.3
Hotel and restaurants	2.4	2.9	2.9	5.0	5.6
Public administration, defence and compulsory social security	2.7	2.7	-0.5	5.8	5.1
Health and social work	1.4	1.6	2.0	2.9	3.0
Financial intermediation	0.7	1.1	7.1	1.4	2.1
Others	7.8	8.2	0.7	16.4	15.7
Services sector: Sub-total	47.6	52.3	1.4	100.0	100.0

thin the manufacturing sector, wearing apparel, tobacco products, textile, non-metallic mineral products, and food products and beverages are the major employment generating sub-sectors (Table 1). Most of these sub-sectors witnessed either stagnation or fall in employment between 2004-05 and 2011-12. The lack of skills and technical knowledge appear to be the main barrier for rural workers to enter manufacturing sector. The NSS surveys show a depressing picture of the level of education and technical skills possessed by the rural workers. More than three-fourth of the total rural workforce of 15-59 years were not qualified even up to secondary level in year 2011-12 (Table 2). Further, only 1.3 per cent of the rural workforce of the age group 15-59 years possessed technical education⁸. Similarly, only 14.6 per cent of the rural workforce of age group 15-59 years received vocational trainings⁹, which aim to develop competencies (knowledge, skills and attitude) of skilled or semi-skilled workers in various trades. Gender-wise disaggregation reveals that female workers possess relatively low level of education and technical training as compared to male counterparts. These facts suggest that setting up of industries and improvement in infrastructure are not sufficient conditions for increasing employment in rural areas. Improvement in industrial infrastructure in rural areas must be accompanied by the effective human

resources development programmers to impart necessary skills and training to rural youth to match the job requirement in manufacturing sector.

Table 2. Education level (general and technical) of usually employed rural workers of age 15-59 years

(per cent)

Per cent of rural workers	Male		Female		Persons	
	2004-05	2011-12	2004-05	2011-12	2004-05	2011-12
Secondary education & Above	19.7	27.1	6.8	11.8	14.9	22.3
With technical education	1.7	1.6	0.7	0.7	1.3	1.3
With vocational training	14.2	15.4	13.0	12.7	13.8	14.6

Source: Authors estimation based on unit-level NSS data on employment and unemployment survey

5.3. Services sector

Services sector was found to be the second largest contributor of output and employment in rural areas. The sector contributed about 27.0 per cent of the total rural output and engaged 15.5 per cent of the rural workforce in the year 2011-12. According to NAS, services

⁸ Post-secondary courses of study and practical training aimed at preparation of technicians to work as supervisory staff.

⁹ Lower level education and training for the population of skilled or semi-skilled workers in various trades and it does not enhance their level with respect to general education.

Sector registered 5.94 and 6.10 per cent annual growth in its real NDP during the pre-reform period in urban and rural areas, respectively. The growth accelerated to 8.94 and 8.55 per cent, respectively during the post-reform period. During the recent period between 2004-05 and 2011-12, urban areas maintained growth in services sector output at 8.42 per cent, but in rural areas it dropped to 3.48 per cent.

Services sector has played a major role in structural transformation of Indian economy but its achievements during the recent years were mainly concentrated towards urban areas.

Wholesale and retail trade and repair of motor vehicles constituted 27 per cent share in total service sector NDP in 1993-94 which increased to 37 per cent in 2004-05 on account of impressive annual growth of 11.7 per cent in this sub-sector (Table 3). This along with the remarkable growth in other sub-sectors such as hotel and restaurants, transport, storage and communication, and financial services, resulted in 8.5 per cent annual growth in overall services sector in rural areas between 1993-94 and 2004-05.

During 2004-05 and 2011-12, NDP from trade, and hotel and restaurants activities declined by 4.8 per cent and 2.5 per cent per year, respectively. Although the reduction in output of these sectors was offset by the significant growth in financial services, transport, storage and communication, and public administration and social security activities, the growth in overall services sector output decelerated to 3.4 per cent per annum between 2004-05 and 2011-12.

Table 3. Sub-sector wise performance of services sector in rural areas

(per cent)

Subs-sector	Share in services sector output			Compound growth rate in real NDP	
	1993-94	2004-05	2011-12	1993-94 to 2004-05	2004-05 to 2011-12
Wholesale and retail trade; repair of motor vehicles	27	37	20	11.7	-4.8
Financial intermediation	23	23	38	8.2	11.4
Transport, storage and communication	11	15	21	12.2	8.2
Public administration, defence and compulsory social security	18	5	7	-3.5	9.0
Hotel and restaurants	1	3	2	17.8	-2.5
Others	20	17	11	7.2	-2.4
Services sector	100	100	100	8.5	3.4
	(192932) (475775)(604439)				

Figures within parentheses are real NDP (Rs crore at 2004-05 prices).

One of the reasons for the decline in output of some services in rural areas could be the shift in the shopping behaviour of the rural households towards urban centres. Improved road connectivity and transport and rise in ownership of private vehicles facilitated frequent visits to nearby urban localities for shopping and other requirements. Although consumer gets wider choices in urban localities, this adversely affected trade and other businesses in rural areas.

The slow-down in output of services sector after 2004-05 caused deceleration in employment growth. The employment in services sector increased only by 1.35 per cent per year between 2004-05 and 2011-12 as compared to growth rate of 3.25 per cent during the previous period (Table 3). The services sectors, which offer relatively decent and comfortable jobs, constituted merely 15 per cent share in 27 million new jobs created in non-farm sectors between 2004-05 and 2011-12. As in the case of output, wholesale and retail trade including repair services for motor vehicles was the largest sub-sector and constituted 36.0 per cent share in employment in all services in 2011-12 (Table 5.1). But this sub-sector witnessed stagnation in job creation between 2004-05 and 2011-12, resulting in deceleration in overall services sector employment. Notwithstanding, other sub-sectors such as financial services, hotels and restaurants, education, and transport, storage and communication services gained momentum in creating employment in rural areas during the recent period. Two sub-sectors namely education and transport, storage and communication constituted 62 per cent of the about 5 million jobs created in services sector in the rural areas between 2004-05 and 2011-12.

5.4. Construction

Rural areas are characterised by poor infrastructure and civic amenities. Similarly, a large per cent of houses are in need of upgradation. These facts indicate considerable scope for growth of construction sector in rural areas. The real NDP of construction sector increased at the annual rate of 3.94 per cent

between 1970-71 and 1993-94. During the successive periods, 1993-94 to 2004-05 and 2004-05 to 2011-12, growth rate in construction sector output accelerated to 7.92 per cent and 11.49 per cent, respectively (Table 3). Consequently, the share of construction sector in rural output increased from 3.5 per cent in 1970-71 to 10.5 per cent in 2011-12 (Table 3).

Employment in construction sector increased 13 times during the past four decades, leading to a significant increase in its share in total rural employment from 1.4 per cent in 1972-73 to 10.7 per cent in 2011-12. It is interesting to note that this sector absorbed 74 per cent of the new jobs created in non-farm sectors in rural areas between 2004-05 and 2011-12.

These trends indicate that rural areas witnessed a construction boom after 2004-05, which is desirable in terms of creation of necessary infrastructure for the economic development. Further, growth in employment in construction sector was higher than output growth during both the periods under consideration. One of the reasons for the much higher growth in rural workers in construction over manufacturing or services sectors is fewer requirements of skills and education in construction activities.

Conclusions and Strategic Options for Pro-employment Growth

The empirical evidences on the changes in rural economy during the past four decades lead to following conclusions and strategic options to promote pro-employment and equitable growth in the rural areas.

- About half of the national income and more than two third of the total employment is generated in rural areas. Apart from producing almost all agricultural output, rural areas contributes about half of the manufacturing and construction sectors output and one quarter of the services sectors output in the country. The rural areas are characterized with the low level and wide disparity in worker productivity.
- The declining rural share in national output

without a commensurate decline in its share in total employment during the past four decades implies that a much faster growth in capital-intensive sectors in urban areas did not generate adequate employment to absorb rural labour.

- The higher dependency on rural areas for employment is a major reason for low level of per worker income. Temporally, contribution of rural areas in total output and employment registered striking changes across different sectors. The production base of manufacturing sector shifted to rural areas significantly, but without a commensurate increase in rural employment during the past forty years preceding 2011-12. The services sector lost heavily to urban areas both in terms of output and employment. It was only the construction sector where rural share in both output and employment improved and employment grew at a faster rate as compared to output. Although construction activities improve rural infrastructure and have a multiplier effect on the economy, proportionately less output growth than the employment indicates a limited productive employment generation capacity in this sector.

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