



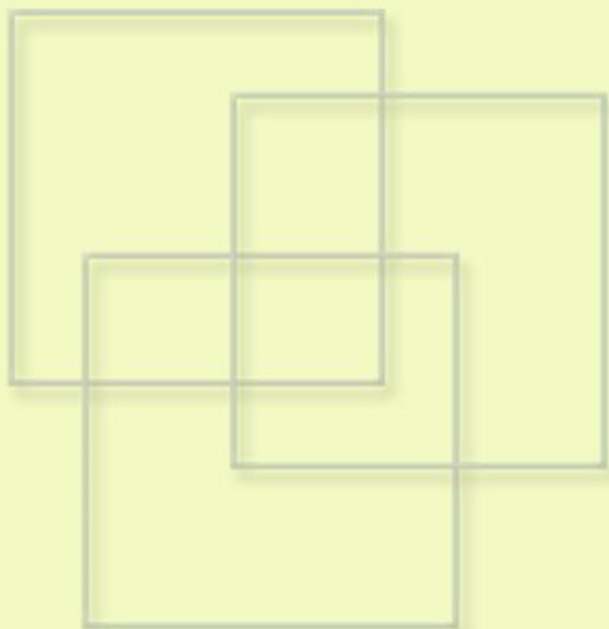
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State of rural labour markets in India

Partha Saha and Sher Verick

May 2016



DWT for South Asia and Country Office for India

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Preface

The International Labour Organization (ILO) is devoted to advancing opportunities for women and men to obtain decent and productive work. It aims to promote rights at work, encourage decent employment opportunities, enhance social protection and strengthen dialogue in handling work-related issues. As countries in the Asia and the Pacific region continue to recover from the global economic crisis, the ILO's Decent Work Agenda and the Global Jobs Pact provide critical policy frameworks to strengthen the foundations for a more inclusive and sustainable future.

As part of an ILO project on Rural Labour Market in India, this paper by Partha Saha and Sher Verick reviews the situation in rural labour market in India during the last one and half decade and its implication on decent and productive employment. Drawing on a discussion covering education and skills development, employment opportunities and social norms, agricultural mechanization, access to land, and public works programme, this paper analyzes pace and pattern of rural diversification and some of the factors responsible for this.

This paper is part of the ILO Asia-Pacific Working Paper Series, which is intended to enhance the body of knowledge, stimulate discussion and encourage knowledge sharing and further research for the promotion of decent work in Asia and the Pacific.

Panudda Boonpala

Director, ILO DWT for South Asia and the
Country Office for India

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Abstract

In India, while contribution of agriculture to GDP has been declining, agriculture still remains mainstay of the rural economy by employing almost half of the population. However, the gap between job seekers in rural areas and employment opportunities in agriculture has been widening and non-farm sector has become an increasingly important source of livelihood. This paper analyses rural diversification across States in rural India, factors responsible for non-agricultural employment, and identifies industries within rural non-farm sector which are generating employment opportunities. Further, paper also looks into role of agriculture in rural diversification. This study is based on Employment and Unemployment Survey (National Sample Survey Organization) for the years 1999-2000 and 2011-12, and All India Debt and Investment Survey (National sample Survey Organization) for the years 2002-03 and 2012-13. The broad story that emerged from this analysis is that of a significant shift towards non-farm employment in rural areas, and this shift happened predominantly among economically weaker sections of the rural society. Access to land was an important determinant in this process of rural employment diversification.

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1. Introduction

Productive, decent, and durable (longer term) employment opportunities are what every individual in a society looks forward to. One of the biggest challenges that the economy faces today is to provide quality jobs to its growing labour force and thereby reap the benefits of demographic dividend. The problem of lack of productive and decent employment opportunities became even more glaring when compared with the unprecedented growth which the economy experienced during the last decade. During the period 1999-2000 to 2011-12, the average annual growth rate of gross domestic product (GDP) was 7.4 per cent (GoI, 2013). This high and unprecedented rate of economic growth however failed to create any significant impact towards generation of productive and decent work opportunities particularly in rural areas.

In case of most of the developing countries, development trajectory witnessed transition from a predominantly agrarian economy to an industrialized one. Eventually new sectors emerge and share of people dependent primarily on agriculture witnesses a reduction – the pace of which depends on various factors. Also, the pace of economic diversification varies considerably between rural and urban areas. Several empirical studies on developing countries have shown non-farm activities were gaining importance in rural economies of developing countries (Hazell and Haggblade, 1993; Sen, 1996; Lanjouw, 1999). There is a growing evidence of livelihood diversification in Africa towards non-agricultural sources of income, and proportion of households depending solely on agriculture was a minority in many countries (Ellis, 2000; Francis, 2000; Bryceson, 2002). The range of non-farm activities were enormous and it primarily depended on “distinct agrarian histories and levels of in situ peasant agricultural commodity production” (Bryceson, 2002).

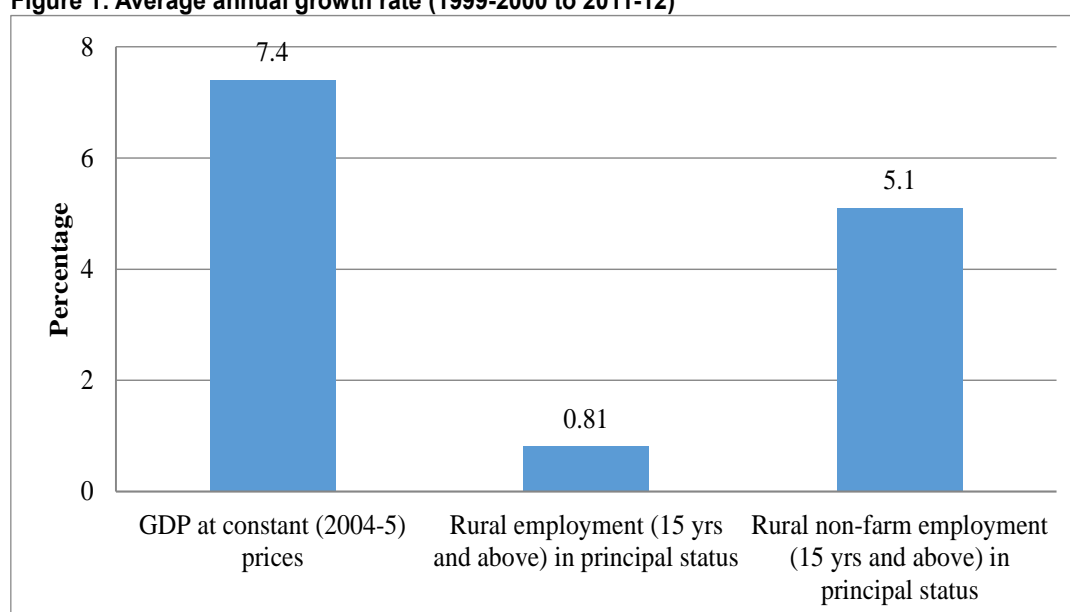
India was no exception to this process of structural transformation towards greater dependence on non-agriculture, and contribution of agriculture to Gross Domestic Product (GDP) declined considerably over the years (currently at 14% of GDP). This fall in the share of GDP was not accompanied by a concomitant decline in agricultural employment (with almost half of the workforce still depending on agriculture for livelihood). Therefore, the Kaldor-Kuznet long term dynamics of the economy was not fully realized in the Indian context (Kaldor, 1967; Kuznets, 1965). However, in India, even though agriculture remained the mainstay of rural livelihood, increasingly rural households are engaging in diversified economic activities. Also, with increasing land fragmentation and rising demand for land for non-agricultural purposes, capacity of agricultural sector to provide livelihood security (particularly to youth) is increasingly getting difficult.

National level studies indicated to a growing importance of non-farm sector in India. Based on a nationally representative household survey in rural areas, Lanjouw and Shariff (2004) observed that on an average non-farm income accounted for one-third of all household income. In addition to national level studies based on employment and unemployment surveys conducted by National Sample Survey Organization (NSSO), several studies at regional and village level also indicated to the growing importance of non-farm activities in rural economy. Petty businesses (like tea stall, cycle repairing shops) as well as cane crushers, rice mills, transport operators were growing in number in several parts of rural India (Wiser and Wiser, 1971; Epstein, 1973; Srinivas, 1976). Basant (1993) based on a primary survey in Gujarat observed that nearly three fourth of the sample households had reported more than one sources of income. Other studies have pointed out instances where individuals (primarily males) were specializing in occupations like band-playing, boring tube-wells and construction related activities (Saith and Tankha, 1992; Saha, 2009).

Thus, while agriculture still remained mainstay of the rural economy, the gap between job seekers in rural areas and employment opportunities in agriculture widened. Non-farm sector is slowly becoming an increasingly important source of livelihood in rural India. More and more people in rural India have diversified their sources of income, and non-farm sector played a pivotal role in this process of rural diversification. Interestingly, studies have pointed out that diversification was not only an option for the poor but also for the rich, and in fact the benefits for the richer households were found larger as compared to the benefits accruing to the poor due to diversification (Hazel and Ramasamy, 1991).

If we consider employment growth of adults (15 years and above) on a longer term basis (principal status implying at least half of the year), then we would observe that during the period 1999-2000 and 2011-12, overall rural employment grew at an average of less than one per cent per annum, while rural non-farm employment registered considerable increase (Figure 1).

Figure 1: Average annual growth rate (1999-2000 to 2011-12)



Clearly from Figure 1, we observe that there was considerable shift in rural employment out of agriculture – a phenomenon quite common among developing countries.¹

By and large, two alternative hypotheses have been used to explain this phenomenon of increasing rural non-farm employment. On the one hand it has been argued that this diversification is due to push factor or driven by agricultural distress (Vaidyanathan, 1986; Ghuman, 2005), and on the other hand it is argued to be driven by agricultural growth (i.e., farm and non-farm sectors act as complementary to each other). In other words, agriculture has been argued to play a role in growth and development of non-farm sector – in some areas agricultural growth has spurred non-farm activities (and hence resulted in non-farm

¹National Sample Survey Organization has adopted the definition as used by Census of India for urban and rural areas. According to this definition, urban areas are places with municipality/corporation/cantonment or all other places with a minimum population of 5000, at least male working population as non-agriculturalists, and a population density of 390 persons per sq. km. All other places are defined as rural sector. (http://mospi.nic.in/Mospi_New/upload/nss/concepts_golden.pdf)

employment), while in others, lack of agricultural growth has pushed people into non-agricultural sources of livelihood and in this sense non-farm activities were viewed as “residual” sector.

While studies have analyzed the flow from agriculture to non-agriculture through production and consumption linkages, it might even be the case that farm and non-farm sectors develop by and large independently without any significant inter-relationship between them. Regional characteristics also play a crucial role in explaining growth and development of non-farm employment in rural areas.

Scholars who argued agricultural growth to be the principal driver of rural diversification documented the impact of green revolution in agriculture and the coming up of new economic activities related to agriculture in the green revolution villages. This finding was similar in line with what Kuznets (1966) had predicted. The forward and backward linkages of the new agricultural production techniques had spawned a series of new related economic activities in the villages. This in turn was recasting the income basket of the households with more and more income from non-agricultural sources.

While the prosperity led diversification of the rural economy was advanced as an explanation for the new found growing non-farm employment in rural areas, another interpretation, in fact exactly the opposite one, was put forth sometime later. Very broadly, this argument can be stated as distress induced rural employment diversification.

Importance of non-farm employment in rural areas lies in the fact that potentially it can absorb surplus labour from agriculture and thereby reduce distress migration from rural to urban areas. Although access to non-farm activities can increase monthly per capita consumption expenditure, it also has the potential of causing greater inequality. Studies based on rural China found evidence of rising income inequality in areas where non-farm activities flourished, even though non-farm activities contributed significantly to growth in income (Kung and Lee, 2001; Khan et al., 1992). Therefore, although there are studies which suggested that access to non-farm activities improved economic conditions of poor households (Lanjouw, 1999), there are studies which indicated to a worsening of inequality due to rural non-farm activities.

While the rationale for undertaking this research is to understand rural non-farm sector in India, an overarching objective of this study is to try and arrive at some broad conclusions across space regarding the factors that influences growth and development of rural non-farm sector and its consequences on overall rural livelihoods.

Against this background, this study seeks to provide a broad overview of different dimensions of rural labour markets in India. The questions that would be addressed in this study include:

- What has been the pace of rural diversification across states?
- What are the factors responsible for non-agricultural employment? What are the key determinants of participation in more remunerative non-farm activities?
- Is land ownership a determinant of participation in non-farm activities?
- What are the constraints towards development of rural non-farm sector?
- Within the non-farm sector, what are the activities which are generating significant employment opportunities and why? What about quality of employment in non-farm sector?
- What are the educational qualifications of people in non-agricultural activities?

- Is non-farm employment gender neutral or caste neutral?

This study is primarily based on Employment and Unemployment Surveys conducted by National Sample Survey Organization (NSSO) for the years 1999-2000 and 2011-12. In addition to employment and unemployment survey, this study also takes into account All India Debt and Investment Surveys for the years 2002-03 and 2012-13 which were also conducted by NSSO. It may be pointed out at the outset that the analysis presented here is based on workers who are employed as per usual principal activity status (i.e., employed for at least half of the reference year) with the objective of capturing the trends in participation in rural labour market for a relatively longer time duration (and hence relatively more durable).

For all the statistical work in this paper, we have focused on employment of persons in the age group 15 years and above. In many writings on employment based on NSS data (particularly female employment), including on the recent trends, low/declining levels of employment among women have been explained on account of withdrawal of girl children from the workforce and increasing school attendance among girls. By limiting all our statistical work to the age group 15 years and above, we have tried to separate out trends in employment with trends in school attendance.

Section 2 looks into extent and pattern of rural non-farm employment during the period 1999-2000 and 2011-12 (the latest year for which large sample employment and unemployment surveys are available). This section also analyses shift in principal source of income from agriculture to non-agriculture across asset deciles using All India Debt and Investment Surveys. In Section 3 we analyse employment opportunities in non-farm sector – share of employment across industries, type of employment, type of enterprise and also work place location. In this section we will see within non-farm sector, which industries are generating more employment and what is the nature of such employment. Section 4 focusses on quality of employment in non-farm sector, and educational qualification of workers. Section 5 analyses employment in non-farm sector by gender and social group. Land being the most important means of production in rural areas, Section 6 looks into role of agriculture and access to land in rural diversification. The following section (Section 7) looks into performance of MGNREGA at State level, and also analyses some of its impact on rural labour market. Finally, the last section (Section 8) provides a brief summary.

2. Rural diversification: Extent and pattern

As already mentioned, in order to reap benefits of demographic dividend, it is important that productive, decent, and durable (longer term) employment opportunities are created on a sustained basis. With the spread of educational opportunities, expectation regarding such kind of employment has risen, particularly among the youth. The objective for moving out of agricultural employment is primarily to achieve decent and productive work opportunities (though other reasons like land fragmentation, falling agricultural profitability, increasing agricultural mechanization are also important). During the period 1999-2000 to 2011-12, there has been considerable increase in rural non-farm employment in both principal as well as subsidiary status (Table 1). The rise in rural non-farm employment was experienced both among males and females. Overall, rural non-farm employment increased by 12 percentage points in 12 years, which implies one percentage point increase every year. Considering the size of India's workforce, such a shift in favour of non-farm employment is indeed significant.

Table 1: Percentage of rural workers in non-farm activities (15 years and above)

Category	1999-2000	2011-12
Male (Principal Status)	28.9	40.86
Male (Subsidiary Status)	18.5	42.03
Female (Principal Status)	15.8	25.51
Female (Subsidiary Status)	10.0	33.26
All Non-farm Workers (Principal Status)	25.1	37.21
All Non-farm Workers (Subsidiary Status)	14.8	37.91

Source: Calculated from Employment and Unemployment Survey, NSSO, 1999-2000 and 2011-12

Among major States (Table A1) the maximum increase in rural non-farm employment was experienced in Jammu and Kashmir (33 percentage points) followed by Goa (21 percentage points) and Punjab (20 percentage points). Similar trends were observed in case of male rural non-farm workers (Table A2) as well as female non-farm workers (Table A3). However, the magnitude of rise in non-farm employment among females was much higher in these three States as compared to males.

Having observed that there has been a significant shift in favour of rural non-farm employment, the next thing that we need to look at is whether or not this shift is taking place across all economic classes or not. To find this out, we have analysed All India Debt and Investment Survey data for the years 2002-03 and 2012-13. The primary objective of these decadal surveys is to arrive at estimates of asset ownership and extent of liabilities of households, and also to make an assessment regarding the extent of borrowing. These decadal surveys provide data on the value and composition of household assets along with information on household indebtedness.

Economic well-being of a household in rural or agrarian economy is crucially linked to ownership of assets. In an agrarian economy, whether workers in a household sell their labour power or deploy it in their own household enterprise depends crucially on the extent to which they own various means of production. Also, ownership of assets also provides a certain degree of security against adverse economic shocks

All items owned by the households having money value were considered as household assets. This included physical assets like land, buildings, livestock, agricultural machinery and implements, non-farm business equipment, all transport equipment, durable household goods, and financial assets like dues receivable on loans advances in cash or in kind and shares and deposits held by the members of the household.

From Table 2 we can clearly observe that the shift from agriculture to non-agriculture has happened across all asset deciles, and in rural India, proportion of agricultural households (i.e., households whose principal source of income comes from agriculture) has declined from 63 per cent in 2002-03 to 58 per cent in 2012-13. However, the decline in proportion of agricultural households was much less at higher asset deciles as compared to lower deciles. From Table 2 it could be observed that the magnitude of decline from fifth decile onwards was much less. In other words, the shift from agriculture to non-agriculture was much more pronounced among poorer households.

Among major States, except for Maharashtra, Gujarat, Haryana, and Rajasthan, there has been a decline in the proportion of households having agriculture as the principal source of income (Table A4). Among major

States, significant increase in non-agricultural households was experienced in Jammu and Kashmir, Goa, and Punjab (these are the same States which experienced significant increase in non-agricultural workforce according to Employment and Unemployment Surveys).

Among non-agricultural households, proportion of households having non-agricultural labouring out as principal source of income increased considerably between 2002-03 and 2012-13, and again, the shift towards non-agricultural wage employment (and away from self-employment) was more prominent among poorer households (Table 3).

Table 2: Percentage distribution of rural households, by household type within each asset ownership decile

Asset decile	Agriculture		Non-agriculture	
	2002-03	2012-13	2002-03	2012-13
0 – 10	42.1	34.8	57.9	65.2
10 – 20	60.5	47.9	39.5	52.1
20 – 30	59.8	52.3	40.2	47.7
30 – 40	62.0	49.8	38.0	50.2
40 – 50	61.5	58.3	38.5	41.7
50 – 60	63.2	62.2	36.8	37.8
60 – 70	66.1	66.2	33.9	33.8
70 – 80	70.6	69.1	29.4	30.9
80 – 90	71.6	70.5	28.4	29.5
90 – 100	76.4	72.0	23.6	28.0

Source: Calculated from All India Debt and Investment Survey, NSSO, 2002-03 and 2012-13

Note: Non-agriculture include self-employed in non-agriculture, other labour households, and other households. Agriculture include self-employed in agriculture and agriculture labour households.

Table 3: Percentage distribution of rural non-agricultural households, by household type within each asset ownership decile

Asset decile	Self-employed in non-agriculture		Non-agricultural wage employment	
	2002-03	2012-13	2002-03	2012-13
0 – 10	18.5	10.1	81.5	89.9
10 – 20	41.1	18.0	58.9	82.0
20 – 30	40.9	23.8	59.1	76.2
30 – 40	41.6	28.3	58.4	71.7
40 – 50	42.6	29.6	57.4	70.4
50 – 60	43.6	30.4	56.4	69.6
60 – 70	43.3	29.4	56.7	70.6
70 – 80	40.6	32.4	59.4	67.6
80 – 90	40.7	32.2	59.3	67.8
90 – 100	40.3	37.2	59.7	62.8

Source: Calculated from All India Debt and Investment Survey, NSSO, 2002-03 and 2012-13

Overall, during the period 1999-2000 to 2011-12, there has been a significant shift in rural workforce from agriculture to non-agricultural activities, and this shift was more prominent among households with lower asset base. Also, among the non-agricultural households, share of self-employed households declined and share of households depending primarily on wage employment increased. So, it can be reasonably concluded that households with lower asset base were depending more and more on non-agricultural sources of income, primarily on non-agricultural wage employment.

3. Rural non-farm activities

We now look into activities within the non-farm sector that are generating significant employment opportunities. For our analysis, non-farm sector has been broadly classified under four major heads viz., manufacturing, construction, other non-manufacturing, and services. From Table 4 we observe that within non-farm sector, there has been a decline in share of employment in all sectors except construction, and the share of construction sector within non-farm sector has more than doubled between 1999-2000 and 2011-12.

Among manufacturing sector, four industries with highest share of workers in 1999-2000 were textile, food products, wood and wood products, other non-metallic minerals. Out of these four industries, except for wood and wood products, the other three have maintained their supremacy in terms of non-farm employment in 2011-12 (even though their respective employment shares have declined). In 2011-12, wearing apparel industry had the highest share of employment in manufacturing sector. Wearing apparel has indeed seen rise in employment share from 1.3 percent in 1999-2000 to 3.2 per cent in 2011-12. Wood and wood products industry experienced a massive decline in share of employment from 4.4 per cent in 1999-2000 to only 0.4 per cent in 2011-12. Food processing sector was one of the high employment generating sectors in India even though there were concerns over conditions of work.

Among service sector, retail trade was by far the most important form of non-farm employment in rural India, followed by land transport, and education. Interestingly, share of public administration in non-farm employment has considerably declined from 5.5 per cent in 1999-2000 to 2.4 per cent in 2011-12. This clearly is a reflection of withdrawal of State from various public services.

The biggest increase in non-agricultural employment has been in construction sector, where the share of non-farm employment has increased from 14.4 per cent in 1999-2000 to 30.1 per cent in 2011-12. Increase in employment in construction sector along with increased infrastructure investment gave a major boost to total employment attracting agricultural workers into non-agricultural employment. Among non-farm activities, construction was one of the predominant forms of employment to a considerable section of workers due to the fact that it did not necessarily ask for any specific skill as well as due to the option of seasonal employment which allowed workers to take up agricultural activities during peak seasons (Ranjan, 2009).

Table 4: Percentage of rural workers in non-farm employment by industry (15 years and above, principal status)

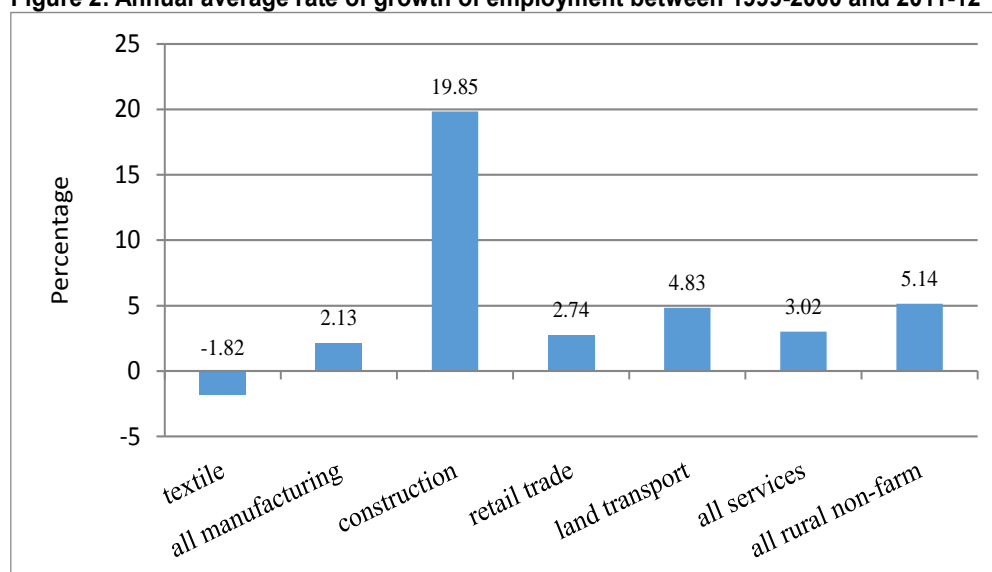
Sector	1999-2000		2011-12	
	Industry	% of workers	Industry	% of workers
Manufacturing	textile	5.2	wearing apparel	3.24
Manufacturing	food products and beverages	4.7	other non-metallic mineral products	3.10
Manufacturing	wood and wood products	4.4	food products	2.71
Manufacturing	other non-metallic mineral products	3.7	textiles	2.51
All manufacturing	-	29.2	-	22.7
Construction	-	14.4	-	30.1
Other Non-manufacturing	-	2.8	-	2.1
All Non-manufacturing	-	17.2	-	32.2
Services	retail trade	17.1	retail trade	14.1
Services	land transport	8.1	land transport	7.9
Services	other service activities	6.6	education	6.0
Services	education	5.9	public administration	2.4
All Services	-	53.6	-	45.1
All Non-farm Sector	-	100	-	100

Source: Calculated from Employment and Unemployment Survey, NSSO, 1999-2000 and 2011-12

Even though share of manufacturing sector in rural non-farm employment declined during the period 1999-2000 and 2011-12, manufacturing employment has increased at an annual average rate of 2.13 per cent. The biggest loser in manufacturing sector has been the textile industry, where employment has shrunk by an annual average rate of 1.82 per cent (Figure 2).² Similarly, even though share of service sector has declined, overall employment in service sector has increased by an annual average rate of 3.02 per cent. Within the service sector, employment in land transport and retail trade seems to have grown the fastest at an annual average rate of 4.83 per cent and 2.74 per cent respectively. The reason why share of both manufacturing sector and service sector declined despite overall increase in employment is the unprecedented growth of employment in construction industry (which is part of non-manufacturing sector). During the period 1999-2000 and 2011-12, employment in construction sector has grown at an annual average rate of 19.85 per cent. The increase in construction sector employment alone contributed 55.5 per cent to overall increase in rural non-farm employment. In other words, construction sector alone accounted for more than half of the overall increase in rural non-farm employment between 1999-2000 and 2011-12.

² Textile industry has in recent years experienced a phenomenon of Indian companies investing abroad. According to a news report which analysed data published by Reserve Bank of India, during the period June, 2015 to October, 2015, twelve companies have invested abroad and one of them has set up a joint venture close to \$50 million. According to its company's own estimate, this joint venture is likely to generate more than 20,000 direct and indirect employments. Africa is fast becoming an important destination because textile exports from Africa do not attract 14 per cent import duty in US and European markets. According to the news report, industry experts feel that one job can be created in textile industry for every Rs. 10000 invested. Vietnam is another country which has the potential to become another destination for investment in textile industry because according to Trans Pacific Partnership Agreement, member countries can avail duty-free access in other member countries if textile industry uses yarn produced within its own country (Hindustan Times, dated 31st October, 2015).

Figure 2: Annual average rate of growth of employment between 1999-2000 and 2011-12



Among States we have observed that Punjab experienced significant shift towards rural non-farm employment during 1999-2000 to 2011-12 at an annual average rate of 7.4 per cent. Here again, it was construction led employment growth (Figure A1).

Next we look into type of employment. Overall, within rural non-farm sector, there has been a decline in self-employment and rise in casual wage employment. Only the service sector experienced a rise in self-employment (Table 5). What we observe from Table 5 is that, as far as type of employment is concerned, manufacturing, construction, and services indicate three different trends:

- Manufacturing employment is moving more towards wage employment (both salaried and casual wage employment).
- Construction employment is moving significantly towards casual wage employment only. The dominance of construction sector in casual wage employment was to such an extent that in 2011-12, 72 per cent of all casual workers were employed in construction sector alone (Table A5).
- Service sector employment is moving more towards self-employment and salaried wage employment. The trend indicates to a significant decline in casual wage employment in service sector.

Table 5: Percentage of rural workers in non-farm activities, by type of employment (15 years and above)

Status / Sector	Self-employment		Salaried employment		Casual wage employment	
	1999-2000	2011-12	1999-2000	2011-12	1999-2000	2011-12
Principal Status						
Manufacturing	55.6	51.2	23.1	26.3	21.3	22.5
Construction	20.8	8.9	3.3	2.3	75.9	88.7
Other Non-manufacturing	9.8	6.2	34.3	38.4	55.9	55.4
Services	50.4	53.8	33.4	37.5	16.2	8.7
All Non-farm Sector	46.5	38.7	24.6	24.4	28.9	36.9

Source: Calculated from Employment and Unemployment Survey, NSSO, 1999-2000 and 2011-12

Within non-farm sector, if we focus only on non-farm wage employment, we observe that the share of public sector has increased. In fact, share of public sector has increased in all sectors except manufacturing between 1999-2000 and 2011-12 (Table 6). This is quite surprising because despite liberalization, globalization and privatization of the Indian economy, dependence on public sector for non-farm wage employment in rural areas has not declined, and on the contrary, it is on the rise.

Table 6: Percentage of rural workers in non-farm wage employment, by type of employer (15 years and above)

Status / Sector	Public		Others	
	1999-2000	2011-12	1999-2000	2011-12
<i>Principal Status</i>				
Manufacturing	2.5	1.6	97.5	98.4
Construction	4.1	11.0	95.9	89.0
Other Non-manufacturing	26.9	28.4	73.1	71.6
Services	31.8	38.4	68.2	61.6
All Non-farm Sector	18.4	19.2	81.6	80.8

Source: Calculated from Employment and Unemployment Survey, NSSO, 1999-2000 and 2011-12

If we look into non-farm wage employment in terms of size of enterprise, we would observe that there has been a definite shift towards larger enterprises. Proportion of workers working in enterprises which employed less than six workers has declined from 60 per cent in 1999-2000 to 41 per cent in 2011-12 (Table 7). Although enterprises employing more than ten workers have experienced a rise in share of employment, the biggest increase in employment happened in case of enterprises employing between six and nine workers. This was particularly true in case of construction industry which registered an increase of 14 percentage points in the share of rural non-farm workers employed in such small enterprises (employing 6-9 workers). For the construction industry, there was in fact a drop in proportion of workers employed in enterprises employing 10 or more employees. By and large, there has been a shift in rural non-farm employment towards larger enterprises. However, construction sector which has experienced unprecedented growth in employment experienced a decline in the share of workers employed in enterprises employing 10 or more workers.³ Combining the two smaller groups what emerged was that more than 60 per cent of rural no-farm wage workers were working in enterprises employing less than nine workers. One of the inherent problems of working in such enterprises is that the labour productivity is quite low. For instance, in case of manufacturing enterprises, studies have shown that productivity in large enterprises (employing 500 or more workers) was eight times the productivity in enterprises employing less than 9 workers (Mazumdar and Sarkar, 2008).

³ Stringency of labour regulations has been considered to be one of the major reasons for the phenomenon of “missing middle”, which in other words imply that medium sized enterprises have a disproportionately lower share of overall employment. In India, there are over 40 Central and State labour laws, and most of them are applicable to firms in formal sector and to firms employing a certain minimum number of workers. As the number of workers keeps increasing, firms enter the purview of more and more stringent labour laws (World Bank, 2013). However, this view has been objected by several scholars on the ground that the implementation of labour laws is rather weak, and almost non-existent. There are studies which show contrary results as well. For instance, Acharya, Baghai-Wadji and Subramanian (2010) supported the argument that strong labor laws can be efficient and have positive impact on firms by encouraging their innovativeness (Acharya et al., 2010).

Table 7: Percentage of rural workers in non-farm wage employment, by number of workers in the enterprise (15 years and above)

Status / Sector	Less than 6		6 – 9		10 and above	
	1999-2000	2011-12	1999-2000	2011-12	1999-2000	2011-12
<i>Principal Status</i>						
Manufacturing	32.7	24.4	7.1	11.7	60.2	63.6
Construction	49.9	42.5	12.4	26.0	37.7	30.3
Other Non-manufacturing	18.1	14.1	11.8	11.3	70.1	74.4
Services	65.1	49.9	5.2	16.9	29.7	32.3
All Non-farm Sector	60.2	40.8	7.0	19.8	32.8	38.4

Source: Calculated from Employment and Unemployment Survey, NSSO, 1999-2000 and 2011-12

As far as work place is concerned, a major chunk of rural non-farm workers continued working in rural areas only (Table 8)

Table 8: Percentage of rural workers in non-farm employment, by location of workplace (15 years and above)

Status / Sector	No fixed place		Rural area		Urban area	
	1999-2000	2011-12	1999-2000	2011-12	1999-2000	2011-12
<i>Principal Status</i>						
Manufacturing	2.5	1.1	91.5	91.0	6.0	7.1
Construction	8.1	2.3	82.2	86.1	9.7	10.5
Other Non-manufacturing	6.6	2.2	88.0	86.9	5.4	10.6
Services	9.2	5.4	83.9	86.0	6.9	7.5
All Non-farm Sector	7.0	3.4	86.0	87.2	7.0	8.4

Source: Calculated from Employment and Unemployment Survey, NSSO, 1999-2000 and 2011-12

Within rural non-farm sector, construction industry experienced massive growth in employment accounting for more than half of the increase in overall employment. However, it was majorly casual wage employment which has grown in the construction sector. Textile sector fared poorly in terms of employment generation, and it has registered a decline in employment during 1999-2000 to 2011-12. Within the service sector, it was land transport and retail trade which experienced significant growth in employment.

During 1999-2000 to 2011-12, there has been a definite shift of rural non-farm wage employment towards larger enterprises with construction industry being the only exception where share of workers employed in enterprises employing 10 or more workers declined.

4. Quality of employment

Dualistic nature of the economy is a characteristic found in most developing countries. This dualism is manifested by the simultaneous presence of an informal sector where employment relations are not governed by any State regulation or collective bargaining process; and formal sector where conditions of employment, by and large, follow rules and regulations of the State and where collective bargaining through trade unions is not an uncommon phenomenon. Informal sector is where the surplus labour is located, and this surplus labour need not be wholly unemployed. The possibility of work and income sharing makes persistence of under-employment a common feature of informal sector. Since output is shared by more

workers, output per worker is less in informal sector as compared to that in the formal sector. Therefore, a shift towards more formal employment is always desirable for a more inclusive growth.

A shift from agricultural employment to formal sector non-agricultural employment does not happen at one go, and quite often shifts in qualitatively better employment opportunities happen over generations. But the important point is that the shift from agricultural to non-agricultural sources of income is a dominant phenomenon in the Indian economy.

Non-farm activities can be divided into two broad categories - “high-labour-productivity activities leading to high-income activity, and low-labour productivity activities that serve only as residual source of income” (Lanjouw, 1999). Even though low productivity activities were common among the poor and the illiterate, such activities served important purpose in terms of providing source of livelihood.

In the previous section we have observed that there was a tendency towards increasing casualization of rural non-farm employment. Such work opportunities do not have any written contract between the employer and the employee. Table 9 precisely reflects this trend among rural non-farm wage employment towards increasing casualization without any written contract. Between 2004-5 and 2011-12, there has been seven percentage point increase in the proportion of rural non-farm wage workers who did not have any written contract. Clearly, an overwhelmingly vast majority of rural non-farm wage employment existed without any formal contract.

This was however contrary to the idea of decent work and inclusive growth. In order to achieve inclusive growth, the 12th Five Year Plan stressed on generating sufficient number of productive and decent work opportunities. Rural employment generation during the last decade has been rather sluggish, particularly when viewed against high rate of economic growth. One of the positive things that have happened was the increase in formal sector employment in rural non-farm sector. However, what was a matter of concern was the increasing trend of informal employment contracts even within the formal sector. From Table 10 we observe that close to 60 per cent of formal sector jobs were characterised by informal employment contracts. So, even within formal sector, 60 per cent of workers worked under informal job arrangement with no social security benefit.

Table 9: Percentage of rural workers in non-farm wage employment, by type of job contract (15 years and above)

Status / Sector	No written contract		Written contract up to 1 year		Written contract for more than 1 year	
	2004-05	2011-12	2004-05	2011-12	2004-05	2011-12
<i>Principal Status</i>						
Manufacturing	90.3	88.8	1.5	1.8	8.2	9.2
Construction	96.5	96.8	0.4	1.5	3.1	0.8
Other Non-manufacturing	79.9	76.2	3.4	1.7	16.7	21.9
Services	63.2	65.9	2.9	3.6	33.9	29.9
All Non-farm Sector	80.3	87.0	1.8	1.6	17.9	11.4

Source: Calculated from Employment and Unemployment Survey, NSSO, 1999-2000 and 2011-12

Table 10: Percentage of rural workers in non-farm formal sector employment, by formal and informal nature of employment (15 years and above)

Status / Sector	Employed in formal sector		Formal sector and formal employment (as % of all formal sector employment)		Formal sector but informal employment (as % of all formal sector employment)	
	2004-05	2011-12	2004-05	2011-12	2004-05	2011-12
<i>Principal Status</i>						
Manufacturing	22.4	42.2	24.3	31.4	75.7	68.6
Construction	18.0	35.6	3.9	8.5	96.1	91.5
Other Non-manufacturing	61.4	91.8	38.7	51.4	61.3	48.6
Services	28.9	34.6	66.7	65.1	33.3	34.9
All Non-farm Sector	25.6	37.8	46.1	40.5	53.9	59.5

Source: Calculated from Employment and Unemployment Survey, NSSO, 1999-2000 and 2011-12

Note: Informal employment is defined as that form of employment where the employee is not eligible for any kind of social security benefit like provident fund, gratuity, pension, health care, maternity benefit etc.

Educational attainment is an important determinant of quality of job (IHDR, 2011; World Bank, 2012; IHD, 2014). With one-fourth of rural non-farm workers being illiterate, educational levels of workers in non-farm sector remain a matter of concern, particularly when non-farm sector is supposed to provide productive and decent employment opportunities. Though share of illiterate workers has declined over the years, more than one third of workers in construction sector (which experienced significant employment growth) still remained illiterate (Table 11). Clearly, these workers are employed in casual wage employment with very little or no social security at all. This is a big challenge for the largest growing sector in terms of providing decent employment, and particularly so, when it accounts for 44 per cent of all illiterate workers in rural non-farm sector (Table A6).

Within service sector (with trend indicating to a shift towards self-employment and salaried wage employment) share of workers with higher secondary educational level and above experienced an increase of ten percentage points (Table 11). Also, among all workers with at least higher secondary education, services accounted for at least three-fourth of them (Table A6). It is difficult to conclusively determine how educational attainment can influence rural non-farm employment. There are occupations where workers regardless of their educational attainment are involved in. Also, there are occupations which require high degree of skill. Formal education is not necessarily an important factor in determining non-farm employment in rural areas. However, as far as decent job opportunities are concerned, this analysis indicated that decent job opportunities in services improved with higher levels of education.

Table 11: Percentage of rural workers in non-farm employment, by level of education (15 years and above)

Status / Sector	Illiterate		Primary		Secondary		Higher secondary and above	
	1999-2000	2011-12	1999-2000	2011-12	1999-2000	2011-12	1999-2000	2011-12
<i>Principal Status</i>								
Manufacturing	37.3	26.6	15.8	16.2	8.8	12.2	5.6	11.9
Construction	44.1	36.2	15.1	17.6	7.2	8.8	2.7	4.6
Other Non-manufacturing	43.4	32.2	13.4	16.0	12.5	12.2	5.5	15.4
Services	24.1	16.1	12.2	12.2	15.1	16.5	18.5	27.8
All Non-farm Sector	31.4	24.8	13.7	14.8	12.0	13.1	12.1	17.0

Source: Calculated from Employment and Unemployment Survey, NSSO, 1999-2000 and 2011-12

Note: The categories of level of education will not add up to 100% because we have not taken into account certain categories like literate without formal schooling and literate below primary

As far as technical education is concerned, an overwhelming majority of 97 per cent of rural non-farm workers did not have any technical education at all (Table A7). What was of even more concern was that the proportion of rural non-farm workers without any technical education in fact gone up marginally in 2011-12 as compared to what it was in 1999-2000. As in case of general education, share of service sector in technical education was also higher as compared to other major sectors. For instance, in 2011-12, services accounted for 45 per cent of rural non-farm workforce, but its share in workers possessing technical degree was 81 per. In other words, 81 per cent of workers with technical education were employed in service sector alone in 2011-12 (Table 12). On the contrary, fastest growing industry in terms of employment creation, namely construction industry, which accounted for 30 per cent of rural non-farm workforce in 2011-12, had a share of less than four per cent amongst workers having technical degree (Table 12). Therefore, employment in construction industry was growing without any significant impact on technical knowledge and skill set of its workforce. So, construction sector was creating jobs without any technical knowledge.

Table 12: Percentage distribution of rural workers in non-farm employment, by level of technical education, across different sectors (15 years and above)

Status / Sector	No Technical Education		Diploma or Certificate (Below Graduate Level)		Technical Degree in Agriculture, Engineering, Technology, Medicine etc.	
	1999-2000	2011-12	1999-2000	2011-12	1999-2000	2011-12
<i>Principal Status</i>						
Manufacturing	29.5	22.6	19.6	29.6	16.2	12.8
Construction	14.7	30.7	5.7	8.2	5.3	3.7
Other Non-manufacturing	2.7	2.0	3.2	4.8	6.1	2.7
Services	53.0	44.6	71.4	57.4	72.3	80.7
All Non-farm Sector	100.0	100.0	100.0	100.0	100.0	100.0

Source: Calculated from Employment and Unemployment Survey, NSSO, 1999-2000 and 2011-12

Though there were occupations where workers regardless of their educational attainment were involved in, education do play an important role in determining the quality of employment. With one-fourth of rural non-farm workers being illiterate, educational levels of workers in non-farm sector remained a matter of concern. Low general education base makes skill training more difficult.⁴ Construction industry, which was the largest employment creating industry in the country, also accounted for the largest share of illiterate workers, and also very small share of workers with technical degree. Service sector provided greater employment opportunities for the better educated workers.

5. Gender and social group in rural non-farm employment

Women are at a disadvantage in terms of access to non-farm jobs. Share of women in non-farm employment has in fact declined during the period 1999-2000 to 2011-12 (Table 13). Decline in female employment was observed in case of agricultural activities as well. Decline in proportion of households that cultivated land directed resulted in a decline in proportion of women who were self-employed in agriculture. With a clear

⁴ With high employment growth, employment opportunities have increased, but there exist huge shortage of skilled workers. Shortage exist at two levels: (i) shortage of number of persons trained, and (ii) persons trained do not possess required skill. Out-dated syllabus of Industrial Training Institutes, Mismatch between training and job requirement, ineffective apprenticeship training system are some of the reasons mentioned in the literature for shortage of skilled workers in the country (Mehrotra ed., 2014).

cost advantage in mechanisation over use of animals for draught power, there has been an increasing adoption of labour displacing technology in agriculture.⁵ For rural women, availability of jobs in nearby location is likely to increase their participation in rural labour market. The NSSO employment and unemployment survey (2009-10) collected information regarding willingness of females (15 years and above) primarily involved in domestic duties to accept work opportunities at the household premises. For the country as a whole, one-third of females (15 years and above) in rural areas and more than one-fourth in urban areas who were engaged in domestic duties (by usual principal activity) were willing to accept work opportunities at the household premises (Table 14). In both rural and urban India, there was a strong willingness among females primarily involved in household chores to take up tailoring work within their premises. This underlines the need for providing skill training to such females in tailoring, followed by institutional support for marketing their product so that the training thus provided reaches its logical conclusion. Therefore, the declining trend in female work participation rate in a way points towards lack of skill training and employment opportunities for females in the vicinity.

Table 13: Percentage of rural workers, by sector and gender (15 years and above)

Status / Sector	Male		Female	
	1999-2000	2011-12	1999-2000	2011-12
<i>Principal Status</i>				
Manufacturing	70.3	73.5	29.7	26.5
Construction	89.5	89.1	10.5	10.9
Other Non-manufacturing	85.5	85.5	14.5	14.5
Services	85.2	85.1	14.8	14.9
All Non-farm Sector	81.5	83.7	18.5	16.3
Agriculture and allied activities	66.9	71.8	33.1	28.2

Source: Calculated from Employment and Unemployment Survey, NSSO, 1999-2000 and 2011-12

Table 14: Proportion of females usually engaged in domestic duties (by usual principal activity) willing to work within household premises, by type of work acceptable (15 years and above)

Sector	% of female willing to accept work within premises	Type of work - dairy (%)	Type of work - tailoring (%)	Type of work - others (%)
Rural	33	7	10	16
Urban	27	1.3	11.4	14.3

Source: NSSO, Report No. 550

In rural areas of India, as far as occupational diversification was concerned, it was observed that the poor and the illiterate who were primarily employed in casual wage employment in agriculture had lower reservation wages and were likely to show “greatest inclination to become involved in non-farm activities” (Lanjouw and Shariff, 2004). On the other extreme, individuals belonging to upper castes, because of their access to education, preferred not to continue in agriculture, and therefore opted various non-farm activities. Therefore, poor and illiterate got access to low end non-farm activities, mostly casual in nature, while upper castes (through their wealth, status, and network) occupied more remunerative non-farm work opportunities. Therefore, ability of the poor to gain access to rural non-farm employment depended on the extent to which they were crowded out by the wealthy (Lanjouw and Shariff, 2004). Micro-level studies conducted in agriculturally prosperous regions of Western Uttar Pradesh and Punjab pointed to a gradual

⁵ Discussed later in Section 6.

reduction of non-farm employment and earnings for disadvantaged groups (Wadley and Derr, 1989; Leaf, 1983). This was however not evident at the macro level. Across all social groups there has been an increase in proportion of workers employed in rural non-farm sector (Table 15). The maximum increase in proportion of workers moving into non-farm employment happened in case of SC workers in construction sector.⁶

Table 15: Percentage of rural workers, by sector and social group (15 years and above)

Status / Sector	Scheduled Tribe (ST)		Scheduled Caste (SC)		OBC		Others	
	1999-2000	2011-12	1999-2000	2011-12	1999-2000	2011-12	1999-2000	2011-12
<i>Principal Status</i>								
Manufacturing	3.7	3.9	7.2	8.6	8.7	9.0	7.3	9.7
Construction	4.2	11.1	5.2	18.5	3.2	9.7	2.5	7.4
Other Non-manufacturing	0.9	0.7	0.7	1.0	0.8	0.7	0.6	0.7
Services	6.1	8.0	11.1	14.2	13.7	17.2	18.6	23.4
<i>All Non-farm Sector</i>	<i>14.9</i>	<i>23.7</i>	<i>24.2</i>	<i>42.4</i>	<i>26.4</i>	<i>36.7</i>	<i>29</i>	<i>41.1</i>
<i>Agriculture and allied activities</i>	<i>85.1</i>	<i>76.3</i>	<i>75.8</i>	<i>57.6</i>	<i>73.6</i>	<i>63.3</i>	<i>71</i>	<i>58.9</i>

Source: Calculated from Employment and Unemployment Survey, NSSO, 1999-2000 and 2011-12

6. Determinants of rural diversification

6.1 Role of agriculture in rural diversification

The linkage between agriculture and non-agriculture became a subject of interest with the advent of green revolution, and the new technology was seen to have resulted in higher agricultural productivity, higher income of farmers, and a spurt in demand for consumption goods produced in non-farm sector. Scholars who were documenting the impact of green revolution in agriculture came across new economic activities related to agriculture in the green revolution villages. The forward and backward linkages of the new agricultural production techniques had spawned a series of new related economic activities in the villages. Also, agricultural growth resulted in greater demand for certain inputs (like fertilizers and seeds), and in the process, agricultural growth resulted in growth in non-farm sector (both consumption and production goods sector), and vice-versa (Mellor, 1976). In another study Hazell and Haggblade (1990) calculated that on an average, an increase in agricultural income by Rs. 100 was associated with an increase in non-farm income by Rs. 64 (Rs. 25 in rural villages and Rs. 39 in rural towns).

In addition to complementarity between agriculture and non-farm sectors, studies have also pointed out to agricultural “distress induced” development of non-farm sectors. For example, using State level data,

⁶ Although SCs were part of the same society as the upper castes, the society was segregated and SCs were located at the bottom of the social hierarchy. SCs were subjected to different forms of discrimination and disabilities by dominant community (Xaxa, 2008). SCs owned very little assets of their own and had to depend on manual labour in agriculture for their livelihood. Therefore, with expansion of employment opportunities in non-farm sector, larger proportion of SCs shifted from manual labour in agriculture to manual labour in non-agriculture (primarily in construction industry as casual wage labourers). Tribal societies on the other hand were cut off from the rest of the society (geographically as well as culturally) and were not hierarchical, and they have depended on land and common property resources for their livelihood. Therefore, shift to non-farm employment happened to a much lesser extent among STs as compared to other social groups.

Vaidyanathan (1983) noted that where agriculture was unable to provide employment, non-farm sector played a crucial role in absorbing the surplus labour, and “rural workers who cannot get adequate work in agriculture spill over into rural non-agricultural activities so that the latter act ... as a sponge for the excess labour”. Vaidyanathan (1983) further advanced the hypothesis that “the higher the rate of unemployment, the higher is likely to be the share of non-agricultural sector in total rural employment and the lower the non-agricultural wage relative to that in agriculture”. The author established a positive association between non-farm employment and agricultural income as well as income distribution.⁷

There have been several studies analysing the role played by agriculture in promoting non-farm employment. While some of these studies have indicated the positive role played by agricultural growth, there are others who noted that it was not really growth and dynamism of agricultural sector which contributed to non-farm employment. Further, neither commercialization of agriculture nor infrastructural development led to an increase in non-farm employment (Ranjan, 2009).

One of the important changes happening in Indian agriculture since 1991 has been increasing mechanization of agriculture resulting in large scale displacement of workers from farm sector. Production and sale of tractors, has continued, over the last two decades despite the slowdown in the agricultural sector. Indian agricultural sector has a higher density of four-wheel tractors than other less-developed countries and India is also one of the largest manufacturers of tractors in the world (Sarkar, 2013). Domestic sale of tractor has experienced phenomenal increase particularly since 2003-4. Between 2003-4 and 2009-10, compound annual rate of growth of sale of tractor in India was 10.5 per cent.⁸

6.2 Access to land and rural diversification

Land is by far the most important form of asset owned by rural households in India. Economic well-being of a household in an agrarian economy is crucially linked to ownership of land. Ownership of land, is an important determinant of the location of a household in the system of agrarian relations. In an agrarian economy, whether workers in a household sell their labour power or deploy it in their own household enterprise depends crucially on the extent to which they have access to various means of production, and most importantly, access to land. De Janvry et al. (2005) observed that land was negatively related with non-farm income and positively related with farm income. Proportion of workers engaged in non-farm activities was higher among landless households.

Basant (1993) tried to examine the determinants of rural non-farm employment drawing from the primary data collected from 30 villages in five districts (Vadodara, Bhavnagar, Mehasana, Panchmahals and Valsad) of Gujarat. The study found that the proportion of non-farm employment was higher in the villages reporting larger proportion of landless households implying that landlessness was one of the important correlates of households having their main source income in non-farm activities. It was also observed that access to land provided more possibilities of diversification. From the ongoing analysis one could clearly observe that the

⁷ Correlation between rural unemployment rate by current daily status and rural non-farm employment was found to be 0.52 in 1999-2000 and 0.32 in 2011-12. This to some extent indicated that rural non-farm employment was slowly fading out to be of residual form (implying push factor from agriculture), and seemed to be gaining prominence in rural economy.

⁸ Annual Report, Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India, various years.

relationship between rural non-farm employment and land ownership was 'U' shaped curve where rural non-farm employment was found to be higher among the very poor or the landless, and also among those having land and better economic status. Of course the motivations as well as the outcomes across the two sets of households varied significantly.

Ghuman (2005), based on a study of three villages in Punjab reported that non-farm employment of agricultural households was half of that of households which had non-agricultural background. The author further noted that “higher proportion of marginal landholders joining non-farm sector may be because of the reason that they are neither able to earn enough from land nor find year-round employment on land” (Ghuman, 2005). In Punjab, what we have observed is an increasing concentration of operational holding among richer households (Table A8), which has resulted in increasing land alienation for the economically vulnerable groups.

During the period 2002-03 and 2012-13, there has been a significant increase in cultivation on small plots of land. Share of area operated by farm size of less than one hectare has increased considerably during the last decade (Table 16). Such small units are clearly un-economic and therefore dependence on non-farm employment has been growing in rural India.

Table 16: Percentage distribution of area operated by rural households, by size class of operational holding

Land Size Class (Ha)	2002-03	2012-13
Landless	0.0	0.0
0.001 – Less than 1	24.1	32.6
1 – Less than 2	21.5	22.5
2 – Less than 3	15.1	13.9
3 – Less than 5	15.7	13.4
5 – Less than 10	14.9	10.9
10 and Above	8.7	6.7
All Size Classes	100.0	100.0

Source: Calculated from AIDIS, NSSO (2002-03 and 2012-13)

Also, the share of rural households operating less than one hectare of land has increased considerably (which is expected given that the share of area operated by farm size of less than one hectare has increased considerably). Shares of households operating all other size classes of land have declined (Table 17). It may be highlighted here that even though the proportion of households operating ten hectare and above has declined by 60 per cent (Table 17), the share of land operated by these large landowners declined by only 22 per cent during 2002-03 and 2012-13 (Table 16). This clearly implies that land concentration among large landowners has increased considerably. If we consider the Access Index of operational holding (ratio of proportion of area operated to proportion of households), then we would observe that the value of Access Index for households operating ten hectare and above has increased from 17.4 in 2002-03 to 33.5 in 2012-13 (Table 18).

Table 17: Percentage distribution of rural households, by size class of operational holding

Land size class (Ha)	2002-03	2012-13
Landless	39.7	37.7
0.001 – Less than 1	40.8	47.2
1 – Less than 2	10.5	8.9
2 – Less than 3	4.3	3.2
3 – Less than 5	2.7	1.9
5 – Less than 10	1.5	0.9
10 and Above	0.5	0.2
All Size Classes	100.0	100.0

Source: Calculated from AIDIS, NSSO (2002-03 and 2012-13)

Table 18: Access index of operational holding for rural households, by size class of operational holding

Land Size Class (Ha)	2002-03	2012-13
Landless	0.0	0.0
0.001 – Less than 1	0.6	0.7
1 – Less than 2	2.0	2.5
2 – Less than 3	3.5	4.3
3 – Less than 5	5.8	7.1
5 – Less than 10	9.9	12.1
10 and Above	17.4	33.5
All Size Classes	1.0	1.0

Source: Calculated from AIDIS, NSSO (2002-03 and 2012-13)

Note: Access Index is defined as the ratio of proportion of area operated to proportion of households within each land size class

While rising land fragmentation is responsible for falling employment opportunities in agriculture, increasing concentration of landholdings can also indirectly contribute to decline in overall labour absorption (that is, not only reduce levels of self-employment in agriculture but also reduce levels of wage employment generated in agriculture) as for a given cropping pattern, large landowners tend to deploy labour displacing technology to a greater extent. As Rawal and Saha (forthcoming) noted “greater adoption of labour displacing technology (in particular, increasing use of machines and weedicides), caused by increasing concentration of landholdings and increasing cost advantage of using labour displacing techniques among other factors, is likely to have been an important factor behind the decline in overall level of labour absorption in agriculture”.

If we do a State level analysis of proportion of rural households not cultivating any land and proportion of rural non-farm workers, it was observed that generally States with higher proportion of rural households not cultivating any land also had higher proportion of rural non-farm workers.⁹ For the country as a whole, proportion of rural households not cultivating any land increased from 35.4 per cent in 1987-88 to 48.5 per cent in 2011-12 (Rawal, 2013). Lack of access to land was therefore an important factor responsible for participation in rural non-farm employment. There was a decline in proportion of rural households

⁹ Correlation coefficient between proportion of households not cultivating any land and proportion of rural non-farm workers at State level was found to be 0.54 for the year 2011-12 and 0.49 for the year 1999-2000.

cultivating land and it was a phenomenon experienced by all major States (Rawal, 2013). If we plot a simple scatter diagram of proportion of rural households not cultivating any land (Rawal, 2013), and proportion of rural non-farm workers for the two years considered here (1999-2000 and 2011-12), then we would observe a positive correlation between the two as depicted in the following two diagrams (Figure 3 and Figure 4).

Figure 3: Proportion of rural households not cultivating any land and proportion of rural non-farm workers, by major states, 1999-2000

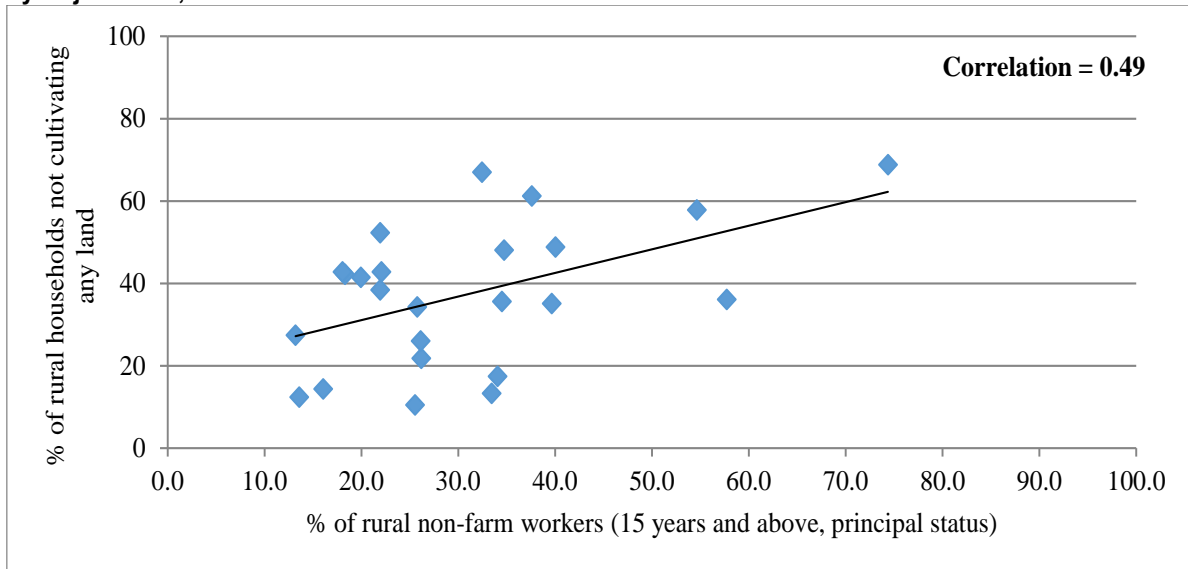
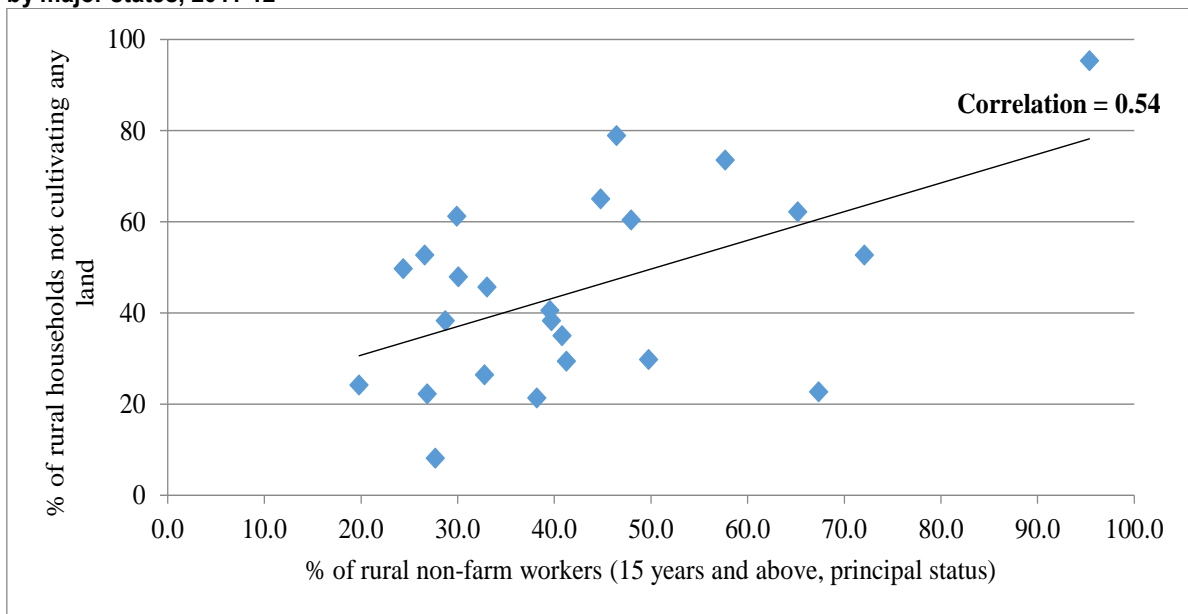


Figure 4: Proportion of rural households not cultivating any land and proportion of rural non-farm workers, by major states, 2011-12



7. MNREGA and impact on rural livelihood

The Mahatma Gandhi National Employment Guarantee Act (MGNREGA), 2005, has generated lot of interest among policy makers and researchers, both within and outside India, and is often cited as the largest social security programme in the world benefiting around 50 million rural households every year since 2008 (i.e., since the time it has been universalized).

The objectives of this programme can be broadly classified into three categories viz., social protection (by guaranteeing employment opportunities), creation of assets (water and soil conservation, controlling droughts and floods), empowering the poor (demand driven approach at the grass-root level and participatory planning). Undoubtedly, by its very design, legal provisions, and transparency and accountability inherent in the Act, it “marks a paradigm shift from previous wage employment programmes” (MoRD, 2012).

Despite several shortcomings pointed out in the literature regarding implementation, this programme did have a positive impact in terms of providing livelihood security and empowerment of the poor. In an assessment of NREGA into its second year of implementation, Mathur (2007) noted that due to the implementation of MGNREGA, migration was reduced in several villages in Andhra Pradesh, Chattisgarh, Orissa, and Rajasthan. Not only that, the minimum wages was raised in several States, and participation of women into the labour force increased significantly. The issue of empowerment of the poor through NREGA can be verified from the fact that in several places (among these four States) “rural workers have negotiated with private employers, even refusing casual work at double the earlier wage” (Mathur, 2007).

In India, it is the SCs and STs among whom the incidence of poverty is higher than other social groups.¹⁰ Over the years, even though the gap between SCs and STs vis-à-vis rest of the population has declined in terms of certain socio-economic indicators, livelihood insecurity is most pronounced among them (India Human Development Report, 2011). The desperation for better livelihood options among the marginalised can be gauged by the fact that SCs and STs have accounted for 30 per cent and 25 per cent of total person days worked in this programme respectively (MoRD, 2012). This is clearly much higher than their respective population share which was 16.6 per cent and 8.6 per cent for SCs and STs respectively (Census, 2011). Such high participation of SCs and STs will have a positive impact on their livelihood security, and in the long run, will improve their productivity and efficiency.

Job card is the most important document of this entire programme, and job card number has to be mentioned while demanding work. It maintains record of days of employment and payment received by all the members of the household who participated in this programme. Within a span of three years 56.5 million households in rural India (35 per cent) had job cards by the year 2009-10, which is a testimony to its positive feedback from the rural population.¹¹ The latest round of employment and unemployment survey indicated to an increase in proportion of households with job cards. If we consider the proportion of households which had job cards within a specific social group, then we find that the proportion of households with job cards was the highest among ST households followed by SC households (Table 19).

¹⁰ In rural India during 2011-12, incidence of poverty among SC population was 31.5%, and that among ST population was 45.3%. The incidence of poverty among OBCs was 22.7%, while among forward castes it was 15.5% (Panagariya and More, 2013).

¹¹ The number of job cards issued by the year 2012 was 120 million (MoRD, 2012)

Table 19: Proportion of households having job cards in each social group, rural India

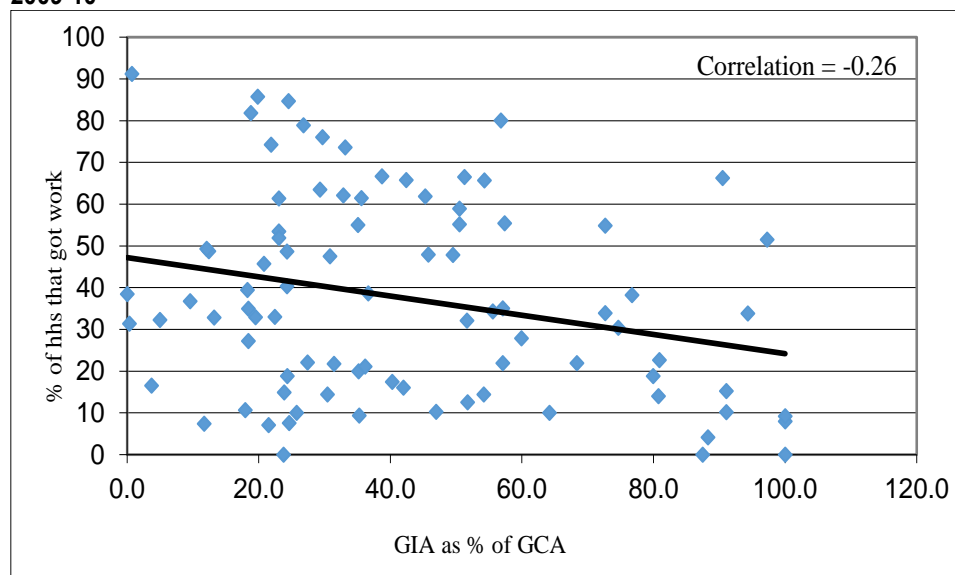
Social Group	2009-10	2011-12
Scheduled Tribe	54.1	57.2
Scheduled Caste	45.0	50.0
Other Backward Classes	30.6	34.2
Others	23.5	27.1
All Social Groups	34.7	38.4

Source: Calculated from NSS Database (66th Round and 68th Round Employment and Unemployment Survey, 2009-10)

Across States, there were large inter-state variations with Rajasthan and Madhya Pradesh having very high proportion of rural households with Job cards (more than 2/3rd households), while Karnataka and Maharashtra with very low proportion of rural households with job cards (less than 15 per cent). Understandably, Rajasthan and Madhya Pradesh being poorer States with lower per-capita income, the demand for job cards would have been higher as compared to States with higher per-capita income like Karnataka and Maharashtra.¹² However, poorer States like Bihar, Uttar Pradesh and Jharkhand having lower proportion of households with job cards points out to lack of awareness, and governance issues associated with the programme in these States.¹³

Within State, large regional variations could be observed. For instance, in the Vindhya region of Madhya Pradesh close to 80 per cent of rural households had job cards, while it was only 55 per cent in Northern Madhya Pradesh. In particular it could be observed that regions with less irrigation had larger proportion of households with job cards (Figure 5).¹⁴

Figure 5: Correlation between area irrigated and proportion of households having job cards, by NSS Region, 2009-10



¹² Central Statistical Organisation.

¹³ Birner et. Al. (2010) highlights the process of exclusion in issuing of job cards in Bihar.

¹⁴ Region-wise data on irrigation was obtained from NSS 59th Round, All India Debt and Investment Survey.

The self-selection criteria of this programme ensured that those in need of employment and willing to undertake manual labour will benefit from this programme. In India, the economic deprivation is most pronounced among SCs and STs. Therefore, it is not surprising that SCs and STs constituted the bulk of the households that got MGNREGA work. Almost half of the households that got work under MGNREGA belonged to either SC or ST social groups. Also the fact that 40 per cent of ST households and one-third of SC households got employment implies that this programme has been reasonably successful in reaching out to the marginalised sections of the rural population (Table 20).

Table 20: Proportion of households that got work in each social group, rural India, 2009-10

Social group	% of households got work
Scheduled Tribe	39.8
Scheduled Caste	32.9
Other Backward Classes	20.9
Others	15.1
All Social Groups	24.2

Source: Calculated from NSS Database (66th Round, Employment and Unemployment Survey, 2009-10)

The self-selection nature of this programme ensured that the most vulnerable got work under this scheme. It is therefore not surprising that rural households in poorer States (among 21 major States) showed greater inclination to participate in this programme. There was a positive correlation between incidence of rural poverty and proportion of rural households which either got or sought MGNREGA works (Figure 6), and a negative correlation between per capita net State domestic product and proportion of rural households which either got or sought MGNREGA works (Figure 7). Clearly, poor economic status was a major factor for rural households to participate in this programme.

Figure 6: Incidence of rural poverty and proportion of rural households which either got or sought MGNREGA works, by state, 2009-10

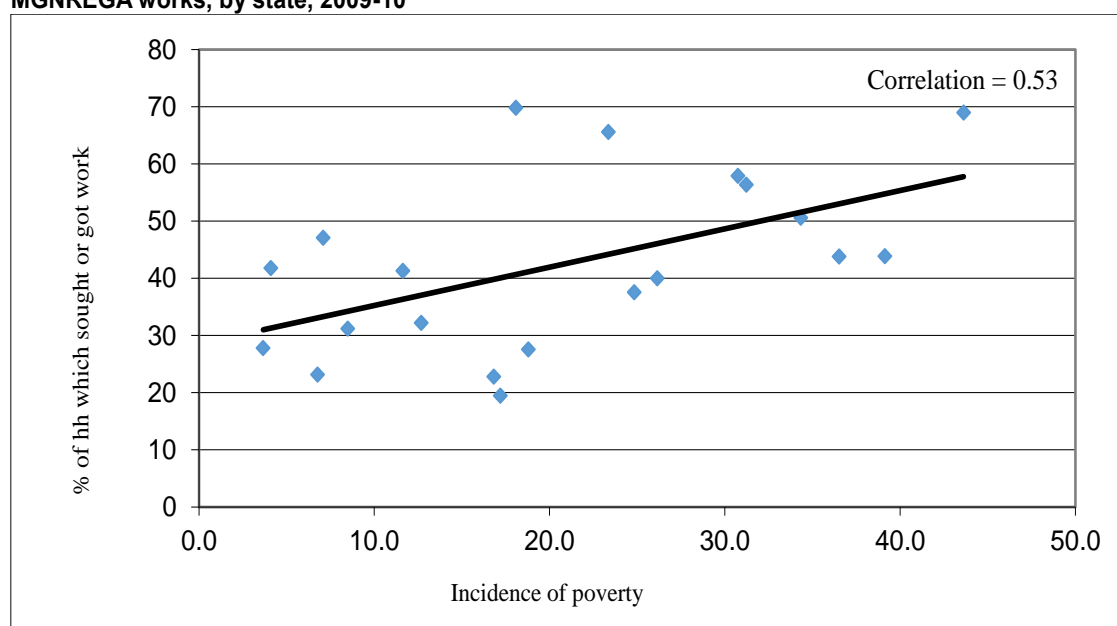
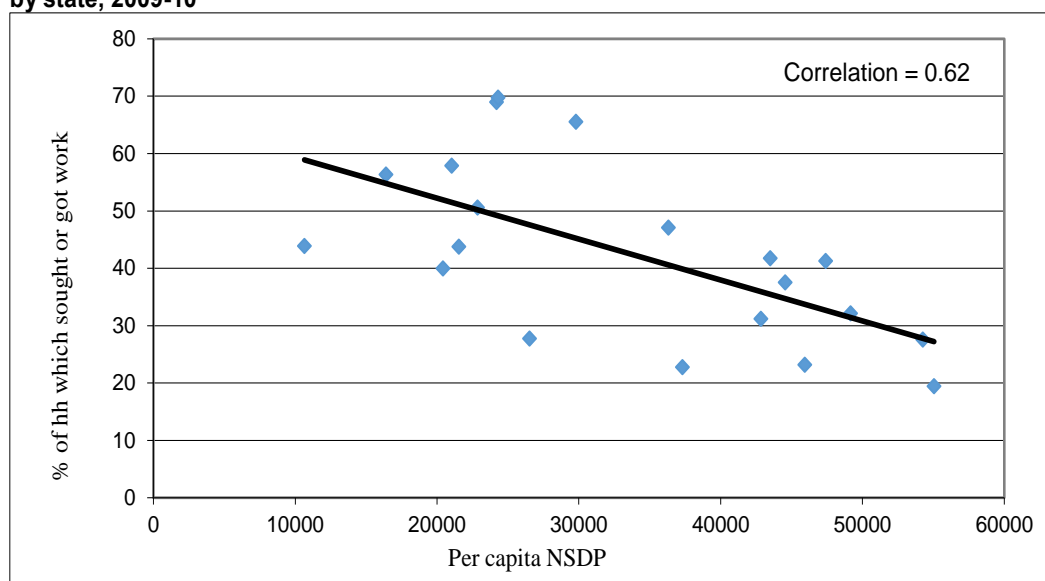


Figure 7: Per capita NSDP and proportion of rural households which either got or sought MGNREGA works, by state, 2009-10



From the above analysis (Figures 6 and 7) it is clear that the willingness to participate in MGNREGA was higher in poorer States. If we consider the proportion of rural households which got MGNREGA works out of those which were willing to participate in it, then, no pattern could be observed across States based on per capita NSDP or incidence of rural poverty. In other words, relative economic well-being of States was not related to performance in MGNREGA with respect to fulfilment of demand for work.¹⁵ While some of the economically weaker States like Rajasthan, Madhya Pradesh, Chhattisgarh were better performers in this regard (which is a positive thing), other economically backward States like Bihar, Jharkhand, Orissa were lagging behind. Among the well off States, Punjab, Maharashtra, Karnataka witnessed considerable proportion of unmet demand under MGNREGA. The political economy factors prevailing in the rural labour market in these agriculturally well off States might be the reason for sluggish performance in MGNREGA. But which political economy factors, and in what way it is impacting employment generation in MGNREGA is subject to further in-depth research in these areas.

Enhancement of household income in rural areas through more days of employment is the hallmark of MGNREGA. There is an ongoing debate in the country regarding advantages and disadvantages of an employment generation programme like MGNREGA. While there is no intention of going into that debate here, it may be pertinent to mention here that through universal demand driven programme like MGNREGA the government can actually influence the rural labour market indirectly through greater empowerment to the workers, and increasing the bargaining power of the workers vis-à-vis their employers. Studies have pointed out that MGNREGA has raised the market wage rate in agriculture resulting in an increase in cost of production. The recent rise in agricultural wages has been principally attributed to MGNREGA. While this might be the case as suggested in various micro-level studies (Haque, 2012), wages in MGNREGA are lower than agricultural wages in most of the regions in India. Analysis of NSS 66th Round data (2009-10) revealed that in 70 per cent of the regions in rural India, agricultural wages were higher than MGNREGA wages. The regions where MGNREGA wages were higher than agricultural wages were mostly the regions

¹⁵ No. of households demanding MGNREGA work = No. of households which got work + No. of households which sought but did not get work

with low agricultural productivity and low level of human development achievements (Uttar Pradesh, Jharkhand, Orissa, Bihar, Chhattisgarh, Madhya Pradesh).

While MGNREGA wages might have resulted in increase in agricultural wages leading to an increase in cost of cultivation in some regions, what the above analysis brings out is the fact that in low productive backward regions the agricultural wages actually received (even after accounting for the upward MGNREGA effect) were much lower than the stipulated minimum wages. Therefore, in absence of MGNREGA it would have been even lower. This in turn brings out the deplorable living conditions of the working masses in such regions. It is precisely for such group that MGNREGA holds immense socio-economic importance, and therefore, the upward push that MGNREGA exerted on agricultural wages should be viewed as a positive phenomenon in such backward regions.

Within three months of coming to office, the new government has made significant changes in MGNREGA allowing for machine use in activities like road connectivity, building construction, production of building material, and dug wells for improving land productivity. An obvious implication of this is to raise the existing ratio of expenses between material and labour from 40:60 to 51:49. The argument for raising the share of material expenses was based on the belief that creation of material-intensive assets would increase their durability. However, this change does not really support evidence as even this 40 per cent target was not met in the past. For instance, in 2013-14, 26.6 per cent of MGNREGA funds were spent on material, and the year prior to this, it was 27.7 per cent – much lower than the permissible limit of 40 per cent. Also, this increased share of material is likely to increase the influence of job contractors in MGNREGA and squeeze funds available for wages.

8. Summing up

This study has been undertaken in order to try and arrive at some broad conclusions across space regarding the factors that influences growth and development of rural non-farm sector and its consequences on overall rural livelihoods. This study is primarily based on Employment and Unemployment Surveys conducted by National Sample Survey Organization (NSSO) for the years 1999-2000 and 2011-12. In addition to employment and unemployment survey, this study also takes into account All India Debt and Investment Surveys for the years 2002-03 and 2012-13 which were also conducted by NSSO.

Overall, there has been a significant increase in rural non-farm employment over the years (12 percentage points in 12 years). This shift from agriculture to non-agriculture has happened across all asset deciles in rural India, and it was much more pronounced among poorer households. More specifically, the shift happened among poorer households from agriculture towards non-agricultural wage employment (and away from self-employment). Thus, even though shift away from agriculture was happening across all asset groups, it was by and large distress driven.

The biggest increase in non-agricultural employment has been in construction sector, where the share of non-farm employment has increased from 14.4 per cent in 1999-2000 to 30.1 per cent in 2011-12. This high proportion of workers going into construction sector as casual wage workers led to an overall decline in self-employment and rise in casual wage employment in rural non-farm sector. In terms of size of enterprise, by and large, there has been a shift in rural non-farm employment towards larger enterprises. However,

construction sector which has experienced unprecedented growth in employment experienced a decline in the share of workers employed in enterprises employing 10 or more workers.

Majority of workers joining construction industry as casual wage workers had low educational attainment. In fact, low educational level remained a major challenge for the rural non-farm sector, particularly when non-farm sector is supposed to provide productive and decent employment opportunities. This was a bigger challenge in terms of providing decent employment for the construction sector which was the largest growing sector, and particularly so, when it accounted for 44 per cent of all illiterate workers in rural non-farm sector. Lower educational attainment was one of the reasons for scarcity of skilled manpower. Even this limited skilled manpower was heavily concentrated in the service sector. Service sector provided greater employment opportunities for the better educated workers. In other words, construction sector which was the fastest growing in terms of rural non-farm employment was creating jobs without any technical knowledge.

Large scale mechanization of agriculture resulted in large scale displacement of workers from farm sector into non-farm sources of income. Access to land was an important determinant of this shift from agriculture to non-agriculture. State level analysis of proportion of rural households not cultivating any land and proportion of rural non-farm workers indicated that generally States with higher proportion of rural households not cultivating any land also had higher proportion of rural non-farm workers.

Categorization of rural non-farm sector as “residual” does not seem to hold much ground given its growing importance in rural employment generation, and its positive impact in reducing poverty and inequality (as pointed out in several studies). Rural non-farm employment has been considered as an important vehicle for reduction of unemployment and consequently poverty not only in India but in other parts of Asia, Africa, and Latin America. Countries that made significant progress in poverty reduction created considerable non-farm activities. In China, for instance, non-farm activities became important since 1970s resulting in rapid growth of non-farm employment at around 12 per cent per annum, and thereby contributed significantly towards poverty reduction (Stern, 2001). Rapid growth of rural enterprises in China particularly township and village enterprises provided increasing jobs outside agriculture and diversified sources of agricultural income. In India, growth of rural non-farm employment resulted in improved rural wages and was one of the main factors for reducing rural poverty during the 1980s (Dev, 2002). The major constraints inhibiting non-farm employment were limited access to formal credit, low level of skill development, access to market, and persistent inequality in ownership of different kinds of assets. Also, sluggish growth of agricultural sector played a dampening role on demand for goods produced in non-farm sector. Increasing public expenditure in rural infrastructure, and expenditure on rural employment programmes are important to boost rural non-farm employment.

It is in this context of overall scenario of rural labour market that MGNREGA assumes significance in providing social protection, asset creation, and empowering the poor. In India, the economic deprivation is most pronounced among SCs and STs. Therefore, it is not surprising that SCs and STs constituted the bulk of the households that got MGNREGA work. Almost half of the households that got work under MGNREGA belonged to either SC or ST social groups. Across States, performance of MGNREGA has varied considerably. While some of the economically weaker States like Rajasthan, Madhya Pradesh, Chhattisgarh were better performers in this regard (which is a positive thing), other economically backward States like Bihar, Jharkhand, Orissa were lagging behind. In addition to increase in days of employment, a very significant impact of MGNREGA has been in an overall rise in rural wages, and thereby resulting in improvement of consumption among poorer households.

The broad story that emerged from this analysis is that of a significant shift towards non-farm employment in rural areas, and this shift happened predominantly among economically weaker sections of the rural society. Access to land was an important determinant in this process of diversification.

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Annexure

Table A1: Percentage of rural workers in non-farm activities, by State (15 years and above, principal activity)

State	1999-2000	2011-12
Andhra Pradesh	21.9	29.9
Arunachal Pradesh	18.2	22.1
Assam	34.5	39.7
Bihar	19.9	33.0
Chhattisgarh		14.8
Delhi	93.4	98.0
Goa	74.4	95.4
Gujarat	22.1	26.6
Haryana	40.0	48.0
Himachal Pradesh	34.0	38.2
Jammu and Kashmir	33.5	67.3
Jharkhand		45.1
Karnataka	18.3	30.1
Kerala	57.7	72.1
Madhya Pradesh	13.2	28.7
Maharashtra	18.1	24.4
Manipur	25.7	49.8
Meghalaya	13.6	32.8
Mizoram	16.0	19.8
Nagaland	25.6	27.7
Odisha	21.9	39.5
Punjab	37.6	57.7
Rajasthan	26.2	41.3
Sikkim	39.7	26.8
Tamil Nadu	32.5	46.4
Tripura	54.6	65.2
Uttarakhand		43.5
Uttar Pradesh	26.1	40.8
West Bengal	34.7	44.8
A and N Islands	36.4	65.0
Chandigarh	34.0	98.8
Dadra and Nagar Haveli	44.7	65.4
Daman and Diu	68.2	90.8
Lakshadweep	49.6	90.9
Puducherry	40.1	69.6
All-India	25.1	37.2

Source: Calculated from Employment and Unemployment Survey, NSSO, 1999-2000 and 2011-12

Table A2: Percentage of rural male workers in non-farm activities, by state (15 years and above, principal activity)

State	1999-2000	2011-12
Andhra Pradesh	26.1	35.8
Arunachal Pradesh	26.2	29.0
Assam	36.3	41.5
Bihar	21.1	33.4
Chhattisgarh		18.4
Delhi	93.8	97.5
Goa	76.7	96.3
Gujarat	28.6	30.4
Haryana	40.7	49.7
Himachal Pradesh	49.2	60.9
Jammu and Kashmir	34.1	66.7
Jharkhand		49.0
Karnataka	21.6	34.2
Kerala	58.7	73.2
Madhya Pradesh	16.2	31.1
Maharashtra	26.6	30.3
Manipur	22.5	43.8
Meghalaya	14.1	39.3
Mizoram	16.6	22.9
Nagaland	30.2	33.2
Odisha	22.9	40.7
Punjab	36.7	56.5
Rajasthan	33.6	50.0
Sikkim	43.4	37.6
Tamil Nadu	37.7	48.5
Tripura	54.9	64.7
Uttarakhand		59.4
Uttar Pradesh	28.6	43.6
West Bengal	33.5	43.2
A and N Islands	40.0	62.8
Chandigarh	32.0	98.7
Dadra and Nagar Haveli	61.4	70.7
Daman and Diu	78.4	90.8
Lakshadweep	51.8	89.8
Puducherry	47.4	74.3
All-India	28.9	40.9

Source: Calculated from Employment and Unemployment Survey, NSSO, 1999-2000 and 2011-12

Table A3: Percentage of rural female workers in non-farm activities, by state (15 years and above, principal activity)

State	1999-2000	2011-12
Andhra Pradesh	16.1	21.6
Arunachal Pradesh	5.6	9.4
Assam	23.0	26.7
Bihar	15.1	26.9
Chhattisgarh		9.1
Delhi	80.2	100.0
Goa	66.2	92.9
Gujarat	9.7	14.6
Haryana	29.3	31.0
Himachal Pradesh	7.9	12.6
Jammu and Kashmir	25.1	76.3
Jharkhand		22.2
Karnataka	12.6	20.8
Kerala	54.8	68.6
Madhya Pradesh	8.0	20.9
Maharashtra	6.1	12.2
Manipur	37.2	70.3
Meghalaya	12.9	23.9
Mizoram	15.2	14.2
Nagaland	14.4	12.0
Odisha	19.3	34.4
Punjab	50.1	72.4
Rajasthan	10.6	21.6
Sikkim	30.6	13.6
Tamil Nadu	24.6	42.6
Tripura	52.0	67.8
Uttarakhand		9.6
Uttar Pradesh	15.8	24.5
West Bengal	40.9	53.6
A and N Islands	23.1	71.8
Chandigarh	97.2	100.0
Dadra and Nagar Haveli	16.1	48.5
Daman and Diu	33.9	89.7
Lakshadweep	39.4	99.5
Puducherry	25.3	58.7
All-India	15.8	25.5

Source: Calculated from Employment and Unemployment Survey, NSSO, 1999-2000 and 2011-12

Table A4: Percentage distribution of rural households, by household type, by state

State	Agriculture		Non-agriculture	
	2002-03	2012-13	2002-03	2012-13
Andhra Pradesh	63.4	53.2	36.6	46.8
Arunachal Pradesh	72.3	71.6	27.7	28.4
Assam	59.2	51.7	40.8	48.3
Bihar	73.1	59.3	26.9	40.7
Chhattisgarh	79.7	73.8	20.3	26.2
Delhi	7.5	16.1	92.5	83.9
Goa	31.5	9.6	68.5	90.4
Gujarat	66.8	72.4	33.2	27.6
Haryana	45.3	51.7	54.7	48.3
Himachal Pradesh	46.4	37.7	53.6	62.3
Jammu and Kashmir	55.3	33.8	44.7	66.2
Jharkhand	65.3	48.6	34.7	51.4
Karnataka	73.6	65.1	26.4	34.9
Kerala	37.8	27.4	62.2	72.6
Madhya Pradesh	79.0	74.7	21.0	25.3
Maharashtra	66.3	69.1	33.7	30.9
Manipur	63.6	53.9	36.4	46.1
Meghalaya	72.8	54.5	27.2	45.5
Mizoram	78.3	75.3	21.7	24.7
Nagaland	58.8	45.7	41.2	54.3
Odisha	65.7	50.1	34.3	49.9
Punjab	49.8	39.3	50.2	60.7
Rajasthan	54.4	57.1	45.6	42.9
Sikkim	50.5	42.2	49.5	57.8
Tamil Nadu	51.2	47.1	48.8	52.9
Tripura	37.0	32.7	63.0	67.3
Uttarakhand	63.6	54.8	36.4	45.2
Uttar Pradesh	69.8	67.0	30.2	33.0
West Bengal	58.4	50.1	41.6	49.9
A and N Islands	36.0	34.3	64.0	65.7
Chandigarh	12.9	8.6	87.1	91.4
Dadra and Nagar Haveli	43.1	2.6	56.9	97.4
Daman and Diu	19.6	23.7	80.4	76.3
Lakshadweep	42.6	10.3	57.4	89.7
Puducherry	46.4	23.3	53.6	76.7
All-India	63.4	58.0	36.6	42.0

Source: Calculated from All India Debt and Investment Survey, NSSO, 2002-03 and 2012-13

Note: Non-agriculture includes self-employed in non-agriculture, other labour households, and other households. Agriculture includes self-employed in agriculture and agriculture labour households.

Table A5: Percentage distribution of rural workers in non-farm activities, by type of employment, across different sectors (15 years and above)

Status / Sector	Self-employment		Salaried employment		Casual wage employment	
	1999-2000	2011-12	1999-2000	2011-12	1999-2000	2011-12
<i>Principal Status</i>						
Manufacturing	35.9	30.0	22.0	24.4	24.1	13.9
Construction	4.9	7.0	1.9	2.8	43.5	72.3
Other Non-manufacturing	0.5	0.3	3.7	3.2	6.0	3.1
Services	58.7	62.7	72.4	69.5	26.4	10.7
All Non-farm Sector	100.0	100.0	100.0	100.0	100.0	100.0

Source: Calculated from Employment and Unemployment Survey, NSSO, 1999-2000 and 2011-12

Table A6: Percentage distribution of rural workers in non-farm employment, by level of education, across different sectors (15 years and above)

Status / Sector	Illiterate		Primary		Secondary		Higher secondary and above	
	1999-2000	2011-12	1999-2000	2011-12	1999-2000	2011-12	1999-2000	2011-12
<i>Principal Status</i>								
Manufacturing	34.7	24.3	33.7	24.7	21.4	21.0	13.5	15.9
Construction	20.2	43.8	15.8	35.7	8.6	20.2	3.2	8.2
Other Non-manufacturing	3.8	2.7	2.7	2.2	2.9	1.9	1.2	1.9
Services	41.1	29.2	47.8	37.3	67.1	56.8	82.0	74.0
All Non-farm Sector	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Calculated from Employment and Unemployment Survey, NSSO, 1999-2000 and 2011-12

Table A7: Percentage of rural workers in non-farm employment, by level of technical education (15 years and above)

Status / Sector	No Technical Education		Diploma or Certificate (Below Graduate Level)		Technical Degree in Agriculture, Engineering, Technology, Medicine etc.	
	1999-2000	2011-12	1999-2000	2011-12	1999-2000	2011-12
<i>Principal Status</i>						
Manufacturing	97.8	96.9	2.0	2.9	0.2	0.2
Construction	98.7	99.3	1.2	0.5	0.1	0.2
Other Non-manufacturing	95.8	94.3	3.5	4.9	0.7	0.8
Services	95.5	96.1	4.0	3.6	0.4	0.3
All Non-farm Sector	96.6	97.2	3.0	2.5	0.3	0.3

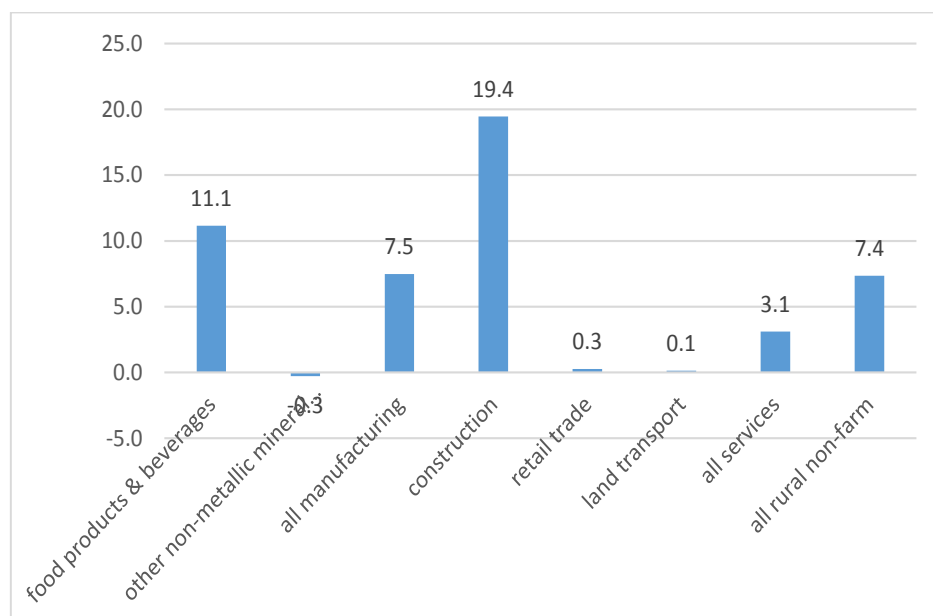
Source: Calculated from Employment and Unemployment Survey, NSSO, 1999-2000 and 2011-12

Table A8: Percentage share of land operated across asset decile, rural Punjab, 2002-03 and 2012-13

Asset Decile	2002-03	2012-13
0 – 10	0.1	0.1
10 – 20	0.0	0.1
20 – 30	0.0	0.0
30 – 40	0.3	0.1
40 – 50	0.5	0.1
50 – 60	2.3	0.1
60 – 70	5.3	2.5
70 – 80	10.9	10.2
80 – 90	25.7	23.6
90 – 100	54.9	63.2

Source: Calculated from All India Debt and Investment Survey, NSSO, 2002-03 and 2012-13

Figure A1: Annual average rate of growth of employment between 1999-2000 and 2011-12, Punjab



State of rural labour markets in India

In India, while contribution of agriculture to GDP has been declining, agriculture still remains mainstay of the rural economy by employing almost half of the population. However, the gap between job seekers in rural areas and employment opportunities in agriculture has been widening and non-farm sector has become an increasingly important source of livelihood. This paper analyses rural diversification across States in rural India, factors responsible for non-agricultural employment, and identifies industries within rural non-farm sector which are generating employment opportunities. Further, paper also looks into role of agriculture in rural diversification. This study is based on Employment and Unemployment Survey (National Sample Survey Organization) for the years 1999-2000 and 2011-12, and All India Debt and Investment Survey (National sample Survey Organization) for the years 2002-03 and 2012-13. The broad story that emerged from this analysis is that of a significant shift towards non-farm employment in rural areas, and this shift happened predominantly among economically weaker sections of the rural society. Access to land was an important determinant in this process of rural employment diversification.

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