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Emerging Trendsin Rural Employment Structure and Rural Labor Markets in India

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Emerging Trends in Rural Employment Structure and Rural Labor Markets in India

D Narasimha Reddy, A Amarender Reddy, N Nagaraj and Cynthia Bantilan

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International Crops Research Institute for the Semi-Arid Tropics

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Abstract

India is likely to continue for several decades as a country with the largest share of rural population in the world. Rural labor and the sources of their employment are not only predominantly informal but also not very productive in nature, and often spread across several activities. Though estimates of visible unemployment are very low, under-employment is widely prevalent. Rural employment, which was for a long time considered as equal to employment in agriculture, is no longer true. During the last two decades there have been rapid changes in the structure of rural employment, and rural non-farm employment has been growing at a faster pace and there are significant changes within the structure of non-farm employment. Notwithstanding these changes there is persistence of certain characteristics of unorganized informal rural labor, such as dependence on multiple activities for work, segmentation by gender and social groups, seasonal nature of work, and work which is temporary and vulnerable to low levels of earnings and high levels of persisting poverty. This paper maps out the broad contours of these dimensions of rural labor and identifies issues which need deeper analysis based on village level field data.

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Contents

Summary 1
1. Introduction 2
    Objective of the study 3
2. Towards a Framework for Analysis of Structural Change 3
3. Growth and Changing Structure of Rural Employment 5
    Changes in the rural production structure 6
    Changes in the rural employment structure 7
    Rural unemployment and underemployment 7
    Declining labor absorption in agriculture 8
4. Changing Structure of Rural Non-Farm Employment (RNFE) 8
5. Social, Gender and Quality Dimensions of Changes in Rural Employment Structure 10
    Seasonality and seasonal migration 13
    Rural wages 14
6. Changes in Labor Market Institutions 15
    Regulation, protection and social security of rural labor 16
7. Poverty and Levels of Living of Rural Labor 17
8. Key Findings 18
9. Concluding Observations 19
10. Policy Suggestions 19
References 20

List of Tables

Contents

Table 1. Rural Labor Force Participation Rates in India (UPSS) (%). 6
Table 2. Changing Structure of Rural NDP. 6
Table 3. Changes in Rural Employment Structure (UPSS) (%). 7
Table 4. Unemployment Rates of Rural Labor, 2011-12. 8
Table 5. Sectoral Growth Rates of Rural Employment. 9
Table 6. Occupational Changes across Social Groups in Rural India (%). 10
Table 7. "Construction" as a Share of Employment among Workers Aged 15 and above in Different Social Groups. 10
Table 8. Employment Status of Rural Workers (UPSS) (%). 11
Table 9. Changes in the Composition of Rural Workforce by Gender and Status of Employment (UPSS) (in millions). 11
Table 10. Male-Female Differences in the Share of "Subsidiary Status" Workers in the Total Workforce (UPSS) (%). 12
Table 11. Labor Force Participation Rate of Different Social Groups in 15-19 Age Group (Rural) 13
Table 12. 15-19 Age Group with Completed Secondary Level Education among Different Social Groups (Rural). 13
Table 13. Daily Real Wage Rate of Rural Casual Labor other than in Public Works (at 2004-05 Prices) 15
Table 14. Growth of MPCE in Rural India by the Occupation of the Household (2004-05 Prices) 16
Table 15. Incidence of Poverty across Social Groups in Rural India. 17
Table 16. Working Poor in Rural India: Percentage of Poor across Types of Households. 18

Summary

During the last two decades there have been rapid changes in the structure of rural employment, and rural non-farm employment has been growing at a fast pace in India. The non-farm sector is no longer a residual sector, but an emerging driver of the rural economy. The share of agriculture, which was almost two-thirds (64.36%) of the rural Net Domestic Product (NDP) in 1980-81, declined to about a little over one-third by 2009-10. It is now the non-agricultural activities which together account for almost two-thirds (65%) of the rural NDP. This makes it all the more important to understand the processes of change in rural India in the context of relatively rapid growth. This paper addresses the dynamics of change with particular reference to rural employment, rural labor markets, and conditions of livelihood of rural labor.

The results revealed substantial differences in rural labor force participation rates (LFPR) between males and females in India. Rural male LFPR has been stable over the years (2004-05 to 2009-10) at about 56 percent, while rural female LFPR which was around 33 to 34 percent till 2004-05, has experienced a steep fall to the tune of 26.5 percent by 2009-10. The explanation for the decline of rural female LFPR is partly the increasing enrollment of girls in education, and partly the increase in the real wages of rural male workers which result in improved household income that facilitates withdrawal of women from income-earning activities.

The shift in the share of rural non-farm employment (RNFE) especially from 1993-94 is quite substantial. Relatively higher growth in the non- farm sector, especially infrastructure and construction, coupled with improved transportation and communication, differential wage rates, improved literacy and government programs are the drivers of change. The foremost driver of change has been construction activities, the share of which increased from about 4 percent in 1980-81 to 15 percent in 2009-10. On the contrary, the growth of employment in manufacturing and community services which provide a better quality of employment, declined to very low levels leading to serious concern.

It is widely acknowledged that rural employment and labor markets are segmented in terms of social groups and gender. Past experience shows that most of the Scheduled Tribes (ST) and Scheduled Castes (SC) are concentrated in the agriculture sector, mostly as agricultural labor, and the share of these social groups in rural non-farm employment is supposed to be much less than that of “others”. But current statistics shows that even among the ST, the share of rural non-agricultural work increased from 10 percent in 1983 to 20 percent in 2009-10. The share of non-farm work among the SC increased from 18 percent to about 36 percent, which is higher than even that of the “others”.

In terms of rural employment status, “regular” employment opportunities continue to hold a very low share, which is entirely due to decline in self-employment. Often questions are raised whether self-employment is distress driven or driven by opportunities to improve earnings. Distress driven self-employment appears to be more among women, going by the information that about 20 million women dropped out of self-employment in a matter of five years between 2004-05 and 2009-10 (NSS 66th R). The drastic decline in female labor force participation during this period was entirely due to the withdrawal of women from self-employment.

Over the past two decades there has been a trend of increasing growth in real wages in rural areas. Real wages for both male and female rural casual labor increased at an average rate of about 3

percent per annum during the past two decades. A combination of factors, such as the revival of agricultural growth, increased support prices for major agricultural crops, accelerating rural non-farm employment growth, withdrawal of rural women from work in the second half of the last decade, high level of public expenditure on rural development programs including MGNREGS, appear to have firmed up the demand for rural labor resulting in sustained growth in real wages. These aggregate trends in wages and employment do not completely capture the processes of discrimination and segmentation that prevail in rural labor markets, or the lack of opportunities for more productive employment and earnings.

It is also evident that though poverty levels across social groups have been declining over the years, they still remain very high among ST and SC groups. It is also well known that most of the STs and SCs depend mostly on agriculture labor, which is why they remain as the poorest among all rural workers In 2009-10, a large proportion of agricultural laborers (49.4%) and other rural labor (39.6%) remain below the poverty line, constituting a large mass of working poor in rural areas. Public intervention programs, such as MGNREGS, did make an impact on reducing days of unemployment, improving bargaining power and the earnings of rural labor (Kannan and Reddy 2013), but not adequately enough to enable them to experience smooth transition from limited and declining employment opportunities in agriculture to alternative more secure and productive employment. Finally, it is suggested that strong policy support for infrastructure, transport, storage, credit and market is required to address non-farm diversification. There is a growing need for creation of large-scale employment opportunities for the rural poor. Rural-urban migration is increasingly opportunity driven. Therefore government interventions are essential to ensure security, safety and social protection for migrant labor. At the same time capacity building programs for skill augmentation, especially with regard to women, are required in order to enhance their skills.

Further, a systematic and detailed program of analyzing the emerging trends in the rural labor markets with the help of micro-level data would help to serve as the basis for not only understanding the direction of rural transformation, but also help in interventions for desirable development that would improve the working and living conditions of rural labor.

1. Introduction

Over the past two decades India has emerged as one of the fast growing economies in the world with far-reaching changes in its rural economy as much as in the overall economy. Of all the emerging economies, India remains predominantly rural with about seventy percent of its population and about sixty-five percent of its workforce still working and living in rural areas. Although by the middle of the last decade more than half the world's population was living in urban areas, there is continuing rapid movement of population to urban areas. India with a rural population of 842 million, which is already larger than China's rural population of 725 million (Proctor and Lucchesi 2012), will remain home to the largest rural population in the world even in 2050 – even if its rural population shrinks to about 30 percent. This makes it all the more important to understand the processes of change in rural India in the context of relatively rapid growth.

This paper deals with the dynamics of change with particular reference to rural employment, rural labor markets and conditions of life and livelihood of rural labor. The analysis is based on macro-level data. The advantage of macro-level data is that they help in understanding broad trends in the economy as a whole. Such a mapping out would serve as the basis for raising relevant questions

relating to the dynamics of change; and in identifying actual processes of change by designing appropriate methods of analysis based on field level observation and data collected at micro-level.

Objective of the study

The main objective of this paper is to discern broad trends in rural labor, employment and the rural labor markets, which would help in identifying critical issues and provide a better framework for analysis of extensive and detailed village level micro data collected by agencies, such as ICRISAT. The paper is divided into ten sections. This introductory section is followed by a section that briefly discusses the analytical or theoretical framework for analysis of the development process in general, and structural change in particular. The third section turns to the empirics of growth and changes in the structure of rural employment in rural India. The fourth section is an analysis of the changes in rural non-farm employment. The fifth section refers to the gender and social dimensions of change in rural labor. The sixth section discusses the quality of rural labor and employment; changes in forms of labor, labor market institutions, and wages and earning of rural labor. The seventh section refers to the depth of poverty and levels of living of rural labor. Section eight summarizes some of the key findings based on empirical results of the study. Section nine concludes the study by addressing some of the emerging issues where macro-level data raises more questions than answers, which could be taken up later for deeper enquiry based on village level micro data. The last section suggests some policy interventions based on empirical findings of the study.

2. Towards a Framework for Analysis of Structural Change

Mainstream theories conceptualize development as a progressive transformation of predominantly subsistence economies into modern capitalist economies through a process of change in sectoral and spatial structures. Lewis (1954) conceptualized less developed economies as being characterized by economic dualism. He saw them as islands of the modern capitalist sector that was surrounded by the ocean of subsistence sector where marginal productivity of labor is zero in a wide range of activities. Here unlimited supply of labor exists, which can be shifted to the modern sector. This generalized and rural agricultural sector was equated with the traditional subsistence sector, and the urban industrial sector was seen as the modern capitalist sector. Thus, the development process was seen as an expansion of the urban industrial and non-agricultural sector which draws surplus labor from the rural agriculture sector.

The Lewis model broadly fits into the notion of development involving structural shifts in labor and sources of production. Though the notion of development as structural shifts dates back to Fredrick List, the modern analysis of sectoral transformation originated with Fisher (1939) and Clark (1940), who dealt with sectoral shifts in the composition of the labor force (Syrquin 1988). Fisher and Clark were the first to use the now familiar division of the economy into primary, secondary and tertiary sectors (Lundahl 1985), and relate the shifts in the shares of these sectors to the process of economic growth. They observed that as economies developed, and as the per capita incomes increased, there would be a shift in the workforce from the primary to secondary, and then from the secondary to the tertiary sector. Their basic proposition on the relationship between economic development and structural change was predominantly empirical but they did relate it to certain causal effects. The sectoral shifts were explained in terms of: (i) Engel's Law; and (ii) the differential productivity of the sectors. Engel's Law explains that as incomes grow, the income elasticity of demand for food and agricultural products grow at a progressively smaller pace than

the income elasticity of demand for manufactured goods and services. Further, the level and the rate of growth of productivity in the secondary sector is much higher than that in the primary sector, while productivity level and rate of growth in the service sector are much lower than that in the secondary sector. If these relationships hold, then the share of agriculture in employment will be greatly reduced, which will then be followed by reduction in the share of secondary sector. Eventually, as growth proceeds most of the workforce will be employed in the tertiary sector. Kuznets (1966), based on his empirical studies of long run transformation of economies, synthesized the structural transformation as a part of the stylized facts of modern economic growth. He described economic development as a process of structural transformation involving transition from an economy dominated by agriculture to one that is urban, industrial and service-oriented. Chenery (1960), based on empirical evidence from a cross-section of countries, tried to project Fisher-Clark propositions as a "normal" transformation in the structure of production.

The received wisdom that is associated with the theories and models discussed above expects that growing economies, such as India, would increasingly move from being rural-agricultural towards becoming industrial-urban. But the agricultural transition in South Asia, is a contradistinction, and remains predominantly agrarian and rural (Viswanathan et al. 2012). Though there has been acceleration in India's economic growth for the last three decades, there is no evidence of similar acceleration in the shift of the rural population to urban and industrial activities. Though the share of rural population has been declining over the decades, the urbanization process in India is one of the slowest in the world, with an urban population of only about 31 percent in 2011. The rural workforce in the country remained at a very high level of 75 percent until 2004-05, and then showed a decline to 64 percent in 2009-10. However, it must be noted that the decline in the share of rural workforce was mainly due to decline in the female workforce between 2004-05 and 2009-10. But the rural male workforce during this period did increase from 219 million to 232 million. Conventionally "rural" is equated with "agriculture" but all that may be changing. Though the share of agriculture in the national product has come down steeply, the pace of decline in the share of workforce in agriculture has been very slow, at least until the last decade, inviting some analysts to describe it as "stunted structural transformation of the Indian economy" (Binswanger-Mkhize 2013). There is a danger that describing India's structural transformation as either "stunted" or "retarded" may lead to the folly of linear notion of economic transformation denying the historic specificity, and in the process ignoring certain unique features of change. The evolutionist vision based on statistical evidence from past transitions is challenged.

Like the mainstream development theories, well-known models of rural transformation too tie themselves into knots when explaining changes in the rural dynamics in countries like India, which do not follow the general pattern. Rural transformation in the Marxian approach is discussed as an "Agrarian Question" where development of capitalism in agriculture through concentration of land ownership, class differentiation and the emergence of capitalist producers proletarianising the peasantry also serves as the basis for accumulation for investment industrialization. Rural peasant societies are visualized as backward only to be transformed into a stage where all the land as the means of production is owned by capitalists and the peasantry is simply reduced to wage laborers. There was an extensive debate on the "Agrarian Question" in Russia at the turn of the 20th century. There a similar debate as on the question of whether changes in the Indian agrarian situation could be characterized as capitalist development, was also witnessed in the 1970s, but it did not result in any conclusive explanation (Patnaik 1990).

The Chayanov model challenged the Marxist approach in Russia, and it defined the family farm as a production-cum-consumption unit (Chayanov 1966) without employing wage labor. Cultivation for the farming family was not a business but a means of subsistence that is socially accepted, and the size of the family, its consumption requirements and the number of working members would determine the output of the farm. The Chayanovian approach, popularly known as the "neo-populist" model (Kitching 1982), was sought to be combined with the Marxist model by Shanin (1972) by explaining peasant families passing through centrifugal and centripetal cyclical mobility. The centrifugal or polarizing forces make the poor, poorer and the rich, richer, while the centripetal or leveling forces operate by making the rich decline and the poor improve. Peasant mobility is multidirectional and on the whole the movements of individual households would cancel, thus resulting in changing but stable peasant societies. Although the analysis in these models is in terms of peasants and farming, spatially the focus is on rural transformation.

The Indian rural agricultural situation shows that there is a visible presence of capitalist development yet there is no tendency towards concentration and polarization as in the classical Marxist explanation. Small and marginal peasants constitute the majority of the farming community. There is a growing share of hired labor in agriculture and diversification into multiple activities, unlike in Chayanov or Shanin.

After the brief discussion above of the state of theory in relation to rural dynamics, the matter below is confined to emerging changes in the rural employment and labor market. There is a growing recognition that what matters is the "moment in time" given the context of continuous change. What is suggested is "a more contextual historical perspective to understand the on-going processes of structural change" (World Bank 2010). A more realistic framework for the analysis of the dynamics of rural transformation in general, and changes in the rural labor markets and employment structure in particular in the historical contextual approach, needs to be adopted.

3. Growth and Changing Structure of Rural Employment

The rural labor force participation rates (LFPR) of males and females in India shows substantial differences. Not only have the rural female labor force participation rates in India been much lower than the male, but what's more, the female participation rate has been much lower compared to most of the developing countries, with the exception of the Middle-East Asian countries. Table 1 shows that rural male LFPR has been stable over the years at about 56 percent, while rural female LFPR which was at about 33 to 34 percent till 2004-05, has shown a steep decline to 26.5 percent by 2009-10. The explanation for the decline of rural female LFPR is partly due to the increasing enrolment of girls in education, and partly due to the increase in the real wages of rural male workers which result in improved income that facilitates withdrawal of women from income-earning activities. Yet another explanation for the decline in the female LFPR in 2009-10 relates to an allusion that since 2004-05 was a bad year for agriculture, many women in agricultural families offered themselves for work to smooth out household consumption, and when the years 2009-10 and 2011-12 turned normal, they withdrew from the labor force. However, there is no satisfactory explanation for the steep decline in the female LFPR in recent years. As we shall see later in this section, the decline in rural female LFPR also has implications for the structural change in rural employment.

Table 1. Rural Labor Force Participation Rates in India (UPSS) (%).

Year	Male	Female	Persons
1983	55.5	34.2	45.1
1993-94	56.1	33.1	44.9
2004-05	55.5	33.3	44.7
2009-10	55.6	26.5	41.4
2011-12	55.3	25.3	40.6

*Usual Principal + Subsidiary Status (UPSS)

Source: NSSO Employment and Unemployment Surveys: 38th Round (1983), 50th Round (1993-94), 61st Round (2004-05), 66th Round (2009-10) and 68th Round (2011-12)

Changes in the rural production structure

The majority of the population in India still lives and works in rural areas, leading to an image of India as a predominantly rural, and therefore an agricultural country. The overall accelerated growth of the Indian economy in the past three decades also had a decisive impact on the structure of production and employment even in rural areas. The production structure of rural India is no longer dominated by agriculture. Table 2 shows that the share of agriculture which was almost two-thirds (64.36%) of the rural national domestic product (NDP) in 1980-81 declined to about a little over one-third by 2009-10. It is now the non-agricultural activities which account for almost two-thirds (65%) of the rural NDP. The drivers of change have been construction (the share of which increased from about 4 percent in 1980-81 to 15 percent in 2009-10), trade, hotels (which experienced an increase in share from about 7 percent to 18 percent), transport and storage (the share of which increased from about 1 percent to 7 percent), while the share of manufacturing, which had the highest share in non-agriculture output in 1980-81, reduced to the lowest share of about 12 percent in 2009-10. What is noteworthy is that though these changes have been evident since the early 1980s, the acceleration of these shifts in the rural production structure has been more in evidence since 2004-05. Overall, the faster growth of the non-agricultural sector resulted in growing productivity differences between agriculture and non-agriculture (Binswanger-Mkhize 2013). The productivity gap between agriculture and non-agriculture increased from 1:2.7 in 1993-94 to 1:5.6 in 2009-10 (Papola 2012).

Table 2. Changing Structure of Rural NDP.

	1980-81	1993-94	2004-05	2009-10
I. Agriculture	64.36	56.99	38.34	35.00
II. Non-Agriculture	35.64	43.01	61.66	65.00
Manufacturing	9.16	8.15	11.13	11.85
Construction	4.05	4.61	7.91	15.00*
Trade / Hotels etc.	6.68	7.77	14.98	18.00*
Transport / Storage	1.32	3.41	5.81	7.00*

Note: Figures rounded to nearest integer. *Projected
Source: Papola (2012)

Changes in the rural employment structure

Though the structural changes in rural employment did not keep pace with the changes in the production structure, the shift in the share of rural non-farm employment (RNFE) especially from 1993-94 has been quite substantial and within the RNFE, the changes in the share of certain sectors, such as construction are dramatic but at the same time raise serious questions of sustainability. The share of agriculture in rural employment continued to be at a very high level, over 80 percent till 1983, but from 1993-94 the share of agriculture declined at a faster rate and reached 65 percent in 2009-10. The pace of decline in the share of agriculture in rural employment was much faster in the last quinquennium from 2004-05 to 2009-10. For the first time, employment in agriculture experienced a net decline of 0.19 percent per annum during this period.

Rural unemployment and underemployment

Open unemployment is not a major problem in rural India, largely because the rural poor can hardly afford to be unemployed (thus without any earnings) and hence engage themselves in any work, however inadequate it might be in terms of wage or self-employment. Since most of the work is seasonal and often low productive in nature, there is often pervasive underemployment rather than unemployment and because of these reasons rural unemployment in terms of UPS or UPSS, as shown in Table 4, is very low. Unemployment in terms of Current Weekly Status (CWS) or Current Daily Status (CDS) which reflect the share of unemployed in terms of working days rather than the share of persons unemployed is at best an indicator of underemployment. However, even CWS and CDS measures do not completely capture the intensity of underemployment, and therefore could be underestimates of rural underemployment.

Table 3. Changes in Rural Employment Structure (UPSS) (%).

Sector	1983	1993-94	2004-05	2009-10
I. Agriculture	81	78	73	68
II. Non-Agriculture	19	22	27	32
Within Non-Agriculture				
Manufacturing	37	32	29	22
Construction	9	11	18	29
(All Secondary)	(49)	(47)	(50)	(54)
Trade/Hotels etc.	19	20	23	20
Transport/Communication, etc.	9	7	9	9
Community, Social & Personal Services	26	25	17	15
(All Tertiary)	(51)	(53)	(50)	(46)

Note: Figures rounded to nearest integer. UPSS: Usual Principal and Secondary Status
Source: Various Rounds of NSSO Employment and Unemployment Surveys

Table 4. Unemployment Rates of Rural Labor, 2011-12.

Criterion	Male	Female	Persons
UPS	2.1	2.9	2.3
UPSS	1.7	1.7	1.7
CWS	3.3	3.5	3.4
CDS	5.5	5.2	5.7

UPS: Usual Principal Status; UPSS: Usual Principal and Secondary Status; CWS: Current Weekly Status; CDS: Current Daily Status

Source: IHD, 2014

Declining labor absorption in agriculture

There is an eloquent observation in an ILO report that "450 million women and men who labor as waged agricultural workers in agriculture, and who are at the heart of the commercial food production system, have been overlooked to date. These waged workers form over 40% of the world's agricultural labor force and along with their families they are part of the core rural poor in many countries. Waged agricultural workers do not own or rent the land on which they work, nor the tools and equipment they use. In these respects, they are a group distinct from farmers. Yet these workers remain invisible in terms of the goals, policies, programs and activities to eliminate poverty …" (ILO 2007). However, there is no emphasis on the fact that most of these "waged agricultural workers in agriculture" no longer depend solely on agriculture and their work profile reflects multiple occupations, as they straddle between agricultural seasonal work and some other non-agricultural work to supplement their incomes. For them a break from dire subsistence level existence would also mean overcoming underemployment by seeking additional work beyond the limited agricultural work. There is growing evidence that the share of human labor in the total energy used in agriculture is on the decline (IASRI 2012), which results in net decline in employment in agriculture. Therefore the future of employment growth in rural India will be essentially through non-farm employment.

4. Changing Structure of Rural Non-Farm Employment (RNFE)

Table 3 shows that the increase in the share of RNFE was driven especially by the construction sector. Construction, with a share of 9 percent, had the lowest share in the RNFE in 1983, but by 2009-10 with a share of 29 percent, it emerged as the single largest segment of RNFE. This turnaround happened substantially during the 2000s as the employment in agriculture decreased at a rate of 0.19 percent per annum, and the overall growth of employment in RNFE accelerated at a rate of 4.03 percent per annum (Table 5). Employment in the construction sector increased during this period at the rate of 12 percent per annum.

Table 5. Sectoral Growth Rates of Rural Employment.

	1983 – 1993-94	1993-94 to 2004-05	1999-00 to 2009-10
I. Agriculture	1.37	0.69	-0.19
II. Non-Agriculture	3.23	3.64	4.03
Total	1.68	1.40	0.96
II. Sectors within Non-Agriculture			
Manufacturing	2.02	2.74	0.62
Construction	5.35	8.27	12.04
Trade/Hotels etc.	3.76	4.88	3.41
Transport/Communication	4.35	6.56	4.44
Financial Services		6.13	5.20
Other Services		0.08	0.77

Source: NSSO Employment and Unemployment Surveys: 38th Round (1983), 50th Round (1993-94), 61st Round (2004-05), 66th Round (2009-10) and 68th Round (2011-12)

But the growth of employment in manufacturing and community services reached very low levels, and as a consequence the share of manufacturing in the RNFE declined from 37 percent in 1983 to 22 percent in 2009-10, and that of community services declined from 26 percent to 15 percent during the period. The other segments of RNFE, such as trade, hotels, transport, communications and financial services witnessed modest rates of growth ranging from 3 to 5 percent in 2000s. The cause for concern is the decline of employment in manufacturing and community services which are segments with relatively higher productivity, and relatively more regular employment, indicating a better quality of employment. In total rural employment, regular employment constitutes only about 7 percent, and a substantial proportion (90 percent or 21.8 millions) of regular rural employment in 2009-10 was provided by non-construction non-farm employment, such as manufacturing and "other services". The self-employment component of non-construction non-farm employment is substantially higher at about 54 percent and 58 percent in the case of rural male and female employment, respectively. Non-construction non-farm employment is considered to have better linkages and synergies with employment in both farm sector and urban activities.

While the dramatic increase in the share of construction in the RNFE did bring about much dynamism into the rural employment structure as well as the rural labor markets, the sustainability of growth of employment in the rural construction sector raises the question of uncertainty. There are hardly any instances of the rural construction boom lasting for more than one or two decades. There are also questions about employment in the construction sector which instead of acting as a lever of changing social status of workers, may actually result in the reproduction of social hierarchies akin to those in agricultural employment (Pattenden 2012).

5. Social, Gender and Quality Dimensions of Changes in Rural Employment Structure

It is widely acknowledged that rural employment and labor markets are segmented in terms of social groups and gender. Past experience shows that most of the Scheduled Tribes (ST) and Scheduled Castes (SC) are concentrated in agriculture mostly as agricultural labor, and the share of these social groups in rural non-farm employment is supposed to be much less than that of "others". But apparently all that is changing. Table 6 shows that even among STs, the share of rural non-agricultural work increased from 10 percent in 1983 to 20 percent in 2009-10. The change in the work profile of SCs is much faster than in all other groups. The share of non-farm work among SCs increased from 18 percent to about 36 percent, which is higher than the "others". What is interesting is that a substantial proportion of increase in the non-farm share of work among ST and SC groups is because of their shift to construction activities in rural areas. Table 7 shows that between 1993-94 and 2009-10, among SCs, the share of employment in construction increased from 5 percent to 16 percent, which is higher than that of any other social group.

Table 6. Occupational Changes across Social Groups in Rural India (%).

	ST		SC		OBC		Others		All	
Year	Agriculture	Non-Agriculture	Agriculture	Non-Agriculture	Agriculture	Non-Agriculture	Agriculture	Non-Agriculture	Agriculture	Non-Agriculture
1983	89.9	10.1	82.0	18.0	-	-	79.7	20.3	81.4	18.6
1993-94	86.8	13.2	80.3	19.7	-	-	76.4	23.6	78.5	21.5
2004-05	84.0	16.0	71.8	28.2	72.2	27.8	68.6	31.4	72.7	27.3
2009-10	79.7	20.3	64.3	35.7	67.9	32.1	65.3	34.7	67.9	32.1

Source: Estimates based on NSS Employment and Unemployment Survey Unit Record Data

Table 7. "Construction" as a Share of Employment among Workers Aged 15 and above in Different Social Groups.

Year	ST	SC	Muslim	OBC	Others	All
1993-94	3.8	5.1	4.0	-	-	3.3
2004-05	5.9	9.0	6.8	5.2	3.3	5.8
2009-10	9.8	15.8	10.2	9.1	4.8	9.7

Source: Ravindran and Ajay Kumar Naik (2012)

Rural employment in terms of status shows that "regular" employment opportunities continue to hold a very low share at about 7 percent (Table 8). There is an increase in the share of casual labor from about 31 percent in 1983 to 39 percent in 2009-10, which is entirely due to a decline in self-employment. It also shows that a certain proportion of self-employment in agriculture, as well as in non-agriculture, appears to be thin and flexible so that workers can move to self-employment if there were to be no opportunities for wage employment. These intersections between casual employment and self-employment, the activities in which such straddling is possible and the social groups of workers involved are interesting questions that can only be answered through micro-level data and observation.

Table 8. Employment Status of Rural Workers (UPSS) (%).

Year	Regular	Self-Employed	Casual
1983	7.52	61.02	31.46
1993-94	6.42	58.02	35.55
2004-05	7.08	60.13	32.79
2009-10	7.29	54.15	38.56

Source: NSSO Employment and Unemployment Surveys: 38th Round (1983), 50th Round (1993-94), 61st Round (2004-05), 66th Round (2009-10) and 68th Round (2011-12)

Self-employment is, thus, one of the biggest puzzles for analysis because of its range of activities from dire subsistence rag-picking or street-vending to practicing law or medicine, or real estate brokering. Often questions are raised whether self-employment is distress driven or driven by opportunities to improve earnings. Distress driven self-employment appears to be more among women, going by the information that about 20 million women dropped out of self-employment in a matter of five years between 2004-05 and 2009-10. Table 9 shows the drastic decline in female labor force participation during this period, which was entirely due to the withdrawal of women from the self-employment sphere. What is perplexing is whether what passes for rural female self-employment is a kind of flexible easy entry low-productive employment that could be sought to overcome distress.

Table 9. Changes in the Composition of Rural Workforce by Gender and Status of Employment (UPSS) (in millions).

	Male				Female				All (M+F)			
Year	SE	RWS	CL	Total	SE	RWS	CL	Total	SE	RWS	CL	Total
1993-34	108.4	16	63	187.6	61.4	2.8	40.5	104.7	169.8	18.8	104	292.6
1999-00	109.4	17.5	72	198.9	60.6	3.3	41.9	105.8	170	20.8	113.9	304.7
2004-05	126.5	19.6	72	217.7	78.6	4.6	40.2	123.4	205.1	24.2	111.8	341.1
2009-10	123.6	19.6	88	231	58.1	4.6	41.6	104.3	181.7	24.2	129.4	335.3

Source: Estimates based on NSS Employment and Unemployment Survey Unit Record Data

This raises questions relating to the quality of female employment. Are they often pushed into low productive employment? Table 10 shows the share of "subsidiary" employment (which is defined as some economic activity that provides work much below what normal employment does, both in terms of time spent and earnings made) in male and female employment. Though there has been a trend decline in subsidiary employment of both male and female workers since 1983, the proportion of the same in the case of women is more than ten times (22.61%) even in 2009-10 compared to that of men (1.83%). The fact that almost one-fourth of rural women workers come under subsidiary status of employment shows the poor quality of employment opportunities available to women in rural areas. The popular description that there has been "feminization" of agriculture is misleading (Abraham 2013). There are several explanations for the drastic decline in the female labor force and workforce participation rates between 2004-05 and 2011-12 (IHD 2014). First, there has been significant increase in enrolment of women in educational institutions. The female student population increased from 118 million in 2004-05 to 151 million in 2011-12. In the

case of rural females, the average number of years of schooling was 2.7 years in 2004-05 which increased to 3.8 years in 2011-12. Though this does not explain the female labor force participation across the age groups, the fact is that the sharpest drop in female LFPR during 2005-12 was in the age group of 15-24 years. Second, the tightening of labor market and enhanced male wages and family income among some groups appear to be a motivating factor behind withdrawal of women from the labor force. Third, the decline in female LFPR during the period is also attributed to higher enrolment for work in 2004-05 due to drought and distress, and withdrawal in the later period due to improvement in the family earning condition.

Table 10. Male-Female Differences in the Share of "Subsidiary Status" Workers in the Total Workforce (UPSS) (%).

Year	Male	Female	All
1983	3.47	27.06	12.22
1993-94	2.71	28.66	12.00
2004-05	2.01	25.99	10.70
2009-10	1.83	22.61	8.30

Source: NSSO Employment and Unemployment Surveys: 38th Round (1983), 50th Round (1993-94), 61st Round (2004-05), 66th Round (2009-10) and 68th Round (2011-12)

Another dimension that is cause for concern is the quality of youth which is likely to be the basis for future workforce. In the context of fast globalization, growing competition can only be met through better education and improved skill levels of workers which meet the requirements of productivity growth. For instance, if we take into consideration the age-group of 15-19, it is the group that should have the ability to face the high quality labor force demands that will arise in the next forty years across different occupations. The minimum entry-level educational requirement to meet such a need would be at least matriculation or ten years of school education. Those who fail to acquire such a minimum education because of their domestic need to work to earn a livelihood or because of dropping out of school will miss a lifetime opportunity for productive employment. Table 11 shows that a very large proportion of rural youth end up working to earn a means of livelihood, and thus miss the opportunity to acquire required education. There is a social dimension to missing school, and the caste-based difference in working at an early age is still very high. Table 12 gives details of youth (15-19 years) from different social groups who have completed secondary level education. Though there has been some improvement, still even in 2009-10, almost three-fourths of the youth in this group go without secondary level education. This results in their bleak productive work prospects which are guaranteed by their poor educational and skill attainments. What is equally disturbing is the persistence of differences in the educational attainments among different social groups.

Table 11. Labor Force Participation Rate of Different Social Groups in 15-19 Age Group (Rural).

				As Ratio to "Others"*		
Social Group	1993-94	2004-05	2009-10	1993-94	2004-05	2009-10
ST	68.4	59.4	39.8	1.50	1.67	1.61
SC	55.1	49.0	34.1	1.21	1.38	1.38
OBC	-	44.0	29.3	-	1.24	1.19
Others	45.5	35.5	24.7	1.0	1.0	1.0
All	49.5	44.3	30.4	-	-	-

*Indicator of disparity between social groups

Source: NSSO Employment and Unemployment Surveys: 38th Round (1983), 50th Round (1993-94), 61st Round (2004-05), 66th Round (2009-10) and 68th Round (2011-12)

Table 12. 15-19 Age Group with Completed Secondary Level Education among Different Social Groups (Rural).

				As Ratio to "Others"		
Social Group	1993-94	2004-05	2009-10	1993-94	2004-05	2009-10
ST	8.6	12.7	25.0	0.46	0.39	0.58
SC	10.0	17.6	29.6	0.54	0.54	0.69
OBC	-	24.0	36.9	-	0.74	0.86
Others	18.6	32.3	42.9	1.0	1.0	1.0
All	16.0	23.7	35.4	-	-	-

Source: NSSO Employment and Unemployment Surveys: 38th Round (1983), 50th Round (1993-94), 61st Round (2004-05), 66th Round (2009-10) and 68th Round (2011-12)

Seasonality and seasonal migration

Rural India continues to depend substantially on agriculture, and agricultural operations are characterized by seasonality. With low resource endowments, such as irrigation facilities, the dependence of agriculture on weather increases. About forty percent of the arable land in India constitute the semi-arid tropics (SAT) where agriculture largely ends up as a one-season activity, making it crucial for rural agricultural workers to seek alternative off-season employment in rural non-farm activities within the village, or migrate seasonally to other rural or urban areas seeking work.

Estimating the number of workers involved in seasonal migration is often difficult. The decennial Census and the NSSO periodic surveys are the major sources of data on migration. In India temporary migration, seasonal migration, short-term migration and circular migration are used interchangeably (Kesari and Bhagat 2012). The Census defined temporary migration as referring to those staying away from their usual place of residence for less than one year. The National Sample Survey (NSS) of 1999-2000 (55th Round) referred to those migrants staying away for two months or more but less than six months, but in a subsequent survey (64th Round 2007-08) the NSS defined temporary migrant "as a household member who has stayed away from his or her usual place of

residence for one month or more but less than six months in the last 365 days for employment or in search of employment". According to the NSSO (2007-08) all migrants including non-workers, were estimated at 324 million, of whom 140 million were workers. Temporary or seasonal migrants were estimated as 13 million or about 2 percent of the total workforce of the country. A widely shared view is that there are gross underestimates (Srivatsava 2011, Deshingkar and Akter 2009, deHaan 2011) and alternative estimates of seasonal migrant workers in India are placed in the range of 40 to 100 million, and some of the micro-studies show villages in states, such as Bihar, having an incidence of seasonal migration as high as 85 percent of the households. Out of all the streams of seasonal migration, rural-urban (63%) and rural-rural (30%) together account for 93 percent, and serve as an important source of supplementary employment.

Seasonal migrant workers face several problems in their working and living conditions. Often the very recruitment process through labor contractors puts migrant workers at a disadvantage. In a number of cases the advances taken at the time of recruitment may turn into a kind of semi-bondage. The rural seasonal migrant workers are hardly organized and have very little bargaining power. They are mostly employed in the unorganized, unregulated sector and this compounds their vulnerability. They suffer from longer working hours, poor living and working conditions, social isolation and poor access to basic services. Due to lack of portability, they may be at a disadvantage while availing some of their basic social entitlements, such as access to the public distribution system, public health and schooling for their children. Many of the temporary migrants have dual sources of livelihood, earning in peak season in agricultural work and moving for non-farm work to urban areas in the off-season. Owing to this reason families are often left behind in their usual homes in villages. Migrant workers are highly segmented, have very little political clout and are invisible in the policymakers' perspective of development. In spite of wider recognition that migrant workers play a vital role in the massive surge in construction, trade and services, there is no clear policy towards setting up regulations ensuring minimum conditions of decent work, basic social security measures and provision of affordable shelter, education and health facilities at the place where they migrate to work.

Rural wages

Over the past two decades there has been a trend of increasing growth in real wages in rural areas. The rising trend in rural real wages dates back to the early 1980s. It was sustained during the 1990s and the trend rise continued, though there were fluctuations in the last decade. Real farm wages grew at an annual rate of 3.7% during the 1990s and at 2.1% in the 2000s (Gulati et al. 2013). Real wages for both male and female rural casual labor increased at an average rate of about 3 percent per annum during the past two decades. Table 13 shows real wages of male and female rural casual workers between 1993-94 and 2009-10.

Though there is no evidence that productivity levels in agriculture and non-agriculture would soon converge or reach a "Lewis Turning Point", it is also observed that the urban-rural wage differentials for casual work have been declining over time, while the difference between regular and casual workers has been rising in both rural and urban areas. A combination of factors, such as the revival of agricultural growth, increased support prices for major agricultural crops, accelerating growth of rural non-farm employment, withdrawal of rural women from work in the second half of the last decade, high level of public expenditure on rural development programs including MGNREGS, and of course faster growth in per capita income in general, appear to have firmed up the demand for

rural labor resulting in sustained growth in real wages (Himanshu 2004, Binswanger-Mkhize 2013). There has been considerable debate on the impact of MGNREGA on rural labor markets including labor supply to agriculture, agricultural wages, migration, and the bargaining power of labor. While there is incontrovertible evidence that rural real wages in general, and agricultural wages in particular, have experienced growth over the 1990s and 2000s, there are differences in the findings on whether the spurt in agricultural wages since 2006-07 has been the result of the MGNREGA or not. Gulati et al. (2013) finds that it is overall growth and especially growth in the agricultural GDP that has increased the paying capacity of farmers and thereby resulted in the growth of agricultural wages. Berg et al. (2012) attributes the substantial effect of MGNREGA on the growth of agricultural wages. Jose (2013) examines the differential rates of growth in rural wages across the states and finds that besides MGNREGS, growth of the State Domestic Product per capita, demographic dividend and the net impact of migration and social sector spending are the factors influencing growth of rural wages.

Table 13. Daily Real Wage Rate of Rural Casual Labor other than in Public Works (at 2004-05 Prices).

Year	Male	Female	Persons
1993-34	42.01	27.79	37.23
1999-00	53.54	34.6	47.36
2004-05	55.03	34.94	48.89
2009-10	65.56	44.52	60.09

Source: NSSO

6. Changes in Labor Market Institutions

There have been a number of changes in the rural labor market institutions. In agriculture, the system of attached labor has almost disappeared – except in certain pockets of the country where elements of feudal relationships survive, and in certain industrial enclaves such as brick kilns, quarries and rice mills. Studies on rural and agricultural labor markets in the context of the implementation of the MGNREGA (Reddy 2012, Reddy 2013) show a number of changes. Though there is no evidence of increase in the mobilization or organization of rural labor, rural labor markets have witnessed an improvement in the *in situ* bargaining power of this labor. The number of working hours in a day of agricultural work has gradually declined, but there is an increasing tendency towards payment of wages by piece rate even in agriculture. Notwithstanding the improvement in labor market conditions, there are a number of aspects on which rural labor still remain highly vulnerable and insecure. The pattern of rural employment growth driven by the construction sector raises the question of sustainability because there is no historical evidence of construction booms lasting for more than a decade or two. The decline in the share of rural manufacturing and community services builds volatility into the growth and structure of rural employment.

Table 14. Growth of MPCE in Rural India by the Occupation of the Household (2004-05 Prices).

S.No	Type of Households – Major Source of Income	Mean MPCE (Rs 0.0)				Growth (%)			%
		1983	1993-1994	2004-2005	2009-2010	1983-1994	1993-2005	2004-2010	1993-94 -2010
1	Rural Agriculture Labor	316.7	379.1	415.6	476.2	1.7	0.8	2.8	25.6
2	Rural Cultivators	451.5	526.6	583.3	643.6	1.5	0.9	2.0	22.2
3	Self-Employed in Non-Agriculture	467.0	513.4	604.0	653.1	0.9	1.5	1.6	21.4
4	Non-Agriculture Labor	411.9	465.1	519.5	563.7	1.2	1.0	1.6	21.2
5	Others	-	669.9	818.2	916.2	-	1.8	2.3	36.8
All Rural		415.5	490.7	558.7	614.9	1.6	1.2	1.9	25.3

Note: 1. Growth is compound annual rate of growth (CAGR); 2. Mean MPCE (URP) is in nominal terms.

Source: Computed using NSS Consumption Expenditure Survey unit record data

Regulation, protection and social security of rural labor

Though India is considered to be a country with "excessive" labor legislation measures, most of these labor laws are applicable only to workers in the organized sector. Organized sector workers constitute hardly 10 percent of the total workforce in the country, leaving 90 percent of workers unprotected. Most of the rural labor is in the unorganized sector. Of the 54 Central Government labor laws and another estimated 160 State laws or special subjects supplementing Central laws, hardly a handful apply to rural labor and even these laws are rarely implemented. Minimum Wages Act, the Building and Other Construction Workers Act, Unorganised Workers' Social Security Act, and Inter-State Migrant Workers' Act are the main legislative measures applicable to rural labor but most of them are not effectively implemented. For instance, of those for whom Minimum Wages are fixed, only 38 percent are paid that and it varies from year to year and from region to region. Most of the resources collected as Welfare Fund under the Building and Other Construction Workers Act are not utilized for the benefit of workers. The Unorganised Workers' Social Security Act is enabling in nature, and the Rashtriya Swasthya Bhima Yojana (RSBY) is extended only to those families below the poverty line (BPL). The Inter-State Migrant Workers' Act is hardly implemented by any state seriously. Better implementation of the existing laws for rural labor and extension of Employees' State Insurance and Employees' Provident Fund Act with appropriate modifications relating to contributions are essential for improving the living conditions of rural labor.

7. Poverty and Levels of Living of Rural Labor

Historically, structural transformation of shift in employment from agricultural to non-agricultural activities was also experienced in the form of shift from rural to urban, and from relatively low productive agriculture to high productive non-agriculture, which was also organized and substantially urban, with adequate social and employment protection. But, what is typical of the Indian case is the shift from agriculture to non-agriculture within rural areas in activities, which are largely unorganized, with informal employment, and without any social or employment security. Though real wages of rural labor do show a rising trend, the increase is over a much lower base. The rise in real wages has been on a very low base and has no relation with the rise in productivity in rural areas (Binswanger-Mkhize 2013). Table 14 shows the changes in the consumption expenditure of different types of rural households. Between 1993-94 to 2009-10 the overall real per capita income more than doubled from Rs 12,126 to Rs 27,008, but the monthly per capita consumption expenditure (MPCE) of agricultural workers increased only by about 26%, and in the case of non-agricultural labor the increase was about 21%. The aggregate trends in wages and employment do not completely capture the processes of discrimination and segmentation that prevail in rural labor markets, and the lack of opportunities for more productive employment and earnings. Certain social groups – such as STs and SCs, among who rural work participation is high and incidence of unemployment is relatively low – still suffer from higher levels of poverty and have fewer opportunities for decent work. This is evidenced from Table 15 which shows that though poverty levels across social groups have been declining over the years, they still remain very high among STs and SCs. It is also well known that most of the STs and SCs depend more on agriculture-based labor, which continues to keep them as the poorest among all rural workers.

Table 16 shows the proportion of workers who remained below the poverty line among different categories of rural workers over the years. Even in 2009-10, a large proportion of agricultural laborers (49.4%) and other rural laborers (39.6%) remained below the poverty line, constituting a large mass of working poor in rural areas. Public intervention programs, such as MGNREGS, did make an impact on reducing days of unemployment, improving bargaining power and the earnings of rural labor (Kannan and Reddy 2013), but these were not adequate enough to enable them to experience smooth transition from limited and declining employment opportunities in agriculture to alternative and more secure and productive employment.

Table 15. Incidence of Poverty* across Social Groups in Rural India.

			Rural		
Year	ST	SC	OBC	Others	All
1993-94	65.7	62.2	-	43.9	50.1
2004-05	62.3	53.5	39.8	27.1	41.8
2009-10	47.4	42.3	31.9	21.0	33.8

*Head Count Ratio as per Tendulkar Committee
Source: Estimates based on unit level NSSO Consumer Expenditure Surveys

Table 16. Working Poor in Rural India: Percentage of Poor across Types of Households.

S. No.	Type of Household	1993-94	2004-05	2009-10
1	Self-Employed in Non-Agriculture	44.0	36.3	28.0
2	Agricultural Laborers	70.4	63.1	49.4
3	Other Labor	57.1	48.6	39.6
4	Self-Employed in Agriculture	41.9	33.2	26.2
5	Others	33.6	21.8	14.4
Total		50.2	41.8	33.3

8. Key Findings

- Diversification from agriculture to non-farm sectors in both output and employment;
- Non-agriculture sector emerged as a dominant sector in rural Net Domestic Product (NDP) and contributed 65% to the rural NDP in 2010;
- Labor moving from agriculture to non-agricultural activities;
- Real wages for both male and female rural casual labor increased at an average rate of about 3 percent per annum during the past two decades;
- Barring manufacturing, construction and services, such as trade, restaurant, hotel, etc., are the main sources of rural non-farm employment;
- The sustainability of the growth of employment in the rural construction sector raises much uncertainty;
- There is a sharp decline in Female Labor Force Participation Rate from 33-34 percent in 2004-05 to 26.5 percent by 2009-10;
- The traditional concept of less participation of Scheduled Tribes (ST) and Scheduled Castes (SC) in non-agricultural sector has reversed. Now, even among STs and SCs the share of rural non-agricultural work has not only increased but is even higher than the “others”;
- Distress driven self-employment in the non-farm sector appears to be more prevalent among women (low productive employment);
- Quality of youth − a very large proportion of rural youth is joining the workforce very early to earn a living, thus missing an opportunity to acquire the required levels of education − a cause of concern with regard to the workforce of the future;
- Growing rural-urban temporary migration, especially by male workers for relatively higher wage work;
- Changing contractual arrangement of rural labor: Disappearance of bonded and attached labor (almost); casual labor is predominant but increasingly shifting from daily wage work to piece rate or contractual work, thus increasing the bargaining power of labor.

9. Concluding Observations

This review shows that there have been rapid and substantial changes in the field of rural labor employment which adds to the complexity of conditions pertaining to working and living conditions of rural labor. For the purpose of evolving appropriate policy interventions, it is necessary to bring clarity to some of the puzzling issues here, such as the steep decline in female labor force participation, the emerging rural-urban continuity in livelihood strategies, the vulnerabilities due to insecurities in employment as well as lack of social security, etc. An indicative set of issues are identified here for detailed studies based on the rich micro-level sources, as in the VDSA database. As observed earlier, unlike formal employment, informal rural employment leads households and individuals to seek work from multiple sources across sectors, geographical space and time. Trends in these dimensions have to be analyzed to understand the impact on rural workers and their households. Implications of movement from self-employment to casual employment and the potential for regular employment, changing contribution of agricultural and non-agricultural activities to employment and earnings of the households of different social groups, and the determining factors of different types and quality of non-farm employment are the aspects that would help in designing interventions in favor of rural labor.

There are other aspects, such as the sustainability of "construction" as a source of employment, the factors constraining the growth of manufacturing and the nature of technological changes, and the skills needed in services, which call for detailed studies to discern the path of rural development. The persistence of a high proportion of working poor, continued discrimination and segmentation in employment, the vulnerability of seasonal migrant labor, are the other aspects which need detailed micro-level studies. The assessment of public interventions, such as public works programs on the employment and earnings position of rural labor, and on the rural markets in different agro-climatic conditions, is another dimension that has been assuming critical policy significance. A systematic and detailed program of analyzing the emerging trends in the rural labor markets with the help of micro-level data would serve as the basis for not only understanding the direction of rural transformation, but also in evolving interventions towards desirable development that would improve the working and living conditions of rural labor.

10. Policy Suggestions

Based on the empirical results of the paper, the following policy measures are suggested:

- Strong policy support towards infrastructure, transport, storage, credit and market to address non-farm diversification;
- Creation of large-scale employment opportunities for the rural poor;
- Need for strengthening rural-urban connectivity;
- Rural-Urban migration is increasingly opportunity driven – Interventions to ensure security, safety and social protection to migrant labor;
- Training on agricultural machineries and modern farming techniques;
- ICT tools to facilitate information flow for the benefit of laborers and employers;
- Capacity building programs for skill augmentation, especially for females in order to enhance their skills;

- Development of labor saving technologies and machine harvestable crops;
- Inclusive farm mechanization program, especially for women and youth;
- Easy access to cheaper institutional credit for farm mechanization;
- Ensuring that MGNREGA allows for employment creation during slack season, critical for mitigating farm labor scarcity and enhancing livelihoods of the poor.

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About ICRISAT

International Crops Research Institute for the Semi-Arid Tropics

ICRISAT is a member of the CGIAR Consortium

The **International Crops Research Institute for the Semi-Arid Tropics** (ICRISAT) is a non-profit, non-political organization that conducts agricultural research for development in Asia and sub-Saharan Africa with a wide array of partners throughout the world. Covering 6.5 million square kilometers of land in 55 countries, the semi-arid tropics have over 2 billion people, of whom 644 million are the poorest of the poor. ICRISAT innovations help the dryland poor move from poverty to prosperity by harnessing markets while managing risks – a strategy called Inclusive Market-Oriented Development (IMOD).

ICRISAT is headquartered in Patancheru, Telangana, India, with two regional hubs and six country offices in sub-Saharan Africa. It is a member of the CGIAR Consortium. CGIAR is a global research partnership for a food secure future.

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