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ASIA RESEARCH CENTRE WORKING PAPER 44

# **Non-Farm Diversification and Rural Poverty Decline: A Perspective from Indian Sample Survey and Village Study Data<sup>1</sup>**

Himanshu (JNU, Delhi), Peter Lanjouw (World Bank), Abhiroop Mukhopadhyay (ISI, Delhi)  
and Rinku Murgai (World Bank)

## **Abstract**

This paper studies the evolution of the rural non-farm sector in India and its contribution to the decline of poverty. It scrutinizes evidence from a series of nationally representative sample surveys and confronts findings from these sources against the experience of poverty decline in a western Uttar Pradesh village, Palanpur, which has been the subject of close study over a period of six decades. Sample survey data indicate that the non-farm sector in rural India has grown steadily during the past 30 years, with some acceleration during the late 1990s to the mid-2000s followed by a leveling off after 2004-05. The suggestion is of a process that has contributed modestly to declining rural poverty both directly, through employment generation, and indirectly through an impact on agricultural wages. The paper illustrates that in Palanpur, it is only relatively recently that rural poverty decline has become strongly linked to diversification of the village economy. There is little evidence that, prior to the 1990s, the poor in the village were able to participate actively in this process of intersectoral transfer out of agriculture. Data collected in 2008/9 indicate that continued expansion of the non-farm sector has now started to engage the poor directly and in a very significant manner. As the non-farm sector has expanded, the previously disadvantaged and most vulnerable segments of village society have gained access to non-farm employment opportunities and have recorded significant upward mobility. The paper goes on to highlight the close association between urban poverty reduction and rural non-farm growth (and accompanying rural poverty reduction). In particular the paper singles out small towns in India as both particularly closely linked to rural non-farm development and recording particularly high rates of urban poverty. It is suggested that galvanizing small towns may thus serve both urban and rural poverty reduction objectives.

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<sup>1</sup> This paper arises out of an ongoing project to resurvey the village of Palanpur in 2008/9 funded by the UK Department of International Development and draws also on a recently completed World Bank Poverty Assessment of India. Lanjouw is involved in both of these projects while Himanshu and Mukhopadhyay are key participants in the Palanpur project and Murgai is a co-task manager of the World Bank's India Poverty Assessment. The Palanpur project is a collaborative effort based at the Asia Research Centre, London School of Economics and at the Centre de Sciences Humaines, Delhi. The World Bank's India Poverty assessment has been undertaken by the Poverty Reduction and Economic Management (PREM) network and the Development Economics Research Group (DECRG) of the World Bank. We are particularly grateful to Nicholas Stern for his central role both in launching the Palanpur project and in providing guidance to the India Poverty Assessment. We further wish to thank Jean Drèze, Ruth Kattumuri, Naresh Sharma, Dipa Sinha, Dinesh Kumar Tiwari, Ashish Tyagi, Neeraj, M. Sangeeta, Rosalinda Coppoetta, Loic Watine, Camille Dufour, and Florian Bersier, for their invaluable contributions. The views in this paper are those of the authors and should not be interpreted as those of the World Bank or any of its affiliates. All errors are our own.

## 1. Introduction

Rural India is home to 75% of the nation's population and about the same proportion of the poor in the country. Most of rural India's workforce (70%) remains primarily involved in agriculture, but in recent decades this sector's growth has lagged other sectors in the economy. While there is no escaping the need to galvanize agriculture, it is also clear that India needs to manage a transition of people out of agriculture. The gap between the number of new rural workers and the number of new jobs in agriculture is growing; agricultural advances alone will not meet the rural employment challenge. Migration to urban areas will be important, but the rural non-farm economy will also have to be a key source of new jobs.

The aim of this paper is to study the role of the growing non-farm sector in reducing rural poverty. The paper assembles various National Sample Survey Organisation (NSSO) employment surveys in order to track changes in the non-farm sector since the early 1980s.<sup>2</sup> It supplements survey-based evidence with insights arising from the detailed study of long-term economic development in a single village, Palanpur, located in western Uttar Pradesh. This village study points to the possibility of an accelerating impact of rural non-farm diversification on poverty in India, the result of a trend towards improved access of the poor to non-farm jobs that is accompanying the overall expansion of the non-farm sector.

The paper begins by examining NSS survey data to look at the transformation of India's countryside currently underway. We provide detailed evidence covering the period between 1983 and 2004-05 and provide some supplementary findings from the more recent 2007-08 NSS survey. Section 2 considers rural India's gradual economic transformation, documenting a process of diversification out of agriculture that is slow but accelerating. Section 3 shows that with growth of the non-farm sector there is also evidence of declining "quality" of non-farm jobs, notably in the direction of increased casualization of non-farm employment, away from regular, salaried, employment. The section also documents a persistently high share of the overall non-farm workforce engaged in self-employment activities. Section 4 asks whether the poor have been able to find employment in the non-farm sector as this sub-sector has expanded, and suggests that casualization of non-farm employment opportunities has indeed translated into improved access of the historically disadvantaged segments of rural society to non-farm employment. The section argues that as returns from casual non-farm employment are higher than from agricultural labour (though markedly lower than from regular non-farm employment), the growing participation of disadvantaged groups in this (sub) sector is likely to have been a positive force for poverty reduction. Section 5 reports on NSS-based regression analysis that points to a positive impact of expanding non-farm employment on agricultural wages, and thus an important additional, though indirect, impact of rural diversification on rural poverty.

We then enquire, in Section 6, whether the NSS-based findings square with what can be observed at the village level. Palanpur, a village in western Uttar Pradesh, has received intensive scrutiny by economists, based on very rich data on a wide array of economic activities covering

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<sup>2</sup> The survey based analysis in this paper draws primarily on four "thick" rounds of the NSS—1983, 1993-94, 1999-2000, and 2004-05. We supplement this analysis with some preliminary evidence from the 64<sup>th</sup> round of the NSS, corresponding to 2007-08, taken from Himanshu (2011). We do not report data from the 1987-88 thick rounds because the unit record data do not produce wage rates that are comparable to wage estimates for that year published by the NSS itself. In addition, because of well-known comparability problems of the 1999-00 consumption aggregate with other rounds, in regression analysis of impacts on poverty, we exclude the 1999-00 survey round.

the entire village population, from the late 1950s through to the present day. A detailed survey of the village was undertaken in the village most recently during May 2008 to April 2010, and these data can be scrutinized alongside evidence collected during previous decades. The data indicate that the all-India patterns and processes seen in NSS surveys, are clearly underway also in this single village setting. In Palanpur, the poor were historically sharply disadvantaged in terms of access to a non-farm sector that started to become significant for the village economy in the 1970s. The poor lacked the social status, education, networks, and ability to pay bribes, necessary to obtain employment in outside jobs – particularly in those that provided regular, salaried, employment. An important finding from the most recent round of Palanpur data is that as the non-farm sector has seen some further expansion into the village economy, access to non-farm jobs has become noticeably more broad-based. Although the trend towards casualization, pointed to by the sample survey data, can also be clearly observed in Palanpur, it remains that such non-farm employment has translated into upward mobility for a significant number of Palanpur households that had previously appeared mired in absolute poverty at the bottom of the village income distribution.

The suggestion from the combined NSS and Palanpur data is of a slow process of non-farm diversification, whose distributional incidence, on the margin, is increasingly pro-poor. Efforts by the government of India to accelerate this process of diversification could yield significant pay-offs in terms of declining poverty. What can be done to accelerate such an expansion? We return in Section 7 to NSS data and take advantage of the variation in the non-farm sector across the country to explore the determinants of its growth. An important finding is that expansion of the non-farm sector in recent years has been more closely linked with urban growth than with agricultural growth.

Pursuing the relationship between urban growth and growth of the rural non-farm sector, we next ask how the impact of urban growth on the non-farm sector (and thus on rural poverty) might be further accentuated. We draw on a companion paper (Lanjouw and Murgai, 2010) to point to evidence that the association between urban growth and the rural non-farm sector is stronger if the urban centre is a small town than if it is a large city. Galvanizing the urban sector, particularly small towns, may thus constitute an important pillar of a strategy to combat rural poverty.<sup>3</sup> Such a strategy could also align with an urban poverty reduction strategy: Lanjouw and Murgai (2010) show that urban poverty rates in India's small towns and cities are markedly higher than in large metropolitan areas.

## **2. India's Slow but Accelerating Rural Transformation**

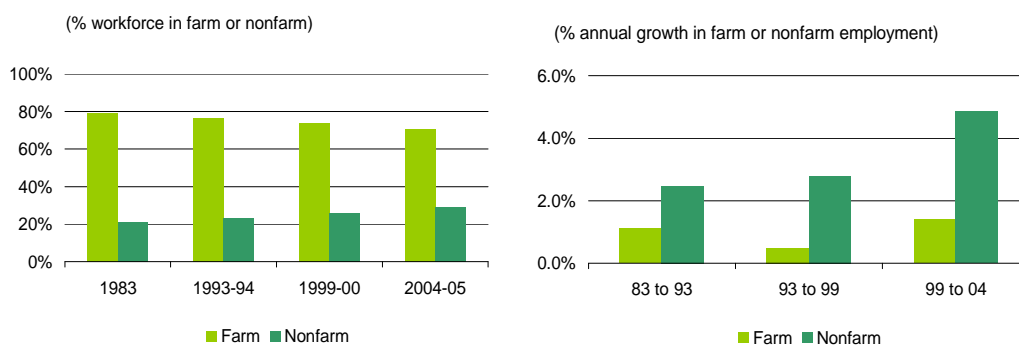
After a long period during which the share of agriculture in the labour force remained constant, its share started declining in the mid-1970s, a trend that continues to this day. The share of the rural non-farm sector (all rural employment activities other than agriculture and its associated enterprises) has been increasing ever since. By the mid-2000s the sector employed nearly 30% of

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<sup>3</sup> And indeed, Palanpur villagers also enjoy reasonably good access to two nearby conurbations, Moradabad and Chandausi, which provide the bulk of the non-farm employment opportunities available to the villagers.

India's rural workforce (Figure 1). This amounts to about 100 million people who spend most of the year working on non-farm activities.<sup>4</sup>

**Figure 1: The rural non-farm sector is expanding at a slow, but accelerating pace**



*Notes:* Employment defined on the basis of principal-cum-subsidary ('usual') status. Farm versus nonfarm assignment is based on workers' reported industry, occupation, and employment status. Number of farm and nonfarm worker are calculated using (a) estimated proportions from unit level data, and (b) total rural workforce as in Sundaram (2007). *Sources:* World Bank 2011. Estimates based on 'Employment and Unemployment Survey' (EUS) of respective NSS rounds for 1983, 1993-94, 1999-00, and 2004-05.

In fits and starts (with a slowdown immediately following the reforms in the early 1990s) the pace of diversification away from agriculture further picked up pace in the 1993-2004 decade, especially after 1999.<sup>5</sup> Over the first period, 1983 to 1993-94, the average annual growth in non-farm jobs was just over 2%. Between 1993-94 and 1998-99, this increased to 3%, and from 1999 to 2004-05, this increased again to 4%. In the eighties, of the nearly 40 million additional rural jobs generated, the majority (6 out of every 10) were in the farm sector. But more recently, between 1993 and 2004, non-farm employment growth has outstripped agriculture: of the 56 million new rural jobs created over this period, 6 out of every 10 were in the non-farm sector (Figure 2). Himanshu (2011) indicates that growth of non-farm employment between 1999-00 and 2004-05, was likely to be, at least in part, also driven by distress in the agricultural sector which prompted households to more actively seek employment

<sup>4</sup> Unless mentioned otherwise, the NSS-based employment data presented in this paper refer to the Usual Principal and Subsidiary workers ("usual status") definition of employment. A worker's principal status is determined by the activity the worker spent most of his time doing in the year preceding the survey. Principal status workers are those who spent most of their time either employed or looking for jobs. Any activity other than the principal status constitutes a worker's subsidiary status. Usual status workers include principal status workers, and subsidiary workers who spent part of their time working or looking for jobs in the year preceding the survey.

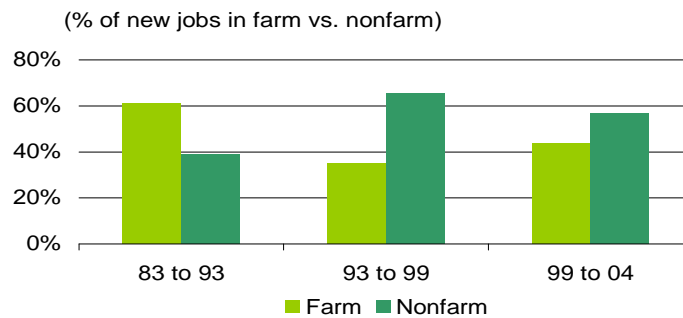
<sup>5</sup> Lanjouw and Murgai, 2009; Himanshu, 2008; Eswaran *et al.*, 2009. Sen and Jha 2005 contend that there was no acceleration in the first half of the nineties due to a decline in public expenditure in large parts of rural India in the post-reforms period. Accelerated diversification of the rural workforce towards non-farm activities is due to recovery in the sector since 1999-00 as well as a shift of workers out of agriculture due to a series of droughts in the early 2000s that placed a great deal of pressure on agricultural incomes (Himanshu, 2011).

in the non-farm sector. He provides evidence that between 2004-5 and 2007-8 resumption of growth in the agricultural sector scaled back this distress-induced shift to the non-farm sector, such that further employment expansion of the non-farm sector between 2004-05 and 2007-08 was relatively muted.

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**Figure 2: The non-farm sector is the source of most new jobs**

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*Notes and Sources:* See Figure 1

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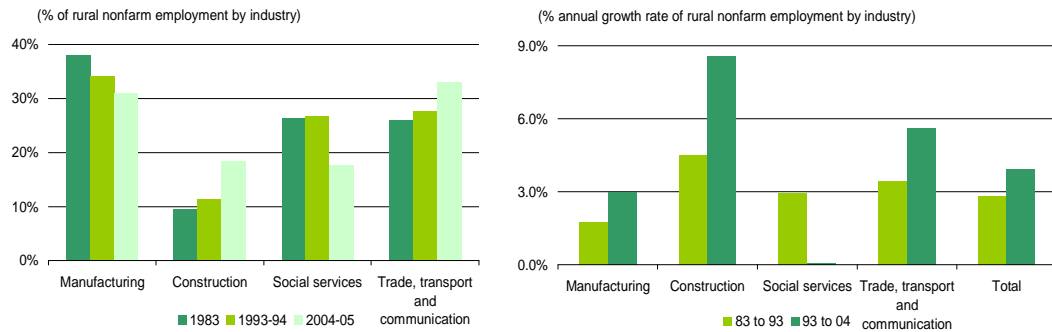
Nationally representative data on rural non-farm income is not available over time. But, according to the 2004 NCAER-University of Maryland India Human Development Survey, nearly one-half (48%) of the income of the average rural household comes from non-farm earnings (Dubey, 2008). This is true also of farming households for whom the share of their income from non-agricultural activities (46%) matches the contribution of agricultural incomes (Cai et.al., 2008).

### 3. The Casualization of Non-farm Work

The rural non-farm sector displays enormous heterogeneity, both in terms of sectors, and in terms of type of employment. The analysis of this section points to a growing, but increasingly casualized, rural non-farm sector. The casualization of non-farm work is evident in the types of sectors where jobs are being created and the types of jobs generated.

While manufacturing activities are often the first that come to mind when discussing the non-farm sector, by 2004-05 services provided employment for just over half rural non-farm workers (Figure 3). Only one-third was in manufacturing; the remaining one-sixth in construction. These shares have changed significantly over time. In particular, note the rapid rise of construction since the early 1990s: from only 11% of rural non-farm employment in 1993 to 18% in 2004-05. The share of social services (actually public administration and community services, as well as health and education) shows a corresponding decline over the same period: from 26% to 18%.

**Figure 3: Rural non-farm is manufacturing but also services and construction**



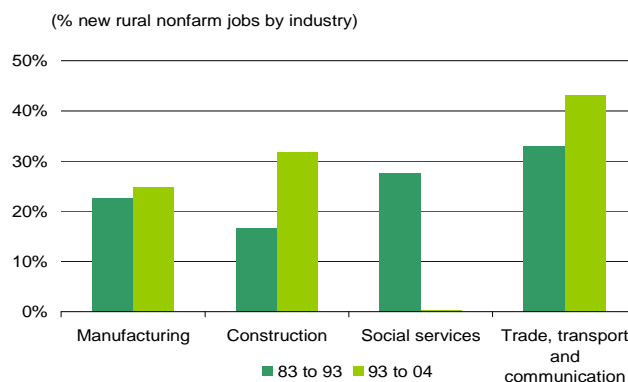
*Notes:* (a) Social services include public administration, defense, education, health, community and other personal or household services. (b) Trade, transport, etc. include wholesale and retail trade, hotels, restaurants, transport, storage and warehousing, and communication. Rest as in Figure 1.

All sectors saw a pickup in their employment growth rate in the nineties, except for social services, which did not grow at all. The stagnation evident here is likely due to the tight restrictions on government hiring following the fiscal crisis of the late 1990s (World Bank, 2005). Construction was the sector which grew fastest over both decades, and which saw the biggest jump in growth in the second decade, where the rural construction labour force grew on average by about 8.5% a year. Employment growth was also rapid in the second decade in the private-sector dominated service sectors of trade, transport and communication, at over 5% a year. Manufacturing employment increased by 3%.

Half of new jobs were in the construction, trade, transport and communications sectors between 1983 and 2003-04. But with the collapse of social services, and the boom in construction, 75% of new non-farm jobs created after 1993-94 were in construction and trade, transport and communications (Figure 4). Some of the services in trade and transport may well be related to the development of agriculture value chains, reflecting positive inter-linkages with agriculture.



**Figure 4: Increasing non-farm jobs in construction, trade, transport and communications**



*Notes and Sources:* See Figure 1 and 3.

Jobs in manufacturing and in the social services are more likely to be better paid and more secure, since the employer is more likely to be the government or a large company. Jobs in construction and in areas such as retail and transport are more likely to involve casual labour and self-employment. This casualization of the nonfarm sector is exactly what we find when we analyze the rural non-farm sector in these terms.

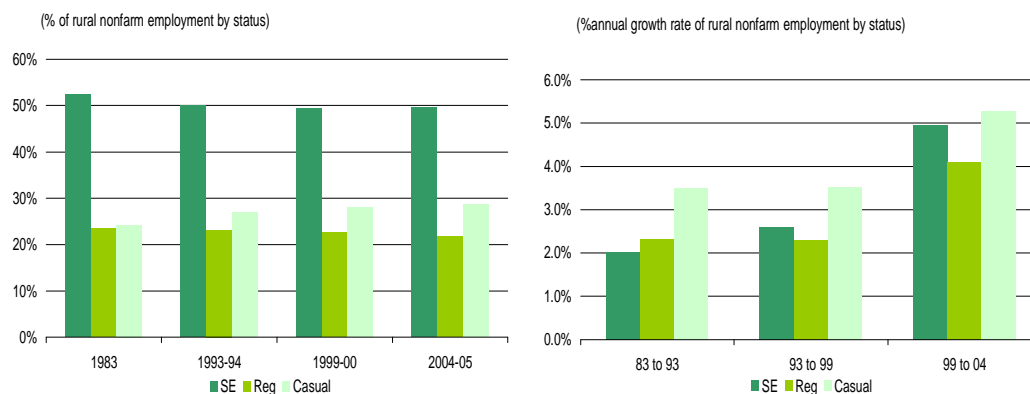
Non-farm activities can be crudely divided into three sub-sectors representing very different types of employment: *regular, salaried employment* where the worker has a long-term contract that does not require daily, weekly or monthly renewal; *casual wage labour* that entails a daily or periodic renewal of work contract; and *self-employment* where the worker operates her own business.

Regular non-farm employment is typically highly sought after and most clearly associated with relatively high and stable incomes. But only 6 % of rural workers or 22 % of the non-farm workforce held regular salaried jobs in 2004-05. 28% of the rural non-farm workforce was employed as casual labourers. While it is generally thought to be less demeaning to a worker than agricultural wage labour, and it pays better, casual work may be both physically demanding as well as hazardous (construction, rickshaw pulling, industrial workshops, etc.). In 2004-05 the other half of the non-farm rural workforce was involved in self-employment. Non-farm self-employment activities can be residual, last resort options (e.g., unpaid family labour and wage work concealed as self-employment under different forms of contracting out tasks) as well as high return activities. Whether they are of the former or latter variant generally depends on the skills and capital available for deployment.

Growth of all types of employment accelerated between between 1983 and 2004-05, but casual employment grew most quickly (Figure 5). The share of the self-employed remained at

roughly 50%, while that of casual employment grew from 24% in 1983 to 29% in 2004, and the share of regular employment fell slowly but consistently from 24% to 22%.

**Figure 5: Growth of all three types of non-farm jobs, 1983 to 2004-05**



*Notes and Sources:* SE – Self-employment, Reg – Regular Salaried/Wage Employee. Rest as in Figure 1

In absolute terms, between 1983 and 2004-05, the number of self-employed rose by 23 million, the number in regular employment by 10 million and the number in casual employment by 16 million.

The declining share of regular employment between 1983 and 2004-05 is surprising since, in the normal course of development, one would expect the share of regular jobs to increase. The slower growth of jobs in the regular sector since 1993 would seem to be linked to absence of growth in the social services employment, in which regular jobs would be more common, and the very rapid growth of construction and other services, in which casual jobs would predominate.

Indeed, the puzzle becomes why the number of regular jobs has gone up rather than down in recent years. The contraction of jobs in the public sector, which has historically been the primary source of salaried work in rural areas, has been offset by a growth in private sector jobs. Public sector jobs are highly coveted for the job security and the wage premium they provide over private sector jobs. Private sector jobs share few of these characteristics.<sup>6</sup>

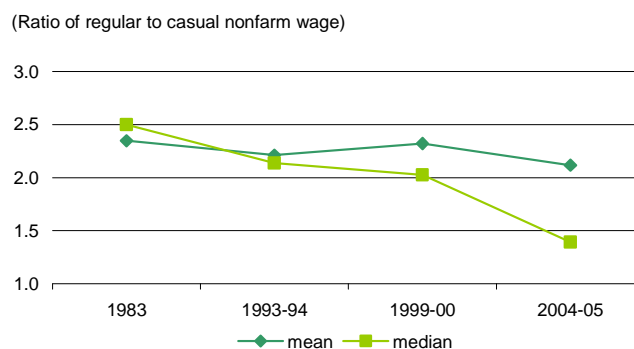
Unfortunately, the NSS does not collect data on income from self-employment. Since the self-employed make up 50% of the rural non-farm workforce, this makes it impossible to analyze changes in the income of the non-farm workforce. Our discussion is perforce restricted to the *employed* non-farm workforce.

<sup>6</sup> Using the ARIS-REDS panel data set (1969-1999), Foster and Rosenzweig (2003 and 2004) report very rapid growth in rural factory employment. In their data, rural factory employment increased tenfold between 1980 and 1999, about half the villages in their sample were located near a factory, and in those villages, 10% of the male labour was employed on a factory. NSS data over the same period do not show any such growth although they do confirm the importance of manufacturing as the next most important source of salaried jobs after the public sector.

While regular jobs are still much better paid than casual ones, the gap between the two is falling as a result of the casualization of the non-farm sector. Figure 6 shows the gap over four of the surveys between 1983 and 2004-05 using both the mean and the median to compare wages in regular and casual non-farm employment. Both ratios show a declining trend, which is much stronger with respect to the median than the mean, in the first ten and last five years.

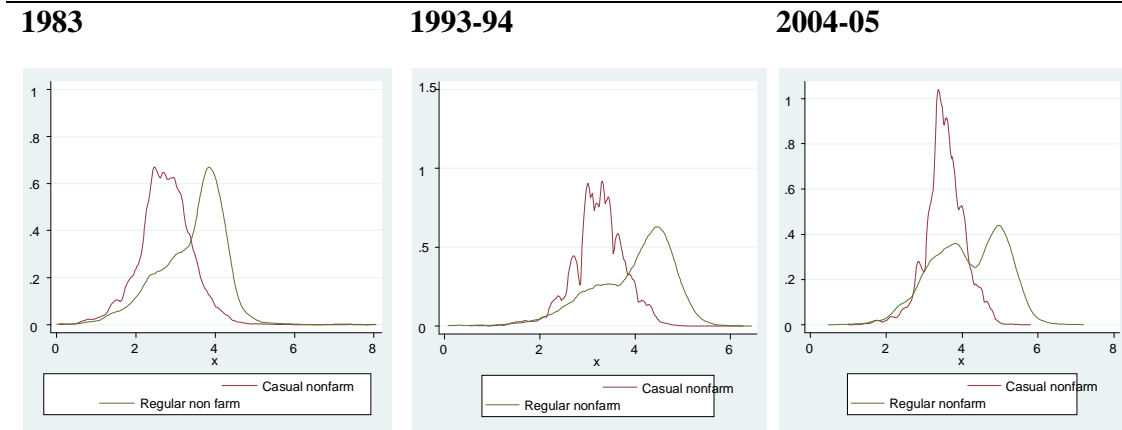
Figure 7 compares the distribution of casual and regular non-farm wages over time. Note the emerging dualism in salaried employment since 1993-94. By 2004-05, a significant share of salaried jobs is relatively poorly paid, and comparable to casual jobs. One reason is the contraction of the public sector which pays a high premium over private sector employees who have similar levels of skills and other observable characteristics (Desai et.al, 2008). Another reason might be the rising informalization of work, as noted by the National Commission on Enterprises in the Unorganized Sector (NCEUS, 2007). An increasing number of regular salaried workers have jobs without employment benefits (no protection against arbitrary dismissal), work security (protection against accidents and illnesses at the workplace) or social security (pension, health care etc.) benefits. The Commission reports that *all* of the growth in regular jobs since 1999-00 has been of employment of this informal nature.

**Figure 6: The declining premium of regular over casual non-farm wages**



*Notes:* Mean and median daily wage (Rs.) are calculated for 19 major states of India. *Sources:* See Figure 1

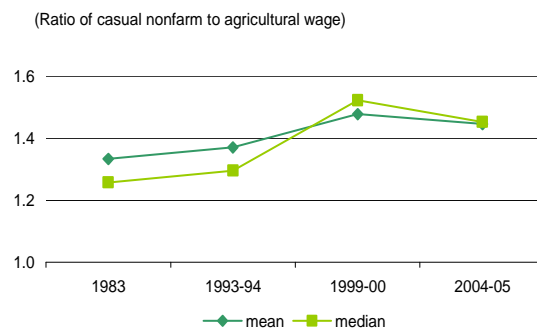
**Figure 7: Emerging dualism in salaried employment**



*Notes:* Distributions of log of real daily wages, in 1993-94 Rs, corrected for inflation using state consumer price indices for agricultural labour. *Sources:* See Figure 1.

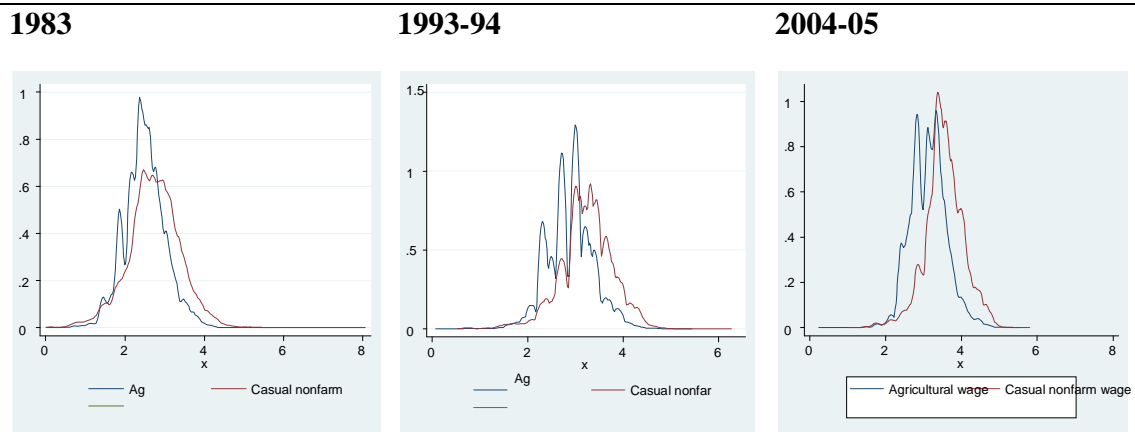
The premium embedded in the casual non-farm wage over the agriculture wage rose from 25-30% (depending on whether it is based on a comparison of means or medians) in 1983 to about 45% in 2004-05 (Figure 8). The premium is evident not only in a higher mean, but across the distribution (Figure 9).

**Figure 8: The increasing premium of casual non-farm over agricultural wages**



*Notes and Sources:* See Figure 6 and Figure 1.

**Figure 9: Casual non-farm jobs pay better than agricultural wage labour across the distribution**



*Notes and Sources:* See Figure 7 and Figure 1

Comparing the eighties and the nineties, there has been a slowdown in regular non-farm wage growth, much more rapidly if measured by the median than the mean (Table 1). This is consistent with wage growth at the top of the regular pay scale, but more rapid entry at the bottom end of the scale. The slowdown is particularly marked in the 99-04 period, and extends to the non-farm casual sector. The median regular wage fell by an annual average of over 5% between 1999 and 2004. This likely reflects the large public service pay increases associated with the Fifth Pay Commission, the public sector hiring freeze which followed, and the accompanying growth in low paid regular jobs, as well as the entry into the non-farm sector of workers pushed out of agriculture due to acute distress in the agricultural sector (Himanshu, 2011).

A lack of data makes it difficult to comment on the average earnings of the self-employed, or to assess whether the growth in the ranks of the self-employed is a symptom of agrarian distress or a sign of upward mobility. But it is clear that this is a diverse group. As evident from Figure 10 in the next section, non-farm self-employment activities tend to be evenly distributed over the income distribution, indicating that both rich and poor households are involved in such activities.

<b>Table 1: Annual average growth in real wage</b>				
	83-93	93-99	99-04	93-04
<i>Growth in mean wage (% per yr)</i>				
Agricultural wage	3.2	2.8	1.7	2.3
Nonfarm Regular	2.9	4.9	-0.5	2.4
Nonfarm Casual	3.5	4.1	1.3	2.8
<i>Growth in median wage (% per yr)</i>				
Agricultural wage	4.1	1.0	2.9	1.9
Nonfarm Regular	2.9	2.8	-5.4	-1.0
Nonfarm Casual	4.4	3.8	1.9	2.9
<i>Notes:</i> Nominal daily wage (Rs.) for respective periods in 19 major states are converted to 1993-94 prices using deflators implicit in the official poverty lines. <i>Sources:</i> See Figure 1				

The majority of rural non-farm enterprises tend to be very small scale, reliant largely on family labour, and operated with very low capital investment. In 2004-05, only 6% of self-employed workers were running enterprises that employed more than 5 workers. Many others are disguised wage workers who work at home producing goods using raw materials supplied to them by agents or firms that purchase the outputs (NCEUS, 2007). The location of enterprises is indicative of the low amounts of capital that are invested in many non-farm businesses. In 2004-05, 41% of self-employed workers worked out of their own dwelling. 12% had no fixed location, and an additional 10% worked on the street. Further, only one-fourth received a regular monthly or weekly payment, with the vast majority relying on irregular daily or piece rate modes of payment. Benefits such as social security or paid leave were virtually non-existent.

Perceptions of remuneration of the self-employed are also suggestive of the relatively low earnings from a large share of self-employment activities.<sup>7</sup> About half of non-farm workers regard their earnings from self-employment as remunerative. When asked what amount they would regard as remunerative, about 40% of males and nearly 80% of rural females felt that their income of less than Rs 2000 per month was remunerative enough.

Of course, not all self-employed workers or enterprises are small and poorly remunerative. In some industries, earnings of self-employed workers are better than what salaried workers earn (Glinskaya and Jalan, 2005). Such enterprises and multiple occupations within households would explain the presence of self-employed workers at the top end of the income distribution.

With these conflicting trends – a growing, but casualizing non-farm sector – and without data on the earnings of the self-employed over time, it is difficult to reach a verdict on the rate of

<sup>7</sup> The NSS does not collect data on earnings of the self-employed, but as a first effort, information on perceptions of remuneration of the self-employed was collected in the 2004-05 survey round.

expansion of the rural non-farm sector in value terms. Available data points to a steady increase in the non-farm wage bill of about 6% a year between 1983 and 2004-05. Broadly speaking, over time, employment growth in the non-farm wage sector has accelerated, while the growth in average earnings has decreased. These two trends cancelled each other out, and growth in total earnings was constant during this time period at about 6%, with earnings in the casual segment growing slightly faster than earnings in the regular sector (Table 2).

**Table 2: Annual growth (%) in non-farm wage bill**

	83-93	93-04	83-04
Nonfarm Employment	5.9%	6.2%	6.0%
Nonfarm Regular	5.3%	5.6%	5.5%
Nonfarm Casual	7.1%	7.2%	7.2%

*Notes:* See Table 1. *Sources:* See Figure 1

#### *Employment Trends after 2004-05.*

As indicated above, a recent study by Himanshu (2011) provides some early evidence as to the evolution of the non-farm sector in rural India since the 2004-05 NSS survey. Drawing on NSS survey data spanning the period 1977-78 through to 2007-08, Himanshu (2011) argues that the noticeable acceleration of non-farm employment between 1999-00 and 2004-05, described above, is likely to have been driven in part by particularly high levels of entry into this sector by women, children and the elderly who were pushed into the non-farm labour force because of acute distress in the agricultural sector. For example, he documents that the growth rate of agricultural GDP declined from 4% between 1993-99 to 1.6% between 1999-2004, before resuming at a rate of 4.5 between 2004-2007.<sup>8</sup> The resumption of growth in the agricultural sector, post-2004, led to a slowing of employment expansion in the non-farm sector. Himanshu (2011) sees this slower non-farm employment growth during the 2004-2007 period as mainly a return to more usual labour force participation rates, especially of women. In other respects the trends pointed to above, namely ongoing casualization of non-farm wage employment and the continued significance of self-employment, are also clearly apparent in the 2007-08 data. The main thrust of the argument presented in Himanshu (2011) is thus that expansion of the non-farm sector between 1999-2004 was in large part due to push factors, and should not be interpreted as pointing to a sustained acceleration in the process of inter-sectoral transfer out of agriculture into the non-farm sector in rural areas. Nonetheless, he does point to additional evidence that there has been some employment increase in the organized sector, albeit largely informal, and underscores the need to maintain a close eye on these trends going forward.

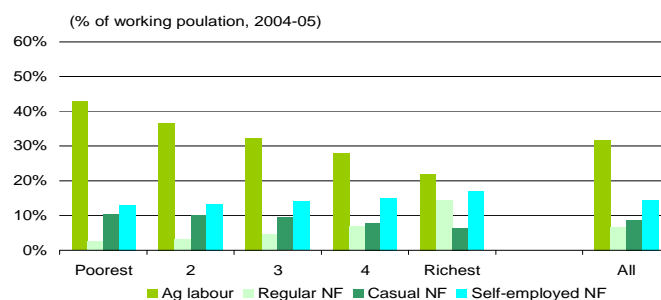
<sup>8</sup> Agricultural wage growth mirrored these output trends, declining significantly during the 1999-2004 period, but then registering a significant rise in the second half of the 2000s (Himanshu, 2011).

#### 4 Does Non-farm Employment Reach the Poor?

Regular salaried jobs are the most desirable form of employment for workers from the point of view of earnings, stability of employment, and availability of some social security. Regular non-farm employment tends to be regressively distributed across the rural population: the richer you are, the more likely you are to enjoy such employment (Figure 10).

Since casual wages have consistently exceeded agricultural wages, a shift away from agricultural labour to casual non-farm labour may not necessarily be distress driven. Casual non-farm employees are much less likely to be poor than agricultural labourers: three-quarters of agricultural labourers are in the bottom two quintiles; only one-quarter of casual non-farm workers. Nevertheless, casual employment is not a reliable route out of poverty. Casual workers tend not to have year-round employment and make ends meet by working at several jobs, often combining agricultural and non-farm activities. In 2004-05, more than half (55%) of casual non-farm workers reported that they were without work for one or more months in the year compared to 8% of salaried workers or 12% of self-employed. 14% of casual non-farm workers reported that they were seeking or available for additional employment even when working (World Bank, 2011).

**Figure 10: Regular non-farm workers are more likely to be found at the top end of the rural income distribution**



*Notes and Sources:* See Figure 1

The 2004-5 data found a slight tendency for self-employment to be concentrated among richer rural households. However, this tendency is nothing like as marked as it is for regular employment, and is not evident in the earlier surveys, which show a flatter distribution of self-employment throughout the income distribution. This is consistent with the heterogeneity of this type of employment,

Given the close links between earnings and consumption, average incidence analysis is of limited use when we want to understand whether non-farm jobs reach the poor. For example, is it the case that a regular salaried employee was drawn from the ranks of the rich, or was she in the poorest quintile and catapulted into the richest quintile on the basis of her regular salaried job? To understand who gets what jobs, we discuss briefly below whether gender, age, social status, education levels, and land holdings—characteristics which are associated with poverty,



but unlike consumption, will not change once a household member moves out of the farm economy—make it more or less likely that individuals will take up some form of non-farm work.

Shares of women in the labour force have historically been lower than of men, and this is clearly evidenced also in the non-farm sector. There is little evidence of them transitioning into the non-farm sector in any marked way, with the exception of the period between 1999-00 and 2004-05 (Himanshu, 2011). The reasons for this expansion was discussed above, and proved short-lived, following resumption of growth in agriculture and the consequent withdrawal of women from the labour force after 2004.

On average, the farm sector has a higher proportion of its labour force from individuals belonging to a scheduled caste or scheduled tribe than the non-farm sector. At the margin, an increasing number of new workers entering the non-farm sector are from an SC/ST background (World Bank, 2011). This is especially the case for casual non-farm work, and post-1994. In 2004-05 SC/STs were just as likely to get a non-farm job as non-SC/STs, but tended to concentrate in the casual wage sector.

In 2004-05 fifty percent of the farm workforce and 60% of agricultural labourers in India were illiterate. By contrast, only 30% of the non-farm workforce was illiterate. Secondary and tertiary qualifications only appeared to matter for regular employment. Beyond the attaining of basic literacy skills, going on to complete secondary or even tertiary education hugely increases the probability of obtaining regular non-farm employment, but not much other types of non-farm employment.

Within the farm sector, cultivators and agricultural labourers have very different land-holding profiles. 70% of agricultural labourers own less than 0.4 hectare. More than 50% of owner-cultivators own more than one hectare (World Bank, 2011). Non-farm workers are much more similar to agricultural labourers except that non-farm regular workers tend to have slightly greater land holdings. Which direction the causality runs is unclear: the greater landholdings may reflect the greater prosperity of salaried workers, or these asset holdings might help family members get access to the formal sector.

The patterns described above are simple correlations. These are confirmed in more systematic regression analysis based on the 1983-2004/5 rounds of NSS data that examines the relationship between occupational choice and household characteristics.<sup>9</sup> In line with much other work on access to non-farm occupations, education emerges as an important determinant of access to non-farm occupations. Even a small amount of education (achieving literacy) appears to improve prospects of finding non-farm employment and with higher levels of education, the odds of employment in well-paid regular non-farm occupations rises.

Regression analysis also shows that individuals from scheduled castes and tribes are markedly more likely to be employed as agricultural labourers than in non-farm activities, even controlling for education and land.<sup>10</sup> This effect is weakest for non-farm casual employment (and in fact insignificant for the 2004-05 survey-round) and strongest for non-farm self-employment. The regression analysis further shows that those in the non-farm sector own more

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<sup>9</sup> For details, see Lanjouw and Murgai (2009)

<sup>10</sup> See also Thorat and Sabharwal (2005)

land on average than agricultural labourers, except for those in casual non-farm employment, who on average own significantly less.

Potential entrants to casual non-farm labour appear to be closest to agricultural labourers (with similar social status and landholdings) but even this pool is much more likely to be literate, and so will not be drawn as clearly from amongst the poor as are agricultural labourers. Entrants to other types of non-farm labour are better educated and less socially disadvantaged than the farm workforce. In general, expansion of the non-farm sector tends to bypass women and older workers. Encouragingly, an increasing share of the non-farm sector is drawn from ranks of the socially disadvantaged. This suggests that at the margin, an expansion of non-farm jobs will be progressive. And the part of the non-farm sector which grew the fastest between 1983 and 2004-05 is the part which has the highest participation by the socially disadvantaged and the illiterate. Given that casual non-farm employment, though worth considerably less than regular employment, still pays considerably better than agriculture (the wage premium is about 45%), the direct impact of non-farm growth on the poor is likely to be positive.

In the end, however, this analysis of the extent to which an expansion of the non-farm sector will reach India's poor, while suggestive, is both inconclusive and incomplete. In particular, it takes no account of general equilibrium effects, for example, that exit of some, even non-poor, from the farm sector could put upward pressure on agricultural wages, which would benefit the poorest. Or that the presence of non-farm opportunities could increase demand for education which over time would itself reduce poverty. To allow for the possibility of such indirect effects, a more aggregate analysis is needed. We turn to this in the next section.

## **5. Regression-based Analysis of the Impact of the Non-farm sector on Poverty**

A large empirical literature in India has documented the association of poverty with agricultural and non-agricultural output growth, and with agricultural wages.<sup>11</sup> Some analysis has pointed to the role of the non-farm sector, primarily through the pressure it puts on agricultural wages. Himanshu (2008) and Dev and Ravi (2007) speculate that non-farm growth may be a key factor behind the decline in poverty during the nineties. Foster and Rosenzweig (2004) argue that not only has non-farm expansion been the prime driver of rural incomes, its growth has been especially pro-poor.

But historical evidence also suggests that poverty reduction has been closely tied to agricultural growth. There are also fears about whether the growth in non-farm employment can be sustained, the accompanying deceleration in wage growth, and the quality of jobs being created, leading some to refer to the growth of employment as an "illusion of inclusiveness" (Unni and Raveendran, 2007).

In the two decades between 1983 and 2004-05, real agricultural wages grew at the rate of 2.8% per year (Table 3). The rate of growth was higher in the first decade – 1983 to 1993-94 but slowed down appreciably in the next decade, to 2.3% per year, and much more drastically to 1.7% per year in the last five years between 1999-00 and 2004-05. But the rate of rural poverty reduction did not decline along with agricultural wage growth (and agricultural GDP). The decline of rural poverty has been remarkably consistent over the last twenty years at an annual

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<sup>11</sup> See Himanshu, 2005 and 2008; Lal, 1976; Singh, 1990; Lanjouw and Stern, 1998; Sharma, 2001; Sundaram, 2001.

average rate of just over 2 per cent a year. Whether the accelerating growth of non-farm employment also seen in Table 3 has helped offset the impact of slower agricultural wage growth on the rate of rural poverty reduction requires closer investigation.

We use a region-level panel dataset constructed from the 1983, 1993-94 and 2004-05 surveys of the NSS.<sup>12</sup> The three surveys span a period of over 20 years and, given that there are on average some 60 regions that make up the major states of India, also reflect considerable spatial heterogeneity. The analysis asks whether regions where the non-farm sector grew were also the ones where poverty declined (or agricultural wages grew), net of trends in other determinants of poverty (or wages).

**Table 3: Trends in rural poverty, GDP and agricultural wages**  
(Annualized rates of growth, %)

	Rural Poverty	Agricultural wage	Non-farm employment	GDP	Nonfarm GDP	Agriculture GDP
1983-2004	-2.3	3.2	3.3	5.8	7.1	2.6
1983-93	-2.2	3.2	2.5	5.2	6.4	2.9
1993-2004	-2.4	2.3	3.7	6.3	7.7	2.4
1999-2004	---	1.7	4.8	6.0	7.2	1.8

*Notes:* GDP at factor cost at 1993-94 prices. Agriculture GDP originating in agriculture, forestry, and fishing. Nonfarm GDP defined as a residual. Poverty rates based on official poverty line. *Sources:* Poverty rates, agricultural wages and non-farm employment estimated by authors based on NSS data. For rest, Eswaran et. al 2009.

Various econometric specifications were used and are reported in Table 4. All the specifications confirm that higher yields are associated with declining rural poverty and that there is a strong and negative impact of agricultural wage growth on rural poverty. When state fixed effects are used, non-farm employment is positively associated with rural poverty. This pattern is consistent with the notion put forward by Foster and Rosenzweig (2004) that non-farm enterprises producing tradable goods (the rural factory sector) locate in settings where reservation wages are lower. If the rural factory sector seeks out low-wage areas, factory growth will be largest in those areas that have not experienced local agricultural productivity growth. It is also consistent with distress-induced recourse to non-farm employment. Both these hypotheses are explored further below.

When the same model is estimated with region-level fixed effects (column 2), however, the relationship is overturned: expansion of non-farm employment is associated with a reduction in poverty, and this effect is stronger the smaller the share of the working population with low education levels.<sup>13</sup> Thus when we focus specifically on *changes over time* and sweep away

<sup>12</sup> For a detailed discussion, see Lanjouw and Murgai (2009).

<sup>13</sup> The size and significance of parameter estimates remain similar if a measure of regular salaried nonfarm employment – on the grounds that it is more rationed than other forms nonfarm employment – is used instead of overall nonfarm employment.

cross-sectional variation across regions, poverty decline is observed to occur most rapidly in regions where the non-farm sector has grown.

There was no decline—until the period between 1999-00 and 2004-05—in the share of the adult population with primary occupation in agricultural wage labour.<sup>14</sup> Agricultural wages can be viewed not only as useful proxies of poverty but can also be seen as indicators of poverty in their own right insofar as they capture the reservation wages of the rural labour force. Column 3 of Table 4 which reports state-level fixed effects estimates for the log of real agricultural wage rates indicate that regions with higher growth in agricultural yields also have rising agricultural wages. However, once fixed factors at the NSS region-level are swept out (column 4), the correlation between agricultural yields and wages becomes smaller and insignificant. This could reflect attenuation bias due to measurement error in our measure of yields as a proxy for true physical agricultural productivity over time.<sup>15</sup>

Regression estimates are consistent with labour tightening effects of employment opportunities outside agriculture. In both columns 3 and 4, the time dummy variables show that net of yield improvement agricultural wages were highest in 2004-05 and lowest in 1983. This suggests that the observed deceleration of agricultural wage growth between the two decades can be attributed to declining agricultural productivity growth. Agricultural wages would have declined even further if other employment opportunities which raise labour costs and draw labour out of agriculture had been absent.

Suggestive evidence of the impact of non-farm employment opportunities on labour market tightening is reported in column 5 in which non-farm employment per adult and its interaction with education levels are added to the regression. Coefficient estimates on these variables suggest that, contrary to the aggregate picture reported above, within regions, non-farm employment growth is associated with rising agricultural wages. This association is weakened if education levels are particularly low. Presumably low education levels prevent agricultural workers from accessing non-farm jobs (see discussion in the previous section), and expansion of this sector then results in less tightening of the agricultural wage market.

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<sup>14</sup> Prior to 1999, the reduction in the share of farm in total rural employment was driven by a reduction in the share of cultivators, with the share in agricultural laborers staying constant.

<sup>15</sup> Some component of the spatial and temporal variation in the measure reflects input-use variations.

**Table 4: Correlates of Rural Poverty and Agricultural Wages**

	ln(Regional Poverty Rate)		ln(Real Agricultural Wage, Rs per day)		
	(1)	(2)	(3)	(4)	(5)
ln(real ag wages)	-1.09 (8.02)***	-0.7 (3.88)***	---	---	---
ln(yield)	-0.45 (3.36)***	-0.62 (2.81)***	0.35 (4.68)***	0.14 (1.14)	0.14 (1.21)
ln(real urban mean per capita expenditure)	-0.31 (1.98)**	-0.41 (1.98)*	0.06 (0.66)	-0.04 (0.40)	-0.08 (0.76)
ln(land per capita)	-0.14 (2.53)**	-0.11 (1.66)*	0.03 (0.90)	0.02 (0.45)	0.01 (0.38)
Year=1993	0.22 (3.02)***	0.16 (1.58)	0.28 (7.54)***	0.35 (7.85)***	0.34 (7.60)***
Year=2004	0.25 (2.40)**	0.19 (1.11)	0.45 (9.54)***	0.58 (8.26)***	0.57 (7.41)***
<i>Nonfarm variables</i>					
ln(nonfarm employment per adult)	0.74 (2.07)**	-3.4 (2.27)**			1.37 (1.72)*
ln(nonfarm sh.)*% with below primary education	-0.7 (1.78)*	3.87 (2.31)**			-1.52 (1.69)*
Constant	4.61 (4.55)***	4.1 (2.90)***	1.66 (3.14)***	2.63 (3.89)***	2.98 (4.21)***
Fixed effects	State	Region	State	Region	Region
R-squared	0.81	0.89	0.87	0.94	0.94

*Notes:* Absolute value of t statistics in parentheses \* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%. *Sources:* Lanjouw and Murgai, 2009

The econometric analysis thus suggests that expansion of the non-farm sector is associated with falling poverty via two routes: a direct impact on poverty independent of the effect that non-farm growth may have on the agricultural sector, and an indirect impact attributable to the positive effect of non-farm employment growth on agricultural wages.

Do the broad trends discernable from national sample survey data resonate with the process of non-farm diversification and poverty decline experienced at the village level? In the next section we scrutinize detailed information collected over many decades in the village of Palanpur, Uttar Pradesh, in an attempt to understand better how the broad, aggregate, trends described above may be playing themselves out at the ground level.

## 6. A Village-Level Perspective

The village of Palanpur, in Moradabad District in west Uttar Pradesh, has been the subject of study since 1957-8, when it was first surveyed by the Agricultural Economics Research Centre (AERC) of the University of Delhi. The AERC resurveyed the village in 1962-3. In 1974-5 Christopher Bliss and Nicholas Stern selected Palanpur as a village in which to study the functioning of rural markets and the behaviour of farmers. They spent just under a year residing

in the village and collecting quantitative data, based on a set of questionnaires they designed and fielded, as well as qualitative information emerging out of informal discussion and observation. Bliss and Stern published a book based on their investigations (Bliss and Stern, 1982), which has a primary focus on the 1974-5 survey year.

A fourth resurvey of Palanpur took place in 1983-4 when Jean Drèze and Naresh Sharma, in close consultation with Bliss and Stern, lived in the village for fifteen months, once again collecting data for the entire village population. The further re-survey of the village, once again by Drèze and Sharma, was conducted in 1993. This survey was carried out over a shorter period and is consequently somewhat less comprehensive. The shorter duration of the 1993 survey prevented collection of the detailed economic information necessary to construct an income measure for 1993 which is comparable to that of the earlier survey years. In the period between April, 2008 and June 2010, Himanshu of Jawaharlal Nehru University in Delhi led a team of researchers to resurvey Palanpur for a sixth time. The fieldwork was organized in close consultation with Nicholas Stern, Jean Drèze, and Naresh Sharma and was structured and carried out in such a way as to maximize comparability with the earlier waves of data collection. Preliminary data from this most recent round of fieldwork have recently become available and are underpinning the discussion of income growth and non-farm diversification explored here. As finalization of the 2008-10 data is still underway, the findings reported in this paper pertaining to this survey year should thus be regarded preliminary and subject to revision.

In early 2008 Palanpur had a population of 1,270 persons, divided into 236 households (Table 5). In this year, Hindus represent 85.2 per cent of the village population, and Muslims the remaining 14.8 per cent. Hindus are divided into six main castes, with a few additional castes numbering three households or less. The shares of Hindus and Muslims in the total population, and the relative sizes of the main castes, has remained fairly stable throughout the survey period.

Throughout the survey period, the economy of Palanpur has essentially been one of small farmers. The proportion of landless households is relatively small by Indian standards and there are no clearly outstanding large farmers. The bulk of economic activity is in agriculture, but a growing share of village income comes from non-agricultural wage employment outside the village. The economy is by and large a market economy with few restrictions on production and exchange. However, the village's economy does differ from standard textbook models of market economies due to factors such as incomplete markets, imperfect information, transactions costs, and extra-economic coercion (see Lanjouw and Stern, 1998).

Table 6 presents income levels for the survey years from 1957-8 to 2008/9. Based on these figures it appears that real per-capita incomes in Palanpur grew between 1957-8 and 2008-9, but not particularly rapidly. For example, even between 1983-4 and 2008-9, the doubling of real per capita income implies an annual growth rate of just under 3%. Even so, per-capita income growth in Palanpur is widely acknowledged by villagers themselves to have resulted in an expansion of purchasing power and wealth.

### *Caste*

In Palanpur, caste exercises not only an important social function but also has a bearing on economic behaviour and outcomes. In Palanpur there are three main castes in the village accounting for about two thirds of the population: Thakurs, Muraos and Jatabs (see Table 5). Relations between these three castes evolved in significant ways between 1957-8 and 2008-10.

**Table 5: Palanpur Village Profile 1993 and 2008**

		1993	2008
Location		13 kilometers north of Chandausi a small town in Moradabad district; 31 kilometers south of the city of Moradabad	
Population		1,133	1,270
Number of Households		193	236
Average Household Size		5.93	5.42
Female/Male Ratio		0.85	0.98
Main Hindu Castes	Thakur, Murao, Dhima, Gadaraia, Passi, Jatab		
Main Muslim Castes	Dhobi, Teli		
Proportion of the population in different caste groups	Thakur	25.0	22.9
	Murao	25.9	24.4
	Muslim	12.5	14.8
	Jatab	11.7	16.2
	Other	24.9	21.7
Main economic activities	Agriculture, livestock, wage employment outside the village		
Percent Landless Households		23%	27%
Main Crops	Wheat, rice, menthe, sugarcane, bajra, pulses, jowar, potatoes		
Main Public Amenities	Primary school, railway station, temples, wells, pond		

**Table 6: Real Incomes in Palanpur, 1957-2008**

	1957-8	1962-3	1974-5	1983-4	2008-9 <sup>a</sup>
Per Capita Income at current prices (Rs/year)	173	149	1039	1025	12324
Index of per-capita income at current prices	100	86	602	594	7124
Real per capita income at 1960-1 prices <sup>b</sup>	161	152	275	194	398

<sup>a</sup> Income data for the year 2008/9 are preliminary estimates, calculated for 182 households (out of 236 in the village as a whole), comprising earnings from cultivation, salaried employment, self-employment, mechanized farm activities, non-farm casual labor, sales of milk, and remittances. Income from agricultural wage labor have not yet been added.

<sup>b</sup> Calculated by deflating the nominal per-capita income figures by the Consumer Price Index for Agricultural Labourers for Uttar Pradesh, with 1960-1 as the base.

Highest in the village social hierarchy are the Thakurs, who traditionally had the largest landholdings in the village which, because of an aversion to manual labour, they usually leased out or cultivated with hired labour. Declining land endowments and rising real wages have gradually compelled most of them to take up cultivation. Thakurs are also keen to take advantage of employment opportunities outside the village. Politically, the Thakurs remain the most powerful caste in Palanpur in 2008-9, but they have become less and less the unquestioned leaders of the village. Political reforms introduced in Uttar Pradesh the 1990s, reserving the position of village headman to Scheduled Castes, have prevented the Thakurs from directly exercising their political power. This has not resulted in a withdrawal from village politics, but has required the Thakurs to engage in coalition building and in enlisting proxies to act on their behalf. In economic terms, Thakurs have seen their supremacy challenged by Muraos, whose rising prosperity – particularly during the 1970s and 1980s - has inspired much respect in the village.

The Muraos are the only caste in Palanpur whose traditional occupation is cultivation. In 1957-8 their per-capita land endowments were roughly the same as those of the Thakurs, but over the survey period they have accumulated land, and have ended up with the best land endowments in the village. Good land, hard work, sustained thrift and excellent farming skills enabled the Muraos to take advantage of technological change in agriculture. They have generally been so successful in this regard that they have tended to eschew involvement in non-agricultural activities. The economic status of Muraos improved considerably over the survey period, and this carried over into some rise in their social status as well. The most recent round of survey data suggest that by 2008-9 agriculture may have become somewhat less potent a driver of income growth and that this may be contributing to an erosion of the Murao's economic status.

An examination of evolving caste relations based on scrutiny of the Muraos and Thakurs would suggest considerable caste dynamism in Palanpur, with the Muraos gradually coming to rival the Thakurs at the top of the village hierarchy. At the bottom end of the hierarchy, however, the situation of the Jatabs had long seemed frozen in place. Historically, the Jatabs



were socially and economically the most deprived caste in Palanpur. They owned little land, lived in a cluster of shabby mud dwellings, and earned most of their income from casual labour and subsistence farming. Illiteracy among Jatabs had been near universal throughout the survey period, and up to 1993 few Jatabs had ever succeeded in obtaining regular employment outside the village. Indeed, Lanjouw and Stern (1998) indicate that in the period up to 1983/4, even after controlling for wealth position and education levels, Jatabs were unlikely to find regular employment in the non-farm sector. In these earlier survey rounds, there was little sign of growth in per-capita income for the Jatabs. So, in relative terms, their incomes were declining: in the 1957/8 and 1962/63 survey years the average per-capita income of Jatab households was about 70% of the village average. In the 1974/5 and 1983/4 survey years the corresponding proportion had declined to barely 50%. In terms of access to land the Jatabs also experienced little advancement. Even though Jatabs were as involved in cultivation as the Muraos and Muslims, unlike those two groups they did not succeed in increasing their land endowments. In fact, between 1983/84 and 1993 Jatabs lost 10 per cent of their land, mainly due to one household selling most of its land to repay mounting debts. A recent study by Lanjouw and Rao (2010) examines the position of Jatabs within the village income distribution in the period up to 1983/84 and point to evidence that as a group they were gradually, but clearly, falling ever farther behind the rest of the village.

One of the key findings emerging from early examination of the 2008/9 survey data, is that the circumstances of the Jatabs seems to be improving, both absolutely and relative to the rest of the village. This process is paralleled by a clearly discernable expansion of non-farm employment in the village economy. What is key is that Jatabs appear now to be enjoying greater access to non-farm opportunities than in the past, and this is translating into rising per capita incomes and upward mobility. We provide some preliminary documentation of this trend below.

In their account of Palanpur's growing inter-connectedness with the wider economy of Uttar Pradesh, Lanjouw and Stern (1998) documented a process of expanding non-agricultural wage employment amongst villagers. In the period up to 1993, much of this took the form of regular or semi-regular employment outside the village (distinguished from "casual" daily wage employment by a modicum of employment security, and usually involving weekly or monthly, as opposed to daily, wage payments). Between 1957-8 and 1993 the number of villagers with regular or semi regular employment outside of agriculture rose from 11 to 49.<sup>16</sup> Most of these jobs occurred outside the village, within commuting distance for Palanpur's inhabitants. The range of activities gradually expanded over time, but one clear pattern was that employment opportunities tended to cluster around well-defined locations and socio-economic groups. Employers that accounted for a significant number of jobs include the railways, a cloth mill in Moradabad, bakeries in Chandausi, a liquor bottling plant, various marble and steel polish shops in Moradabad, and brick kilns in the surrounding areas. Lanjouw and Stern (1998) noted that the growth of non-farm jobs in Palanpur was associated with commuting of some household members out of the village and a shift in the balance of activities in the household.

Data on employment patterns in Palanpur over the period between 1993 and 2008-09 data have recently been subjected to detailed scrutiny in Mukhopadhyay (2011). Between 1993 and

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<sup>16</sup> The number of outside jobs in 1993 was somewhat lower than in 1983-4 due to the closure of some local cloth mills.

2008, the number of non-farm jobs (primary and secondary combined) continued to grow significantly (Table 7). In 2008-09, 200 non-farm jobs were held by villagers, up from 107 in 1993 (and 125 in 1983/84), while the population of the village grew only from 1133 in 1993 to 1270 in 2008-9. An important change in employment trends, however, and one that echoes the NSS-based findings discussed above, is that non-farm employment expansion between 1993 and 2008 occurred mainly as a result of expansion self-employment activities and casual wage labour outside of agriculture. The number of self-employment activities tripled (from 23 to 71), and casual wage jobs more than doubled (from 35 to 78). But regular (and semi-regular) jobs increased marginally from only 49 to 51. Mukhopadhyay points to two explanations for the slow growth of regular non-farm employment. First, it appears that closure in the late 1980s of the cloth mills in the vicinity of Palanpur, was not reversed in the years after 1993. Second, Mukhopadhyay's detailed analysis reveals that an important number of households and individuals who reported regular non-farm employment in 1983-84 were no longer residing in the village by 2008-09. Regular employment in the 1980s had been concentrated amongst villagers belonging to the Passi caste in the earlier survey years. By 2008-09, as a result of selective migration, no Passi villagers reported any regular non-farm employment, and indeed, the size of the Passi community had declined significantly as well.

The range and radius of non-farm jobs has continued to increase progressively. Palanpur villager's involvement in the labour market of Moradabad has become particularly noteworthy. For example, the Moradabad Railway Yard currently provides employment to anywhere between 10-50 villagers, with the number fluctuating in accordance with labour requirements of the agricultural cycle, and the availability of other non-farm jobs. Villagers join groups of labourers that unload rakes of cement and fertilizer bags, receiving payment on a per-sack-unloaded basis. On an average day, earnings for the members of the group come to around Rs 200 each. The work is very difficult and tiring, and not everyone can do it. But on average, the work is much more rewarding than agricultural labour (where the daily wage in 2008 was Rs. 100) and, importantly, is also considered to be much less demeaning than working as an agricultural labourer.

**Table 7: Occupation Status in Palanpur 1957-58 to 2008-09**

	<b>1957</b>		<b>1983</b>		<b>1993</b>		<b>2008</b>	
	<b>Prim</b>	<b>Sec</b>	<b>Prim</b>	<b>Sec</b>	<b>Prim</b>	<b>Sec</b>	<b>Prim</b>	<b>Sec</b>
Cultivation and Livestock	141 (81)	12	141(50)	32	187 (55)	13	184 (48)	122
Self Employment								
(Non Farm)	6 (3)	2	17 (6)	6	16 (5)	7	45 (12)	26
Skilled Self Employed	6	2	5	3	9	5	13	3
Unskilled Self Employed			12	3	7	2	32	23
Wage Employment								
(Regular/Semi Regular)	5 (3)	6	72 (26)	2	46 (14)	3	43 (11)	8
Regular (Skilled)	1		7	1	7		13	
Regular (Unskilled)	4	4	48		21	1	17	
Semi Regular (Skilled)			1		1		6	3
Semi Regular (Unskilled)		2	16	1	17	2	7	5
Wage Employment								
(Casual)	22 (13)	24	23 (9)	36	34 (10)	34	36 (9)	74
Agriculture Labor	22	7	10	21	16	17	2	30
Non farm Casual Labour	0	17	13	15	18	17	34	44
Study	0 (0)		9 (3)		28 (8)		46 (12)	
Other	0 (0)		5 (2)	2	4 (1)		9 (2)	1
None	1 (1)	131	17(6)	206	25 (7)	280	24 (6)	156
Total	175 (100)	175	284 (100)	284	340 (100)	340	387	387

Source: Mukhopadhyay, 2011.

Alongside the expansion of non-farm jobs has come a significant increase in the contribution of non-farm income to village income (Table 8). In 1983/4, non-farm sources accounted for roughly a third of village income. By 2008-9 this has doubled, and the non-farm economy now accounts for fully two-thirds of the entire village income. Of particular interest, in light of the discussion above about differential access to non-farm opportunities across caste groupings, is the evidence that suggests that Jatabs have seen a particularly significant increase in the share of income deriving from non-farm sources. In 1983-4, non-farm income accounted for only 17% of the total income of Jatabs. This had increased four-fold, to 68%, by 2008-9. While Table 8 shows that all castes have seen a significant rise in income from non-farm sources, the increase amongst Jatabs has been particularly dramatic.<sup>17</sup> While in 1983-4 overall per capita income of Jatabs averaged less than half the village average, the expansion in non-farm earnings appears to have attenuated this gap, with per capita incomes of Jatabs now representing nearly two thirds of the village average.

**Table 8: Share of Income from Non-Farm Sources 1983/84 and 2008/09**

	Number of Households		Per Capita Income (1960/1 Rs.)		Share of Income from Non-Farm Sources	
	1983/4	2008/9	1983/4	2008/9	1983/4	2008/9
Thakur	30	56	200	451	32%	71.6%
Murao	27	58	231	360	14%	37.6%
Dhimar	13	18	181	380	51%	93.0%
Gadariya	12	16	202	614	41%	68.5%
Dhobi	4	8	159	205	2%	31.6%
Teli	16	21	147	488	47%	90.0%
Passi	14	6	218	292	69%	71.8%
Jatab	19	38	85	253	17%	68.1%
Other	8	9	185	395	58%	96.4%
Total	143	230	194	398	34%	67%

We examine the declining poverty of Jatabs more explicitly in Tables 9-13 where we divide the village population, in turn in 1983-84 and 2008-9, into fractiles of economic well-being, and consider how over time Jatabs have lifted themselves out of the lowest margins of the welfare distribution. We proceed in two steps. We first revisit a concept of “observed means” described in Lanjouw and Stern (1991, 1998) whereby Palanpur households are ranked on the basis of their apparent prosperity by the field investigators directly involved in the intensive

<sup>17</sup> The fact that agricultural wage labor income has not (yet) been added to the total income figures for 2008-9 is likely to result in some overstatement of the importance of non-farm income for Jatab households, seeing the historically high involvement of this caste in agricultural wage labor. It is interesting to note, however, that correcting this omission will likely raise Jatab incomes even further for 2008-9, strengthening the argument below that Jatabs have seen a particularly significant rise in their economic status.

fieldwork for each respective year. The point of departure here is that the affluence of a household in a small Indian village is, to some extent, a matter of common knowledge in the sense that its asset position and purchasing power is widely known. For the 1983-4 data, Jean Drèze and Naresh Sharma, first classified households into seven 'groups' of increasing prosperity labelled 'Very Poor', 'Poor', 'Modest', 'Secure', 'Prosperous', 'Rich', and 'Very Rich'. The investigators classified households in this way independently, without consultation. It is of some comfort that Drèze and Sharma agreed to a considerable extent in their ranking of households, confirming the view that the relative position of households in the scale of economic affluence is in many cases fairly clear to informed observers. A final stage of classification consisted of reclassifying the households into five quintiles of roughly equal size, designated 'Very Poor', 'Poor', 'Secure', 'Prosperous' and 'Rich'.

This exercise was repeated in 2008-9, this time by four investigators involved in the detailed fieldwork covering a period of nearly two years. While the same five fractile headings were employed, it was decided not to impose the requirement that the village population be divided evenly into each group. In this sense there was some attempt to allow the investigator's assessment to also accommodate an overall improvement in living standards.

Tables 9 and 10 present the results of the "observed means" classification for 1983-4 and 2008-9, respectively. Table 9 indicates that in 1983-4 90% of Jatab households had been classified by Jean Drèze and Naresh Sharma as being either 'Very Poor' or 'Poor'. There was not a single Jatab household that could be categorized as 'Prosperous' or 'Rich' in this year. By 2008-9 this assessment had changed somewhat (Table 10). Although half of the Jatab households were still being assessed as 'Very Poor' or 'Poor' in that year, the other half of Jatab households were being judged as either 'Secure' or 'Prosperous' in that year. On the basis of this subjective assessment of well-being the evidence points to a significant improvement in the relative position of Jatabs by 2008-9.

**Table 9: Observed Means Classification of Palanpur Households by Caste in 1983/4**

	Very Poor	Poor	Secure	Prosperous	Rich	% (No. of hhs)
Thakur	0.0	0.267	0.233	0.267	0.233	1.00 (30)
Murao	0.0	0	0.222	0.370	0.407	1.00 (27)
Dhimar	0.154	0.462	0.308	0.077	0.0	1.00 (13)
Gadariya	0.0	0.250	0.25	0.167	0.333	1.00 (12)
Dhobi	0.250	0.250	0.250	0.0	0.250	1.00 (4)
Teli	0.375	0.313	0.188	0.063	0.063	1.00 (16)
Passi	0.400	0.067	0.133	0.200	0.200	1.00 (14)
Jatab	0.737	0.158	0.105	0.0	0.0	1.00 (19)
Other	0.286	0.143	0.0	0.429	0.143	1.00 (8)
% of households	22%	19%	20%	19%	20%	(143) 100%

**Table 10: Observed Means Classification of Palanpur Households by Caste in 2008/9**

	Very Poor	Poor	Secure	Prosperous	Rich	% (No. of hhs)
Thakur	0.052	0.121	0.345	0.259	0.224	1.00 (56)
Murao	0.036	0.200	0.400	0.182	0.182	1.00 (58)
Dhimar	0.136	0.364	0.273	0.091	0.136	1.00 (18)
Gadariya	0.0	0.133	0.533	0.267	0.067	1.00 (16)
Dhobi	0.250	0.250	0.250	0.250	0.00	1.00 (8)
Teli	0.273	0.182	0.273	0.136	0.136	1.00 (21)
Passi	0.0	0.167	0.667	0.0	0.167	1.00 (6)
Jatab	0.077	0.436	0.410	0.077	0.0	1.00 (38)
Other	0.182	0.182	0.182	0.455	0.0	1.00 (9)
% of households	8%	23%	37%	19%	13%	(230) 100%

We turn next to repeat of this exercise using per capita income, rather than ‘observed means’, as our indicator of economic status.<sup>18</sup> Table 11 reveals that on the basis of an income criterion, as was seen with the ‘observed means’ classification, roughly 90% of Jatab households in 1983-4 were counted in the bottom two quintiles of the per capita income distribution. Again, this picture had evolved markedly by 2008-9 (Table 12). Although 60% of Jatab households were still counted among the bottom two quintiles of the per capita income distribution, the other 40% were now at less risk. Indeed, 12% of Jatab households in 2008 were counted among the richest quintile in per capita income terms.

While these findings are still preliminary, and not yet complete, the evidence for Palanpur points to a significant improvement in the relative position of what has historically been a particularly vulnerable and disadvantaged group of households. These households are also, for the first time, actively engaged in the non-farm sector, earning roughly as much from non-farm sources (as a percentage of total income) as the other castes. The picture is one of an expanding non-farm sector generating returns that appear to exceed those from agriculture, slowly becoming less exclusively the preserve of the well-off, and therefore representing an increasingly important engine of rural poverty reduction.

**Table 11: Per Capita Income Classification of Palanpur Households by Caste in 1983/4**

	Very Poor	Poor	Secure	Prosperous	Rich	% (No. of hhs)
Thakur	0.067	0.233	0.267	0.233	0.200	1.00 (30)
Murao	0.037	0.222	0.111	0.333	0.296	1.00 (27)
Dhimar	0.231	0.231	0.154	0.231	0.154	1.00 (13)
Gadariya	0.083	0.250	0.333	0.083	0.250	1.00 (12)
Dhobi	0.250	0.0	0.500	0.250	0.0	1.00 (4)
Teli	0.375	0.063	0.250	0.250	0.063	1.00 (16)
Passi	0.267	0.133	0.067	0.067	0.467	1.00 (14)
Jatab	0.632	0.263	0.105	0.00	0.00	1.00 (19)
Other	0.143	0.143	0.286	0.286	0.143	1.00 (8)
% of households	22%	19%	20%	19%	20%	100% (143)

<sup>18</sup> Although we note that our income data are still complete for only 182 out of 236 households.



**Table 12: Per Capita Income Classification of Palanpur Households by Caste in 2008/9**

	Very Poor	Poor	Secure	Prosperous	Rich	% (No. of hhs)
Thakur	0.075	0.207	0.264	0.264	0.189	1.00 (56)
Murao	0.217	0.239	0.217	0.174	0.152	1.00 (58)
Dhimar	0.333	0.111	0.111	0.222	0.222	1.00 (18)
Gadariya	0.0	0.083	0.167	0.250	0.500	1.00 (16)
Dhobi	0.333	0.333	0.333	0.00	0.00	1.00 (8)
Teli	0.125	0.250	0.125	0.250	0.250	1.00 (21)
Passi	0.0	0.600	0.200	0.0	0.200	1.00 (6)
Jatab	0.520	0.080	0.200	0.080	0.120	1.00 (38)
Other	0.250	0.250	0.00	0.250	0.250	1.00 (9)
% of households	20%	20%	20%	20%	20%	100% (230)

## 7. Urban Growth as a Strategy for Rural Poverty Reduction

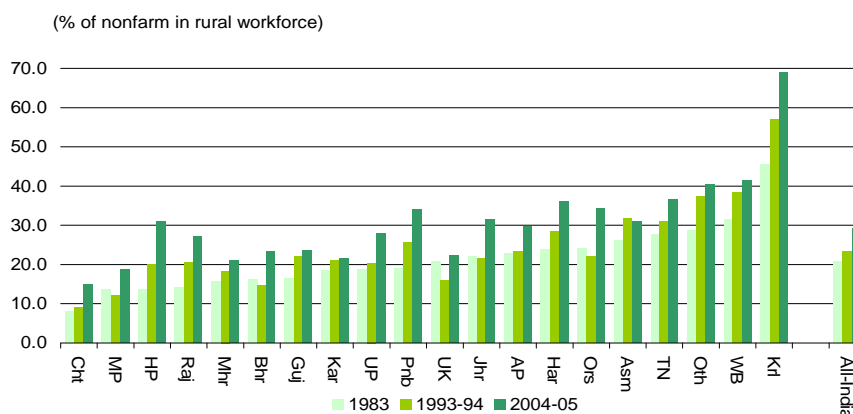
In the preceding sections we have indicated that NSS survey data, corroborated by detailed evidence from Palanpur, point to a process of non-farm diversification that is slow but discernable, and whose distributional incidence, on the margin, is becoming increasingly pro-poor. Efforts by the government of India to support, and possibly accelerate, this process of diversification thus seem justified. At present, however, the rural non-farm sector in India seems to be growing only fairly slowly, compared to China and other successful Asian countries. What can be done to accelerate an expansion? In the discussion below we suggest that one possible direction is to consider measures to galvanize growth of India's small towns.

The Indian literature has been dominated by two debates around the determinants of the size and growth of the non-farm sector.<sup>19</sup> First, is the growth of rural non-farm activities a positive development, or is it a response to slow agricultural growth? Do “push factors” into the non-farm sector dominate – such as the need to manage income risk in agriculture via income diversification, to cope with short-term shocks such as drought, and to compensate for long-term

<sup>19</sup> For a summary of the debates, see Himanshu (2008).

constraints such as access to farm land – or are the “pull factors” more important, such as lower risk or higher returns in the nonfarm sector? Second, to the extent that pull factors are important, is growth of the rural non-farm sector driven by the internal dynamism of the rural economy, particularly growth in agricultural productivity, or by exogenous factors such as the agency of the state or growing demands for non-farm goods and services from urban areas?

**Figure 11: Growth in non-farm employment is spread unevenly**



*Notes and Sources:* See Figure 1

The regional and temporal variation in non-farm growth in the period between 1983 and 2004-5 can be used to address these questions. Employment shares in non-farm activities grew since 1983 in nearly all states but with large differences in terms of the size and growth of the sector (Figure 11). In Kerala, the share of non-farm in total rural employment was as high as 69% in 2004-05. In other states, such as Madhya Pradesh and Chhattisgarh, the sector was still to make its presence felt. In Tamil Nadu, non-farm employment grew by 1.7% a year, well below the 6.5% growth in Himachal Pradesh between 1983 and 2004-05. There is no straightforward relationship between state incomes and size of the non-farm sector (in terms of employment). Relatively high income states such as Maharashtra and Gujarat have small non-farm sectors, with less than one-fourth of the rural workforce employed in non-farm activities. Nor is there a clear relationship between the initial size of the sector and its growth.

In an effort to shed some light on the drivers of non-farm growth in India, Lanjouw and Murgai (2009) draw on the NSS region-level panel dataset described in Section 5 to estimate models of NSS region-level non-farm employment growth on changes in agricultural yield, urban consumption levels, and education levels. The correlation of non-farm growth with yield offers a window on the links between agricultural productivity growth and non-farm development. Average per capita urban consumption per region is included as a proxy for market size for rural non-farm products and services. In addition, the regressions control for land abundance, casual non-farm wages (as a proxy for reservation wages), and education levels

(to capture the extent to which low education levels in rural areas may act as a deterrent to rural non-farm employment growth) as well as secular time trends. The models are estimated with either state-level or NSS region-level fixed effects. Given that there is more spatial than temporal variation in the data, parameter estimates from state-level fixed effects regressions are driven largely by cross-sectional variation. Region-level fixed effects regressions control for unobserved characteristics within regions and variation arises largely from region-level changes over time. The analysis points to a number of interesting findings about the patterns of non-farm employment growth.

Lanjouw and Murgai (2009) find little evidence to suggest that non-farm employment growth in the past two decades has been driven by a rural dynamic of production and consumption linkages with the agricultural sector. While regression results indicate that regions with high agricultural productivity growth tend to have high non-farm employment growth, the parameter estimates become insignificant once control variables other than yield are added to the specifications. In addition, *within* regions, the analysis shows that non-farm employment, and self-employment in particular, expanded when agricultural productivity declined. This suggests that self-employment activities may serve as a safety net – acting to absorb labour when agriculture is in decline – rather than being promoted by growth in the agricultural sector. A negative relationship between agricultural productivity growth and non-farm diversification is also consistent with Foster and Rosenzweig (2003 and 2004) who analyze NCAER data to show that non-farm diversification tends to be more rapid and extensive in places where agricultural wages are lower and where agricultural productivity growth has been less marked.

An important additional finding in Lanjouw and Murgai's (2009) analysis is that growth in urban areas appears to be important. During the two periods of analysis, 1983 to 1993-94 and 1993-94 to 2004-05, regression estimates suggest that non-farm employment increased more rapidly in regions where urban incomes also grew. Disaggregating the analysis by different types of non-farm employment, the results show that it is regular salaried jobs and self-employment activities that appear to be most strongly and positively correlated with urban growth – the relationship between casual non-farm employment and urban growth is not statistically significant in these models.<sup>20</sup> The positive role of urbanization in stimulating non-farm diversification in India has previously been noted by a number of scholars including Bhalla (1997), Papola (1992), Jayaraj (1994) and Eapen (1994). Evidence from other countries such as Nepal and Bangladesh also indicates that better paid non-farm activities tend to cluster around urban areas (e.g., Fafchamps and Shilpi, 2005).

An interesting additional feature of the data in India is that the relationship between urbanization, rural non-farm employment and rural poverty varies by city-size. Table 13, based on small area estimates of poverty and inequality for West Bengal, Orissa and Andhra Pradesh, illustrates (Gangopadhyay et al, 2010, and Lanjouw and Murgai, 2010). In West Bengal and Andhra Pradesh the share of the block ( or *tehsil*) -level rural workforce employed in non-farm activities is positively and significantly related to the proportion of urban centres in the district to which the *tehsil* belongs that are classified as small. This relationship holds whether or not the correlation between non-farm employment and small town share controls also for a wide range of infrastructure and other demographic characteristics. In Orissa the relationship is not so clear

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<sup>20</sup> Moreover, in contrast to the results from models that control for state-level fixed effects, the urban parameter estimates lose significance when changes in nonfarm employment over time *within* regions are examined.

cut – with the evidence in this state pointing to a negative (albeit insignificant) relationship. However, there are very few large towns in Orissa. What the models for all three states also demonstrate is that controlling for the share of small towns in the district, the overall level of urban poverty in the district is strongly and negatively associated with the fraction of the rural workforce employed in the non-farm sector. Thus, rural non-farm employment tends to be positively related to urban poverty reduction and this appears to be particularly the case if the urban growth occurs in small towns.

**Table 13: Rural nonfarm employment is higher in districts with more small towns, and with lower urban poverty**

Variables	Andhra Pradesh		Orissa		West Bengal	
	Uncond.	Cond.	Uncond.	Cond.	Uncond.	Cond.
Urban headcount	0.117 [0.042]***	-0.356 [0.086]***	-0.759 [0.112]***	-0.246 [0.185]	-0.359 [0.131]**	-0.501 [0.201]***
Fraction of small towns in the district	0.085 [0.023]***	0.236 [0.045]***	-0.012 [0.035]	-0.155 [0.058]	-0.230 [161]	1.370 [0.343]***
R <sup>2</sup>	0.01	0.4	0.13	0.57	0.08	0.59

*Notes:* Standard errors in brackets; + significant at 10%; \* significant at 5%; \*\* significant at 1%. In each of the states, two models are estimated, one that adds *tehsil*-level demographic and infrastructure conditioning variables, and one that does not. *Sources:* Gangophadyay, Lanjouw, Vishwanath and Yoshida (2010).

**Table 14: The Elasticity between rural and urban poverty rates is greater for small towns**

Variables	Elasticities	
Log incidence of poverty in small towns (in district)	0.435 [3.47]	0.400 [3.30]
Log incidence of poverty in large towns (in district)	0.263 [2.77]	0.262 [2.76]
Total population in district	-0.272 [-5.40]	-0.279 [-5.59]
Share of district population that is urban	0.059 [1.11]	
State dummy: AP	-1.72 [-19.02]	-1.705 [-29.23]
State dummy: OR	-0.400 [-3.52]	-0.372 [-3.35]
Adj R <sup>2</sup>	0.336	0.336

*Note:* West Bengal, Orissa, and Andhra Pradesh Combined. *Rest of Notes and Sources:* Gangophadyay et al (2010) and Lanjouw and Murgai (2010).

In a companion paper concentrating on urban poverty Lanjouw and Murgai (2010) confirm that poverty reduction in small towns would have a larger spill-over effect on rural poverty than urban poverty reduction concentrated in large cities. Drawing on the small area poverty estimates in the three states of West Bengal, Orissa and Andhra Pradesh, Table 14 indicates that the overall elasticity of rural tehsil-level poverty with respect to urban poverty (calculated across towns and cities in the district within which the tehsil is located) is 0.44 for small towns (<100,000 inhabitants) relative to 0.26 for large towns. These estimates control for overall population in the district as well as the share of the district population that is urban. The evidence is consistent with the notion that there is a greater sensitivity of rural poverty to changes in poverty in small towns than in large cities. While this evidence is suggestive, it is important to acknowledge in Tables 13 and 14 that the direction of causality between, say, rural poverty and urban poverty, or rural non-farm employment and urban poverty, could be running in both ways (and quite possibly there are causal effects running both ways at once).

Aside from the greater sensitivity of rural poverty reduction to urban poverty reduction efforts in small towns, are there additional normative grounds for a focus on small towns? Lanjouw and Murgai (2010) provide evidence that urban poverty in India is concentrated in small towns. In 1983 overall urban poverty in India was 42.3 percent, but the rate in cities with populations of 1 million or more was only 29 percent. In towns with up to 50,000 inhabitants, the poverty rate at that time was nearly 50 percent, higher even than rural poverty in that year. In 1993/4 and 2004/5 the same picture emerges: poverty in the large metro-centres is dramatically lower than in the smaller urban centres (Lanjouw and Murgai, 2010). This pattern of a higher incidence of poverty in small and medium towns has received some attention in India and has been documented in several studies, notably Dubey, Gangopadhyay and Wadhwa (2001), Kundu and Sarangi (2005) and Himanshu (2008).<sup>21</sup> In his introductory chapter for the India Urban Poverty Report 2009, Amitabh Kundu points to the comparatively high incidence of poverty in India's small towns (relative to metro cities) and argues that this is the consequence of a variety of factors that have favoured large towns in recent decades. For example, he argues that globalization has facilitated the mobilization of resources by large cities by strengthening their internal resources base and enabling them to attract funds from global capital markets. Small towns, by contrast, have not seen similar opportunities arise. Kundu emphasizes further that the small towns have fewer human and technical resources at their disposal and that consequently their capabilities for administration, planning and implementation can be exceedingly weak (Kundu, 2009, page 29-30). It should be noted that not only are poverty *rates* in small towns higher than in larger cities, but given the size of the overall urban population residing in small towns, the urban poor living in small towns also vastly outnumber the urban poor who live in large cities. Lanjouw and Murgai (2010) indicate that the share of the urban poor living in small and medium towns in urban poverty declined only slightly from 87 percent in 1983, to 84.4 percent by 2004/5. Alongside the instrumental role that growth in small towns might play in helping to reduce rural poverty (via expansion of non-farm employment opportunities), there

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<sup>21</sup> Ferré, Ferreira and Lanjouw (2009) draw on insights generated by small area poverty estimation methods to investigate the relationship between poverty and city size in six developing countries (Albania, Brazil, Kazakhstan, Kenya, Morocco and Sri Lanka). They find that in five of the six countries poverty is clearly lowest, and public service availability greatest, in the largest cities – those where governments, middle classes, opinion-makers, hotels and airports are disproportionately located.

also appear to be strong normative grounds for close attention to small towns within an overall urban poverty reduction strategy.

## **8. Concluding Remarks**

In this paper we have analyzed relationship between rural poverty, rural non-farm diversification and urban growth. We started by showing that the non-farm sector in rural India has grown steadily in the period since 1983, with some acceleration during the late 1990s and first half of the present decade, but levelling off again in the period after 2004-05. We demonstrated that this process of rural transformation has contributed to declining rural poverty both directly, through employment generation, particularly casual wage employment, and also indirectly through an impact on agricultural wages.

We next examined the highly specific case of one single village, Palanpur, located in Moradabad district, Uttar Pradesh, and found that many of the patterns observed at the national, or state-level, from National Sample Survey Data are echoed in the recent evolution of the village economy. Notably, we argued that in Palanpur in the decades up to the early 1990s, one might have questioned whether rural non-farm employment contributed in a direct and meaningful way to poverty reduction in the village. The evidence in fact suggested that the most remunerative and attractive non-farm jobs were not accessible to the poorest and most disadvantaged segments of the village population. In the period between 1993 and 2008-9, however, non-farm casual wage and self-employment opportunities in Palanpur were shown to have expanded markedly and, importantly, it now appears that the weaker groups in the village are also heavily involved in the non-farm economy. The non-farm sector now accounts for the largest share of village income, and it seems that non-farm employment lies behind the noteworthy upward mobility of the poorest segment of the village population. A key feature of non-farm diversification in Palanpur is that it takes the form of many villagers commuting on a daily basis to nearby towns to seek casual, regular and self-employment opportunities in those localities. Increasingly, Palanpur households combine farming with non-farm activities – part of an ongoing process of households adjusting their balance of activities.

The paper then moved on to suggest that urban consumption growth may be playing an important role in contributing to growth in the rural non-farm economy, and thereby also to rural poverty reduction. It went on to speculate that the link from urban development to rural poverty reduction might have been stronger if urban poverty reduction had been centred in India's smaller towns and cities. It is in such small towns and cities that the bulk of the urban poor are concentrated, and these same towns and cities are also more tightly connected to surrounding rural areas.

The analysis in this paper combines to suggest that a good strategy of urban development and poverty reduction may also make excellent sense from a rural poverty perspective. We have argued that rural non-farm diversification (and resultant rural poverty reduction), is found to occur more rapidly where there is consumption growth in neighbouring urban centres. We point to evidence suggesting that the association is stronger if the urban centre is a small town than if it is a large city. Galvanizing the urban sector, particularly small towns, may thus constitute an important pillar of a strategy to combat rural poverty.

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