

Pathways to Reducing Poverty and Sharing Prosperity in India

Lessons from the Last Two Decades

Urmila Chatterjee, Rinku Murgai, Ambar Narayan and Martin Rama



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ABSTRACT

India is uniquely placed to help reduce global poverty and boost prosperity. The country has the largest number of poor people in the world, as well as the largest number of people who have recently escaped poverty. There is an emerging middle class but the majority of people are still vulnerable to falling back into poverty. What lessons do the past two decades offer for what it will take for the country to sustain progress and bring about deeper changes? This synthesis brings together the key insights from extensive and in-depth research conducted by the World Bank on India's experience in reducing poverty and sharing prosperity. The first chapter offers an overview of the trends in living standards and mobility in India. This is followed by a chapter on the main drivers of poverty reduction. The third chapter sheds light on some of the gaps India needs to fill for sustaining mobility and spreading prosperity more widely.

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1. TRENDS IN POVERTY

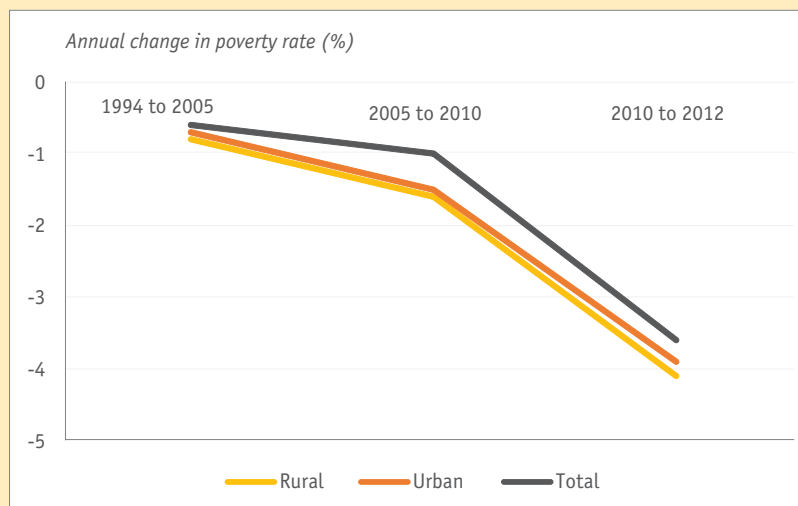
Poverty has declined at an increasingly rapid pace

India has made tremendous progress in reducing absolute poverty in the past two decades. The standard way to determine whether a household is poor is to compare its daily expenditure per capita to a minimum consumption threshold, or poverty line. Based on India's official line, the share of the population living in poverty was halved between 1994 and 2012, falling from 45 percent to 22 percent (figure 1). During this period, an astonishing 133 million people were

lifted out of poverty. Moreover, the pace of poverty reduction accelerated over time and was three times faster between 2005 and 2012 than in the previous decade. Poverty rates fell at a similar pace in rural and urban areas, although a vast majority of the poor (four out of every five) still live in rural areas.

International metrics validate this positive story. Based on a globally comparable poverty line set

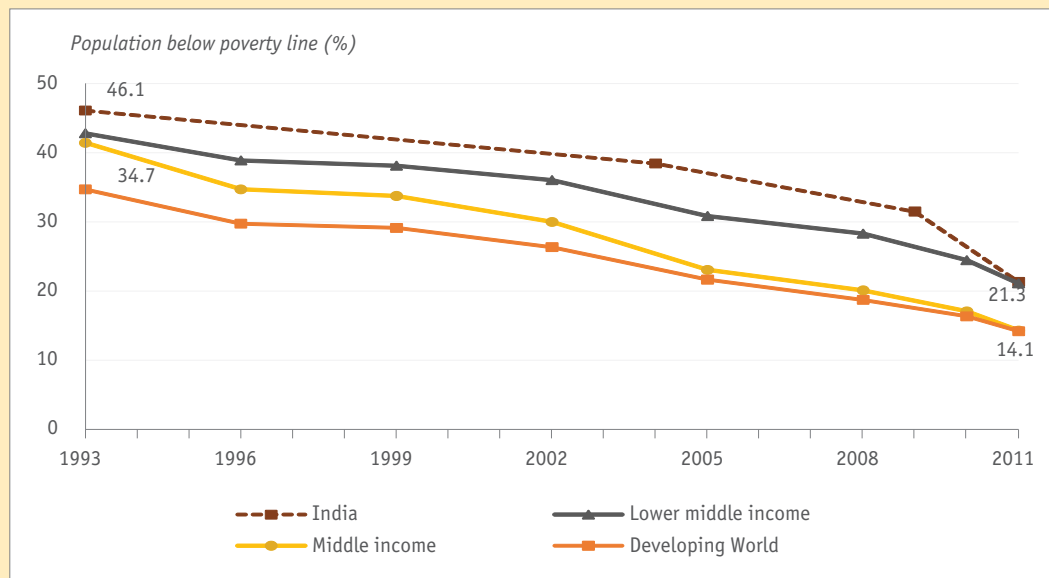
Figure 1: Poverty has declined rapidly, especially in recent years



Note: Based on National Sample Surveys (NSS). Consumption is expressed in constant 2005 All India Rural Rupees, corrected for cost-of-living differences between states and rural and urban areas using India's official poverty lines.

Source: Narayan and Murgai (2016).

Figure 2: The pace of poverty reduction is now faster than elsewhere



Note: Based on the international poverty line of \$1.90 per day (in 2011 Purchasing Power Parity). Figures are available at roughly 3-year intervals during 1990-2008. Data are from the NSS for India, and from World Development Indicators (WDI) for other countries.

Source: Narayan and Murgai (2016).

at \$1.90 per person per day (in 2011 Purchasing Power Parity), India accounts for the largest number of people that have escaped poverty in recent years. After a lackluster performance in the 1990s, the pace of poverty reduction in India exceeded that of the developing world as well as that of Middle Income Countries (MICs) as a group

(figure 2). As a result, India's share of the global extreme poor declined from 30 percent in 2005 to 26 percent in 2012. However, despite the enormous progress poverty remains widespread. One in every five Indians is poor, nearly 270 million people. And, at the global poverty line, India is home to the largest number of poor in the world today.

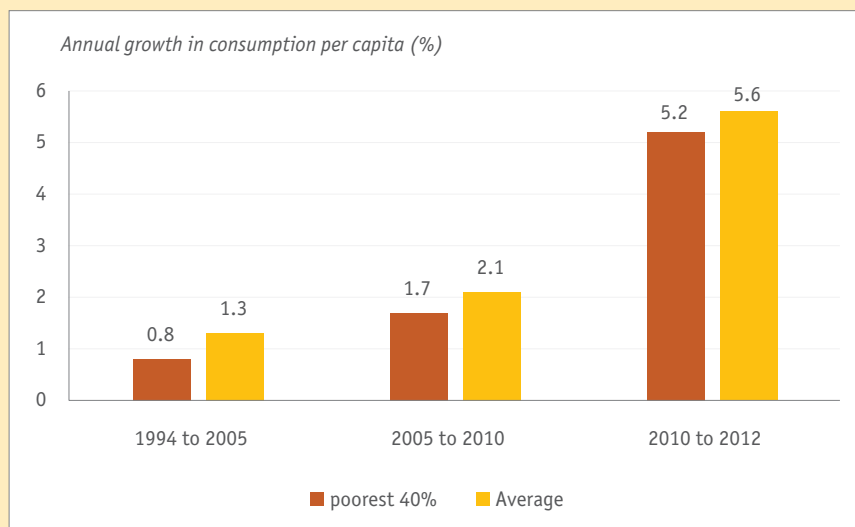
Prosperity could have been shared more widely

The inclusiveness of economic growth can be assessed based on the growth rate of per capita consumption among the bottom 40 percent of the population. This indicator of shared prosperity improved significantly after 2005, tracking the poverty trend closely (figure 3). The growth in consumption for the bottom 40 percent was four

times faster towards the end of the period than it had been at the beginning. But despite the four-fold increase, it still lagged behind the growth in consumption for the population as a whole.

India's rather unremarkable performance in sharing prosperity with the bottom 40 percent

Figure 3: Consumption has grown faster on average than at the bottom



Note: Consumption expressed in constant 2005 All India Rural Rupees.

Source: Narayan and Murgai (2016).

of its population contrasts sharply with its solid performance in terms of average consumption growth (figure 4). Between 2005 and 2012 India ranked 16th among 51 MICs based on the consumption growth rate of the overall population, but it only ranked 27th based on the consumption growth rate of the bottom 40 percent of its population.

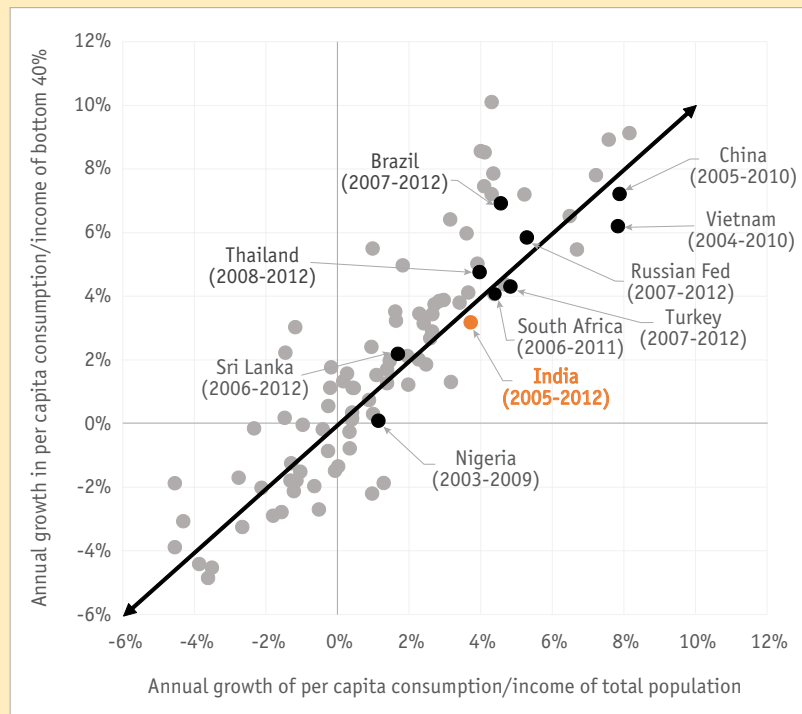
This assessment is not inconsistent with a relatively stable degree of overall inequality. A standard indicator in this respect is the Gini index, which varies from 0 in a situation of perfect equality to 100 percent in the hypothetical situation in which one household accounts for the entire income or consumption of the country. During this period India's Gini index has remained stable at around 32 percent, which is relatively low by international standards. But the Gini index considers the entire population, and can remain stable if inequality among the bottom 40 percent or the top 60 percent declines while inequality between the two groups increases.

This said, the assessment is tainted by the difficulty to adequately measure consumption

among the richest segments of the population based on household surveys. The latter do a good job at capturing relatively basic forms of consumption, but are not well-suited to quantify fanciful expenditures such as trips abroad or luxurious housing. Moreover, the rich are less likely to spend time responding to surveys of this kind than the poor, which leads to under-reporting at the top of the distribution. These are possible reasons why India's average growth in household consumption as measured by household surveys lags systematically behind the growth of private consumption as measured through national accounts.

An alternative way to assess the inclusiveness of economic growth is the elasticity of poverty reduction to economic growth, or the percentage change of the former when the latter increases by one percentage point. In this indicator, poverty is measured based on household surveys but economic growth is measured based on national accounts, implicitly correcting for the under-measurement of household expenditures among the non-poor.

Figure 4: India's economic growth was not especially inclusive



Note: For Mexico, Brazil, Germany and Italy, income growth figures are used; consumption growth figures are used for all other named countries. Data are from the Global Database for Shared Prosperity, at the World Bank.

Source: Narayan and Murgai (2016).

This other measure confirms that India's growth has not been particularly inclusive in recent years. For the period from 2005 to 2012, its elasticity of poverty reduction to economic growth ranks in the 35th percentile among the 116 developing countries for which data are available. Put differently, in roughly two thirds of developing countries growth was more inclusive than in India during this period. This relatively low elasticity is the reason why despite India being among the top performers in terms of economic growth it was just above the 60th percentile of developing countries in the rate of poverty reduction.

Encouragingly, growth seems to be becoming more inclusive over time. The elasticity of poverty reduction to economic growth more than tripled from 1994-2005 to 2005-2012, with much of the improvement occurring in the last two years of this period. In 1994-2005, one percentage point of economic growth brought about a 0.24 percent reduction in the poverty rate at the \$1.90 line. By 2005-2012, the corresponding decline in the poverty rate had accelerated to 0.93 percent. And it had reached an impressive 2.24 percent in 2010-2012.

There was substantial upward mobility but a majority remains vulnerable

The rapid reduction in poverty means that there were many more households moving above the

poverty line than there were households falling below it. But the dynamics were similar at various

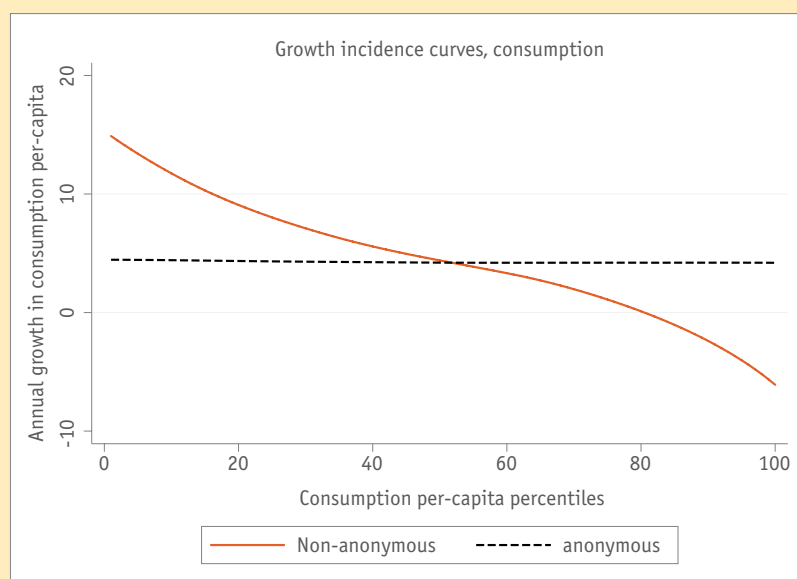
levels of expenditure per capita, and not just around the poverty line. And movements upward were more frequent among the poor than among the non-poor.

To assess the extent of mobility it is necessary to go beyond aggregates such as the poor, or the bottom 40 percent, and track the trajectory of individual households. In other words, it is necessary to shift from “anonymous” to “non-anonymous” measures of wellbeing. The NSS, which is the source of consumption expenditure data used for producing official poverty estimates in India, does not allow for this, except through statistical approximations, but the India Human Development Survey (IHDS) does. Based on the IHDS, between 2005 and 2012, the consumption of an average Indian household grew at about 4.7 percent per year. An anonymous measure suggests that the growth rate was roughly the same at every percentile of the distribution. But a non-anonymous measure, which compares consumption per capita of the same households between the initial and final years, shows that consumption growth was much faster

among those households that were poorer in 2005 (figure 5). Households that were better-off in 2005 experienced slower consumption growth, with some taking the place of the poorest households by 2012. This “churning” of households moving up and down relative to other households explains why the anonymous growth rates for poorer households are much lower than the non-anonymous ones.

Mobility can also be assessed through transitions of households over time between well-defined population groups – such as the poor, the vulnerable and the middle-class. This other approach also points to high upward mobility. Its implementation required to first define in a rigorous manner the dividing line between the vulnerable and the middle class. In practice this was done by choosing a threshold for expenditures per capita such that households above it would face a probability of falling into poverty lower than 20 percent. Based on this metric, more than half the population changed group from 2005 to 2012, and more than two thirds of those changing group moved upward (figure 6).

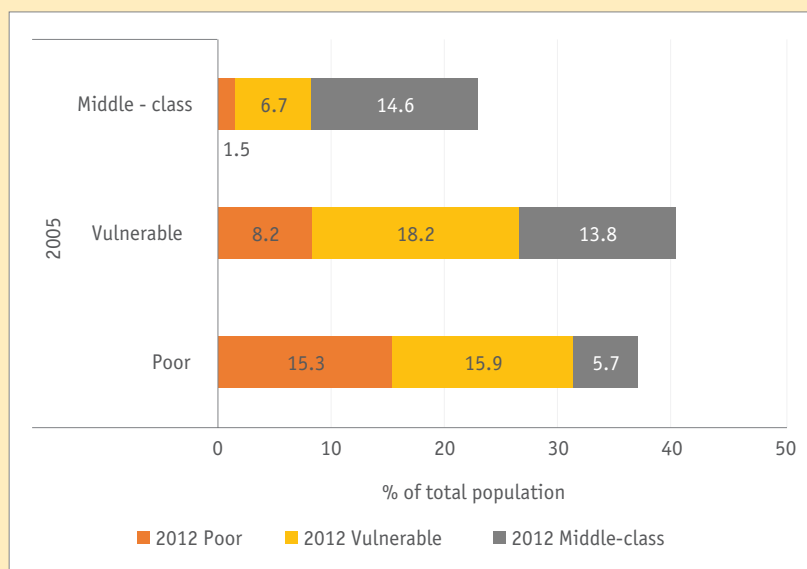
Figure 5: Poorer households were more likely to move up



Note: Based on IHDS. Consumption and incomes are expressed in All-India Rural 2005 Rupees.

Source: Balcazar et. al (2016).

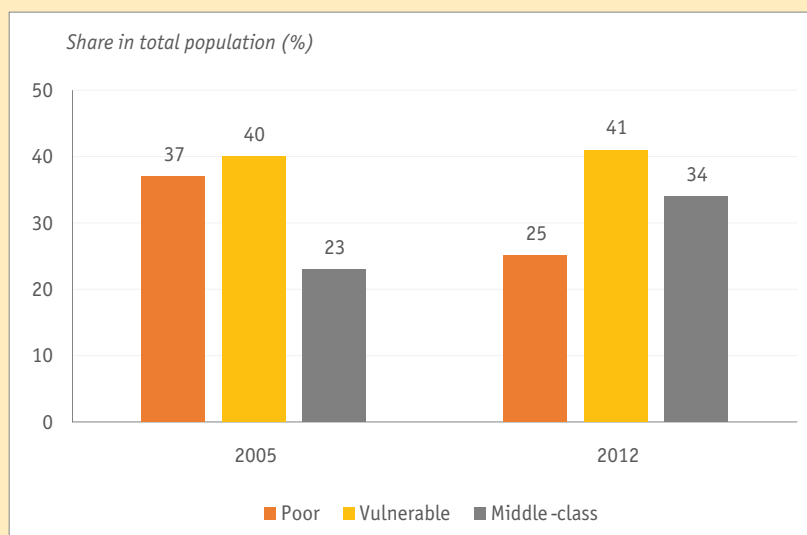
Figure 6: There was high mobility, with upward movements dominating



Note: Based on a synthetic panel constructed out of two NSS rounds.

Source: Dang and Lanjouw (2015).

Figure 7: A middle-class is rising, but a persistently large vulnerable group remains



Note: Based on a synthetic panel constructed out of two NSS rounds.

Source: Dang and Lanjouw (2015).

Strong upward mobility was enough for the Indian middle-class to grow into the second largest segment of the population by 2012 – a full third of it – as befits India’s emergence as a middle-income country during the last decade (figure 7). However, most of those who escaped poverty between 2005 and 2012 moved into

the vulnerable group and not into the middle-class. As a result, the vulnerable continued to be the largest population group (around 40 percent of the population) over the period. Many households that escaped poverty after 2005 still had consumption levels that were precariously close to the poverty line in 2012.

Progress on non-monetary dimensions of wellbeing was uneven

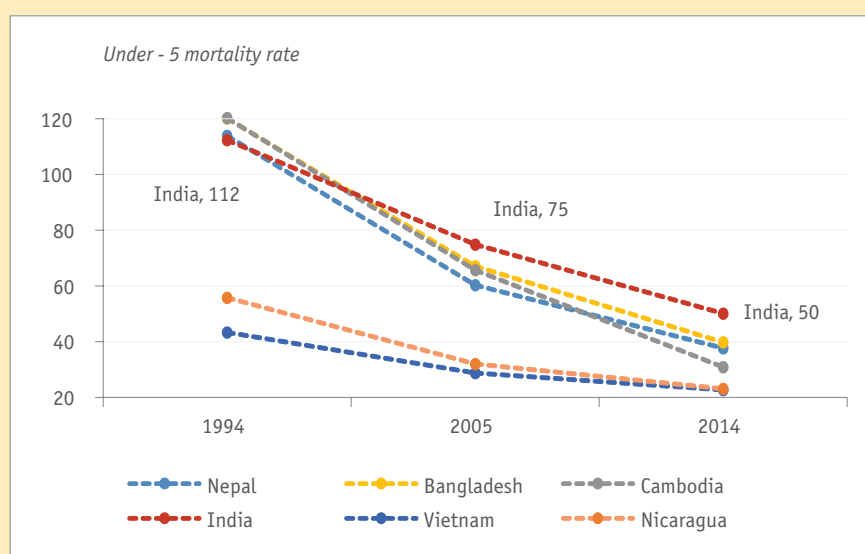
The poverty status of a household is assessed based on its daily expenditure per capita under the assumption that the household can buy the goods and services it needs. But for some basic services there may not be a market. Households may lack access to electricity, or to sanitation, or to health services. A comprehensive assessment of the progress made in raising living standards needs to take into account these non-monetary dimensions of wellbeing as well.

Consistent with the reduction in monetary poverty, non-monetary indicators of welfare have also improved steadily in India over the last two decades. But they have done so to a lesser extent than in other developing countries. In some cases, countries that had human development indicators at comparable levels in the early-1990s are doing better by now (figure 8). For instance, in 1994, child and infant mortality rates

were higher in Nepal, Bangladesh and Cambodia than in India, but they were lower in 2014.

A particular area of concern remains undernourishment among children. Some Indian states, including a few high-income ones, show stunting and underweight rates that compare poorly with the averages for low-middle income countries, sub-Saharan Africa, and some of the other countries in South Asia. While there are multiple forces at play, the prevalence of diarrheal disease is thought to be one of the main reasons behind these high levels of malnutrition, and diarrhea is triggered by poor hygiene. In 2015, 60 percent of the Indian population lacked access to improved sanitation, and 44 percent practiced open defecation. Both shares are higher than in Bangladesh, Nepal and Pakistan, despite all three countries having lower income levels.

Figure 8: Infant mortality declined more slowly than in comparable countries



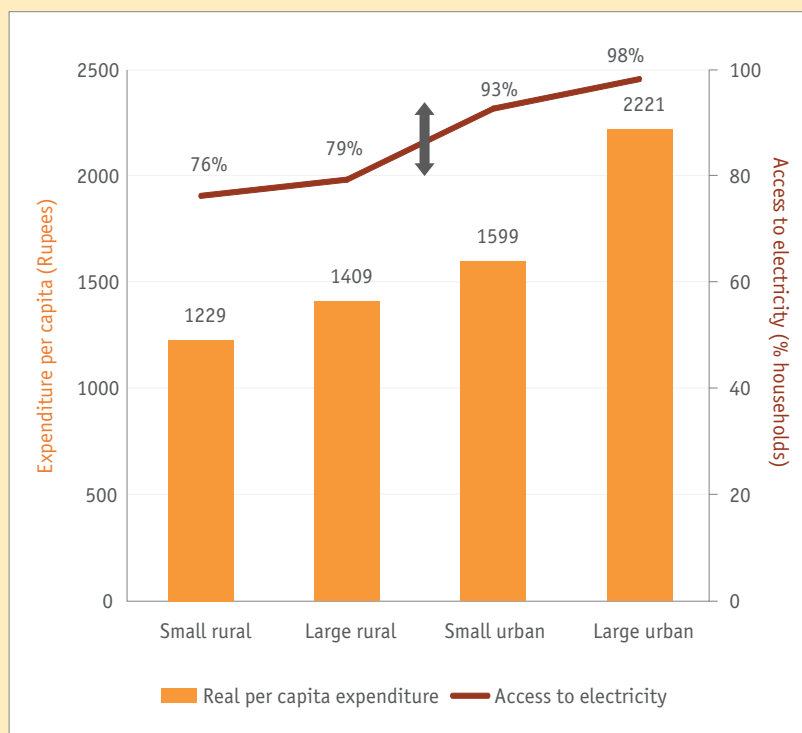
Note: All figures are in terms of per 1000 live births.

Source: Narayan and Murgai (2016).

The extent of non-monetary deprivations varies not only across countries, but also within countries. There is a strong correlation between household consumption per capita and access to basic services, reflecting the fact that richer households can afford to move to better neighborhoods, or may have more clout to bring public services to the places where they live. But there is also a strong correlation between access to services and urbanization. Not surprisingly, urban households tend to have both higher consumption levels and better access to services than rural households. But monetary and non-monetary dimensions of wellbeing do not necessarily improve at the same rate as rural areas urbanize.

Such uneven progress in the different dimensions of wellbeing needs to be taken into account when assessing the “true” speed of poverty reduction. For instance, in India the share of households with access to electricity is similar across small and large rural areas, or across small and large urban areas, but urban areas as a whole have substantially higher access. Household expenditures, on the other hand, grow quite steadily across the four types of locations, from less to more urban places (figure 9). Therefore, the same increase in household expenditures is associated with a stronger improvement in wellbeing when it results from moving from rural to urban areas than when it arises from moving up within each of the two groups.

Figure 9: Access to electricity was strongly associated with urbanization



Note: Small rural comprises villages with less than 5,000 inhabitants; large urban comprises cities with more than one million inhabitants.

Source: Authors, based on NSS 2012.

Some population groups fared substantially worse

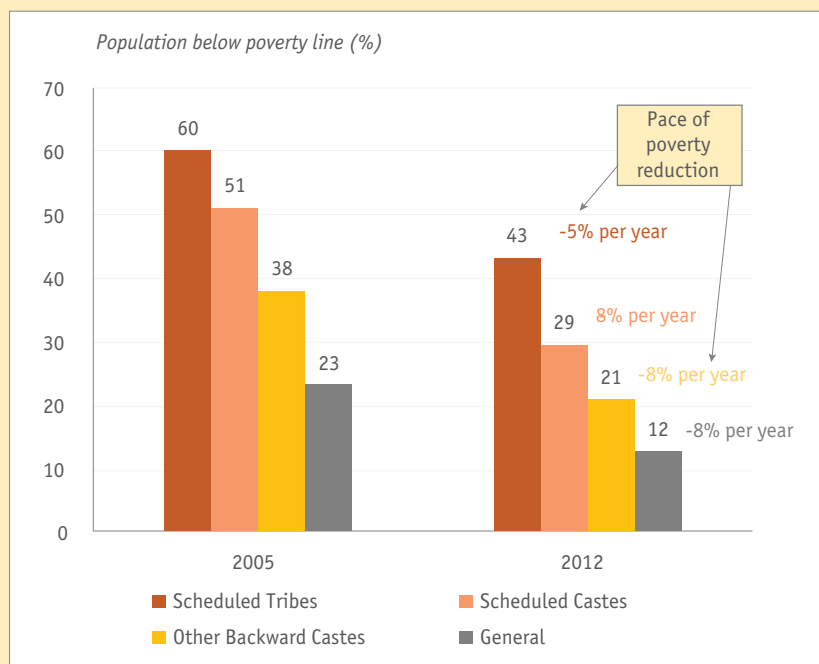
Living standards among specific population groups have consistently lagged behind the rest of the country. Households belonging to the Scheduled Tribes and Scheduled Castes stand out for not just entrenched poverty, but also more deprivation on non-monetary dimensions of wellbeing such as health and education. These groups are sizeable: in 2012, Scheduled Tribes accounted for 9 percent of India's population and Scheduled Castes for 19 percent. At 43 percent, Scheduled Tribes have the highest poverty rate among all social groups, twice as high as the India average (figure 10). Moreover, poverty has declined at a slower pace among Scheduled Tribes.

While upward mobility was widespread after 2005, it was more limited among households

from Scheduled Castes and especially from Scheduled Tribes. A greater share of Scheduled Tribes than other groups have stayed poor in 2005 and 2012, indicating higher levels of chronic poverty (figure 11).

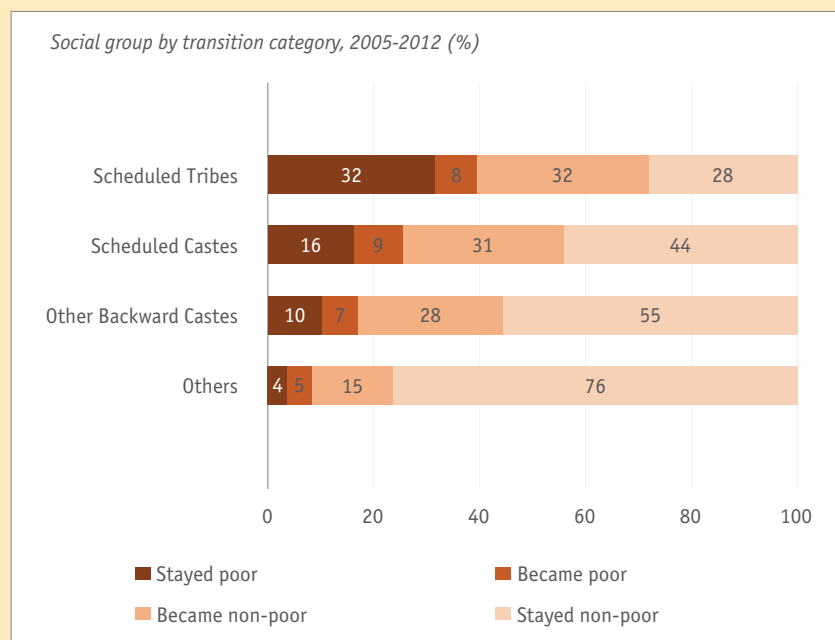
Differences in non-monetary dimensions of wellbeing between these disadvantaged groups and the rest of the population are considerable as well. Fewer adults from Scheduled Tribes and Scheduled Castes have completed secondary school; nearly two in every five are illiterate (figure 12). In addition, these two disadvantaged groups have lower access to drinking water in their homes and practice higher rates of open defecation than other groups.

Figure 10: Poverty was higher, and declined more slowly, among Scheduled Tribes



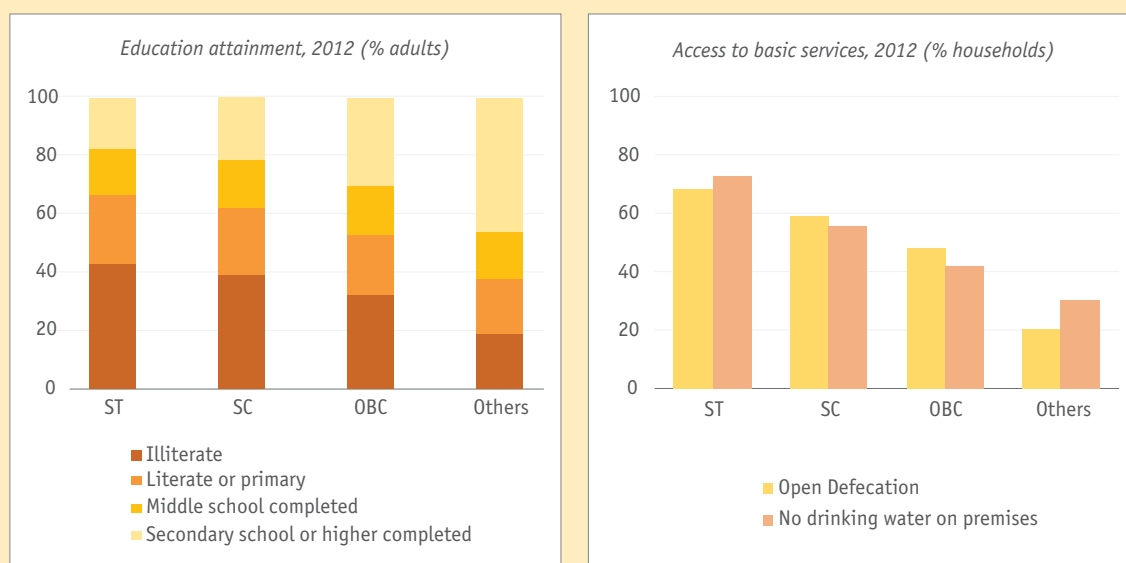
Source: Authors, based on NSS.

Figure 11: Scheduled Tribes enjoyed less upward mobility and were more vulnerable



Source: Authors, based on IHDS.

Figure 12: Disadvantaged groups fared worse on non-monetary dimensions of wellbeing



Note: ST stands for Scheduled Tribes, SC for Scheduled Castes, and OBC for Other Backward Castes.

Source: Authors, based on NSS.

India's Poverty Profile

SNAPSHOT 2012

270,000,000

Indians are poor

=



1 in 5 Indians is poor

THE 7 LOW-INCOME STATES HOUSE

62%

OF INDIA'S POOR

THE LOW-INCOME STATES ARE HOME TO

45%

OF INDIA'S POPULATION

80% of India's poor live in rural areas



24

MADHYA
PRADESH

10

RAJASTHAN

10

CHHATTISGARH

60

UTTAR PRADESH

36

BIHAR

13

JHARKHAND

14

ODISHA

Number of
poor in
low-income
states
(Millions)

Poverty Rate

25%

in rural areas

Poverty Rate

14%

in urban areas



27%
poor

Small Villages
pop: 0-4999



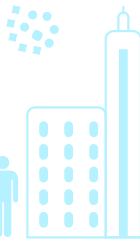
19%
poor

Big Villages
pop: 5000+



17%
poor

Small Towns
pop: 0-1mn

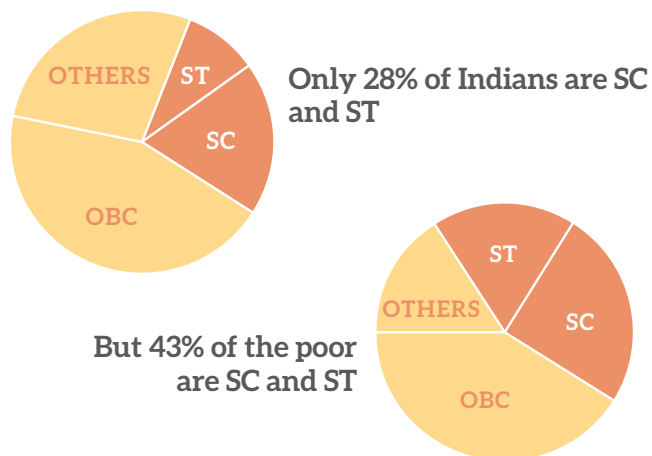
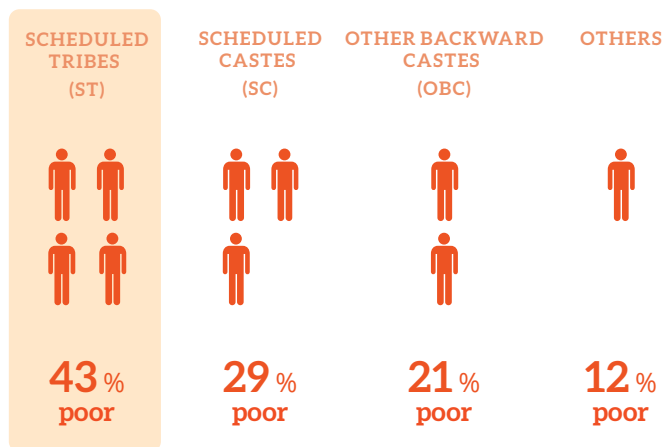


6%
poor

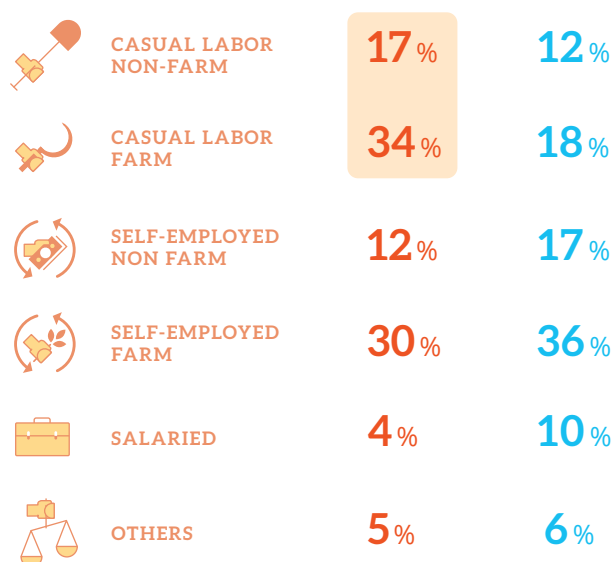
Big Cities
pop: 1mn+

POOR NON-POOR

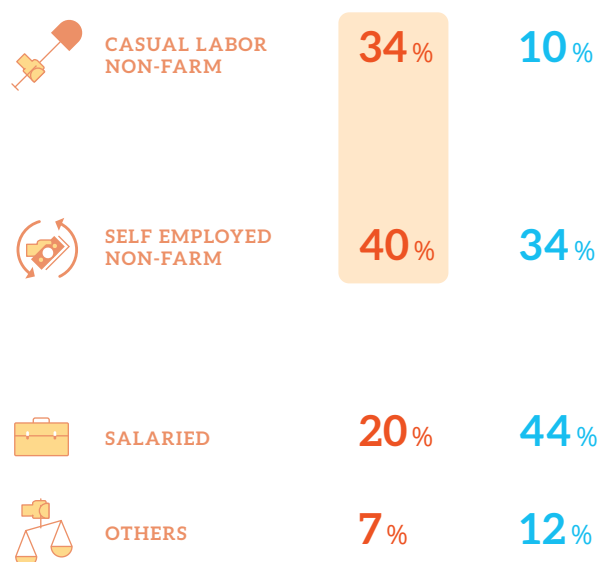
Poverty is highest among scheduled tribes



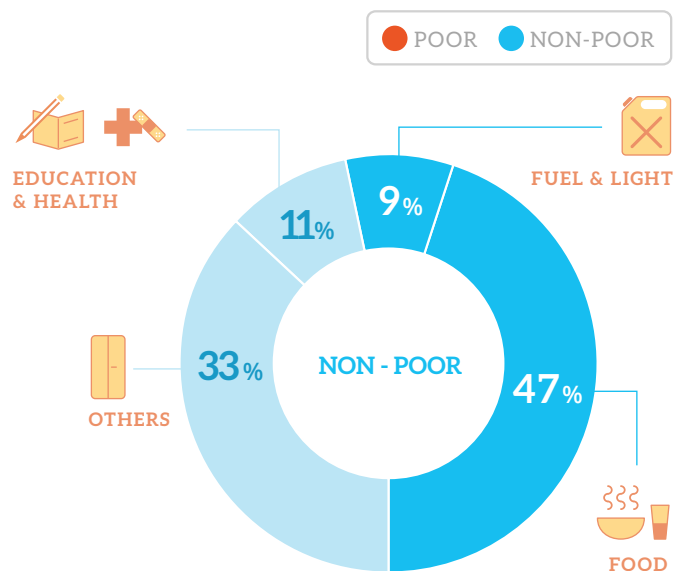
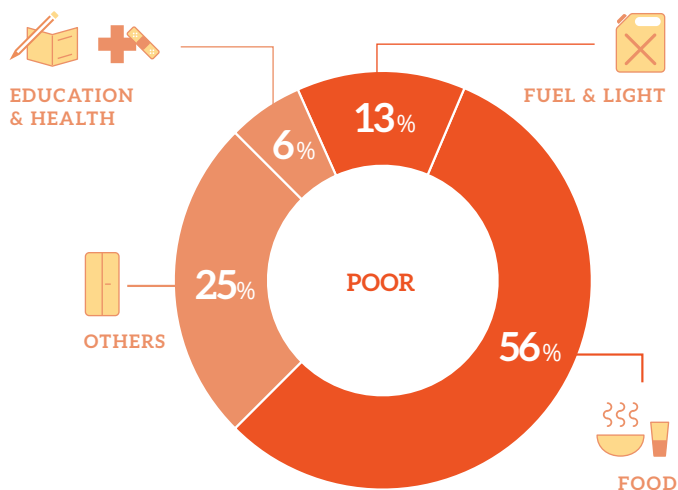
Casual labor is the main source of income for the rural poor



Self employment and casual labor is the main source of income for the urban poor

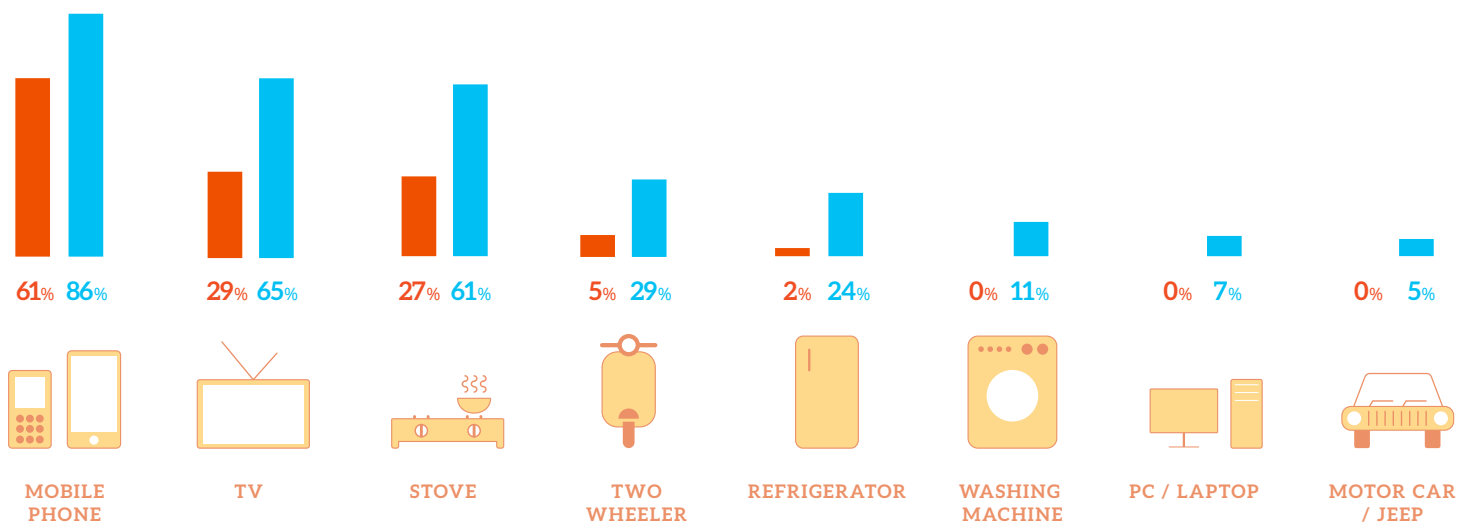


The poor spend more on food, fuel and light



The poor own fewer assets

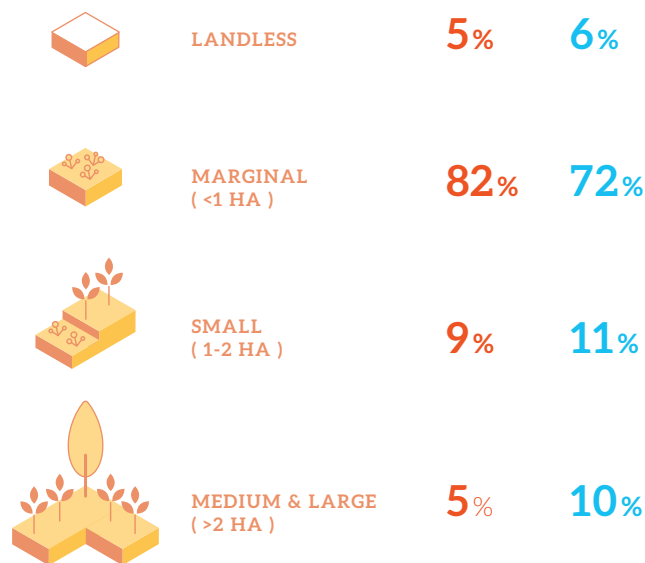
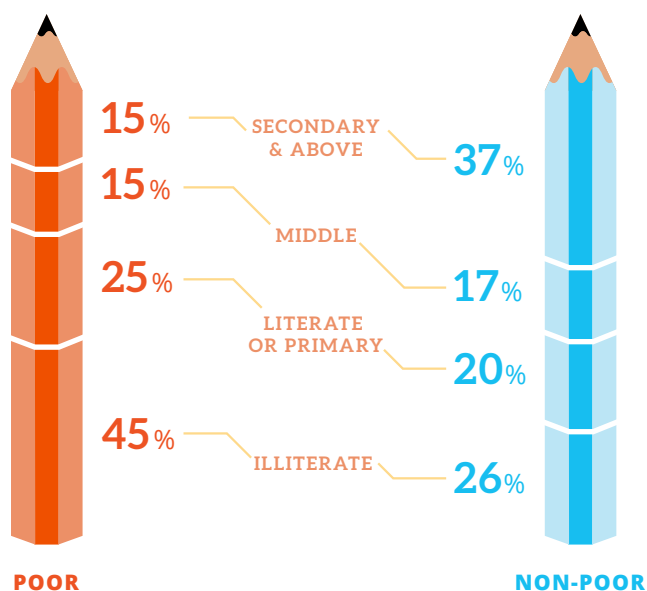
● POOR ● NON-POOR



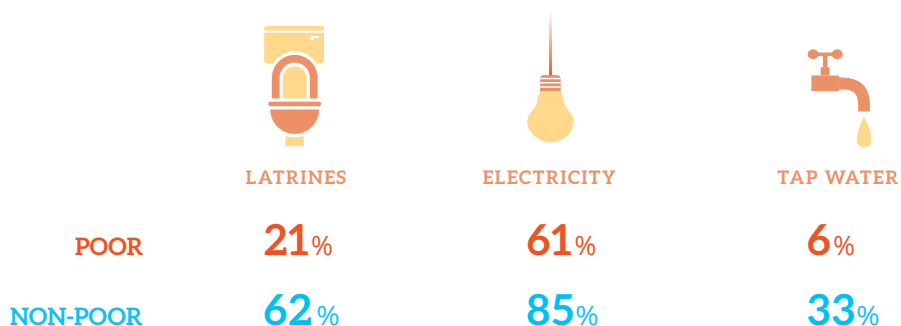
Secondary school completion is low among the poor

In rural areas, more marginal land owners among the poor

● POOR ● NON-POOR



The poor have lower access to basic services



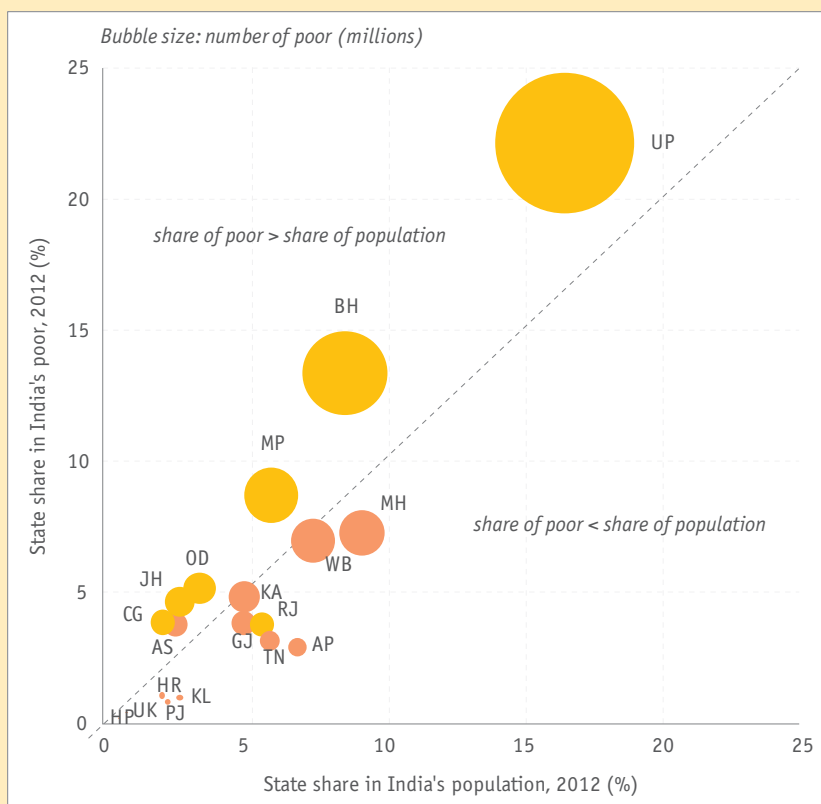
2. DRIVERS OF POVERTY REDUCTION

Poverty is increasingly concentrated in low-income states

Poverty is not only more prevalent among specific population groups, such as the Scheduled Tribes: it is also highly concentrated in specific locations. Seven of the 36 states and union territories account for 45 percent of India's population but nearly 62 percent of its poor. These

so-called low-income states are Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Orissa, Rajasthan and Uttar Pradesh (figure 13). As a result, low-income states as a group – with Rajasthan as the exception – have a poverty rate that is twice that of the rest of the country.

Figure 13: A growing share of India's poor live in low-income states



Note: Nineteen large states are considered. Low-income states are highlighted in orange.

Source: Authors, based on NSS and Population Census.

Poverty reduction in the low-income states has also not been as responsive to economic growth as in the other states. Admittedly, these states did experience greater absolute reductions in poverty in the period from 2005 to 2012. However, measuring catch-up using absolute changes can be misleading, given that initial levels of poverty and per capita incomes differed vastly across states. In relative terms, there has been divergence in both growth and poverty reduction across Indian states.

The scatter plot displays the relationship between Real GDP per capita (X-axis) and Annual growth rate (Y-axis) for various Indian states. The X-axis represents Real GDP per capita in 2005 Rupees, ranging from 0 to 45,000. The Y-axis represents the Annual growth rate from 2005-2012 in percentage, ranging from 2 to 12. The plot is divided into four quadrants: Strengthening (top-left), Leading (top-right), Lagging (bottom-left), and Weakening (bottom-right). A red circle highlights a cluster of states (UP, MP, OD, CG, JH, AS, WB) in the Lagging quadrant. A red dashed line indicates the All India average.

State	Real GDP per capita (2005 Rupees)	Annual growth rate (2005-2012 %)
UK	~29,000	~11.5
TN	~35,000	~8.5
GJ	~38,000	~7.8
MH	~40,000	~7.8
HR	~42,000	~7.2
KL	~38,000	~7.0
HP	~40,000	~7.0
PJ	~40,000	~5.8
WB	~28,000	~5.2
AS	~22,000	~3.8
JH	~25,000	~4.5
CG	~24,000	~6.0
OD	~23,000	~6.2
MP	~21,000	~6.0
UP	~19,000	~5.0
KA	~31,000	~6.5
AI	~31,000	~6.8
AP	~30,000	~7.8
RJ	~24,000	~6.8
DH	~13,000	~6.8

Source: Authors, based on data from Central Statistical Office (CSO).

Knowing that poverty reduction was faster outside low-income states is not enough to understand what about those other states makes

them more successful. An obvious candidate is the composition of their economic growth by sector of activity. Indeed, the sharp decline in

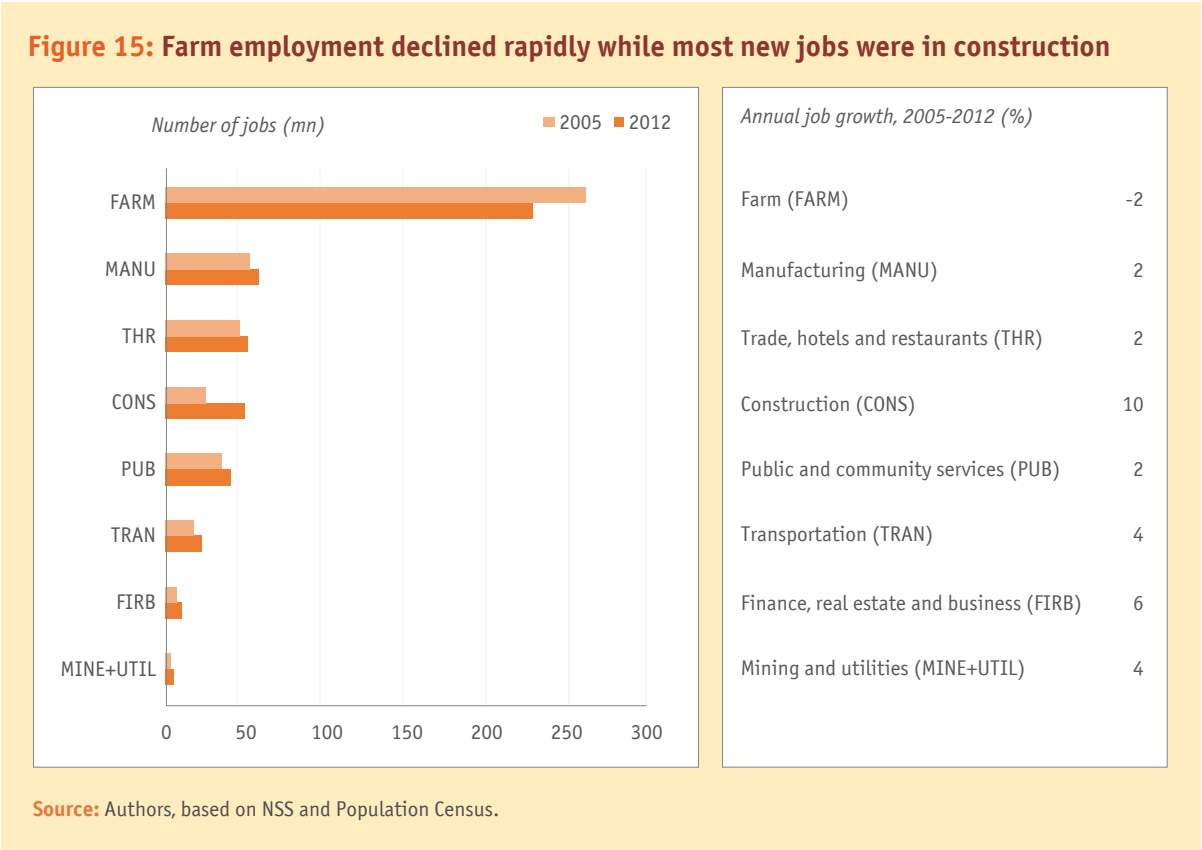
poverty observed in India in recent years, and the considerable upward mobility associated with it, occurred against the backdrop of rapid structural transformation.

India’s economic growth is increasingly driven by the secondary and the tertiary sectors. Between 2005 and 2012 the share of total output contributed by agriculture declined from 19 percent to 14 percent. The contribution of services increased from 53 to 57 percent, whereas the share of manufacturing remained relatively stable.

Structural transformation was quite dramatic when assessed from an employment point of view. Nearly 34 million jobs in agriculture were lost between 2005 and 2012. In parallel, employment in the non-farm sector grew at an annual rate of 3.6 percent, adding about 50 million jobs. The

construction sector alone accounted for nearly half of the expansion in non-farm employment (figure 15). In a somewhat surprising way, this construction boom was felt more in rural areas and especially among the unskilled. With most new jobs being created outside of agriculture, in 2012, for the first time more than half of the people at work in India were not on the farm.

Structural transformation also took the form of greater integration, reflected in stronger inter-sectoral linkages. Growth in one sector now transmits its gains elsewhere to a greater extent than in the pre-liberalization era (before 1991). Back then rural growth, especially in the farm sector, was what mattered most for poverty reduction. But in recent times, it is more difficult to attribute poverty reduction to the performance of any specific sector. The impact of an additional percentage point of growth on the poverty rate is



the same, regardless of the sectoral composition of that growth. From that perspective, poverty decline has become sector-neutral.

In absolute numbers, the contribution of the non-farm sectors towards poverty reduction is by now larger than that of the farm sector. The tertiary sector alone has contributed nearly two-

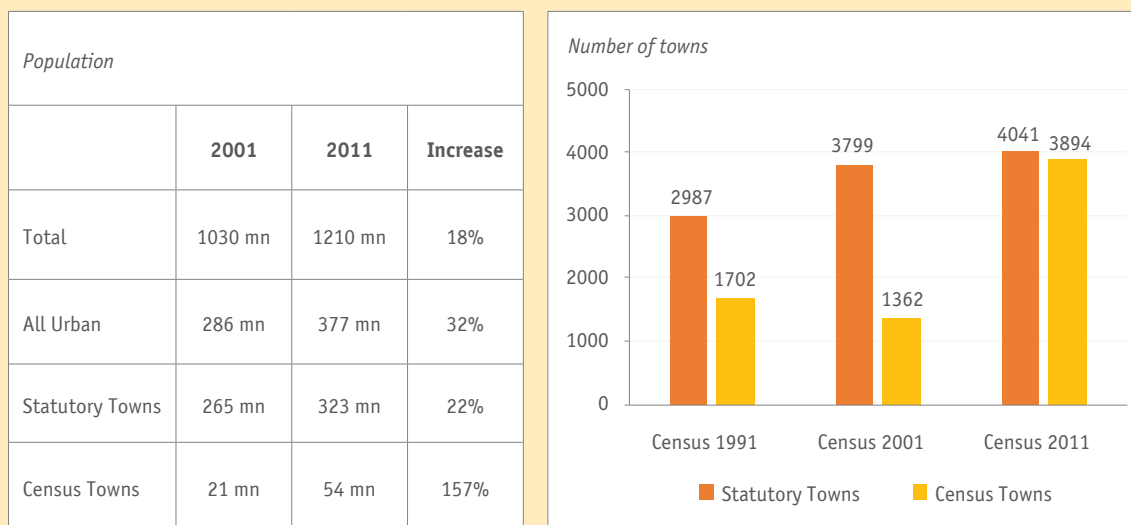
thirds of the post-1991 poverty reduction, and the secondary sector about a quarter. But this is simply because the non-farm sector accounts for a larger share of GDP and grows faster than the farm sector. It is not due to growth in the non-farm sector being intrinsically more pro-poor than growth in the rest of the economy.

Cities, more than specific sectors, drove poverty reduction

In parallel with structural transformation, the pace of urbanization picked up. Urban population increased by 32 percent between 2001 and 2011, almost double the percent increase in total population. For the first time ever the absolute increase in population was larger in urban areas. This rapid urbanization process has been messy in nature. Part of it is the result of urban sprawl, with rural areas densifying and gradually being subsumed into nearby cities.

Total population, population density and the share of employment in non-farm activities are the three criteria used by the Census of India to classify a locality as urban. But many localities which are considered urban based on these indicators are still rural from an administrative point of view. The rapid multiplication of these hybrid “census towns” shows that the boundaries between rural and urban areas have become blurred (figure 16). By now, there is no longer

Figure 16: Urban population growth is faster in administratively rural areas



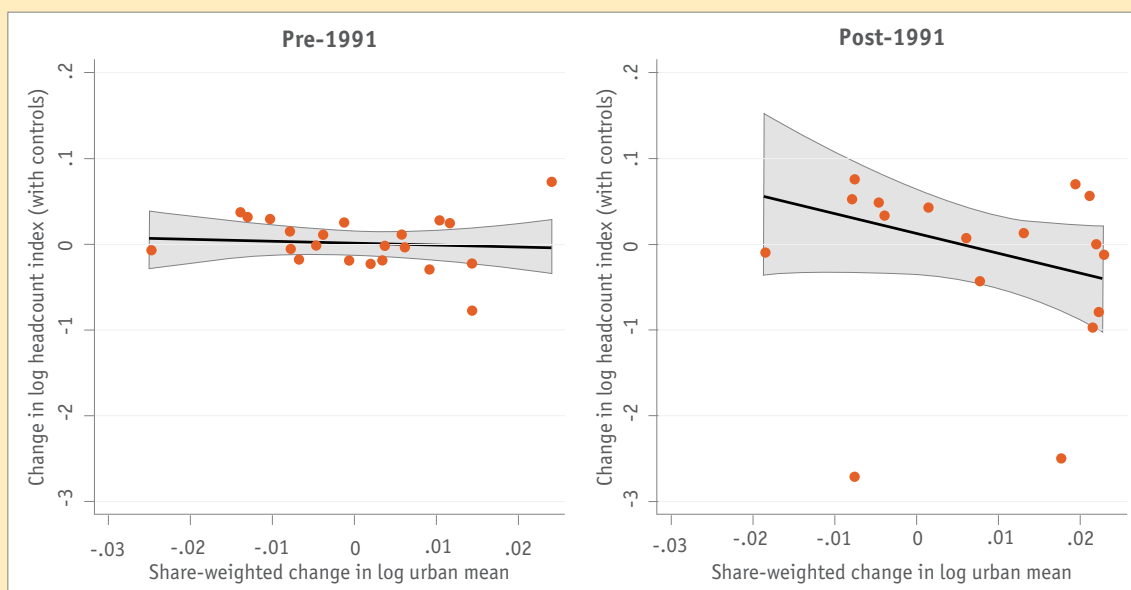
Source: Authors, based on Population Census.

a rural-urban divide in India, but rather a rural-urban gradation.

The growth of cities, which encompasses both bigger population and higher productivity, has been good for overall poverty reduction in India. In the pre-1991 period, while urban growth reduced urban poverty, it contributed little to

poverty reduction as a whole. This reflected the weak linkages between cities and the rural economy. Post- 1991, rural growth, though still important, has been displaced by urban growth as the most important contributor to even faster poverty reduction (figure 17). Put differently, the poor living in rural areas have gained more from urban growth than from rural growth.

Figure 17: Urban growth contributed more to poverty reduction in recent years



Note: Based on NSS.

Source: Based on Datt et al. (2016).

Jobs, more than transfers, mattered for households

The effects of the economy-wide structural transformation manifested at the household level in the form of more non-farm jobs and higher real wages. As a result, there was a diversification of income sources, especially for households living in rural areas. While agriculture continued to be important for many, there were fewer days spent working on the farm and a significant

shift towards non-farm activities. This shift was more noticeable among households that escaped poverty. Jobs in the non-farm sector were mainly created by the construction sector. These jobs were far from ideal in terms of regularity in wage payments, job security, or social protection coverage. But they offered higher earnings compared to farm labor.

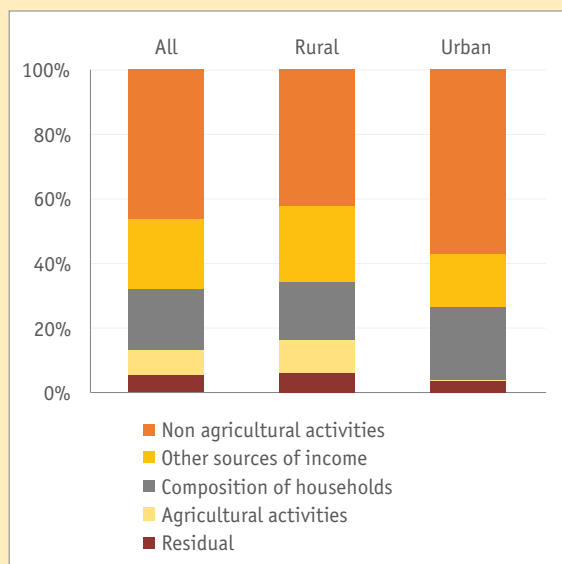
Labor earnings, from both self-employment and wage employment, on average accounted for nearly 90 percent of household income in 2012. But in addition, changes in labor earnings were a more significant contributor to higher expenditures per capita than other changes simultaneously affecting households (figure 18). These other changes concern remittances and transfers – as when a household gains access to a social protection program – and the composition of the household – for instance when a young family member marries and moves out. These other factors did contribute to raising living standards. The share of transfers and remittances in household incomes increased considerably between 2005 and 2012, even if it remained small overall. And the share of household members who work increased, as could be predicted in a country undergoing a demographic transition. But the change in labor earnings remained by far the main contributor to poverty reduction.

The reason why labor earnings played such an important role was the unprecedented rise in real wages for unskilled labor between 2005 and 2012 (figure 19). The dynamism of construction activity, together with higher minimum support prices and favorable terms of trade in agriculture, resulted in higher labor demand both in the farm and the non-farm sectors. The expansion in schooling, together with a decline in rural female labor force participation, slowed down the growth in labor supply. These two forces led to a tightening of the market for unskilled labor and a steep rise in the wages of casual workers.

As a result, the rural-urban wage gap has narrowed considerably, especially at the lower end of the distribution (figure 20). This wage compression contributes to blurring the distinction between rural and urban areas and reinforces the hypothesis of a growing rural-urban integration of the Indian economy.

Figure 18: Non-farm wage employment was the main ticket out of poverty

By sector



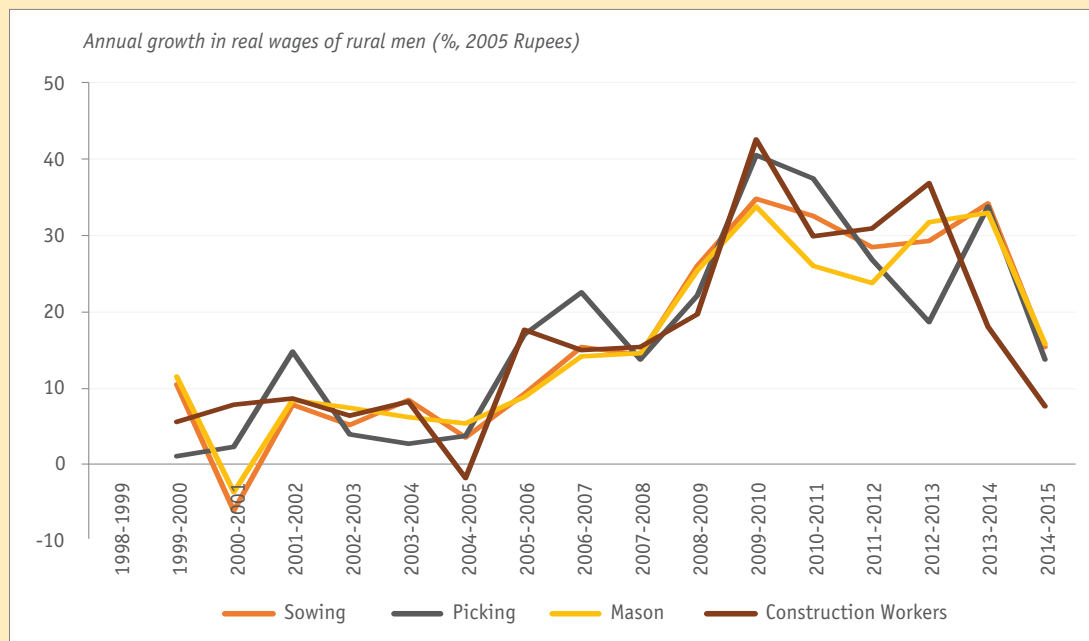
By type of job



Note: Sources of poverty reduction. Based on IHDS, 2005 and 2012.

Source: Balcazar et al. (2016).

Figure 19: Rural wages increased dramatically during the last decade



Source: Authors, based on Reserve Bank of India (RBI).

Figure 20: Urban-rural wage gaps are closing, especially at the bottom



Source: Authors, based on NSS.

Tackling Poverty in India

The Indian Express series

Five key drivers of reducing poverty in India

May 17, 2016 – Onno Ruhl and Ana Revenga

India completes 25 years of the beginning of economic reforms this July. Starting today, The Indian Express will publish findings from an e-symposium that brings together recent research by The World Bank on poverty in India.

On poverty and prosperity, lot done, lot to do

May 18, 2016 – Ambar Narayan and Rinku Murgai

The rapid decline in India's poverty levels over the last decade augurs well for the country's efforts to eradicate poverty.

Poverty down, but 1 in 2 hangs by a thread

May 25, 2016 – Peter Lanjouw and Rinku Murgai

Scheduled Tribes stand out as a group that has fallen further behind, with one-third stuck in chronic poverty.

1 in 3 has piped water, 2 of 5 kids stunted

May 27, 2016 – Ambar Narayan and Swati Puri

Decline in consumption poverty notwithstanding, on parameters like tackling open defecation, India lags behind even Bangladesh, Nepal and Pakistan.

The low income, low growth trap

June 7, 2016 – Urmila Chatterjee and Swati Puri

Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha, Rajasthan and Uttar Pradesh continue to lag behind the rest of the country in income and growth. Despite the success of these states on a few important fronts, where you live still determines how well you live.

India, the driver of growth for Bharat

June 13, 2016 – Gaurav Datt, Martin Ravallion, and Rinku Murgai

Since 1991, 80% of the total reduction in poverty has been due to urban growth — rural poor have gained more from urban growth than from rural growth. Also, post-1991, secondary and tertiary sectors have helped more to reduce poverty than primary sector.

Jobs, not transfers, the big poverty-buster

June 17, 2016 – Carlos Felipe Balcazar, Sonalde Desai, Rinku Murgai and Ambar Narayan

Between 2005 and 2012, structural changes drove poverty reduction — non-agricultural incomes rose the fastest, and the largest shifts from farm to salaried non-farm employment were seen among the poorest.

Where you live decides how 'well' you live

June 28, 2016 – Yue Li and Martin Rama

'Good' living spots tend to be found in clusters; some 'good' locations spread more prosperity than others.

Three jobs deficits in unfolding India story

July 25, 2016 – Martin Rama, Urmila Chatterjee and Rinku Murgai

The quantity and quality of jobs created raise concerns about the sustainability of poverty reduction, and the prospects for enlarging the middle class.

Since 2005, fewer jobs for women in India

July 26, 2016 – Urmila Chatterjee, Martin Rama and Rinku Murgai

After farming jobs collapsed post 2005, alternative jobs considered suitable for women failed to replace them, leading to women withdrawing from the labor force.

Key lessons on road to sharing prosperity

August 17, 2016 – Martin Rama

A review of India's experience over the last two decades confirms the links between poverty and the lack of assets at the household level, but the importance of location suggests interventions by policymakers to go beyond simply investing in education and health.

3. SUSTAINING MOBILITY AND SHARING PROSPERITY

Not enough (good) jobs are being created

The rapid decline in poverty during a time of high economic growth between 2005 and 2012 was fueled to a large extent by an expansion in non-farm employment, mainly in the construction sector, combined with an unprecedented increase in real wages for unskilled labor. Strong growth may well be sustained over time, but some of the factors that contributed to the increase in real wages may not. The global super-cycle in commodity prices seems to have halted, and domestic prices for agricultural products has already caught up with international prices, meaning that there is little scope to see farm-gate prices increasing much.

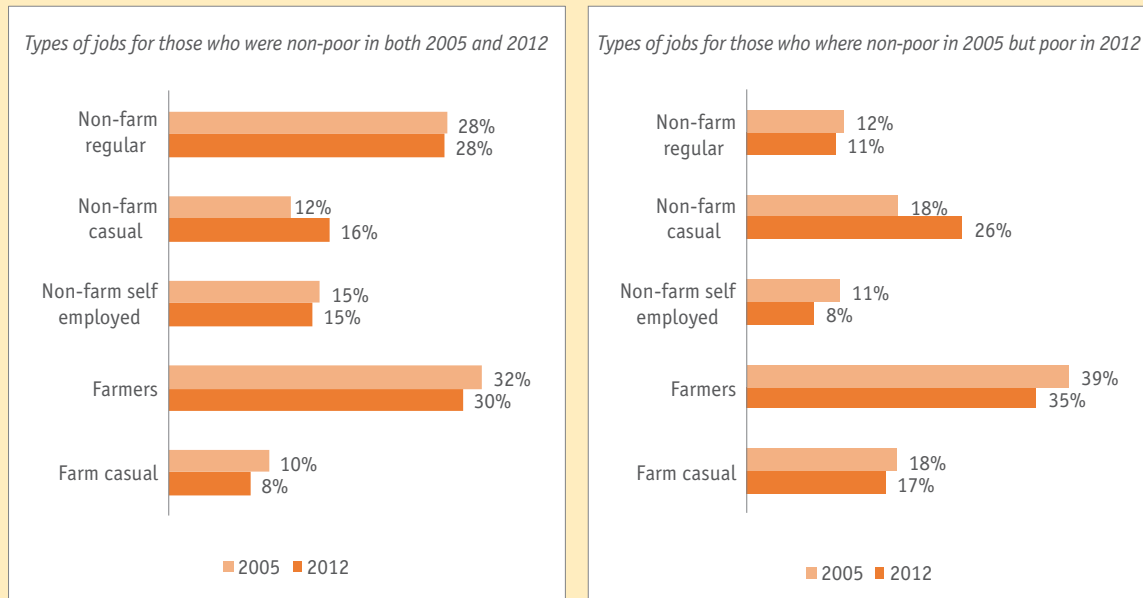
While labor earnings grew rapidly, the number of jobs did not. In fact, the period 2005-2012 can be described as being characterized by a growing jobs deficit. Or rather three of them. The first one concerns the absolute numbers. Between 2005 and 2012, net job growth in the economy was 0.6 percent per year. This was much less than the growth in the working age population that was not in school – 1.9 percent per year. In absolute numbers, out of the 13 million potential entrants into the workforce every year during this period only 3 million got a job. In a young and increasingly aspirational society, this growing jobs deficit has the potential

to turn the much awaited demographic dividend into a demographic curse.

A second important deficit concerns the quality of the jobs that were created during this period. Employment growth took place mainly in construction, where jobs tend to be casual. Their wages are set on a daily basis or through short-term contracts, and there is no job security or social protection associated with them. As a result, the shift of employment out of agriculture has been associated with an increasing casualization of non-farm work. Casual jobs help people escape poverty in the short run, but they do not guarantee entry into the middle class. This sectoral composition of changes in employment is, thus, consistent with the high levels of vulnerability of households to falling into poverty observed between 2005 and 2012.

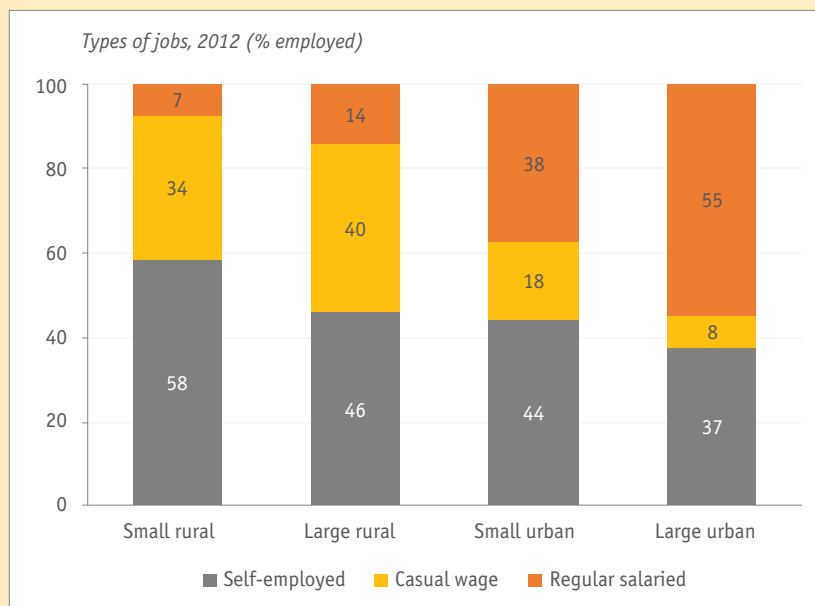
Transitions into the middle class are associated with wage employment. The likelihood of a household durably escaping poverty between 2005 and 2012 was higher if a larger share of its members had regular jobs (figure 21). On the other hand, the share of family members holding casual jobs increased among households that slipped into poverty between these two years.

Figure 21: Regular jobs support a more durable escape from poverty



Source: Authors, based on IHDS.

Figure 22: Regular jobs are predominant only in large urban areas



Source: Authors, based on NSS and Population Census 2001.

In principle, urbanization brings with it the promise of better jobs. And in the case of India, it is true that the share of regular jobs is

substantially higher in large urban areas. But there are much fewer regular jobs in small towns, and they are rare in rural areas (figure 22).

Higher wages for the unskilled in rural areas and a massive transition out of farming supported the rapid poverty reduction observed in recent years. But in the absence of a vibrant creation

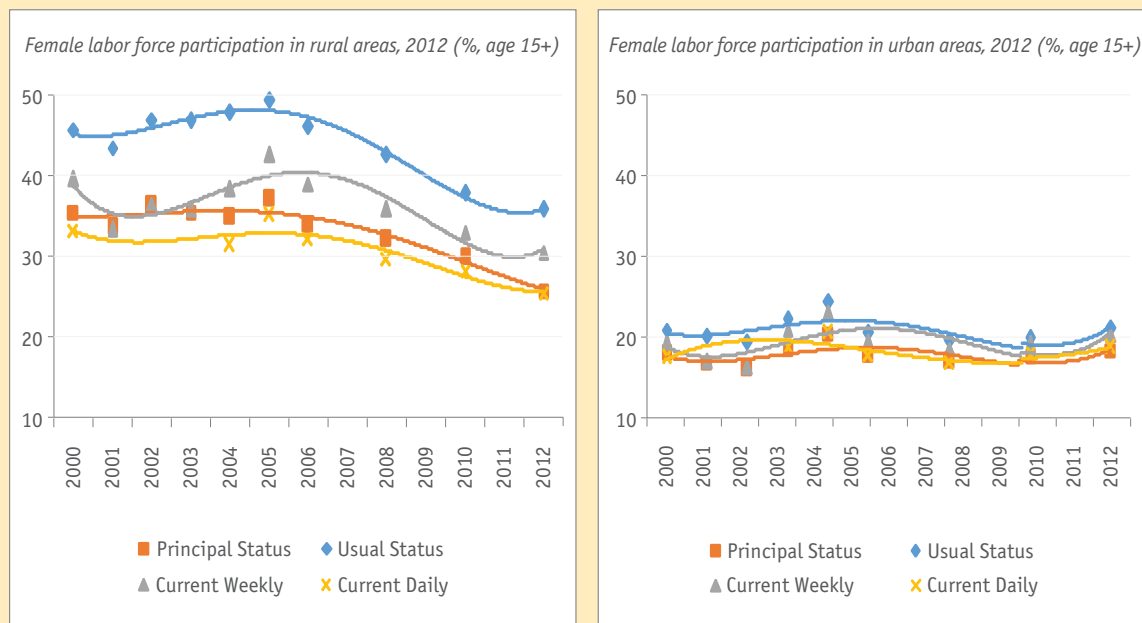
of regular jobs in large villages and small towns, where most of the Indian population lives, building a large middle class will remain an elusive goal.

Demographic dividend versus declining female labor force participation

The third jobs deficit characterizing the period 2005-2012 was the shortage of suitable jobs for women. One of the most striking developments during this period was the decline in the share of working-age women who work or actively seek work. Precise numbers vary depending on the definition of employment used, as some activities performed by women – especially at home, on a non-regular basis – could be treated as self-employment, inactivity or unemployment. But regardless of the definition used, the decline of the female

Labor Force Participation Rate (LFPR) exceeded 10 percentage points during this period (figure 23). The decline was particularly pronounced in rural areas, where the female LFPR fell from 49 percent of the working-age population in 2005 to 36 percent in 2012. The rate remains relatively stable in urban areas, but at a very low level as only one in five working-age women living in cities is economically active. As a result of this downward trend, India today is near the bottom in female LFPR among countries with similar income levels.

Figure 23: Female labor force participation has declined sharply in rural areas



Poverty fell rapidly in India between 2005 and 2012, but it would have fallen even faster had female LFPR remained constant at its 2005 level. Since then, many rural households lost out on the earnings of their female members who became inactive. Beyond short-term living standards, economic inactivity undermines agency by women, and slows down progress towards gender equality. Gainful work by women, and especially paid employment, is correlated with their agency at the household level and in society more broadly, and with better development outcomes, including greater investments in children's health and education. The male LFPR, on the other hand, has remained high at about 80 percent in both rural and urban areas.

A common explanation for the decline in female LFPR is the expansion in access to secondary education. Girls are staying longer in school, hence working less at younger ages. This is a welcome development, both from a skills perspective and from a gender equality perspective. However, this explanation can only account for a fraction of the observed decline. Most of the observed decline in female LFPR actually occurred among older women. And it took place in spite of their higher educational attainment. Among women aged 18 to 30 years, the share of those completing secondary education increased from 20 percent in 2005 to 32 percent in 2012. But for the same age cohort, the share in the labor force declined from 38 to 30 percent.

A second explanation focuses on the so-called "income effect". It is argued that in a predominantly patriarchal society the relative prosperity of recent years has allowed more women to stay at home, a preferred choice for their husbands. This explanation is plausible, but on closer examination it can only account for about a fourth of the decline in female LFPR. It is true that female LFPR fell more in districts where labor earnings increased more substantially. But the relationship is such that a doubling of labor

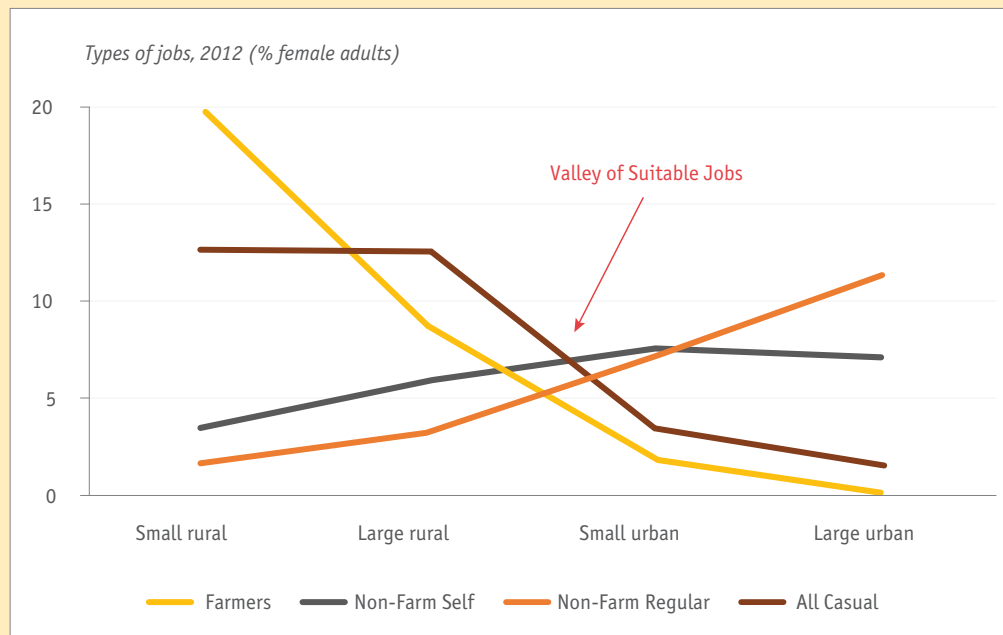
earnings in real terms, as was roughly observed between 2005 and 2012, would lead to a decline in female LFPR by about 3 percentage points. This rough estimate is corroborated by a much more careful analysis matching characteristics of women's households with those of the places they live in.

A more plausible explanation has to do with the increasing scarcity of "suitable" jobs for women. In a traditional society, women's work is more acceptable if it takes place in environments perceived as safe and provides enough flexibility to simultaneously perform household duties and chores. Working in the family farm matches this description, and indeed female LFPR is high in small villages, where agriculture remains the main economic activity. Work outside the family house is also more acceptable if it takes place in a relatively protected environment, such as an office or a factory. But in recent years the number of farm jobs has dropped dramatically in India, without a parallel emergence of regular jobs in offices and factories.

In rural areas, the only non-farm jobs available in large numbers are in construction, and they involve casual work. Men employed in this sector worked mainly for private contractors or on their own account. By contrast, more than half of the women working in construction in rural areas were doing so under MGNREGA and other public works programs. MGNREGA alone accounted for over a third of the female construction workers in rural areas in 2012.

The scarcity of suitable jobs for women has become particularly marked in the rapidly-expanding areas that are neither truly rural nor fully urban. Between 2005 and 2012, farm jobs collapsed in the villages, whereas regular employment only expanded significantly in large urban areas. The combination of these two trends created a "valley" of suitable jobs for women along the rural-urban gradation (figure 24).

Figure 24: There are not enough suitable jobs for women along the rural-urban gradation



Note: Based on NSS and Population Census 2001.

Source: Chatterjee et al. (2015 b).

A paucity of good locations

The jobs deficits experienced by India during the period 2005-2012 are strongly linked with the urbanization process. Regular employment grew mainly in large urban areas, whereas the shortage of “suitable” jobs for women was felt more strongly in large rural areas. Scheduled Tribes, the group that was more clearly left behind during this period, are also concentrated in specific districts, and live mainly in small rural areas. These observations call for a deeper understanding of the spatial patterns of mobility and exclusion. A greater spatial granularity is especially pertinent in the case of India, where states are massive entities.

When defined at a fairly disaggregated level, location appears as one of the most important

correlates of poverty. Traditionally, attention has focused on household endowments and other characteristics as the most important determinants of poverty. For instance, households with lower educational attainment tend to be poorer. But even controlling for a large range of household characteristics, nearly a third of the variation in living standards across households can be attributed to their place of residence.

Building on this insight, it is possible to compute the location premium associated with more than 1,400 places along the rural-urban gradation in more than 600 Indian districts. This location premium (positive or negative) is measured as the additional expenditure per capita an

average household would enjoy, relative to the average place in India. The focus is on nominal expenditure, in current Rupees, which means that the premium may partially reflect higher prices, and not fully translate into higher living standards. However, higher nominal expenditure is usually associated with higher earnings, and earnings increase with labor productivity. This makes the location premium a defensible measure of productivity in a particular place.

Not surprisingly, urban places perform better than rural places and large urban areas display the highest location premiums. But a careful spatial analysis shows that some of the best places in India are small towns. The analysis also reveals a large degree of overlap in location premiums, along the rural-urban gradation (figure 25). At the turn of the century, a similar analysis revealed a much sharper divide between rural and urban areas.

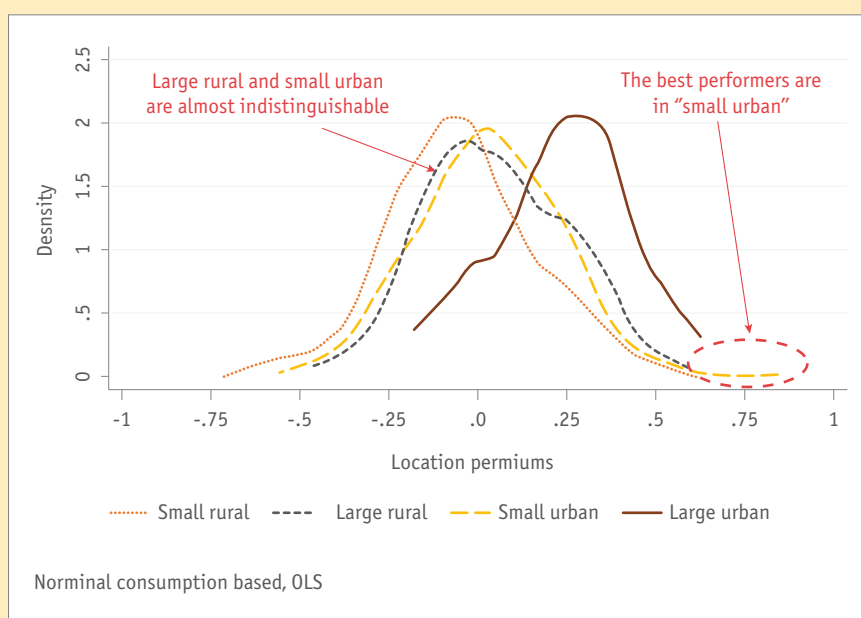
It is not only where a household lives that matters for living standards, but also next to what

it lives. Places with high location premiums tend to be close to each other, forming clusters of high living standards. These clusters are most often situated around a top urban location, but they can spread out over a vast catchment area with still substantially high location premiums. Catchment areas encompass both urban and rural places. Many of these clusters and their catchment areas include high-performing villages.

The best places do not share their prosperity evenly, however. For instance, both Bangalore and Delhi are among India's top places. The location premium is slightly higher in Bangalore, which suggests that it is a more productive city. But households in the catchment area of Delhi do substantially better than those in the catchment area of Bangalore. The location premium is still positive and large up to 200 km away from core Delhi, while it almost vanishes 100 km from core Bangalore.

Places with the lowest location premiums tend to be contiguous as well. They are concentrated in

Figure 25: Large villages and small towns have similar location premiums



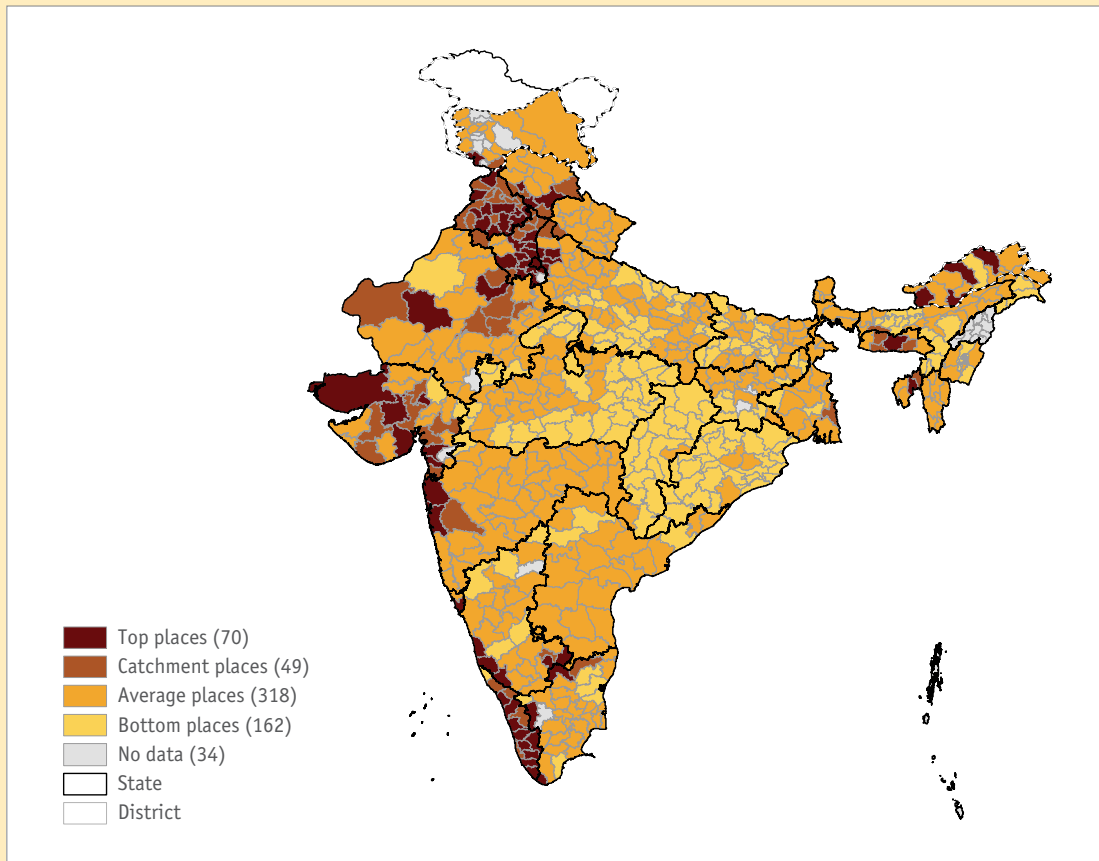
Note: Based on NSS 2012 and Population Census 2001.

Source: Li and Rama (2015).

central India and happen to be in many of the low-income states. They are mainly rural – but include few small towns – and they are home to

a large share of the Scheduled Tribes (figure 26). This suggests that social exclusion is closely intertwined with spatial exclusion in India.

Figure 26: Where one lives, and near what, matters for poverty



Note: Based on NSS 2012 and Population Census, 2001 and 2011.

Source: Li and Rama (2015).

Locations in the mid-range of the rural-urban gradation do converge

A spatially disaggregated analysis reveals more convergence in living standards across India than the comparison across states suggested. When considering states there is divergence in the growth rates of GDP per capita, with low-income

states generally performing worse than the rest. If household expenditures per capita are considered, instead of GDP, there is neither divergence nor convergence. A tentative explanation for the difference between divergence in GDP per capita

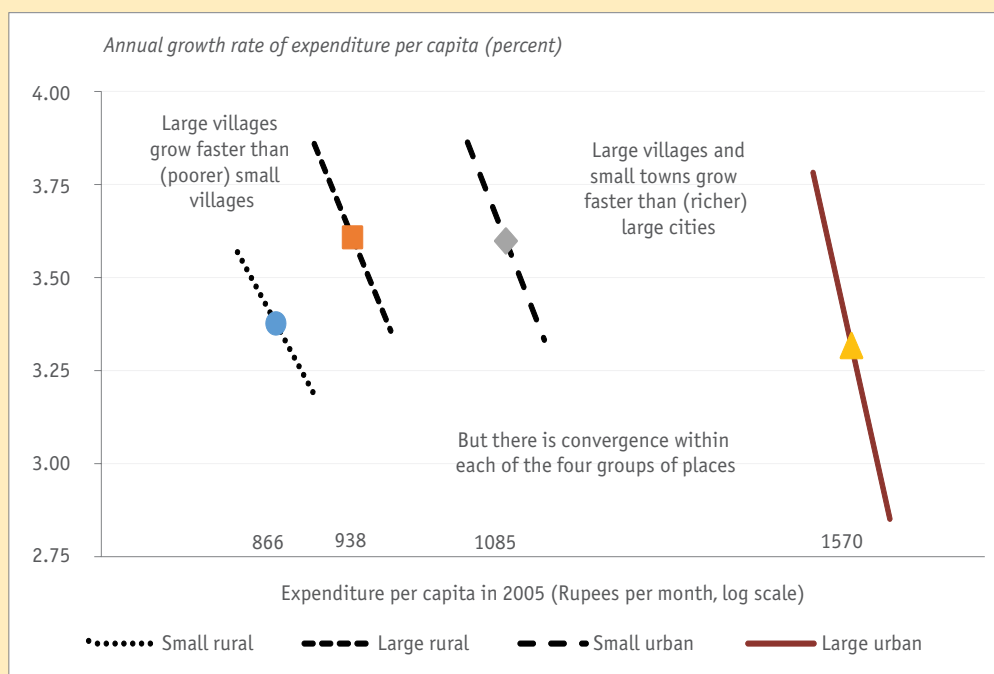
and neither convergence nor divergence in household expenditures per capita has to do with internal migration. If migrants from low-income states work in more vibrant states and send remittances to their families, they generate GDP where they migrated to, but support consumption back home. This said, even when considering household consumption per capita, there is no evidence that low-income states are catching up.

On the other hand, there is absolute convergence in living standards when the district, rather than the state, is the unit of analysis. And the speed of convergence is twice as fast when considering an even higher level of spatial disaggregation, distinguishing between small rural, large rural, small urban and large urban places. This finding is not a statistical artifact, driven by higher measurement error when considering smaller places. But the finding warrants some additional

effort to understand why strong convergence in living standards across places does not translate into convergence across states.

The explanation, again, is related to the urbanization process. Rapid convergence is happening in the mid-range of the rural-urban gradation. Household expenditures per capita grow faster in large rural and small urban places than in either small rural or large urban places (figure 27). There is also convergence within each of the four groups, and convergence is faster among large urban places. All this suggests that the economic forces that sustain shared prosperity are stronger in more urbanized settings, whereas there is divergence at the lower end of the rural-urban gradation. Low-income states may thus be failing to converge because they have not been as successful at urbanizing as other states.

Figure 27: The mid-range of the rural-urban gradation is catching up



Note: Based on NSS 2005 and 2012, and Population Census 2001.

Source: Li and Rama (2016).

The economic forces behind rapid convergence can be enhanced

Given that the growth in living standards differs considerably across locations, it is important to understand what makes some locations perform better than others. Such understanding provides clues on the kind of policies and investments which have the potential to accelerate poverty reduction and foster shared prosperity. But there are two significant methodological challenges in trying to identify the key characteristics of well-performing places.

The first challenge has to do with internal migration. A sending place may be growing more slowly than a place receiving migrants because its population has a shrinking share of people with characteristics (in terms of age or education) that make them more productive, and not because the place is becoming less productive in any fundamental way. To get around this issue, one would consider convergence in location premiums (rather than convergence in household expenditures per capita) as they refer to an average household with the same characteristics in all places across India.

The second methodological challenge has to do with the multiplicity of characteristics that could potentially have an impact on local performance. Following the literature on convergence, this is addressed by the “million regressions” approach, to assess which characteristics are consistently significant correlates of growth in premiums at the local level. Economic theory, as well as previous analyses, point to a multiplicity of factors that could make a difference. Governance, infrastructure, market access, economic structure, types of jobs, inclusion, human capital and climate are among the potentially relevant characteristics to consider. The spatial data available for India allow considering nine

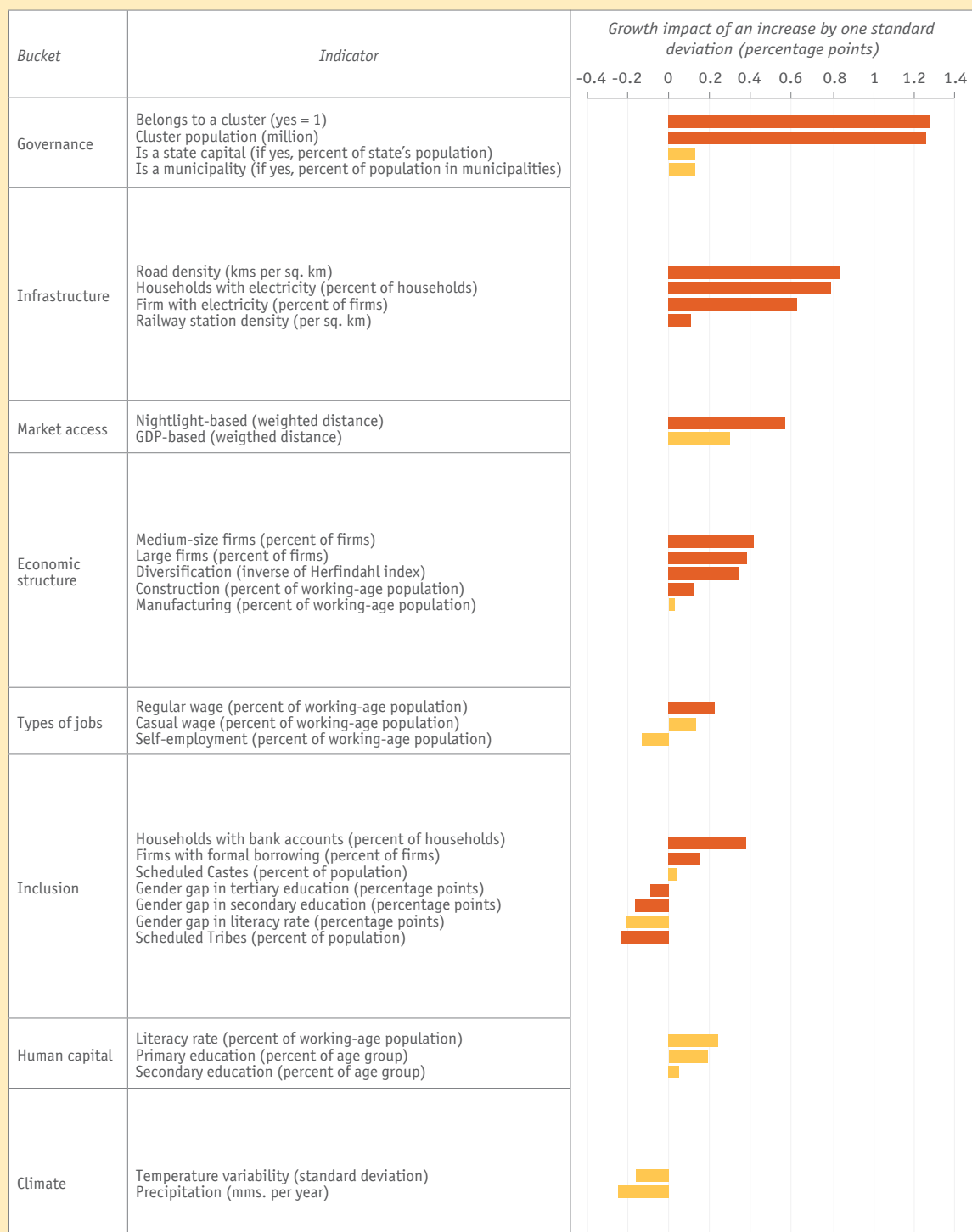
such conceptual “buckets”, each with multiple indicators.

The million regressions approach leads to discarding about half of the indicators that economic theory, or previous analyses, would have picked up as top candidates to drive growth at the local level. The results suggest that the most important predictor of subsequent growth is belonging to an urban cluster, and preferably to one with a large population. Major urban centers with vast catchment areas, such as Delhi, share their prosperity deep into surrounding places which can be administratively rural. The second most important set of indicators is related to infrastructure, and includes access to electricity and density of roads (density of railways, less so). Market access, the average distance to places with high levels of economic activity, comes next (figure 28).

The economic structure of the place also appears to be an important predictor of subsequent economic growth. Places with a larger share of medium-size and large firms grow faster, as do places with a more diversified economic structure. The share of the local labor force having a regular job also appears to be a strong predictor of rapid growth. Other indicators related to the economic structure, such as the share of the construction and manufacturing sectors in total employment, matter as well. But their impact is not as large as that of larger firms and regular employment.

Last but not least, inclusion seems to contribute to faster local growth. Starting with financial inclusion: places that grow faster had initially a larger share of households with access to finance. The same holds true, although to a lesser extent, for places with a larger share of firms borrowing

Figure 28: There are predictors of rapid growth at the local level



Note: Based on data from NSS 2005 and 2012 and Population Census 2001. Two statistical criteria are used to decide when to retain an indicator. Darker bars are for indicators meeting the two criteria, lighter bars for indicators meeting only one of them.

Source: Li and Rama (2016).

from formal financial institutions. Importantly, various forms of social exclusion appear to be detrimental to subsequent growth. For example, places with low literacy rates and primary school enrollment, or with large gender gaps in

educational attainment, grow more slowly. Places where a larger share of the population belongs to Scheduled Tribes, the population group most ostensibly left behind in recent years, also experience slower growth.

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Data Annex

NAME	DESCRIPTION
National Sample Survey (NSS)	The NSS is an annual nationally representative household survey covering different topics over time. Data on consumption expenditure are collected nearly every year, with larger samples of households interviewed in the “thick” rounds that are used for estimating poverty rates. Detailed information on employment is also collected in the thick rounds. The most recent survey years on consumption and employment are from 2004-05, 2009-10 and 2011-12. The NSS is also the source for non-monetary indicators of well-being such as educational attainment, access to electricity, and open defecation. The NSS is produced by the National Sample Survey Organization.
India Human Development Survey (IHDS)	The IHDS is a nationally representative, multi-topic survey of households conducted in 2004-05 and 2011-12. The survey has a panel structure, meaning that it is possible to track the same households over time. In addition to gathering information on consumption expenditures and income, the IHDS also covers topics such as employment, education, health, and access to social programs. The IHDS is produced by the National Council of Applied Economic Research (NCAER) and the University of Maryland.
Wage and Price Indices	These indices are computed on a monthly basis at locations throughout the country. Wage indices provide information on wage growth for men in rural areas. Consumer price indices for agricultural laborers are used to compute real wage growth. Data are gathered by the Central Statistical Organization, and curated and released by the Reserve Bank of India.
Population Census	Data from the Census of India is used to compute population at all administrative levels. It is also used to determine the class and size of cities, and to estimate urbanization rates. This source allows the identification of sampling substratum in the NSS, serving as the basis for analyses below the district level. The custodian for this data is the Registrar General and Census Commissioner of India.
National Accounts	This is the source of data on Gross Domestic Product (GDP) at the national levels, as well as for states and districts. Data on GDP per capita is used to measure economic growth, to identify low-income states, and to estimate the elasticity of poverty reduction to economic growth. Growth rates of GDP per capita at the state level are used to assess economic convergence over time. National Accounts are produced by the Central Statistical Organization.

NAME	DESCRIPTION
South Asia Spatial Database	This database is a repository of geo-referenced indicators for all countries of South Asia. The India module is currently available. It builds on around 30 databases and provides information on a range of socio-economic indicators, including the urban extent, demographics, jobs, economic activity, infrastructure, ICT, finance, business, living standards, education, health and environment. Data are drawn from population and economic censuses, household and firm-level surveys, administrative records, satellite imagery and crowdsourced data. The number of indicators varies with the level of spatial disaggregation. The South Asia Spatial Database is maintained by the World Bank.
Global Database on Shared Prosperity	This database includes the most recent figures on annualized consumption or income growth of the bottom 40 percent of the population, as well as related indicators. Data are for 94 countries over the period 2007-2012. The figures are estimated based on nationally representative household surveys, and data is curated so that the indicators are comparable across countries. The database is maintained by the World Bank.
World Development Indicators (WDI)	WDI is a collection of development indicators at the country level, across a range of topics and sectors. Data are compiled from officially-recognized international sources. Indicators are also aggregated at regional and global levels. The WDI database is a product of the World Bank.

