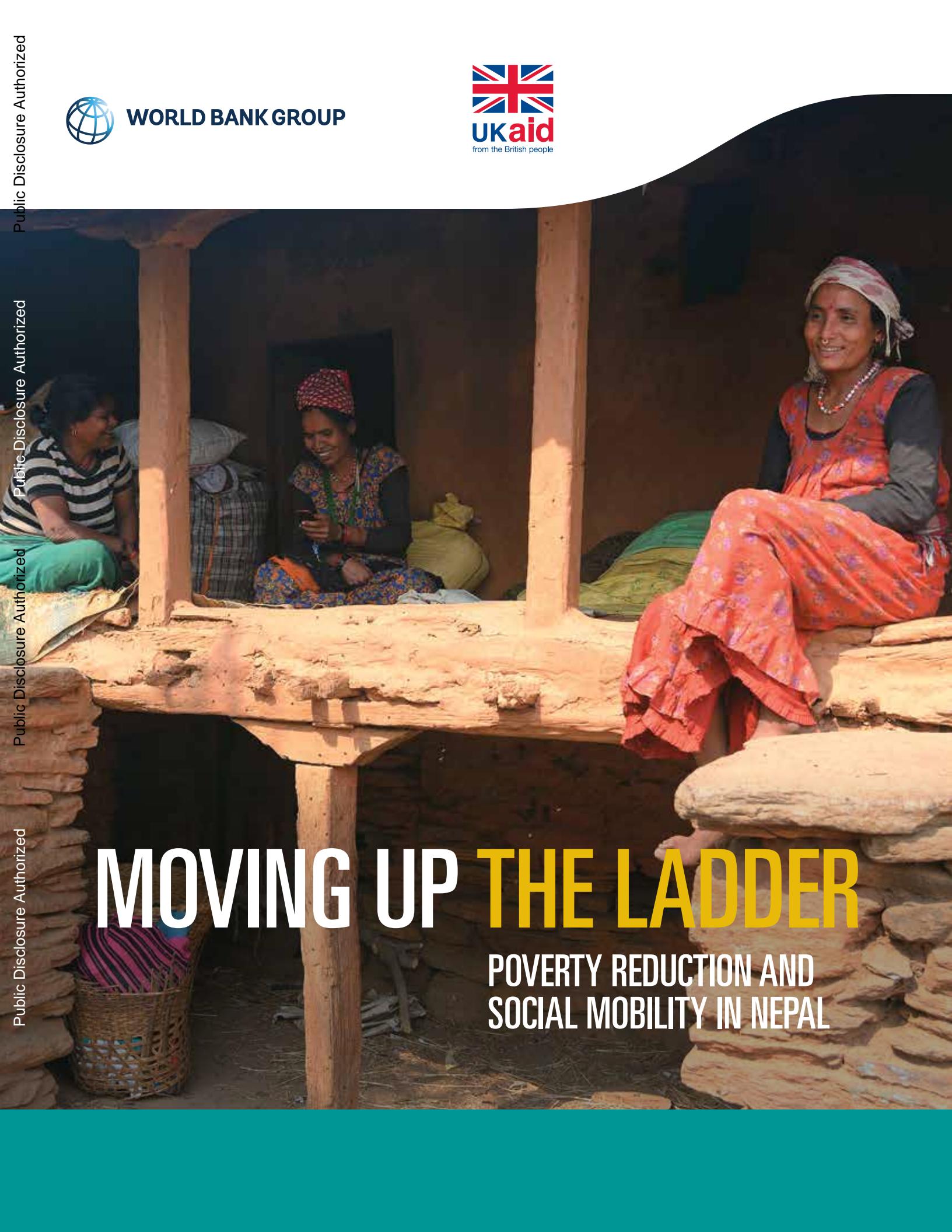




WORLD BANK GROUP



MOVING UP THE LADDER

POVERTY REDUCTION AND SOCIAL MOBILITY IN NEPAL

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SOCIAL MOBILITY IN NEPAL

POVERTY AND EQUITY GLOBAL PRACTICE



WORLD BANK GROUP



Vice President	Annette Dixon
Country Director	Qimiao Fan
Country Manager	Takuya Kamata
Practice Manager	Benu Bidani
Task Team Leader	Sailesh Tiwari

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Tel.: 4236000
Fax: 4225112
Email: infonepal@worldbank.org

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Foreword

Policymakers will find this study insightful because it disentangles hard evidence from inflammatory rhetoric at a time when the Nepali state is going through a historic reconfiguration, with heightened awareness about socio-ethnic identity and political-economic opportunities. Through a careful parsing of data, the report answers why poverty in Nepal has fallen sharply, how inequality has not increased, and yet vulnerability remains high. The report is one of the first to delve into the inequality of opportunities with the kind of rigor it employs. Evidence in favor of substantial upward intergenerational mobility reaffirms the importance of a functioning, inclusive democracy, but also its limits in the absence of consciously crafted public policies.

The reduction of vulnerabilities remains a much under-appreciated priority in Nepal. This needs to change. While catastrophic events grab all the headlines, it is the dull, idiosyncratic disasters that afflict everyday life. Almost a quarter of the country describes itself as belonging to the middle class, but remains a deeply insecure cohort. For a poor country, Nepal already has in place a generous welfare state, but the study highlights the need for an overhaul of the social protection regime that must cut waste and abuse while deepening and expanding entitlements. The policy plea to equalize opportunities across the strained socio-ethnic and income fault lines of Nepal by improving the quality of services, increasing public investment and implementing affirmative action is also apt.

The report confirms that the most important economic challenge in Nepal is to enhance productivity, both in agriculture and manufacturing, and to nurture our long-term sources of competitiveness in tradable services, including

the leveraging of migration and diasporic networks as development resources. The pace of structural transformation determines the nature of growth. It is no longer just about reallocating activities across sectors, but also within, increasingly shaped by new technologies and methods, such as the fragmenting of production across borders.

While concerns have emerged on whether the great inventions of the past century are possibly irrepliable, or the degree to which a stagnating West can help lagging economies grow, or how threats like climate change restrict policy options and levers, there is much that a country like Nepal can achieve simply through improved governance that marshals people's aspirations, ingenuity and wealth.

We, however, need to be mindful of the challenges that lie ahead and avoid mistakes of the past. Until recently, inequality used to be explained away with a set of "benign" causes such as skill bias in production and trade, disproportionate growth of the financial sector, and weakening bargaining power of labor. Against the old wisdom that in the absence of impediments, inequality reflects talents and choices, the revised view is that it can fan societal discord and stagnate economies, and that inequality can be reduced with appropriate policies. This is a hopeful message for countries like Nepal which are still at the starting point of the ascending half of the Kuznet's Curve, as the report posits.

I am confident that this study will influence the policy direction of the Government, and expect it to encourage universities, think tanks and communities of scholars to take up new lines of research enquiry. How do we expand opportunities, foster mobility, and enhance the worth and dignity of each Nepali life will continue to shape the arc of progress in our country for decades more.

Dr. Swarnim Wagl 

Member of the National Planning
Commission, Government of Nepal

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Overview

Nepal is emerging from a series of crippling shocks. Barely recovered from the devastation and loss wreaked by the earthquakes in April 2015, the country experienced a near total economic seizure between September 2015 and January 2016 as cross-border trade with India came to a halt. The shortages of fuel, raw materials and other essential commodities caused prices to soar, businesses to curtail operations and the economy to register the lowest growth experienced in the last fourteen years.

As devastating as these recent shocks have been, in a way, they are perhaps dramatic manifestations of how conflict and fragility have more generally impinged on Nepal's development potential for the last two decades. The Maoist conflict between 1996 and 2006, and the turbulent decade of transition that followed, took a heavy toll on the country's investment climate and growth. Throughout this period, the economy operated at a low level equilibrium, sputtering in fits and starts around an average per capita growth rate of 2.5 percent, which is very low, especially in

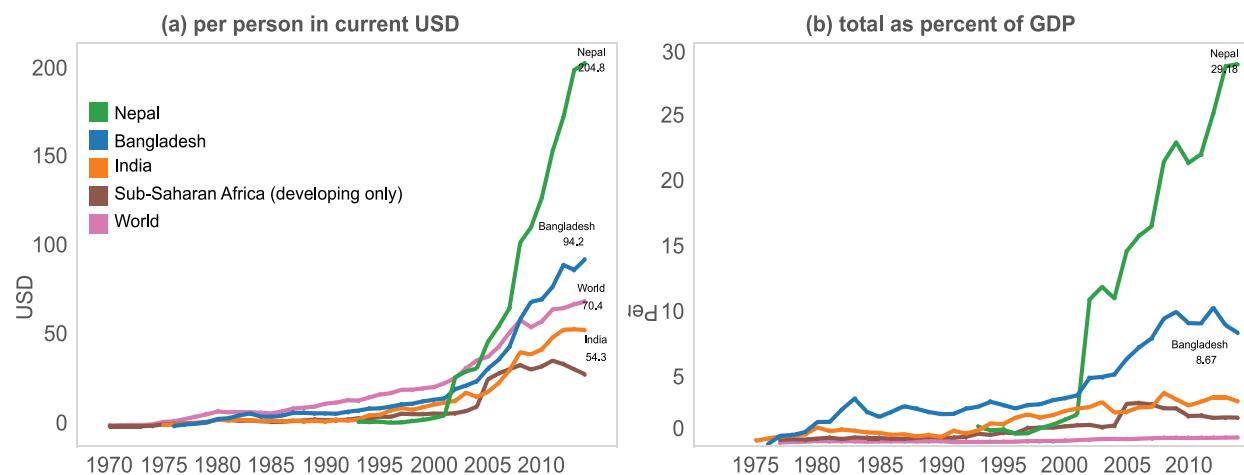
comparison to progress made by other South Asian neighbors.

Yet, despite overwhelming odds, Nepal made remarkable progress on improving living standards and reducing poverty during this period. Absolute poverty rate declined by an average annual rate of 2.2 percentage points between 1995-96 and 2010-11 and currently stands at 25.2 percent. Though there are some emerging signs that the pace of the decline is slowing down, the rate of poverty decline seen in Nepal, particularly between 2003-04 and 2010-11, was among the fastest in the world.

The improvement in overall welfare has been accompanied by improvements in non-income dimensions of well-being as well. Nepal met all of its MDGs and the Multidimensional Poverty Index (MPI) has also been in a steady decline. A significantly larger fraction of Nepalis today have better access to water and sanitation services, electricity and tele-connectivity than two decades ago. Fewer Nepali children are malnourished and overall child and maternal mortality rates have

Poverty declined by an average annual rate of 2.2 percentage points between 1995-96 and 2010-11 and currently stands at 25.2 percent.

FIGURE O.1: PERSONAL REMITTANCES RECEIVED IN NEPAL AND SELECTED COUNTRIES



Source: World Development Indicators (World Bank, 2016), using personal remittances received as % of GDP, personal remittances received in current US dollars and the total population.

This report deepens the understanding of the key processes that have driven improvements in living standards and identifies some of the challenges that lie ahead.

declined as well. Households with school-aged children (6 to 15 years old) out of school declined from 55 percent in 1995-96 to 16 percent in 2010-11. This is presumably due to improvements in accessibility to and availability of schools, as households with children spending more than 20 minutes to reach primary school declined from 84 percent to 33 percent during the same period. But much of it is also likely due to increased ability to afford schools, including private schools.

How can these recent gains be cemented and made sustainable and how can progress be accelerated to improve the living standards of those who remain in chronic poverty? Going forward, this is one of the most important challenges facing policymakers in Nepal today. This report attempts to contribute to this debate by deepening the understanding of the key elements of the processes that have driven improvements in living standards and identify some of the challenges that lie ahead.

The report also performs a careful analysis of the levels as well as the trends in inequality over last two decades in an attempt to understand the economic underpinnings of the demand for inclusion that has fundamentally shaped Nepal's contemporary socio-political landscape. How high is inequality in Nepal? How does it

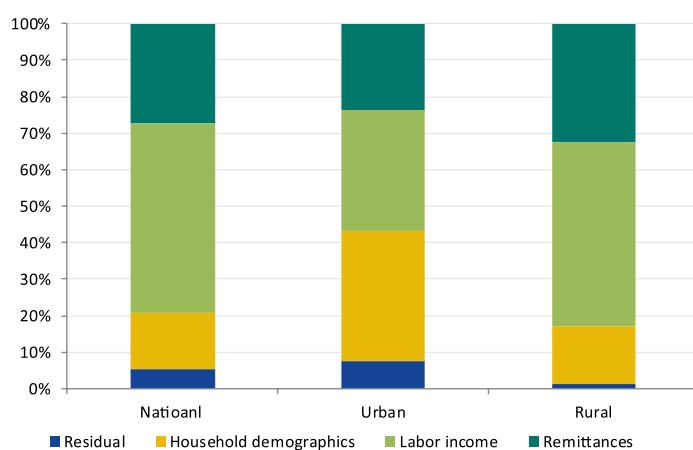
compare to the rest of the world? Has inequality been increasing? What kinds of inequality do the Nepali people care about the most and what can be done about it? Finally, the report also presents some novel insights on social and economic mobility experienced by Nepalis across generations as well as over a lifetime. Have Nepalis today done better than their parents? How does this mobility experience vary across the population? Who does better and who remains stuck? Are Nepalis today better off than they were five years ago? How much movement along the proverbial socio-economic ladder is there in the society? What characteristics are associated with these movements? That is, who moves up and who moves down? Has the success in reducing poverty over the last two decades translated into commensurate success in building a middle class? How large is the Nepali middle class and has it been growing over this period?

Drivers of Poverty Reduction

The most commonly cited driver of the progress on living standards and poverty reduction is the drastic increase in remittances sent by hundreds of thousands of Nepalis working overseas since the late 1990's. Not only did more Nepali households start receiving remittances, the amount of remittances received by the remittance receiving households also increased over the period. The size of remittances increased from 1.3 percent of GDP in 1995 to 23 percent in 2010. Today remittances are around 29 percent of GDP. Remittances account for 16 percent of average household income, up from 6 percent in 1995-96. Given this growth, it is entirely plausible for households with migrants to have benefited from remittances and realized improvements in living standards.

But households without migrants have also benefited from opportunities created by the changes in the structure of the domestic economy brought about, indirectly, by migration and remittances. Our decomposition exercises show that increase in labor income - or income derived from wage and non-wage employment within Nepal – accounts for 52 percent of the observed change in poverty nationally. In comparison, the direct effect of remittances accounts

FIGURE 0.2: DRIVERS OF POVERTY REDUCTION BETWEEN 1995-96 AND 2010-11



Source: World Bank staff calculations based on data from NLSS 1995-96 and 2010-11
Note: Capital income and public transfers are under residual.

for about 27 percent of the overall poverty reduction nationally and 33 percent of the reduction in rural areas. Further, breaking down the sources of income between farm and non-farm activities, the growth in non-farm activities has been more important for the observed reduction in poverty than farm incomes. Changes in the demographic structure of the household – which captures, among others, the number of household members that participate in the labor market relative to the number of dependents they have – also appears to have been important for poverty reduction.

The role of labor income in the observed reduction of poverty can be explained, in part, by rising wages. Real wages grew by about 4.2 percent per year between 1995-96 and 2010-11 with agricultural wages growing slightly faster than non-agricultural wages. The growth in agricultural wages was driven by the tightening of the supply of labor due to overseas migration of working age males and increasing non-farm activity. The increase in non-agricultural wages, on the other hand, was largely due to the growth

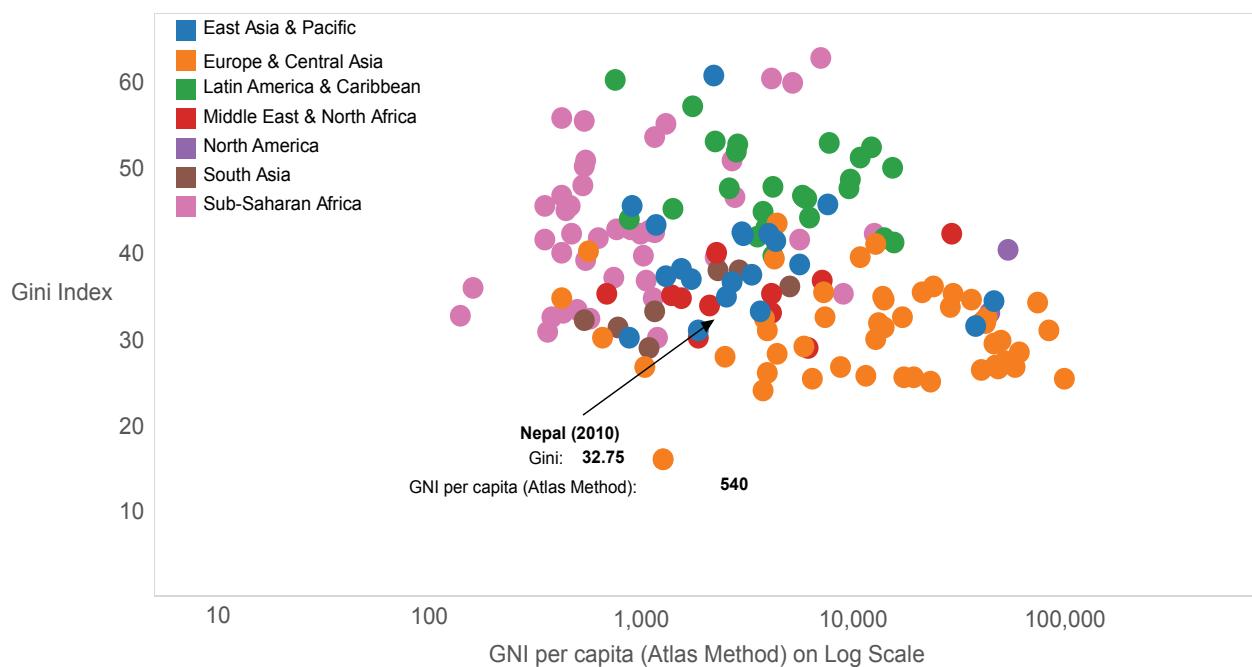
in the demand for non-farm labor which was in turn driven by economic diversification and increase in non-farm activities brought about by remittance induced growth in incomes and the associated changes in demand for goods and services. Non-wage employment in off farm sectors has also increased suggesting that opportunities created outside of agriculture, particularly in rural areas has been the key ticket out of poverty in the preceding two decades.

Inequality and the Demand for Inclusion

The demand for inclusion that pervades political and economic discourse in Nepal today is a consequence of deep structural inequalities perceived by some segments of the population. The 10-year long Maoist conflict, abolition of a 250 year old monarchy, and the wholesale reconfiguration of the state structure, are all direct or indirect expressions of a demand for a new, more inclusive social contract. Even though there has been some progress on this in the newly promulgated constitution, lingering dissatisfaction continues to fuel unrest among some groups.

The demand for inclusion that pervades political and economic discourse in Nepal today is a consequence of deep structural inequalities perceived by some segments of the population.

FIGURE 0.3: GINI INDEX BY THE LEVEL OF DEVELOPMENT



Source: World Development Indicators (World Bank, 2016), using all countries for which Gini Index is available between 2009 and 2013.

Leveling the playing field for all could move the debate forward because what is a minimum criterion for fairness and justice for the left happens also to be the foundation for meritocracy for the right.

But despite obvious implications it has for the risk of protracted conflict and political instability, which would weaken investment climate and hurt growth further, existing debates on this issue appear to provide very little basis on which to forge a constructive path forward.

One challenge – at least on the part of the inclusion agenda that overlaps with economic outcomes – is that even though there are persistent gaps between urban and rural areas, between regions and the various social groups, conventional measures of inequality, such as the Gini index of consumption, show overall inequality in Nepal to be fairly low and stable over the long run. The Gini index for consumption for Nepal was 0.33 in 2010/11, which is at the lower end of global range seen for this number. This measure of inequality also remained virtually unchanged between 1995-96 and 2010-11 both at the national level and in rural areas. In the urban areas, there has actually been a sharp decrease.

Inequality in Nepal measured this way is not only low in absolute terms, it is low also relative to the level of economic development. Nepal's Gini index is one of the lowest among the countries with a similar level of GNI per capita, most of which are countries in Sub-Saharan Africa, and well within the range of more advanced countries in Europe and Central Asia. If one is to imagine a cross-country Kuznets curve over this plot, it would appear that Nepal is at very early stages of development and that the engine of growth has not started cranking up to the extent where this growth acceleration would begin to generate a widening consumption distribution.

The other part of the challenge is that addressing inequality through ex-post redistributive policies is difficult, particularly at Nepal's level of development. Redistribution through progressive tax policies (in the space of income) or through quotas and other forms of affirmative action in higher education (e.g. medical and engineering colleges) and employment for the disadvantaged groups are typical policy measures taken to redress inequality. The newly promulgated constitution and the recent amendment to the Civil Service Act contain a number of provisions for reservations and quotas to expand opportunities

for the historically disadvantaged groups. But while a segment of the population may see this as an effort (if only in intention) in the right direction, another may object on the grounds of violation of principles of meritocracy and perverse incentives these may create. Yet another group may acknowledge the need for redistribution but disagree on the principle that guides the decision on who the beneficiary of such policies should be. Expressed in the form of a familiar refrain in Nepal, that “class and not caste” should determine who benefits from redistribution, this point of view contends that any affirmative action policies should be based on economic disadvantage, as opposed to social disadvantage.

Equity, not Equality

But framing the debate along the lines of equity as opposed to equality could provide a way forward and that is the central thrust of this report. A society may have disagreements about the sources of past injustices and what to do about them. But looking to the future, everybody can agree that opportunities for a better life for Nepali children should not depend on which part of the country they happen to be born in, or to what caste /ethnicity group their parents happen to belong to or what language they speak or other such characteristics essentially determined by the lottery of birth. This requires making a distinction between inequality of opportunities and inequality of outcomes.

The focus of development debate is often on inequality of outcomes, recasting the same discussion around inequality of opportunities has an intuitive appeal and could potentially transcend deep ideological differences and effect action. An inclusive society is necessarily also an equal opportunity society (even though the converse many not be true). So working towards leveling the playing field for all could move the debate forward because what is a minimum criterion for fairness and justice for the left happens also to be the foundation for meritocracy for the right.

In a society in which opportunities are equal, a girl (let's call her Goma) born to a poor and illiterate Dalit couple in rural Kalikot should have an equal shot at becoming a doctor, or an engineer as a boy (let's call him Avidit) born in

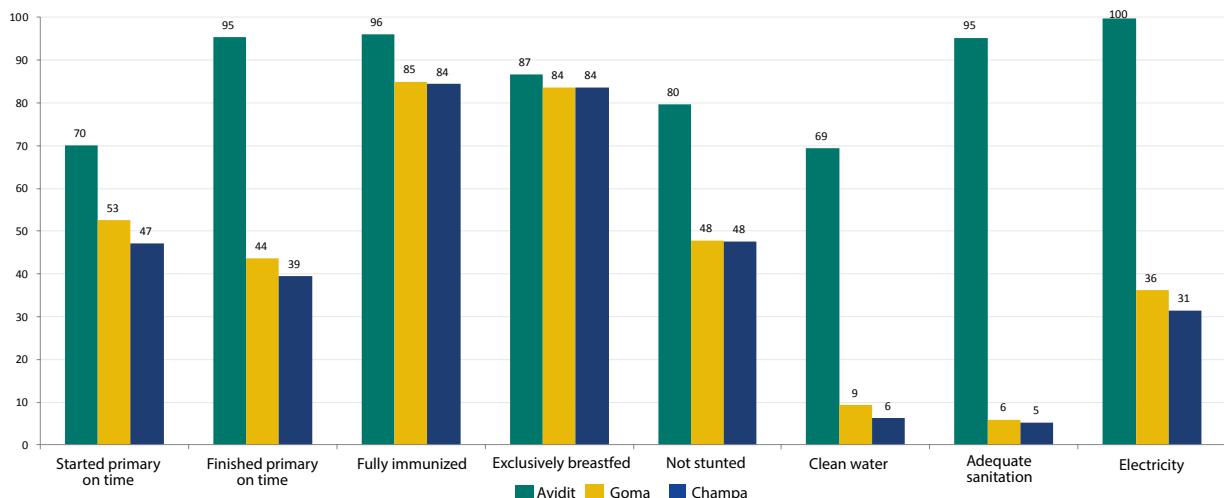
BOX 1: OPPORTUNITY FOR A BETTER LIFE FOR GOMA, CHAMPA AND AVIDIT

Goma is a girl, born in rural Kalikot. Her parents are illiterate, belong to the Dalit community and are in the bottom 20 percent of Nepal's wealth distribution. Champa is also a girl born to a household otherwise very similar to Goma's. But Champa's parents are from a village in Siraha. Avidit is a boy born to an upper caste household in urban Kathmandu. Both his parents have a university education and come from affluent backgrounds.

In a society where opportunities are equally available for children of all socio-economic backgrounds, Goma, Avidit and Champa would all have equal odds becoming doctors, or engineers or successful entrepreneurs and businessmen. But in Nepal, the life trajectory of these children begins to diverge very early in life. Goma – whose life chances appear marginally better than Champa's – is significantly

more likely to start primary school late, drop out of school, be stunted and grow up with limited access to basic amenities such as clean water, sanitation and electricity than Avidit. Even in the 40 percent chance that Goma and Champa complete primary school and go on into secondary and tertiary education, the quality of the education they receive is likely to be vastly poorer than what Avidit will receive in Kathmandu.

Society may disagree about what to do about the social and economic processes that led to their parents' being where they are in the current socio-economic ladder of Nepal. But everyone will agree that position should not determine the children's life chances. Efforts to equalize basic opportunities for these children can be a critical part of Nepal's inclusion agenda.



Source: World Bank Staff estimates based on data from DHS (2011)

a well-educated, affluent and upper caste household in urban Kathmandu. And so should a girl (let's call her Champa) born to parents of otherwise similar characteristics as Goma but living in rural Sarlahi. But how equal/unequal are basic opportunities for children such as Goma, Avidit and Champa in Nepal?

Addressing this question empirically would be difficult without some methodological advances that have been made in the literature in this field in the last decade. Applying this methodology to a variety of datasets in Nepal, this report finds

that basic opportunities such as starting primary school on time, finishing primary school on time, escaping the scourge of chronic malnutrition in early childhood, having clean water to drink, clean and adequate sanitation facilities and electricity at home appear to be far from universal and unevenly distributed even among those who have it. The size of the inequality in opportunities we report implies a significant divergence in life trajectories of Nepali children based simply on the characteristics of the parents. There is quite a bit of variation in the circumstances that contribute to these inequalities,

A mobile society is also a meritocratic one and such a society is better able to mobilize and utilize talents from all segments of the population.

but parental wealth, place of birth/residence (whether its urban or rural, in the mountains, hills or terai, or if it is the central and eastern region or the mid and far western region) and other parental characteristics (such as age, gender and education) appear to account for most of the observed inequality.

Inequalities are further pronounced when the underlying quality of the opportunities are taken into account. A child may live in a household connected to a tap that is never serviced. She may go to schools but not learn the material adequately enough to progress through the grades in the timely manner and eventually acquire the skills rewarded in the labor market. An ideal measure of opportunity should also account not only access but also for differences in quality. Data limits the extent to which we can fully explore this, but using performance in national examinations such as the SLC or the National Assessment of Student Achievement (NASA) administered to eight-graders, we find the odds of passing to be skewed in favor of children with favorable birth circumstances: children whose parents can afford to send them to private schools, whose parents are themselves educated and who happen to live in certain parts of the country more so than others.

Relative to some of the other drivers such as parental wealth and education and region of residence, the caste/ethnicity status of children accounts for small shares of total inequality. Interestingly, the language spoken at home (whether or not it is Nepali) commands a non-trivial amount in the inequality of passing the Nepali language (10 percent) and science (6 percent), but not for mathematics. Given that the medium of instruction in public schools is almost always Nepali, this suggests the possibility of non-native Nepali speakers having a disadvantage in subjects that require free form

expressions as opposed to those that require the solving of numerical and logical problems. This supports the idea that equalizing opportunities for children in Nepal today is every bit about leveling playing fields along the geographic and economic divide, as it is about closing the social divide.

This is not to say that there are no gaps in opportunities by caste/ethnicity of children. Even though the direct effects are small, the indirect effects could be larger. Caste/ethnicity status of parents could be correlated with other characteristics like education level or wealth status. For instance, a large part of why a Dalit couple is poor or uneducated in the first place could be because of limited opportunities they had in their childhood. But distinguishing the effect on their children's opportunities of being from the Dalit community (direct effect) versus being from a poor family with uneducated parents who are potentially poor and uneducated because they are Dalits (indirect effect) is difficult with the data we are using here. Evidence on social differences in intergenerational mobility suggests that these indirect effects could be quite large.

Intergenerational Mobility

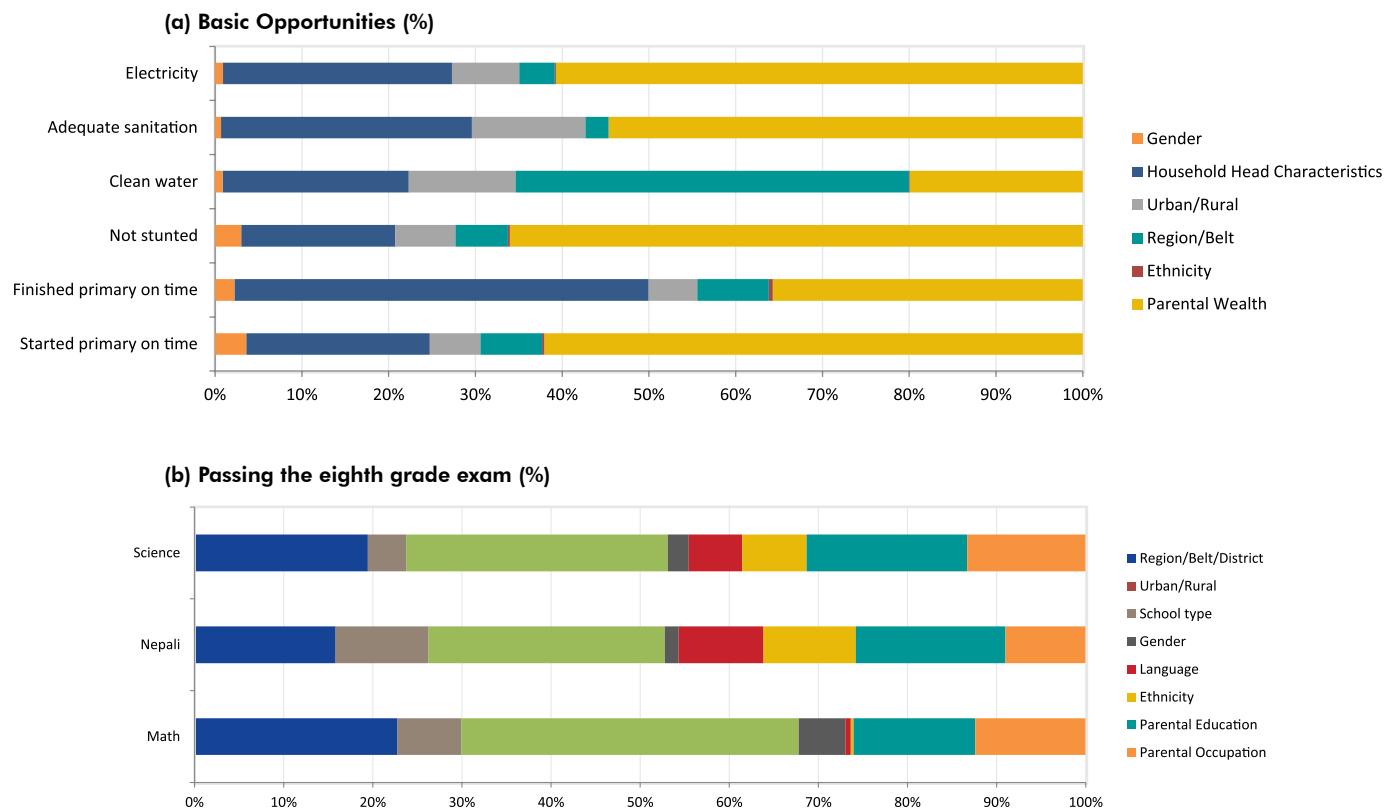
Inequality of opportunities is intricately linked to intergenerational mobility as both encapsulate the idea of origin independence. In an equal opportunity society life chances do not depend on the social and economic identity of one's parent. In a society with high mobility across generations, the economic and social position realized by sons and daughters are independent of the economic and social positions of their parents. In both societies, who ones' parents are is irrelevant to the success one can expect to achieve.

Sensitivity to inequality gets amplified in societies that lack mobility. Conversely, societies with high degree of mobility are able to heal the

TABLE 0.1. UPWARD AND DOWNWARD MOBILITY IN EDUCATION AND OCCUPATION, RELATIVE TO FATHERS

	Education (% of population > 30 yrs.)	Occupation (% of population)
Up	61.9	43.6
Same	29.8	46.8
Down	8.3	9.6

Source: World Bank Staff estimates based on data from Perceptions of Poverty, Prosperity and Economic Mobility in Nepal, 2014

FIGURE 0.4: WHAT CONTRIBUTES TO INEQUALITY OF BASIC OPPORTUNITIES FOR CHILDREN IN NEPAL?

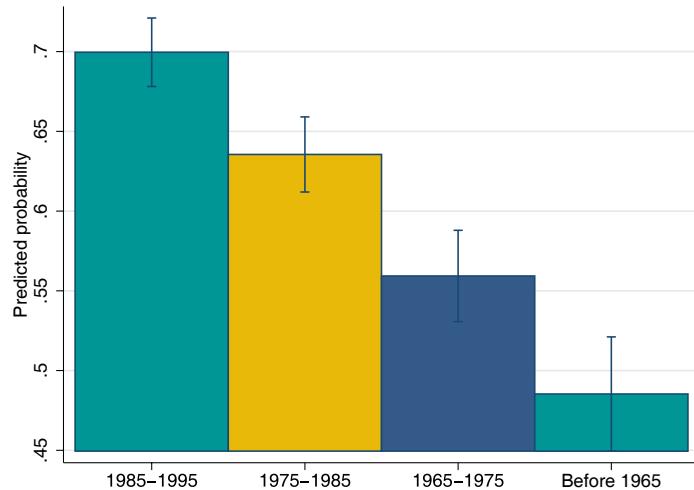
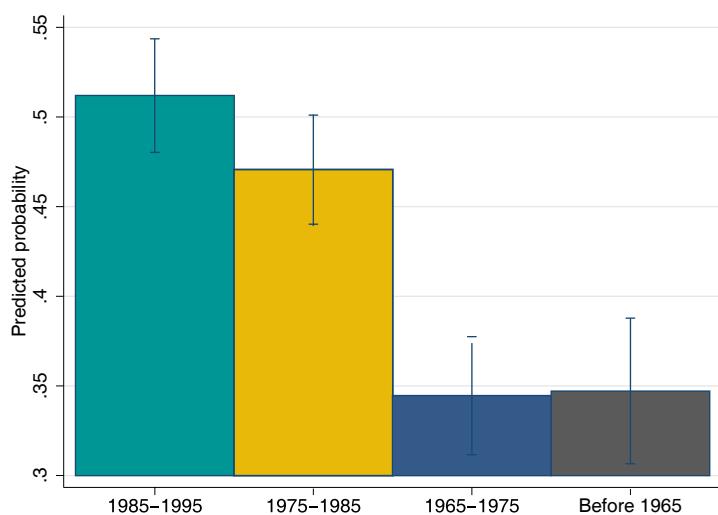
Source: World Bank Staff calculations. Panel (a) uses data from DHS 2011; and Panel (b) is based on data from NASA Survey (2013), Ministry of Education, Government of Nepal

wounds of structural inequalities. In an intergenerational sense, when children can aspire to achieve and indeed achieve levels of education, jobs, and living standards that are materially different from the levels enjoyed by their parents, inequality begins to decline over time. Mobility is important also from the perspective of dynamic efficiency. A mobile society is necessarily also a meritocratic one and such a society is better able to mobilize and utilize these talents by allowing people from all segments of society (including the disadvantaged segments) to contribute to the growth process.

Studying intergenerational mobility in the space of income requires data that is hard to get, not just in Nepal but also in most other developed countries. But we attempt to make some progress on this using educational attainment and occupation, two strong proximate correlates of income. Defining upward mobility as attaining a higher level of education than one's father or

being in a better occupation, we see that about 61.9 percent Nepalis (above the age of 30) experienced upward mobility in education. In comparison, about 29.8 percent stayed at the levels of their fathers and about 8.3 percent had levels of education lower than their fathers. There is less mobility in occupation than in education: 47 percent of the overall population remains in the same occupation as their father. But about 43.6 percent of the population realized upward mobility.

Prospects for upward mobility have been increasing in Nepal for both education and occupation. Point estimates suggest that while the likelihood of being better educated than one's father was below 50 percent for those born before 1965, the number is closer to 70 percent for the cohort born between 1985 and 1995. The pattern is similar for occupation as well except there is a discontinuous jump (roughly 10 percentage points) in predicted probability

FIGURE 0.5: UPWARD MOBILITY BY AGE COHORTS**(a) Better educated than father****(b) Better occupational status than father**

Source: World Bank Staff estimates based on data from Perceptions of Poverty, Prosperity and Economic Mobility in Nepal, 2014

Note: The lines around the bars show 95% confidence interval and the x-axis denotes cohorts based on year of birth.

of upward mobility for the 1975–1985 birth-cohort in comparison to the earlier cohorts. One possible explanation for this is the fact that in contrast to the earlier cohorts, this group of children would have been in school around the time Nepal's economy started liberalizing (1990–1994) and thus may have been in a favorable position to seize the opportunities created by the consequences of this liberalization. In any case, younger cohorts have been more upwardly mobile than the cohorts born before 1975 who appear to have a low steady state transition probability of around 33–34 percent of doing better than their father.

However, prospects of upward mobility vary among the different social groups and some have done better than others. In particular, Newars, followed closely by hill Brahmins and Chhetris have the best odds of surpassing their father's education and occupation levels. In contrast, Nepalis in Muslim and other minority caste categories followed by Terai Brahmin/Middle Caste, and Dalit categories have the lowest odds of upward mobility for education as well as occupation.

Movements along the Ladder – The Vulnerable and the Middle Class

Recent events (earthquakes and the trade disruptions) have put a global spotlight on the fragility of lives and livelihoods of Nepalis. But even beyond these major events, a majority of Nepalis grapple with smaller and more mundane disasters on a routine basis. As important as it is for the Government to respond to the specific emergency of the earthquake related reconstruction and rehabilitation, this should also serve as an opportunity to galvanize support for the design of systems that can respond in a more agile and efficient manner, not just to catastrophic disasters of similar scale (if need be) but also to smaller but more frequent shocks many Nepalis endure. These “dull disasters” take a heavy toll on poor households by limiting their ability to maintain investments in the human capital of children and depleting their savings and assets. Inadequate protection from these shocks limits the ability of households to take risks and make productivity enhancing investments in both agriculture and non-agricultural activities.

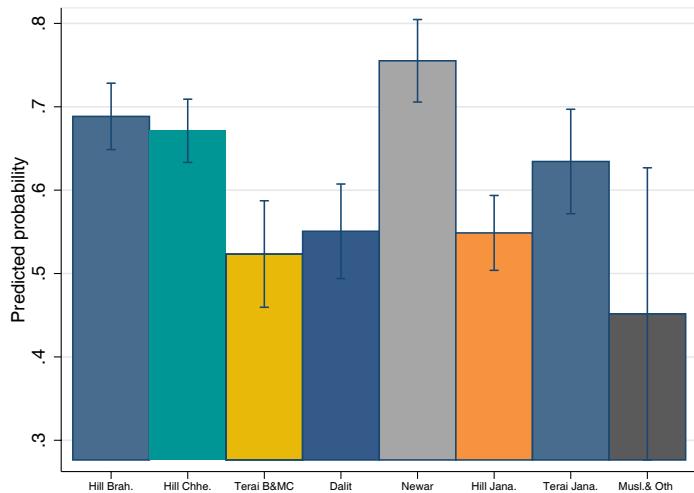
One statistic that makes these vulnerabilities apparent is the statistic on the movements in and out of poverty. The commonly reported poverty trend (poverty declined from x percent to y percent) often obscures two crucial and confounding phenomena of people moving out of poverty and falling into poverty. These two are distinct processes with different implications for policy. Our analysis shows that between 1995-96 and 2003-04, 26 percent of the population moved out of poverty while 17 percent moved in the opposite direction and fell into poverty. Likewise, between 2003-04 and 2010-11, 29 percent moved out of poverty while 14 percent fell back in. The numbers essentially imply that for every 2 Nepalis that escaped poverty in 2010-11, one slid back into poverty.³

Health and weather shocks often represent the most common factors leading to a downward slide into poverty in South Asia. This is likely to be the case for Nepal as well, although a multi-year study the World Bank has recently initiated will generate richer information on the range of vulnerabilities Nepalis face. Those escaping poverty constitute a ballooning vulnerable class. Considering households with a larger than 10 percent probability of falling back into poverty as “vulnerable” households, we see that as the proportion of the poor has declined over the years, there has been a corresponding growth in the size of the vulnerable population from 28 percent in 1995-96 to 45 percent in 2010-11.

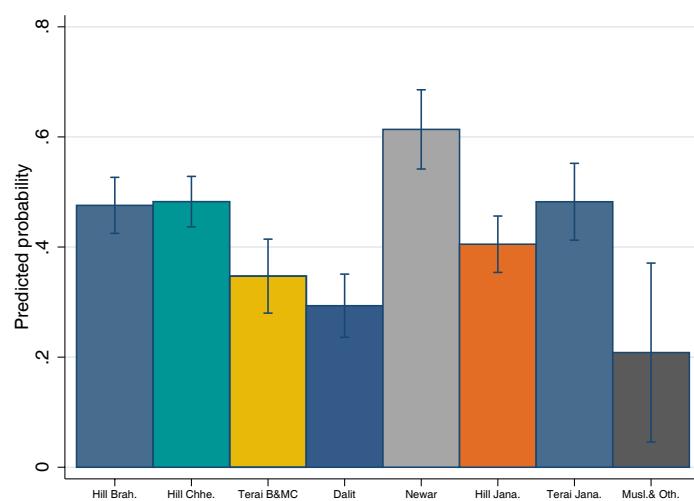
During the same period, there has also been quite a remarkable growth in the size of the middle class population in Nepal with the proportion increasing from 7 percent in 1995-96 to 22 percent in 2010-11. Close to half of the urban population is in the middle class while half of rural areas is in the vulnerable category. Middle class prevalence is highest in the central region while the mid and far western regions have the highest incidence of poverty and vulnerability. Middle class households are significantly more likely to be headed by those with more than 11 years of education, engaged in non-agricultural employment and more likely to be in white collar jobs. Vulnerability on the other hand is highest among those self-employed in agriculture and service sector employment, most likely in blue collar occupations. Overall, poverty and

FIGURE 0.6: UPWARD MOBILITY BY CASTE/ETHNICITY

(a) Better educated than father



(b) Better occupational status than father



Source: World Bank Staff estimates based on data from Perceptions of Poverty, Prosperity and Economic Mobility in Nepal, 2014

Notes: Caste/Ethnicity categories are hill Brahmin, hill Chhetri, Terai Brahmin and Middle Castes, Dalit, Newar, Hill Janajati, Terai Janajati, Muslim and Others.

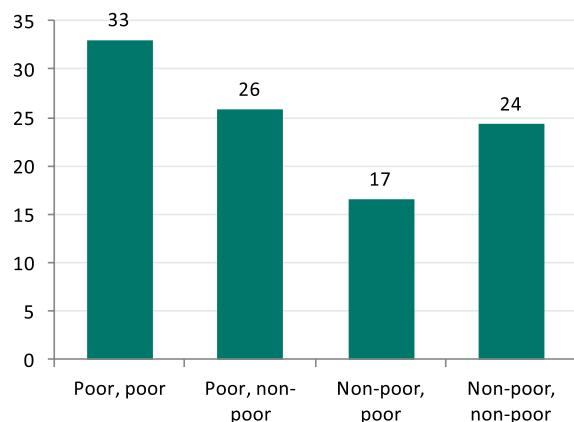
vulnerability is highest among households deriving their livelihoods from wage employment in agriculture.

Results from perceptions surveys such as Gallup suggest that this growing middle class is fundamentally insecure about the prospects of continued improvements in its living standards. Gallup World Survey asks respondents questions about their perceived position in an 11-step ladder denoting various parts of the economic distribution within each country. Respondents are asked about current position as well as positions five year before the survey and

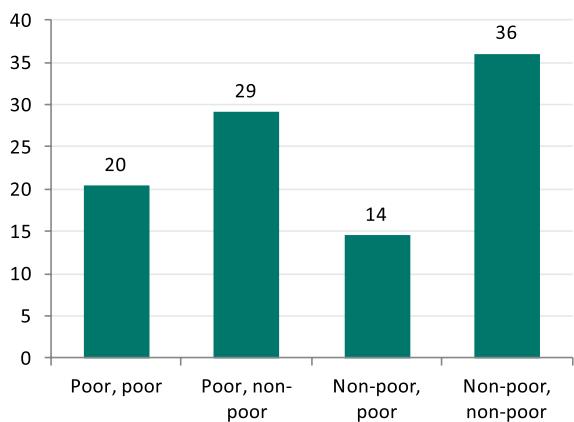
expected position five year hence. Based on responses to these three questions, Gallup defines household as thriving, struggling or suffering. Thriving households have strong current life situation and have positive views about the next 5 years. Struggling households have wellbeing that is moderate but inconsistent while suffering households have well-being that is at high risk, they report poor ratings of their current life and also poor outlook for the future. Based on this data, 90 percent of Nepalis are either suffering or struggling. This result suggests that even though there is a nascent middle class building up in Nepal, at least half of this middle class is fundamentally insecure about the prospect of continued improvements in living standards.

FIGURE 0.7: EPISODES OF MOVEMENTS IN AND OUT OF POVERTY (% OF POPULATION)

(a) Episode 1995/96-2003/04



(b) Episode 2003/04-2010/11



Source: World Bank staff calculations using data from three rounds of NLSS data for 1995/96, 2003/04 and 2010/11. The methodology used is called the synthetic panel methodology

In the qualitative survey carried out for this analysis, respondents were asked about what they saw as key characteristics of the middle class in Nepal. In in-depth interviews and focus group discussions, an overwhelming majority of respondents/participants associated being in the middle class with being engaged in relatively secure professions such as government jobs, teaching, medical and engineering professions, and other forms of private sector salaried employment. This association was reinforced by widespread recognition among respondents that economic prospects of those in this group hinges more critically on professional skills and labor as opposed to things like inherited capital and other forms of financial assets.

The Productivity Constraint

One of the main findings of this report is that living standards have improved but not sufficiently enough to move those who have escaped poverty to a more secure middle class. As a result, a majority of the population today constitutes a vulnerable group that is either perilously close to falling back into poverty or otherwise struggling to cement their economic security. Building prosperity for a majority of Nepalis will entail not just safeguarding the gains already made, but also boosting productivity of the economy in a manner that will help them realize higher income levels. The direct and indirect effects of work related migration, primarily to overseas destinations, has been a critical driver of mobility experienced by Nepalis over their lifetimes and across generations. But one key limitation

of the welfare improvements that have been realized has been that these private gains have not translated into an aggregate improvement in the productive potential of the economy in a manner that would generate good jobs for those that remain in Nepal.

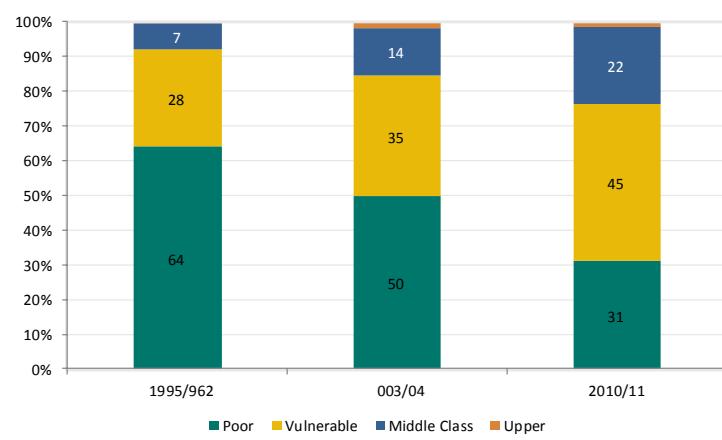
Nepal's atypical structural transformation has been one major impediment to the development of the middle class. Agriculture, which used to command a dominant share of the total value added in the economy has declined to 34 percent. The share of industries rose and reached a peak of 23 percent around the beginning of the Maoist conflict in 1996, but has dwindled to a low 16 percent since then. In the context of shrinking agriculture and timid industries, services have grown in prominence and account for more than half of the GDP today. The typical story of structural transformation is one through which workers leaving low productivity agriculture in favor of higher productivity jobs in manufacturing agglomerate in cities which act as production centers and engines for growth. In the case of Nepal, the economy has diversified away from agriculture over the long run, but it appears to have skipped the intermediate manufacturing phase and gone directly to services. This "premature graduation" from industries towards low skilled services is one potential reason for the apparent disconnect between private income growth and the formation of a robust middle class.

Despite the dramatic shift in the production base of the economy, the change in employment patterns have been relatively modest. A sizeable majority of rural Nepalis continue to be self-employed in agriculture. The most significant change in the rural areas is the increase in off-farm self-employment which has roughly doubled from 4.5 percent in 1995 to 8.1 percent in 2010. Focusing only on wage jobs, the most dramatic increase in wage employment in rural areas has come in construction which is mostly of a casual nature. White collar jobs in professional services and manufacturing have increased in urban areas but the overall skill content of all wage jobs has been stagnant over the period.

Given the low level of job creation in the economy, overseas work and remittances have provid-

ed a much needed safety valve for the economy. At the micro level, the flow of remittances has directly benefited migrant households. Even households without migrants have benefited from the growth in labor income. On the one hand, wages in agriculture have gone up as a result of the tightening of labor supply. On the other hand, increase in the demand for non-agricultural goods and services has led to an increase in demand for non-farm labor and pushed up non-farm wages. In the urban and newly urbanizing areas, remittances have been the critical source of liquidity fueling growth in banking and financial services, restaurants and trade as well as real estate and construction. The latter in particular, has generated tremendous growth in rents to the owners of land and capital within cities transmitting a multiplier effect on the demand for goods and services. This has aggregated up to the macro level where the remittance receipts have been critical to maintaining Nepal's current account position, despite a widening trade deficit as the country imports a growing amount of consumer goods ranging from the most basic such as rice and petroleum products to telecommunications equipment, luxury cars and parts. The overall surplus position in the balance of payments, largely due to remittance inflows have been a critical buffer against global macroeconomic shocks.

FIGURE 0.8: THE POOR, VULNERABLE AND THE MIDDLE CLASS IN NEPAL



Source: World Bank staff estimates based on data from three rounds of NLSS data for 1995/96, 2003/04 and 2010/11

Note: The consumption aggregate used for this part of the analysis is the 30-day recall version which is not the version used for official poverty estimates for 2010/11.

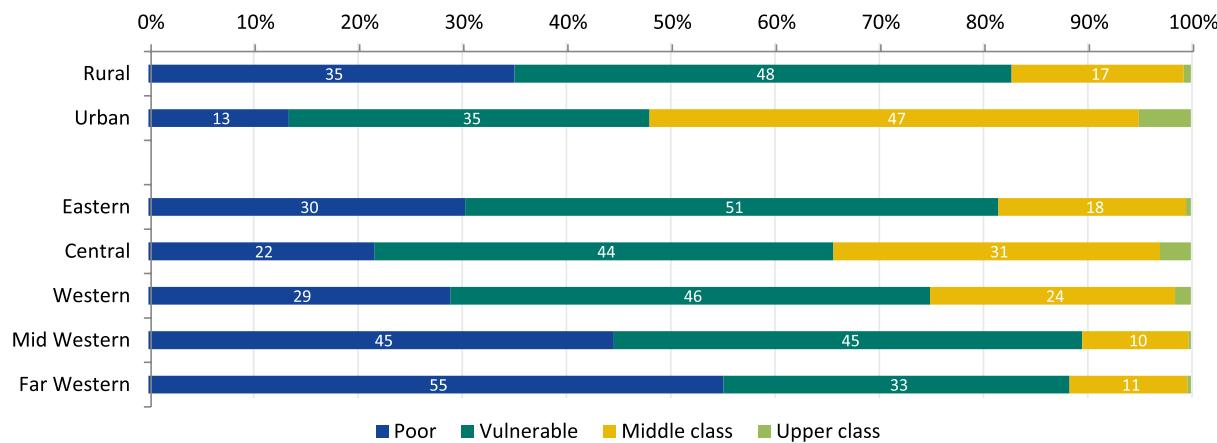
But in a perverse way, remittances have also weighed upon Nepal's development potential. First, the buoyant influence remittances have had on the purchasing power of a majority of Nepalis has inadvertently also resulted in the appreciation of the country's real exchange rate which has in turn eroded the competitive edge of manufacturing industries, further undermining the employment generation potential of this sector. Second, the steady outflow of young and potentially restless youth and the cushion of remittances could have also lulled policymakers into not seeing the immediate urgency of key reforms necessary to unlock Nepal's longer term

development potential. A stable, positive balance of payment position and a strong fiscal position maintained in part by the revenues from taxes on an ever growing base of imports have been the bulwarks of Nepal's overall macroeconomic stability over the last decade.

But remittance driven growth is not likely to continue forever, especially given the already high base. Further, there are signs that the rate of migrant outflow is beginning to taper off as the major host countries show signs of stress in the face of declining crude oil prices. With slowdown in migration, a slowdown in the growth

FIGURE 0.9: CHARACTERISTICS OF THE POOR, VULNERABLE AND THE MIDDLE CLASS, 2011

(a) By geographic region



(b) By education and occupation



Source: World Bank staff estimates based on data from three rounds of NLSS data for 1995/96, 2003/04 and 2010/11

of remittances is inevitable. While the strategy has – by default – served as a useful buffer during turbulent times for Nepal, it cannot be the durable source of growth required to turn Nepal into a middle income country with a vibrant middle class by 2030.

Urban agglomeration – A Missed Opportunity?

Urbanization has increased quite rapidly. In fact, Nepal is the fastest urbanizing country in South Asia. Greater rural-urban migration and the emergence of urban sprawls around main highways bordering India and district headquarters have been the key characteristics of urban growth. One crucial driver of the recent urbanization trends has been the growth in rural incomes and the transmittal of tastes and preferences for certain amenities including basic services such as better education and health that are more likely to be serviced in urban clusters. While rural-urban migration, together with migration to India, still represents an important income diversification strategy for households not directly able to participate in international migration due to cost constraints, most of these domestic migrants find employment in low skilled services such as construction, trade and retail and hospitality sectors in the cities.

The pull of a dynamic urban economy generating good jobs appears to be largely non-existent and the dominance of push-factors in driving urban growth implies that the consumer advantage of cities and newly emerging towns has not translated into a productive advantage. One evidence on this is the spatial pattern of wage growth. Wages have grown across the country, but the pace of growth has been faster in rural areas and the newer towns than in core metropolitan areas of Kathmandu and other urban centers. Taking into account the cost of living differences across the country, the pace of wage growth in Kathmandu in particular, relative to the rest of the country has been minuscule. The negative effects of agglomeration, on the other hand, have been highly visible as the unplanned and unregulated growth of the city has not only led to the deterioration of basic services such as drinking water and sanitation but also polluted the city's rivers and air to highly toxic levels.

As the primary seat of the government, Kathmandu has enjoyed historical primacy among cities but over the last two decades, its share of total urban population has been declining. In 1991, Kathmandu accounted for 25 percent of Nepal's urban population. By 2011, this number was down to 22 percent. Considering Kathmandu valley as a whole, i.e., municipalities of Kathmandu, Lalitpur, Bhaktapur, Kirtipur and Madhyapur Thimi taken as a single urban cluster, the decline is even sharper and goes from 39 percent in 1991 to 32 percent in 2011. Cities play an important role in driving growth. For Nepal, the emergence of unplanned urban clusters and secondary towns raises the question of whether the loss of primacy of the country's pre-eminent urban cluster is an entirely desirable outcome from the point of view of growth.

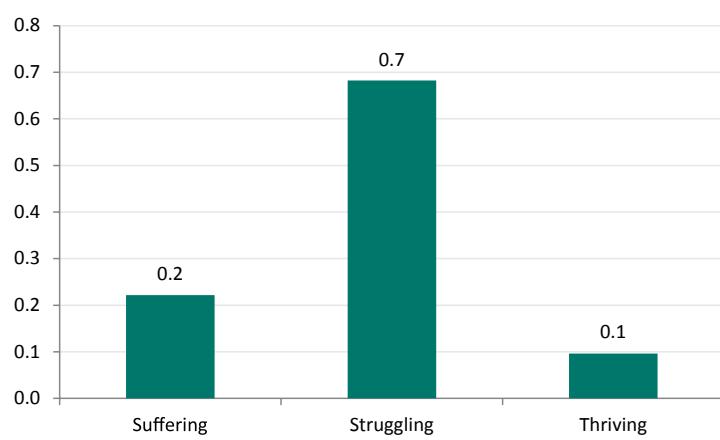
Greater rural-urban migration and the emergence urban sprawls around main highways bordering India and district headquarters have been the key characteristics of urban growth.

Directions for Policy

So what does Nepal need to do to consolidate the gains on improving living standards, reducing poverty and boosting shared prosperity? Three main policy directions emerge from this analysis.

First, equalizing opportunities and leveling the playing field to enable Nepalis from all walks of life to participate to economic life is not only a sensible way to move forward on the inclusion agenda, but it is also likely to be good for growth. All children, including Champa and Goma must have as much as a decent shot at

FIGURE 0.10: THE PROPORTION OF NEPALIS STRUGGLING, SUFFERING AND THRIVING



Source: World Bank staff estimates based on data from Gallup World Survey.

Nepal's decentralization efforts have been stunted for a long time due to conflict and political turmoil.

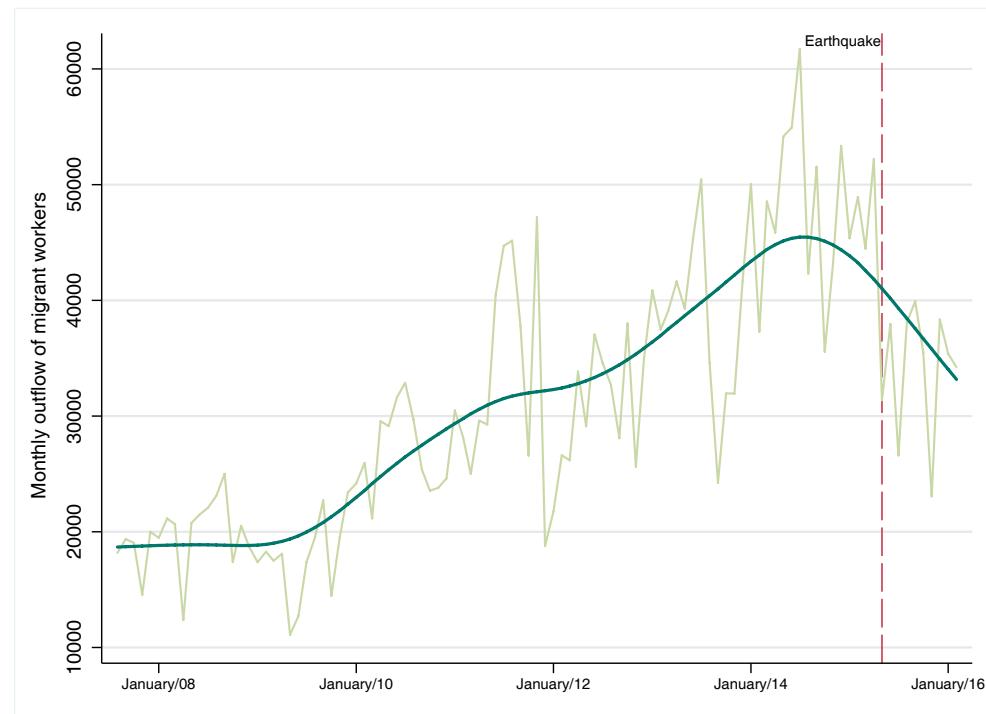
realizing their life's potential as Avidit. This will require a three pronged effort. First, improving the quality of service delivery generally remains a critical part of the agenda on improving opportunities. Nepal's decentralization efforts have been stunted for a long time due to conflict and political turmoil. But with the country having adopted a federal structure in its new constitution, strengthening local accountability through the electoral process and building in the inequality of opportunities into formulas that will guide intergovernmental fiscal transfers will be two possible ways of improving services, particularly in the underserved regions. Second, given inequalities within regions, there is also an urgent need to strengthen equalizing investments, through scholarships, health insurance and social safety nets that should ideally be targeted on the basis on economic need. Finally, in order to redress the residual effects of past disadvantages, some form of affirmative action may have to be maintained. The new constitution has made provisions for representation of underserved groups at various levels of political and public office and

there are already provisions for affirmative action in civil service appointments. But ensuring adherence to these principles in legislation and practice would go a long way.

To reduce vulnerabilities Nepal needs to strengthen safety nets systems, particularly those that insure households against a variety of income shocks. There is a high degree of vulnerability and transitions around the poverty line with one person falling back into poverty for every two that escape. Given the experience of the recent earthquake, one area that appears particularly important is the design of systems that will enable the government to respond in a more agile and efficient manner, not just to catastrophic disasters of similar scale but also to smaller but more frequent shocks, or the dull disasters.

Designing safety net systems that are able to target and deliver assistance based on broader, income based notions of poverty and vulnerability is also an important agenda because the existing programs have had very limited impact

FIGURE 0.11: CHARACTERISTICS OF THE POOR, VULNERABLE AND THE MIDDLE CLASS, 2011



Source: Ministry of Foreign Employment Database

Note: The solid line represents the trend obtained by applying the Hodrick-Prescott filter to the raw data.

on poverty. Investments in these activities may appear to be a drain on the budget and indeed the issue of fiscal space is an important consideration. But two mitigating arguments need to be considered. First, significant savings may be possible by rationalizing the highly fragmented current portfolio of social assistance. Second, given the scale of vulnerabilities Nepali households routinely deal with, helping protect their savings and assets during times of crisis, could potentially enhance their ability to take risks and make productivity enhancing investments in both agriculture and non-agricultural activities which could actually help growth.

Finally, on enhancing productivity, three key policy directions are identified. First, as most of Nepal's chronic poor remain in agriculture, there is an urgent need to boost productivity in this sector. This will require, among others, promoting diversification from cereal crops to cash crops, greater commercialization and better integration with markets and value chains. As the overseas migration experience deepens, the pool of migrant returnees is also likely to increase over time. These migrants will come not only with resources but also with creative ideas and visions formulated through rich experiences working abroad. Having the right policy and investment environment as well as a whole host of complementary inputs such as better connectivity through rural roads and financial services will help leverage their creativity and entrepreneurial spirit to boost growth in this sector.

Second, in order to accelerate the creation of productive jobs, Nepal must figure out a way to generate more and better jobs within Nepal. Whether this is going to be by putting in place policies to rekindle growth, particularly in its industrial/manufacturing sectors or through exploring avenues for promoting higher value services that have some degree of tradability or a combination of the two is something that should come out in a clearly articulated growth

strategy. The lack of adequate number of good jobs appears to be the fundamental constraint to the formation of a robust middle class in Nepal. To that end stabilizing the political environment, carrying out the necessary reforms to improve the investment climate and addressing the crippling infrastructure deficit would be equally essential entry points.

Leveraging the agglomeration potential of Nepal's cities would also be an important policy direction. The current industrial policy provides tax incentives and subsidy for investment in the development of the plant for firms to locate their productive activities in lagging regions. These "spatially targeted" policies represent the government's deliberate efforts to de-concentrate productive activities. But locating production activities in remote locations with lower population densities is seldom effective in propping up lagging regions or generating growth. In fact, if enforced, such policies could be detrimental for the growth of the industrial sector. Instead, from the perspective of growth, a better policy would be to invest in enhancing connectivity of the remote regions to the emerging growth centers or to invest in the development of these growth centers themselves.

Finally, it must also be recognized that there is no level of growth Nepal can realistically generate in the medium term that will generate jobs at a fast enough pace to completely overturn the flow of migrant workers. A more realistic outlook is that some level of overseas migration will remain a critical dimension of Nepal's jobs environment in the medium to long run. For this reason, building a better understanding of not just the migration process in general but also of what can be done to make the process more efficient and less costly so that successive cohorts of Nepali migrants have better information of opportunities abroad, can become more productive and can have access to better quality jobs abroad is also an important part of the jobs agenda.

The lack of adequate number of good jobs is the main constraint to the formation of a robust middle class in Nepal.



I Poverty and the Drivers of Poverty Reduction

Turbulent politics, weak growth

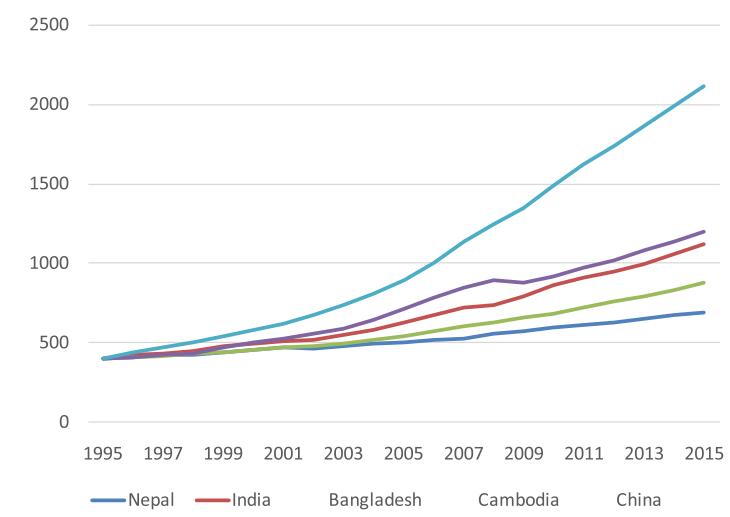
The year 2015 was rough on Nepal. On April 25, a catastrophic earthquake of magnitude 7.8 struck the country. This was followed by a series of aftershocks including a particularly large one, measuring 7.3 magnitude on May 12. A total of 8,790 people lost their lives and more than 22,300 suffered injuries. An estimated 500,000 dwellings were completely destroyed and more than 8 million people (roughly a third of the country's population) were directly affected. As the country pulled itself together in the aftermath, the shifting political landscape provided a rare opening in the constitutional process that had been in abeyance for the past eight years. The major political parties moved speedily to finalize and adopt the new constitution, but clashes broke out in the southern belt of the country where large segments of the population were unhappy with certain provisions in the new constitution. The constitution was eventually adopted in September, but the resulting protests and disruptions brought Nepal's cross-border trade with India to a complete standstill for a period of four months.

This was bittersweet for a majority of Nepal is eagerly awaiting a resolution to what has been a rather prolonged period of political transition. In a single generation, the country has gone from being a unitary, Hindu state ruled by an absolute monarch to a secular republic that has adopted a federal structure. The promulgation of the constitution was supposed to launch the country back on a path towards stability and prosperity. Instead it was off to a shaky start, with the trade disruption severely affecting economic activities across the board. Fuel and other essential commodities were acutely in short supply. Shortage of raw materials and essential fuel forced businesses to either shut down entirely or operate at reduced capacity. Owing largely to these disruptions, the latest government es-

timate puts economic growth for fiscal year 2014/15 at 0.77, a fourteen year low.

As devastating as these recent shocks have been, in a way, they are dramatic manifestations of how conflict and fragility have more generally impinged on Nepal's development potential over the last two decades. More than 14,000 Nepalis lost their lives between 1996 and 2006 in a violent Maoist conflict that plunged the country into a civil war. Even though that crisis was averted, the ensuing years of mainstreaming the Maoists into the political process and drafting a new constitution were characterized by two rounds of elections to the constituent assembly, frequent changes in political alliances and government priorities and public discourse dominated by matters of politics as opposed to economics. The lack of stability in the political sphere took a toll on the already anemic invest-

FIGURE 1: WHERE WOULD NEPAL BE IF IT HAD GROWN AT THE RATE AT WHICH SOME NEIGHBORS HAVE GROWN?



Source: WB Staff calculations using WDI, 2016

Decline in poverty has been accompanied by improvements in durable asset ownership.

ment climate in the country. As a result, the economy sputtered in fits and starts around a mean per capita growth rate of 2.5 percent between 2005 and 2015.

This is low in comparison to progress made by other South Asian neighbors in recent years. At the onset of the civil war in 1995, the difference in GDP per capita expressed in 2010 USD between Nepal and Bangladesh was \$44. A decade later, in 2005, this gap had widened to almost \$100. By 2015, the difference in per capita GDP stood at \$283. The growth rate that Nepal's northern neighbor, China, has been able to generate and sustain is no doubt an unrealistic target. But if Nepal had simply been able to emulate the growth rates seen in India and Cambodia (a country that emerged from a deeper conflict in the early 1990s), its per capita GDP today would be over \$1000. (Figure 1) A recent World Bank assessment finds that the current growth trajectory will keep Nepal a low income country until 2025.¹

Income poverty has declined

A surprising contrast to this somewhat grim narrative on missed opportunities on economic growth has been the stellar progress Nepal has made in the social sectors, particularly on poverty and human development. Poverty has continued to decline, at a faster rate in recent years than in the past. Between 1995-96 and 2003-04, consumption based poverty declined from 41.8 percent to 30.8 percent. This decline continued in 2010-11 – the most recent year for which data on household surveys exists – and would have reached a low of 12.5 percent using the poverty line established in 1995-96. How-

ever, the dramatic changes in consumption patterns of Nepalis observed in 2010-11 prompted the government to revise the poverty line. With the revised poverty line that effectively increased the real value of the line by 35 percent from the previous line, consumption poverty in Nepal stood at 25.2 percent in 2010-11.² Regardless of which poverty line is used, the rate of poverty reduction between 2003-04 and 2010-11 was almost twice the rate observed in the previous period and over the 15 year period between 1995 and 2010, absolute poverty declined steadily by around 2.2 percentage points a year. (Table 1) The rate of poverty decline seen in Nepal, particularly during the second episode, was among the fastest in the world. One global poverty reduction benchmarking exercise puts Nepal in the 96th percentile of all available country episodes.³

This general improvement in living standards is corroborated by trends in ownership of private assets among the different income groups over 15 year period. Everyday items such as kitchen utensils are universally owned in all three years while the ownership of cars and washing machines is rare. For most other commodities, it appears that there is sharp increase in ownership first among the top 20 percent between 1995-96 and 2003-04 and followed by the middle 40 percent and then the bottom 40 percent in latter period. In 1995-96, few households in the bottom 40 percent and the middle 40 percent owned items such as phones, TV/VCR/VCD and fans but their ownership increased drastically among the middle 40 percent by 2010-11. On the other hand, ownership of more expensive items, such as motorcycle/scooter, refrig-

TABLE 1. POVERTY RATES AND PACE OF POVERTY REDUCTION IN NEPAL

Survey Year	1995/96 Poverty Line	2010/11 Poverty Line	Official Poverty Estimate in 2010/11
	Poverty Headcount Rate (% of Population)		
1995-96	41.8%	63.8%	
2003-04	30.8%	49.4%	
2010-11	12.5%	30.8%	25.2%
Period	Pace of Poverty Reduction (annual percentage point change)		
95/96 - 03/04	1.36%	1.80%	
03/04 - 10/11	2.62%	2.66%	
95/96 – 10/11	1.96%	2.20%	

Source: World Bank (2013)

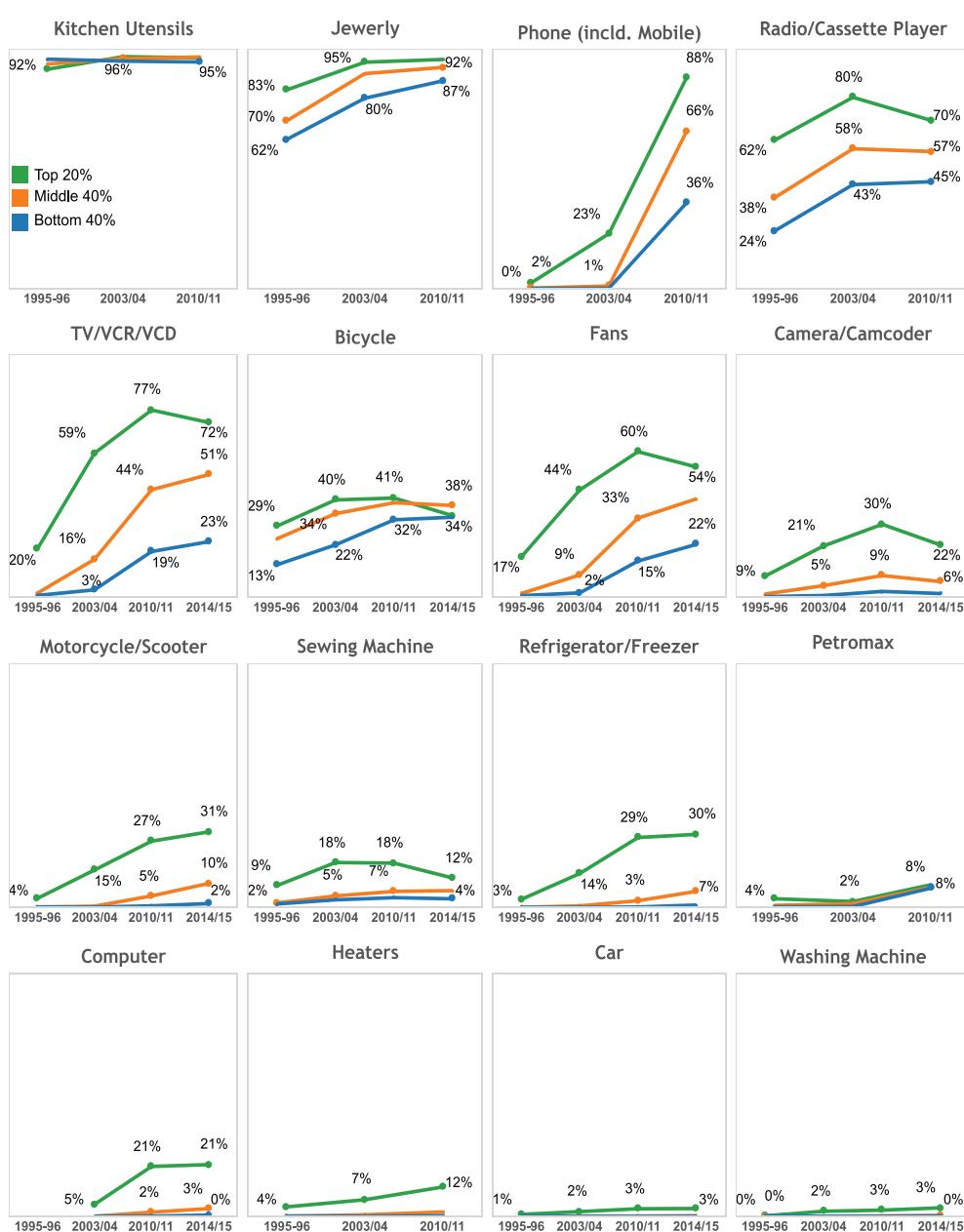
erator/freezer and computer improved but only exclusively among the top 20 percent. (Figure 2)

... so has non-income based measure of poverty

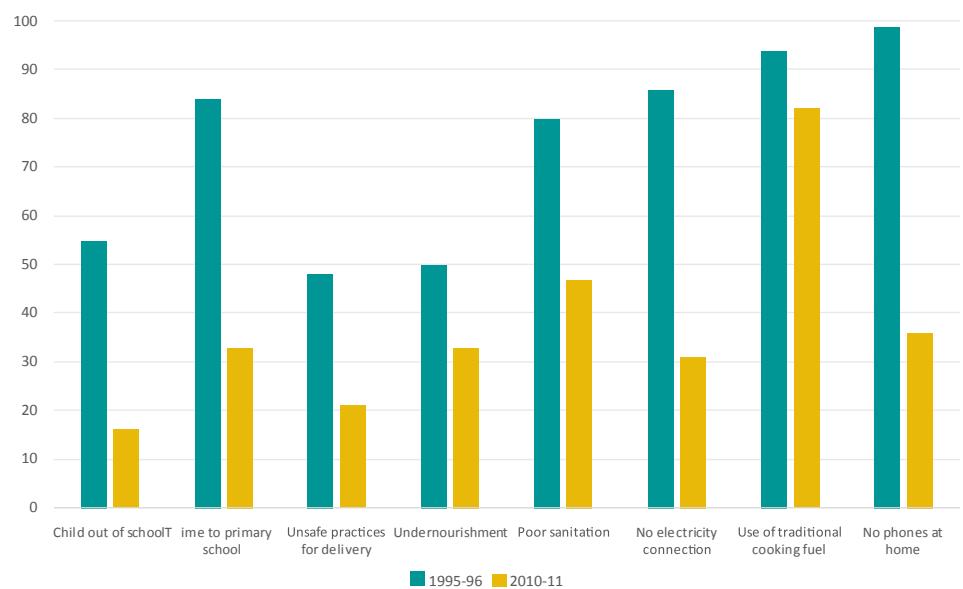
The improvements in living standards along monetary measures of welfare have been accompanied by improvements in non-income dimensions of well-being that would typically be used to construct a Multidimensional Poverty

Index (MPI).⁴ (Figure 3) Significant improvements have been made in dimensions such as education, health and access to basic services. For example, households with school-aged children (6 to 15 years old) out of school declined from 55 percent in 1995-96 to 16 percent in 2010-11. This is presumably due to improvements in accessibility to and availability of school, as households with children spending more than 20 minutes to reach primary school

FIGURE 2. ASSET OWNERSHIP AMONG THE VARIOUS INCOME GROUPS



Source: World Bank Staff Calculation based on Nepal Living Standard Surveys 1995/96, 2003/04, and 2010/11. Question on computer ownership was not available in 1995/96. 2014/15 estimates are added when data is available in the 2014/15 Annual Household Survey.

FIGURE 3. REDUCED DEPRIVATIONS IN NON-INCOME DIMENSIONS BETWEEN 1995-96 AND 2010-11

Source: World Bank (2013)

declined from 84 percent to 33 percent during the same period. But much of it is also likely due to increased ability to afford schools, including private schools. In 1995-96, almost one in every two households experienced a child birth without the presence of a medical professional. This declined to only one in five by 2010-11. Similarly, access to sanitation, electricity, and telecommunications services also improved appreciably. For example, approximately four out of five households did not have an in-home toilet in 1995-96. By 2010-11, two out of three households had one. Telecommunications services – measured by having a telephone in the home – used to be a preserve of the top 1 percent in 1995-96. By 2010-11, 74 percent of Nepalis had tele-connectivity in their homes.

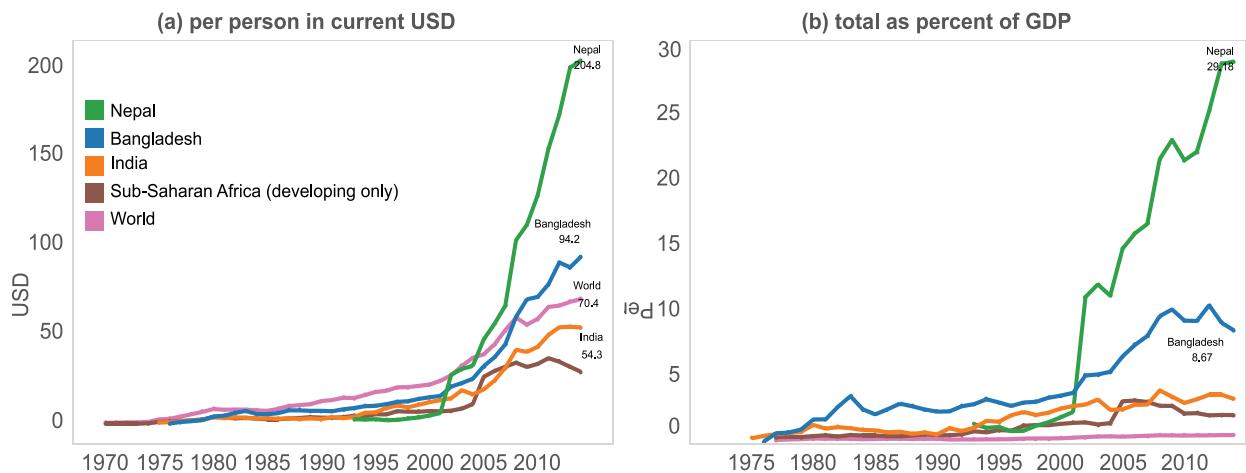
Remittances have played a part

The most commonly cited driver of the observed poverty reduction is the dramatic increase in remittances received from abroad since the late 1990's (World Bank, 2006, 2013). This is the result of a steady increase in overseas migration over the past decade and half. Between 1981 and 2001, only about 3 percent of the population was abroad, with a cumulative increase of 0.7 percentage points in 20 years. By 2011, over 7 percent of the population was abroad. In

2011, every fourth household in Nepal had an overseas migrant and every fifth household had a migrant in a country other than India.⁵ Increase in overseas migration to destinations other than India has in fact been the key driver of the recent increase in migration in Nepal.

This migrant population is predominantly young and male. In 2011, about 90 percent of the migrants outside India were male. The median migrant is only 25 years old and almost 90 percent of migrants are aged between 15 and 45 years. Migrant males account for 13 percent of the resident male population. Since migrants are mostly of working age, more than a fifth (22 percent) of the national (resident and migrant) population aged 15-45 is outside the country. The educated migrants, especially outside India, earn more and remit more money to their families in Nepal. Most of the migrants migrated for work. For example, over 97 percent of the migrants to Malaysia and the Gulf countries migrated for work.

With the increase in migration, remittances from abroad have also increased. Until the late 1990's, personal remittances were less than one percent of GDP, lower than Bangladesh or India. The first half of the 2000's saw a drastic

FIGURE 4. PERSONAL REMITTANCES RECEIVED IN NEPAL & SELECT COUNTRIES

Source: World Development Indicators (World Bank, 2016), using personal remittances received as % of GDP (BX.TREPWKR.DT.GD.ZS), personal remittances received in current US dollars (BX.TRF.PWKR.CD.DT) and the total population (SP.POP.TOTL).

increase in this share, from 2 percent in 2000 to 15 percent in 2005, 22 percent in 2010 and as much as 29 percent in 2014, while the neighboring countries experienced an increase at a much more modest rate (Figure 4).⁶ In per capita terms, Nepal received less than \$5 of remittances from abroad in 2000. That number had reached \$205 by 2014, more than twice as much as Bangladesh (94 dollars) which has the second highest remittance receiving country in South Asia. This figure itself may be heavily understated because official numbers on remittance flows through the banking system do not capture informal flows that are estimated to be quite large as well.

Unlike other growth processes, the benefits of the growth in remittances have directly accrued to households. In 1995-96, approximately one in four households received some form of remittances. This became one in three by 2003-04 and more than one in two by 2010-11. Households across the consumption distribution have benefited from the growth in remittances. (Figure 5a) Not only did more Nepali households start receiving remittances, the amount of remittances received by remittance receiving households also increased over the years (Figure 5b). Given the size and nature of this increase, it is entirely plausible for remittances to have played

an important part in improving the living standards witnessed in Nepal.

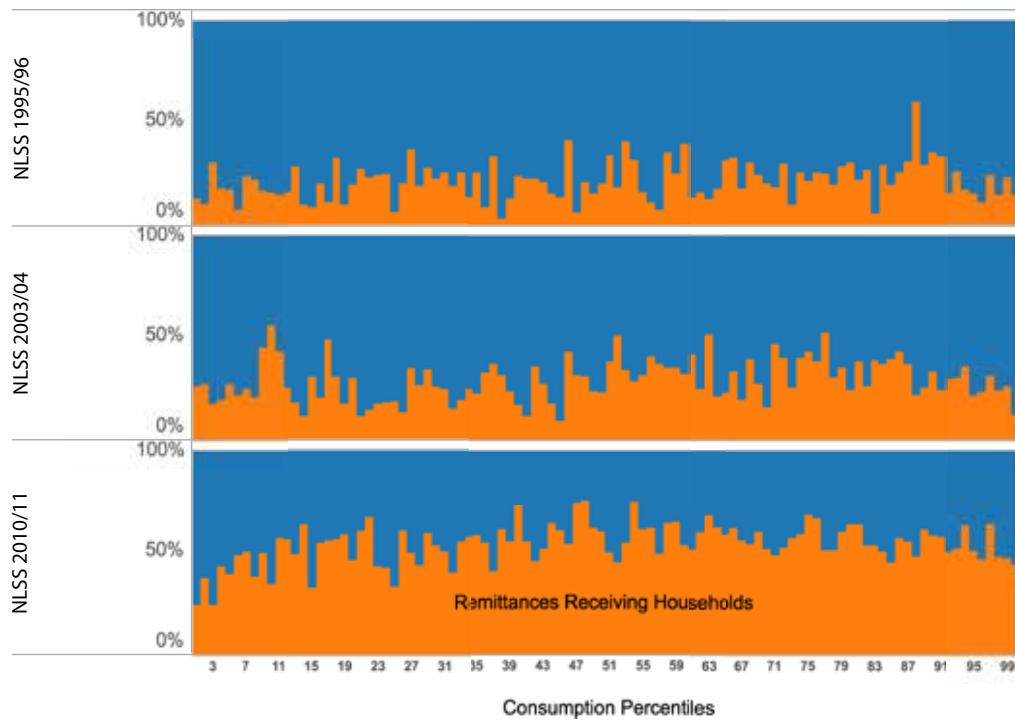
So have opportunities within Nepal for non-migrants

Households within Nepal have obviously benefited from private receipts of remittances. But even non-migrant households have benefited from opportunities created by the changes in the structure of the domestic economy, brought about, indirectly, by migration and remittances. For example, the large exodus of young, productive and predominantly male population could affect labor supply and wages, particularly in agricultural sectors. Similarly, the remittance led growth in income and consumption in the relatively isolated, largely unconnected local economies could fundamentally alter the landscape for the demand for agricultural as well as non-agricultural commodities and also the demand for labor employed in these sectors. The resulting changes in wages and prices of other factors as well as other outputs could have ended up benefiting non-migrant households indirectly.

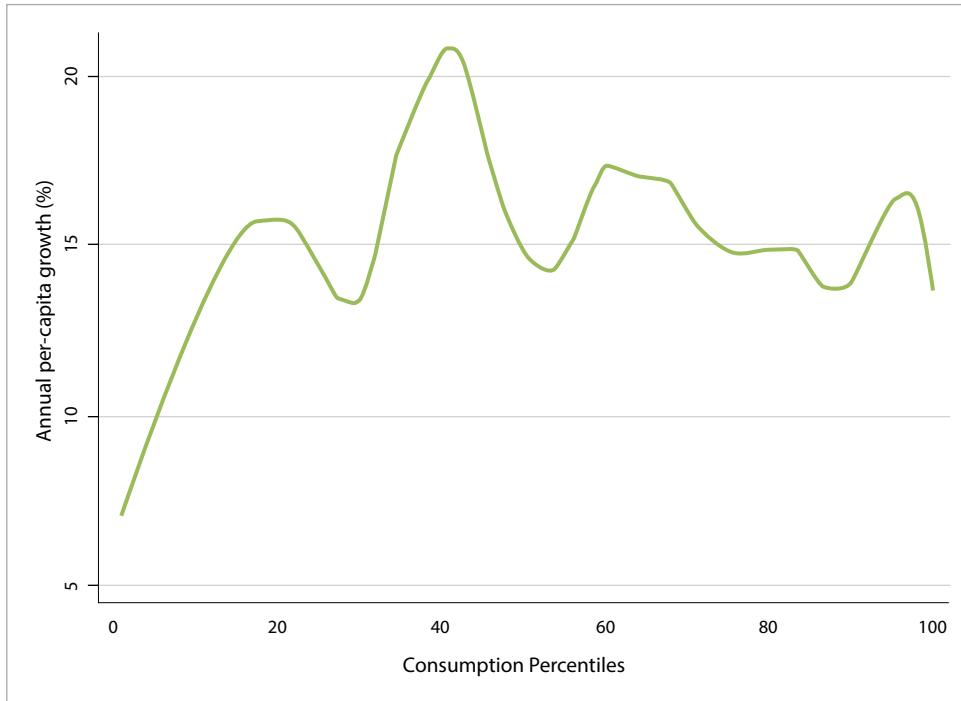
Indeed, decomposition exercises show that half of the poverty reduction in Nepal between 1995-96 and 2010-11 was driven by an increase in labor income which includes income from wages as well as self-employment. This is

FIGURE 5. INCIDENCE OF REMITTANCE ACROSS THE CONSUMPTION DISTRIBUTION

(a) More households receive remittance



(b) More remittances are received (1995-2010)



Source: World Development Indicators (World Bank, 2016), using personal remittances received as % of GDP (BX.TRF.PWKR.DT.GD.ZS), personal remittances received in current US dollars (BX.TRF.PWKR.CD.DT) and the total population (SP.POP.TOTL).

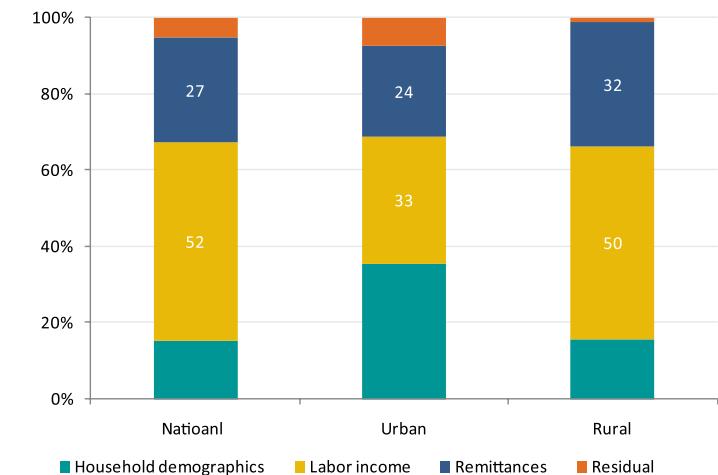
particularly the case in rural areas. Remittances are important. But directly they account for only a fourth of the poverty reduction observed nationally and about a third in rural areas. (Figure 6a) The relatively small contribution of remittances may come as a surprise but given the high up-front costs involved, the poorest segments of the population are least likely to be able to benefit from the newer, non-India migration destinations that have been the drivers of the growth in remittance income at the household level.

Further, breaking down the sources of income between farm and non-farm income, non-farm income growth appears to have been more important for the observed reduction in poverty than farm incomes, though farm incomes have contributed quite a bit as well. (Figure 6b) This is consistent with the observed diversification of the rural economies with increased non-farm activity during the period. Changes in the demographic structure of the household – which captures, among others, the dependency structure or the number of household members that participate in the labor market relative to the number of dependents they have – also appears to have been important for poverty reduction.

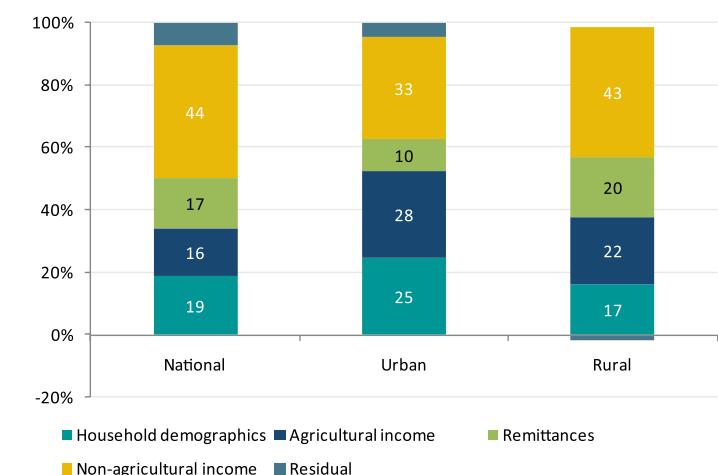
The primary reason for the dominant role of labor income in the observed poverty reduction has been the increase in wages across the country. (Figure 7) Mean real wages grew from Rs. 184 per day to Rs. 326 per day (in 2010 Rupees) or roughly 5.1 percent per year over this period. Agricultural wages (4.2 percent) grew faster than the non-agricultural wages (3.3 percent). Increased overseas migration of working age males and the resulting tightening of the supply of labor, particularly in the farm sector are possible drivers of the increase in agricultural wages. The increase in non-agricultural wages on the other hand are largely due to the growth in the demand for non-farm labor which was in turn driven by economic diversification and increase in non-farm activities brought about by remittance induced growth in incomes and the associated changes in demand for goods and services. Non-wage employment in off farm sectors has also increased suggesting that opportunities created outside of agriculture, particularly in rural areas has been the key ticket out of poverty in the preceding two decades.

FIGURE 6. DRIVERS OF POVERTY REDUCTION BETWEEN 1995-96 AND 2010-11

(a) By labor and other sources of income



(b) By agricultural and non-agricultural sources of income



Source: World Bank staff calculations based on data from NLSS 1995-96 and 2010-11

Note: Capital income and other transfers are in the residual.

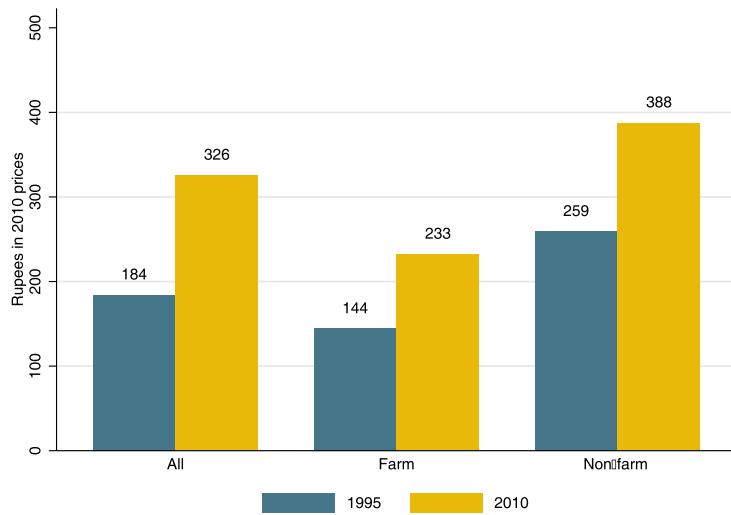
Another important but often under-appreciated driver of Nepal's poverty reduction in the last two decades has been the country's demographic transition. Nepal's population growth peaked around 2.7 percent in the early 1990s and was at sub-Saharan country average at the time. Since then it has taken a steep downward turn and settled at around the global average of 1.2 percent a year in the late 2000s. The decline in population growth rate has coincided with a sharp decline in fertility rates. From over 6 until the 1970s and over 5 until the 1990s, the number of births of an average Nepali woman had declined to



around 2 in 2014. Demographers have variously attributed this fertility transition observed in Nepal to the spread of mass education, increasing female labor participation, mechanization of agriculture, among others.

The increase in urbanization is also another potential driver. The share of urban population has been increasing steadily, from 3 percent in the 1960s, 9 percent by 1990, and 18 percent by 2014. This is the fastest urban growth rate in all of South Asia.⁷ (Muzzini & Aparicio, 2013) More recently, the social and economic changes brought about by the increase in the migration of overwhelmingly male population together with an increase in educational attainment of girls has increased the average age of first marriage. Whatever the reasons may be, the fertility transition seen in Nepal in the last two decades has been quite dramatic and the reduction in average household sizes, especially among the poorer, rural population, together with the declining dependency ratio has also contributed to the observed poverty reduction quite appreciably.

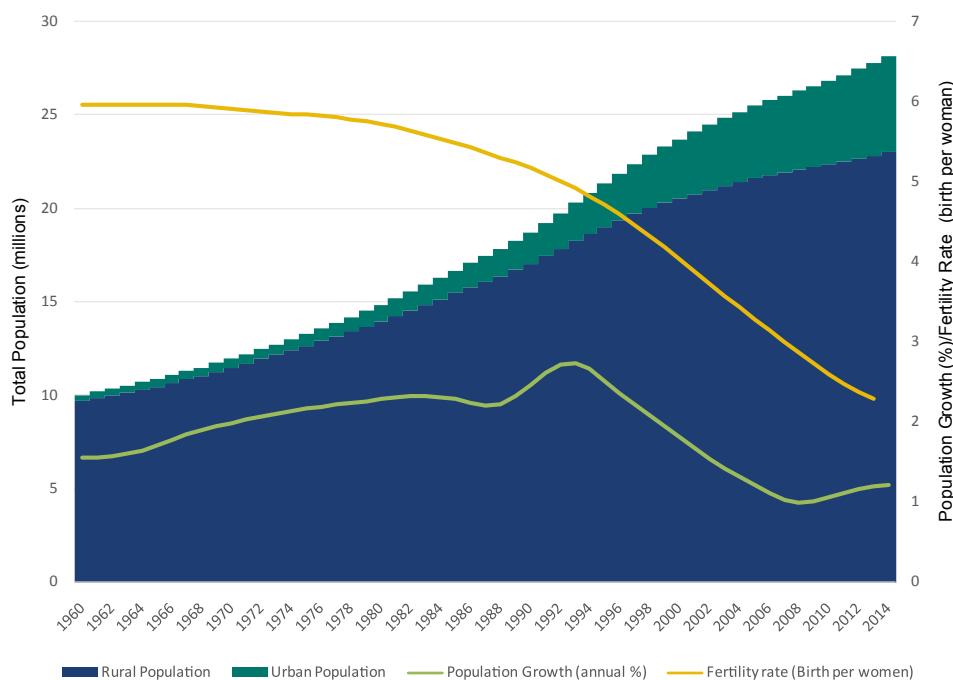
FIGURE 7. MEAN DAILY WAGES IN AGRICULTURE AND NON-AGRICULTURE



Source: World Bank staff calculations using data from NLSS 1995-96 and 2010-11.

Note: A rough rule of thumb to relate to these numbers in terms of 2015 Rupees is to multiply them by 1.5 which is the factor by which CPI has grown during this period.

FIGURE 8. POPULATION AND POPULATION GROWTH IN NEPAL



Source: World Bank staff calculations using data from NLSS 1995-96 and 2010-11.

Note: A rough rule of thumb to relate to these numbers in terms of 2015 Rupees is to multiply them by 1.5 which is the factor by which CPI has grown during this period.



II. INEQUALITY AND THE DEMAND FOR INCLUSION

Demand for inclusion dominates political and economic discourse

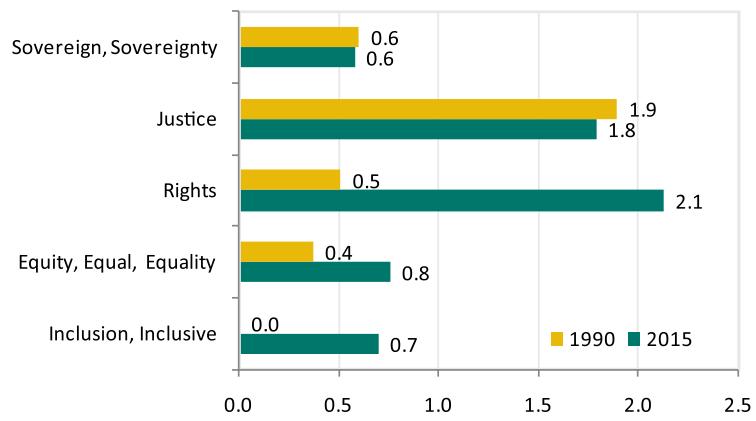
A question that follows is the extent to which the progress on living standards improvements has been realized evenly by all segments of the population. This question has a special significance for a country that has a violent Maoist conflict in its recent history. Many have postulated the perceived inequality in the distribution of resources as being one of key initial drivers of the revolution that turned into a civil war resulting in 14,000 deaths between 1996 and 2006. And indeed, if there is one agenda that has dominated Nepal's political and economic discourse during the decade of post-conflict transition, a period that has seen the dissolution of the 250-year old institution of monarchy and a deep restructuring of the Nepali state, it is the agenda of inclusion.

The salience of the agenda is reflected quite notably in the recently promulgated 2015 Constitution of Nepal. The word "inclusion" or its variant "inclusive" appears in 35 instances in the translated document. These words did not appear at all in the earlier democratic constitution of 1990. Likewise, the word "equal" and its variants "equality" and "equity" are used 38 times (compared to 8 times in 1990) and the word "rights" is used 107 times (compared to 11 times in 1990). Now, the 2015 Constitution of Nepal is admittedly a longer document; it contains roughly twice as many words as the earlier Constitution. But even after accounting for that, words denoting related concepts of equity, equality, rights and inclusion appear to have been used with a significantly higher frequency than in the past. In contrast, the use of words such as "justice" and "sovereignty", which are often common words in constitutions, roughly stayed the same or declined.

Exclusion – or the lack of inclusion – is no doubt a broader concept than inequality. Importantly, it incorporates notions of dignity in the participation in social and economic life, something a purely economic measure of inequality does not capture. Yet, given Nepal's difficult geography and a legacy of exclusion along the dimensions of caste and ethnicity, the concepts overlap quite a bit, at least in the way they are commonly perceived. So to what extent is the increased awareness about exclusion or the increased demand for inclusion correlated with the level and trends of inequality in Nepal? How high is inequality in Nepal and has inequality increased?

Conventional measures such as the Gini index suggest that overall inequality in Nepal has been low and stable over the 15 year period between 1995-96 and 2010-11. The Gini index for consumption for Nepal was 0.33 in 2010-11, which is at the lower end of global range for this number. This measure of inequality also remained virtually unchanged between 1995-96 and

FIGURE 9. FREQUENCY OF USE OF SOME KEY WORDS IN THE 1990 AND 2015 CONSTITUTIONS OF NEPAL, USE PER 1000 WORDS



Source: World Bank staff calculations based on unofficial translations available on the internet.

2010-11 both at the national level and in rural areas.⁸ In the urban areas, there appears to have been a sharp decrease. (Table 2)

Measured this way, inequality in Nepal is low not only in absolute terms, it is low also relative to the level of its economic development. This is an inequality phenomenon that Nepal shares with other South Asian countries as well. Nepal's Gini index is one of the lowest among the countries with a similar level of GNI per capita, most of which are countries in Sub-Saharan Africa, and well within the range of more advanced countries in Europe and Central Asia. If one is to imagine a cross-country Kuznets curve over this plot, it would appear that Nepal is at the very early stages of development and that the engine of growth has not started cranking up to the extent where this growth acceleration would begin to generate a widening consumption distribution.

Other standard measures of inequality also suggest low and stable inequality in Nepal. The shares of welfare held by the richest and the poorest groups in the country represent inequality at the tail ends of the distribution. In countries plagued with extreme inequality, the

TABLE 2. GINI INDEX OF CONSUMPTION IN NEPAL IN 1995-96 AND 2010-11

Survey Year	Consumption Aggregate		
	Old	New	2010/11
1995/96	2010/11	2010/11	
National	35%	35%	33%
Urban	46%	36%	35%
Rural	31%	31%	31%

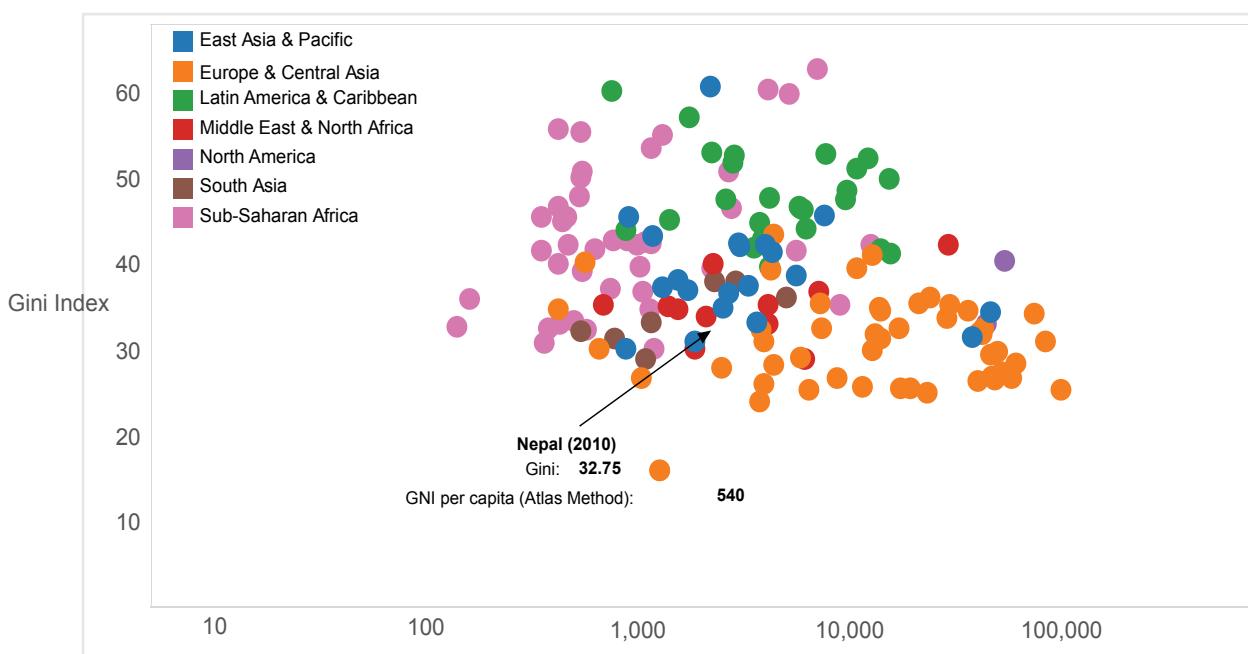
Source: Nepal Living Standard Survey in 1995/96 and 2010/11

Note: The difference between the "Old" and "New" consumption aggregate is that the new one uses a 7-day recall for food expenditures.

richest 10 percent of the population often holds more than 40 percent of the total wealth and the poorest 10 percent explains two percent or less. Many countries in Sub-Saharan Africa and Latin America and Caribbean regions fall under this category. In the case of Nepal, the consumption share held by the top 10 percent is one of the lowest at 26 percent and the share by the bottom 10 percent is one of the highest at 3.5 percent, another indication of low overall inequality. (Figure 11)

The natural question to ask next is whether the inequality in income mirrors what we conclude about inequality of consumption. Perceptions

FIGURE 10. GINI INDEX BY THE LEVEL OF DEVELOPMENT



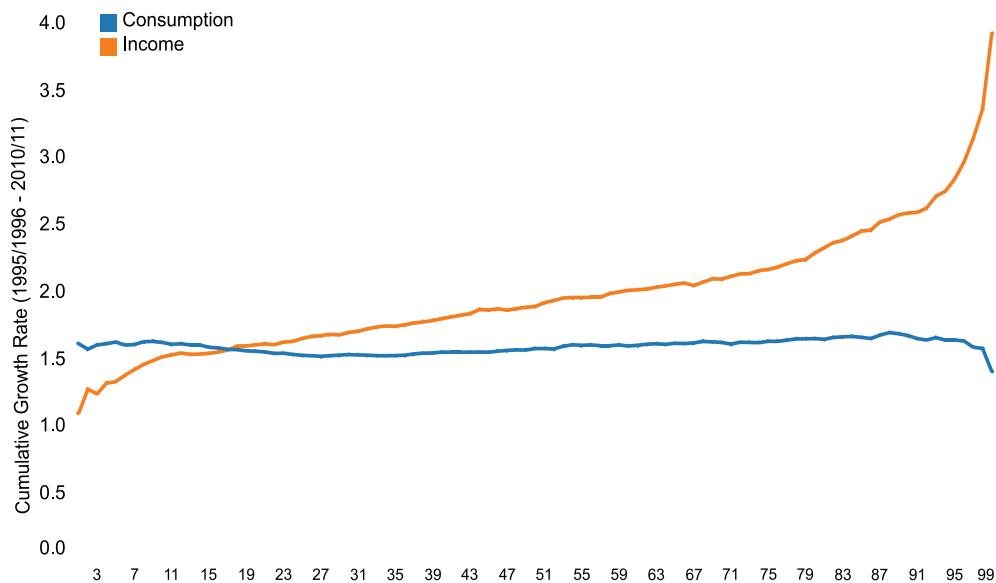
Source: World Development Indicators (World Bank, 2016), based on the latest data for all available countries.

FIGURE 11. WELFARE SHARES BY THE TOP AND BOTTOM 10 PERCENT

Source: World Development Indicators (World Bank, 2016), using all available countries for which the latest data is 2000 or later

about inequality are often more closely aligned with income inequality than the inequality of consumption or living standards. Fortunately for Nepal, the past three rounds of the Nepal Living Standards Surveys consistently collected information about respondents' income from various sources making an analysis of income inequality possible. It must be noted that interpreting and reconciling differences in inequality of income and inequality of consumption is often difficult. Theoretically, consumption is the preferred measure for both poverty and inequality

(Deaton and Zaidi, 2002; Haughton and Khandker, 2009; World Bank 2015) because it fluctuates much less and is believed to be a better approximation of the concept of permanent income. Practically, consumption is also less susceptible to measurement errors than income. High income earners are less likely to respond to income-related questions and tend to underestimate the true income when they do respond. Income is also notoriously hard to measure for households dependent on subsistence agriculture and more generally reliant on the informal economy

FIGURE 12. GROWTH INCIDENCE CURVE OF CONSUMPTION AND INCOME BETWEEN 1995-96 AND 2010-11

Source: World Bank staff calculations based on data from NLSS I and NLSS III

making it particularly ill-suited for poverty and inequality analysis in a country like Nepal.

Still, with these caveats, the analysis of income inequality suggests that it may have increased sharply during this period. (Figure 12) The curve plots growth rates of average income and consumption at every percentile and allows for a visual inspection of any conspicuous growth patterns across the distribution. Consistent with the abovementioned observations of the stable inequality trend, the growth incidence for consumption is mostly flat across the distribution. This suggests that living standards improved almost uniformly and at the same rate for all Nepali households. In contrast, the growth in income was much faster at the higher end of the distribution. Income growth appears to have been slower than consumption growth at the lower tail of the distribution, but average income has doubled at the 50th percentile and tripled at the 95th percentile and higher.

Addressing inequality through public policy is difficult

A direct response to inequality is often redistribution through progressive tax policies in the space of income, or through quotas and other

forms of affirmative action in higher education (e.g. medical and engineering colleges) and employment for the disadvantaged groups. Nepal's newly adopted constitution has made several provisions for affirmative action policies including reservations for underrepresented groups in various levels of political office particularly through the principle of proportional representation. While well intentioned, these policies could potentially backfire if they end up de-incentivizing investments and hurting growth. Raising attainment levels of historically disadvantaged social groups is a worthwhile goal and affirmative action policies could play an important role toward that. But in settings where deprivation and disadvantage cut across many dimensions, they might also become difficult to build consensus around without disturbing societal harmony.

To an extent, this is already playing out in debates around several policies that predate the recently adopted constitution in Nepal. For example, according to provisions in the Civil Service Act, 45 percent of new positions are reserved for various under-represented groups, women, Dalits, Janajatis, Madhesis, disabled and Nepalis living in lagging regions. A segment of the Ne-

pali population sees this as rightful (if at least in intention) effort to expand opportunities for historically disadvantaged groups. Another equally vocal segment of the population objects on the grounds of violation of the principles of meritocracy. Yet another point of view acknowledges that some groups are on average, worse off than others, but contends that a sizeable fraction of the groups considered privileged are in fact very poor and thus should also be covered under the provisions of affirmative action. The argument that is often heard is that these caste/ethnicity based affirmative action policies end up willfully neglecting large segments of Brahmins and Chettris who are economically poor and thus deserving of targeted policies but are excluded from consideration due to their privileged caste status.⁹

The potential for a satisfactory resolution of this debate is further diminished if there are disagreements about how well inequalities are being measured in the first place. The standard measures of inequality commonly guiding public policy come from household surveys such as the Nepal Living Standards Survey. While these surveys do a reasonably good job of capturing living standards of those at the low to middle end of the income distribution, they are not very effective in capturing the very top end of the income/consumption distribution. This is because survey participation and response rates are often very low for wealthier households. This could cause a downward bias in the measured inequality. A research frontier on this topic explores the possibility of combining data on income tax records with household surveys to try and get a handle on what the true distribution of income may look like without the truncated top.¹⁰ Unfortunately, this is not feasible in Nepal. Second, income is likely to be measured with high measurement errors, especially in countries with large informal sectors and in such settings, it is international best practice to use consumption as a more reliable measure of household welfare. But consumption is also “smoother” across the population and hence likely to underestimate inequality. So the question of which measure of inequality should be used to characterize overall inequality becomes a tricky one, especially in a case like Nepal where the conclusions one might come up with may be drastically different depending on that choice.

But framing the debate along the lines of equity could bridge the divide

Alternatively, one could take a step back and ask a more fundamental question about the kind of inequality that is being measured. This question forces us to reorient our discussion from thinking about the extent and magnitude of inequality to the underlying type of inequality. In particular, it is useful to make a distinction between inequality of outcomes such as income or consumption/living standards, and inequality of opportunities to arrive at those outcomes. The focus of development debate, even in Nepal, is often on inequality of outcomes. But framing the same discussion around inequality of opportunities has an intuitive appeal and could potentially transcend ideological differences and affect meaningful policy action.

To see why, consider the example of two people who were born with the exact same set of opportunities. Most people would probably agree that differences between the two in, say, income, are in part due to differences in life choices, innate abilities or effort. But now consider two people with identical innate ability but vastly different sets of opportunities to begin with. In such a case, it is entirely possible that they end up with different outcomes despite exerting the same amount of effort or making similarly sound life choices. Most people would regard such a scenario as unfair. In other words, inequality of opportunities is fundamentally objectionable, whereas inequality of outcomes is objectionable only to the extent that it is caused by inequality of opportunity. This problem is exacerbated when the distribution of opportunities is linked to circumstances, such as ethnicity, birth, gender, or family background, because these systematically can impede the upward mobility of an entire group of people.

In a society in which opportunities are equal, a girl (let's call her Goma) born to a poor and illiterate Dalit couple in rural Kalikot should have an equal shot at becoming a doctor, or an engineer as a boy (let's call him Avidit) born in a well-educated, affluent and upper caste household in urban Kathmandu. And so should a girl (let's call her Champa) born to parents of otherwise similar characteristics as Goma but living in rural Sarlahi. But how equal/unequal are basic

Inequality of opportunities is fundamentally objectionable, whereas inequality of outcomes is objectionable only to the extent that it is caused by inequality of opportunity.

opportunities for children such as Goma, Avidit and Champa in Nepal? There may be disagreements on what to do about the social and economic processes that led to their parents' being where they are in the current socio-economic ladder of Nepal. But everyone will agree that that position should not determine the children's life chances.

Measuring inequality of opportunity

Measuring opportunities is harder than measuring outcomes. This is partly because the definition of opportunity is hard to concretize. What constitutes "opportunities"? The answer may vary from person to person. In order to simplify matters, for this work, we define "opportunity" as access to basic goods and services, in education, health and basic infrastructure that are necessary for an individual to realize his/her human potential.

When opportunities are defined in this manner, the set of opportunities affecting outcomes later in life can be infinite, from access to primary education and nutrition when very young to access to credit and employment opportunities as an adult. Although theorists frequently disagree on where to draw the line, there is widespread agreement that at the very least, basic opportunities should be affordable (otherwise universal access would not be economically feasible) and completely outside the control of the individual. A reasonable interpretation of the first condition is that universalization of a good or service is technologically feasible given the state of knowledge and economically viable, at least in the medium term. The second condition necessarily limits the set of opportunities, because it excludes any good or service that is available to an individual as a result of effort or ability.

For the purpose of this work, we also remove the ambiguity of this definition by *limiting the space of opportunities to those that are provided to an individual in childhood*, a stage of life during which the individual cannot be held responsible for his/her actions. Adults may make choices that inhibit their own opportunities, such as dropping out of school due to lack of effort. For a child, however, opportunities are exogenous,

because family, society, geography or the government should be responsible for ensuring whether or not she will have access to them.¹¹ While the outcomes in life also depends on genetic traits that a child inherits from parents, most would agree that the critical inputs necessary for the child's development should be provided to all children regardless of his/her genetic make-up.

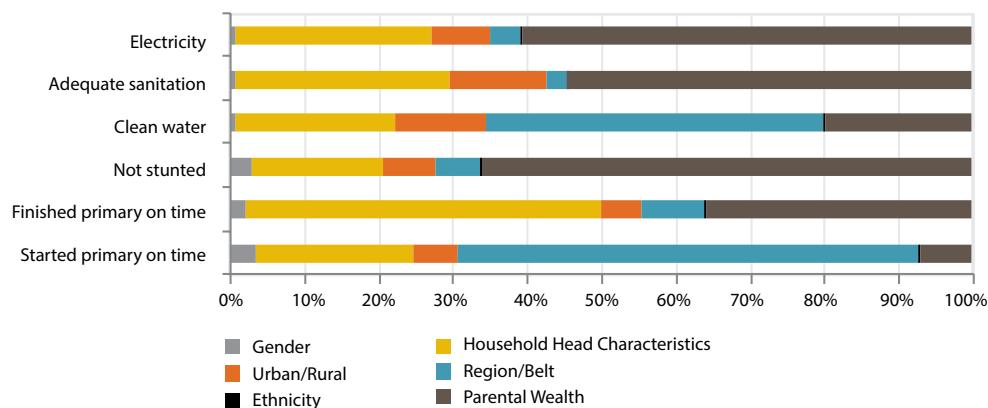
Interventions to equalize opportunities earlier in life are also found to be significantly more cost-effective and successful than are those attempted later in life. Research shows that preschoolers with low levels of cognitive development have lower school achievement and earn lower wages in adulthood.¹² More recent studies suggest that early childhood education has substantial long-term impacts, ranging from adult earnings to retirement savings.¹³ Moreover, lost opportunities during childhood cannot always be compensated for. Child malnutrition, for example, can generate life-long learning difficulties, poor health and lower productivity and earnings over a lifetime.¹⁴

With opportunities defined in this manner, the inequality in the access to these opportunities will be measured by the extent to which "circumstances" – or characteristics that are predetermined at birth and characteristics that the child cannot and should not be held accountable, e.g., gender, caste/ethnicity, place of birth, parental position in the socio economic ladder etc. – are correlated with the access to these opportunities. In a true equal opportunity society, these circumstances will exert zero influence in the access to opportunities. The higher the correlation between circumstances and access (i.e., if being born a boy makes a child more likely to have an opportunity than being born a girl), the more skewed and unequal the distribution of opportunities within the population.

Malnutrition during childhood can generate learning difficulties, poor health and lower productivity and earnings over a lifetime.

Deep inequality of basic opportunities

Using this basic conceptual structure and applying a methodology that has now become fairly standard in the literature to a variety of datasets, we report deep inequality of opportunities in Nepal.(See Annex 1 for a simple exposition of this methodology)Basic opportunities such as starting primary school on time, finishing pri-

FIGURE 13. CIRCUMSTANCES ASSOCIATED WITH INEQUALITY OF BASIC OPPORTUNITIES

Source: World Bank Staff calculations based on Demographic and Health Survey Data, 2011

Note: This analysis is presented only for opportunities for which the total inequality of opportunity is higher than 5 percent. See Annex 1 for details on methodology.

mary school on time, escaping the scourge of chronic malnutrition in early childhood, having clean water to drink, clean and adequate sanitation facilities and electricity at home appear to be far from universal and unevenly distributed even among those who have it.

There is quite a bit of variation in the circumstances that contribute the most to the inequalities, but parental wealth, place of birth (whether it is urban or rural, in the mountains, hills or terai, or if it is the central and eastern region or the mid and far western region) and other parental characteristics (such as age, gender and education) appear to account for most of the observed inequality. (Figure 13) The strong association between parental characteristics and opportunities for Nepali children suggests a significant divergence in life trajectories very early in life. The divergent opportunity profiles for Goma, Champa and Avidit shown in Box 1 underscore the point that being born to the right parents and being born in the right place – both factors determined essentially by the lottery of birth – remain the key determinants of life chances for children in Nepal. (Box 1)

Opportunity gaps wider still, if quality taken into account

Basic goods and services are usually not homogeneous and there are large variations in quality. Not all schools, for example, provide the same quality of instruction. A child may go to a cer-

tain kind of school but not learn the material adequately enough to progress through the grades in the timely manner and eventually acquire the skills rewarded in the labor market. Similarly a child may live in a household connected to a tap that is never serviced.

In a study of equality of opportunity, it is important to assess what would be the minimum threshold of quality for each basic good or service. For example, sanitation may be considered a basic good, but a researcher must determine the level of sanitation that can be deemed a minimum standard within a particular cultural context. In case of education, a true measure of quality would be the quality of learning. But learning is difficult to measure and data on proxies such as test scores are hard to come by. Imperfect and indirect variables such as completion of primary school on time (which may be related to learning outcomes or student achievement as it requires timely grade progression) may have to be used. For Nepal we use data on performance in the School Leaving Certificate (SLC) and National Assessment of Student Achievement (NASA) exams administered on eight-graders across the country.

The grading system of the SLC examination has been reformed very recently. But this examination, long considered the “iron gate” of the Nepali educational system, has been notorious for low pass rates. Using data collected in 2005, we

find that not only are pass rates low, they are skewed in favor of children with favorable birth circumstances. Children from private schools, with better educated parents, in schools located in district headquarters, and of the favorable gender (male) are more likely to pass the exam as well as score marks deemed in the first division. (Figure 14)

Disparities also show up prominently in the odds of passing the National Assessment of Student Achievement (NASA) examination administered to eighth graders across Nepal. NASA is the national equivalent of the global Program for Inter-

national Student Assessment (PISA). The underlying “opportunity” in our analysis using this data is whether or not the child has learnt the material well enough to pass this eighth grade examination in science, mathematics and Nepali.

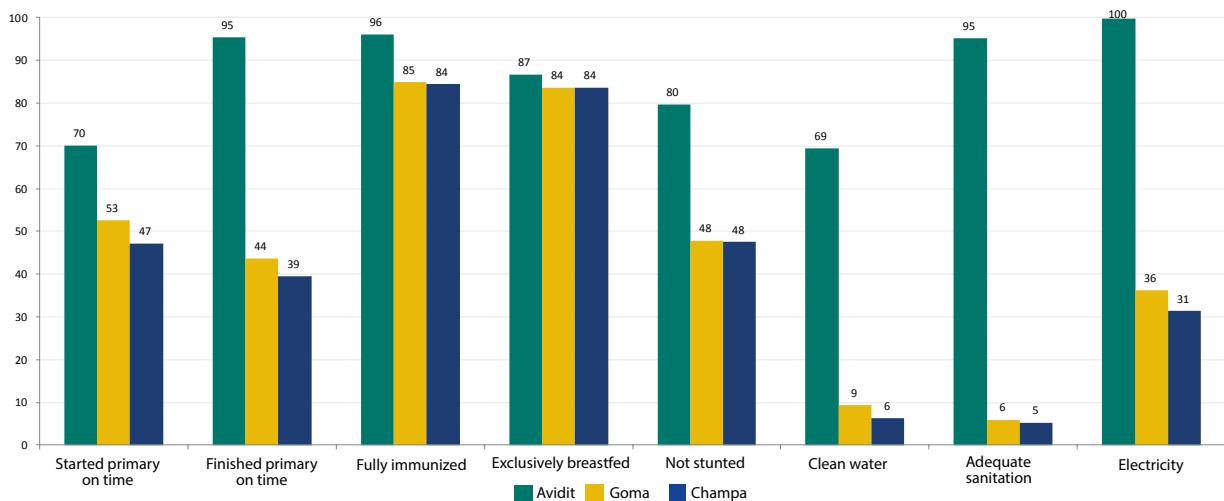
Based on the results in Figure 15, the highest inequality appears to be in the pass rate for mathematics. Among the factors that contribute to the inequality, school type is the most important, followed by geographical variables capturing the region/belt/district of the birth, parental education and occupation. Relative to these circumstances, it is noteworthy that the caste/

BOX 1: CONTRASTING OPPORTUNITY PROFILES OF THREE CHILDREN IN NEPAL

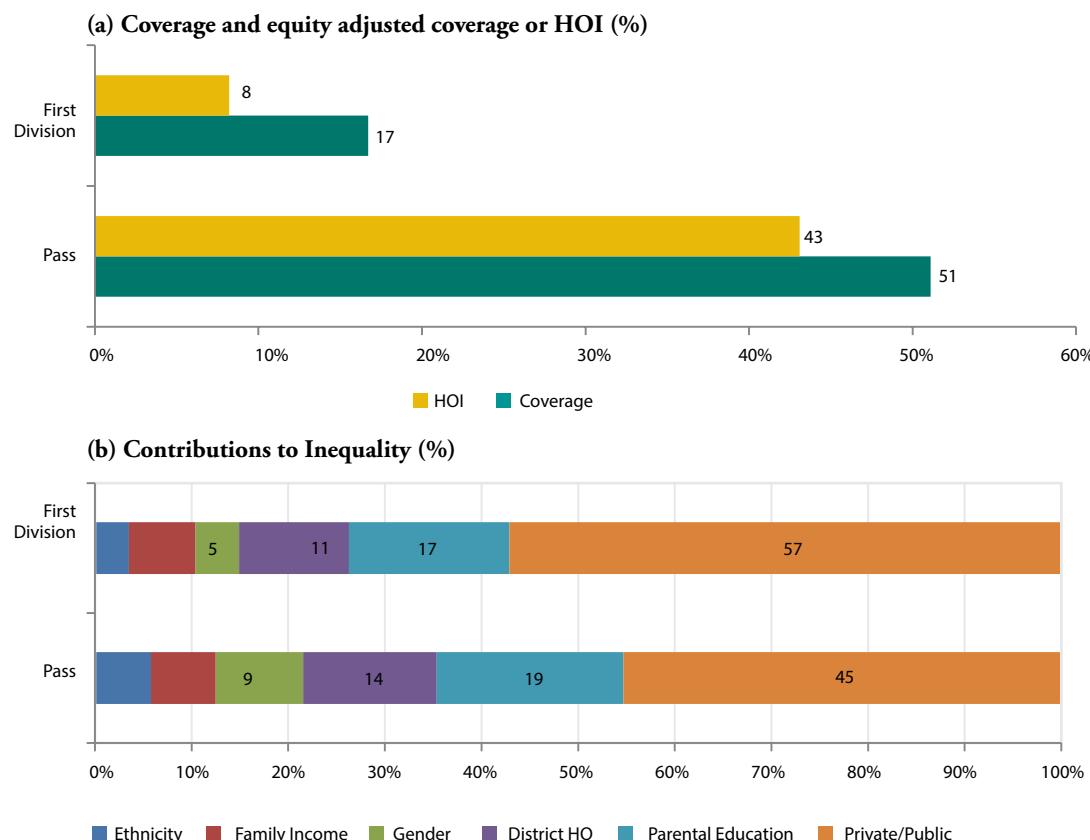
Goma is a girl, born in rural Kalikot. Her parents are illiterate, belong to the Dailit community and are in the bottom 20 percent of Nepal's wealth distribution. Champa is also a girl born to a household otherwise very similar to Goma's. But Champa's parents are from a village in Siraha. Avidit is a boy born to an upper caste household in urban Kathmandu. Both his parents have a university education and come from affluent backgrounds.

In a society where opportunities are equally available for children of all socio-economic backgrounds, Goma, Avidit and Champa would all have equal odds becoming doctors, or engineers or successful

entrepreneurs and businessmen. But in Nepal, the life trajectory of these children begins to diverge very early in life. Goma – whose life chances appear marginally better than Champa's – is significantly more likely to start primary school late, drop out of school, be stunted and grow up with limited access to basic amenities such as clean water, sanitation and electricity than Avidit. Even in the 40 percent chance that Goma and Champa complete primary school and go on into secondary and tertiary education, the quality of the education they receive is likely to be vastly poorer than what Avidit will receive in Kathmandu.



Source: World Bank Staff estimates based on data from DHS (2011)

FIGURE 14. INEQUALITY IN SCHOOL LEAVING CERTIFICATE EXAMINATION (2005)

Source: World Bank Staff calculations using data from SLC Examinations Survey (2005), Ministry of Education, Government of Nepal

Note: HOI, or the equity adjusted coverage, measures inequality of opportunity. The closer it is to 100, the more universal the opportunity is, i.e., the higher the fraction of population that "have" the opportunity. The closer this number is to the "coverage" the lower the inequality among those who have it. See Annex 1 for details on methodology.

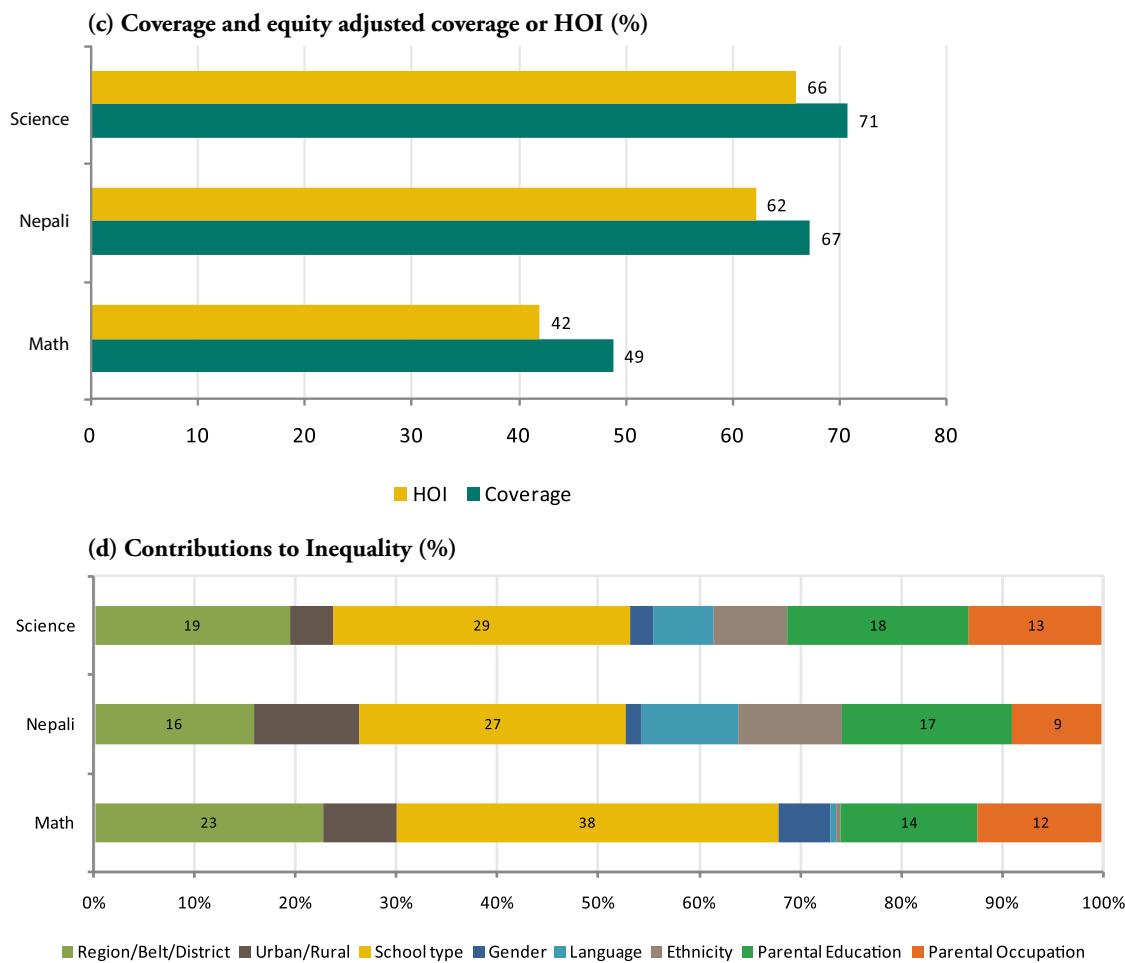
ethnicity of students have a relatively small contribution to the total inequality. Interestingly, the language spoken at home (whether or not it is Nepali) accounts for a non-trivial amount of inequality in pass rates for Nepali language (10 percent) and science (6 percent). Language does not seem to matter for mathematics. Given that the medium of instruction in public schools is almost always Nepali, this points to the possibility of non-native Nepali speakers (such as Madhesis, for example) having a disadvantage in subjects that require free form expressions as opposed to those that require the solving of numerical and logical problems.

Large inequalities also in job opportunities

What about opportunities beyond those that relate to the acquisition of human capital? Particu-

larly, what about inequalities in the marketplace for jobs? Focus group discussions conducted in the course of qualitative research done for this work revealed a significant fraction of participants considered inequality in access to productive employment as the most significant handicap to their aspirations for economic mobility. Opportunities were perceived to be limited and skewed in favor of those with "strong political connections" as opposed to being based on merit.

In principle, the same methodological apparatus could be used to analyze the extent to which one's birth circumstances influence access to jobs. But before embarking on such an exercise, it is useful to delineate what exactly we mean by labor market opportunities. In the case of children, opportunities were defined as access to ser-

FIGURE 15. INEQUALITY IN PASSING EIGHTH GRADE STUDENT ASSESSMENT EXAMINATION

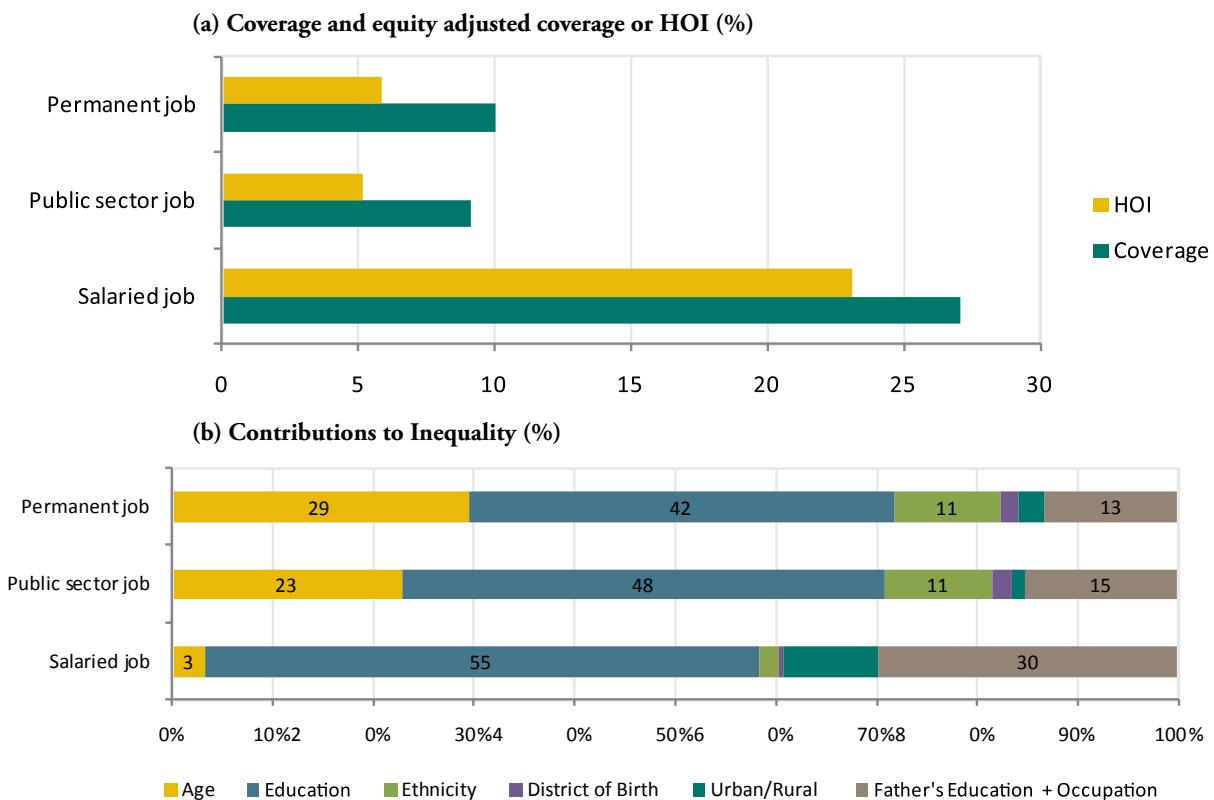
Source: World Bank Staff calculations using data from NASA Survey (2013), Ministry of Education, Government of Nepal

Note: HOI, or the equity adjusted coverage, measures inequality of opportunity. The closer it is to 100, the more universal the opportunity is, i.e., the higher the fraction of population that "have" the opportunity. The closer this number is to the "coverage" the lower the inequality among those who have it.

vices such decent quality of education, adequate health, clean drinking water and sanitation etc. These were fundamental building blocks for the development of their human capital and it can be claimed that most societies would agree that all children – irrespective of the circumstances determined by birth – should be provided with these basic opportunities.

But extending that idea to labor market is slightly complicated. Consider the most basic maker of a labor market opportunity: being employed in any kind of a job. Can this be regarded as an opportunity? Any observed labor market state is a function of a set of accumulated “opportu-

nities” – in the purest sense – as well as what an individual makes out of those opportunities through own hard work and enterprise. Unlike for children, the realm of individual agency and responsibility is potentially larger for individuals on the verge of entry into the labor market. So while there is certain appeal of the universality to opportunities such as education when they are applied to children – the statement that all children should have access to primary schools, for example, is generally acceptable in most societies – the same cannot be said for employment and other labor market related indicators. The closest one can come is perhaps not that everyone should have a job, but that everyone who is

FIGURE 16. INEQUALITY IN LABOR MARKET OPPORTUNITIES, 2014

Source: World Bank Staff calculations based on the sample used for the Perceptions of Poverty, Prosperity and Economic Mobility Survey implemented in 2014.

Note: HOI, or the equity adjusted coverage, measures inequality of opportunity. The closer it is to 100, the more universal the opportunity is, i.e., the higher the fraction of population that "have" the opportunity. The closer this number is to the "coverage" the lower the inequality among those who have it.

suitably skilled/ qualified or adequately experienced should have a decent shot at getting a job of befitting his/her skills and expertise.

Even with this qualification and accounting for the role of other factors such as schooling, education, skills and experience in the state of being employed (in a job of any kind), it is actually not always obvious that such a state is always a more desirable state. For example, an individual who is unemployed at the moment because he can afford to wait for a better job (e.g., queuing for public sector jobs) is decidedly better off than an individual without a job because none is available even though they would both appear identical in the data. Furthermore, the former may also be better off than somebody who appears to be employed but is in fact doing a job of drudgery and doing it simply because there is no other alternative. So in some sense, the idea of

a universal "good" that is often encapsulated in an "opportunity" is violated in the case of jobs.

Another way to see this is to recognize that "having a job" is essentially an equilibrium phenomenon that encapsulates individual motivations, choices, and decisions some of which we can observe in the data and control for and many of which we can do nothing about. If we wanted to seriously apply the inequality of opportunity analysis, perhaps the appropriate "opportunity" to use would be employability. The extent to which employability depends on circumstances beyond ones control would be the question of interest. However, employability is hard to observe and measure in typical labor force/household survey.

To get around these issues, first, in addition to the standard set of circumstances, we include in-



dividual characteristics like education and age to account for the employability of the individual. The exercise then is to determine the role of circumstances on labor market variables, net of age and experience. Note that by doing this we only capture the direct contribution of circumstances to inequalities in the labor market variables and do not account for the role of circumstances through their effect on earlier human capital accumulation, or the indirect channel. Second, instead of using the basic state of being employed as the relevant metric, we use a finer, more restrictive definition of labor market outcomes. This is to keep the focus on outcomes for which the state of realization of these outcomes is unambiguously better than the state of not having them. In comparison to being employed, the state of being employed in a job with certain characteristics such as a job with a contract, or a job in the public sector is arguably more desirable.

So to adhere to the “opportunity” language, those with an opportunity are those with jobs of these desirable characteristics while those without the opportunity are those without jobs with the desired characteristics, including those who are unemployed. The specific labor market variables we use are as follows: (a) employed in a salaried job; (b) employed in a government job; and (c) employed in a permanent job.¹⁵

First, 27 percent of those in the labor force were in some form of salaried employment and roughly a third of all in salaried employment were either in public sector jobs or permanent jobs. (Figure 16) As before, the HOIs for each of these indicators are lower than the coverage, suggesting some inequality by underlying characteristics.

In terms of key drivers of the inequality, education of the individual stands out, accounting

for close to a half of the total inequality in all three opportunities. This is not entirely undesirable because education should be an important discriminant in a well-functioning, meritocratic and fair labor market that values skills. In fact, ideally we would want education (to the extent that it is a good measure of skills) to be the main of inequality. But as documented earlier, it is important to recall that access to educational opportunities is itself unequal and there are important advantages for individuals with favorable birth circumstances. Which means that if we took into account the indirect effect of the role of birth circumstances on labor market outcomes – through their effect on the level of educational attainment – the size of the unfair inequality in all three of these indicators would be larger than what is currently shown.

Among birth circumstances, father's education and occupation appear to play the most important role in the labor market inequalities analyzed here. The results suggest that children of better educated fathers and fathers in better forms of employment, have stronger chances of having these good jobs. Caste/ethnicity appears important in the case of permanent or public sector jobs but not so much for the general class of salaried jobs. Likewise, age of the individual contributes between 23 and 29 percent of the total inequality in public sector and permanent jobs respectively, while the contribution to the inequality in salaried job is minuscule (3 percent). In contrast to other opportunities related to human capital development for which geographic attributes of the place of birth (urban vs rural, terai vs. hills vs. mountains etc.) played an important role, it is interesting to note here that place of birth appears to account for very small shares of total inequality in access to these jobs.

Access to educational opportunities is itself unequal and there are important advantages for individuals with favorable birth circumstances.



III. ECONOMIC AND SOCIAL MOBILITY

Sensitivity to inequality is amplified in societies that lack mobility. Conversely, societies with high degree of mobility are able to heal the wounds of structural inequalities. In an intergenerational sense, when children can aspire to achieve and indeed achieve levels of education, jobs, and living standards that are materially different from the levels enjoyed by their parents, inequality begins to decline over time. Mobility is important also from the perspective of dynamic efficiency. A mobile society is necessarily also a meritocratic one and such a society is better able to mobilize and utilize talents from all segments of the population (including the most disadvantaged). This is good for growth.

Better educated than fathers, but not necessarily better employed

Analyzing intergenerational mobility in the space of income requires data that is hard to get, not just in Nepal but in most other developed countries as well. But we attempt to make some progress on this here using educational attainment and occupation, two strong proximate correlates of income. Defining upward mobility as attaining a higher level of education than one's father or being in a better occupation, we see that about 62 percent Nepalis (above the age of 30) experienced upward mobility in education. In comparison, about 29.8 percent stayed at the levels of their fathers and about 8.3 percent had levels of education lower than their fathers. There is less mobil-

ity in occupation than in education: 47 percent of the overall population remained in the same occupation as their father while about 43.6 percent of the population realized upward mobility in terms of occupation. (Table 3)

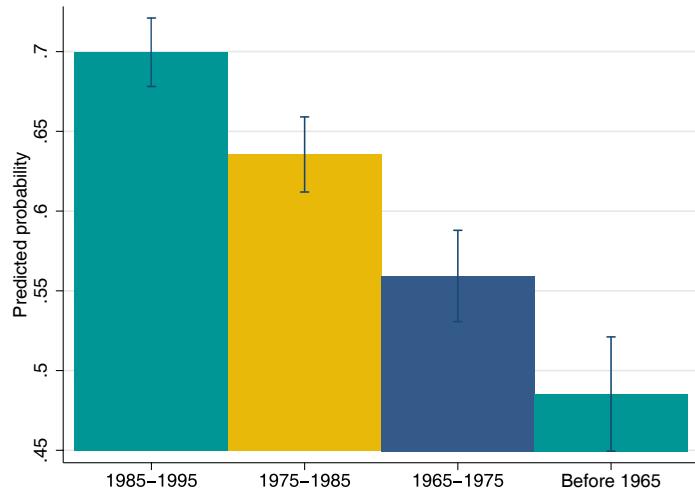
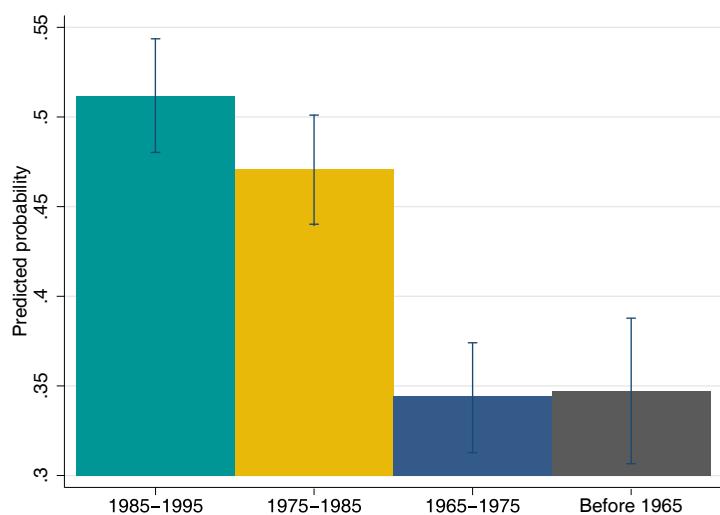
Prospects of upward mobility have improved over time

Prospects for upward mobility have been increasing in Nepal for both education and occupation. (Figure 17) Point estimates suggest that while the likelihood of being better educated than one's father was below 50 percent for those born before 1965, the number is closer to 70 percent for the cohort born between 1985 and 1995, the youngest cohort in the sample. The pattern is similar for occupation as well except there is a discontinuous jump up (roughly 10 percentage points) in predicted probability of upward mobility for the 1975-1985 birth-cohort in comparison to the earlier cohorts. One possible explanation for this is that in contrast to the earlier cohorts, this group of children would have been in school around the time Nepal's economy started liberalizing (1990-1994) and thus may have been in a favorable position to seize the opportunities created by the resulting diversification of the economy. In any case, younger cohorts have been more upwardly mobile than the cohorts born before 1975 who appear to have a low steady state transition probability of around 33-34 percent of doing better than their father.

TABLE 3: UPWARD AND DOWNWARD MOBILITY IN EDUCATION AND OCCUPATION, RELATIVE TO FATHERS

	Education (% of population > 30 yrs.)	Occupation (% of population > 30 yrs.)
Up	61.9	43.6
Same	29.8	46.8
Down	8.3	9.6

Source: World Bank Staff estimates based on data from Perceptions of Poverty, Prosperity and Economic Mobility in Nepal, 2014

FIGURE 17: UPWARD MOBILITY BY AGE COHORTS**(a) Better educated than father****(b) Better occupational status than father**

Source: World Bank Staff estimates based on data from Perceptions of Poverty, Prosperity and Economic Mobility in Nepal, 2014

Note: The bars show 95% confidence interval

But not for all social groups

Consistent with the findings of high inequality of basic opportunities, prospects of upward mobility vary among the various social groups. In particular, Newars, followed closely by hill Brahmins and Chhetris have the best odds of surpassing their father's education and occupation levels. Nepalis in Muslim and other minority caste categories followed by Terai Brahmin/ Middle Caste, and Dalit categories have the lowest odds of upward mobility for education as well as occupation. Again, low sample size for some groups, such as Muslims and Others, means that the standard errors around the point estimates are fairly large so the results have to be interpreted with caution. For example, even though the point estimates for Dalits and the Terai Brahmins and Middle Castes show slight differences, the 95 percent confidence interval around these estimates have considerable overlaps suggesting that it is hard to draw any conclusions distinguishing the two groups. (Figure 18)

Rural-urban migration, ticket to upward mobility

Prospects of upward mobility in education are significantly higher for households that move to urban areas relative to who remain in rural areas of birth. (Figure 19) The difference in the probability of doing better than ones father between the two groups is close to 10 percent. This suggests that physical mobility between rural and urban areas is a critical part of intergenerational mobility in education. The association between rural-urban migration and upward mobility in occupation is even more pronounced: probability of being in a better occupation than one's father jumps by 28 percentage points (from 38 percent to 66 percent) for individuals who are born in rural areas but migrate to urban areas. This result is consistent with large gaps in opportunities between urban and rural areas of Nepal.

Poverty transitions show significant movement even within a lifetime

Low correlation between parental socioeconomic status (income, jobs or education) and children's outcomes is one hallmark of an intergenerationally mobile society. But how can mo-

bility within generations be measured and analyzed? One possibility is to consider directional income/living standards movement for the same individual or household over a lifetime. A mobile society would be one in which poorer and socially marginalized households can climb up the economic ladder and attain higher living standards over a lifetime. In order to make “rank improvements”, the income of this group would have to grow faster than the income growth realized by the average households. A key statistic to measure intra-generational mobility this way would simply be the growth rate of income of the household between two points in time.

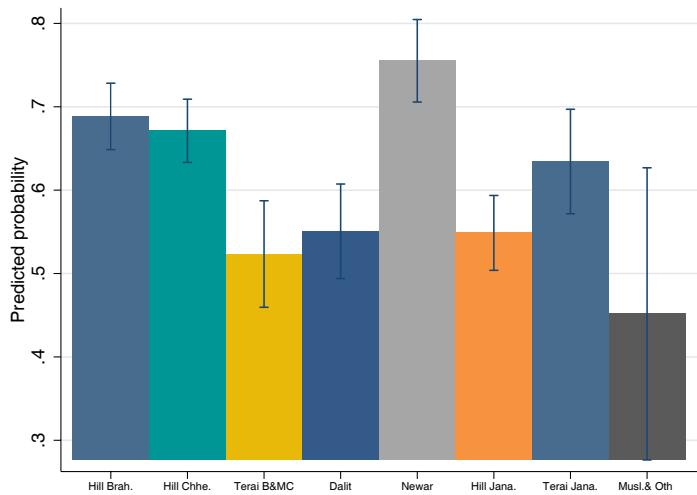
This kind of analysis however requires a nationally representative data that allows us to observe the same household at two points in time. Unfortunately for Nepal, the panel data collected with the three rounds of the living standards survey has suffered from a high degree of attrition between rounds and is thus not ideal for this analysis. In order to overcome this shortcoming, we use an innovative “synthetic panel methodology” that has been successfully applied in similar settings in several other countries.¹⁶ (Annex 2 has details on this methodology)

Also, rather than analyzing directional movements throughout the income distribution, we focus primarily on two states: being in poverty and not being in poverty. This reduces dimensionality and crystalizes the question of intra-generational mobility to the question of whether a person born poor can expect to climb out of poverty in his lifetime or has to perennially remain in poverty. Conversely, is there a possibility that a non-poor individual might fall back into poverty?

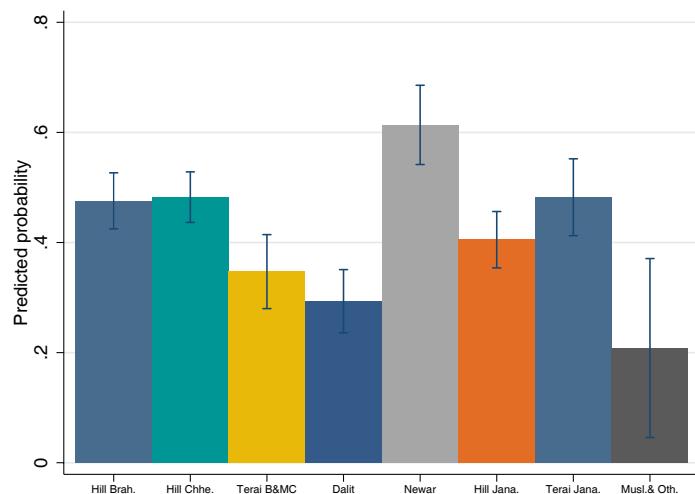
The current understanding of poverty is static and it is not always fully appreciated that the commonly reported poverty trends are net rates that obscure two crucial and contrasting phenomena of people falling into poverty and people escaping poverty. Those who fall into poverty and who are never able to escape poverty are distinct and the policy response necessary to address the needs of these two disparate groups is also different. For those who remain trapped in poverty, the chronic poor, enhancing mobility may require focusing on expanding

FIGURE 18: UPWARD MOBILITY BY CASTE/ETHNICITY

(a) Better educated than father



(b) Better occupational status than father



Source: World Bank Staff estimates based on data from Perceptions of Poverty, Prosperity and Economic Mobility in Nepal, 2014

Notes: Caste/Ethnicity categories are hill Brahmin, hill Chhetri, Terai Brahmin and Middle Castes, Dalit, Newar, Hill Janajati, Terai Janajati, Muslim and Others.

access to economic opportunities. This includes opportunities to build assets (human capital) in childhood and opportunities to command a return on these assets through a fair access to the marketplace for jobs in adulthood. For those vulnerable to falling back into poverty on the other hand, what may be required is strengthening the coverage, reach and if needed also the generosity of safety net systems.

Our analysis shows that between 1995-96 and 2003-04, 26 percent of the population escaped poverty while 17 percent moved in the opposite

direction and fell into poverty. (Figure 20) Likewise, between 2003-04 and 2010-11, 29 percent moved out of poverty while 14 percent fell back in. This implies that for every two Nepalis that got out of poverty in 2010-11, one slid back into poverty during the second episode. There is also a sizeable persistence of poverty status over the years. In both episodes, roughly three out of five Nepalis who were found to be poor in the latter period were actually already also poor in the earlier period. There are different ways of thinking about conceptualizing the idea of chronic poverty, but if we consider households to be chronically poor (in the short run) if they are found to be poor in two consecutive survey rounds, separated roughly by seven years in the case of Nepal, then we may conclude that about 60 percent of those that are found poor for any given year actually suffer from chronic poverty.

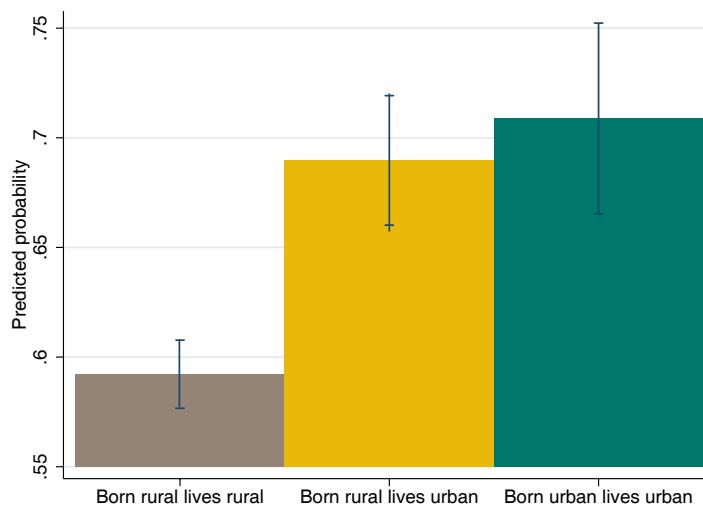
Those escaping poverty have largely clustered in a vulnerable state and despite a three-fold increase in its proportional size, the size of the middle class remains modest

This concept of poverty transitions, in particular the notion of the risk of falling into poverty, can be taken a little bit further to devise a more general definition of vulnerability. Like chronic poverty, vulnerability is also widely acknowledged as a critical dimension of welfare in Nepal. But defining a broader class of vulnerabilities or the size of the Nepali population facing these vulnerabilities has been difficult. Heuristic constructs such as the size of the “population clustered just above the poverty” line have been used to define and gain analytical traction on the vulnerable group. For policy formulation and targeting purposes, social and demographic characteristics of the population (e.g., children, elderly, widowed) have been the preferred markers of vulnerability.

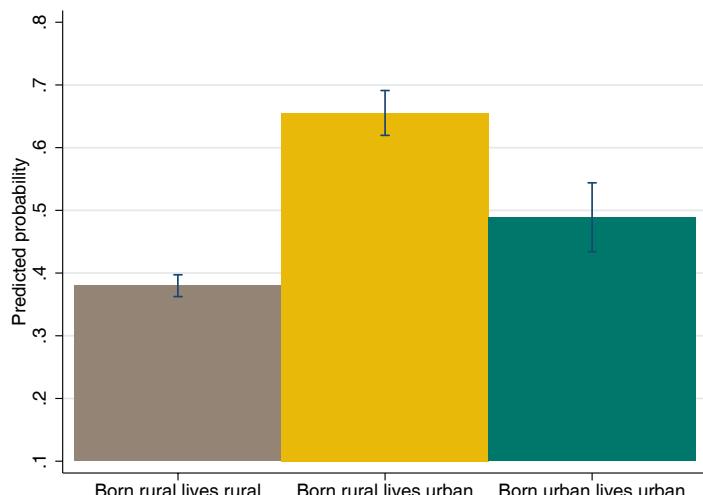
As the recent earthquake has shown, there is a high degree of vulnerability to natural disasters in Nepal. These vulnerabilities are heightened if one considers the increased frequency with which these disasters are likely to occur due to climate change. Beyond catastrophic shocks such as the earthquake that grab headlines and draw attention, a large proportion of Nepalis also face sharp variations in income due to more

FIGURE 19. UPWARD MOBILITY BY URBAN/RURAL MIGRATION STATUS

(a) Better educated than father



(b) Better occupational status than father



Source: World Bank Staff estimates based on data from Perceptions of Poverty, Prosperity and Economic Mobility in Nepal, 2014

mundane every day disasters such as variation in monsoon rainfalls, floods, droughts, landslides, forest fires, illness and accidents. If credit markets were to work well and if households were able to insure against these shocks, one would expect consumption and living standards to not be affected by much. But recent research suggests that households in rural Nepal in particular are from being shielded from such risks. In fact, by some estimates, the level of exposure is such that a monsoon rainfall that is 10 percent below the historical norm can lead to a 0.12 standard deviation decline in the height-for-age for children.¹⁷

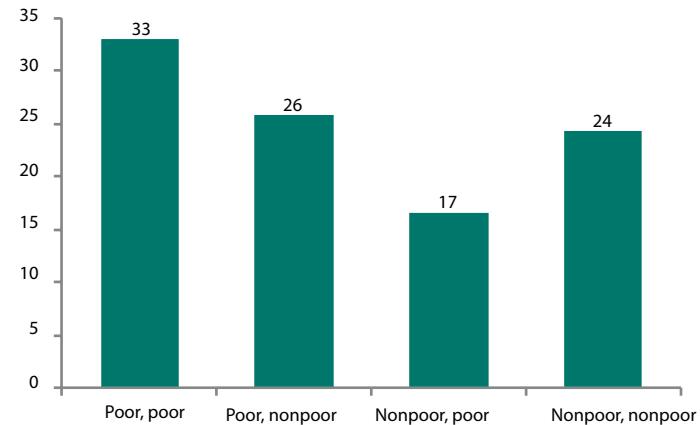
Using the three rounds of the living standards data and applying the vulnerability of falling into poverty method, we define a “vulnerability line” as the level of consumption below which a particular household has larger than 10 percent probability of falling back into poverty.¹⁸ Households that are above the poverty line but below this vulnerability line are categorized as vulnerable. Why do we do this instead of anchoring the definition of vulnerability along a more absolute concept, such as say, a multiple of the poverty line as it is sometimes done? The reason is Amartya Sen’s(1983) argument that “poverty is absolute in the realm of capabilities but relative in the realm of functionings”. Extending that notion to vulnerability, this approach takes an absolute stance on what it means to be vulnerable (when a household’s probability of falling into poverty is larger than 10%) but a “relative” position on how much income or consumption is required to achieve that capability.

An additional benefit of this methodology is that it also allows us to get at the notion of the middle class. The vulnerability line, by definition, forms the “lower threshold” for the middle class population which gets defined as households with sufficiently low probability of falling into poverty. But what should the “upper threshold” of this middle class should be? That is, what is the level of consumption that distinguishes the middle class from the top strata, the upper class, or the elite?

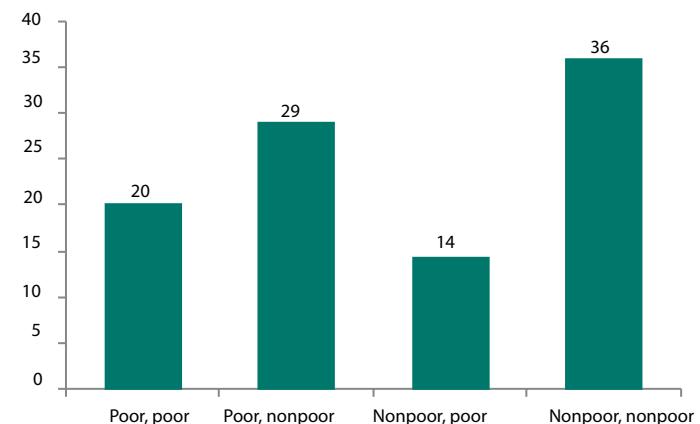
Here the literature offers a number of suggestions. Based on their analysis of household consumption data from 13 developing countries in-

FIGURE 20. EPISODES OF MOVEMENTS IN AND OUT OF POVERTY (% OF POPULATION)

(c) Episode between 1995/96-2003/04

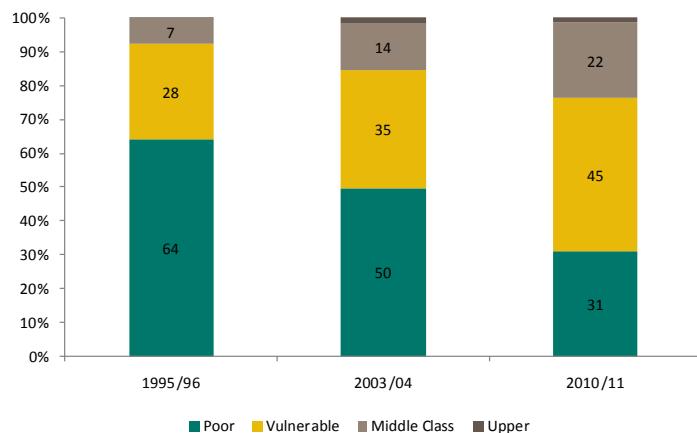


(d) Episode between 2003/04-2010/11



Source: World Bank staff calculations using data from three rounds of NLSS data for 1995/96, 2003/04 and 2010/11. The methodology used is called the synthetic panel methodology.

cluding India and Pakistan, Duflo and Banerjee (2009) propose from \$2 to \$4 per person per day as lower and upper thresholds respectively for the middle class. A global study of the middle class conducted by the Asian Development Bank defined the middle class in Asia (and also in Nepal) as those with consumption between \$2 and \$20 per person per day.¹⁹ In our case, the lower threshold is determined by the vulnerability line which translates to roughly \$3 per person per day in 2014 in 2011 PPP terms. For the upper threshold, we inspect the consumption distribution and pick a value that comes to about \$8 per person per day in 2014. Even though this choice somewhat arbitrary, it is between the global upper thresholds of \$4 and \$20 per person per day. Besides, given how thin the

FIGURE 21. THE POOR, VULNERABLE AND THE MIDDLE CLASS IN NEPAL

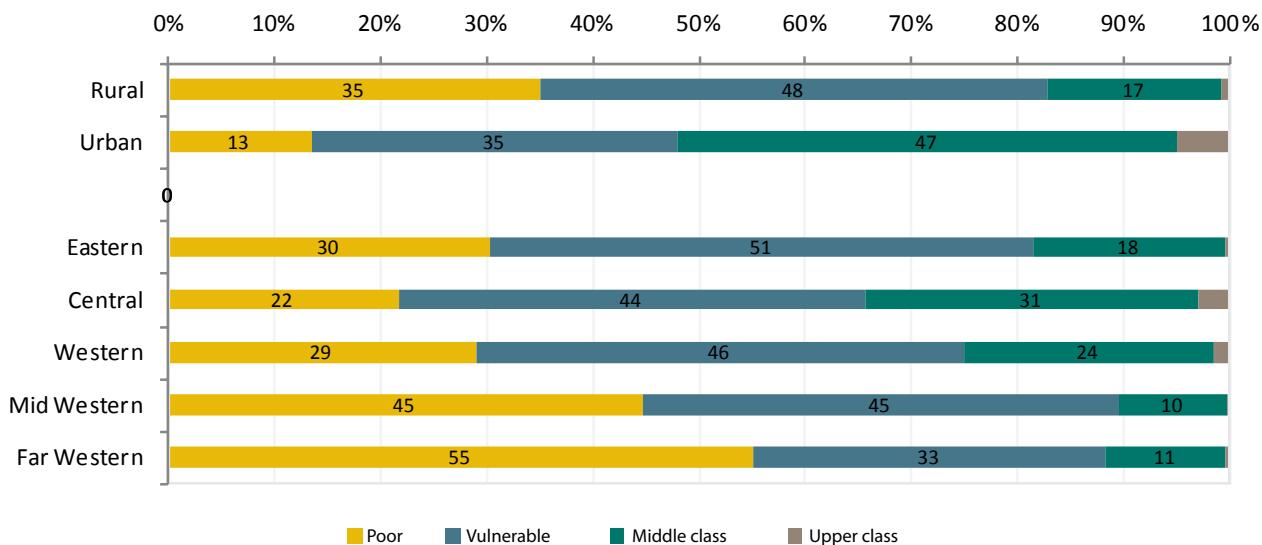
Source: World Bank staff calculations using data from three rounds of NLSS data for 1995/96, 2003/04 and 2010/11. The methodology used is called the synthetic panel methodology.

consumption distribution is at that level, the effect of the choice has minimal impact on the size of the middle class. In other words, the size of the middle class is much more sensitive to the choice of the lower threshold than the upper threshold.

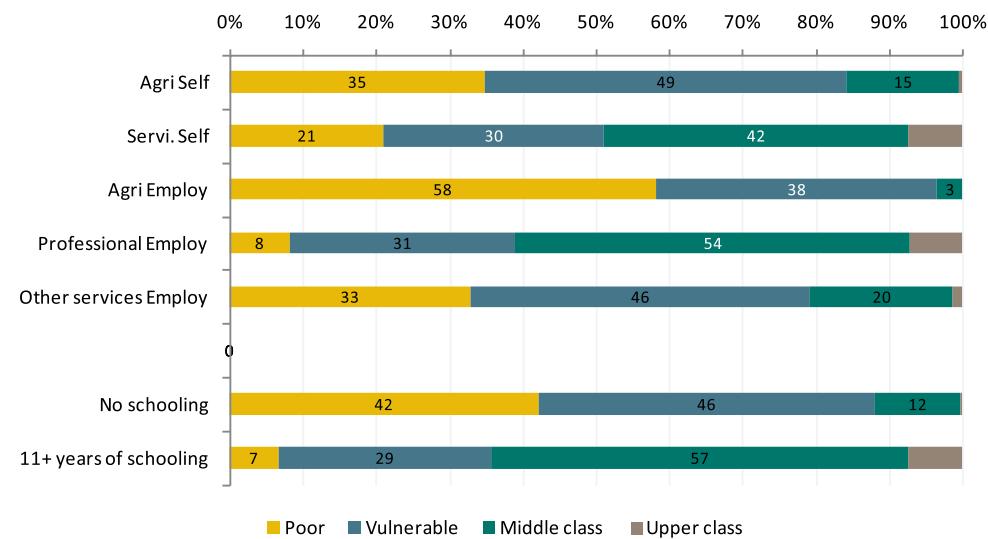
Using this method, we see that as the proportion of the poor has declined over the years, there has been a corresponding growth in the size of the vulnerable population from 28 percent in 1995-

96 to 45 percent in 2010-11. (Figure 21) During the same period, there has also been appreciable growth in the size of the middle class population in Nepal with the proportion increasing from 7 percent in 1995-96 to 22 percent in 2010-11. This implies that roughly 1 out of every 5 Nepali today belongs to the middle class.

The growth of the middle class is widely regarded as the bedrock for the development of stable and prosperous societies. The middle class group is typically associated with high entrepreneurial activity, high investment in human capital, and progressive political and economic value systems.²⁰ The middle class group often also acts as a neutralizing force between the extractive tendencies of the elites and the revolutionary tendencies of the poor. As such, societies with large and diverse middle class are often stable societies. The middle class is a source of demand for consumer goods and services and can provide much needed succor for the development of domestic industries not just in manufacturing but also in high value services such as tourism and banking. It can also be a robust voice in the demand for good governance and the provision of quality services which will indirectly also benefit the poorest. Unlike the strugglers or those in the vulnerable category, a secure middle class can afford a longer planning horizon and is thus more

FIGURE 22. GEOGRAPHIC CHARACTERISTICS OF THE POOR, VULNERABLE AND THE MIDDLE CLASS, 2011

Source: World Bank staff estimates based on data from three rounds of NLSS data for 1995/96, 2003/04 and 2010/11

FIGURE 23. THE POOR, VULNERABLE AND THE MIDDLE CLASS IN NEPAL

Source: World Bank staff calculations using data from three rounds of NLSS data for 1995/96, 2003/04 and 2010/11. The methodology used is called the synthetic panel methodology.

willing to trade off private costs in the short run for reforms that will yield better public and collective goods such as quality schools, healthcare, roads and the environment.

So who are the middle class in Nepal? Close to half of the urban population is in the middle class while half of the rural areas is in Nepal is in the vulnerable category. Middle class prevalence is the highest in the Central Development region while the Mid and Far Western Regions have the highest poverty and vulnerability. Vulnerability in the terai is higher than in the hills and the mountains and since the terai is also more populous, the number of vulnerable is also higher there. Chances of being in the middle class are highest in the hills and lowest in the mountains but the absolute size of the middle class is again, larger in the terai owing to its higher population. (Figure 22)

Looking at education and employment characteristics, the likelihood of being in the middle class is significantly higher for households headed by those with more than 11 years of education. Households with uneducated heads are

significantly more likely to be poor or vulnerable. Middle class households appear to be generally in non-agricultural forms of employment and the likelihood of being in the middle class is highest among Nepalis who are in salaried professional employment or in other forms of self-employed services. Vulnerability is highest among those who are self-employed in agriculture and in other service sector employment, most likely in blue collar occupations. Overall, poverty and vulnerability is highest among households deriving their livelihoods from wage employment in agriculture. (Figure 23)

Insecure and struggling middle class

Gallup World Survey asks respondents questions about their perceived position in an 11-step ladder denoting various parts of the income distribution within each country. Respondents are asked about current position as well as positions five year before the survey and expected position five year hence. Based on responses to these three questions, Gallup defines household as thriving, struggling or suffering. Thriving households have strong current life situa-

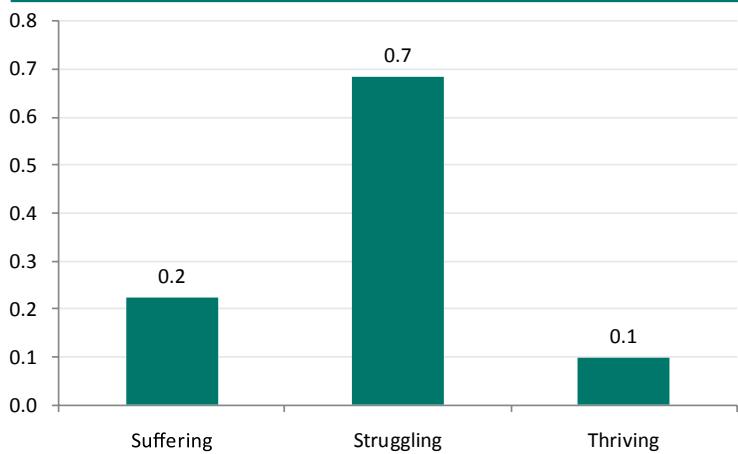


tion and have positive views about the next 5 years. Struggling households have wellbeing that is moderate but inconsistent while suffering households have well-being that is at high risk, they report poor ratings of their current life and also poor outlook for the future. Based on cross country analysis of these categories, Gallup has found thriving respondents to have fewer health problems, less worry and stress, sadness and anger and more happiness, enjoyment, interest and respect. Struggling households on the other hand report higher daily stress, worry about money than thriving respondent. In contrast, suffering households are likely to be lacking in basic food and shelter and report to be under physical pain, stress, worry and sadness. They carry more than double the disease burden as “thriving” respondents within each country.

Using data from Gallup for Nepal, we find that 90 percent of Nepalis fall in the suffering or struggling categories. In contrast, only 10 percent of the population actually falls in the thriving category. (Figure 24) Juxtaposing this with the earlier result on the size of the middle class, it appears that even though there is a nascent middle class building up in Nepal, roughly half of this group is fundamentally insecure about the prospects of realizing continued improvements in its living standards.

In the qualitative survey carried out for this analysis, respondents were asked about what they saw as key characteristics of the middle class in Nepal. Both in depth interviews and focus group discussions, an overwhelming majority of respondents/participants associated be-

FIGURE 24. THE PROPORTION OF NEPALIS STRUGGLING, SUFFERING AND THRIVING



Source: World Bank staff estimates based on data from Gallup World Survey.

ing in the middle class with being engaged in relatively secure professions such as government jobs, teaching, medical and engineering professions, and other forms of private sector salaried employment. This association was reinforced by widespread recognition among respondents that economic prospects of those in this group hinges more critically on professional skills and labor as opposed on things like inherited capital and other forms of financial assets. This view is consistent with what has been noted in the literature on middle class.²¹ On the whole, these results suggest that even though a majority of Nepalis today may not be in poverty directly, they are either at risk of falling back into poverty or struggling to attain the level of economic security required to be comfortably ensconced in the middle class.



IV. MIGRATION AND OTHER PATHWAYS OF MOBILITY

Nepal has made tremendous strides in moving people out of the poverty line. But the same success has not been achieved in improving in living standards sufficiently enough to move those who have escaped poverty to a more secure middle class. As a result, a majority of Nepalis today constitutes a vulnerable group that is perilously close to falling back into poverty. Building prosperity for a majority of Nepalis will entail not just safeguarding and cementing the gains already made, but also boosting productivity of the economy in a manner that will help them realize higher income levels. Work related migration, primarily to overseas destinations, has been a critical driver of mobility experienced by Nepalis over their lifetimes and across generations. But one key limitation of the welfare improvements that have been realized of this process has been that these private gains have not translated into an aggregate improvement in the productive potential of the economy in a manner that would enable the creation of good jobs in a large enough scale for those that remain in Nepal.

Spatial extent of migration and consumer cities

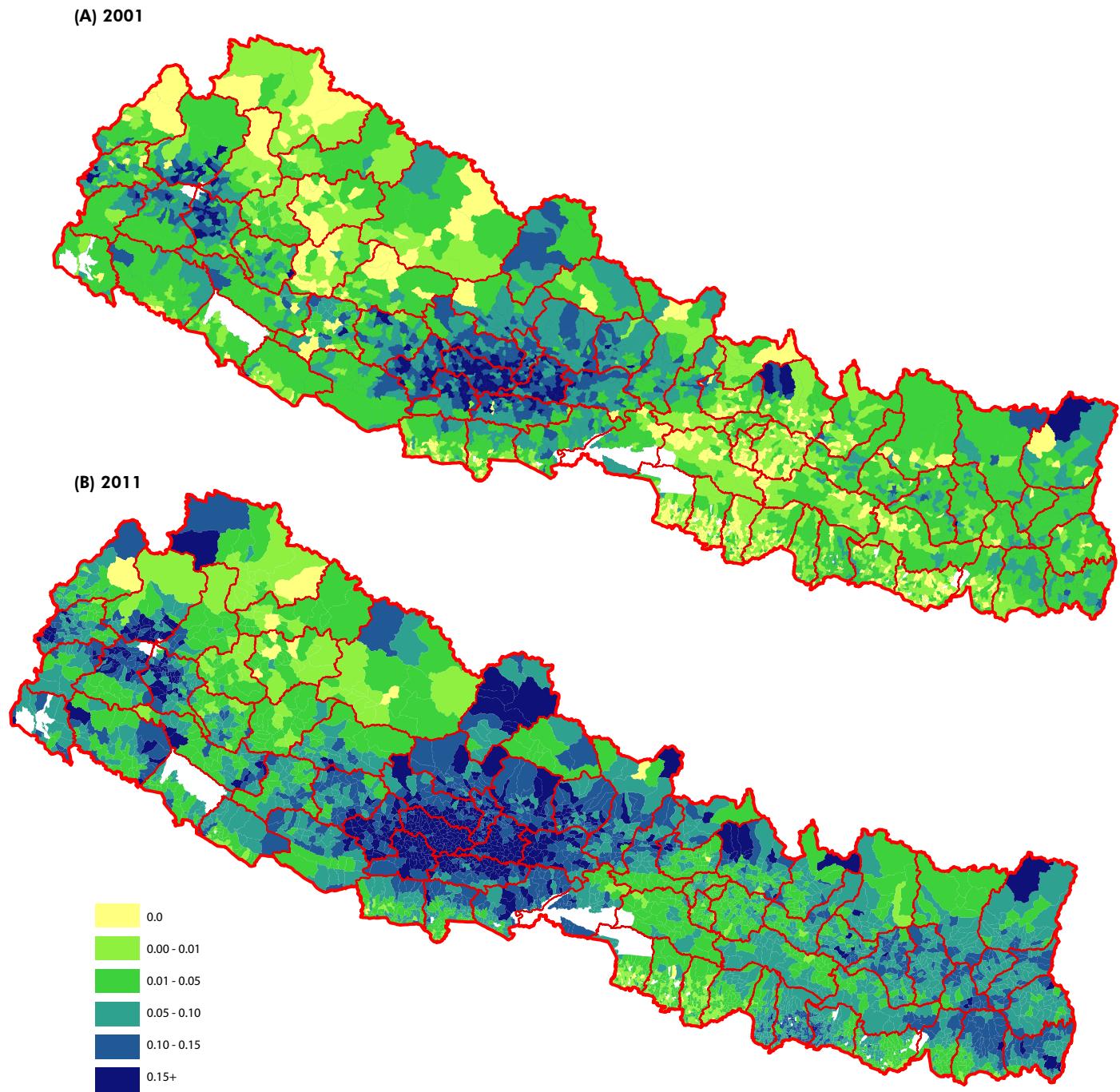
One fact about the migration experience in Nepal that is perhaps a little under-appreciated is its overall spatial extent. Be it the statistic about the daily flow of migrants over a given period of time or the overall existing stock, migrants increasingly come from everywhere in Nepal. For example, in 2001, an average village had the migration to population ratio of about 4 percent, with one-seventh of villages (14 percent) having zero migrants abroad. Only 15 percent of the villages had migration rates higher than 10 percent of the resident population. The top panel of Figure 25 shows the distribution of village level migration rates in 2001. Though the districts in the Western and Far-Western hills had high migration rates, there was considerable heterogeneity within different regions in the country.

By 2011, overseas migration rates increased almost everywhere. Except for about 9 percent of the villages, all villages experienced an increase in migration rates. The average increase was about 4 percentage points per village and there is considerable variation in the increase. Villages with no migrants abroad accounted for less than one percent of all villages; share of villages with migration rates higher than 10 percent rose to 30 percent. Migration increased the most in Eastern and Western regions but again, there is considerable heterogeneity within the regions. The increase in the spatial extent of international migration has also deepened the penetration of remittance flows which accrue directly to the households with migrants. This has resulted in a spatial transition characterized by greater rural-urban migration, expansion of conventional cities and smaller towns and fast growing urban sprawls around main highways bordering India and most district headquarters.

For households not directly able to participate in international migration due to cost constraints, or to even go to India, rural-urban migration still represents an important strategy for income diversification. Urban areas, particularly urban Kathmandu, appear to have clear economic advantages from the point of view of living standards. Decompositions of spatial disparities in welfare suggest sizeable returns to these locations. (See Table 4) This is unsurprising given the fact that urban areas have historically had better services, infrastructure and connectivity relative to other parts of the country. But the urban areas also provide better education, health-care and other services and amenities the increasingly better off rural households have reason to value. Qualitative research undertaken for this work suggests that households benefiting from migration opportunities abroad are not only remitting cash but also preferences and tastes for certain lifestyle that is more likely to be ser-

A majority of Nepalis today constitutes a vulnerable group that is perilously close to falling back into poverty.

FIGURE 25. INCREASING SPATIAL EXTENT OF MIGRANT POPULATION BETWEEN 2001 AND 2011



Source: Shrestha (2015), background paper commissioned for this work. The source data is 2001 and 2011 Population Census.

TABLE 4: SOURCES OF WELFARE DISPARITIES BETWEEN VARIOUS GEOGRAPHIC AREAS OF NEPAL, 2011

	Difference in log welfare ratio	Endowment (characteristics of the household, %)	Returns (characteristics of the place %)
Urban vs Rural	0.66	61	31
Kathmandu vs Mountains and rural Mid and Far Western Hills	1.20	47	53
Kathmandu vs Rural Terai	1.02	47	53
Kathmandu vs Other Urban Areas	0.58	45	55

Source: World Bank staff calculations based on data from NLSS III.

Note: The endowment variables included in this decomposition exercise are household size, household demographic composition, dependency ratio, household head age, gender and education, spouse of the household head age, and education, and household head ethnicity. Welfare ratios expressed in logs.

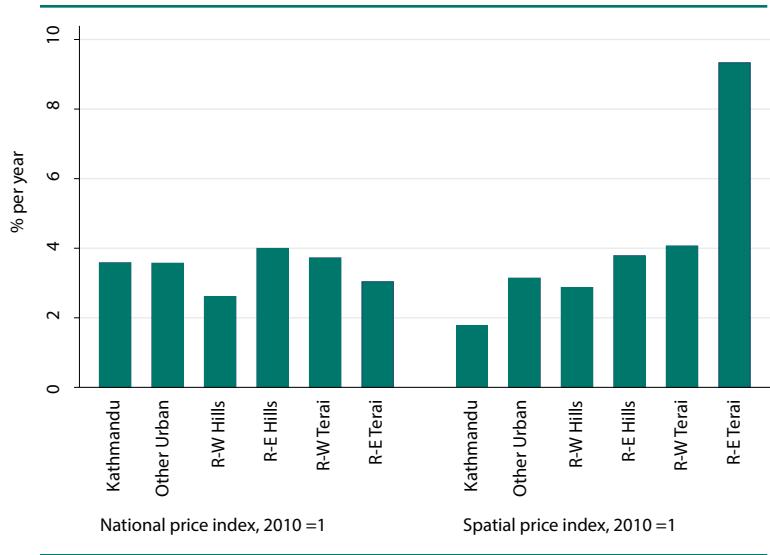
viced in urban areas. The growing amenity value placed on conveniences more readily available in urban areas, including essential basic services, as a result of income growth in rural areas has also been an important driver of city growth in Nepal. Indeed, one recent study on the drivers of domestic migration in Nepal corroborates this. The specific finding is that domestic migrants in Nepal prefer areas that are closer to their places of birth and have higher income but they also prefer areas with better access to public goods.²² Considered together, they conclude that access to better amenities trumps the role of income in decisions to migrate domestically.

But analysis of wages suggests that productivity growth in urban areas has not kept pace with the rising cost of living and thus threatens to undermine the potential benefits of agglomeration. The theoretical literature on new economic geography posits that concentration of economic activities in cities has the potential to bring together ideas, capital, workers and consumers in a way that allows firms to defray costs of production across a larger body of consumers and realize productivity advantages. Cities also provide better developed infrastructure, a high degree of market specialization, greater competition, information exchange and more efficient labor market matching. This allows firms located in these urban clusters to benefit from the higher density of the population by realizing increasing returns in their production processes, or “agglomeration economies”. When this process takes place, workers are able to enjoy growing wages despite increasing inflow of new workers to the cities seeking economic opportunities.²³

Real wages have grown fairly evenly across Nepal between 1995 and 1996. But taking into account cost of living differences across the nation, the rate of wage growth in Kathmandu appears to be more modest in comparison to wage growth witnessed in other parts of the country. This hints at the possibility of an erosion of the competitive allure of Kathmandu. (Figure 26) From the point of view of the producers, it could be argued that the cost of living differences should not matter for decisions on where to locate. Firms producing goods that are tradable nationally, should, in principle, be undeterred by high nominal wages especially if productivity is high enough. In reality, however, the extent to which the urban core of Kathmandu, if not some of the other urban areas, is producing tradable commodities is questionable. In all likelihood, the urban economy is heavily oriented towards the non-tradable service sector which does not bode well for the agglomeration potential for Nepal's largest city.

Where the positive effects of agglomeration have remained elusive, the negative effects have become prominent and visible. Unplanned urban development and patchy enforcement of regulations have led to a haphazard and uncontrolled urban sprawl in and around Kathmandu and other major cities. In several parts of the city, buildings stand so close to each other that it is impossible even for emergency vehicles (ambulances, fire brigades) to pass. Some of the newer apartment buildings are built taller than the maximum heights that the city's fire brigades can reach. Though Kathmandu's old city and some of the newer construction suffered heavy

FIGURE 26. SPATIAL VARIATION IN CHANGES IN REAL WAGES IN VARIOUS REGIONS OF NEPAL, 1995-2010



Source: World Bank staff estimates based on data from Gallup World Survey.

damages after the earthquakes in 2015, it has to be said that the level of destruction could have been significantly worse.²⁴

The urban environment has also degraded substantially, eroding livability. Yale's Environmental Performance Index (EPI) for 2014 ranked Nepal 177 out of 178 countries on air quality. During some months (especially in the winter), Kathmandu's air quality deteriorates to alarming levels as brick kilns, diesel vehicles, generators and pump sets are fired up not just in the city proper, but all over the Indo-Gangetic plains pushing the emissions north towards the Himalayas. Another pressing environmental challenge is solid waste management, which, unlike air pollution has entirely local roots. Collection is low, and only two municipalities in Nepal dispose of waste in a sanitary landfill. In most cases, the main waste disposal sites are riverbanks, depressed land and dumps, open pits, or temporary open piles. The discharge of untreated wastewater into water bodies and unmanaged solid waste has turned prominent river system into open sewers and garbage dumps. Kathmandu in particular also suffers acute shortage of drinking water and access to piped water has actually decreased in the last decade. (Muzzini and Aparicio, 2013). The population has responded to the water shortfall by pumping out the bal-

ance of their daily water requirements themselves, through the extraction of groundwater.

As the primary seat of the government, the urban primacy of Kathmandu has historically been guaranteed. But despite being the fastest growing metropolis not just in Nepal, but in all of South Asia, Kathmandu's share of Nepal's total urban population has declined over the last two decades. In 1991, Kathmandu accounted for 25 percent of Nepal's urban population. By 2011, this number was down to 22 percent. Considering Kathmandu valley as a whole, i.e., municipalities of Kathmandu, Lalitpur, Bhaktapur, Kirtipur and Madhyapur Thimi taken as a single urban cluster, the decline is even sharper and goes from 39 percent in 1991 to 32 percent in 2011.

The rate of the decline could be slower if the recent conversions of large VDCs into municipalities is taken into account. In 2014 and 2015, the government conferred municipality status to several VDCs or cluster of VDCs, taking the number of municipalities from 58 during the 2011 Census to 214 and several of these new municipalities are inside the Kathmandu valley and would technically become part of the greater Kathmandu metropolis. But the general point that there has been considerable growth of secondary towns and cities outside of the largest urban core remains valid.

Atypical structural transformation

One of the primary reasons, the spatial transformation has not been able to generate the growth that is typically associated with cities is that it has been accompanied by a rather atypical path of structural transformation. Agriculture, which used to command a dominant share of the total value added in the economy has declined to 34 percent. The share of industries rose and reached a peak of 23 percent around the beginning of the conflict in 1996, but declined to a low 16 percent since then. In the context of shrinking agriculture and timid industries, services have grown in prominence and account for more than half of the GDP today. The typical story of structural transformation is one through which workers leaving low productivity agriculture in

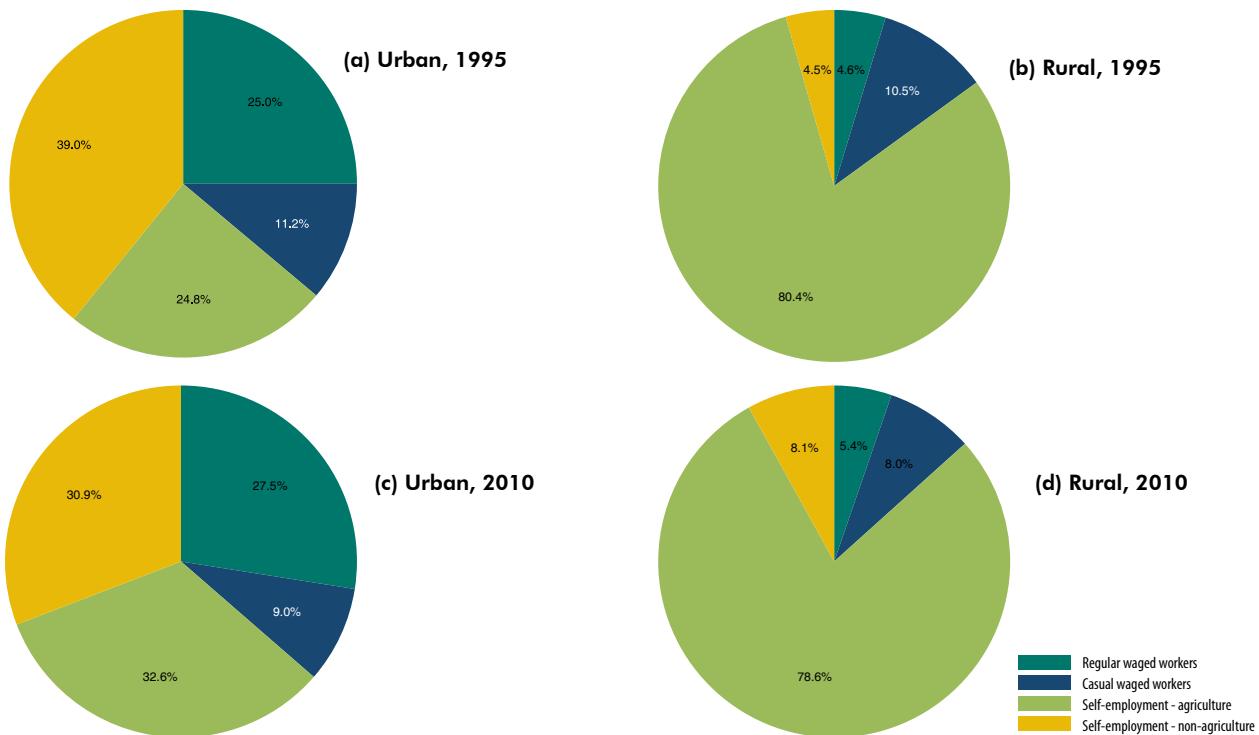
favor of higher productivity jobs in manufacturing agglomerate in cities which act as production centers and engines for growth. In the case of Nepal, the economy has diversified away from agriculture over the long run, but it appears to have skipped the intermediate manufacturing phase and gone directly to services. This “premature graduation” from industries towards services is a peculiar aspect of Nepal’s structural transformation and potentially the root cause of the apparent disconnect between private income growth and the formation of a robust middle class.²⁵

Despite the dramatic shift in the production base of the economy, the change in employment patterns have been relatively modest. A sizeable majority of rural Nepalis continue to be self-employed in agriculture as their primary occupation. (Figure 27) Off-farm self-employment has roughly doubled from 4.5 percent in 1995 to 8.1 percent in 2010. Overall wage employment

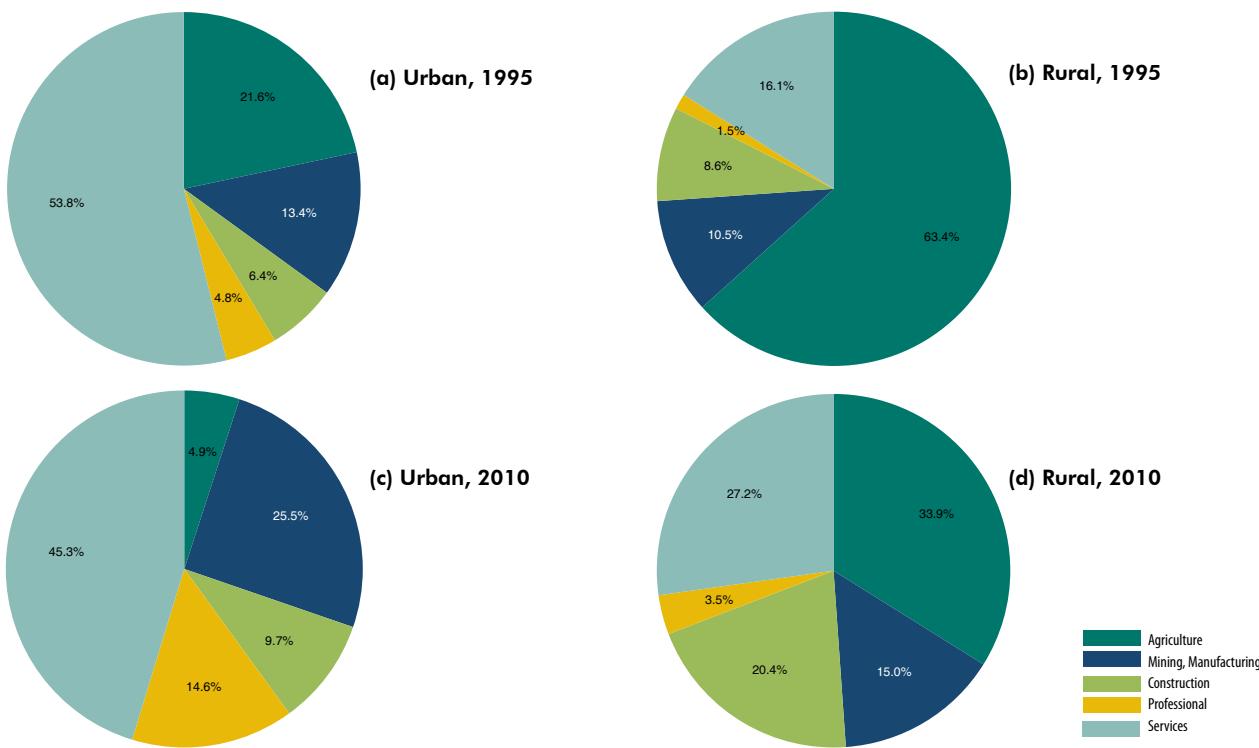
appears to have decreased over the 15 year period with the decline in casual wage work marginally edging out the increase in regular wage jobs. In the urban areas as well, the employment composition has not changed that drastically. There has been an increase in self-employment in agriculture with a commensurate decrease in the proportion of those engaged in off-farm self-employment. Overall wage employment increased by 0.3 percent over the 15 year period between 1995 and 2010. Casual employment decreased while regular wage employment increased by about 2.5 percent.

Excluding self-employment and focusing just on wage jobs, we see in Figure 28 that the sectoral contribution of these jobs has changed quite a bit. The results show some interesting patterns. In urban areas, wage employment in agriculture has all but disappeared, declining from 21.6 percent in 1995 to 4.9 percent in 2010. Wage employment in services has also seen a decrease

FIGURE 27. PRIMARY SOURCE OF EMPLOYMENT OF THE ECONOMICALLY ACTIVE POPULATION IN URBAN AND RURAL AREAS IN 1995 AND 2010/11



Source: World Bank staff calculations based on data from NLSS I and NLSS III.

FIGURE 28. SECTORAL COMPOSITION OF WAGE EMPLOYMENT IN URBAN AND RURAL AREAS, 1995 AND 2010

Source: World Bank staff calculations based on data from NLSS I and NLSS III

though it still accounts for close to half of all wage employment. In proportional terms, professional employment (salaried white collar jobs) has increased three fold and employment in manufacturing has also doubled over the 15 year period. Share of wage jobs in urban construction has increased from 6.4 percent in 1995 to 9.7 percent in 2010. In rural areas, wage employment in agriculture has declined by about 30 percentage points during this period and most of this loss has gone in the increase in employment in the construction sector – employment share for which grew from 8.6 percent to 20.4 percent – and services. Since wage workers in agriculture have typically been the poorest demographic group in Nepal, this pattern shows that a bulk of Nepal's recent poverty reduction is likely to have come from the income growth that this group has been able to realize.

However, an overwhelming majority of these new jobs in construction are of the casual kind. While workers have benefited from the growth

in wages in real terms over this period in these sectors, the lack of stability and informality implies that they do not have the security of regular wage jobs that are the fundamental building blocks of a strong middle class. In addition, looking into the skill content of jobs in regular and casual categories in both urban and rural areas of Nepal, we see that (a) casual jobs are predominantly of the unskilled nature and (b) regular jobs have a larger composition of skilled workers, defined in our analysis here as workers with higher than secondary education. But it is also noteworthy that the skill content of both types of employment has been stagnant over the longer term. (Figure 28)

Too much of a good thing?

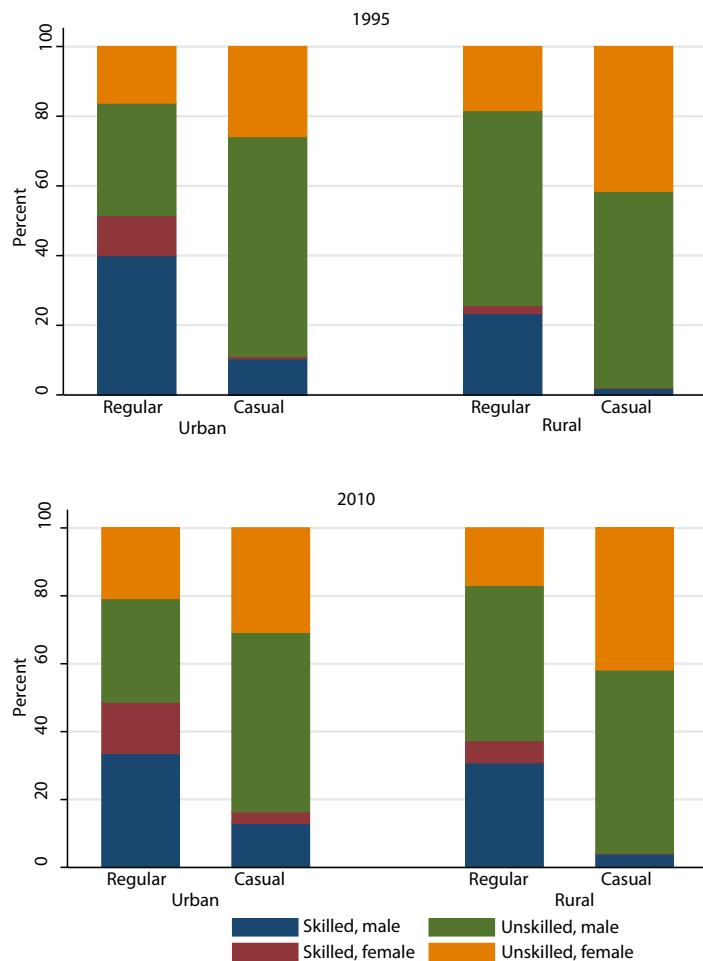
The fundamental missing link between Nepal's success on improving living standards, particularly at the bottom part of the distribution and reducing poverty on the one hand and its concurrent failure to move people more robustly out of the red zone of vulnerability into a secure

middle class is the country's failure to generate employment and jobs in the productive sectors of the economy. This has been difficult mainly because Nepal finds itself today on a growth plateau, mired by low level of investment on account of protracted political uncertainty on the one hand and shifting drivers of growth on the other (World Bank, 2014).

Nepal's nascent industrial sector in the early 1990s was driven substantially by the export led growth in its garments and carpets industries. The deteriorating security environment after the onset of the violent Maoist conflict in 1996 put a damper on this growth. The eventual rescinding of preferential access to lucrative US markets under the Multi Fibre Arrangement in 2005 all but killed the garment industry as Nepal couldn't maintain competitiveness in this segment in the world market. This took a heavy toll on Nepal's industrial sector which has not really recovered since then. (Figure 30) The growth in services is encouraging but there are questions about the extent to which it can catapult the country into a higher growth trajectory. Unlike the service sector in India for example, Nepal's service sector is largely informal, fragmented and with limited promise for productivity growth or spillovers effects. The growth in the sector has, to a large extent, been fueled by remittances which have grown to levels so high that it is unlikely to expect them to grow further. (World Bank, 2014& 2016b).

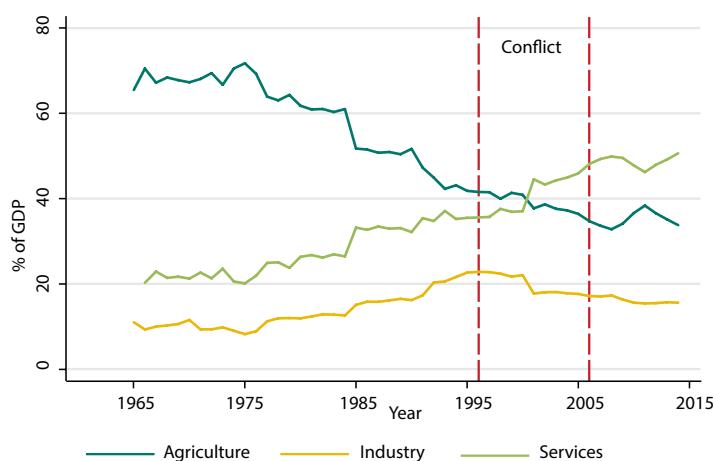
Given these circumstances, overseas work and remittances have provided a much needed safety valve for the economy. At the micro level, the flow of remittances has directly benefited migrant households. Even households without migrants have benefited from the growth in labor income. On the one hand, wages in agriculture have gone up, possibly as a result of the tightening of labor supply. On the other hand, increase in the demand for non-agricultural goods and services has led to an increase in demand for non-farm labor and pushed up wages. In the urban and newly urbanizing areas, remittances have been the critical source of liquidity fueling growth in banking and financial services, restaurants and trade as well as real estate and

FIGURE 29. SKILL AND GENDER COMPOSITION OF WAGE JOBS, 1995 AND 2010



Source: World Bank staff calculations based on data from NLSS I and NLSS III

construction. The latter in particular, has generated tremendous growth in rents to the owners of capital within cities perpetuating a multiplier effect on the demand for goods and services. This has translated to the macro level where the remittance receipts have been critical to maintaining Nepal's current account position, despite a widening trade deficit as the country imports a growing amount of consumer goods ranging from the most basic such as rice and petroleum products to telecommunications equipment, luxury cars and parts. The overall surplus po-

FIGURE 30. GROSS VALUE ADDED, % OF GDP

Source: WDI, 2016

sition in the balance of payments, largely due to remittance inflows have been critical buffer against global macroeconomic shocks.

But it could be also argued that the safety valve has in a perverse way weighed down on Nepal's development potential. First, the buoyant influence remittances have had on the purchasing power of a majority of Nepalis has inadvertently also resulted in the appreciation of the country's real exchange rate which has in turn eroded the competitive edge of manufacturing industries, further undermining the employment generation potential of this sector. (World Bank, 2013) Second, the steady outflow of young and potentially restless youth and the cushion of remittances could have also lulled policymakers into not seeing the immediate urgency of key reforms necessary to unlock Nepal's longer term development potential. A stable, positive balance of payment position and a strong fiscal position maintained in part by the revenues from taxes on an ever growing base of imports have been the bulwarks of Nepal's overall macroeconomic position over the last decade.

Migration may slow down...

But remittance driven growth is not likely to continue forever, especially given the already high base. Further, there are signs that the rate of migrant outflow is beginning to taper off as the major host countries show signs of stress in

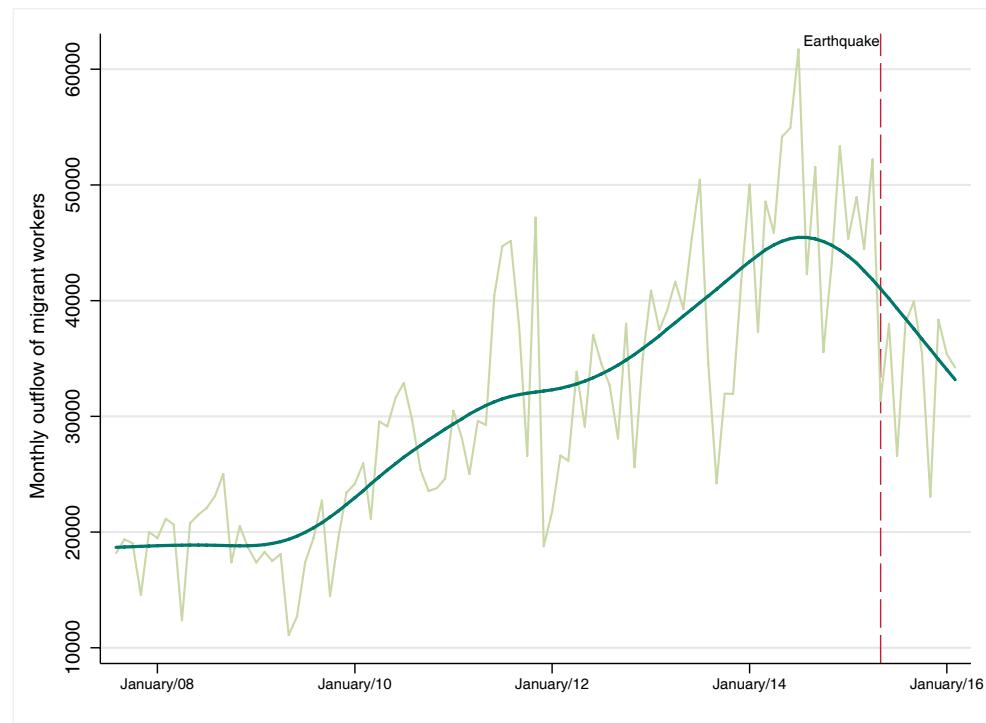
the face of declining crude oil prices. (Figure 31) While the strategy has served as a useful buffer during turbulent times for Nepal, it cannot be the durable source of growth required to propel Nepal into the trajectory required to become a middle income country with a vibrant middle class by 2030.

In order to accelerate the creation of productive jobs, Nepal must put in place policies to rekindle growth, particularly in its industrial/manufacturing sectors. This is because it is the only sector in which there is sufficient scope for scalable improvements in productivity and the ability to generate formal sector employment for the growing number of Nepalis joining the labor force every year. Being a small market, finding a competitive advantage in the global economy will be crucial. But stabilizing the political environment, carrying out the necessary reforms to improve the investment climate and alleviating the crippling infrastructure deficit would be equally essential entry points. According to a recent Gallup survey, only 25 percent of Nepalis expressed satisfaction with the availability of good jobs in the economy. (Figure 32) This is lower than most other regional neighbors and significantly lower than countries in the South East Asia region, such as Vietnam and Cambodia.

...but it will remain important

Concurrently, it must also be recognized that there is no level of growth Nepal can realistically generate in the medium term that will generate so many jobs that Nepal is able to completely overturn the flow of migrant workers. A more realistic outlook is that a steady state level of overseas migration will remain a critical dimension of Nepal's jobs environment in the medium to long run. For this reason, building a better understanding of not just the migration process in general but also of what can be done to make it work better so that successive cohorts of Nepali migrants have better information of opportunities abroad, can become more productive and can have access to better quality jobs abroad appears an important part of the jobs agenda.

Several recent studies document widespread misinformation among migrants on various aspects of their eventual jobs, the associated

FIGURE 31. MONTHLY OUTFLOW OF MIGRANT WORKERS FROM NEPAL

Source: Ministry of Foreign Employment Database

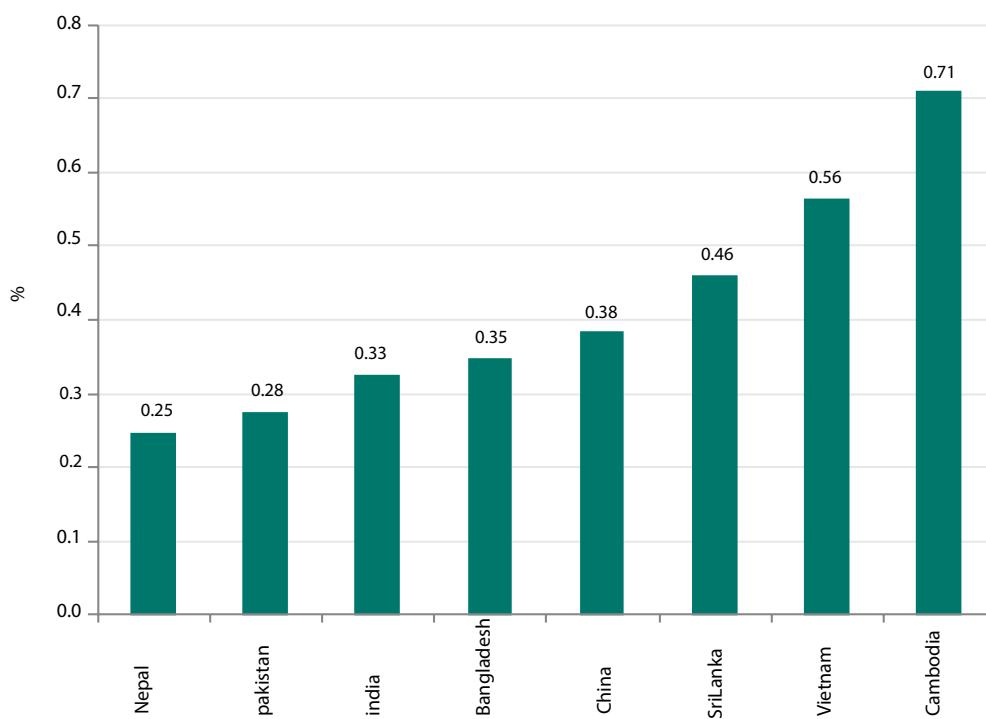
Note: The solid line represents the trend obtained by applying the Hodrick-Prescott filter to the raw data.

benefits and also the real and hidden costs of migration (Shrestha, 2016a; Shrestha 2016b). There are also significant costs to matching migrant workers to jobs and the credit markets that could make the migration a productive investment does not work as smoothly as they could. For example, large gaps exist between expected and actual wage schedules abroad. Median inexperienced potential migrant expects to earn \$390 in a month; this is 30 percent larger than what he actually ends up earning. Potential migrants are gravely misinformed about mortality risks abroad and react adversely when a migrant from the same district dies abroad. Following a death incidence, migrant flow from the same district to the destination drops but a small fraction choose to migrate to a different destination. (Shrestha 2016a)

Likewise, the up-front costs of migration are not trivial. Potential migrants expect to pay over

\$1200 on average for a job abroad. This amount is more than 3 times of the national per capita GDP. Commissions and fees for several layers of brokerage services that link the worker to the job constitute the largest share of the up-front cost borne by the workers. Returnees who have completed their previous contract expect to pay \$1100, an amount not very different from first time migrants. However returnees who still have a work contract abroad expect to pay less than a third of that amount. This suggests that the cost of linking the worker to a job abroad dwarfs other migration related costs (travel tickets, paperwork, documentation, permits etc.). The financing needs often lead households to take on debt. Compared to households without migrants, households with migrants in some of the more lucrative destinations are 12 percent more likely to have an outstanding loan and twice as likely to have loans exceeding \$500. On average, the loan sizes for households with migrants



FIGURE 32. SATISFACTION WITH THE AVAILABILITY OF GOOD JOBS IN THE ECONOMY

Source: World Bank staff calculations based on data from Gallup.

are 73 percent larger than those for households without migrants to these countries. Finally, these loans often come with average interest rate of about 25 percent per year and the larger loans usually accompany collateral requirements.

These stylized facts suggest significant inefficiencies in the labor market intermediation process

involving young migrants in Nepal. Correcting some of the inefficiencies would enhance the development impact of labor market opportunities that many young Nepalis seek abroad. Together with efforts to generate jobs within Nepal, improving the labor market intermediation process for potential migrants could be an important policy agenda for the medium run.



V. DIRECTIONS FOR POLICY

Nepal has made good progress on reducing poverty over the last two decades. This report analyzes the drivers of this progress and identifies three key challenges to consolidating these gains to translate strong progress on poverty reduction into an equally strong impetus for the formation of a robust middle class. A strong middle class is critical for Nepal's efforts to reach the middle income country status by 2030 and the analysis in this report points to three particular policy areas that could help the country get there: equalizing opportunity, reducing vulnerability and boosting productivity.

Equalizing Opportunity

Widespread perception of structural inequalities and the increasingly vocal demand for social and economic inclusion have had a deep influence on Nepal's recent history. The 10-year long Maoist conflict, abolition of a 250 year old monarchy, and a radical reconfiguration of the state structure, are all direct or indirect consequences of this. Even today, the issue remains touchy and debates around it are heated. But despite profound implications it has for the risk of conflict, political stability, investment climate and growth in the medium term, current debates on the issue appear to provide very little basis on which to forge a constructive path forward.

In this report, we introduce equality of opportunity for children as an ideal that could potential bridge that gap. A society may have disagreements about the sources of past injustices and what to do about them. But everybody can agree that opportunities for a better life for Nepali children should not depend on which part of the country they happened to be born in, or to what caste /ethnicity group their parents happened to belong to or what language they speak or other such characteristics essentially determined by the lottery of birth. An inclusive society is necessarily also an equal opportunity society (even though the converse many not be

true). So working towards leveling the playing field for all could move the debate forward because what is a minimum criterion for fairness and justice for the left happens also to be the foundation for meritocracy for the right.

IMPROVING SERVICE DELIVERY FOR ALL, AND PARTICULARLY FOR THE POOR IN LAGGING REGIONS

Operationalizing the idea of equality of opportunity into measurement, we document deep inequality of opportunities in Nepal. These are manifest in the unevenness in the access to basic opportunities such health and education as well as jobs. Intergenerational mobility also appears constrained for particular social groups and geographic areas. Among other factors, education emerges be the strongest determinant of the access to the few good jobs in Nepal today. But access to quality education remains the preserve of those lucky enough to be born to the right parents: parents who are themselves educated, living in cities and in certain regions, able to send kids to private schools and are of particular, historically advantaged caste/ethnic categories.

The results presented here underscore the urgent need to address spatial disparities in access to and quality of education, health and infrastructure services. Many public schools, particularly in rural areas in remote regions lack adequate facilities and qualified teachers. Similarly, government hospitals are poorly equipped, often lacking essential medicine and trained health care professionals. Even when these inputs are available, quality of delivery is low due to weak accountability mechanisms to local citizens. The proliferation of private providers in both health and education in cities and small towns is a reflection of an increase in the demand for quality services by an increasingly better off population. But as the better off flee public services, these facilities also become exclusive domains of the poor, who are often less vocal and assertive in

Building a strong middle class is vital for Nepal's efforts to reach the middle income country status by 2030

Leveling the playing field for all could move the debate on inclusion forward as what is a minimum criterion for fairness and justice for the left happens also to be the foundation for meritocracy for the right

their demands for quality which in turn further lowers quality and aggravates inequalities. So the agenda of improving the services for the poor remain a critical piece in the improvement of life chances of all Nepalis.

Nepal's decentralization efforts over the last two decades have been stunted by conflict and an environment of prolonged political limbo. The country also experimented with devolution of public schools to local management – in part in response to the difficulties of operating public schools during the time of conflict – but the results are mixed.

With the adoption of the new constitution, it is clear that Nepal is to become a federal state. If the outstanding issues around number, names and boundaries of these federal units can be decided without causing any more damage to the collective social harmony, then there are reasons to be optimistic about the possibility of real decentralization to finally take root in the country. Spatial disparities in opportunities can be directly addressed by, for example, embedding spatial differences in welfare and opportunities into formulas that determine resource transfers from the central to the federal governments. A meaningful devolution or de-concentration of funds, functions, and functionaries under the federal government structure can help strengthen incentives for better performance, but it has to be supported by adequate accountability mechanisms to protect against local capture.

TARGETING THE POOR, WAY TO MOVE FORWARD

Our results show that the opportunity profiles for Nepalis today begin to diverge quite dramatically even in childhood. Contrary to perceptions about the dominant role of social markers such as ones caste/ethnicity, we see that parental wealth and geography (where the child is born) are equally if not more important determinants of life chances. In addition, even within lagging areas or regions or within the same social group, there is a substantial variation in access to opportunities by the economic status of the household. This suggests the need for investments in equalizing opportunities to be based on overall economic disadvantage instead of social advantage. This resonates with commonly heard calls

in Nepal for a “class based” targeting as opposed to “caste based” targeting of opportunities.

Thinking through whether this is appropriate or feasible for Nepal and operationalizing it has been a challenge. This is not for want of ideas though. Previous governments have initiated thinking and some preliminary experimentation on the idea of poverty scorecards based on which social assistance could be targeted directly to the poor, irrespective of which social or geographic group they may belong to. The Ministry of Poverty Alleviation and Cooperatives was established in 2011 to precisely bring this idea to fruition. But the idea appears to have found little support in subsequent governments that have been occupied with other pressing priorities.

In education there are scholarships for children from the Dalit community and for all children in the Karnali region (the region that lags the rest of the country in human development and other welfare outcomes). To equalize early childhood health outcomes, there is a child grant program which provides an equivalent of \$2 per child per month to mothers with children under 5 in the Karnali region and to Dalit mothers nationwide. Categorical targeting of a particular region or an easily identifiable social group is perhaps easier to implement – though available assessments suggest they are not without leakages – but it is not entirely adequate from the perspective of equity. There is a sizeable number of poor across Nepal who are non-Dalits and living in regions other than Karnali. Broadening that eligibility base, particularly for these child human development linked interventions, to include the poor everywhere appears to be one area of policy attention. One example that is already in place is the secondary school stipend program. This program is designed to help financially constrained students entering secondary school and is a poverty targeted program. The government is considering ways to expand it also to the tertiary level.

When policy conversations turn to expansion of benefits of any kind, a question that inevitably arises is that of affordability. Does the government have the fiscal space to implement such programs? This is a valid concern and a detailed assessment of affordability needs to be done be-

fore implementing any such program. But two points need to be considered. First, appreciable savings may be possible from streamlining existing programs in the portfolio that is noted to be highly fragmented. Second, the returns on boosting human capital of children – particularly by improving opportunities for otherwise underserved –can be sizeable.²⁶ This return is likely to be even higher for Nepal because its demographic structure gives it a 25 year window of opportunity to realize the benefits of demographic dividends.²⁷ A better skilled workforce built on the back of aggressive investment in human capital today will help the country maximize these benefits over the next 25 years and the investments may be justifiable given the high returns.

SOME AFFIRMATIVE ACTION MAY BE NEEDED TO REDRESS PAST INEQUALITIES

Finally while equalizing opportunities for all children in Nepal is a priority agenda for the future, something will have to be done to redress the residual effects of past disadvantages as well. In this regard, some form of affirmative action or positive discrimination policies may be required. The new constitution has made provisions for representation of a variety of underserved groups in several of political and public offices and there are already provisions for affirmative action in civil service appointments. But ensuring adherence to these principles in legislation and practice would go a long way. Neighboring India has a long history of quotas in political bodies and educational institutions for members of those belonging to Scheduled Castes/Scheduled Tribes to redress similar historical inequalities in higher education, employment and politics and these policies have not been free of controversy. The use of quotas in particular limits the pool of candidates, restricts free competition and reduces the quality of candidates on average but there is unfortunately no other way of redressing generational inequalities in the short run.

Some emerging evidence from neighboring India suggests that demonstration effects of these policies could be quite beneficial in leveling playing fields. For example, mandated representation of women in local government bodies in West Bengal reduced biases against female lead-

ers by helping villagers understand that women can be competent leaders.²⁸ The same study also finds that exposure to female leaders raised educational aspirations and outcomes for girls in the schools in these villages. Another study finds that women's chances of election in constituencies that previously had been reserved for women leaders was five times higher than in other constituencies.²⁹

Reducing Vulnerability

The recent earthquake that Nepal suffered was a violent and a highly visible example of a natural disaster wiping out the lives and livelihoods of a large number of Nepalis. As important as it is for the Government to respond to this specific emergency, this should also serve as an opportunity to galvanize support for the design of systems that can respond in a more agile and efficient manner, not just to catastrophic disasters of similar scale (if need be) but also to smaller but more frequent shocks many Nepalis routinely grapple with. These “dull disasters” take a heavy toll on poor households by limiting their ability to maintain investments in the human capital of children and depleting their savings and assets. Inadequate protection from these shocks limits the ability of households to take risks and make productivity enhancing investments in both agriculture and non-agricultural activities.

The high degree of vulnerability and transitions around the poverty line with suggests the need to strengthen social protection systems, particularly those that insure households against a variety of income shocks. One area of emphasis here should be on designing safety net systems that are able to target and deliver assistance based on broader, income based notions of vulnerability through vehicles such as means tested conditional cash transfers. More work is required here but at the conceptual level, programs designed to specifically to safeguard of investment in the human capital of children in the face of shocks appear to have strong equity as well as efficiency arguments.

Available analysis suggests that existing social protection programs have not been very effective in protecting the poor: poverty headcount would only increase by a marginal 0.5 percent-

*Protection
from shocks
can also enable
households
to take risks
and make
productivity
enhancing
investments in
agriculture as
well as non-
agricultural
activities.*

age points (from 25.2% to 25.7%) in the absence of all currently administered social assistance programs.³⁰ Part of the reason for this low impact on poverty is that the programs are not very generous. But these programs are also not explicitly targeted to the poor, and in addition to suffering leakages and poor administration, they are also fragmented across several government agencies giving rise to rampant duplication or gaps in benefit coverage. Thus a unified, consolidated safety net system that delivers assistance using a common poverty based targeting framework would constitute an important agenda of moving forward on reducing vulnerability in Nepal.

Agricultural commercialization also requires better connectivity and integration with markets and value chains.

Finally the high incidence of vulnerability in Nepal – when vulnerability is defined strictly in terms of the risk of falling back into poverty – is also because there appears to be a “productivity ceiling” or a choke point of sorts that is keeping Nepalis who have moved out of poverty in this stage. This is largely due to the fact that a bulk of the poverty reduction itself has come as a result of non-farm diversification in rural areas and the expansion of service sector jobs in the urban areas. But these jobs are predominantly casual and informal in nature and as such unable to move people to the next level. Generating more productive jobs within the economy would be crucial in facilitating continued upward mobility beyond the vulnerability line.

Boosting Productivity

The analysis points to three key dimensions of boosting productivity that will be important in improving the welfare of the poor and the vulnerable: boosting productivity in agriculture, converting the consumer advantage of Nepal’s cities and emerging towns to a producer advantage and finally, making the reforms and investments necessary to improve the investment climate for a private-sector led growth of the secondary and tertiary sector of the economy.

IMPROVING PRODUCTIVITY IN THE AGRICULTURAL SECTOR CRITICAL FOR THE CHRONIC POOR

While off farm employment has been the ticket out of poverty, a majority of the rural poor and vulnerable remain in agricultural jobs. Agriculture has seen very little productivity growth over the last two decades. The growth in wages have

more to do with tightening of the supply of labor than any improvements in labor productivity. This is partly because in remote areas, especially in the hills and the mountains, agriculture remains overwhelmingly at the level of subsistence. Lack of market integration keeps farmers autarkic; crop choice and farming methods remain conservative reflecting high priority placed on food security concerns. Lacking year round irrigation, there is near total reliance on rainfall.

Increased diversification away from traditional cereal crops would help boost productivity. Higher value crops such as fruits, nuts, spices, herbs, and specific vegetables and livestock products have growing demand, not just in the cities and emerging towns of Nepal, but also in India. But commercialization also requires better integration with markets and value chains. Thus, strengthening research and extension services, rationalizing input subsidies, improving access and quality of financial services and improving rural connectivity would all have to be part of an integrated strategy to improve productivity in agriculture. As the overseas migration experience deepens, the pool of migrant returnees is also likely to increase over time. These migrants will come not only with resources but also with creative ideas and visions formulated through rich experiences working abroad. Having the right policy and investment environment together with easy access to complementary inputs such as better connectivity and financial services will help leverage their creativity and entrepreneurial spirit to boost rural growth.

LEVERAGING THE AGGLOMERATION POTENTIAL OF CITIES

Nepal has been urbanizing at a rapid pace but the growth benefits of the agglomeration have not fully been realized. This is mainly because most of the increase in urban population in recent years has been due to an increase in urban sprawl around major highways, district headquarters and cities and a rural to urban migration that appears to be driven much more by the push of the lack of services and amenities the increasingly well off rural population appear to value than the pull of a dynamic urban economy that is generating good jobs. The negative effects of agglomeration, on the other hand, have been highly visible as the unplanned and unregulated growth of the city has not only led to the de-

rioration of basic services such as drinking water, sanitation but also polluted the city's rivers and air to highly toxic levels.

As the primary seat of the government, Kathmandu has enjoyed historical primacy among cities but over the last two decades, its share of total urban population has been declining. This suggests that there might be an opening to invest in some of the emerging towns to introduce and implement longer terms plans for organized urban development. Simultaneously, efforts to revive and regenerate the urban Kathmandu valley to transform its comparative advantages, particularly in tourism and labor intensive manufacturing in handicrafts into competitive advantage would also be a key part of the strategy.

Nepal's current industrial policy provides tax incentives and subsidy for investment in the development of the plant for firms to locate their productive activities in lagging regions. These "spatially targeted" policies represent the government's deliberate efforts to de-concentrate productive activities. But locating production activities in remoter locations with lower population densities is seldom effective in propping up lagging regions or generating growth. In fact, if enforced, such policies could be detrimental for the growth of the industrial sector. Instead, from the perspective of growth, a better policy would be to invest aggressively in enhancing connectivity of the remote regions to the emerging growth centers or to invest in the development of these growth centers themselves.

MORE AND BETTER JOBS IN NEPAL

Off farm diversification may have been the ticket out of poverty but Nepal needs to generate more and better jobs within Nepal to see its middle class grow. In order to ensure continued improvements in the wellbeing of those at the bottom of the distribution and in particular to ensure that the success in lifting people out of poverty is taken the additional mile to move them robustly above the vulnerable category, it

is important to expand employment opportunities, particularly wage employment opportunities in productive sectors outside agriculture. This is the fundamental challenge facing policymakers in Nepal today and is also one that will require a fundamental rethink of the growth framework that guides development policy. The fact that Nepal appears to have de-industrialized rather prematurely raises the question of whether services that have grown in prominence can generate the growth in productivity required to sustain the level of growth that would be needed to generate the volume of jobs that would need to be created to absorb not only the new labor market entrants but, potentially also absorb the stock of those that are currently out of the country. Available evidence suggests that growth in services may have maxed out mainly because the key driver (remittances) is already at a high level and is unlikely to go up further. Additionally, unlike India's IT sector for example, the sub-sectors within services that have shown the most potential for growth have been non-tradeables.

Be it industries or services, stabilizing the political environment, carrying out the necessary reforms to improve the investment climate and alleviating the crippling infrastructure deficit are critical entry points into the agenda on jobs.

Finally, it must also be recognized that there is no level of growth Nepal can realistically generate in the medium term that will generate jobs at a fast enough pace to completely overturn the flow of migrant workers. A more realistic outlook is that a steady state level of overseas migration will remain a critical dimension of Nepal's jobs environment in the medium to long run. For this reason, building a better understanding of not just the migration process in general but also of what can be done to make the process more efficient and less costly so that successive cohorts of Nepali migrants have better information of opportunities abroad, can become more productive and can have access to better quality jobs abroad appears an important part of the jobs agenda.

Nepal needs to generate more and better jobs within the country to translate success in reducing poverty into success in generating a large and vibrant middle class.



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END NOTES

- ¹ World Bank (2014), "A Vision for Nepal: Policy Notes for the Government"
- ² The revised poverty line is Rs.19,261 per person per year in 2010/11 prices (World Bank, 2013)
- ³ Based on benchmarking methodology described in Newman, John L., João Pedro Azevedo (2013) "Setting reasonable performance targets for public service delivery," Policy Research Working Paper Series 6385, The World Bank (<http://ideas.repec.org/p/wbk/wbrwps/6385.html>).
- ⁴ There are several estimates of Multidimensional Poverty available in Nepal from various data sources. For example, see OPHI (2013) and Mitra (2014).
- ⁵ Based on data from various rounds of Population Census.
- ⁶ Personal remittances received as percent of GDP is 8.7 percent for Bangladesh and 3.4 percent for India as of 2014.
- ⁷ Despite this, Nepal remains the least urbanized country in the region.
- ⁸ Inequality estimates based on the 2003/04 Nepal Living Standard Survey were significantly higher than those in 1995/96 and 2010/11 but there is significant concern for measurement errors and "the up and down swings are of such a magnitude that they are nearly non-credible" (World Bank, 2015). For this reason and also for the sake of brevity, this Chapter focuses on inequality estimates in 1995/96 and 2010/11.
- ⁹ The so called "Patidar Reservation Agitation" in India around July-August 2015 is an example of an instance when an otherwise privileged caste group seeks inclusion into the excluded group category in order to be able to access mandated quotas in higher education and government jobs.
- ¹⁰ See for example Alvaredo and Piketty (2014) on an application of this methodology to the Middle East and North Africa Region.
- ¹¹ There may be some ambiguity about when effort actually becomes relevant for a child, which is likely to depend on the social, cultural and ethical norms that vary across societies. A more pragmatic approach is to consider effort as being irrelevant for children below age sixteen, which would dilute the concern about possible correlations between effort and circumstances.
- ¹² Currie and Thomas (1999) and Case and Paxson (2006).
- ¹³ Chetty et al.(2010)
- ¹⁴ Alderman et al (2006) and Hoddinott et al (2008)
- ¹⁵ Nepal's labor law stipulates that any employee appointed to a job over a continuous period of 240 days by firms employing more than 12 employees be converted to a permanent status. Permanent employees are eligible for participation and protection by unions and among other benefits, they enjoy significant security of tenure. Firms respond to this by rationing their pool of regular employees and relying on contract labor. This has hiring-firing rigidity has been cited as one of the primary constraints to firm growth.
- ¹⁶ Dang and Lanjouw (2013)
- ¹⁷ Tiwari et al (2016)
- ¹⁸ Lopez-Calva and Juarez-Ortiz (2011)
- ¹⁹ A number of other efforts have been made to define the middle class globally. Birdsall (2010) and Birdsall et al (2011) proposed a relative concept of the middle class defined as those between 75% and 125% of any society's median income. The notion that the definition of the middle class should be differentiated between developing countries and other, wealthier nations has also be noted quite generally. Ravallion (2010) for example proposed consumption level between \$2 and \$13 as middle class for developing countries while the "Western middle class" line is anybody above the US poverty line. But a lot of these approaches end up lumping the poor and the vulnerable into the middle class category.
- ²⁰ Ferreira et al 2013, Easterly 2001
- ²¹ Ferreira et al (2013); Easterly (2001)
- ²² Shipli et al (2014)
- ²³ This is a fundamental difference between the new economic geography literature and the classic models of rural-urban migration due to Todaro. Both start from the same place: surplus labor in rural agriculture and rural to urban migration driven by the pull of higher productivity manufacturing jobs in the cities. But in Todaro's world surplus growth in manufacturing would draw rural workers to cities to such an extent that that would lead to unemployment in urban areas. The new economic geography literature – which is influenced by the then emerging endogenous growth literature which recognizes the possibility of increasing returns – suggests that unemployment need not rise in order to absorb the
- ²⁴ Muzzini and Aparicio (2013)
- ²⁵ See Rodrik (2015) for a more detailed exposition of this idea more generally.
- ²⁶ Heckman (2012)
- ²⁷ World Bank (2012)
- ²⁸ Beaman et al (2009)
- ²⁹ Bhavani (2009)
- ³⁰ World Bank (2013)



ANNEX

ANNEX 1: Human Opportunity Index (HOI) Methodology

A SIMPLE EXAMPLE

Consider two societies A and B in which half the population lives in rural areas and the other half in urban areas. Now consider a basic opportunity such as access to primary education. Say, 50 percent of all children go to school in both the societies. Looking at the overall coverage, both these societies will appear similarly placed. But, suppose we also know that in society A, no rural child attends a school; while in society B, 50 percent of both rural and urban children attend school. The HOI discounts the coverage rate of 50 percent by imposing a “penalty” when access is more unequal based on circumstances such as location. The imposed “penalty” can be interpreted as the share of the total number of opportunities that need to be re-distributed to ensure equitable access based on the equality of opportunity principle. Going back to the previous example, in society A, this will constitute “reallocating” 25 percent of total enrollments from urban children to rural children. Therefore, the penalty would be 25 percent and the HOI, which is the coverage minus the penalty, would equal 25 percent. For society B in our example, there is no inequality based on location and the penalty is zero. This implies that the HOI is 50 percent, or equal to the coverage. Therefore, society B is more equal than society A based on the equality of opportunity criteria, even though average enrollment rate is the same in both societies.

THREE KEY PROPERTIES

First, the HOI is sensitive to scale – if access improves for all groups by, say, a factor of k (additively or multiplicatively), then the HOI changes by the same factor k. Second, it rewards Pareto improvement– if coverage rate improves for one circumstance-group without decreasing coverage rates for the remaining groups, the HOI will rise. Third, the measure will always improve if access changes in such a way that the more vulnerable groups (groups with coverage rates lower than the overall coverage rate) have higher access. An im-

portant caveat of this measure is that it is sensitive to the set of circumstances chosen for analysis. But this is mitigated by an additional property that is highly desirable given that it is often impossible to identify all relevant circumstances for any population and opportunity: the HOI will not be higher if more circumstances are added to the existing set of circumstances in the analysis. This implies that the computed inequality serves as a lower bound to the “actual” inequality where all circumstances of interest could be included in the analysis.

ESTIMATING THE HOI FROM HOUSEHOLD SURVEY DATA

To construct the HOI, we need to obtain the conditional probabilities of access to opportunities for each child based on their circumstances. In order to do so, one can estimate a logistic model, linear in the parameters β , where the event I corresponds to accessing the opportunity (e.g. access to clean water), and x the set of circumstances, (e.g. gender of the child, education and gender of the head of the household, etc). We fit the logistic regression using survey data:

$$\ln\left(\frac{P[I=1|X=(x_1, \dots, x_m)]}{1-P[I=1|X=(x_1, \dots, x_m)]}\right) = \sum_{k=1}^m x_k \beta_k$$

Where x_k denotes the row vector of variables representing the k -dimension of circumstances. Thus, $x=(x_1, \dots, x_m)$ and $\beta'=(\beta_1, \dots, \beta_m)$ is a corresponding column vector of parameters. From the estimation of this logistic regression one obtains estimates of the parameters $\{\beta_k\}$ to be denoted by $\{\hat{\beta}_{k,n}\}$ where n denotes the sample size. Given the estimated coefficients, one can obtain for each individual in the sample his/her predicted probability of access to the opportunity in consideration:

$$\hat{p}_{i,n} = \frac{\text{Exp}(x_i \hat{\beta}_n)}{1 + \text{Exp}(x_i \hat{\beta}_n)}$$

The overall coverage rate, C, the D-Index, the penalty, P, and the HOI are estimated using the predicted probability and sampling weights, w :

$$C = \sum_{i=1}^n w_i \hat{\beta}_{i,n} ; D = \frac{1}{2C} \sum_{i=1}^n w_i |\hat{\beta}_{i,n} - C| ; P = C * D ; \text{ and } HOI = C - P$$

An important caveat to the logistic estimation model is that the list of regressors does not include any interaction terms between circumstances (e.g. between parental education and location). Given the number of circumstances we have (all of which are dummy variables), limited sample sizes, and the large number of countries and opportunities for which these regressions have to be run, including interactions would lead to intractable problems in at least some of the cases. The interaction terms are thus omitted, even though translating the exact definition of D-Index to the logistic regression model would require including these terms. If the interactions were included, it would result in a higher D-Index (and lower HOI), just as it would happen if more circumstances were added. This in turn implies that the estimated D-Index for all countries and opportunities is the lower bound of inequality of opportunities (and the estimated HOI is the upper bound) for a given set of circumstances.

Hypothetical Example to Illustrate Shapley Decomposition

The D-Index or inequality of opportunity index measures the inequality between circumstance groups. For a given set of circumstances, the “contribution” of an additional circumstance to the index can be interpreted as the *marginal change in the value of the D-index* after adding the “new” circumstance. Circumstances that add more to the D-Index are then considered as contributing to (or explaining) a larger share of the inequality between groups. However, estimating the marginal contribution of each circumstance is complicated. This is because the change in the value of D-index as a “new” circumstance is added depends on the existing set of circumstances to which the circumstance is added, which in turn implies that the contributions of circumstances would change depending on the sequence in which different circumstances are added. Simply put, the contribution of each circumstance is not unique. Moreover, the contributions of all circumstances estimated this way may not add up to the full D-index (based on all circumstances), which is not appealing.

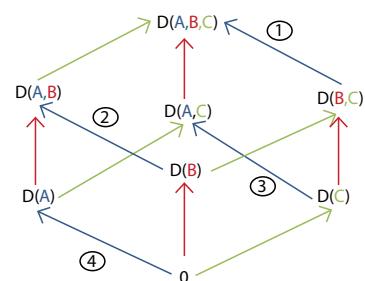
The decomposition based on the Shapley value, which is a solution concept in cooperative game theory, is a method that offers a unique, intuitive solution to the above problem. The Shapley value assigns a unique distribution among the players of

a total surplus generated by the coalition of all players using the following rule. In the coalition each player demands their marginal contribution to the surplus as a fair compensation, where the player’s contribution is calculated as the average addition to the surplus over all possible different permutations in which the coalition can be formed. We apply the same concept to the decomposition of the D-index, with the circumstances being analogous to the players, the total D-Index is analogous to the surplus, and the different combinations of circumstances are equivalent to the coalitions in a cooperative game. In other words, the contribution of a circumstance to the D-index is the average addition to the value of the D-index over all possible different permutations in which circumstances can be combined.

Suppose the dissimilarity index (D) is estimated using three circumstances: A, B, and C. Let D_j denote the contribution of circumstance A to the D-Index, which is the same as the marginal impact of adding circumstance A on the D-Index. Since the circumstances are correlated with each other, the marginal impact will differ depending on which set of pre-existing circumstances A is added to. That is the it will be different whether A is added to the set {B,C}, {B} or {C}. Therefore, to measure the “contribution” of A to the D-Index, the Shapley decomposition takes the average of all marginal impacts when A is added to all possible subsets of the set {B,C}. This is given by:

$$D_A = \frac{2}{6} [D(A, B, C) - D(B, C)] + \frac{1}{6} [D(A, B) - D(B)] + \frac{1}{6} [D(A, C) - D(C)] + \frac{2}{6} [D(A) - 0]$$

Why are the weights for the different components of (A) the way they are? The idea is that we are taking the average of all possible paths of addition of circumstances. In the figure below, the differences are represented by blue lines labeled 1-4. There are six possible paths to go from (0) to $D(A, B, C)$. It is easy to see that two of these paths use the blue line marked as (4), two use the blue line marked (1) and one path uses the blue lines (2) and (3). The weights in the different components of (A) are allocated accordingly.



ANNEX 2:

The synthetic panel methodology and application to Nepal

A proper study of economic mobility that is being proposed has fairly demanding data requirements. At the minimum, it is necessary to be able to observe the same household in at least two time periods and the richer the amount of information available on the household, the richer the analysis that can be done. These “panel datasets” as they are called are fairly hard to come by in many developing countries. In the case of Nepal, the three rounds of NLSS that have been completed have an integrated panel component, i.e., a subset of the sampled households have been tracked over time, but due to sample attrition, it has been found that the surviving households are no longer representative of the nation as a whole.

As the name suggests, the proposed methodology overcomes these shortcomings and builds on an imputation based methodology to construct a “synthetic panel” that makes it seem like the same household were observed in two time periods. The approach relies fundamentally on time-invariant individual and household characteristics. Specifically, it entails predicting consumption of households surveyed in time t for period $t-k$ using the estimated “returns” to these time-invariant characteristics in period $t-k$. The comparison of “predicted” consumption in $t-k$ with the actual consumption in period t forms the basis of the analysis of mobility, particularly movement in and out of poverty.

To write more formally, consider two rounds of cross sectional surveys (denoted as round 1 and 2) and let y_1 and y_2 be the corresponding consumption for the two rounds (these are consumption for household i , but we suppress those subscripts). For a given poverty line, say, z , we are interested in estimating (a) the fraction of poor households in the first round who escaped poverty ($\Pr(y_2 > z | y_1 < z)$) or remained in poverty in the second round, ($\Pr(y_2 < z | y_1 < z)$); (b) the fraction of non-poor households in the first round who became poor ($\Pr(y_2 < z | y_1 > z)$) or

the fraction of non-poor households that remained non-poor ($\Pr(y_2 > z | y_1 > z)$). However, this cannot be done in a straightforward manner because of the fact that we do not observe the same household in the two periods.

Instead we apply the synthetic panel methodology in the following steps:

STEP 1: Estimate the relationship between consumption and time invariant characteristics in each round and obtain estimates for $\hat{\beta}_i$ and $\hat{\varepsilon}_i$ for $i = 1, 2$.

$$y_1 = \beta_1 x_1 + \varepsilon_1 \quad (1)$$

$$y_2 = \beta_2 x_2 + \varepsilon_2 \quad (2)$$

STEP 2: Use the estimates of $\hat{\beta}_i$ and the error term to predict period 1 consumption for households surveyed in period 2. Since we do not a priori know the empirical distribution of the correlation between ε_1 and ε_2 we consider two extreme cases and use the two scenarios to define the upper and lower bound of mobility. In one case, we assume there is zero correlation between the error terms. In this case, the income prediction for the first round is done by randomly drawing with replacement from the empirical distribution of the first-round estimated residuals for each household i in the second round. Thus, the period 1 predicted household consumption for each household surveyed in period 2 can be written as:

$$\hat{y}_1^2 = \hat{\beta}_1 x_1^2 + \hat{\varepsilon}_1^2 \quad (3)$$

Using the predicted consumption from equation (3), we can obtain estimates of movements in and out of poverty. For example, the fraction of poor households in the first round that escaped poverty in the second round is given by:

$$\Pr(y_2^2 > z | \hat{y}_1^2 < z) \quad (4)$$

Two things are important to note here. Since we are drawing from the empirical distribution of estimated errors, we need to repeat this procedure R number of times and take the average of equation (4) to get the measure of mobility. Second, we assume zero correlation between the error terms in (1) and (2) the measure of mobility obtained by this procedure is the upper bound, or maximum mobility. We can make assumption on the other extreme – that the correlations of the idiosyncratic shocks are perfect and positive – and add more “persistence” and “stickiness” to the vector of consumption. This

would give us the lower bound estimate of mobility. In this case, instead of what is written in (3) we would estimate the period 1 predicted consumption for each household surveyed in period 2 as:

$$\hat{y}_1^2 = \hat{\beta}_1 x_1^2 + \hat{\varepsilon}_2^2 \quad (3)$$

where $\hat{\varepsilon}_2^2$ is the predicted residuals from (2) above. In this case, we would not be drawing from an empirical distribution but using actual predicted residuals for every household thus we would not have to perform R-replications.

The World Bank Group
Nepal Office
P.O. Box 798
Yak and Yeti Hotel Complex
Durbar Marg, Kathmandu, Nepal
Tel.: 4236000
Fax: 4225112
Email: infonepal@worldbank.org

www.worldbank.org/np
www.facebook.com/WorldBankNepal

