

Employment-led Growth in Nepal¹

This note to the National Planning Commission of Nepal discusses ways in which to accommodate new entrants to the labour market while, at the same time, to diminish the level of underemployment. The analysis represents the first phase of our work on employment-led growth in Nepal, and the present phase is in two parts. In the first part, the data used are based on Nepal's official statistics. The analysis captures the number of new entrants to the labour market and the "conversion" of working poor into "productive jobs".² The definition of the latter – "productive" – is any job that is above the national poverty line. The international extreme poverty line of 1.25 US dollars per day for the worker and dependent household members will then be brought into play in the second part of the analysis. Many things define a productive job. For the sake of simplicity, our sole criterion is income. As noted, we use the Nepal poverty data, which is based on household consumption, and, in addition, we offer an alternative, but also consumption-based, World Bank / ILO source of data on working poor in Nepal.

An Employment Target

A Labour Ministry will typically know the number of new entrants to the labour force on an annual basis, and therefore the number of jobs that the economy needs to create in any given year. A commonly used number for Nepal is 400,000 new entrants annually.³ What if, however, the objective is not merely to accommodate new entrants to the labour market, but to reduce the scale of underemployment - of working poverty - of those currently engaged in income generation, or about to be so?

In terms of the labour market, we can quantify poverty reduction in productive employment terms. The application is crude, but unavoidable: how much GDP growth led to how many jobs and what happened to those in working poverty. These numbers offer a first account.

The Implicit Target

A growing number of countries are setting explicit employment targets. Often, such targets can be expressed as the endeavor to create X number of jobs in Y years, yet

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² The approach taken in this note follows Per Ronnas and Miranda Kwong, "Deriving Targets for Productive Employment from Poverty Targets," ILO unpublished working paper, 2009.

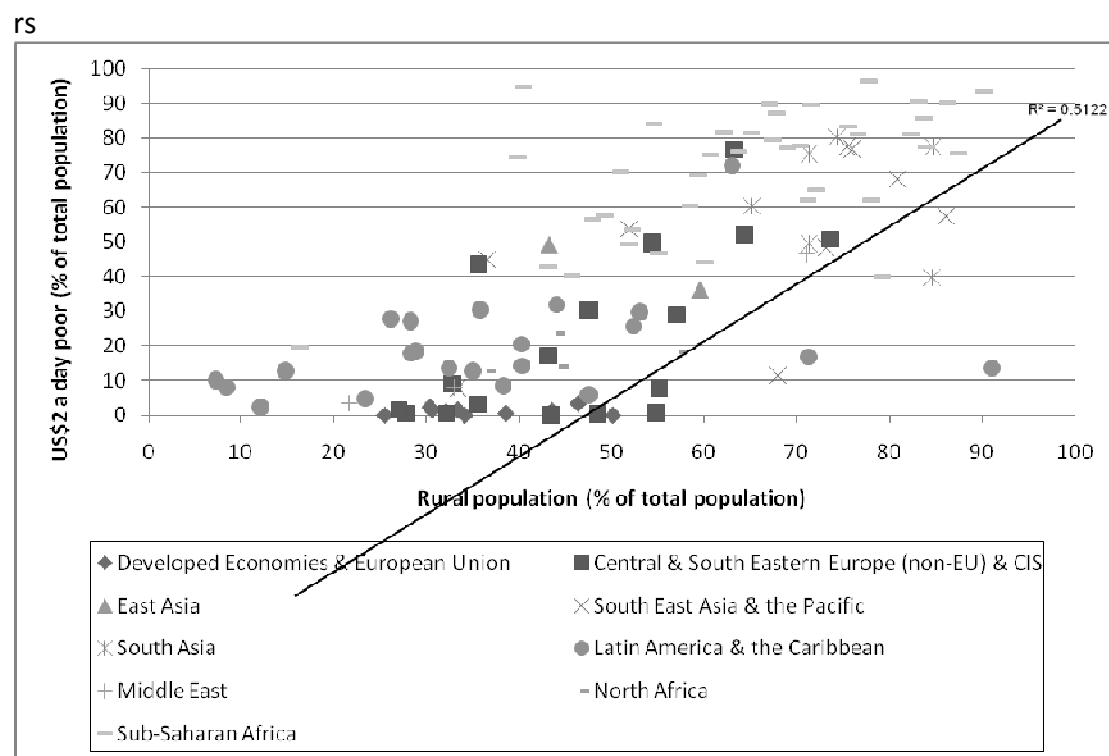
³ Note, however, that our calculation is lower than this figure. See Table 1, Appendix A

there are other ways in which a target can be expressed – for example, it could be to cut unemployment by X % in Y years (South Africa), or, indeed, a more specific target can be articulated, e.g. attaining a 70 % employment-to-population ratio (European Union), or the creation of 23 million jobs in tourism over the life of the 11th Plan (India).

For countries that have not articulated an employment target, a global target applicable to the national level already exists in the form of the Millennium Development Goal to halve poverty between 1990 and 2015. While poverty is most often expressed as a percentage share of the total population, and working poverty as a percentage share of the employed population, both can be expressed as an absolute number.

This note concerns the “productive-employment equivalent” of attaining two poverty reduction objectives. Figure 1 below shows that poverty in most developing countries is overwhelmingly a rural phenomenon, as it is in Nepal.

Figure 1: the “Geography of Poverty” in Developing Countries



Source: ILO Trends Econometric Models, 2009

Looking at income poverty in Two Ways in Nepal

In 1996, poverty in Nepal was recorded to be 42 per cent, falling to 31 per cent less than a decade later, according to the widely cited number from the NLSS. In

accordance with the MDG goal, poverty in 2015 ought to be 25.3 per cent.⁴ In a first look at poverty reduction, we make what might seem an “heroic assumption”: We assume that poverty in Nepal is homogeneously distributed, i.e. 42 % of the population is poor in 1996, and 42% of those employed are working poor. This is not necessarily an unwarranted assumption in a country in which 76 per cent of people earn their living from agriculture, the overwhelming majority of which is subsistence-based, and in a country with a very high labour force participation rate.

As it turns out, the assumption of a relatively homogeneous distribution of poverty is borne out by the data – the distribution is closely homogeneous between age groups, and within the potential workforce aged 15 – 64 (i.e. the economically active and inactive) and, outside of the labour force, the 0 – 14 age group. These data are shown below. We use the international poverty, rather than the Nepal poverty data, as the former can be disaggregated along the lines included in the table (Table 1). Thus, while the share of working poverty, using these data, is lower than for the population poverty rate as a whole, it is not by much, so we consider it a tolerable approximation.

Table 1

The Distribution \$1.25 per day Poverty in the Population as a whole and the Employed Population	
Total Population US\$1.25 Poverty Rate	55.1%
15+ Population US\$1.25 Poverty Rate	49.6%
15+ Employed US\$1.25 Poverty Rate	50.1%
0-14 Population as a share of 0-64 Population	23.0%
0-14 Population at US\$1.25 as a share of 0-64 Population	26.0%

Source: Steven Kapsos', ILO Trends Econometric Models Team, calculations on the basis of NLSS 2003.

The population poverty number thus becomes a proxy for the working poor. But there are other problems to address, which lead to a second way in which the poverty challenge needs to be seen.

A significant feature of Nepal is that people with low domestic earnings do not necessarily live in poor households. One reason for this is because of the household's labour supply to the market. Thus, for example, there could be several low-earning people in the same household with the net result being that the household itself is not poor. The international definition of the (extreme) working poor is a worker's earning \$1.25 or less for him/herself and his or her family.

⁴ We assume a constant elasticity of poverty reduction and impute “backwards” to 1990 to obtain a poverty rate of 50.7 per cent. This latter figure does not seem unrealistic. See Bhuban B. Bajracharya at <http://www.nssd.net/country/nepal/nep08.htm>, who speculates a poverty rate of 49 % at the beginning of the 8th plan in 1992.

Household income is augmented by remittances received from the household's migrated kin. While there is some debate over the weight that remittances has in driving poverty reduction, there is little debate that it is significant. Our calculations in Table 2 find that remittances augment GDP and per capita income by about 10 per cent each. The per capita remittance in Nepal is rps 4,042 (2008), which is over half of the national poverty line of rps 7,696. Thirty per cent of households receive remittances, of which over three-quarters receive remittances from abroad. This is not a trivial point: it could mean that people in Nepal continue to earn meager earnings from their work, but somehow escape the penury of their working lives as their standard of living is supplemented by income from other sources. This income is labour income: some family members might work with very low earnings in Nepal itself, while other family members might be earning quite decent wages abroad.

Table 2

Summary Data on the significance of Remittances in Nepal (2008)				
	Total	From abroad	From within Nepal	
% of HHs receiving remittances	30%	23%		
Average remittance in last 12 months				
by receiving HHs (rps)	65'755	80'462		28'976
over all HHs (rps)	19'721	16'355	(83%)	3'366 (17%)
Per capita remittance amount for all Nepal (nominal rps)	4'042	3'352		
Remittances received for all of Nepal (billion rps)*	95.16	78.92		
Impact of remittances on GDP (billion rps)				
GDP by expenditure approach (2007-08)	815.66			
GDP without remittances from abroad	736.74	(90.3% of total GDP)		
Impact of remittances on PCI (rps)				
GDP per capita	34'644.20			
GDP per capita without remittances from abroad	31'292.10	(90% of total PCI)		
Remittance per capita from abroad	3'352	(10% of total PCI)		

*Calculated by multiplying per capita remittances by the population (23,544,000)

Source: CBS (2009), *Labour Force Survey 2008*, tables 4.4, 17.0

Supplements to earnings that in turn reduce household poverty are not unusual in developing countries. Low pay in South Africa, for example, is offset by substantial transfer payments. A similar system operates in Brazil. The major difference between these two countries and Nepal is that, in the former, it is public support

that is mitigating poverty. In Nepal, the contribution to household earnings does not come from the State. It comes from private remittances.

Nepal is a country in which a large majority of the domestic labour force works in poverty – while the level of poverty in the country as a whole is on a declining trend, in part as a consequence of labour income from outside the country.

There is, however, one over-arching reason for the disparity between population poverty and working poverty numbers: the national poverty line is set very low, and is thus a mere fraction of the international extreme poverty line.⁵ It should be noted that the international \$1.25 threshold is in purchasing-power parity terms. This means that it is not the market-value monetary amount that is of relevance, but it's PPP equivalent. In short, it cannot be assumed that the \$1.25 per day for Nepal yields an annual income of about \$500 (i.e. \$1.25 times 365 days). Rather, the annual poverty amount will be considerably lower.⁶

That said, the important point is that the great disparity between the population poverty numbers for Nepal, and the poverty numbers shown in Table 1 is easily explained: the national poverty line is much lower than the international poverty line of PPP US\$ 1.25.

This note therefore looks at the contribution of productive employment to poverty reduction in two ways:

- First, it looks at how domestic productive employment assists in attaining the MDG of poverty reduction by accelerating the ongoing trend of poverty reduction fuelled in part by Nepal's "non-domestic labour force". The benchmark reference for this first exercise is Nepal's national poverty line.
- Second, by slightly redefining the MDG on poverty reduction to working poverty reduction, we use the productive-employment equivalent of attaining the (redefined) MDG. For this analysis, we use the international extreme poverty line of \$US 1.25.

Two initial conclusions can already be drawn: the first analysis will systematically underestimate the true challenge of attaining productive employment in Nepal as defined by the international poverty line. One would, in short, like to see more productive employment in Nepal than this first approach will reveal. Second, the

⁵ The national poverty line is approximately 7,695 rps per person per annum, or approximately US\$ 100.

⁶ Based on IMF data, in purchasing power parity terms, the US 1.25\$ extreme poverty threshold works out to be 0.53 US\$. Annualized, this works out to be US\$193.45. This amount is approximately twice the annualized amount of the Nepal poverty line, quite consistent with the Nepal v. internationally determined poverty rates for Nepal of approximately 25% and 50% respectively. Looked at from another perspective, if one actually has US\$1.25 in Nepal, one has the purchasing power of US\$3.00. <http://www.tradingeconomics.com/nepal/gdp-based-on-purchasing-power-parity-ppp-per-capita-gdp-imf-data.html>

GDP growth needed in this first analysis will be considerably lower than if one were to redefine the MDG poverty target to a working poverty target. As will be seen, the policy implications to draw from each analytical approach will be quite different. We turn now to the first approach.

The First Approach

Growth and Employment

A limiting, but unavoidable assumption is that of a constant relation between growth and employment – that is, a constant employment elasticity of growth. The assumption is limiting because: it implies a linear relation between growth and employment; does not take into account changes in productivity; and does not account for declines in the working age population (through increased years of schooling, for example). Again, however, the assumption cannot be avoided due to the lack of data, as well as for the sake of a neat and simple argument.

For the Nepal data, the growth/employment ratio is given on average for a recent five-year period. This ratio is then projected for the period 2010 – 2015. While one cannot of course know what future GDP growth will be, one does have a better sense of the number of new labour force entrants, obviously, because these people are alive today.

In sum, what is known from the recent past is how much growth created how many jobs, and the share of those jobs that are “unproductive” according to the poverty-line definition. The target for the reduction of underemployment for 2015 is that it should constitute about 25.3 % of all employed.

It should be noted here that this exercise is concerned with the employed and the underemployed – not with the unemployed. This is for two reasons: first, the unemployment rate, as is often the case in developing countries, is not particularly high in Nepal for the standard reason that, in the absence of social protection, the poor have to work; second, and also not uncommon, it is not necessarily the unemployed who are poor in developing countries. Often, the unemployed are educated, come from middle-income households and can therefore better afford to “wait out” a period of joblessness, or “queue” for the jobs that they would take. In Nepal’s case, unemployment is concentrated among those who have completed secondary education.

Looking to 2015, the “needed” GDP growth rate is calculated to accommodate both new entrants to the labour force while attaining a 25.3 % share of the working poor. The results of this exercise are shown in Table 3 below.

The Problem of Migration in interpreting the Nepal Data

While the needed GDP growth rate to accommodate new entrants while reducing the existing stock of underemployment will always be greater than the rate needed just to accommodate new entrants, an argument can be made that the needed GDP growth rate in Nepal is overstated. This is because it can be assumed that a share of new entrants and the underemployed will leave the country for work elsewhere.

The extent to which needed growth is over-estimated, however, cannot be known with much precision. One would need to know the net stance of the migrant population – that is, not only the number of those who leave the country but the number of those who return as well. Growth, it can be argued, has not had to be as high in Nepal as a result of the “safety valve” of migration.

The significance of migration to the economy of Nepal is noted in Table 2 above. It should be noted as well that, in the decade of the 2000’s, outward migration grew significantly.

The Productive Employment Target for Nepal according to the First Approach

As noted in Table 3 below, the needed GDP growth rate to attain the target of accommodating new entrants and reaching the halfway mark of reducing working poverty by 2015 is in the annual average area of 4.52%. While this exceeds the annual average in the preceding 5-year period, it is nonetheless well within the range of the projected targeted growth rate of Nepal announced by the National Planning Commission. The ADB/ ILO /DfID study of growth constraints in Nepal had moreover observed that there was little reason why the country should not approach the substantially higher South Asian GDP growth rates.

Table 3

Summary of Observed and Projected Labour Market and Macroeconomic Variables for Attaining the MDG-Based Productive Employment Target by 2015	
Working Poverty Rate in 2015 to Attain the MDG	25.23%
Number of Working Poor (‘000) in 2015 to Attain the MDG	1,887
Productively Employed (‘000) in 2015 to Attain the MDG	11,842
Needed Productive Employment (‘000) Growth, 2009 - 2015	3,071
Needed Average Annual Productive Employment Growth, 2009-15	4.38%
Observed Average Annual GDP Growth, 2004 - 2009	3.86%

Needed Average Annual GDP Growth, 2009-2010 4.52%

Average Employment Elasticity, 2004 – 2015 0.57

Source: CBS (1999, 2009, 2005) *Labour Force Survey 1998/99, 2008, Poverty Trends in Nepal (1995/96 -2003/04)*

Discussion

The trend in poverty reduction is driven by labour income, rather than government transfer payments. Along with the labour income of those Nepalese not actually working in Nepal as a driver of the trend, there has also been a rise in domestic earnings, a high labour force participation (far higher than that of India, for example), a trend toward urbanization, among other drivers.

Our first approach imagines that it is, instead, domestic labour income that is driving the trend, even though we know this is not solely the case. We adopt this approach because we want to calculate how much domestic productive employment is needed to “assist” remittances, among other factors, in reducing poverty.

The conclusion we draw is in fact somewhat dangerous in policy terms: in fact, only a rather small increase in domestic productive employment is needed to attain the MDG target. Indeed, it is very conceivable that no additional productive employment would be required to meet the MDG target ! This is in part because remittances have very clearly been on the rise in the first decade of the 2000s. According to official sources, for example:

“An estimated 400,000 jobseekers enter the labour market each year. With job opportunities in the local market drying up and soaring demand from overseas, nearly 300,000 Nepali workers have left for foreign employment in 71 countries around the world. According to the Department of Foreign Employment’s annual data on the departure of Nepali workers during the fiscal year 2009/10, a total of 294,094 individuals including 10,056 women left the country for foreign employment. The number is up by 35.42 percent compared to 217,165 departures in the previous year”⁷

Should that trend continue, no further “domestic labour assistance” to Nepal’s migrant workforce might be needed to reduce poverty to target levels.⁸ Ironically, one path to solving poverty in Nepal could consist in simply sending as many workers abroad as possible !

⁷ “Worker Departures 294K last FY”, the *Kathmandu Post*, 21 July 2010.

⁸ Indeed, on the basis of the 1990 and 2015 poverty shares we used in this exercise, by some accounts Nepal has already achieved the MDG poverty target for 2015. See Nepal’s poverty level down to 24.8 percent, *Asian Tribune*, 14 April 2009. <http://www.asiantribune.com/?q=node/16787>. Our constant elasticity approach yields a slightly higher number and thus motivates our hypothesis of needed additional productive employment.

We would argue that this is an unwise choice as it could lead to an excessively passive policy stance toward problems, including low income, in Nepal's own labour market. In other words, why worry about earnings if these as well as consumption are greatly supplemented by other sources of income (i.e. including those from abroad)? The answer is that low domestic earnings mean low productivity and low productivity means low competitiveness and a potential disincentive to invest. A disincentive to invest is in turn a barrier to employment creation. This is why an equal focus on the domestic working poor is essential, a point to which we return.

From the Aggregate to the Sector Level

When the domestic productive employment challenge is defined by the national poverty line, there are good reasons for thinking that the MDG on halving poverty can be met by Nepal by the 2015 timeline. Applying the same approach, we now look at identifying growth / employment challenges at a more disaggregated level.

The data in Table 5 endeavor to show the disparity between actually achieved and needed growth needs at the sector level. The methodological approach is identical to the one applied to the aggregate-level analysis (as shown in Appendix A), with one exception. We use different poverty rates for each of the following broad sectors – agriculture, manufacturing, trade and services – as shown in Table 4 below.

Table 4

Headcount Poverty Rates by Sectors			
	1995/96	2003/04	Change
Self-employed in:			
Agriculture	43.1	32.9	-24%
Manufacturing	41.4	31.2	-25%
Trade	32.2	11.1	-66%
Services	25.3	14.4	-43%
Total	41.8	30.8	-26%

Source: CBS (2005), *Poverty Trends in Nepal (1995/96 and 2003-04)*

Table 5

Productive Employment Target at the Sectoral Level in Nepal							
Sector	Observed GDP growth (2003/04 - 2008)	Observed employment growth (2003/04 - 2008)	Elasticity	Annual productivity growth	Observed productive employment growth (2003/04 - 2008)	Required productive employment growth to reach MDG goal	Required GDP growth to reach MDG goal
Sectors with low economic growth and even lower employment growth							
Agriculture	2.93	1.67	0.57	0.72	3.02	3.89	3.78
Sectors with low economic growth relative to employment growth (high employment elasticity)							
Mining, Quarrying	3.57	12.93	3.62	-5.90	14.38	5.59	4.43
Manufacturing	1.5	3.41	2.27	-2.59	4.15	6.47	17.93
Wholesale, Retail Trade	2.57	5.43	2.11	-3.88	6.67	5.00	1.93
Hotels, Restaurants	5.06	5.62	1.11	-3.54	6.9	5.25	3.87
Real Estate	5.83	8.3	1.42	-4.25	9.16	9.74	6.19
Sectors with high economic but low employment growth							
Electricity and Water	4.62	2.64	0.57	3.33	3.95	5.25	6.13
Construction	3.59	0.89	0.25	2.25	1.7	0.49	1.04
Sectors with high economic and high employment growth							
Transport & Communication	5.98	3.9	0.65	1.00	4.74	4.64	5.86
Financial Intermediation	13.88	5.35	0.39	3.46	6.19	6.4	14.34
Public Administration	2.99	4.53	1.52	1.66	5.36	5.41	3.01
Education	6.37	5.68	0.89	1.45	6.53	6.79	6.62
Health Care	8.36	8.52	1.02	-1.19	9.39	9.98	8.89

Source: MOF (2009) Economic Survey 2008/09; CBS (2009, 1999) Nepal Labour Force Survey 1998/99 and 2008

A problem arises in the assumption of a homogeneous distribution of poverty in the sub-sectors. It is, for example, rather plausible to assume that the share of working poor in financial intermediation is unlikely to be as great as that in education or health care. The argument can be underlined by the distribution of wages which are highest in financial intermediation, which is shown in Table 6 below. This in turn means that, looking ahead, “needed growth” is likely to be off – there will be some sectors in which “needed growth” is substantially underestimated, and others where it is over-estimated.

Table 6

Average monthly wages by economic activity (in Rps)		
	1999	2008*
Agriculture	1246	2975
Mining, quarrying	2073	4950
Manufacturing	2567	6129
Electricity, gas and water	3373	8054
Construction	2298	5487
Wholesale, trade	2331	5566
Hotels and restaurants	2988	7135
Transport, communication	2950	7044
Financial intermediation	4468	10669
Real estate	3399	8116
Public administration	3078	7350
Education	2844	6791
Health care	2948	7039
Total	2143	5117

*assuming an uniform growth rate of 9.09% p.a. for all sectors

Source: ILO (2010). Laborsta; CBS (2009). Nepal Labour Force Survey 2008

Two Interim Policy Considerations

While there are benefits and insights in the approach thus taken to identify needed growth to achieve a particular productive employment target, there is one shortcoming in that the approach does not factor in structural transformation. Indeed, the implicit assumption of this approach is that one does not care about the economic structure of a country – and, even more, changes in that structure – but

cares only about how to maximize a productive employment target irrespective of the sector in which it occurs.

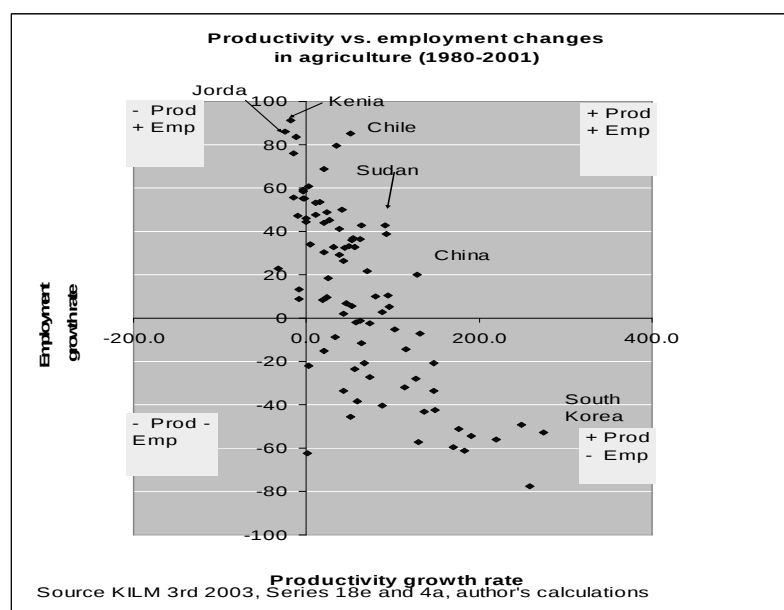
Put in its simplest terms, this approach assumes away productivity growth, innovation, and inter-sectoral mobility. It is a static snapshot, in short, rather than a dynamic look at a changing economic structure.

The problem with this is that it leads to the conclusion that one wants to see a particular (“needed”) growth rate in a sector simply to obtain a “productive-employment absorption function” at some constant employment elasticity, when in fact one might want to see productivity growth greatly outstripping employment growth in one sector and substantial employment growth in another – i.e. declining elasticities in the former and moderated ones in the latter.

The clearest example of this is agriculture. The traditional development trajectory is one in which employment actually declines in agriculture, productivity increases, and the surplus labour moves to other higher value-adding sectors of the economy.

As an aside, this is not the case of Nepal where one could argue that there remains scope for both employment and productivity increases in the sector. For about one third of a sample of 100 countries, ILO finds that both employment and productivity grew in agriculture, as shown in the figure below. We find further that this combination of employment and productivity in agriculture shows the highest elasticity of poverty reduction. Discussion will return to this point. The point here is simply that the methodological approach taken in this note does not consider structural transformation.

Figure 3: Productivity and Employment Growth in Agriculture



This leads rather seamlessly to the second policy consideration. Policy choice matters. Governments may and often do direct policy support to sectors that they deem essential for whatever reason, or consider to be ones in which comparative advantage can be built. In the calculation of the latter, the government is most often guided by private-sector opinion, those investors, in particular, who see an opportunity. In the case of Nepal, tourism is an obvious sector to support in a country with privileged access to the world's highest mountains, the birthplace of Buddha, and myriad other riches. But it is also the case in Nepal that the vast majority of her people live and work in agriculture and to neglect this would be to neglect a growth-enhancing policy option.

A Complementary but not Overlapping View on Productivity

Nepal is not alone in being a country in which employment elasticities at the sectoral level can well exceed unity. An elasticity above unity simply means that productivity is declining. By extension, it means that, most probably, both earnings and profits are declining in that sector. This, in itself, is not a healthy trend as it can imply higher unit labour costs, a loss of competitiveness, etc.

A separate report has concluded that productivity in Nepal is a worrisome matter.⁹

What it does not in itself imply is a rise in working poverty such as this paper has defined it. This is simply because one can observe declining earnings that nevertheless remain above the poverty line. The elasticity problem is therefore no doubt related, but not identical to the matter being addressed here. It is in the end an empirical question.

Table 7 shows elasticities at the sector level for Nepal. It is apparent that some industries show elasticities substantially over unity. It cannot be excluded that these outcomes could be related to poor data .

⁹ Nepal : Critical Constraints to Growth, (Manila : Asian Development Bank, 2009)

Table 7

Elasticity and Productivity at the Sectoral Level					
	Classification	Annual employment growth rate 1998-2008	Economic growth rate 2003/04 - 2008	Employment elasticity	Annual productivity growth 1999-2008
Sectors with low economic growth and even lower employment growth:					
Agriculture, forestry and fishing	A	1.67%	2.93%	0.57	0.72
Construction	S	0.89%	3.76%	0.24	2.25
Sectors with low economic growth relative to employment growth (high elasticity)					
Manufacturing	I	3.41%	1.50%	2.27	-2.59
Wholesale trade, retail trade	S	5.43%	2.57%	2.11	-3.88
Hotels and Restaurants	S	5.62%	5.06%	1.11	-3.54
Real estate, renting	S	8.30%	5.83%	1.42	-4.25
Mining and quarrying	I	12.93%	3.57%	3.62	-5.90
Public administration	S	4.53%	2.99%	1.51	1.66
Sectors with high economic growth but low employment growth					
Electricity, gas, water supply	S	2.64%	4.62%	0.57	3.33
Sectors with high economic growth and high employment growth					
Transport and storage	S	3.90%	5.98%	0.65	1.00
Financial intermediation	S	5.35%	13.88%	0.39	3.46
Education	S	5.68%	6.37%	0.89	1.45
Health and social work	S	8.52%	8.36%	1.02	-1.19
Total/average		2.22%	5.27%	0.42	0.56

Other communication and Private Household activities are not included as either the employment elasticity is 1 or data is not available.

Source: MOF (2009) Economic Survey 2008/09; CBS (2009, 1999) Nepal Labour Force Survey 1998/99 and 2008

Table 8's calculations merely constitute a small "thought experiment". By defining an "acceptable" elasticity at unity – i.e. constant productivity – one can calculate the "excessive employment" equivalent of those sectors with above-unity elasticities. The hypothesis is simply to imagine that, if the above-unity employment elasticity sectors had been able to attain their observed economic growth rates with an employment elasticity of unity, then how many fewer workers would be necessary to do so? Our rough calculation arrives at a figure of about 350,000.

Table 8

“Surplus Employment” in industries with above-unity elasticities								
Industry	Employment ('000)		Employment growth, annual (average)	Economic growth rate 2003/04 - 2008, annual	Employment elasticity	Employment growth if elasticity is unity	Employment in 2008 if elasticity is unity	Difference (surplus jobs) ('000)
	1998-99	2008						
Agriculture, forestry, fishing	7376	8701	1.67	2.93	0.57	2.93	9846	-1145
Mining and quarrying	8	27	12.93	3.57	3.62	3.57	11	16
Manufacturing	553	773	3.41	1.50	2.27	1.50	642	131
Electricity, gas and water (+fetching water)	84	109	2.64	4.62	0.57	4.62	132	-23
Construction	344	376	0.89	3.76	0.24	3.76	497	-121
Wholesale, retail	408	692	5.43	2.57	2.11	2.57	526	166
Hotels and Restaurants	114	197	5.62	5.06	1.11	5.06	187	10
Transport, storage	135	198	3.90	5.98	0.65	5.98	241	-43
Financial intermediation	19	32	5.35	13.88	0.39	13.88	70	-38
Real estate, renting	32	71	8.30	5.83	1.42	5.83	56	15
Public administration	70	109	4.53	2.99	1.51	2.99	94	15
Education	164	285	5.68	6.37	0.89	6.37	304	-19
Health care and social work	34	77	8.52	8.36	1.02	8.36	76	1
Other communication	57	99	5.68	..	..	..	..	..
Private household	58	33	-5.48	..	..	..	..	..
Total/average	9456	11779	2.22	5.25				
Total surplus jobs (in sectors where elasticity is over 1)								353985

Source: MOF (2009) Economic Survey 2008/09; CBS (2009, 1999) Nepal Labour Force Survey 1998/99 and 2008

The Second Approach

When the working poor are no longer calculated as a function of Nepal's national poverty line, but, instead, calculated using the international extreme poverty line of a per capita US\$ 1.25 a day or less for the employed person and his or her family, one fact stands out: the magnitude of the challenge of tackling working poverty rises considerably. Again, and quite obviously, there is a reason for this: the international poverty threshold is far higher than Nepal's national poverty line.

Poverty among those who work in the domestic labour market is in fact widespread across many sectors. The table below (Table 9) shows that the wages of the unskilled, whether in agriculture or non-agriculture overwhelmingly group around the international extreme poverty threshold (when purchasing power parity is not accounted for). "Wage" or "paid" employment, moreover, is quite a minor share of the Nepal labour market. It is likely, therefore, that, remittances aside, earnings for the self-employed are lower still.¹⁰

Table 9

Average Daily Wages, 1995/6 – 2003/4 in Real 1995 Rupees									
	Agriculture			Unskilled non-agriculture			Skilled non-agriculture		
	1995/6	2003/4	Change %	1995/6	2003/4	Change %	1995/6	2003/4	Change %
Urban	42	58	38%	98	92	-6%	138	461	234%
Rural	44	55	25%	79	98	24%	81	135	67%
Nepal	44	55	25%	81	97	20%	94	295	214%

Source: CBS, World Bank, DfID, ADB (2006), cited in the ADB, ILO, Dfid study on growth constraints in Nepal, (Manila: ADB, 2009), p. 110.

The table below (Table 10) shows that the magnitudes, in both absolute terms as well as a share of the labour market, are substantially higher than in the first analytical approach.

¹⁰ We use these admittedly not up-to-date figures. The 2009 Labour Force Survey presents data on earnings at the occupational level only.

Table 10

"Redefining" the MDG Poverty Reduction Target					
Official Nepal LFS Data	1990	1998/99	2008	2015	Average annual growth
Population 15+ ('000s)		11'225	14'424		2.7
Labour Force 15+ ('000s)	7'618	9'641	12'032	15'160	2.4
Employment 15+ ('000s)	7'481	9'463	11'779	14'841	2.3
Unemployment 15+ ('000s)		178	253		
Unemployment rate (%)	1.8	1.8	2.1	2.1	
	1990	1998/99	2008	2015	Projected LF growth, 2008-2015
LF (ILO EAPEP)	7'547	9'693	12'929	15'826	2.90%
ILO Working Poverty Model based on WB Data	1990	2000	2008	2015	
Estimated US\$1.25 poverty rate	73.2	62	53.8	51	
Working poor estimates	1990	2000	2008	2015	
Estimated working poor ('000s)	5'576	5'977	6'473	7'731	
Estimated productively employed ('000s)	1'904	3'486	5'306	7'109	
Estimated working poor (% of total employment)	74.5	63.2	55	52.1	
MDG Goal-related calculations					
Working poverty rate in 2015 - equivalent MDG Goal				37.3	
Working poor in 2015 - equivalent MDG Goal				5531	

Thus, for example, with the Nepal poverty line, the share of working poor in 2008 was estimated at 25.5 % using the first approach, whereas, with the second approach, using the international poverty line, the share in the same year is 55 %. The first approach also yields a “distance to go” to achieve the 2015 target as miniscule (from 25.5 % to 25.3 %), whereas, with the second approach, the distance is considerably greater, from 55 % to 37.3 %.

The difference between the two possibly suggests that poverty at the lower poverty threshold (i.e. the Nepal poverty line) is declining at a more rapid rate than when

poverty is defined using the (international) higher threshold, the decline of which is proceeding from a higher level and at a slower pace.

In trend terms, the second approach shows that a halving of working poverty is unlikely to occur by 2015. For that objective to occur, growth would have to be sufficient to reduce working poverty by 2.2 million persons.

In conclusion, the first approach concluded that the poverty target could be reached with an average 4.52 % GDP growth rate to 2015 – a growth objective lower than the one that the National Planning Commission has actually set. The second approach, however, concludes that Nepal would have to grow at 6.3 % on average -- something that is better than Nepal has thus far recorded, but not unachievable. In India, the fruits of that country's high growth rate have not been equally distributed. The calculation for Nepal is (once again) based on a constant relationship between growth and the elasticity of working poverty reduction. The assumption of a constant elasticity as was noted earlier is a fairly strong assumption.

Next Steps for a Second Phase of Work

The major conclusion to draw from the second approach this note has taken is that, to achieve the redefined MDG on working poverty, Nepal needs higher growth than that which has been achieved to date. This in turn suggests a role for policy to work on the “quality” or “pattern” of growth, rather than just on growth alone.

This in turn suggests a role for rethinking industrial and sector policies, both to accelerate growth and to embed a productive employment objective in that growth. We propose that a second phase of our work address the question of appropriate industrial and sector policies applied to those sectors that the NPC has defined as priority sectors.

Our proposed approach would be guided by the following premises:

Ghana's goldmines currently employ a very small fraction of what they once did – reaching gold further down in the earth has transformed the production technology of the industry into one that is highly capital-intensive. The development of Nepal's extraordinary hydroelectric potential will probably not be abundant in direct employment creation, with the exception of the initial infrastructure to create it.

Does this mean that neither country should be interested in their respective productive potentials in these areas? Certainly not. While there will always be distributional (and ownership) issues to settle, the source of revenue generation and its own potential, including for employment growth through spillovers, cannot be overlooked.

One would need, in consequence, to distinguish between direct and indirect employment creation potentials, as well as on the temporal disparity between direct and indirect employment effects.

The National Planning Commission will know and probably use sophisticated analytical techniques, CGEs, Social Accounting Matrices, etc. for evaluating interrelationships in a dynamic context on various assumptions. The approach we are proposing is simpler, to rely on “tried and true” input-output matrices.

The effort will be to calculate multiplier ratios, which can then be converted into employment numbers -- that is, what do 100 rupees generated in sector X generate in growth in sector Y, and, again with the assumption of constant elasticity of employment to sector value-add, how many jobs does growth in Sector X generate in Sector Y? It is our early hypothesis that several of the sectors that the NPC has targeted – e.g. tourism, electricity, physical infrastructure – will have such substantial multiplier effects that indirect employment creation will greatly exceed direct employment creation. For example, a focus on tourism will have substantial spillover effects on agriculture, on transportation, on construction, and a range of services.

Concurrent with the proposed work on sector and industrial policies, the ILO proposes to conduct an “employment constraints diagnostic” for Nepal, using a methodology that has been developed at ILO Geneva, and which is being piloted in four other countries under a grant from the Swedish government.

ILO would propose an additional phase of work along the lines above.

Conclusions

This analysis “assigned” two different productive employment targets for 2015 to Nepal. Our central conclusion is that the first employment target we set for the country is insufficiently ambitious and, indeed, if it has not been attained already can easily be done so in an almost “business-as-usual” fashion. The second target conveys more ambition, would require an annual average 6.3 % GDP growth rate to 2015, and, in our estimation, is realistic and achievable.

One qualification applies to the conclusion above. As we complete this analysis, we note that Nepal might raise its poverty line to 13,000 rps – almost double the NLSS 2003/4 figure.¹¹ We consider this to be a well-warranted adjustment. That said, however, the 25% poverty figure for the country will most certainly rise – indeed, 13,000 rps works out to be not much less than the PPP US\$1.25 annualized amount (footnote 6). This means that our first conclusion – that the first employment target we set for the country is either easily achievable or already achieved – would no longer apply.

¹¹ « NPC says absolute poverty at 25.4 pc », *The Himalayan Times*, 17 July 2010

Our approach was to convert the objective of poverty reduction in Nepal to its productive-employment equivalent, where “productive” was simply defined as earnings above the poverty line. The two targets were based on two poverty lines. In the first approach, Nepal’s national poverty line was used, while in the second approach, the basis was the international (extreme) poverty line of \$1.25 a day in purchasing power parity terms. The difference in ambition between the two targets can be easily explained: the international poverty is quite simply far higher than Nepal’s own poverty line.

To motivate the analysis and discussion, the assignment of employment targets to Nepal was based on the Millennium Development Goal of halving poverty from 1990 to 2015. In our first targeting exercise, we imputed a population poverty rate for Nepal in 1990 of 50.7 %. This was done using a simplified assumption of a constant elasticity of poverty reduction for the country. The 2015 poverty target for the country thus becomes 25.3 %.

For both targets, we used a no doubt strong assumption that poverty in Nepal is homogeneously distributed in and out of the labour market, such that the national poverty rate becomes identical to a working poverty rate. Our calculations show that this assumption was actually not far from reality. We did this just as a demonstration to calculate how much more productive employment in the domestic labour market is required to attain the 2015 target.

In the context of declining poverty in Nepal, this exercise was really to show how many more productive jobs are needed to “assist” what is already happening in the country. For the first target, at the present rate of poverty reduction, Nepal will, by our calculations based on a constant elasticity of poverty reduction, fall slightly short of reaching the poverty target without the assistance of an increase in domestic productive employment, (or, importantly, some other source of household income).

Our conclusion for the first target (with the qualification noted above) is that Nepal is well on its way to achieving the MDG target. Indeed, as noted, by some reckonings, Nepal has already achieved the MDG poverty target, which simply means that our assumption of a constant elasticity of poverty reduction is erroneous (which is highly likely, given the relatively strong increase in outward migration). By our method, we impute a needed average annual GDP growth rate of just over 4 % between now and 2015 to attain the target, which is well within the GDP growth target set by the National Planning Commission. It should be noted, of course, that this would still leave one quarter of the country’s population in poverty in 2015. This is the reason that we feel that the first target is insufficiently ambitious, and the country can do more.

We thus conclude that the relative ease of reaching this first target should not lead to a passive policy response. Poverty is declining in Nepal for many reasons: there is, for example, a high labour force participation rate, a rapid rate of urbanization, earnings have increased over time, and both internal and external migration, with

the remittances they bring, are on the rise. Thus, it is possible that Nepal could reach its poverty target even without the creation of additional productive jobs.

But this masks an issue in the labour market of some concern when the share of the working poor in the labour market is evaluated using the international poverty line. When one “switches” poverty lines from the national to the international line, the magnitude of the productive employment challenge increases. A person is defined as a member of the working poor if that person makes less than per capita \$1.25 a day for him- or herself and his or her family. Our data show that the share of the working poor is just over twice as high when one refers to the international poverty line.

In annual terms, Nepal’s poverty line in market-value terms is about \$US 100. The international poverty line works out to be almost twice that amount, once deflated once purchasing power parity is considered.

Should we care about a high share of working poor people as long as poverty as a whole is declining? We argue strongly in the affirmative. First, we find it plausible that the decline in poverty is more pronounced using the Nepal line rather than the international line -- that is, absolute poverty is possibly declining more rapidly than poverty. We argue further that a high share of working poor people means that productivity is exceedingly low. Indeed, productivity in Nepal is the lowest in the sub-region, and the productivity trend has been stagnant.

In fact, our analysis identifies some sectors where employment elasticity is substantially above unity, implying declining productivity in these sectors. As a small thought experiment, we calculate what could be considered “surplus employment” in those industries, and the number amounts to about 350,000 workers.

Low productivity means low competitiveness, which in turn is a disincentive to invest and consequently a barrier to the creation of productive jobs.

Our recommendation for Nepal is for a focus on productivity improvements. We find that the challenge of productivity improvement is of a particularly great magnitude.

To establish the second target, we “rewrote” the MDG poverty target to become a “working poor target” in the same timeframe and objective as the original MDG – in other words, to halve the share of the working poor in the employed labour force from 1990 to 2015. We conclude, once again, that the GDP growth needed to attain this target is within the bounds of possibility.

A focus on improving productivity does not mean to maximize productivity at the expense of employment. For example, improved seeds, crop diversification, and irrigation are all ways of improving agricultural productivity without affecting employment, and could even be consistent with increasing employment in agriculture, if productivity improvements mean higher farm earnings.

One could argue that, even if improving productivity is at the expense of job creation in the short term, the resulting improvement in competitiveness and lower unit labour costs should result in higher job growth in the future. This is probably true, but there is no necessary need to sacrifice employment for productivity gains – the two can go together.

These findings conclude the first phase of our work. A second phase, as noted, will examine how changes in the *pattern* of growth can assist Nepal in domestic productive employment creation. This phase of the work will thus focus on industrial and sector-level policies directed toward the sectors that the National Planning Commission has identified as priority sectors. In addition, we propose a diagnosis of the *constraints* to productive employment growth in Nepal.

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Methodological Appendices

Appendix A

1. Methodology to arrive at aggregate targeted employment and GDP growth rates

To arrive at Headcount Poverty Rates for each sector we followed the International Standard Industrial Classification:

Manufacturing: mining and quarrying, electricity, gas and water
 Trade: wholesale and retail, Hotels and restaurants
 Services: construction, transport and communication, financial intermediation, real estate, public administration, education, health care

Table a. Quantifying the productive-employment equivalent of the MDG Poverty Goal for 2015							
	('000)	1990	1995-96	1998-99	2003-04	2008	Avg. annual growth 2015*
Working age population (15+) ('000s)				11225		14424	2.54
Labour force (15+) ('000s)		7618	9021	9641	10770	12032	2.24
Employment (15+) ('000s)		7481	8346	9463	10558	11779	2.21
Unemployment (15+)				178		253	3.58
Unemployment rate (%) (15+)				1.85		2.10	
Poverty head count rate (%)		50.46	41.76	37.3	30.9	25.5	-3.71
Working poor estimates							
Estimated working poor ('000s)		3775	3485	3528	3257	3007	-1.26
Estimated productively employed ('000s)		3706	4861	5935	7301	8772	3.74
Estimated working poor as % of total employment		50.46	41.76	37.28	30.85	25.53	
MDG Goal related calculations							
Working poverty rate in 2015 - equivalent MDG goal							25.23
Working poor in 2015 - equivalent MDG goal ('000)							1887

*Projection based on the average growth rates of 2003/04-2008

Source: Central Bureau of Statistics: Labour Force Surveys and 'Poverty Trends in Nepal (1995-96 and 2003-04)'

Step 1: calculating average annual value added and total employment growth rates

The Poverty Headcount Rate is given in "Poverty Trends in Nepal 1995/96 and 2003/04" (CBS, 2005) and for the annual GDP growth rates we used Ministry of Finance Nepal data, which results in an average annual growth rate of 3.86% between 2003/04 - 2008. While employment growth averaged 2.21%, which is based on the employment figures in NLFS 1998/99 and 2008, yielding an employment elasticity of 0.57%.

Step 2: number of working poor and 'productively employed'

The number of working poor (excluding unemployed) is defined as total employment multiplied by Poverty Headcount Rate for each year. The number of productively employed is then total employment less the working poor. The average annual growth of productive employment turned out 3.74% (Table a).

Table b. Needed growth for attaining the productive-employment target

MDG Goal related calculations	
Working poverty rate in 2015 - equivalent MDG goal	25.23
Working poor in 2015 - equivalent MDG goal ('000s)	1887
Productively employed in 2015 - equivalent MDG goal ('000)	11842
Observed GDP growth (Using CBS data, 2003/04 - 2008/09)	3.86
Observed real per capita GDP growth (2003/04 - 2006/07)	1.23
Needed productive employment growth, 2009-15 ('000)	3071
Needed productive employment growth, 2009-15 (average annual %)	4.38
Needed GDP growth, 2009-15 (average annual %)	4.52
GDP (population*GDP per capita) in 2015 needed to reach goal (in mn Rps)	765819
Per capita GDP in 2015 needed to reach goal	22790
Per capita GDP growth, 2009-15, needed to reach goal	1.44

Source: Central Bureau of Statistics: Labour Force Surveys and 'Poverty Trends in Nepal (1995-96 and 2003-04)'

Step 3: targeted annual employment growth rate 2010 – 2015

Over the next 5-year period, new entrants to the labour market will average 2.21% per year which leads to an employment level of 13,730,000 in 2015. The target is to reduce by half the share of unproductive jobs in 1990 over this period which means 1,887,000 working poor people (3,775,000/2). In other words, we want to reach a productive employment level of 11,843,000 in 2015. In order to attain this target we need an annual productive employment growth of 4.38% ($((11,843,000/8,772,000) ^{(1/7)} - 1) * 100$).

Step 4: targeted annual GDP growth 2010 - 2015

If it took 3.86% growth to create 3.74% productive jobs, the needed GDP growth over the next five years, at the constant "productive employment elasticity" of 0.97, will have to be 4.52% (Table b).

2. Methodology to arrive at 'excessive employment' – unity elasticity: using example of manufacturing sector

Some industries experienced higher employment than value added growth and therefore declining productivity. However, employment growth at the expense of productivity is not what we want to see. Our objective was to construct the employment and value added growth consequences if elasticity were unity (using example of manufacturing).

Step 1: employment level in 2008 if elasticity were unity

Unity elasticity means that employment growth rate is equal to observed economic growth ($3.41=1.5=1.5$). Therefore, we calculated the 'desirable' employment level in 2008 on the base of 1998/99, yielding 642,000 economically active people in manufacturing (shown in Table c).

Step 2: employment surplus

We calculated the difference between the observed employment level in 2008, 773,000, and the one if elasticity were unity, 642,000. As manufacturing sector experienced high employment elasticity of growth this results in 131,000 over-employees. The highlighted rows are sectors with 'excess labour': mining and quarrying, manufacturing, wholesale and retail, hotels and restaurants, real estate, public administration (and health care).

Step 3: needed employment and value added growth rates if elasticity were unity

We followed the same methodology which was applied for the aggregate and sector level. The only exception is that the employment growth is now equal to the observed economic growth rate (Table d).

Table c. Employment at unity Elasticity								
Industry	Employment ('000)		Employment growth, annual (average)	Economic growth rate 2003/04 - 2008, annual	Employment elasticity	Employment growth if elasticity is unity	Employment in 2008 if elasticity is unity	Difference (surplus jobs) ('000)
	1998-99	2008						
Agriculture, forestry, fishing	7376	8701	1.67	2.93	0.57	2.93	9846	-1145
Mining and quarrying	8	27	12.93	3.57	3.62	3.57	11	16
Manufacturing	553	773	3.41	1.50	2.27	1.50	642	131
Electricity, gas and water (+fetching water)	84	109	2.64	4.62	0.57	4.62	132	-23
Construction	344	376	0.89	3.76	0.24	3.76	497	-121
Wholesale, retail	408	692	5.43	2.57	2.11	2.57	526	166
Hotels and Restaurants	114	197	5.62	5.06	1.11	5.06	187	10
Transport, storage	135	198	3.90	5.98	0.65	5.98	241	-43
Financial intermediation	19	32	5.35	13.88	0.39	13.88	70	-38
Real estate, renting	32	71	8.30	5.83	1.42	5.83	56	15
Public administration	70	109	4.53	2.99	1.51	2.99	94	15
Education	164	285	5.68	6.37	0.89	6.37	304	-19
Health care and social work	34	77	8.52	8.36	1.02	8.36	76	1
Other communication	57	99	5.68	..	..	..	..	..
Private household	58	33	-5.48	..	..	..	..	..
Total/average	9456	11779	2.22	5.25				
Total surplus jobs (in sectors where elasticity is over 1)								353985

Source: MOF (2009) Economic Survey 2008/09; CBS (2009, 1999) Nepal Labour Force Survey 1998/99 and 2008

Table d. Employment and value added growth rates for elasticity at unity

Sector	Observed GDP growth (2003/04 - 2008)	Observed employment growth (2003/04 - 2008)	Elasticity	Annual productivity growth	Employment growth if elasticity were unity (2003/04 - 2008)	Observed productive employment growth if elasticity were unity (2003/04 - 2008)	Needed productive employment growth if elasticity were unity to reach MDG goal	Needed GDP growth to reach MDG goal
Sectors with low economic growth and even lower employment growth								
Agriculture	2.93	1.67	0.57	0.72	2.93	3.7	5.9	4.67
Sector with low economic but high employment growth								
Mining, quarrying	3.57	12.93	3.62	-5.90	3.57	4.16	6.58	5.64
Manufacturing	1.5	3.41	1.05		1.50	2.49	4.12	6.85
Wholesale, retail trade	2.57	5.43	3.22	-7.42	2.57	3.26	0.71	0.56
Hotels and Restaurants	5.06	5.62	1.11	-3.54	5.06	5.3	4.43	4.27
Real estate	5.83	8.3	1.42	-4.25	5.83	5.48	6.92	7.37
Sectors with high economic but low employment growth								
Electricity and water	7.19	8.07	3.24	-0.55	7.19	8.27	8.75	7.98
Construction	3.59	0.89	0.25	2.25	3.59	4.42	4.24	3.45
Sectors with economic and high employment growth								
Transport, communication	5.98	3.9	0.65	1.00	5.98	5.59	7.1	7.59
Financial intermediation	13.88	5.35	0.39	3.46	13.88	11.85	15.65	18.34
Public administration	2.99	4.53	1.52	1.66	2.99	3.2	3.43	3.2
Education	6.37	5.68	0.89	1.45	6.37	5.91	7.55	8.13
Health care	8.36	8.52	1.02	-1.19	8.36	7.49	9.79	10.92
Aggregate	3.86	2.21	0.57		3.86	2.21	6.32	11.64

Source: MOF (2009) Economic Survey 2008/09; CBS (2009, 1999) Nepal Labour Force Survey 1998/99 and 2008

Appendix B: The “second target” approach using World Bank / ILO Data

	1990	1998/99	2008			Average annual growth	
Official Nepal LFS Data							
Population 15+ ('000s)		11'225	14'424			2.7	
Labour Force 15+ ('000s)	7'618	9'641	12'032	15'160		2.4	
Employment 15+ ('000s)	7'481	9'463	11'779	14'841		2.3	
Unemployment 15+ ('000s)		178	253				
Unemployment rate (%)	1.8	1.8	2.1	2.1			
					Annual growth 1990-98/99	Projected LF growth, 2008-2015	
	1990	1998/99	2008	2015			
LF (ILO EAPPEP)	7'547	9'693	12'929	15'826	3.0%	2.9%	
ILO Working Poverty Model based on WB Data	1990	2000	2008	2015			
Estimated US\$1.25 poverty rate	73.2	62.0	53.8	51.0			
					Average annual growth, 1990-2008	Average annual growth, 2000-2008	Average annual growth, 2008-2015
Working poor estimates	1990	2000	2008	2015			
Estimated working poor ('000s)	5'576	5'977	6'473	7'731	0.8	1.0	2.6
Estimated productively employed ('000s)	1'904	3'486	5'306	7'109	5.9	5.4	4.3
Estimated working poor (% of total employment)	74.5	63.2	55.0	52.1			
GDP per capita (constant LCU)	13'550	17'244	19'442		2.0	1.5	
Population '000s (0+)	19'105	24'432	28'810	32'503	2.3	2.1	1.7
GDP (constant LCU)	258'873	421'305	560'124	750'254	4.4	3.6	4.3
Simple elasticity of productive employment growth to GDP growth					1.3	1.5	1.0
MDG Goal-related calculations							
Working poverty rate in 2015 - equivalent MDG Goal				37.3			
Working poor in 2015 - equivalent MDG Goal				5'531			
Productively employed in 2015 - equivalent MDG Goal				9'310			
Projected GDP growth (IMF, April 2010 WEO)				4.3			
Projected per-capita GDP growth (calculated based on IMF, April 2010 WEO)				2.5			
Needed productive employment growth, 2009-2015 ('000s)				4'004			
Needed productive employment growth, 2009-2015 (average annual %)				8.4			
Needed GDP growth, 2009-2015 (average annual %)				6.3			
GDP in 2015 needed to reach goal				856'558			
Per-capita GDP in 2015 needed to reach goal				26'353			
Per-capita GDP growth, 2009-2015 needed to reach goal				4.4			

Appendix C: The World Bank / ILO data on US\$1.25 poverty for Nepal

Population below poverty line - \$1.25 per day, by age group and sex			
Age group	Male	Female	Total
0-4 yrs	1104471	1070517	2174988
5-9 yrs	1010392	1098344	2108736
10-14 yrs	829310.8	831751.5	1661062
15-19	564649	654542.7	1219192
20-24	369154	575788.5	944942.6
25-29	357398.6	532304.9	889703.5
30-34	323612.6	399526.3	723138.9
35-39	275882.9	337522.4	613405.4
40-44	260251.3	311766.5	572017.7
45-49	224708.2	211082.3	435790.5
50-54	201901.2	272677.4	474578.5
55-59	214216.4	151107	365323.3
60-64	139770.7	166510.7	306281.4
65-69	125358.5	77821.84	203180.4
70+	146932.9	150853.5	297786.4
Total	6148010	6842116	12990126

Source: The World Bank / ILO data on US\$1.25 poverty for Nepal