Chapter 5

Disability and Growth Elasticity of Poverty in a Developing Country

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1. Introduction

Growth as one of the central components for inclusive and sustainable development. However, developing countries are struggling to accomplish the goal of sustainable growth. Ensuring good quality growth covering all strata of the society is important for the reduction of poverty and the achievement of social inclusion. When marginalized people are not brought into mainstream development, it is unlikely that growth can be achieved and then made sustainable. For example, despite the significant progress on the Millennium Development Goals (MDGs), the systematic exclusion of disability issues is likely to be one of the causes of the failure to achieve MDGs by 2015. This is a particularly important omission, as individuals with disabilities represent nearly 15 percent of the world's population (WHO & WB 2011) and comprise not only one of the most marginalized but also one of the largest minority groups. As a result, people with disabilities are frequently left behind and remain the poorest among the poor. However, as we are heading for the post-2015 development goals, it is high time that we attempt to bring marginalized groups, including people with disabilities, into the mainstream of development in order to achieve quality growth, reduce poverty, and make development sustainable and inclusive. It has been said that if growth is distributed in

an equitable manner, it helps reduce poverty. However, if the opposite is done, this simply increases inequality and may result in a need for redistribution (Besley and Burgess 2003).

Furthermore, recognizing poverty as a global threat, governments and international development agencies have been making efforts to reduce it. The MDGs have also focused on this as a priority issue by positioning "eradicate extreme poverty and hunger" as the primary goal. Despite governments and international development agencies investing their budgets in different sectors aimed at lifting people out of poverty, key questions still remain: why is progress so slow and how can we make growth more 'pro-poor'?

Most projects by international agencies have been aimed at the population nearest to the poverty line. It is likely that these agencies have an incentive to direct their focus toward this part of the population, as it is comparatively easier to show progress in poverty reduction if the transitory poor are able to rise out of poverty, even with a small push (Barder 2009). However, if the same trend continues, what will happen to the majority of the more marginalized population, including those with disabilities? In the absence of inclusive policies and strategies, the likelihood is that these people will remain below the poverty line and chronically poor. Therefore, if these groups are to be targeted, widening the efforts, increasing investment, and making such efforts more inclusive, is necessary. To do so, inclusive policies, institutions and growth are required.

In this paper, based on findings on the growth elasticity of poverty between people with and without disabilities in Nepal, I will explain why people with disabilities should be an important component in considering the quality of growth and inclusive development. In other words, this paper is a preliminary attempt at examining the impact of economic growth upon poverty between people with and without disabilities, using the nationally representative Nepal Living Standard Survey (NLSS) conducted in 2010.

Literature review
Studies on disability and poverty are rare. Some have focused on the role of education through findings on high returns to education for persons with disabilities (Lamichhane and Sawada 2013), while others

have studied the employment gap and wage differential between individuals with and without disabilities (Mitra and Sambamoorthi 2008), as well as the economic profile of persons with disabilities in the less-developed countries (Mitra et al. 2013). Lamichhane et al. (2014) studied the factors associated with poverty between people with and without disabilities in Nepal. Another study on Africa examined the living conditions of persons with disabilities (Loeb et al. 2008). However, none have focused on the growth elasticity of poverty for persons with disabilities.

Among the 15% of people with disabilities in the world, nearly 80% live in developing countries (WHO & WB 2011). Additionally, it is also estimated that people with disabilities make up 15 to 20% of the poor in developing countries (Elwan 1999). This means that the worldwide population of people living with disabilities constitutes one of the poorest and most marginalized segments of society (ILO 2007; DFID 2000). While there are multiple factors contributing to poverty among people with disabilities, unequal and poor access to education and employment, as well as the unequal distribution of other resources, are likely to be among the major causes of their poverty (Lamichhane et al. 2014). While inequality, exclusion, and discrimination are widespread, the needs of people with disabilities are not yet considered to be an important component in poverty reduction strategies.

In the literature that reflects on growth alone, the terms "inclusive growth", "shared growth", "broad-based growth" or "pro-poor growth", are used to convey similar concepts. The World Development Report 1990 (World Bank 1990) coined the concept of "broad-based growth" as growth that could reduce poverty in a rapid manner through the inclusion of all strata of the society. On the other hand, there is a relatively rich literature related to the growth elasticity of poverty, an important economic term that is strongly related to the above-mentioned concept of pro-poor (inclusive) growth. For instance, Ravallion and Chen (1997) estimated the growth elasticity of poverty for developing and transitional economies. Additionally, when looking at pro-poor growth, Ravallion and Datt (1996, 1999 and 2002) studied the growth elasticity of poverty in different states of India. Moreover, among the most recent studies on the growth elasticity of poverty, differing estimates of the elasticity of poverty have been presented for a great variety of developing countries when considered as a whole

(Adams 2004; Bourguignon 2003; Ram 2006), as well as for individual country-level studies, such as India (Lenagala and Ram 2010; Ram 2011), and different regions of the world (Besley and Burgess 2003; Kalwiji and Verschoor 2007), by analyzing the growth-poverty relationship for different poverty lines and growth spells.

Despite the large amount of research during the last decades on the growth-poverty issue, to our knowledge, none of the studies has touched upon the issue of disability and growth so far. The reason for this important gap in the literature may be attributed primarily to the lack of data on disability, as well as to the lower level of priority given to this issue by governments and development agencies.

2. Dataset from Nepal

The nationally representative data set (NLSS III) published by the Central Bureau of Statistics of the Government of Nepal, has been used (CBS 2011a). This household survey was conducted by CBS with technical assistance from the World Bank. The survey contains a wide range of information from sample households such as: demographic characteristics of the head and other members of the household; housing; access to facilities; education; health services; agriculture; consumption; income; and employment status.

Altogether, information from 5,988 households was collected in this survey. In this paper, we use an adjusted sample of 4,840 households, with the household head having an economically active age of 15-59 years. For the first time, NLSS has included questions that capture information on disability. First author of this paper met CBS officials twice when the survey was in the design phase. At this time the author requested that disability specific questions be included in the questionnaires. Nepal's disability-related organizations also made an effort to include disability in the survey. Due to these collective efforts, the following two questions were included in the final version of survey: 1) whether participants have a disability or not, and 2) if yes, what type of disability. The types of impairments included in this survey were: physical impairments, visual impairments, hearing impairments, deaf blindness, speech problems, intellectual disability, and multiple disabilities. Based on this information on disability, it is possible to analyze growth elasticity of poverty between those with

and without disabilities.

In this study, the consumption-based national poverty line calculated by the CBS is used. According to CBS (2011b), the national poverty line for Nepal is Nepalese Rupees (NRs) 19,261.18 – a figure based on the Cost of Basic Needs (CBN) approach. In this approach, the poverty line can be defined as the expenditure value (in local currency) required by an individual to fulfill his/her basic needs in terms of both food and non-food items. While the poverty line in the previous round of the survey (NLSS II), undertaken in 2003-04, was an update of prices for the same BNB previously estimated in 1995-96 (NLSS I), the poverty line for 2010-11 is based on a new BNB for the poor that reflects changes in well-being over time.

3. Empirical strategy

For the analysis of poverty, I use the Foster-Greer-Thorbecke (FGT) poverty measures (Foster et al. 1984), which are referred to as the head count index (P0), the poverty gap index (P1), and the severity of poverty index (P2). The generalized FGT poverty measures are defined as:

$$(1) \quad P_\alpha = \int_0^z \left(\frac{z-y}{z} \right)^\alpha f(y)dy \qquad \text{where } \alpha \geq 0$$

where y is the household per capita consumption expenditure, $f(y)$ is its density (roughly the proportion of the population with a consumption level y), z denotes the poverty line, and α is a nonnegative parameter. For Nepal, the national poverty line, based on per-capita household consumption, is 19,261.18 NRs. Higher values of the parameter α indicate a greater sensitivity of the poverty measure to inequality among the poor or a greater emphasis to the poorest of the poor (Foster et al. 1984). I estimate poverty measures $P\alpha$ for $\alpha = 0$, 1, and 2, which define P0, P1 and P2, respectively.

The growth elasticity of poverty is the total percentage change in poverty with respect to the total percentage change in per-capita income. In this paper, the analysis relies on per-capita consumption, instead of income, as preferred welfare indicator. According to the World Bank (2013), the growth elasticity of poverty is defined as:

$$(2) \quad \varepsilon = \frac{\partial P}{\partial y} \frac{y}{P}$$

Since we do not have time series or panel data on poverty and growth focusing on disability, the methodology developed by Araar and Duclos (2013) to compute growth elasticity of poverty for household cross sectional data is used here. Based on this methodology, the elasticity of each FGT measure is estimated using DASP: Distributive Analysis Stata Package version 2.2. According to Araar and Duclos (2013), the overall growth elasticity (GREL) of poverty, when growth comes exclusively from growth within a group k (namely, within that group, inequality neutral), is given by:

$$(3) \quad \begin{cases} GREL = \left\{ -\dfrac{zf(k,z)}{F(z)} \right. \\[2ex] GREL = \left\{ \alpha \dfrac{\overline{P}(k,z;\alpha) - \overline{P}(k,z;\alpha-1)}{\overline{P}(z,\alpha)} \right. \end{cases}$$

whereas, similar to above, z is the poverty line, k is the population subgroup in which growth takes place, $f(k, z)$ is the density function at level of income z of group k, and $F(z)$ is the headcount index. The upper case of equation (3) is for the condition $\alpha = 0$ and the lower is for the condition $\alpha > 0$ (the values of α are 1 and 2). Moreover, this kind of growth elasticity of poverty is group-specific and can be applied to comparisons among categorical groups. This type of analysis is therefore useful in understanding the differing rates at which poverty is reduced among different, well-identified groups due to the particular growth of their incomes or consumption expenditures. Additionally, a study like this will allow us to identify how these specific groups could be better targeted for the purpose of improving their living or welfare condition.

Definition and Mean of Variables
Household per-capita consumption expenditure is used as the welfare indicator. The consumption aggregates are constructed by adding together the various goods and services consumed by each household over a period of 12 months. Various components of consumption are grouped into three main categories: consumption of food items; consumption of housing; and consumption of other non-food items. Household level consumption in monetary terms is divided by the size of the household to find the household per capita consumption expenditure.

Other variables are grouped into different categories such as sex of household head, age of household head (different age groups ranging from 15 years to 59 years) grouped into five categories, education of household head (illiterate with 0 years to highest 17 years of schooling, split into three groups), region (rural or urban), land assets (landless to large household land size), a household's access to facilities (roads, schools, the market center, hospitals, electricity, and piped water) and ethnicity. A detailed definition of variables is presented in Table 1. Although the definition presented in Table 1 is self-illustrative for most of the variables, I have further elaborated on the variable of ethnicity based on Nepal's ethnic demographics, as the country has multiple and diverse ethnic groups.

According to the National Population and Housing Census Report 2012 (GON 2012b), the majority of Nepalese (81.3% of the population) are followers of the Hindu religion. Hindu societies are divided into a hierarchy based on the caste system. The same report further states that there are 125 caste/ethnic groups in Nepal. I have categorized these 125 castes into five major ethnic groups for the purpose of this study. The first group is the so-called 'high castes,' including the *Brahmin and Chhetri* castes of both Hills and Terai areas. High caste people are scattered all over the country and they are considered to be the historically privileged caste. The second group is Mongoloids, which includes *Magar, Tamang, Rai, Gurung, Limbu, Sherpa, Thakali, Jirel, Dura, Lepcha and Sunuwar* castes. People from this group reside mainly in the Hills and Mountains area. The third group is Newar. *Newar* is the caste of people who are settled in most of the cities, including Kathmandu valley, and are engaged in trade and commerce. The fourth group is Madheshi, which includes the *Yadav, Rajbanshi, Kalawar, Kanu, Tajpuria, Dhimal, Sudhi, Santhal/Satar,* and *Gangai* castes but excludes the *Brahmin* and *Chhetri* from Terai. The last group is the low castes, which includes the so-called low castes of the Hills such as *Kami, Damai,* and *Sarki*, and the low castes of Terai such as *Chamar, Dusad, Paswan, Musahar, Lohar*, and *Tatma*. The so-called low caste people are historically the most discriminated against and deprived group in Nepal. People in this caste suffer from a lack of access to the benefits of development. Previous studies such as (Lamichhane et al. 2014) have also analyzed poverty in Nepal through a similar caste-based classification of the population.

The last two columns of Table 1 show the mean values of the variables used for the growth elasticity of poverty estimates for persons with and without disabilities. Out of a total of 4,840 observations, 167 had

disabilities. The lower percentage of disability prevalence can be connected to factors such as failure to address disability-related components adequately in the survey questionnaires, problems with defining disability, and enumerators (interviewers) not having proper training on how to ask disability-related questions. Additionally, the possibility of poor understanding by enumerators of the disability issue may have caused them to cover only those people whose impairments are severe. Factors like these may exclude other people whose impairments may be moderate or mild. Although inclusion of disability in the survey is a very positive step, further improvement of the survey design is required so that many people with disabilities that are currently excluded can be covered in the future. A similar explanation may account for the 1.94% disability prevalence rate given by the Government of Nepal National Population Census in 2012.

The average household per capita consumption is NRs 44,184.52 for persons with disabilities, whereas that is slightly higher (46,290.79 NRs) for their counterparts without disabilities. According to the census, the average household size is 4.21 and 4.39 respectively for persons with and without disabilities. In both cases, the vast majority of the households (84% and 90% respectively) are headed by a male, and the remaining 14 and 10% are headed by women with and without disabilities. The majority of the household heads have a lower level of schooling of below 5 years, with 84% and 81% of those with and without disabilities respectively falling into this category. Moreover, 10% of household heads have schooling of medium level (6-10) years and only 9% have schooling of higher level (11 years and above). Additionally, regardless of disability status, nearly two thirds (68%) are from rural areas.

In relation to land assets, 10% of those with disabilities and 12% of those without are landless; another 12% and 14% have only marginal land (less than 0.15 hectares (ha); 10% of both groups have medium land ownership (1.00ha-4.00ha), which is not different from the percentage owned by marginal-land or the landless groups. When looking at households with larger amounts of land (above 4.00 ha), the percentage decreases by more than 20 points when compared to households having small land assets. With regard to having access to facilities, except for electricity, both groups of people still have low-level of access to vehicle roads, hospitals, primary schools, piped water and market centers within a thirty-minute walking proximity.

4. Estimation Results

Table 2 shows estimations for poverty and inequality. It can be seen in the table that all poverty measures (P0, P1 and P2) are relatively higher for persons with disabilities than for their nondisabled counterparts. The figures, respectively, for those with and without disabilities are P0 = 0.28 and 0.24; P1=0.08 and 0.05; P2=0.03 and 0.02. Furthermore, the Gini coefficient indicates that both consumption and land-asset inequalities are also higher for persons with disabilities than for persons without disabilities. However, the data shows that the distribution of land assets is particularly more unequal for persons with disabilities (0.77) than for their nondisabled counterparts (0.65).

Table 3 shows calculations of the growth elasticity of poverty by different categories of people. For these groups, elasticity coefficients are presented based on all three measures of poverty: P0, P1 and P2. Row 1 of Table 3 shows the results by sex. Growth elasticity based on P0 is -1.68 and -1.08 for males and females with disabilities respectively. This means that a one percent increase in household per capita consumption will reduce poverty by 1.68 and 1.08% for males and females with disabilities respectively. The coefficients are -2.31 and -1.55 for males and females without disabilities. Similarly, the growth elasticities based on P1 are -2.92 and -1.21, respectively for males and females with disabilities, and -3.47 and -2.67 for males and females without disabilities. In the same vein, the growth elasticities based on P2 are -3.71 and -1.63 respectively for males and females with disabilities, and -3.95 and -2.81 for males and females without disabilities.

These results show clearly that the growth elasticities of poverty are lower for persons with disabilities regardless of the poverty measures used. Similarly, we can see in the same table, that the elasticities are also considerably lower for females in each of the two analyzed groups. Given that the growth elasticity of poverty is a decreasing function of the development level of a country and of the degree of inequality in the distribution of income/consumption (Borguignon 2003), the results indicate that the level of inequality facing individuals with disabilities and females is higher than the one that is present among people without disabilities and that of males. This means that regardless of the rate of growth in the country, the reduction of poverty will always be smaller for the more disadvantaged groups, including those with disabilities.

Consequently, in order to attain a higher level of poverty reduction for the whole Nepal, as well as for the more disadvantaged population, in this case for people with disabilities, and make development more sustainable and inclusive, public policies should strategically focus on improving the distribution of consumption further for these groups through specific targeted programs.

Row 2 of Table 3 shows the results according to the age of the participants. For both of the analyzed groups, the growth elasticities differ considerably between them. For example, with regard to persons with disabilities, P0 is highest in the 24-32 year old age group and lowest in the 15-23 year old group. For persons without disabilities, it is highest in the age group of 51-59 year olds and lowest in the 42-50 year old group. The case is however, different for P1 and P2 indices. For persons with disabilities, the poverty condition of groups covering ages 15-23 to 33-41 years old shows they are more sensitive to growth than the poverty experienced by other age groups, as their growth elasticities exhibit an absolute value equal or above 3.5 in all cases. However, for persons without disabilities, the growth elasticity of poverty does not show a clear pattern and is only higher than 3.5 in the case of the age groups 24-33 and 33-41 years old for P1 and P2, as well as the 51-59 years old group when the squared poverty gap is analyzed.

The previous results suggest that the impact of growth on poverty is the highest among relatively young and middle-age people with disabilities, and therefore that the economic well-being of those individuals is improved the most as the economy expands. The reason for this to be the case is that, as shown in Lamichhane et al. (2014), the same age groups (15-23, 24-32 and 33-41) are those with the highest levels of poverty in Nepal – they are generally in school or have just completed their university education and are searching for jobs. Consequently, this implies that even a small growth of the Nepalese economy or small investments in the human capital of these people with disabilities, who are considered one of the disadvantaged groups, will bring about a greater economic benefit to them. Lamichhane and Sawada (2013), who analyzed the returns on investment in education for people with disabilities in Nepal, likewise estimated a two or three times higher return on education for these people.

Comparing the growth elasticity of poverty between urban and rural

regions, we can see in Table 3 that the urban population without disabilities has a lower elasticity. Persons with disabilities in the urban population exhibit an elasticity of -0.81 and those in the rural areas have a -1.73 elasticity based on P0. The other two indicators also show a similar trend albeit with higher elasticities in absolute value.

The results by region indicate that, regardless of disability status, reducing urban poverty through growth in Nepal is more difficult than improving the condition of the rural population by the same means. In other words, even a small amount of growth can help to reduce poverty in rural areas to a much greater extent than seems possible to achieve in the urban centers with a similar amount of growth. The main explanation for this growth-elasticity pattern may be the fact that poverty is much more prevalent and severe in rural than in urban areas as shown in Lamichhane et al. (2014). Consequently, it is likely that the poverty-reducing impact of growth will be stronger in the rural areas, where the majority of the total population resides, and a greater proportion is considered extremely poor and more disadvantaged than their urban counterparts.

Row 4 of Table 3 shows the elasticity of poverty estimates based on the level of education. Years of schooling are grouped into three categories: lower level education (0-5 years); middle level education (6-10 years); and higher level education (11 years and above). According to the results, in the case of persons with disabilities, the growth elasticity of poverty (P0) for persons with 0-5, 6-10 and 11 and above years of education is -1.83, -0.69 and -0.13 respectively. On the other hand, when analyzing P1 and P2 for persons with disabilities, it is possible to corroborate that the growth elasticity for people with more than 5 years of education is zero, while the one of individuals with an elementary level of schooling is -3.08 and -3.94 respectively. The zero elasticity that was found for the more educated groups reflects the non-poor economic condition of the people with disabilities that was also mentioned by Lamichhane et al. (2014). Contrastingly, given the fact that the less educated groups are those with higher levels of poverty in Nepal (Lamichhane et al. 2014), the contribution of growth to achieve a permanent reduction in the poverty level is indeed crucial as implied by the high elasticities that were obtained.

The results obtained for persons without disabilities with respect to P0 resemble our elasticity estimates for persons with disabilities, according

to their educational status. Consequently, the growth elasticities of poverty are found to be higher the lower the level of education. These results are in line with the idea, supported by our previous results as well, that growth tends to have a stronger, positive impact on the economic well-being of people or groups whose levels of poverty are higher than the rest of the population.

Moreover, row 5 of Table 3 shows the results according to different land asset categories. For persons with disabilities, the highest elasticity based on P0 is found for landless households (-1.9), followed by households with small land assets (-1.82), households with marginal land assets (-1.42), households with medium land assets (-1.02), and lastly households with large land assets (-0.74). In the case of persons without disabilities, households with marginal land holdings, followed by households with small land and the landless exhibit higher elasticities (-2.92, -2.57 & -2.56) than those in the other groups. We can observe a similar trend for the cases of P1 and P2, corroborating again our previous findings about the positive relationship that exists between higher levels of poverty and higher growth elasticities (in absolute value). The results imply that, irrespective of disability status, persons that possess no or few assets are the ones who benefit the most as the economy expands, given that their poverty condition is reduced faster with a given level of growth. Moreover, based on the particularly high elasticities obtained, the results suggest that landless persons with disabilities are more vulnerable to fall into poverty than any other group in Nepal and, therefore, that specific policies or programs directed to them should be implemented to improve their economic well-being.

In row 6 of Table 3, results are presented based on individual access to various facilities that are within a 30-minute walking distance from their households. When analyzing P0, persons not having access to a vehicle road near their households have a higher elasticity (-1.63) than those who do have access (-1.2). In comparison, for those without disabilities, the figures are -2.26 and -1.87 respectively. A similar trend is observed for P0, P1 and P2 for most of the facilities in this analysis, except for the cases of vehicle road (P1 & P2) and school (P0, P1 & P2) in the case of persons with disabilities. These results are mainly related to the levels of poverty that were estimated for each particular group but, in general, they are in line with our general conclusion that when higher levels of poverty are observed, the absolute value of the growth

elasticity of poverty is higher too, indicating the potentially strong impact that growth has upon poverty and the more disadvantaged groups in Nepal. For instance, based on the growth elasticity of P2 for people with disabilities who do not have electricity at home, a one percent increase in mean consumption reduces the severity of poverty by around six percent (see Table 3, row 6, column 3), while, in contrast, the reduction of poverty is only 2% for all persons who do have access to electricity (see also Table 3, row 6, column 6).

Finally, the last row of Table 3 shows the results by ethnic category. Regardless of disability status, all types of poverty (P0, P1 and P2) have the highest growth elasticity for households within the low caste. After the low caste households, Madheshi families have more elasticity, followed by Mongoloids, high caste, and Newar groups. Since households within the Newar ethnicity are generally less poor than households within the high caste, their corresponding growth elasticities are considerably lower. According to these results, households that belong to any of the ethnicity groups of low caste, Madheshi and Mongoloids should to be targeted in order to alleviate their poor condition faster through growth-redistributive programs.

5. Concluding remarks

Using a nationally representative dataset of Nepal (NLSS), growth elasticities of poverty were estimated for people with and without disabilities. Based on the results by disability status, it is not possible to identify a clear growth-elasticity pattern between the different analyzed categories. However, in some particular cases such as gender, education and land assets, growth elasticities for people with disabilities tend to be lower than those observed for their non-disabled counterparts. Given that poverty is determined by both growth and inequality (Datt and Ravallion 1992: Bourguignon 2003) and that, the higher the level of inequality that is prevalent in the economy, the lower will be the impact of growth upon poverty (Ravallion 1997), our results suggest that people with disabilities generally face higher levels of inequality in specific, relevant areas of development than the one experienced by people without disabilities. Consequently, it is advised that growth-redistributive programs, targeted to people with disabilities and other marginalized groups in Nepal, are implemented with the main purpose of reducing the persistent inequalities that are present between people

with and without disabilities (see Table 2), so that the former of these groups can be equally benefited by the gains of growth, ultimately resulting in an increase in their economic well-being.

Moreover, regardless of disability status, our findings indicate that the poverty-reducing impact of growth accruing to the poorest and most disadvantaged people in Nepal (like the less educated, the landless and the low caste groups) is considerably higher than that observed for the rest of the population. As explained in the previous section, higher elasticities are related to higher levels of poverty. Therefore, it may be possible to affirm that the benefits of growth are greater for the groups whose levels of poverty are higher in the economy, implying that the growth of the Nepalese economy is pro-poor generally speaking.

Unfortunately, as explained above, pro-poor growth has not been reaching people with disabilities at the same pace. This seems to be essentially an equity matter, which, if properly addressed, will bring about important benefits not only to people with disabilities but to the economy as a whole. It should be fully acknowledged that every section of the society is equally important if the economy is to succeed in its path to development. Therefore, neglecting any population group is not only unfair but is also a threat to sustainable and inclusive development. Hence, it is of extreme importance that disability-inclusive poverty reduction strategies are implemented with the aim of achieving equity-based growth in the foreseeable future. Finally, as the inequality aspects of growth have not been analyzed in this paper, further research is needed to shed light on this issue.

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Table 1. Definition and mean of variables

Variable	Definition	Persons with disabilities	Persons without disabilities
Per capita Consumption	Household per capita consumption in Nepalese Rupees (NPR)	44184.52	46290.79
Household Size	Size of household.	4.21	4.39
Married	1 if married, 0 otherwise	0.89	0.92
Sex of HH			
Male	1 if male, 0 otherwise	0.86	0.90
Female	1 if female, 0 otherwise	0.14	0.10
Age of HH			
(15-23) years	1 if having age group (15-23) years, 0 otherwise	0.04	0.04
(24-32) years	1 if having age group (24-32) years, 0 otherwise	0.13	0.20
(33-41) years	1 if having age group (33-41) years, 0 otherwise	0.24	0.29
(42-50) years	1 if having age group (42-50) years, 0 otherwise	0.29	0.26
(51-59) years	1 if having age group (51-59) years, 0 otherwise	0.30	0.21
Education of HH			
(0-5) Years	1 if HH having education of (0-5) years, 0 otherwise	0.84	0.81
(6-10) Years	1 if HH having education of (6-10) years, 0 otherwise	0.10	0.10
11 Years and above	1 if HH having education of 11 years or more, 0 otherwise	0.07	0.09
Region			
Urban	1 if from urban region, 0 otherwise	0.31	0.31
Rural	1 if from rural region, 0 otherwise	0.69	0.69
Land Assets Group			
Landless(0.00 ha)	1 if having 0.00 hectare of land, 0 otherwise	0.10	0.12
Marginal (0.00 ha-0.15 ha)	1 if having 0.00-0.15 hectares of land, 0 otherwise	0.12	0.14
Small (0.15 ha-1.00 ha)	1 if having 0.15-1.00 hectares of land, 0 otherwise	0.49	0.44
Medium (1.00 ha-4.00 ha)	1 if having 1.00-4.00 hectares of land, 0 otherwise	0.10	0.10
Large (4.00 ha & above)	1 if having 4.00 & above hectares of land, 0 otherwise	0.20	0.20
Access to facility			
Vehicle Road	1 if household has access to vehicle road, 0 otherwise	0.07	0.09
School	1 if household has access to school, 0 otherwise	0.05	0.07
Market Centre	1 if household has access to market center, 0 otherwise	0.02	0.06
Hospital	1 if household has access to hospital, 0 otherwise	0.04	0.04
Electricity	1 if household has access to electricity, 0 otherwise	0.66	0.75
Piped water	1 if household has access to piped water, 0 otherwise	0.23	0.29
Ethnicity			
High Caste	1 if caste is Brahmin & Chhetri, 0 otherwise	0.33	0.35
Mongoloids	1 if from Mongoloids caste, 0 otherwise	0.32	0.29
Newar	1 if caste is Newar, 0 otherwise	0.07	0.09
Madheshi	1 if from Madheshi caste, 0 otherwise	0.17	0.15
Low Caste	1 if from Low Caste, 0 otherwise	0.11	0.12
Total Observations	**Persons with Disabilities + Persons without Disabilities**	**167**	**4673**

Source: Author`s Calculations

Note: HH = household head

Table 2. Poverty and inequality measures

Variable (Mean Values)	Persons with disabilities	Confidence interval (95%level)		Persons without disabilities	Confidence interval (95%level)	
Per capita Consumption	44,184.52			46,290.79		
Headcount index(P_0)	0.28 (0.0383)	0.21	0.36	0.24 (0.0105)	0.22	0.26
Poverty-gap index(P_1)	0.08 (0.0128)	0.05	0.10	0.05 (0.0034)	0.05	0.06
Squared poverty-gap index(P_2)	0.03 (0.0061)	0.02	0.04	0.02 (0.0016)	0.02	0.02
Gini coefficient of per capita consumption	0.41 (0.0286)	0.35	0.46	0.38 (0.0060)	0.37	0.40
Gini coefficient of land-asset ownership	0.77 (0.0521)	0.67	0.87	0.65 (0.0085)	0.63	0.66
Total Observations	**167**			**4673**		

Note: Standerd errors are shown in parenthesis.
Source: Author's calculations.

Table 3. Growth elasticity of poverty

		Persons with disabilities			Persons without disabilities		
		H index (P0)	PG index (P1)	SPG index (P2)	H index (P0)	PG index (P1)	SPG index (P2)
1. Sex							
Male		-1.68	-2.92	-3.71	-2.31	-3.47	-3.95
Female		-1.08	-1.21	-1.63	-1.55	-2.67	-2.81
2. Age							
15-23 years		-0.60	-4.24	-6.40	-2.08	-2.64	-2.83
24-32 years		-2.36	-3.85	-4.12	-2.25	-3.70	-4.28
33-41 years		-1.75	-3.46	-4.66	-2.43	-3.69	-4.25
42-50 years		-1.58	-2.38	-3.07	-1.99	-2.99	-3.37
51-59 years		-1.23	-1.75	-2.26	-2.26	-3.36	-3.64
3. Region							
Urban		-0.81	-1.74	-1.25	-0.84	-1.13	-1.03
Rural		-1.73	-2.91	-3.94	-2.70	-4.03	-4.62
4. Education							
0-5 years		-1.83	-3.08	-3.94	-2.51	-3.82	-4.36
6-10 years		-0.69	0.00	0.00	-1.46	-1.57	-1.55
11 years and above		-0.13	0.00	0.00	-0.56	-0.70	-0.61
5. Land assets							
Landless	0.00 ha	-1.90	-5.24	-7.36	-2.56	-4.05	-4.44
Marginal	0.00-0.15 ha	-1.42	-2.33	-3.29	-2.92	-4.30	-4.84
Small	0.15-1.00 ha	-1.82	-2.66	-3.38	-2.57	-3.91	-4.60
Medium	1.00-4.00 ha	-1.02	-2.64	-2.65	-1.87	-2.28	-2.15
Large	4.00 & more	-0.74	-1.17	-1.34	-0.65	-0.77	-0.72
6. Access to facilities							
Vehicle road	Yes	-1.20	-3.16	-4.36	-1.87	-3.00	-3.20
	No	-1.63	-2.66	-3.37	-2.26	-3.43	-3.90
School	Yes	-2.34	-4.12	-4.82	-1.61	-2.33	-3.00
	No	-1.57	-2.62	-3.37	-2.28	-3.47	-3.90
Market	Yes	0.00	0.00	0.00	-1.49	-2.26	-3.11
	No	-1.61	-2.75	-3.50	-2.27	-3.46	-3.88
Hospital	Yes	-0.18	0.00	0.00	-1.63	-2.48	-2.83
	No	-1.66	-2.79	-3.56	-2.25	-3.43	-3.88
Electricity	Yes	-1.22	-4.67	-1.95	-1.66	-2.21	-2.15
	No	-2.38	-1.53	-5.97	-3.80	-6.30	-7.99
Piped water	Yes	-0.94	-1.39	-1.35	-0.78	-1.27	-1.24
	No	-1.77	-3.00	-3.92	-2.74	-4.00	-4.58
7. Ethnicity							
High caste		-1.29	-2.04	-1.69	-1.49	-2.22	-2.63
Mongoloids		-1.80	-2.52	-3.59	-2.57	-3.62	-4.01
Newar		-1.06	-2.08	-2.58	-0.72	-0.72	-0.70
Madheshi		-1.81	-3.62	-4.76	-3.16	-4.27	-4.62
Low caste		-1.89	-3.69	-5.88	-3.43	-6.03	-7.02