

Poverty Reduction in Nepalese Households: A Continuous Priority Agenda for Post 2015 Development Goals

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Abstract

Poverty is a global problem and reduction of poverty is the major concern of contemporary least developed and developing world. Nepal, being one of the poorest countries in South Asia with 23.8 percent of population under poverty line, better-targeted policies are still needed for reducing poverty. The findings of this paper suggest that more focus is needed to ensure the poor and marginalized people to access on education, employment, assets and facilities. Moreover, the situation of Nepalese households reveals that poverty reduction should be a continuous and major priority agenda of Nepal for post 2015 development goals. In this milieu, sustainable development is required to reduce absolute poverty and escape from the risk of vulnerability in developing countries including Nepal. Further, as identified in this paper, the reservation policy adopted by the country needs to be revised with caution.

JEL Classification: I32, R20, O12

Key words: Nepal, Poverty, Ethnicity, Access to facility, Post 2015 development goals

1. Introduction

1.1. Background

The biggest issue in existing least developed and developing world is reduction of poverty. Many international institutions, national governments, development partners, non-governmental organizations, local level community organizations and civil societies are working to reduce poverty but the progress achieved so far is not as much as expected. Regardless of continuous efforts in reducing poverty in the past three decades, a substantial proportion of people in developing countries remain poor and are vulnerable to falling into deeper poverty when they are struck by negative shocks (World Bank, 2014). As a result, still one third of world population is under absolute poverty and how to get out of it is a great challenge for humanity. Moreover, most of the poor people live in the developing countries with low standard of living and even a small shock can make them more vulnerable. Low level of income, low level of consumption, persistent unemployment, illiteracy and illness are some of the common symptoms for making people fall into a vicious circle of poverty in developing countries.

According to Menezes (1981), Robert McNamara, speaking to the Annual meeting of board of Governors of the World Bank held in Nairobi in 1973, articulated the concept of “Absolute Poverty” as: “a condition of life so limited as to prevent the realization of the potential of the

genes with which one is born; a condition of life so degrading as to insult human dignity-yet a condition of life so common as to be the lot of some 40 percent - 800 million individuals-of the people of the developing countries.” This definition states that more than 40 percent of humanity lives under the absolute poverty level with lack of basic subsistence needs to live a dignified life in this earth. The situation is more severe in developing countries and in the poor families.

Poverty is the deprivation of people to fulfil economic and social needs and it is a great intimidation for the economic development and prosperity. There is great difference between poverty and all other human conditions, that the person who suffers from it has at his disposal no means of resistance out of his own power (Munsterberg, 1904). Poverty and prosperity are two opposite things, which do not go in parallel direction. Poverty anywhere constitutes a danger to prosperity everywhere (International Labour Organization, 1944). Therefore, poverty is painful to human society that it creates huge gap among peoples living in the same earth. Poverty is the top among other agendas of international agencies in contemporary developing world. In the late 20th century, the World Bank and IMF focused on poverty reduction strategy (PRS) in developing countries. Moreover, poverty has been the global concern and the first agenda of Millennium Development Goals (MDGs). Other international development agencies also have adopted their strategies to support poor countries focusing reduction in poverty.

Focusing on poverty issues, Ravallion and Datt (1992) analysed pro-poor economic growth and proposed a method to decompose absolute changes of a poverty measure into the relative contribution of growth in mean income, changes in inequality and a residual, holding the respective other factors constant. Kakwani (1993) further developed this idea as elasticities of poverty with respect to a one-percentage change in growth. In recent times, there are many studies in literatures focusing the study of poverty, its correlates and strategies to reduce poverty.

1.2. Poverty in South Asia

Table 1 shows the poverty in South Asian countries. These countries are classified according to World Bank classification in World Development Report 2012. Those countries having less than \$1005 of Gross National Income (GNI) per capita are grouped as low income countries (LIC). Nepal, Bangladesh and Afghanistan are among LIC. India, Sri Lanka, Pakistan and Bhutan are among lower middle income countries (LMC) having \$1,006-\$3,975 of GNI per capita. Maldives is in the group of upper middle income countries (UMC) with GNP per capita ranging \$3,976-12,275. Among South Asian countries, Afghanistan and Nepal are at the bottom based on GNI per capita. Additionally, average years of schooling is lowest in Nepal and population below international poverty line (below \$ 1.25 per day) is the highest in Nepal among others.

Nepal with per capita income being 700 USD and high level of poverty of 55.10 percent just above Afghanistan (World Development Report, 2014 and 2012), poverty reduction is the central problem of the country.

Table 1: Poverty in South Asian Countries

S. N.	Country	Classification of Economy	GNI per capita (USD)	Average schooling (years)	Poverty-national (% of Population below national poverty line)	Poverty-international (% of Population below \$1.25)
1	Nepal	LIC	700	4.00	25.16	55.10
2	Bangladesh	LIC	840	5.80	40.00	49.60
3	India	LMC	1530	5.10	27.50	41.60
4	Sri Lanka	LMC	2920	11.10	15.20	7.00
5	Pakistan	LMC	1260	5.60	22.30	22.60
6	Maldives	UMC	Na	Na	Na	Na
7	Bhutan	LMC	Na	Na	Na	Na
8	Afghanistan	LIC	570	Na	36.00	Na

Source: *World Development Report 2012, 2013 and 2014*. Washington, DC: World Bank.

Note: Na: not available, GNI per capita is taken from 2014, average schooling is taken from 2013 and others from 2012. The survey year for national poverty is different (for Nepal 2010/11, for other 2004-2007), the population below national poverty line in Nepal for 2012/13 is reported as 23.8% (National Planning Commission, 2013).

Identifying poverty as major issue, this study analyses poverty in the Nepalese context. Furthermore, the findings of this paper suggest the importance of addressing poverty issues continuously in post-2015 development goals for achieving sustainable development.

2. Data and Methods

2.1. Data

The data used in this study is nationally represented Nepal Living Standard Survey 2010/11 data published by the Central Bureau of Statistics (CBS), Government of Nepal. This survey was conducted by CBS with technical assistance of the World Bank and covers wide range of information. This data contains information of sample households such as demographic characteristics of head and other members, housing, access to facilities, literacy and education, health services, maternity and family planning, migration and absentees, agriculture, consumption, income, employment status, farm and non-farm activities, remittances and transfer income, borrowing and loans, consumption adequacy, facility provided by the government, nutrition of children etc. Altogether 5,988 households level information are collected in this survey. However, we use adjusted sample of 5,244 household information in this paper with household head having economically active age of 15-59 years.

2.2. Methods

2.2.1. Poverty Measurement

In this paper, Foster-Greer-Thorbecke (FGT) poverty measures named as head count ratio (P0), poverty gap (P1) and squared gap of poverty (P2) are used for measurement of poverty. The FGT poverty measures are given as:

$$(1) \quad P_{\alpha} = \int_0^Z \left(\frac{Z-Y}{Z} \right)^{\alpha} f(Y) dY \quad \& \quad \alpha \geq 0$$

Here, Y is the household per capita consumption expenditure, $f(Y)$ is its density (roughly the proportion of the population-consuming Y), Z is the poverty line, and α is a nonnegative parameter. For Nepal, national poverty line based on percapita consumption is 19,261.18 Nepalese Rupees. Higher values of the parameter α indicate greater sensitivity of the poverty measure to inequality among the poor. Here poverty measures P_{α} for $\alpha = 0, 1$, and 2 , are estimated which respectively define the head-count index (incident of poverty), the poverty gap index (depth of poverty), and the squared poverty gap index (severity of poverty).

According to CBS (2011), the national poverty line for Nepal is Nepalese Rupees 19261.18, which is based on Cost of Basic Needs approach (CBN). In this approach, the poverty line can be defined as the expenditure value (in local currency) required by an individual to fulfil his/her basic needs in terms of both food and non-food items. While the poverty line in the previous round of the survey in 2003-04 (NLSS II) was an update of prices for the same basic needs basket estimated in 1995-96 (NLSS I), the poverty line for 2010-11 is based on a new basic needs basket of the poor to reflect changes in well-being over time.

2.2.2. Factors Determining Poverty

What are the causes of poverty? How different socio-economic factors affect poverty? To know the answers to these questions, we need to identify the factors determining poverty. Therefore, in order to find the determinants of poverty, we estimate a semi-log model as the form:

$$(2) \quad \ln(Y_i) = \beta_0 + \beta_i X_i^n$$

Where Y_i is dependent variable denoting household per capita consumption expenditure and X_i are the explanatory variables representing household characteristics, social and demographic, regional and ethnic characteristics etc. Income and consumption both can be used to measure the poverty. Since, income data are missing in some observations and consumption are available, percapita household consumption is used to measure poverty. Since the dependent variable is in natural logarithmic form and explanatory variables are in level form the explanation of each coefficient is the relative change in dependent variable with respect to absolute change in independent variable.

$$(3) \quad \beta_i = \frac{\partial \ln(Y_i)}{\partial X_i} = \frac{1}{Y} \frac{\partial Y_i}{\partial X_i} = \frac{\frac{\partial Y_i}{Y}}{\partial X_i} = \frac{\text{Relative change in dependent variable}}{\text{Absolute change in independent variable}}$$

2.3. Variables

For household per capita consumption expenditure, we construct consumption aggregates by adding together the various goods and services consumed by each household during a period of 12 months. Various components of consumption are grouped together into three main categories: consumption of food items, consumption of housing and consumption of other non-food items. Household level consumption in monetary term is divided by size of household to find the household per capita consumption expenditure.

The other variables are grouped into different categories. They are categorized according to sex of household head (male, female), age of household head, years of schooling of head, employment activities of head, region (rural-urban), land assets, households' access to facilities within 30 minutes of walk without load (road, school, market center, hospital), households' access to electricity, piped water and ethnicity.

3. Results

3.1. Poverty Profile of Nepalese Households

Table 2 shows the poverty profile of Nepalese households based on different categories. Poverty head count index (P0), Poverty gap index (P1) and poverty square gap index (P2) are measured for different age groups, years of schooling, employment status, urban and rural region, land ownership status, ethnicity and excess to facilities.

The first category in table 2 shows the poverty profile by age group. While going through age groups, we found that poverty indicators (P0, P1, P2) are highest for age group (15–30) years and lowest for age group (45-60) years. The second category in table 2 shows the estimated indices of poverty measures based on years of schooling of household head. Evidence clearly shows that poverty is more prevalent with less educated household head indicating that education plays crucial role to come out of poverty. The poverty status based on sector of employment in third category shows that household head working in agricultural sector are poorest of all. This shows that agricultural households are more vulnerable of poverty, which is consistent with many other literatures that most of the poor of the world live in agricultural sector.

Category four shows the rural-urban poverty. Poverty indices are higher in rural area than urban indicating most of the poor people live in rural areas of Nepal. Category five shows the poverty status of household heads according to land ownership. Those households having medium or large lands are less poor. Since land can be used as insurance to cope risk or as collateral for credit, households with relatively more lands are less vulnerable to poverty.

Table 2: Poverty Profile of Nepalese Households

Category	Head Count (P0)	Gap (P1)	Squared Gap (P2)
1) Age Group			
(15- 30) years	25.76	6.28	2.30
(30-45) years	25.40	5.93	2.09
(45-60) years	24.63	5.41	1.81
2) Years of Schooling			
(0-10) Years	26.81	6.19	2.16
11 Years and above	3.83	0.60	0.17
3) Employment Status			
Unemployed	18.39	4.41	1.56
Agriculture	45.25	11.05	4.06
Manufacturing	19.44	3.62	1.05
Trading	11.89	2.24	0.73
Service	23.75	5.12	1.71
Other	19.09	4.18	1.25
4) Region			
Urban	7.56	1.39	0.41
Rural	33.35	7.83	2.77
5) Land Ownership			
Small (less than 1.00 ha)	26.20	6.12	2.14
Medium (1.00ha-4.00 ha)	19.00	3.62	1.18
Large (4.00ha & above)	6.39	2.11	0.90
6) Ethnicity			
Brahman/Chhetri (Hills)	17.70	4.11	1.39
Brahman (Terai)	17.42	0.36	0.01
Janajatis	26.87	5.90	1.94
Thakali	0.00	0.00	0.00
Newar	4.32	0.87	0.26
Madheshi	33.83	7.63	2.65
Dalits	39.01	9.84	3.81
Other	24.60	5.25	1.64
7) Excess to Facility			
Vehicle road (Yes)	21.30	4.83	1.67
Vehicle road (No)	25.52	5.87	2.04
School (Yes)	17.51	4.28	1.39
School (No)	25.75	5.90	2.06
Market Centre (Yes)	17.32	4.70	1.66
Market Centre (No)	25.60	5.84	2.03
Hospital (Yes)	16.13	3.46	1.26
Hospital (No)	25.52	5.87	2.05
Electricity (Yes)	15.25	2.94	0.87
Electricity (No)	50.58	13.08	4.93
Piped water (Yes)	8.73	1.72	0.56
Piped water (No)	30.80	7.18	2.51

Source: Estimated by Author using Nepal Living Standard Survey 2010/11 Dataset

Note: Estimated at 95% confidence level and two sided interval

Category six of table 2 shows the results of poverty estimates based of ethnicity of household. Results show that compared to the so-called high caste (privileged caste such as Brahmin and Chhetri from Hills) households, households with ethnicities of Thakali, Newar and Terai Brahmin are richer. Current laws in Nepal made provisions of reservation quota for the economically and socially backward, deprived and excluded ethnicities except Hills Brahmin/Chhetri. Among them Thakali and Newar ethnicities are included in *Janajatis* and Terai Brahmin are included in Madhesi and are given the reservation quota facilities in employment and seats in parliament. In this paper, evidence show that Thakali, Newar and Terai Brahmin being economically richer ethnicities, getting reservation quota facilities from the quota of other really deprived and excluded group called *Janajatis* and *Madheshi*. The findings clearly show that the reservation policy to be revised immediately. However, Dalits, Madhesi, Janajatis and Other ethnicities are poorer among all and really need continuous reservation.

In table 2, category seven shows the poverty status of households based on access to facilities. The poorest households are those that do not have electricity in their house. We see that households having access to facilities have less poverty, accessibility to facility is very important to reduce poverty.

In summary, persons living in rural areas, having lower years of schooling, having less land and deprived of access to different facilities are found poorer. While looking at ethnicity, people classified to Dalits are poorest among all. However, people belonging to Thakali, Newar and Terai Brahmin groups which are though included in the groups who are entitled to get advantage from Government's quota reservation are found to be richer than Hills Brahmin/Chhetri and People categorized as Dalits, Madheshi, Janajatis and Others are poorer than Hills Brahmin/Chhetri.

3.2. Factors Determining Poverty

Table 3 shows the Ordinary Least Square (OLS) estimates of factors determining poverty. Estimation result shows that per capita consumption is positively determined by the variables such as female-headed household, age of head, schooling of head, household owned land size, access to electricity, pipe water and school.

However, per capita consumption is negatively correlated with household size, rural household, head employed in agriculture and chronic illness of head. Moreover, ethnicities such as Terai Brahmin and Newar are positively correlated to per capita consumption. Similarly, ethnicities such as Janajatis, Madheshi, Dalits and Others are negatively correlated to per capita consumption. Other variables are not significant.

Household size is negatively associated with per capita household consumption because all economically active members (15-59 years) are not earning in a household. Only some of the members earn and all of the members, who live together, consume the foods cooked in the home and share other benefits together. If household head is female, the households have more per capita household consumption than male headed households. This is because,

female are better to use household resources in productive way than male. Poverty is persistent phenomenon in rural areas. The income of rural household is less than urban and so is consumption. Higher the age more is the household consumption. Agriculture sector is the one where most of the poor are engaged and have less consumption. Education is very important to raise income and consumption. Similarly, Land is also important determinant of household per capita consumption. Household having more land have large per capita consumption

Table 3: Factors Determining Poverty

Dependent variable: log(per capita household consumption)		
Variables	Coefficient	t statistics
Household Characteristics		
Household size (number)	-0.09 ***	-23.43
Head female (dummy)	0.06 **	2.28
Rural household (dummy)	-0.33 ***	-18.66
Age of head (in years)	0.03 ***	4.68
Head employed in agriculture (dummy)	-0.19 ***	-10.00
Schooling of head (in years)	0.03 ***	14.3
Household owned land size (in hectares)	0.07 ***	9.36
Chronic illness of head (dummy)	-0.07 ***	-3.12
Access to facilities (dummy)		
Electricity	0.39 ***	21.75
Piped water	0.31 ***	17.74
School	0.07 **	2.70
Hospital	0.05	1.33
Vehicle road	0.02	0.95
Market	0.04	1.45
Ethnicity (dummy)		
Hill Brahmin/Chhetri (standard)	-	-
Terai Brahmin	0.17 ***	1.13
Newar	0.16 ***	5.96
Thakali	0.03	0.07
Janajatis	-0.05 **	-2.38
Madheshi	-0.12 ***	-5.58
Dalits	-0.18 ***	-7.50
Others	-0.10 **	-2.57
Constant	10.48 ***	263.53
F-statistics	255.77 ***	
Adjusted R-squared	0.53	
Observations	5,244	

Source: Estimated by Author using Nepal Living Standard Survey 2010/11 Dataset

Note: *** significant at 1%, ** significant at 5% and * significant at 10% level.

Moreover, access to different facilities increases income and consumption and reduce poverty. This is consistent with the casual observation that no access to the facilities will make individuals vulnerable to risk resulting to have less income and less consumption. Access to

electricity, piped water and school are significant and positive.

Households with Terai Brahmin and Newar ethnicities have higher per capita consumption than households with Hills Brahmin/Chhetri ethnicity but households with ethnicities of Janajatis, Madheshi, Dalits and Others have less per capita consumption. The F-statistics shows that the model used for this analysis best fits to the data and about 53% variation in the dependent variable is explained by independent variables.

3.3. Priority Agenda for 2015

The recent statistics of Nepal show that population living below the poverty line (P0) is 24.4% in 2011/12 and 23.8% in 2012/13 (National Planning Commission, 2013), it has been gradually decreasing year by year. However, the target of the last Three Year Plan (2010/11-2012/13) was to reduce the population living below the poverty line to 21%, the target could not be achieved by 2.8 percentage point. As identified in table 2 and 3, the poverty is prevailing substantially in households with agriculture as major profession, marginalized ethnic groups with no access to facilities, households with less schooling and having fewer assets and poverty is rural in nature.

Moreover, still the majority of people in Nepal is living in rural households with more than two third having agriculture as main profession, reduction of poverty is the continuous major concern for the development of Nepal. In this context, among other agendas of sustainable development goals (SDGs) with economic, social and environmental dimensions, reduction of poverty should be the major priority agenda for Nepal.

4. Concluding remarks

The findings of this paper suggest that years of schooling, land assets, access to facilities and employment in non-agricultural sector are very important determinants for increasing per capita household consumption. Moreover, to reduce poverty and achieve sustainable development, it is necessary to make policies more targeted for those who have no access to schooling, employment, assets and facilities. More importantly, deprived ethnic groups and marginalized communities should be given priority as persistent poverty is prevailing in these communities.

However, one important finding is that some of the ethnicities that are given reservation facilities by the country need to be revised, as they are performing better than privileged ethnicity in terms of higher consumption and income with lower level of poverty. Moreover, evidence suggests that a substantial number of people are still under absolute poverty; poverty reduction should be the continuous major priority agenda of Nepal for post 2015 development goals.

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