Causal Factors of Emergence of Multidimensional Poverty Index in Nepal

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Abstract

The study of poverty is a multidimensional phenomenon. Poverty is not only economic issue but it is social, political, and cultural as well. Who is why and how much poor being a relative concept of socio economic status of the people. To find out the causal factors of emergence of multidimensional poverty index, the study has been conducted. It is a qualitative ex-post facto causal analysis of independent variables of poverty to measure its multidimensional index based on secondary information. It is the study of causal factors to establish MPI in Nepal. The shortage or insufficient amount of independent variables directly causes the impact on Health, Education, and Living Standard of People. Due to the insufficient qualities on Nutrition, Child Mortality, Years of Schooling, School Attendance, Cooking Fuel, Improved Sanitation, Improved Drinking Water, Electricity, Flooring and Roofing, Assets Ownership in human situation of the people of Nepal to address the poverty level the Multidimensional Poverty Index (MPI) was establish in Nepal since 2018 officially. The main objective of the study is to determine the causal factors of multidimensional poverty in Nepal. It is absolutely a literature review of or content analysis of selected references.

Introduction

Poverty and inequality have risen because various sectors of the economy including production, distribution and labor market have been affected. The starting of production of Covid vaccine from August 2020 and vaccinating citizens by majority nations has created confidence to give

momentum to public lives by expanding economic activities gradually. Achieving the 15th Plan target of reducing multidimensional poverty to 11.5 percent by fiscal year 2023/24 remains challenging if the impact of the Covid-19 pandemic persists for a longer period as reported by economic survey of Nepal 2020/21.

In 1960, Robert McNmara, President of World Bank (WB) argued that economic growth is necessary but not sufficient to human wellbeing, for it development programs must attack over the intensity of poverty. In 1970, World Bank published a report entitled 'redistribution with growth' the report consolidates deep concentration of developed society on the issues and incidence of poverty (Sapkota,2020). In 1970, International Labor Organization (ILO) defined poverty in relation to basic needs- food, shelter, clothes. After 1980, the concept of poverty began to transfer from economic factors to non-economic sectors. Robert Chamber's (1983) study on 'powerlessness and exclusion' brought new horizon in development dialogue, particularly in understanding the concept of poverty and its consequences. Similarly, Amartya Sen's (1981) study added a new gravity to understand the concept of poverty, focusing on the direct access of mass people on food but not only production. Further, Sen asserts that people's purchasing power must be so strong that they can afford the basic requirements. There are two remarkable facial manifestations of the conservative academic representation of poverty. First, poverty is considered as a tangible material condition and allowed the status of a dependent variable. Second, a list of independent variables (causal factors) they may be different from society to society to explain the incidence of poverty (World Bank, 1990). The study is focused on second element, list of variables or causal factors of poverty in Nepal. The Gini Coefficient that measures income inequality stood at 0.34 in 1996 and rose to 0.41 in 2004 and again fell to 0.33 in 2011 and 0.31 in 2019. The incidence of multidimensional poverty has also gone down (Sapkota, 2020).

The Global Multidimensional Poverty Index (MPI) is an index of acute multidimensional poverty that covers over 100 developing countries. It assesses the nature and intensity of poverty at the individual level, by directly measuring the overlapping deprivations poor people experience simultaneously. It provides a vivid picture of how and where people are poor, within and across countries, regions and the world, enabling policymakers to better target their resources at those most in need through policy interventions that tackle the many different aspects of poverty together (Alkire et al, 2014).

Objective and Method

The main objective of the study is to determine the causal factors of multidimensional poverty in Nepal. It is absolutely a literature review of or content analysis of selected references.

Review: History of poverty Measurement in Nepal

The poverty line determines the threshold of income or expenditure, separating poor and non-poor people. The poverty line for Nepal, in average 2010-11 prices, has been estimated at Rs.

19,261; the food poverty line is Rs. 11,929 and the non-food poverty line Rs. 7,332. The poverty line establishes the distinction between who is poor and who is not (Sapkota, 2020). Poverty in Nepal was traditionally measured by a monetary indicator. Using data from Living Standard Surveys, monetary values of consumption expenditures on multiple aspects of life, including food, education, housing, and assets, were calculated for surveyed households and compared against poverty lines below which individuals are deemed poor. Poverty lines were estimated based on the Cost of Basic Needs (CBN) approach (NPC, 2018). Nepal's first comprehensive poverty assessment was published in 1991 and was based on the Multi-Purpose Household Budget Survey conducted in 1984/85. Using what was considered a very conservative poverty line then, at least 40% of the population was identified as poor. Since then, three rounds of Nepal Living Standard Surveys (NLSS) were conducted in 1995/96, 2003/04 and 2010/11 to monitor poverty and understand the drivers of changes in poverty. Living Standard Survey was the very systematic approach which has been conducted for three times in Nepal, of which first was in FY 1995/96, second in FY 2004/05 and third in FY 2009/10. In order to estimate poverty, Nepal Living Standard Survey, 1995/96 has reduced the calorie requirement per capita per day to 2124 as compared to earlier surveys in which that requirement was 2250 (Gyawali, 2020).

Poverty headcount rates were 42% in 1995, 31% in 2003, and 25% in 2010. Improvement in multidimensional poverty indicators is expected from the targeted programs, increased effectiveness of social mobilization, improvement in basic public service delivery and the continuous increase in remittance inflows which caused the expansion in local economic activities. As per the report of UNDP of 2020, the human development index (HDI) has improved to 0.602 as compared to 0.579 of the previous year.

Measurement of Multidimensional Poverty in Nepal

The Sustainable Development Goals (SDGs) recognize and seek to end poverty in all its forms and dimensions. Thus a multidimensional concept of poverty is now embedded in the SDGs. Nobel Laureate, Amartya Sen has argued that social evaluation should be based on the extent of the freedoms that people have to further the objectives that they value – things like education, housing, health, and nutrition. Poverty in this framework becomes 'capability failure' – people's lack of the capabilities to enjoy key 'beings and doings' that are basic to human life. The concept is inherently multidimensional. Nepal's first multidimensional measure was the global MPI – an internationally comparable measure of acute poverty developed by the Oxford Poverty and Human Development Initiative (OPHI) at the University of Oxford with the United Nations Development Program Human Development Report Office (UNDP HDRO). The purpose of Nepal's national MPI is to monitor key simultaneous disadvantages that affect multidimensionally poor people. Analysis of MPI by province, age cohort, and other characteristics, will identify the poorest groups in order that they can be prioritized to leave no one behind.

The first launch of the global MPI stirred interest because its headcount ratio – at 65% – was considerably higher than the consumption poverty rate. Shortly after its launch in 2010, UNDP convened a panel of experts to clarify the differences between the global MPI results and consumption poverty, and to seek advice. One recommendation that emerged and is reflected in Nepal's national MPI was that roofing material needed to be considered, because in some climactic zones roofing, rather than flooring, is the pivotal housing material. Other issues raised at that meeting – such as the importance of load-shedding rather than mere access to electricity and the importance of micronutrients as well as undernutrition – continue to be recognized as important but are not possible (NPC, 2018).

Nepal's national MPI utilizes the global MPI's dimensions, indicators, and cutoffs as mentioned above, because these reflect its priorities as expressed in Nepal's strategy to meet the Sustainable Development Goals (SDGs), Nepal's Constitution, the 14th National Development Plan (2017–2019), and can be implemented using the 2014 MICS dataset. Furthermore, the global MPI can be compared across countries, which means that Nepal's progress may be readily understood in relationship to other countries using the global MPI (NPC, 2018).

Table 1. Dimensions and Indicators of MPI

Dimensions of poverty	Indicator	Household is deprived if…	Weight
Health	Nutrition	Any child for whom there is nutritional information is undernourished in terms of weight for age	1/6
	Child Mortality	Any child has died in the family in the 5-year period preceding the survey	1/6
Education	Years of Schooling	No household member aged 10 years or older has completed 5 years of schooling	1/6
	School Attendance	Any school-aged child is not attending school up to the age at which he /she would complete class 8	1/6
Living Standard	Cooking Fuel	The household cooks with dung, wood, or charcoal	1/18
	Improved Sanitation	The household's sanitation facility is not improved (according to MDG guidelines) or it is improved but shared with other households	1/18
	Improved Drinking Water	The household does not have access to improved drinking water (according to MDG guidelines) or safe drinking water is at least a 30-minute walk from home, roundtrip	1/18

	Electricity	The household has no electricity	1/18
	Flooring and Roofing	The household has a dirt, sand, dung, or 'other' (unspecified) type of floor or has roof made of thatch/palm leaf, sod, rustic mat, wood planks, or 'other' (unspecified)	1/18
	Assets Ownership	The household does not own more than one of these assets: radio, TV, telephone, bicycle, motorbike, or refrigerator, and does not own a car or truck	

(NPC, 2018)

The headcount ratio is the percentage of people who are identified as poor. MPI is calculated by using the following formula in Nepal. Multidimensional poverty is calculation of headcount ratio of poor and its intensity.

MPI = H x A. Incidence: the percentage of people who are multidimensionally poor, or the headcount, H. Intensity of people's poverty: the average percentage of dimensions in which poor people are deprived, A.

MPI= Headcount % x Intensity (Health+ Education+ Living Standard) %

MPI= (N= Nutrition + CM= Child mortality) + (YS= Years of schooling + SA School

attendance) + (S Sanitation + W Water + E Electricity + CF Cooking fuel + FR Flooring and roofing + A Assets)

$M0 = MPI = q \times 1 \sum i=1ci - (k) = H \times A$

From this calculation 28.6% of Nepal's population is multidimensionally poor.

Causal Factors of MPI

The human settlement with local communal acceptance, local norms, and values, environmental protection, help and cooperation, trusteeship, health, education, sanitation, training, transportation, marketing, etc. are the major components of the Gandhian Model of Community Development (Badal, 2020). The global acceptance with local initiation, norms, knowledge and practices in the positive changes on human life is Gandhian Community Development. Multi-dimensions of community with the below of minimum standard is poverty. It is qualitative aspect of poverty evaluation mechanism.

Causal comparative research design is also known as ex-post facto research design. Due to the various social, economic, and political consequences and academic research it is found that monetary poverty or headcount method was not sufficient in poverty management. Thus to measure the poverty it is necessary to count the head and the depth or intensity of the poor at local level. Multidimensional poverty index is also closely associated with sustainable development goals thus it was acceptable around the globe. Recently at 2018, World Bank to

Nepal has developed new method to measure poverty which is known as multidimensional poverty index (MPI). It reflects both the incidence of multidimensional deprivation (a headcount of those in multidimensional poverty) and its intensity (the average deprivation score experienced by poor people). The National Planning Commission has using MPI for the measurement of poverty in Nepal since 2011(Gyanwali, 2020). Multi-Dimensional Poverty Index (MPI) measurement done in 2016 – with a special focus on health, education and living standard – shows the percentage of those living below the poverty line at 28.6% percent while the government's 15th periodic development plan document further scaled it down to 18.7%, on the basis of consumption and income parameters. There are 34% of the population are multi-dimensionally poor while an additional 22.3% are classified as vulnerable to multidimensional poverty.

Later on using the data of 2011 they calculated MPI in 2016 mentioned that, the breadth of deprivation in Nepal, which is the average deprivation score experienced by people in multidimensional poverty, is 43.6 percent. The MPI, which is the share of the population that is multi-dimensionally poor, adjusted by the intensity of the deprivations, is 0.148. The multidimensional poverty headcount is 19.0 percentage points higher than income poverty. This implies that individuals living above the income poverty line may still suffer deprivations in health, education and/or standard of living(Gyawali,2020). Therefore, due to the insufficient qualities on Nutrition, Child Mortality, Years of Schooling, School Attendance, Cooking Fuel, Improved Sanitation, Improved Drinking Water, Electricity, Flooring and Roofing, Assets Ownership in human situation of the people of Nepal to address the poverty level the Multidimensional Poverty Index (MPI) was establish in Nepal since 2018 officially.

Health status of people is calculated by Nutrition and Child Mortality. Nutrition is evaluated if any child for whom there is nutritional information is undernourished in terms of weight for age. Child Mortality is evaluated if any child has died in the family in the 5-year period preceding the survey.

Education status is measured in MPI by Years of Schooling and School attendance. Years of Schooling is calculated if number household member aged 10 years or older has completed 5 years of schooling. School Attendance is calculated if any school-aged child is not attending school up to the age at which he /she would complete class 8.

The living standard of social setting is measured by six indicators. A person is known is he/she uses Cooking Fuel as the household cooks with dung, wood, or charcoal is poor. Improved Sanitation is another indicator if the household's sanitation facility is not improved (according to MDG guidelines) or it is improved but shared with other households. Improved Drinking Water is next indicator if the household does not have access to improved drinking water (according to MDG guidelines) or safe drinking water is at least a 30-minute walk from home, roundtrip. Electricity, if the household has no electricity. Flooring and Roofing, if the household has a dirt, sand, dung, or 'other' (unspecified) type of floor or has roof made of thatch/palm leaf, sod, rustic

mat, wood planks, or 'other' (unspecified). Assets Ownership, if the household does not own more than one of these assets: radio, TV, telephone, bicycle, motorbike, or refrigerator, and does not own a car or truck are regarded as poor.

Conclusion

The causal factors of MPI in Nepal can be categorized as three dependent variables with 10 independent variables. Health(H) is dependent of Nutrition(N), and Child Mortality(CM), Education (Ed.) is dependent on Years of Schooling (YS), and School Attendance (SA), similarly Living standard (LS) is depended on Cooking Fuel (CF), Improved Sanitation(IS), Improved Drinking Water(W), Electricity (E), Flooring and Roofing (FR), and Assets Ownership (AO). The shortage or insufficient amount of independent variable directly causes the impact on Health, Education, and Living Standard of People. It is the notion of poverty in Nepal. Therefore, due to the insufficient qualities on Nutrition, Child Mortality, Years of Schooling, School Attendance, Cooking Fuel, Improved Sanitation, Improved Drinking Water, Electricity, Flooring and Roofing, Assets Ownership in human situation of the people of Nepal to address the poverty level the Multidimensional Poverty Index (MPI) was establish in Nepal since 2018 officially.

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