2021

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STRATEGY OF POVERTY ALLEVIATION INTERVENTION IN NEPAL: AN ANALYSIS OF MULTIDIMENSIONAL MEASUREMENT APPROACH

STRATEGY OF POVERTY ALLEVIATION INTERVENTION IN NEPAL: AN ANALYSIS OF MULTIDIMENSIONAL MEASUREMENT APPROACH

A Dissertation

Submitted to the Faculty of Humanities and Social Sciences of Tribhuvan University (TU) in Fulfilment of the Requirement for the

Degree of

DOCTOR OF PHILOSOPHY

in

RURAL DEVELOPMENT

Submited By

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October, 2021

PhD

LETTER OF RECOMMENDATION

This is to certify that the dissertation entitled as **STRATEGY OF POVERTY ALLEVIATION INTERVENTION IN NEPAL: AN ANALYSIS OF MULTIDIMENSIONAL MEASUREMENT APPROACH** by Nahakul K.C.has been prepared under our supervision and guidance. Thus hereby, it's far advocated this dissertation for very last exam and assessment via the Faculty of Humanities and Social Sciences, Tribhuvan University (TU), in fulfillment of the requirement for the diploma of Doctor of Philosophy in Rural Development.

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APPROVAL LETTER

This dissertation entitled **Strategy of Poverty Alleviation Intervention in Nepal: An Analysis of Multidimensional Measurement Approach** was submitted by **Mr. Nahakul K.C.** for final examination to the Research Committee of the Faculty of Humanities *and* Social Sciences, Tribhuvan University, in fulfillment of the requirements for the **Degree of Doctor of Philosophy** in **Rural Development**. I hereby certify that the Research Committee of the Faculty has found this dissertation satisfactory in scope and quality and has therefore been accepted it for the degree.

.....

Prof. Kushum Shakya, PhD

Dean and Chairperson

Research Committee

Date: 10/10/2021

DECLARATION

I declare the dissertation entitled **STRATEGY OF POVERTY ALLEVIATION INTERVENTION IN NEPAL: AN ANALYSIS OF MULTIDIMENSIONAL MEASUREMENT APPROACH** submitted to the Office of Dean, Faculty of Humanities and Social sciences, Tribhuvan University (TU) of Nepal, is far my authentic actual work prepared beneath the steerage and supervision of my supervisor. I even have performed so out of thank you and salutations to all of the insights and records gleaned from numerous resources during the route of the observe. The findings of this observe have now not been published or published someplace else for name awards or different functions. I hereby assure you that no part of the content material of the thesis has been published in any form before and everywhere.

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Date: October, 2021

ACKNOWLEDGEMENTS

I even have the total honor of having Prof. Dr. Pushpa Kamal Subedi, former department head of Central Rural Development, as my thesis Adviser. Without cordial advices, valuable guidelines, inspiration, and regular feedback, this study could no longer have been viable. Likewise, my deepest thanks go to my Co adviser, Prof. Dr. Keshav Prasad Adhikari for his incomparable guidance and encouragement during my doctoral degree. Assistance received from the concerned Dean Prof. Dr. Kushum Shakay, Assistant Dean Prof. Dubi Nanda Dhakal, instructors, professors, and staff of the Dean's Office for Humanities and Social Sciences and the Central Department of Rural Development can never be forgotten. Therefore, I would like to express my sincere thanks to all.

I also want to express my thanks to the Poverty Alleviation Fund (PAF) for allowing the usage of secondary data and studies reports for my doctoral dissertation. I would like to thank Dr. BP Badal for his suggestions during my PhD study.

I also thank my parents for the affection, help of my wife and support from my family members to complete this thesis. My son Dr. Deepinder K.C. continuously inspired and helped me complete this doctoral thesis.

Nahakul K C

October, 2021

ABSTRACT

"Strategy of Poverty Alleviation Intervention in Nepal: An Analysis of Multidimensional Measurement Approach" is a study of the Multidimensional Poverty Index (MPI), its measures, and measures to relieve poverty in Nepal. The widespread objective of the observation is to analyze the various dimensions of poverty derived from the Multidimensional Poverty Index (MPI) and their implications for poverty discount techniques in Nepal. It is based totally on a survey of two,660 families belonging to 133 cities/communities in 14 regions. The 14 looks at districts consisting of districts selected from every one of the seven provinces.

Almost the majority of the family population nevertheless does no longer have the standard IPM size. Standards of living signs for smoked firewood and drinking water proved poor as compared to sanitation no matter desirable standards during the take a look at. It turns out that a few PAF households have calculated poverty on the deprivation of the schooling and know-how dimensions of poverty.

The examiner assessed the value of the overall MPI, which exceeds the price of national statistics and records regions the very best in Madhes province, and one (and lowest amongst Sudurpashim and Bagmati). The Muslim network is the maximum disadvantaged in the caste / terrible multidimensional/ethnic community. The 2nd is made up of the less fortunate Dalits and Janajatis of Nepal. The quantity of severe poverty is again excessive within the Muslim community and amongst Dalits. Education remains a crucial facts factor within the multifaceted deprivation of families and people in Nepal. Dimensions of deprivation of popular of residing (glad residing) consisting of housing popularity, ownership of products, bathrooms, and lavatories, and gas for cooking are explanatory elements for household earnings stage. The trouble of drinking water and energy may be solved through the improvement of neighborhood infrastructures. Of the 2,656 hit families interviewed, 11, 36, and 53 percent, respectively, are from mountain, hill, and Tarai areas. The provincial distribution of the surveyed households ranged from about 16 percent in Madhes province to less than 14 percent (13.5%) in Sudurpaschim Province. Across the survey regions, nearly 10 percent (9.8%) of households surveyed come from Gorkha, followed by means of nine percent each in Sunsari, Dang, and Rukum-West, with the bottom proportion of families included in Nawalpur.

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ABBREVIATIONS AND ACRONYMS

APPSP	Agriculture Perspective Plan Support Program (APPSP)
BPC	Butwal Power Company
CBN	Cost of Basic Needs
CDO	Chief District Officer
CDP	Community Development Program
CHU	Clark, Hemming, and Ulhp
CO	Community Organization
CRF	Community Revolving Fund
CSOs	Civil Society Organizations
CSP	Community Support Program
DFDP	Decentralized Financing and Development Program
DFID	Department for International Development
DTO	District Technical Office
EMF	Environment Management Framework
ERR	Economic Rate of Return
ESAP	Energy Sector Assistance Program
FAO	Food and Agriculture Organization
FGD	Focus Group Discussion
FNCCI	Federation of Nepalese Chambers of Commerce and Industry
FTG	Foster, Greer and Thorbeck
GDI	Gender Related Development Index
GEF	Global Environment Facility
GEM	Gender Empowerment Measure
GESI	Gender Equality and Social Inclusion
GoN	Government of Nepal

HDI	Human Development Index
HHs	Households
IDA	International Development Agency
ILO	International Labor Organization
IMF	International Monetary Fund
JSDF	Japan Social Development Fund
KEP	Karnali Employment Program
LAPA	Local Adaptation Plans of Actions
LDCs	Least Developed Countries
LDF	Local Development Fund
LRP	Local Resource Person
MEDEP	Micro-Enterprise Development Program
MEDPA	Micro-Enterprise Development for Poverty Alleviation
MIS	Management of Information System
MoAD	Ministry of Agricultural Development
MoFALD	Ministry of Federal Affairs and Local Development
MoU	Memorandum of Understanding
MPI	Multidimensional Poverty Index
NCCISP	Nepal Climate Change Support Program
NEA	Nepal Electricity Authority
NEAT	Nepal Economic, Agriculture, and Trade Project
NLSS	Nepal Living Standard Surveys
NPC	National Planning Commission
NRN	Non-Resident Nepali Association
OPHDI	Oxford Poverty and Human Development Initiatives
PADP	Pocket Area Development Program

PAF	Poverty Alleviation Fund
PCP	Participatory Conservation Program
PMIS	Program Management of Information System
PQLI	Physical Quality Life Index
PRSP	Poverty Reduction Strategy Paper
RCIWP	Rural Community Infrastructure Working Project
REDC	Rural Enterprise Development Center
REDP	Rural Energy Development Program
RIMREC	Resource Management and Rural Empowerment Centre
RRN	Rural Reconstruction Nepal
RVWRMP	Rural Village Water Resources Management Project
SNV	Foundation of Netherlands Volunteers
UDLE	Urban Development through Local Efforts Program
UNDP	United Nations Development Program
UNICEF	United Nations International Children's Emergency Fund
USAID	United States Agency for International Development
WASH	Water, Sanitation and Hygiene
WFP	World Food Program
WUPAP	Western Uplands Poverty Alleviation Project

CHAPTER I

INTRODUCTION

This study strategy of poverty alleviation intervention in Nepal: an analysis of multidimensional measurement approach which brings into discussion about the Multidimensional Poverty Index (MPI) and its measurements. It is based on the selected Poverty Alleviation Fund (PAF) districts of Nepal where poverty alleviation interventions have been launched. In the light of the discussion, the chapter introduces issues, problem statements, research questions, objectives, hypotheses, limits and basis of the thesis.

1.1 Contextual setting

As per say, the contextual issue of the study is its background. A commonplace question arises: what's poverty and how can widespread poverty be measured in this example? Poverty limits intentions, damages relationships, and guarantees loss of life possibilities. According to the United Nations (UN), poverty is greater than a loss of income and productive resources to make certain humans' sustainable livelihoods. Appearance consists of hunger and malnutrition, limited get right of entry to schooling, and absence of other fundamental services are the perception of poverty. It also affects social discrimination, ie exclusion and lack of participation in marketplace selection-making. Different social organizations carry an inconsistent burden of poverty. As Sen (1976) points out, poverty isn't always only a loss of money. Poverty is not having the potential to comprehend it as an entire person. Poverty is consequently multidimensionally a measurable concept. For many years, the hassle of poverty measurement in Nepal continues to exist. This look tries to analyze the position of the Poverty Alleviation Fund (PAF) in its method for reaching the extremely-negative and terrible families in phrases of food security and the want to move towards multidimensional negative households. Moreover, it gives a few ancestry sequences in the conceptual shift of poverty studies to the era of the emergence of multidimensional poverty and the creation of the multidimensional poverty index in 2010 (UNDP, 2016).

Methodologically, this observation changed into carried out to discover the justification and the opportunity to exchange the approaches to concentrated on terrible families from meals safety (income method) to multidimensional poverty. In

this context, numerous methods had been used to outline poverty. The concept of poverty acknowledges the natural way of bringing collectively the numerous dimensions. This is a fully integrated variable and a one-dimensional method can not be used. Here the negative is recognized on the idea of a kind of deprivation and general poverty was assessed the usage of a one-dimensional scale. It merges into one and is seen thru a one-dimensional lens, which isn't enough. In addition, more and more policymakers and lecturers are turning to the multidimensional poverty dimension to enhance the know-how of poverty. This method allocates resources more professionally and improves government schemes to lessen poverty.

In this context, the different regions (Alkire, et al., 2015) have already adopted an official measurement of multidimensional poverty, whose scope, indicators and thresholds are adapted to a specific context. These measures or tools are used as official statistics or data on poverty, to test programs, inform about resource allocation and other targeted services. Many other countries, such as Vietnam, Senegal and Bangladesh, are now queuing up to fight poverty through multidimensional anti-poverty measures as tools to adapt governance and government policies. It is a global MPI that enhances the previous profits-based totally poverty reduction measures by addressing the extreme shortcomings that individuals face at the identical time in phrases of training. Health and fashionable of residing at the person degree

Nepal's typical MPI may be used to create a complete photograph of human beings living in poverty and permit comparisons between countries and regions. It additionally measures countries' poverty reputation in line with the ethnic group, urban/rural populace, and different important family and community traits (Alkire and Robles, 2017). The Oxford Poverty and Human Development Initiative (OPHI) calculates the special sorts of deprivation skilled through a person at an equal time, such as loss of schooling or employment, bad health, or terrible general of residing. According to the financial observe (2018/19), poverty has gradually decreased because of elements consisting of excessive economic growth of the economic system, investments in social and monetary infrastructure. It additionally shows growth in remittance receipts.

According to preceding studies, approximately 28% of the populace in Nepal are multidimensionally negative and 25.2% live under the poverty line in the united states (NPC & OPHDI, 2018). Sixty-one percent of Nepal's population lives in municipal

districts and sixty-six percentage works in agriculture. Nepal is ranked 197th within the gross domestic product (GDP) according to capita and 145th out of 186 international locations within the Human Development Index (UNDP, 2019). According to caste/ethnic Muslims ($257), Madhesi have distinctive caste ($270), Dalits ($279), and Gangati except for Newar: The United States dollar has a noticeably low in line with capita earnings. Per capita for the opposite (Newar): $562 and Brahmin/Chetri: $412 (UNDP, 2014). Sen's paintings clearly supported the concept and dimension of human improvement. He strongly encouraged the need for a multidimensional technique to studying and measuring poverty: fitness, education, and earnings. His announcement became that "human life is abused and demeaned in numerous methods." The first project is to acknowledge deprivation or poverty of a completely special type. To degree poverty, the whole thing has to be built into a common umbrella system (Sen, 2000).

Sen proposes to degree poverty and well-being within the multidimensional framework of fitness, schooling, and earnings. Sen's pluralistic concept and size of poverty and nicely-being, the oxford initiative for poverty and human development (OPHI) at in association with the oxford department of international development (ODID), introduced the concepts and indicators of the multidimensional poverty index (MPI) in 2010. It is a compelling and constant framework for measuring human beings' poverty and well-being. It approach is used to propose a whole definition and a price of acute multidimensional poverty. It must reflect deprivation in lots of primary services and basic human functions (Alkire & Santos, 2010). It indicates different styles of poverty. It denotes earnings poverty as it reduces a range of hardships and different obstacles. It seems that the state of poverty is in a tremendous situation. Moreover, it has not yet been analyzed that COVID-19 has a serious impact on the financial system.

1.2 Statement of the Problem

For the past 5 decades, Nepal has been one of the poorest nations in Asia with the highest poverty fee in South Asia, a terrible us of a. Due to massive social and monetary discrimination, persistent backwardness has grow to be a hallmark of Nepal. Nepal is one of the least evolved countries within the world. This is GDP in step with capita, measured in US dollars: 911 currents in 2017. Various research has checked out the position of social and economic conditions inclusive of income, education, and

employment as foremost troubles. Calculates inequalities in fitness, schooling, and earnings. The significance of fitness variations varies consistent with the kind of socio-monetary variables and context-specific variables.

There is proof that statistics from diverse resources had been analyzed to obtain records on the relationship among poverty and fitness. It has found out giant inequalities in each health outcomes and poverty. The income gap between the richest and the poorest appears to be big. The quintile of births assisted with the aid of hospitals, antenatal care, immunization coverage in local governments, ranges of malnutrition, overall fertility prices, and using modern contraceptives are increasing.

Infant mortality is better in rural regions and in particular in the mountains, which coincides with the profits hole but decreases with urbanization. The dating between the level of schooling of the mother and the main fitness signs genuinely confirmed the wonderful significance. It also confirmed a link between care-in search of behavior and poverty, is the poverty difficulty. Mortality and morbidity, in particular amongst girls and children, are extensively high (MoHP, 2017). In addition, acute formative years illnesses and headaches of childbirth also are avoidable in severe conditions. Nutritional and widely wide-spread diseases consisting of malaria, tuberculosis, leprosy, sexually transmitted diseases, rabies, and vector-borne illnesses stay eliminated at a high charge. This is a severe trouble in Nepal. These situations are associated with unavoidable poverty, low literacy prices, and bad public and college schooling. Rough topography, hard communique, low tiers of hygiene and sanitation are increasing. Another problem is the constrained availability of secure water and living situations. These troubles are exacerbated through the limited use of nearby resources, the lack of properly skilled fitness specialists, and, to a huge quantity, the backwardness of infrastructure. Weak public zone control and terrible coordination among and inside sectors (National Council for Planning, 2018) are the principle problems. The link among schooling and absenteeism is clear. Education reduces poverty at the same time poverty limits humans's get right of entry to to schooling. In many growing nations, poverty has turn out to be a major barrier to get admission to to resources and schooling (Sen, 1984).

Nepal has made big progress in the field of education during the last twenty years. Korea, but, has many problems which are difficult to deal with in fact. Current issues in education encompass low fine, imbalances inaccessibility, geological distance,

familiarity, and economic and ethnic differences. Key thresholds for enrollment and participation encompass wishes, social rejection, disability, displacement, teens paintings, well-known practices, and steerage biases.

In education to combat need, the training turned into important. It is assumed that nearly 27% of families do not have get entry to to the educational and informative components of MPI. The modern-day non-teaching ratio for every faculty-age adolescents-person (ages 5-17) is eighteen% of households and no relative elderly 15 years or older have finished five years of education/coaching within the 11% of families evaluated. In phrases of elements (NPC and OPHDI, 2018), the expectation of everyday facilities is the most powerful proponent of multifaceted need in rural areas, with 44.6% engagement. In addition, there are warning signs of a high affiliation with unemployment fuel for cooking (74.5%), materials and groundwater (67.3%), water (11.3%), strength (15.7%), and sterilization (36.6%), and sources (21). %) (NPC and OPHDI, 2018). 2010

MPI appeared to be a quintessential a part of the financial size of the concern while it turned into taken into consideration to cowl the hardships that human beings continued on the identical time. The sign up classifies the problem in three comparable areas as properly-being, training, and the expectation of everyday comfort. The Human Improvement Index (HDI) suggests what number of people face problems and what number of difficulties they face with powerless families. It has a tendency to separate structures from exceptional points of the house (rural/huge metropolis, natural and conventional), identity and grouping in look and suggestions. This makes it a useful tool for policymakers (NPC and OPHI, 2018). Misery has components on several tiers. These factors are recognized, however their electricity, causal editions, and intercession aren't located in the examination. These components are at once or in circulation associated with the development of Nepal's economic system. Through point observe of the scriptures, there are numerous holes in the look at of forces, causal variables, and mediators of Nepal's wishes.

From this point of view, the research question of this study are:

a. How intense is multidimensional poverty in Nepal?

b. What are the causal factors of and their relation to MPI in Nepal?

c. What is the status of key dimensions of poverty alleviation interventions from the elements of MPI in Nepal?

From the above research questions, the following objectives have been set and forwarded for the study.

1.3 Objectives of Study

The standard objective of the study is to analyze the numerous dimensions of the MPI and their implications for improvement packages and poverty alleviation techniques in Nepal. Special Purposes are as below:

a. To discover the multidimensional poverty objectives from Nepal

b. To determine the causal elementary factors liable for MPI calculation in Nepal.

c. To examine the fitness, schooling, employment, and migration dimensions of multidimensional poverty in efforts to reduce poverty from the elements of the MPI in Nepal.

1.4 Importance of the Study

The contribution of the Poverty Alleviation Fund (PAF) of Nepal has performed a key function in alleviating the struggling of wages and similarly developing the food safety scenario of the own family within the exact networks. However, so far, there was no full investigation of complex poverty and the way this pertains to other standards for improvement, including doable development goals. With a focus on decided on checks of the PAF own family. This overview goals to offer an accurate and complete image of each wage sharing and poverty in Nepal.

A paradigm shift has been addressed to detect and destroy the scarcity of one-dimensional (implicit) payment methods to address various approaches such as human (near) competition. By submitting a multifaceted need report, the Nepal National Authority's General Regulatory Commission has received ideas, methods, and solutions that can be used to transition from Nepal's Poverty Survey, and cost of basic necessities (CBN) for the access of poverty measurement. Previously, the need was characterized by either including the quantity of people "below the emergency line" (normally recognized as BPL or the edge of need), or via determining quantity of dietary adequacy. It helps to hold basic features of poverty, explored because they are insufficient to represent the various components of loss.

PAF was launched as a mediation problem in a new situation after the hostilities in the country in order to obtain emergency assistance for victims of hostilities in the district areas. It means helping them change their stamina, calling, and endurance. Thus, it is clear that PAF is using traditional food sufficiency proof methods for specific target groups and is expanding its “cash” through direct pay age education and support structures at the local level. Over the past 12 years, the Air Force has had many examples of defeats. "Increasing salary" at the unfavorable family level but it's not clear how the PAF methodology can handle the parts. Who didn't get paid for the emergency? Meanwhile, the lack of a comprehensive support system that caters to the many components of needs has resulted in objective individuals having to expend a lot of their energy getting different help from different offices and this is still theirs. method. In a similar family or off-farm support that may not be a long haul. It is part of the problem that our country is facing a huge energy shortage in accordance to PAF.

It is indispensable to the PAF to accept a tiered method to examining deprivation amongst its goal recipients for further development of its “target identification” interaction to plan upcoming mediation as to adequately address the various components of deprivation among your family target. The Administration of Nepal recently provided a report to review plans to take additional into the configuration of the PAF with the aim that the study can be used to expand on how the PAF can interpret the need for its objective assemblies from a multifaceted point of view comes in a wider intercession in the future.

When configuring PAF technology, the MPI must be visible as a prestige expansion device. The fundamental value it adds is that the weighted accumulation of the various elements of suffering, it allows politicians to view poverty traditional way in several respects. Strong point of the multilayered method is what enables politicians for the work on capacity framework to tackle scarcity through explicitly based on notions deprived of deprived. To add to the MPI estimate, it can similarly use a variety of ideas that may help classify the degree of need to assess the very poor. One such tool is Family Weakness Registration, a strategy for ranking vulnerable families. Individual orders are: mastery level families (powerless but ready to adapt), intensive levels (families desperately in need of help), crisis level families (requires the most perfect skill to revive), super helpful families can also be separate as a family at the

"intensive" and "crisis" level. To classify 'serious' and 'in crisis' families, we can consider the MPI as a more comprehensive proportion of poverty.

In 2017, the General Chapter presented a report entitled "Multifaceted Needs Profile - Activity Test". This study has used the MPI method for poverty surveys (interesting in its distribution across all open space needs assistance programs), in this case contributing to the actual use of it as an insightful instrument. The evaluation will deepen investigation of the index on National Planning Commission(NPC), as this review will be based on the new information agreements for 2018, although the MPI NPC is currently in the light of information for the Quality of Life Sector Survey in Nepal (MoHP 2017, 2012, 2007) and the Multiple Signal Study (MICS) (CBS, 2015).

In general, the old method of characterizing needs in gaining a profounder plus broader consideration of the “settlement” in a particular family. It expresses the locality in different facets to items of need. Therefore, we want to examine the optional proportions to assess discomfort by combining the elements of the MPI and PAF factors. This type of MPI can be useful in identifying people in need, in addition to getting a reasonable picture of the variables that pay attention to causing distress. As the financial analysis (2018/19) shows, poverty is steadily declining due to factors such as high monetary development, efforts to create friendly and financial funds, and improved settlement development. The population below the poverty line is about 18.7%. MPI estimates people who face some difficulties.

Theoretically, the review endeavored to discover socio-popularity based and communist points of view in complex destitution. It tends to be relevant for future scientists who need to lead research in Multi-faceted neediness from socio-majority rule and communist methodology. Systemically, it is a quantitative review that covers seven regions with 14 areas from 133 bunches. It is relevant in future exploration. The review is valuable to strategy creators on the estimations of force, causal factors, and key components of destitution easing mediations of complex neediness in Nepal. It has explicitly tended to wellbeing, schooling, business, and movement parts of destitution and its consequences. In this manner, it is valuable to the scholarly community, strategy producers, specialists and future researchers.

1.5 Limitations

The following are the limitations of the study:

a. Sampling is taken only from the PAF targeted community households.

b. It is a survey of only fourteen PAF intervention programme districts; hence findings may not be generalized as representatives of all PAF programme areas and communities covering all sixty districts of intervention.

c. The study relies on quantitative secondary data only, henc, it may not provide the detailed rich account of poverty qualitative primary data collection provides.

1.6 Chapter Organization

The proposition is partitioned into eight sections. The principal section presents the issues and setting of the review zeroing in on why this review, articulation of issue, destinations of the review, speculations of the review, meaning of the review and constraints. The subsequent part audits various methodologies of conceptualization and estimation of neediness and developing worry on investigating destitution from multi-layered perspective.

The third chapter is devoted to present methodological instances of the study. At first the survey methodology is presented followed by methods adopted in constructing a MPI. The method of construction of MPI follows the same as proposed by Alkire and Fosters (2011) and adopted in preparation of MPI statement of NPC and the OPHI. The third unit of this chapter is devoted to assessment of data quality and the actual output of the survey. Three chapter (IV, V, & VI) present construction and analysis of MPI by different attributes of the study of population, ecological zones, and socio-economic status. Chapter VII develops two alternative models to examine the MPI, followed by the results of the two logistic regression models. Last chapter VII highlights the key findings and conclusions of the study.

CHAPTER II

LITERATURE REVIEW

This part of dissertation is divided into concepts and philosophical perspectives of poverty, theoretical literature review, measurement perspective, empirical literature review, policy and plan on poverty, theoretical and conceptual framework, and research gaps. In the first literature review, the theoretical review includes a philosophical view of poverty, the basic concept of poverty and its measures. Literature review is empirical which shows the MPI status globally. The last section of the chapter is a conceptual framework which provides guidelines on how to examine the objectives of the study.

2.1 Concepts and Philosophical Perspectives of Poverty

In practice, the normal ideas of destitution and success are proposed by various researchers. Scholastically the idea starts expanding upon a line of reflection progressed by Aristotle in 350 B.C.E. Essentially, Adam Smith in 1978, Jeremy Bentham in 1970, John Stuart in 1987 and Karl Marx in 1867, the ideas of destitution have been comprehensively imagined in financial aspects and other sociologies. The western idea that gives the premise to most current financial's how analysts might interpret human prosperity can be followed back similar to Aristotle. It was seen prosperity as something created by activities and not assets. It is a conviction which orchestrates with explanation that a happy human lives well and do well. Happiness creates good life and prosperity. The attributes that are searched for in joy. The predominant European ideas of thriving and prosperity changed over the long run from Aristolean thought to the archaic measurement of glorious prizes and disciplines deciding our natural well-being. It is to Calvinist fate, and to the logical aestheticism of the Renaissance, which was gone on until the beginning of utilitarian financial way of thinking in the eighteenth century (Stanton, 2007), drove the components of various types of poverty.

In 1789, the insightful commitment of Jeremy Bentham qualified *Introduction for the Standards of Morals* - is the best recollected conversation of the way of thinking of utilitarianism. Here in which the human conduct is portrayed as spurred by delight and torment - their net fulfillment being the utility. The present society's prosperity was the amount of these utilities, to such an extent that a moral strategy was what

prompted the best satisfaction for the best number. This definition of social government assistance, and thriving of individuals were intended to be both libertarian and individualistic.

(Sen, 2000) sees Bentham's utilitarianism as an explanatory strategy or oral technique that effectively gotten the scholarly field free from any genuine rivals to utility for social government assistance. On the off chance that there could be just one proportion of prosperity, the battle to have that action be net fulfillment was not an extremely challenging one.

Utilitarianism retreated in the mid nineteenth century, until its restoration by John Stuart Factory's Utilitarianism distributed in 1987 and Karl Marx's Das Kapital in 1867. This vision of utilitarianism contrasted in certain regards from that of Bentham and other early defenders of financial aspects of neediness. The most immediate precursors or the foundation of the present neo-traditional market analysts were known as the material or marginalist government assistance school as referenced by Marshall in 1920, which protected the essential statutes of utilitarianism, yet utilized new numerical instruments to make their contentions. At the focal point of their financial hypothesis, there were two related thoughts. First thought was the objective of people to expand utility, furthermore a formalization of Bentham's thought that utility was sunken or decreasing on the edge as the peripheral utility.

The marginalists overwhelmed English financial idea had fostered the new numerical models in the field of physical science during the 1860s, is liable for expanding the numerical intricacy of monetary examination of neediness and prosperity. They changed the focal point of financial aspects, away from the centrality of monetary development underscored by Adam Smith in 1978 the critical comprehension of neediness in its socio-recorded aspect lies in the duality of "destitution" and "abundance". There is no destitution until there are differentiating wealth. individuals in the soonest stage-wood age, of society are not portrayed by Smith as poor however every one of them were trackers stay alive at basically a similar least level. The pivotal progress is that from hunting to crowding. The grouping draws the differentiations of rich and poor. The individuals who have no belongings in groups and crowds can track down no chance of keeping up with except for by getting it from the rich. The rich, keep up with and support those of the less fortunate sort out of the enormous belongings have in groups and runs, require administration and reliance.

Each rich man comes to have an impressive number of the less fortunate sort depending and going to upon him according to characterize by Adam Smith.

2.1.1 Human Development Index in Nepal

The customary act of estimating neediness utilizing limited cash matric has been changed interestingly when Nepal Human Improvement Report 2001 emphatically raised the voice for ability advancement and accentuated on complex way to deal with measure destitution and its various aspects. The report explicitly featured the need to zero in on fostering the intrinsic limits of individuals and to involve it as a feasible technique to battle against the various components of destitution. The Report centers around the job of administration in encouraging value, fairness and decreasing destitution. It was a major accomplishment that its examination and suggestions affected Nepal's tenth Arrangement otherwise called the Poverty Reduction Performance Paper (2002-07). The Report wanders into a subject currently strongly discussed worldwide.

The Public Human Development Report 2004, tests different method for enabling Nepal's frail, underestimated gatherings - ladies, Dalit, native individuals, youngsters, cripple and senior residents - to make present power structures more comprehensive, to moderate destitution and its ramifications. It accentuates on the noteworthy rejection of the geographic regions where the current struggle started right around 50 years prior, in the Karnali and Sudurpaschim regions. The Report likewise looks at how individuals can fortify individual and social capacities to jump all over the amazing open doors opened up by the post-1990 change movement. It additionally presents how they can stand firm on administration establishments responsible and improve footing in getting to public assets. It investigates how the qualities, needs and organization of residents at the grassroots level can move to the focal point of cross country advancement endeavors and subsequently fortifying the social financial texture of the country.

The Report of United Nations Development Program of Nepal of 2009 spotlights on the political change and rebuilding of the country for consideration and human turn of events. It perceives and executes every one of the parts that are vital for harmony. Consideration alludes to the evenhanded political portrayal of the prohibited sections of individuals, including ladies, ethnic gatherings, different ranks, and individuals in

immature areas. Cooperation suggests the dynamic commitment of agents in voting demographics where these feelings are heard and heeded.

The Report further clarifies rejection that causes lopsided human development that is helpful for dispensing with it through the fair portrayal and support of prohibited gatherings. The comprehensive interest of gatherings in the locales will work on the nature of human turn of events. Thusly, the report investigates various choices of the state structure and political framework to deal with the interests of various gatherings of underestimated individuals. The Report additionally perceives that evenhanded portrayal can't the only one tackle the issues of rejection except if the people who address Nepal's different electorates can impact strategy choices through immediate and dynamic investment in the improvement of Nepalese society. Those avoided are probably not going to partake as successfully as the advantaged bunches as a result of lower level of human turn of events and blessing alongside their underestimation and socio-political constraint. Disparities in gift make as well as objective rejection. Subsequently, rejection and disparity should end at the same time in the entirety of its aspects and elements. Endorsing a specific type of political framework, a particular government structure, the Nepal Human Development Report 2009 inspects a portion of the fundamental elements of a vote based system and popularity based constructions that disseminate capacity to the minimized individuals. It incorporates a reasonable discretionary framework, a majority rules system inside ideological groups, a government structure, huge decentralization of force, assets to carry administration nearer to individuals, and to grow admittance to essential administrations. The Report centers around state change and state-building. The feasibility of a solid country state is crucial for enduring harmony and economical human turn of events. It progresses a plan of not many central issues for political consideration, enduring harmony and human advancement to clear out friendly components of poverty.

The Report, targets surveying useful capacities at various interrelated degrees of human culture. The proportions of capacities created in this report propose how much limit the public authority needs to achieve and how much comprehensive development before long are required. It shows the degree to which current capacities are being converted into quantifiable results. The report presents a thorough factual investigation across existence, utilizing the accessible public information. Since there

is at present no single, all around acknowledged definition or proportion of useful capacity, the report states that this can be reflected straightforwardly or by implication by various pointers. The enormous measurable information base made in the process may be utilized by the public authority and other improvement partners to target arrangements and defend financial plan designations to various areas, locales, regions and financial groups.

2.1.3 MPM-HKH Index in Nepal

A number of studies have been directed in Nepal (Gerlitz et al., 2015) in light of MPM-HKH system on Himalayan neediness. It shows that the commitment of various components of neediness, for example, those connected with training, wellbeing, material prosperity, vigour, aquatic sterilization, communal wealth, in admittance of administrations. The fluctuattions unmistakably apply in various areas of small landlinked Nepal. It outlines the significance of area explicit information in the improvement of viable destitution decrease techniques embraced by the Land-Nepal. Country-level methodologies are probably going to miss essential neighborhood signs of neediness and accordingly be less successful according to nearby advancement viewpoint. The discoveries uncover a few normal examples in the profile of mountain neediness for instance, the recurrence with which absence of actual admittance to administrations has all the earmarks of being the prevailing component of destitution in rocky areas of Nepal. It is otherwise called Himalayan poverty.

2.1.3 Equity Quintile Index

The investigation of Nepal’s demographic and health surveys (MoHP, 2007; 2012), main mechanisms examination conducted on the important seven parts as responsibility for products by family, family individuals independently, staying qualities, water and disinfection, land proprietorship, house possession, and animals that are connected with the family's abundance to allocate loads (factor scores) to every one of the family resources. Every family was then allocated for the better estimations of an abundance score in view of these loads and the resources claimed by the family. The studied family populace was then positioned by the abundance score for every family and was partitioned into five equivalent parts (quintiles) from most minimal (least fortunate) to most elevated (most extravagant). The variables/resources utilized in these computations has been talked about were as follows:

1. Wellspring of drinking water, 2. Sort of sterilization office, 3. People per dozing room, 4. Sort of floor, 5. sort of rooftop, 6. Sort of divider, 7. Sort of cooking fuel, 8. Resources in families (power, radio, TV, non-cell phone, cooler, further developed cooking oven, table, seat, bed/bed, couch, closet, PC, divider clock, electric fan, dhiki/jato/Okhal/Ghatta, microwave and clothes washer) and 9. Resources of family individuals (watch, cell phone, bike/cart, cruiser/bike, creature drawn truck, vehicle/truck/transport/jeep, farm hauler, boat, lease, horticultural land, area of rural land, animals and responsibility for account). These are the components of complex poverty.

The abundance record is expected to catch essential long haul abundance through data on family resources and is planned to deliver a positioning of families by abundance from least fortunate to most extravagant moving. The abundance file doesn't give data on outright destitution, current pay or consumption levels anyway it gives specific insight of neediness status. The abundance scores determined are appropriate for just the specific dataset they depend on. The examination of Nepal's demographic survey (MoH et al., 2017) information, the changed plenty list for example value quintile was determined to comprehend the family level abundance record in Nepal. A similar apparatus is utilized for the investigation of PAF households.

2.1.4 Origin of Human Development and Multidimensional Poverty Indexes

Mahbub ul Haq's "human turn of events" undertaking of the UNDP has characterized another conceptualization of prosperity and to make accessible proportions of prosperity in light of that groundbreaking thought. The principal HDR (UNDP, 1990) announced that the method for advancement have darkened or secret its closures in view of two essential factors:

The first, public pay figures, are valuable for some reasons, don't uncover the organization of pay or the genuine recipients. Individuals regularly reverence actions that are not appearing by any earnings, or not punctually, in higher estimated pay or development statistics: wellbeing administrations and better nourishment, safer jobs, better working conditions, more noteworthy admittance to information, protection from wrongdoing and actual viciousness, fulfilling relaxation hours, and a feeling of taking an interest in the financial, social and political exercises of their networks for better life. Clearly, individuals additionally need higher wages as one of their choices

of good life. Be that as it may, pay isn't the entirety of human existence by any means. The human advancement process is one of developing individuals' decisions through various projects. The program centers around three fundamental parts: a long and solid life, admittance to assets required for a nice way of life and information to improve human existence. In the event that these important choices are not reachable, frequent dissimilar exposed entrances break out of grasp to the poor.

(Sen,1990), who was one of the main advisors on HDR, composed that the capability approach is recognized to upset ideas and strategies for neediness estimation by testing the out-dated method of estimating poverty as far as lacking pay. Financial approach of poverty definition and estimation has been reprimanded 100% of the time for offering little event to financially fulfill the necessities of poor people, specifically on account of public products like wellbeing and education. Cash doesn't involve poverty alliveation. The capability approach defeats this issue by estimating various types of hardships and difficiencies straightforwardly.

The presentation of the Humanoid Growth Catalogue inside the HDI 1990s beside UNDP MPI 2010, this method has consistently proven to be of interest to legislative issues around the arena. The capability method (Sen, 1999) centers on what individuals can do and grow to be, instead of what they've, or how they experience. Sen believes that human properly-being should be compromised through shifting every day or slight concentration far away from "methods of life" along with wages to "true open doorways" to in addition define paintings and capabilities (Sen, 1999). "Work" refers to the various things that a person to be, interested by society, being concrete, etc., even as "talent" refers back to the right or tremendous potential for the man or woman to do. Refers to function, as an instance, the capacity to take part inside the existence of society (Sen, 1999). The emphasis is on real or meaningful possibilities, no longer formal ones, as competencies are capacity open doorways that you may exercise as you want. Attitudes in the direction of abilities pay unique interest to the skills that a character has, regardless of whether he comes to a decision to workout them or now not.

Sen's assertion or reasoning is that “there is an impact on the complexity of competencies and therefore the need to supplement the low revenues in the review. The effective link between low wages and low efficiency varies across networks. and even between different families and individuals. Work is a “condition and work”, like

“to be solid” and “to stay away from premature destruction” for a better life. A skill set is a set of vectors or lines of action that an individual has access to - this work skill is closer to the idea of a standard of living. The idea of the extra capacity to unite or connect the two parts: important creatures and events (work) and opportunity (Alkire, 2015) as individual characteristics in anticipation of everyday comfort. The method is considered suitable for assessing several parts of individuals 'well-being, such as variance, needs and prosperity of the individual or individuals' natural prosperity in a group in society.

(Sen, 2000) sees *freedom* as *ends* of human worth that advancement is opportunity in his commitment, improvement as freedom. Improvement in this manner requires the expulsion of the significant impediments of opportunity: neediness, oppression, orderly friendly hardship, and disregard of public offices, bigotry and comparative ills locally. Human capacity applies an ethical case in the public eye that they ought to be created - that furnished with the right instructive and material help. They can turn out to be completely fit for the significant human capacities, can across the first and second limits of opportunity and improvement. Use of this methodology is to gauge various substantial ramifications that has zeroed in especially to the appraisal of human personal satisfaction. With the guidance of Sen, the UN Human Improvement Reports have started to accumulate data and to rank countries as per the sort of plural-esteemed (vote based) ability centered estimating the methodology. Contention is that 'Sen's ability and the human improvement approach together address a 'more broad' way to deal with the issues that financial matters and advancement - address, and that this has a particular worth separated from the pragmatic commitments and experimental out-operations' (Alkire, 2015) is immense.

It sees ten fundamental components to practice one's capacities for human prosperity as future, real wellbeing, substantial honesty, feelings of creative mind and thought, feelings, down to earth reason, connection, different species, play and command over the climate for great living status. The methodology is basically more generally 'individuals focused' to put human office rather than association, similar to business sectors or government, at the focal point of the stage in neighborhood improvement. The focal job of social open doors is to augment the domain of human organization and opportunity, both as a finishes in itself and for the purpose of additional development of opportunity on issues of neediness. Taking everything into account

(Alkire, 2015) sees 'the major strength, the ability approach is lucidity about the goal of both equity and neediness decrease - ought to be to grow the opportunity that denied individuals need to appreciate important 'creatures and doings'. They ought to approach the fundamental positive assets, and they ought to have the option to settle on options that make a difference to them. The vital energy about the ability approach is that it goes past the persistent analysis of pay to propose an elective space wherein to conceptualize both neediness decrease and civil rights. This space incorporates numerous capacities, and opportunities (Alkire, 2015) the fundamental attributes of the idea are its profoundly interdisciplinary characters and the emphasis on the plural or multi-layered parts of prosperity of individual. The 'approach assesses arrangements as indicated by their effect on individuals' abilities in friendly choices.

The contrasts among "capacities" and "working" are the reasoning behind Human Advancement Report's qualification between the development of human abilities and the utilization of their obtained capacities (Sen, 2000). The section 'Characterizing and Estimating Human Advancement' of the principal Human Development Report (1990), it starts off evolved with the phrases 'Individuals are the real abundance of a rustic'. The fundamental target of improvement is to set up empowering weather for individuals to live lengthy, sound, and resourceful lives. It gives off an influence of being a primary fact. However, it is regularly forgotten in the quick worry with the aggregation of wares and monetary abundance (UNDP, 1990:9) as shown in the report.

The cycle of broadening individuals' decisions and the level of their accomplished prosperity is proposed to quantify by a solitary composite file of human improvement for example HDI. Human Improvement Index (HDI) is contended to trap the '3 essential elements of human life: lifestyles span, information, and basically pay for decent expectation for ordinary comforts - health, schooling, and pay. Life span and records allude to the association of human capabilities, and pay is an intermediary degree for the decisions individuals have in placing their capacities to use in software. HDI is the similarly weighted quantity of problem of a country regarding each one in every of three components: future upon getting into the arena, proficiency, and proper pay in keeping with head. To the perspective on Alkire and Santos (2010) human advancement makes following three express goals that numerous market analysts, political pioneers, residents and activists have recognized in various ways across time.

Those are: Prosperity: An attention on growing individuals' genuine opportunities, empowering individuals to flourish.

Alkire and Santos (2010), as a file of intense multi-layered destitution, MPI displays hardships in noticeably simple standard administrations and middle human running for people throughout regular lifestyles. The MPI has three components: well-being, instruction, and manner of lifestyles and is estimated utilizing ten tips are evaluating apparatuses of poverty estimation. Each element is in addition weighted; every pointer inside a thing is moreover in addition weighted in estimation. The MPI uncovers the mixture of hardships that hitter a family concurrently. A family is distinguished as multi-layered bad if and supplied that, it's far denied in a mix of markers whose weighted aggregate is 30% or an extra quantity of the components in destitution assessment. The components, recommendations, and hardship measures are as follows:

Health (every indicator weighted similarly at 1/6), Child Mortality: If any infant has died inside the family, Nutrition: If any adult or infant inside the circle of relatives is malnourished, Education (every indicator weighted similarly at 1/6), Years of Schooling If no household member has finished 5 years of training, Child School Attendance If any faculty-elderly or baby is out of faculty in years 1 to 8, Standard of Living (each of the six signs weighted similarly at 1/18), Electricity: if a family does not have power, Drinking water: if it does not meet MDG definitions, or is extra than half-hour' stroll, Sanitation: it does no longer meet MDG definitions, or the toilet is shared, Flooring: if the floor is dust, sand, or dung–housing condition, Cooking Fuel: if they cook dinner with wooden, charcoal, or dung, Assets: if do no longer very own multiple of radio, TV, phone, bike, bike or refrigerator and do not personal a vehicle or truck.

2.2 Theories

2.2.1 Marx's poverty theory

Karl Marx's principle of poverty is primarily based on the truth that poverty is the end result of the fate of the poor, who are as a result sufferers of situations as a result of quite a number of things which might be essential to the production device. In 1867, Karl Marx confirmed that the entrepreneurial practice of the owners of the manner of manufacturing (capitalists) of switching from hard work to capital-in-depth manner of

manufacturing so one can grow production and growth earnings can bring about mass unemployment in any economy. Moreover, capital-intensive manufacturing forces the capitalist to take into account employees which will increase the profitability of the company. Then the regulations once more led to mass unemployment. Redundant might also migrate to evolve to city regions or exchange jobs to escape poverty. Those who didn't remodel might end up bad at domestic and forming what Karl Marx known as a military of reserve workers to live on. These poor/damaged humans turn out to be capitalists. Continued cuts are leading to a boom within the variety of negative inside the economic system and, ultimately, an increase in the level of poverty approach less capital depth in the market.

By proposing drastic adjustments in a rustic's social and economic gadget, Marxist economists and different radical theorists (Bellu and Liberati, 2006; Davis and Sanchez-Martinez, 2015; Manjoro, 2017) highlight the possibility that financial growth alone won't be enough. Lift the terrible out of (relative) poverty, like those belonging to positive training may not benefit from total income growth for sustainability. Likewise, by emphasizing the belief of sophistication, it gives a shift of attitude that emphasizes the characteristics of the group (as opposed to the character), with the repute of people relying on the social and financial environment wherein they live inside the elegance battle.

The Marxist concept shows poverty alleviation via improving the shape of manufacturing. Improving training and training for individuals who are undeserving of technological advances to adapt to converting careers. Education in trendy additionally guarantees that the underprivileged include and adapt to trade. The concept also argues for or requires a kind of nation welfare software to help those who fail to reorganize themselves thru training so that they can get entry to primary maintenance wishes which include food, health applications, and subsidies (Manjoro, 2017). Motion. The mode of production in Marx's time become the idea for maximizing the earnings of workers, however, now the situation is special and insufficient for improvement.

However, profits technology remains a key issue for human nicely-being. Under a consumerist gadget, poverty discount may require minimal salary regulation, measures to do away with twin labor markets, and anti-discrimination legal guidelines (seen as one of the handiest anti-poverty strategies) in society. The exploitation of the

bad magnificence by means of the rich class in society can also take vicinity thru the first-class of the surroundings; for example, the terrible tend to suffer more from air pollution (commonly created by richer organizations) given their house, it's far a belief of sophistication conflict. The input of Marxist or radical thinkers is that poverty is aa ethical and practical issue in life. The maximum not unusual monetary frameworks are regularly lacking, besides when (like Sen) they contain a political concept of justice into their analytical framework (Davis & Sanchez-Martinez, 2015) in measuring poverty.

2.2.2 Cultural Poverty Theory

The cultural poverty theory, developed by Oscar Lewis in 1968, is based on the Marxist theory of poverty. He points out that while budget cuts continue to be driven by capitalists' quest to improve the means of production and profitability, the poor/poor are emerging. The destitute or the poor collectively form a group within a certain geographical section or the surrounding community. Clustering may arise as a result of pre-established state welfare programs or the definition of formal national borders such as districts or provinces for effective development management.

It makes a specialty of the significance of community development in poverty remedy, in preference to at the person (Davis & Sanchez-Martinez, 2015). The link among social exclusion, social capital, and the prevalence of poverty. He recognizes the importance of the structural traits of society and the position of positive agencies. Among all the approaches reviewed, the principle of social exclusion and social capital is certainly the maximum centered on know-how the inherent approaches that permit deprivation.

2.2.3 The Neoconservative concept of poverty

This concept became strongly inspired by way of the Malthusian version advanced by Thomas Robert Malthus (1766-1834) and later progressed through Robert Brenner in 1976 to evaluate the kingdom of poverty in a society. This principle also attributes poverty to monetary elements that result from the anxiety between populace pressures and survival in the financial system. This poverty is primarily based on fabric wealth, where a negative populace is entrenched in society due to the mismanagement of the capitalist device. The principle is based totally on axioms that poverty is due to a discrepancy among the preceding year's efficient potential and a demographic fashion

referred to as a demographic disaster of development. Poverty is due to a geometrical populace increase that does not fit the mathematics growth of livelihoods. Discrepancies hold to bring about extra bad people if they are not regulated via fantastic controls. However, high quality trials consist of wars, famines, epidemics, etc., which truly prevent overproduction. As those advantageous tests do now not appear very regularly, poverty continues to upward thrust. Second, the marginal productivity of land, hard work, and generation, and the way they have an effect on the deliver of meals and different resources, characterizes poverty over a few years of evaluation. Prices affect the affordability of products among the population and result in elements consisting of poverty-causing cuts in training. Although this idea applies in Nepal as it has experienced so-referred to as superb screening, poverty persists constantly and accordingly it virtually suggests that fine screening by myself can't alleviate poverty. To reduce poverty, the neoconservative idea of poverty recommends moral schooling to lessen overcrowding. Moral schooling includes sexual restraint, marriage and chastity before marriage, and the postponement of marriage. Poverty also can be decreased through higher production techniques that make sure that goods and offerings are produced at cheap expenses.

Table 2. 1: Philosophical Perspectives of Poverty/Wellbeing

SN	Theories	Theoretical Keywords	Objectively verified Keywords
1	Marxian Theory of Karl Marks	Class and Capitalists, Improved structures of Production, Government's welfare program, Relative Poverty	Causal Factors, Poverty Alleviation, Acute Poverty
2	Cultural Theory of Poverty of Oskar Lewis 1968,	Bases of Marxism Conflicts between Capitalists and Paupers, Retrenchments	Causal Factors, Index, Poverty Alleviation, Acute Poverty
3	Neo-Conservative Theory of Poverty of Robert Brenner -1976 based on Malthusian Paradigm	Geometric & Arithmetic pattern, Improved production & technology, Marginal productivity, Moral Education, Natural Calamities, Poverty and Population,	Causal Factors, Index, Alleviation, Acute Poverty
4	The Social Democratic theory of Poverty of Piero Sraffa	Class based struggle in society, Distributive Justice, Market factor, Marxism on means of production	Causal Factors, Index, Poverty Alleviation, Acute Poverty

(Source: Literature Review, 2020)

2.2.4 Social Democratic Theory of Poverty

This theory was built on the general experience of Great Britain in the 1920s to measure poverty. This theory proceeds from the fact, paucity is a concept of class struggle in society, and not the means of production, based on Marxist ideology. This theory states that the class struggle goes beyond the sphere of production. Therefore, the description of poverty is limited to production methods. As was the case in Marxist poverty theory. This limits the measure needed to understand poverty. The policy of producing and distributing goods and services has the same impact on poverty as the methods of production used in the economy.

The policy of the distribution of products and services explains many reasons why certain classes of society are honestly poor. Poverty is both a category hassle and a marketplace element in society. Poverty eradication calls for distributive justice to make sure that the products and services produced are distributed equitably to make sure that all strata of society take part equally inside the use and amusement of these items and offerings for higher lifestyles.

2.3 Measurement Perspectives of Poverty and Wellbeing

There are many literatures on multidimensional poverty measures which have been defined from measurement perspectives in relation. They are multidimensional poverty indexes (Gerlitz et al 2015; NPC & OPHDI, 2018; UNDP, 2014), social inclusion, basic needs, social protection, and 'capabilities, wellbeing and functioning' (Sen 1980, 1993; 2000, Dasgupta, 1993 among others).

From the point of view of analogy, Dasgupt (1993) sees the determinants of personal well-being as quantitatively elusive. According to the study, apart from this practical problem of definition and measurement, there are two ways to assess poverty/welfare and its change in measuring the components of well-being - utility and freedom, as in education, health and evaluation. commodity determinants of well-being - goods and services. They contribute to the production of goods. The former produces 'productivity' measures such as health indexes. and after evaluating and collecting 'Import factors' such as real national income. The comparison and contrast between multidimensional and general poverty is analyzed below.

2.3.1 Construction of Poverty Line

In simpler terms, poverty analysis is carried out at two different levels, namely definition and measurement.

In the sense of poverty comparisons (Ravelian, 2011), along with where or while poverty is best, is frequently a great deal extra critical for coverage choices than for popular measures of poverty. Philosophically, the definition of poverty includes classifying the population into classes, the terrible and the non-terrible. Poverty measures try to combine the poverty "sum" into one statistic. In practice, there are at least three styles of broader definitions of signs to degree a person's level of welfare which include his modern-day earnings and his predicted actual profits, consisting of non-marketplace goods and offerings, modern income. Future health popularity and schooling degree in society.

These are 3 awesome lessons of goods: wherein fitness and training are the embodiment of wonderful freedoms, and income contributes to the leisure of these freedoms (Dasgupta, 1993). To a massive quantity, poverty and social coverage research make use of an extensive variety of definitions of poverty. He located that every one definition of poverty within the measures fall into one of the following three categories:

Poverty has much less than an objectively described absolute minimum; it is to have much less than others in society. Poverty manner now not having sufficient time in lifestyles. The first class of the dimension definition refers to absolute poverty, consistent with the second category it is relative, and poverty in step with the 0.33 class may be absolute or relative, or between the two. Another difference among the kinds is that the third category describes poverty thematically, while the primary and 2nd describe poverty as a goal situation of human life.

The definition of poverty/standard welfare within the measurement guide is the selection of the poverty line in the financial system. Moreover, the "poverty line" separates the populace of those who have an adequate stage of properly being from folks who do now not. Thus, the poverty line can be interpreted as a component determining the assessment of welfare spending (or income) between poverty styles (Ravallion, 2011), according to the study.

2.3.2 Genesis of Multidimensional Poverty Index

Nepal's Sixth Plan (1981-1985) clearly defines poverty as a development goal. During the Seventh Plan (1986-1990), the Government formulated

Its software to satisfy fundamental desires, the first separate plan to reduce poverty. Including the Seventh Plan as surely one of all its crucial components, this ambitious prolonged-term utility anticipated a 15-12 months' poverty remedy in Nepal that was deserted all through the 1990 political crisis.

Poverty discount comes to be one of the number one desires of the Eighth Plan (1993–1997), the first country-wide plan prepared after the healing of the multi-birthday party democratic tool in 1991. The 9th plan (1998-2002) followed poverty reduction because of the simplest goal, within the assessment of the previous plans. It established a protracted-term intention of improving development signs and symptoms in all sectors, primarily based on their respective poverty bargain capability.

Two principles and measures of nicely-being which have been taken into consideration the maximum explicit tries at worldwide assessment are the Morris D. Morris 1976 (Morris, 1979) and the UNDP Human Development Index (HDI) 1990. Both standards are based on Sen's concepts of "ability and nicely-being". Achievements in health and schooling are visible as indicators of capability improvement. The PQLI index is a weighted sum of lifestyles expectancy at shipping, infant survival rate, and grownup literacy price. This concept reduces the significance of income in measuring the quality of lifestyles and/or widespread of dwelling. The concept and production of HDI 11 years after the creation of PQLI with the resource of UNDP is reluctant to treat it as an additional development of Morey's paintings (Dasgupta, 1993). The first file on human improvement (HDR) from 1990 defines human improvement as "human improvement". `Both the machine of expanding people' options and the diploma of nicely-being achieved HDI is the sum of the indexes that normalize a rustic's in step with capita earnings. Average existence expectancy at the start and grownup schooling level. Although now not new, the idea of human improvement is based totally on the concept that 'the number one motive of improvement is to benefit the humans, and earnings aren't the sum standard of human existence. It is alleged that the (HDI) can seize 3 vital additives of human existence, specifically sturdiness, records, and number one profits for a decent extensive of

living. Lifespan and information confer with the formation of human capabilities, and income is an oblique degree of the opportunities human beings must use their skills. The HDI is the stable quantity of a country's problem for every of three additives: lifestyles expectancy at delivery, years of education, and actual in line with capita earnings.

2.3.3 Multidimensional Poverty Index in Action

Sen's work, in reality, emphasizes the idea and metrics of human improvement. He strongly enables the need for a multidisciplinary technique to have a look at and measurement of poverty. His assertion is that “human life is affected and dwindled in all varieties of special strategies, and the number one venture is to recognize that deprivations of very exclusive types ought to be adapted to a contemporary framework” (Sen, 2000). Sen's technique has implications for measuring poverty and properly being from a cutting-edge and evolving multidimensional framework. Taking steps towards a pluralistic conceptualization and dimension of poverty and nicely-being thru the Senate, the OPHI furnished compelling 2010 MPI thoughts and moves. This gives a holistic groundwork for measuring extremely good poverty. - Being. The MPI technique is said to provide a complete definition and size of acute multidimensional poverty and deprivation capture within the most primary offerings and number one human competencies (Alkire & Santos, 2010). The MPI well-known a selected pattern of poverty than profits poverty as it identifies a one-of-a-kind set of deprivations. The MPI has three dimensions: health, education, and stylish of dwelling and measures the quantity of deprivation or properly-being with ten indicators. Each size has an identical weight. Within one measurement, each sign has an identical weight. The MPI famous a mix of inadequacies that have been updated to the "years of observing" in contemporary years via adjusting the 2 "common years of taking a have a look at" and "expected years of examining". A family is identified as multidimensionally horrific if and handiest if it lacks any mixture of displays whose weighted amount is 30 out of a hundred or additional.

Table 2. 2: Different Perspective on Concepts and Measurement of Poverty/Wellbeing

SN	Aspects of Poverty/Wellbeing	Indicators	Assumptions
1	Income or Poverty Line approach	Per capita earnings, household consumption and in line with capita consumption, Per capita food intake and meals ratio, cost of fundamental wishes (CBN), Takes pleasure of minimal 'basic-desires' as 'ends' for people' nicely beings, Food, shelter, clothing, health, training, security, and others. Context, Employment as both 'method' and an 'ends' of primary needs	The measure of aggregate well-being, Women and youngsters are probably to be disproportionately represented within the in the ranks of under poverty line
2	Basic Need Perspectives of 1970s		Basic needs of children and women are classified, Workforce participation of women is seen as both 'ends' and 'means' of basic needs
			Cont……..
3	Physical Quality of Life (PQLI) of mid 1970s	Life expectancy as age one, Infant mortality stage, and Adult literacy charge, Life expectancy at the beginning- a proxy of fitness competencies	Individual indices by gender is possible, Exhibited disadvantaged achievement of well-beings for girls and women,
4	Human Development Paradigm of 1990s	Years of schooling- proxy of knowledge capability, Per capita income in $PPP- proxy for decent living standard, Income poverty, literacy and education	Introduced two measures of gender equality in 1995, Gender-Related Development Index (GDI) and the Gender Empowerment Measure (GEM).
5	Millennium Development Goals (MDGs) of 2000	Gender equality and girls' empowerment, baby mortality, maternal health, HIV/AIDS, malaria, other communicable sicknesses, environmental sustainability, and global partnerships	Gender equality in economic opportunities, education, health, reproductive health and maternal care, child survival are addressed
6	Multidimensional poverty Index (MPI) of 2010	Equally weighted 10 indicators of Health (2 indicators), education (2 indicators) and	End poverty in all its forms anywhere, along with- End hunger,

		indices of MPI at household level living standards (6 indicators) Goals emphasizing multidimensional poverty	attaining food security and advanced nutrients, and selling sustainable agriculture. Empower ladies and ladies and acquire- Ensure healthful lives and promote properly-being for Sustainable gender equality all at every age
7	Sustainable Development Goals	17 Goals and 169 Targets	Peoples' Peace and Prosperity on the Planet through the global partnership (5 Ps)

(Source: Literature Review, 2020)

Larger sets of poverty/nicely-being standards and signs from a multidimensional attitude are higher explained, interpreted, and anchored in Sen's idea of "potential, well-being, and function". Competency pointers are extensively identified as an extensive normative background to assess and assessing person nicely-being and social control. It may be used to evaluate numerous elements of social beings's well-being, which includes man or woman poverty, inequality, nicely-being, or the average properly-being of institution members (Sen, 2000). The perspective is to enlarge one's choices through "ability expansion" as a way and intention of humanoid "properly-being". It is essential to satisfy the basic desires of a person as a 'goal' and the gifts and rights that one has as a 'device' for poverty evaluation. The means and the "quit" of someone's "well-being" are decided through the capacities he cultivates in lifestyles. The special ideas and rates of poverty and/or well-being, together with the inherent assumptions, are summarized in Table 2.2.

It is apparent from the argument that the idea of paucity is largely multidimensional and revenue is best one in all many elements in identifying the poor. If we pick out to define poverty as the failure of simple capability to reach a minimum applicable level and potential as a feature of income, fitness, housing, provision of public goods, then it's miles vital to measure poverty from a multidimensional angle. The multi-dimensional dimension of poverty remains a place that desires to be explored from a rustic- and network-specific attitude.

2.3.4 Income Poverty: Poverty Line Approach

Absolute or relative signs and symptoms are regularly used to display display screen income poverty in a country (Notten and Neubourg, 2011). Absolute and relative figures replicate specific perceptions of poverty. People residing in absolute poverty do no longer have sufficient economic assets to gain a number one well-known of dwelling, at the same time as humans residing in relative poverty have constrained financial sources which might be considered a ordinary big of dwelling. Because the selection of a specific indicator impacts the predicted wide variety of horrible human beings, measuring most effective one mind-set way ignoring what takes location to the opportunity. Although the organizations of absolute poverty and relative poverty in part overlap, there can be moreover a set of those who are bad in relative terms but not in absolute numbers.

A common practice for measuring poverty degrees from a poverty line attitude is to pick out the profits degree underneath which someone or circle of relatives is taken into consideration terrible (poverty level) and to offer an estimate of the share of the population earning earnings beneath this has. The sort of employees is derived from HI M/N.

Where M is the overall sort of the lousy whose profits are underneath the profits threshold (poverty line) and N is the overall surveyed population. The obvious weaknesses of the measures have been properly expressed, however their strengths are also apparent (Dasgupta, 1993) with regards to measuring the poverty hole and the percentage of USA-massive earnings had to bring the horrible out of the poverty line. The poverty gap is measured through the widening hole between the poverty rate and the income of the individual terrible. It is then expressed as a percent of the entire earnings (Y) of the populace.

The poverty gap is expressed as follows:

PG ∑kƐS (y -yk) / Y.

yk signifies the income of the poor, k S signifies the poor, y signifies the glassy of deficiency and Y is the total social income. The paucity break is the minimum amount of additional income, expressed as a percentage of society's total income, which, if earned by the poor, can eliminate poverty (Dasgupta, 1993).

Although not without weaknesses, its enchantment is to say some thing vital about the quantity of poverty in society. Income The variables that gather to reach poverty or assemble a poverty line are typically consistent with capita income, family consumption meals intake the share of profits in meals, the value of caloric wishes, and the value of the primary necessities. (CBN) In practice, the income aspect of the poverty degree leans towards absolutely the poverty measure. The absolute poverty indicators established are based totally on a minimum threshold for the price of residing as compared to the gross income of an own family (Notten & Neubourg, 2011) are the basis for measuring poverty.

In the Seventies, the fundamental needs approach emerged as an opportunity to the poverty line or index of the variety of personnel, which measures poverty or properly-being. The basic want approach is to offer human beings with their primary wishes as a "purpose" to achieve most properly-being. In 1976, the International Labor Organization (ILO) World Employment Conference described fundamental wishes for food, garb, housing, training, and public shipping, and identified them as "means" and "ends" of poverty, along with participation in selection-making. Defined work executed. This concept defines bad families if their food, garb, clinical, instructional, and other wishes aren't met.

Morris (1979) advanced a performance degree that meets the primary needs of the negative, which is suitable for international comparisons. It mixed three signs - existence expectancy, infant mortality, and literacy - to symbolize the "physical excellent of existence". A simple common was made for those 3 indices, after transforming the demographic variables into scales from 0 to a hundred representing feasible levels for his or her values. How does the index of physical satisfaction of lifestyles compare with other signs of a hit achievement of primary needs? Most measures are based totally on contributions to bodily and intellectual fitness, along with meals, shelter, and apparel. Intangible components of primary wishes are often emphasized but rarely measured. A common technique is to set minimum requirements for essentials, typically primary meals and shelter, and degree the distance between objectives and actual consumption. Otherwise, a more complex set of requirements is anticipated to generate poverty line income. The percent above this stage measures your achievement in assembly of the primary necessities.

Unlike other measures, the PQLI measures growth output. The two fundamental advantages are the shortage of "ethnocentricity" (the specificity of a particular political machine, way of life, or price) and a robust distributive component. A better score on an index is normally achieved via the wider distribution of benefits. With a higher literacy rate manner, more humans are literate. And a dramatic drop in mortality regularly approaches a decline inside the poor. This is already due to lower fees some of the affluent and top limits to lessen mortality whilst most important infectious illnesses are underneath manipulated (Morris, p. 32-33).

In developing countries, social security emerged within the 1980s and Nineteen Nineties as a coverage framework that addresses poverty and vulnerability inside the context of monetary and monetary crises, structural adjustment, and globalization (Stanton, 2007). Increased poverty and fragility after the "misplaced decade" in Latin America, the Nineteen Eighties, the 1997 monetary crisis in Asia, and the speedy economic adjustments within the transition economic system. This shows the want to set up sturdy and solid institutions which are directly associated with poverty reduction and prevention and protection. Social protection affords a political map linking the information of poverty and vulnerability as multidimensional and sustainable to coverage interventions. There are one-of-a-kind versions of this policy map, with some emphasizing risk, entitlement, or necessity, however, these versions have a whole lot in not unusual. An essential function of this commonplace floor is the wider developmental role of social protection in developing international locations and its consciousness on poverty discount.

The social exclusion technique sees poverty because of social methods. According to this view, some humans are poorer than others due to the social and institutional strategies the primary argument is that current social establishments and order save a few sections of humans from participating in numerous activities that are valuable to the generation and redistribution of assets. Significant participation inside the labor marketplace, political gadgets, civil and cultural activities is essential for improving the satisfaction of human relationships. Wagle (2008) believes that a social exclusion technique with extra comprehensive insurance contributes extensively to the technique of figuring out poverty. But that isn't always similar to poverty. He in addition argues that there are different important factors, which include the ones

captured inside the concept of monetary well-being and the ability to decorate poverty, thereby determining one's function in the social system.

Overview of social safety and evaluation of its impact in Latin America, South Asia, East Asia, and sub-Saharan African international locations, nations with more potent social protection is low.

2.3.5 Asset Vulnerability MPI Framework

A quantity of opportunity gear and strategies were used to outline poverty for the duration of the literature. One of the typically used methods to evaluate poverty is to evaluate the property that human beings possess. In fact, the greater property human beings have, the much less prone they are, and the more the erosion of human beings's property, the more their lack of confidence in city areas. With this fundamental precept of assessing poverty via the property possessed, a blended version of representing more than one dimensions of poverty and their cumulative effect via a dynamic framework of vulnerability and property is developed.

Table 2. 3: Assets Vulnerability Poverty Model

SN	Dimensions	Indicators taken to measure
1	Income Poverty	Income, saving, loan and food sufficiency
2	Human Poverty	Human capital (education, health condition, nutrition status, access to clean water, improved sanitation, and cooking fuel)
3	Occupancy Insecurity	Durable and safe housing, adequacy of dwelling space (e.g., floor and roof materials, exterior wall materials, kitchen type)
4	Physical/Productive Assets	Land holding, building ownership; household commodities(amenities)
5	Insecurity Disempowerment	Social capital (e.g. female headed household, access to finance)

Source: (PAF Study, 2018)

This model is termed as "Assets Vulnerability", based Multidimensional Poverty Analysis. The core concept of the model is that the dimensions of poverty are mitigated or reduced by the assets/capital owned/possessed thus minimizing the vulnerability to poverty. UNDP included the concepts and measures of 'multidimensional poverty in its Human Development Report from 2010 (UNDP, 2015; Alkire, 2015). in step with Alkire with this conception, a generic method of ranking supported the people's perception of the poor is developed. The poverty/vulnerability indicators are ranked supported this model of people's priority to compute the influence of each indicator on the final cumulative index of poverty.

The ranking of indicators was done supported expert word to represent the ultimate perception of poverty within the context of Nepal. The score of each indicator is multiplied with the weightage coefficient of the corresponding indicator and summed to induce the Multiple Deprivation Index (MDI) at the household level which is additionally termed as Poverty Vulnerability Index (PVI). The formula for deriving the PVI is provided hereunder:

$$MPI_h = \Sigma_{j=1}^{n} w_j \; x \; score_j, for \; all \; 0 \leq \; MPI_h \; \leq 1$$

where,

MPI_h is the Multidimensional Poverty Index of household *h*, w_j is the ranked weightage,

$score_j$ is the scaled score of indicator *j*,

n signifies the total indicators.

Multidimensional Poverty on Vulnerability Index (MPVI), is an index that gives the cumulative score of multiple deprivation of each household. This indicates the level of poverty/vulnerability of household in the range [0, 1]; 0 being 'incidence of non-poor' and 1 being 'incidence of poor' households. The influence factor of each indicator is the weightage coefficient are calculated as below:

$$w_j = \frac{1 + n\text{-}r_j}{\Sigma_{j=1}^{n} \; (1 + n\text{-}r_j)}, for \; all \; 0 \leq \; w_j \leq 1, 1 \; \leq \; r_j \; \leq n, and \; w_j = 1$$

w*j* = weighted coefficient of indicator *j*,

n = the number of indicators,

r = the designated rank of the *j* th indicator.

This equation normalizes the weightage factor w*j* of *j*th indicator in the range [0, 1]. The highest ranked indicator receives the relative maximum value and the lowest ranked indicator receives the lowest value. In this method, the computed weight age of indicator is the relative weightage among the set of indicators. The cumulative weightage of all the indicators is always 1. A number of national multidimensional paucity events are advanced within the Hindu Kush-Himalayas (HKH) area.

It's reinforced a quest framework designed to meet the requirements of a district this is particularly rural and hilly and bounces throughout severa of the sector's least evolved worldwide places. The unit of research is the family. The MPM-HKH carries 16 signs

that degree special deprivations in seven dimensions: training, fitness, fabric fitness, electricity, water and sanitation, social capital, and get admission to to services. It's supported the MPI (Alkire & Santos, 2010) and consequently, the Mountain Specificities Framework (Jodha, 1992) the selection of dimensions and signs were moreover supported via an intensive take look at the reasons for financial poverty inside the mountains that analyzed National Living Standard Surveys of 6 international locations of the HKH vicinity (Gerlitz, 2012) in 2012.

The weights and requirements had been acquired from literature overview and records assessment (Gerlitz et al 2012) discussions with nearby and intercontinental experts, and a practical workshop wherein local improvement practitioners from Bangladesh, India, Nepal, and Pakistan participated in two forms of the professional score (factorial survey design and express professional rating). Table 2. Four gives the consequences of the workshop: the dimensions, symptoms, requirements, and weights hired in the MPM-HKH. In assigning weights to symptoms and dimensions, the MPM-HKH replicated the technique of the MPI (Alkire & Santos, 2010), giving identical weights to all or any dimensions and equal weights to any or all symptoms inner a selected measurement, as this is regularly more comparable and comprehensible and less difficult to interpret the quit end result.

The MPM-HKH allows investigators or researchers to tour and cross past the concept of poverty and deprivation as resolute solely on the principle of profits or intake to take a look at poverty as an aristocratic phenomenon with many magnitudes. It supplements gift paucity measures with a multidimensional method that is relevant in the mountain and hilly context.

Table 2. 4: Multidimensional Poverty in Hindukush Region

Dimension	Indicator	Weight	Deprivation cut-off
Education	Literacy	7.1%	1 member (6 years) is illiterate.
	School attendance	7.1%	1 child (6–14 years old) is not in school.
Health	Illness	4.8%	one member is ill once in a month.
	Health care	4.8%	Who cannot afford health care facility.
	Food consumption	4.8%	Per-head food consumption is below the national food, poverty line, or the household is dependent on food aid.
Material wellbeing	Assets	7.1%	The household owns no more than 1 television, radio, telephone, or non-motorized vehicle and has no car, motorbike, or tractor.
	Dwelling	7.1%	The dwelling's walls are made of grass, leaves, bamboo, plastic, or metal, or contain asbestos, or the roof material is straw, leaves, thatch, bamboo, plastic, or fabric.
Energy	Electricity	7.1%	The household has no electricity for lighting from the grid or any other source.
	Cooking fuel	7.1%	The household cooks with solid fuel (eg, dung, wood, or charcoal).
Water and sanitation	Drinking water	7.1%	There is no access to an improved source of drinking water(as defined by WHO and UNICEF 2015), or water cannot be collected in a 30-minute round trip.
	Sanitation	7.1%	The household has either no toilet facility at all or only an open pit.
Social capital	Political Voice	7.1%	It is very difficult for the household to influence the decision-making process at the local level.
	Social networks	7.1%	It is very difficult for the household to borrow money.
Access to services	Market	4.8%	It takes3 hours 1 way to reach the nearest market centre; a trip within a day is not possible.
	Hospital	4.8%	It takes 3 hours 1 way to reach the nearest hospital; a round trip within a day is not possible
	Bus stop	4.8%	It takes 3 hours 1 way to reach the nearest bus stop; a round trip within a day is not possible

Source: (Gerlitz, Banerjee, et al 2014)

Equity Quintiles

Wealth score is another technique to the poverty line that's usually made out of facts on household assets, offerings, and services with a purpose to tabulate improvement on signs constant with family financial reputation. Wealth rating has proved to be one of the maximum beneficial historic past trends available from the Demographic and Health Survey (DHS) statistics. It is now popular in DHS (MoHP, 2017) and UNICEF

Multiple Indicator Cluster Survey (MICS) very last critiques and data gadgets (CBS, 2019).

Each household asset is assigned a weight (element score) generated thru vital additives assessment, and the ensuing asset ratings are standardized on the subject of an everyday distribution with a median of 0 and a well-known deviation of 1. Each own family is then assigned a rating for each asset and the scores have been summed for every household which is probably ranked consistent with the whole score. The pattern is then divided into quintiles from one (lowest) to 5 (maximum). This type of population with the resource of quintiles is used as a historical past variable inside the following sections to assess the sanitation and hygiene situations. The wealth rating changed into finished by means of the usage of the use of facts on the easy twenty-5 components. Each family changed into then assigned a wealth rating based on those weights and the property owned via the own family. The surveyed family population turned into then ranked in line with the wealth score for every household and come to be divided into five identical factors (quintiles) from lowest (poorest) to maximum (richest).

Table 2. 4: Value Range and Quintile Group

SN	Value Range	Quintile Group
1	0- 20	Highest Quintile
2	21-40	Fourth Quintile
3	41-60	Third Quintile
4	61-80	Second Quintile
5	81 and above	First Quintile

Source: (Gwatkin et al., 2000)

The commentary accompanied the minified DHS wealth score technique (fairness quintiles) which turn out to be produced from records at the household property, offerings, and amenities on the manner to tabulate progress on signs in step with own family monetary reputation. In this version, each own family asset is assigned to a weight (factor score) generated through vital additives analysis, and the ensuing asset scores are standardized with reference to an ordinary distribution with a mean of zero and elegant deviation of one (Gwatkin et. Al 2000). Each circle of relatives is then assigned a rating for every asset and the scores are summed for each household; families are ranked in step with the whole rating. The pattern is then divided into quintiles from one (lowest) to 5 (highest). This category of the population by using

quintiles is used as a history variable within the following sections to assess sanitation and hygiene conditions.

In the modern statement, the whole wealth index stated above will become recreated and used the difficulty weights derived from this recreated wealth index to discover vital variables, and as the premise for scoring inside the equity device evaluation. From there, the same vintage simplification technique become accomplished to reap excessive agreement with the precise wealth index. Kappa turns into more than zero. Seventy-5 for the national and concrete indices (Chakrabarti et al. 2016) for the data on the standard approach). The following simplified wealth belongings questionnaires are considered to estimate quintiles

Q1: Does your household have a television?

Q2: Does your family have a cupboard?

Q3: Does your household have a desk?

Q4: Does your family have a fan?

Q5: What is the primary fabric of the floor of your residing?

Q6: What is the main material of the out of doors walls of your residence?

Q7: What is the major material of the roof of your living?

Q8: What shape of gas does your own family especially useful for cooking?

The original facts set become divided into three corporations for evaluation- those within the 1st and 2nd quintiles (poorest 40%), the ones inside the 3rd quintile, and those in the 4th and 5th quintiles (richest 40%). After calculating their wealth, the usage of the simplified index, they have been once more divided into the equal 3 groups for evaluation toward the real information within the full PAF. Agreement many of the unique facts and our simplified index is provided based on the 2016 Nepal Demographic and Health Survey (MoHP, 2017).

Table 2. 5: Level of agreements

SN	Particular	National population(n=11,040)	Urban population (n=6,978)
1	% agreement	85.7%	87.3%
2	Kappa statistics	0.78	0.81

S*ource: (MoHP et al, 2017)*

When shortening and simplifying the index to make it simpler for programs to use to assess the fairness, it now does not fit the true index with one hundred% accuracy. At

a mixture level, this error is minimal, and this device becomes deemed suitable for programmatic use. However, for any given person, especially the ones already at a boundary between quintiles, the quintile the Equity Tool assigns them to can also vary from their quintile regular with the original DHS wealth index. The issues of equity equipment for records interpretation are as follows.

This device gives facts on relative wealth - ‘ranking’ respondents in the extensive or city populace. The maximum modern-day available statistics from the World Bank Indicate that 15% of people in Nepal live under $1. 90 /day. These records may be used to vicinity relative wealth into context.

People who stay in town areas are more likely to be wealthy. In Nepal, five percent of people dwelling in town areas are within the richest national quintile, in comparison to the simplest 4.2% of these living in rural areas. If the populace of the interest is predominantly urban, it's far endorsed to have a study the urban outcomes to understand how distinctly wealthy or poor they may be, in evaluation to specific town dwellers. If the humans are interviewed using the Equity Tool live in rural regions or an aggregate of city and rural regions, it's miles advocated to apply the national outcomes to recognize how particularly rich or negative they are, in evaluation to the whole united states. Some districts in Nepal are wealthier than others. It is crucial to apprehend America of America's context even as interpreting your consequences. In most cases, the populace of the hobby isn't anticipated to be equally allotted across the 5 wealth quintiles. For instance, if the survey is made through interviews with the people exiting from a shopping mall, most of them may want likely be predicted to be quite wealthy.

Income views on Paucity:

The traditional measures of poverty are primarily based on the profits perspective. A man or woman is taken into consideration to be bad if and most effective if, his profits stage is below the defined poverty line. Many nations undertake income poverty strains to display screen development in decreasing the percentage of people beneath the poverty line. The reduce-off poverty line is generally defined in terms of getting sufficient earnings for a particular amount of meals. Whether profits inequality has widened or narrowed may be positioned from the ratio of the earning of the richest 20 percent to those of the poorest 20 percent.

Basic Needs Perspectives on Poverty:

Poverty is generally described as deprivations in nicely-being ensuing in an incapability to satisfy the essential dreams of the person or family. The measurement of poverty is, therefore, a form of size of the profits or consumption essential to meet fine number one needs (poverty line), together with food and non-meals wishes (Haughton & Khandker, 2009). The meals poverty line is typically based totally mostly on the marketplace price of 2100 energy in line with man or woman consistent with day. Non-meals need consist of the basic wishes for apparel, housing, and so forth. The Engel coefficient of the horrific is commonly above 60%. Based on the meals poverty line and an Engel coefficient of 60%, you may estimate the non-food poverty line and then gain the income poverty line.

Capability Perspectives on Poverty:

Paucity or lack of nicely-being covers each financial and non-economic feature. Nobel Laureate Amartya Sen believes that poverty isn't always the mere lack of earnings to meet easy goals, however deprivations in essential human abilities (Sen, 1992). He claims, poverty refers to deficiencies in basic competencies of the character or family; the deprivation of fundamental abilities is multidimensional and consists of untimely loss of life, obvious malnutrition, chronic illness big illiteracy, and plenty of others. One has to recognize deprivations in fundamental capabilities close to human beings real residing and enablement. Such talents are intrinsically and moreover instrumentally valuable: improving terrible people’s simple capabilities thru education and health care will growth their productiveness and profits (Sen, 1999). Therefore, multidimensional dearth size based on easy capability can more as it should mirror the real situations of poverty and the dimension of poverty should to be multidimensional

2.4 Empirical Review of Literature

2.4.1 Indices of Poverty

There is a number of indices to depend or measure the poverty around the world among the popular indeces the Headcount Paucity Index (HCOI), Paucity Gap Index (PGI), and Squared Paucity Gap Index (SPGI) are analyzed.

Headcount Paucity Index (HCOI):

The headcount poverty index measures the share of the populace this is terrible. It is popular because it is straightforward to apprehend and degree. But it does no longer suggest how negative the bad are. The countrywide poverty headcount ratio is the proportion of the population dwelling below the united states of America-huge poverty traces. National estimates are based on populace-weighted subgroup estimates from household surveys.

Paucity Gap Index (PGI):

The paucity hole index every now and then known as the poverty hollow ratio or pg index is described because of the common ratio of the poverty hole to the poverty line. It is expressed as a percent of the poverty line for a rustic or location.

Squared Paucity Gap Index (SPGI):

The squared poverty hole index additionally called poverty severity index or P2 is associated with the poverty hole index. It is calculated via averaging the rectangular of the poverty hole ratio. By squaring each poverty hole statistic, the degree places greater weight the, similarly, an awful character's determined income fall below the poverty line. The squared poverty hollow index is one form of a weighted sum of poverty gaps, with the burden proportionate to the poverty hole (Haughton & Khandker, 2009).

2.4.2 Global MPI Measurement

Throughout the empirical literature some of research (OPHDI, 2018) were performed. The 2018 worldwide MPI is the world over similar measure of acute poverty for one hundred and five nations, covering 5.7 billion humans (about 77% of the worldwide populace).

Table 2. 6: Global MPI Measurement

Developing Regions	MPI	Headcount ratio (H)	Intensity (A)	Number of People (million)	Population coverage by MPI
Arab states	0.098	19.2%	50.8%	65.7	85%
East Asia and the Pacific	0.025	5.9%	43.1%	117.7	94%
Eastern Europe and Central Asia	0.009	2.4%	38.3%	3.5	43%
Latin America and the Caribbean	0.033	7.7%	43.2%	39.7	81%
South Asia	0.143	31.3%	45.8%	545.9	95%
Sub African Africa	0.317	57.7%	54.9%	559.4	99%
Global MPI (Developing regions)	0.115	23.2%	49.5%	1.33 billion	91 %

Source: (Alkire, et al., 2015); (OPHI, 2018)

As shown in Table 2.7, Sub African Africa reported the highest MPI (0.317) and headcount ratio (57.7%), followed by South Asia (MPI=.143 and headcount ratio=31.3%).

2.4.4. South Asia's MPI Measurement

271 million people from Inda moved out of poverty in in between 2005/6 and 2015/16, but, in the united states of America, nevertheless have the biggest range of humans residing in multidimensional poverty within the global (364 million humans) scene. India has decreased its poverty from 55% to 28% in 10 years. It has counterparts with the notable stage of paucity reduction implemented in China the decade. 364 million humans, the worldwide positions with the largest diversity of people living in multidimensional dearth are Pakistan (85 million), and Bangladesh (67 million) are considerable. In South Asia, 39% of kids are multidimensionally poor or in bad situation (OPHDI, 2018).

As tested in Table 2.4, South Asia consists of seven global places in South Asia, representing greater than 1.7 billion human beings of whom 546 million are terrible. South Asia is the second poorest place within the world, at the back of the nice Sub-Saharan Africa in each MPI and poverty fee. Additionally, 11% of human beings in South Asia are considerably negative, being deprived in as a minimum 1/2 of the weighted signs, and 19% are liable to poverty, because of this that they will be disadvantaged in 20% to 33% of the weighted indicators. Even in 2009, the Maldives

had via away the lowest poverty prices, with a great deal less than 2%, of its population, identified as multidimensional terrible and 5% being at risk of poverty.

Table 2. 7: MPI in South Asia

Country	Survey	Year	MPI (MPI= HxA) 1	Headcount ratio (H) 2	Intensity (A) 3	Number of poor people 4
Maldives	DHS	2009	0.007	1.9	36.6	8,020
India	DHS	2015/16	0.121	27.5	43.9	364,225,000
Nepal	DHS	2016	0.154	35.3	43.6	10,217,460
Bhutan	DHS	2010	0.175	37.3	46.8	297,894
Bangladesh	DHS	2014	0.194	41.1	47.3	66,916,352
Pakistan	DHS	2012/13	0.228	43.9	52.0	84,772,711
Afghanistan	DHS	2015/16	0.273	56.1	48.7	19,442,025

Source: (OPHDI, 2018)

In the poorest Afghanistan, over 1/2 (fifty-six%) of the population is a terrible situation. In Afghanistan and Pakistan, one in four people lives in excessive poverty. Besides, in South Asia, nutrient deprivations alone contribute a couple of of-quarter to the overall MPI, despite the fact that nutrient statistics become not to be had for Afghanistan. This is more than in other areas except for Europe and Central Asia, in which low ranges of poverty make analysis through using indicators hard. Child mortality and electricity every makes contributions of much less than 4% (OPHDI, 2018).

The Nepalese Practices

A commonplace practice to construct a poverty line follows the method of 'fee of fundamental desires (CBN). Applying the CBN approach of putting poverty traces, the (CBS) in the nation is objectively building paucity then nicely-being profiles for one of a kind subgroups of the population for the reason that mid-Nineteen Nineties (NLSS-I) from the Nepal Living Standard Surveys statistics. The profits line angle measured on price-of-simple needs generally utilizes household-stage consumption data with an assumption that welfare is the software function. More the products and services consumed, the higher the index of properly-being. It is believed that every man or woman or household possesses the identical utility characteristic and enjoys the identical degree of financial properly-being.

Nepal established its convention and practices from 1995/ 96 (Nepal Living Standards Survey NLSS - I) onwards to collect the poverty line using the price-of-essential-dreams (CBN) approach. According to the CBN method, the poverty line is described

as the expenditure cost (in nearby overseas cash) required with the useful resource of a man or woman to fulfill her/his simple desires in phrases of every food and non-food object. The poverty line for the 2003-04 (NLSS II) round changed into an alternative of charges for the identical simple wishes basket envisioned for 1995-096 (NLSS I). In the case of 2010-011 (NLSS-III), the poverty line is expected based totally on a modern-day simple desires basket of the negative to mirror adjustments in well-being through the years (CBS, 2012).

The common poverty line in Nepal is being acquired thru aggregating the food and the non-meals poverty line. The food basket of the poverty line is constructed by way of manner of estimating how a good deal the terrible spend to maintain a minimum caloric requirement of two,220 Kcal in keeping with day. The minimum caloric requirement becomes estimated thinking about composition by age and intercourse of an average Nepalese household and the usage of the endorsed nutritional allowances by using way of age-gender groups. Practically, the non-food allowance becomes predicted thinking about the share of non-food intake (to well-known intake) of households in step with-capita food consumption near the meals poverty line in every one of the analytical domains. Combining meals and non-meals consumption expenditure in local costs, the 2010-11 spherical survey (NLSS-III) on average determines the poverty line for Nepal, at Rs. 19,261.

The food poverty line is Rs. 11 929/-, and the non-meals poverty line is Rs. 7,332/- According to the revised poverty line, the poverty incidence (headcount charge) for Nepal in 2010-11 is 25.2 percent, with a much lower fee in urban regions (15.5%) than in rural areas (27.4%). The share of the bad population in 2003/04 has become 31 percent and it became over again excessive by 11 percent elements (42%) for the three hundred and sixty-five days 1995/96. This implied that the incidence of poverty in Nepal declined by way of approximately eleven percent factors over the course of the primary 8 years (amongst NLSS-I and NLSS-II) declining through using 3.7 percent consistent with 365 days, and by way of approximately 6 percent elements for the following 6 years' length in amongst 2003/04 and 2010/eleven (CBS, 2012; 2005 and WB, 1998). Trends in the incidence of poverty by means of the city-rural house in Nepal from 1977 to 2010/eleven supplied in Table 1.3 genuinely envisaged that the poverty diploma in Nepal after 1995/96 is declining usually. The overcrowding of

poverty incidences to the rural areas seems begun to shift to the town regions for the prevailing-day period of the statement.

Analysis of poverty profile crafted from 2010/eleven NLSS the lowest headcount occurrence of poverty is within the hill, city areas and its miles' most to the Mountain regions (42.2%). Poverty has seasonal characteristics. Most poverty- seasons are February to May and its incidence is lower from October to January. Poverty incidence will increase constantly with growth in family period and a huge form of children under age 6. Opposite to expectation, the prevalence of poverty in lady-headed families is regarded to be reduced in evaluation to male-headed ones (CBS, 2011). It is probably described through an extra proportion of adult males from female-headed families worried in foreign places hard work migration and sending remittance on a normal foundation. Poverty over again is negatively correlated with the attained educational level of families. Its sensitivity is, in addition, excessive inside the case of girls' literacy/education. The poverty line method is criticized for its incapacity to capture the troubles of women and kids sufficiently due to the truth the systematic assessment of intra-own family welfare distribution shows that ladies and children are probably to be disproportionately represented in the ranks of those under the poverty line (Chambers, 1995; Kabeer, 1994).

Table 2. 8: Trends in Poverty in Nepal Estimated as Headcount Index

Year of Estimates	Source	Incidence of Poverty %Poor		
		Rural	Urban	National
1977	NPC*	37.2	17.0	36.2
1985	MPHBS/NRB	43.2	19.2	42.5
1989	WB/UNDP	42.0	15.0	40.0
1995/96	CBS-NLSS-I	43.3	21.6	41.8
2003/04	CBS-NLSS-II	34.6	9.6	30.9
2010/11	CBS-NLSS-III	27.4	15.5	25.2

Source: NSAC, 1998; CBS, 2005 and 2011,

** The minimum calorie requirement per person was 2256 kcals.*

2.4.4 Multidimensional Poverty in Nepal

Wagle (2008) supplied a theoretical and operational framework to properly degree poverty so that the poverty length corporation can beautify from the deeply fallacious, traditional attempts inside simple terms economic measures to extra 'humane' and 'coverage conscious' attempts with the usage of comprehensive facts. The successful

application of the framework to degree and have an examine poverty in Nepal and America, very incredible contexts, presents an impetus for additional widespread communication with its common applicability. For the evaluation of 2006 Nepal, Demographic Health Survey information Alkire and Santos (2010) expected 65 percent of Nepali people are bothered with multidimensional poverty. The terrible had been deprived on commonplace in extra than 1/2 of the (weighted) signs ie. Disadvantaged in greater than 5 of 10 signs. Share of deprivation in living standards turns out to be the very nice contributor of poverty, observed by using way of health and schooling. National Planning Commission in collaboration with Oxford Poverty and Human Development Initiatives (OPHDI) convened the 'Nepal Multidimensional Poverty' study and derived MPIs for specific sub-corporations of the populace the use of the records from the Multiple Indicator Cluster Survey (MICS) (CBS, 2019). Applying the Alkire Foster approach to account for global MPI, the take a look at counted joint deprivations confronted with the aid of people in the dimensions of multiple signs of fitness, education, and residing requirements.

They have a look at predicted 28.6 percent of the Nepali populace as multidimensionally terrible. Unlike the sooner estimates of 2010 (Alkire & Santos, 2010), this has a look at the determined declined share of deprivation in the measurement of living latest and fitness (especially undernutrition of youngsters) and schooling (done years of training) located most to make contributions in the proportion of multidimensional poverty.

Table 2-10: Trends of MPI in Head Count Index of Nepal

Year of estimates	Sources of Data by Year	MPI (Head count index)
2010 (Alkire and Santos)	NDHS 2006	65.0
2018 (NPC & OPHDI, 2018)	NDHS 2006	59.4
2018 (NPC & OPHDI, 2018)	NDHS 2011	39.1
2018 (NPC & OPHDI, 2018)	MICS 2014	28.6
2018 (NPC & OPHDI, 2018)	Rural	7.0
MICS 2014	Urban	33.2
2018 (NPC & OPHDI, 2018)	Province 1	19.7
MICS 2014	Madhesh	47.9
	Bagmati	12.2
	Gandaki	14.2
	Lumbini	29.9
	Karnali	51.2
	Sudurpaschim	33.6

(PAF Study, 2019)

The file is precise to give records on MPI deprivation thru seven provinces and concrete-rural areas (Table 2.10). The exam discovered out seven percent of the metropolis and one-1/3 (33%) of the rural population as multidimensionally bad. It similarly unveiled the reality that Karnali and Province No. 2 have the excellent charge of multidimensional poverty – with every second person being multidimensional terrible (50%) – located through way of Province No. Five and Sudurpaschim (approximately 30%). The have a look at couldn't present estimates of multidimensional poverty headcounts with the resource of ecological and social developments of a population together with a caste/ethnicity and sex of circle of relatives heads. This takes a have a look at as a result is opted to diploma the multidimensional deprivation of different sub-companies of the population allowing PAF to shift to an opportunity technique of targeting extremely-bad and terrible households than that of the index of meals safety.

In each other check MPI in the Hindukush Himalayan region, Gerlitz et al. (2015) discovered that 211 million human beings live within the Hindu Kush–Himalaya region. Although poverty degrees on this location are excessive, there is a lack of cohesive records on the socioeconomic repute of its populations that would allow selection-makers to understand specific manifestations of poverty and format powerful poverty treatment applications. Hence, the International Centre for Integrated Mountain Development (ICIMOD), in consultation with worldwide and local partners, has superior the Multidimensional Poverty Measure for the Hindu Kush–Himalayas (MPM-HKH). This degree interests to come to be aware of and describe bad and prone households throughout the Hindu Kush–Himalaya region—that is predominantly rural and mountainous and covers numerous of the arena's least advanced international places—in a constant manner. This article documents how the MPM-HKH changed into advanced and demonstrates the utility of this technique, the use of Nepal for example, with the aid of studying circle of relatives' survey records from 23 districts. The evaluation offers critical clues about variations inside the depth and composition of multidimensional poverty all through the ones places, which highlights the need for area-precise poverty comfort techniques. The findings should help choice-makers to perceive areas of intervention and select the exceptional measures to lessen poverty.

The impact of rural road production on multidimensional poverty with the aid of using Nepal's Demographic and Health Survey and a difference- in- differences technique. They take a look at discovered discounts in deprivation, in particular driven via asset ownership and dwelling infrastructure, and small or non- outstanding effects on fitness and schooling (Bucheli, Bohara & Villa, 2018). Results are strong to particular specifications and estimation methods, notwithstanding the fact that found heterogeneity at some point of businesses and dimensions. The heterogeneity is probably driven with the aid of tough work trends,

infrastructure necessities, time concerns; and chance evaluation and selection- making practices. It highlights the significance of multidimensional measures to evaluate poverty and to evaluate infrastructure projects (Bhattarai 2014).

The study tries to exercise the Oxford Poverty and Human Development Initiative's method to measure multidimensional poverty at the community (village) degree in Nepal. Various measures of Multidimensional poverty were expected and decomposed to the numerous subgroups of the sampled household of the then Bhalam VDC of the Kaski District, in West Nepal. A stratified random method become applied to select the one hundred fifty pattern households to behavior a household survey to get the specified facts for the measurement and assessment of poverty. The outcomes of the assessment follow an almost similar sample of numerous measures of multidimensional poverty estimates of the Oxford cutting-edge takes a study. It is likewise discovered from the examine that multidimensional poverty incidence and intensity have been fantastically associated with the family socioeconomic traits including Caste and Ethnicity, Landholding, Gender and Educational stage of the family head, and the own family length (Bhattarai, 2014).

It examines the volume of nearby inequality in multidimensional poverty in Nepal using the countrywide consultant Nepal Demographic Health Survey (2011) facts. The authors gift a higher technique to MPI, in particular in phrases of the process of estimation and aggregation of the signs and symptoms in comparison with preceding studies. The findings propose that however the instead higher financial development and an extremely good discount in training and health poverty, there may be an extensive inequality throughout the areas. Far much less has been performed within the case of lowering the same old of living poverty, that is, wealth poverty and inequalities at some stage in the areas. The article unearths that international MPI has a tendency to inflate poverty estimates inside the case of Nepal. It additionally indicates that development hints and poverty bargain programs in Nepal have to aim to reduce multidimensional poverty, of which deprivation in schooling, fitness, and primary services must be a vital component, in conjunction with their efforts to decorate economic increase and reduce income poverty (Goli et al, 2019).

2.5 Review of Poverty Intervention Policies of Nepal

2.5.1 Challenges of MDG in Nepal

Worldwide deployment within the lower back of the Millennium Development Goals (MDGs) shaped the extreme achievement in anti-poverty motion in facts (Waage et al. 2010; UN, 2015). The momentous dedication crosses the threshold into with the aid of world front-runners within the millennium era spare no attempt to unfastened

our fellow men, girls, and kids from the abject and dehumanizing situations of severe poverty. Changed or translated into an inspiring framework of eight desires and, then, into vast-ranging sensible steps that have enabled human beings across the world to decorate their lives and their imminent forecasts. The MDGs assisted to raise a couple of billion people out of excessive paucity, to make inroads in competition to hunger, to allow greater women to wait for school than ever earlier than, and to protect our planet. They generated new and revolutionary partnerships, galvanized public opinion, and confirmed the widespread price of placing ambitious desires. By setting humans and their instant needs leading edge, the MDGs reformed desire-making in evolved and developing international places similar.

Goal 1: Eradicate poverty and hunger

Target 1. Halve, among 1990 and 2015, the share of humans whose income is less than $1.25 everyday

Target 2. Halve, amongst 1990 and 2015, the proportion of people who be afflicted by starvation

Goal 2: Achieve popular primary education

Target 3. Ensure that, by using 2015, young people everywhere, boys and women alike, might be in a position to complete a complete route of primary education

Goal 3: Encourage gender equality and empower womenfolk

Target 4. Eliminate gender disparity in primary and secondary education, ideally by way of 2005, and in all tiers of education no later than 2015

Goal four: Reduce infant death

Target 5. Reduce thru two-thirds, between 1990 and 2015, the under-5 death rate

Goal 5: Improve motherly health

Target 6. Decrease with the aid of 3-quarters, between 1990 and 2015, the motherly death ratio

Goal 6: Fight HIV/AIDS, malaria, and extraordinary diseases

Target 7. Have halted via the usage of 2015 and started out to contrary the unfold of HIV/AIDS

Target 8. Have halted by using 2015 and began to opposite the superiority of malaria and other fundamental illnesses

Goal 7: Ensure environmental sustainability

Target 9. Integrate the ideas of sustainable development Policies and applications and reverse the loss of environmental assets

Target 10. Halve, with the useful source of 2015, the percentage of humans without sustainable entry to to secure ingesting water and easy sanitation

Target11. Have achieved via 2020 a sizeable improvement within the lives of at least a hundred million slum dwellers

Goal 8: Develop a worldwide partnership for the development

Target 12. Develop similarly an open, rule-primarily based, predictable, non-discriminatory trading and monetary system (consists of a determination to proper governance, development, and poverty discount, each nationally and the world over)

Target 13. Address the unique wishes of the Least Developed Countries (includes tariff- and quota-free get right of access to for Least Developed Countries exports, greater perfect application of debt consolation for carefully indebted bad international places [HIPCs] and cancellation of real bilateral debt, and more generous authentic development assistance for global locations dedicated to poverty reduction)

Target 14. Address the special dreams of landlocked growing international locations and small island growing states (through the Program of Action for the Sustainable Development of Small Island Developing States and 22nd General Assembly provisions)

Target 15. Deal comprehensively with the debt troubles of growing international locations through national and worldwide measures in case you need to make debt sustainable in the long term

Target 16. In cooperation with developing international places, broaden and positioned into impact strategies for decent and productive paintings for youngsters

Target 17. In cooperation with pharmaceutical organizations, offer get entry to low-cost critical drugs in growing worldwide locations

Target 18. In teamwork with the personal region, make to be had the welfares of new generation, mainly information and communications technology

Despite political instability and coffee monetary boom, the modern-day-day reputation of development shows that Nepal's overall performance on reducing poverty and starvation, maternal mortality, toddler mortality, and growing literacy, enrolment in primary schools, parity among women and boys in getting right of access to schooling had been carried out (NPC, 2016). These combination achievements mask the underlying worrying conditions. The achievements are unevenly distributed amongst caste and ethnic businesses, geographic areas, and economic reputation. Disadvantaged Janajatis, Dalits, and those in lengthy manner-flung areas lag in the lower lower back of the country-wide average. Disparities persist and need to be targeted at the SDG length, 2016-2030 (UN 2015).

Nepal's MDG implementation critiques offer treasured instructions for the making plans and implementation of the SDGs and to collect the target to graduate from LDC to grow of popularity by way of manner of using 2022. A key lesson is that expertise and addressing variety has been key to undertaking the MDG desires. More decentralized making plans, centered programs, implementation, and close tracking are needed to close gaps. The new federal system will facilitate more decentralized and suitable improvement.

The participation of a couple of actors has helped obtain the MDG goals, and this numerous engagement desires to preserve in the SDG duration. Partnerships need to be cultivated amongst national governments, international and extensive NGOs, and the personal area.

More nearby assets want to be generated and mobilized to fund close-via programs. Nepal's studies with network forest character companies, saving organizations, and cooperatives have shown how this can be finished. The incorporation of community data, new technology like biogas production, growing the nearby possession of the property, the participation of nearby stakeholders in raising attention and getting rid of illnesses have contributed to the MDG achievements. Competitive and constituency-oriented politics have moreover helped groups gain manage nearby assets. As the achievement of political representatives is normally measured thru how

a whole lot of belongings they manipulate to supply to their substances, this trend is feasible to develop.

2.5.2 Sustainable Development Goals (SDGs) for Nepal

The machine of growth from 8 MDGs with 18 objectives and 48 signs, to proposals for 17 SDGs with over a hundred signs and symptoms, demonstrates the evolving attention through the global community of the complicated nature of development and its implications for society, the financial device, and the surroundings. Whilst the improvement of desires, goals, and signs indicates a stronger dedication to defining and monitoring constituent elements, sustainable improvement is more than the sum of its elements. It is a final result of nice synergies amongst multiple details and can be undermined with the resource of terrible exchange-offs among them. The proposed SDGs have been knowledgeable, induced, and advanced via high-quality sectoral constituencies. As with the MDGs (Waage et al. 2010), this process has not sufficiently addressed the interactions among dreams and a number of the mechanisms and processes that might be mounted to gain them. These interactions will be high-quality or terrible, and their nature of them can be physical, physiological, socio-political, or any combination thereof. The challenge for achieving sustainable improvement is the way to manage and govern these interactions. The revel in the MDGs suggests that strong institutional possession of goals made them more likely to be introduced. However, while the MDGs had been coherent on structures of dimension, they were weak in facilitating participation and voice almost about reviewing implementation. Similar governance mechanisms for the newly proposed SDGs, including those relating to the manipulation of weather trade and the surroundings, have so far proved difficult to install. Governance in terms of responsibility, transparency, obligation, potential, and legitimacy at sub-national, country-wide, and international levels is vital for carrying out sustainable improvement. A successful governance approach for the SDGs, which engages with the total range of political pastimes, may hyperlink the shipping of dreams that are able to synergy, and negotiate alternate-offs to optimize the shipping of dreams which may be inside the war; governance inside silos is not tenable.

The post-2015 development schedule should pick up where the MDGs left off. Achievements on poverty, education, and health may have a multiplier effect for reaching other development objectives. Therefore, for example, offering and

maintaining the great of training could be key for reaching the SDGs. There are numerous problems associated with the desires, objectives, and indicators of the 2030 Agenda for Sustainable Development for Nepal (NPC, 2017).

First, the goals are exceptionally formidable for numerous desires and should be negotiated to lead them to extra sensible. Examples encompass ending poverty, hunger, and malnutrition, ending preventable newborns and below-5 toddler mortality, finishing all varieties of gender discrimination, and finishing deprivation in fundamental services like safe water, sanitation, and cutting-edge energy. Unlike MDGs which had been non-negotiable, there exists some room for adapting the goals of SDGs to the context of the united states. Second, a few SDG objectives are less applicable for Nepal whilst new and extra goals might be important to address a-specific challenges. For instance, in SDG five (gender), objectives associated with Chhaupadi (untouchability throughout menstruation) might be greater important than other harmful practices designated inside the international listing of goals. Third, worldwide targets set for some SDGs are inadequate; a few are the handiest proximate; they depend extra on markets than on country interventions, and they'll no longer paint properly for LDCs like Nepal.

Fourth, one of the desires related to Oceans, Seas, and Marine Resources (SDG 14) is inappropriate for Nepal even as a few different dreams like Combating Climate Change (Goal 13) is maximumly applicable, yet motion is more dependent on other countries. Some of the dreams like Sustainable Consumption and Production Pattern (Goal 12) and Reducing Inequality amongst Countries (a part of Goal 10) situation the developed global a lot more. Finally, because the goals and objectives overlap, one indicator may serve a couple of goals. Thus there may be a possibility of duplication. Overall, all of the global SDG goals and signs aren't completely relevant to Nepal's Circumstance; nor are they sufficient to depict the country-precise SDG problems. Many objectives and indicators would require heavy records which the USA will take years to generate. However, they must be retained for worldwide assessment. At the identical time, extra signs should be diagnosed to serve the country-wide context.

2.5.3 Development Planning in Nepal

The 2015 Constitution of Nepal has certainly noted about Nepalese residents have the right to survive with dignity for his or her; human development, social justice,

security, social protection with the success of simple desires concurrent strength of federation, kingdom, and local government for the poverty as commonplace agendas is scheduled within the variety 05, 07, and 09 which shows poverty relief is a high precedence of the Government of Nepal. The charter similarly highlights proper governance, socio and economic transformation, and inclusive democracy presented in Nepal Law Commission in 2015.

While poverty has constantly been an overriding difficulty in development making plans in Nepal, simplest due to the fact the Sixth Plan (1980/eighty one–1985/86) it is been explicitly stated as an improvement goal (NPC, 1985). During the Seventh Plan length (1986/87–1990/091), the Government formulated its Program for the Fulfilment of Basic Needs. It has made the primary separate plan for decreasing poverty. Incorporating the Seventh Plan as one of its essential components, this bold prolonged-time period software program envisaged the elimination of poverty in Nepal over a 15-year period. However, it modified into later abandonment all through the length of political upheaval. Poverty alleviation changed into one of the important goals of the Eighth Plan (1993/094– 1997/98). It became the first national plan formulated after the recovery of multi-birthday celebration democracy in 1991.

The Ninth Plan (1998/99–2002/03) observed poverty remedy as its sole objective and intends to lessen poverty thru (i) sustained and large-based growth, (ii) development of rural infrastructure and social priority sectors, and (iii) specific applications concentrated on the horrific (NPC, 1998). The Plans recognize responsible, democratic systems and market-orientated monetary systems that avow social and ecological duty as being critical for the sustained boom. In addition to the Ninth Plan, the Government's willpower to poverty bargain grow to be in addition manifested thru its training of a period in-between poverty discount technique in 2001 that drew at the findings of this have an examine in addition to from public consultations and popularity organization discussions.

A comprehensive poverty discount method changed into evolved and absolutely included into the Tenth Plan (2003/04–2006/07) (NPC, 2003). With the implementation of the Poverty Reduction Strategy Paper (PRSP)/Tenth Plan in economic 365 days (FY) 2002/03, the Government of Nepal is devoted to bringing out an annual normal overall performance evaluation of the plan to its human beings and to people who take a keen interest inside the improvement of Nepal. The plan will

become honestly the MDGs-centered PRSP specializing in 4 strategically vital regions, specifically, extensive-based sustained increase; improvement inside the get admission to and super of infrastructure, social and financial services inside the rural regions; targeted programs for social and financial inclusion of the bad and marginalized agencies; and precise governance to enhance carrier delivery, performance, transparency, and responsibility. The Tenth Plan organized and carried out as a complete-fledged Poverty Reduction Strategy Paper (PRSP); Consistent with the MDGs, the Tenth Plan objectives to reduce the extent of poverty and enhance the social and human nicely-being of the people; Due to the recognition of the function of community agencies (COs) and non-government businesses (NGOs) inside the improvement system; Commitment to decentralization and functional devolution; Use of log-frame as a diploma to institutionalize effects-primarily based total control in planning; to define institutional responsibilities and responsibilities; Prioritization of improvement applications/projects in terms of P1, P2, and P3, making positive assets and in-intensity monitoring; and Elaborate monitoring and evaluation provisions, which includes a dedication to annual poverty tracking, manner tracking and reporting.

The Eleventh Plan (2007/08-2009/10), the primary development plan finished within the modified political context set the vision of 'Prosperous, Peaceful and Just Nepal'. The primary goal of this plan was lowering poverty, developing employment possibilities, and making humans wealthy (NPC, 2008).

The Twelfth Plan (2010/11-2012/thirteen), for instance, prioritized enhancing the monetary reputation of the people thru the implementation of employment-centric, equitable, and inclusive development applications and initiatives. Accordingly, techniques were observed to result in a proper away top-notch alternate within the living requirements of the humans with the aid of way of lowering monetary and human poverty if you want to maximize the quit result of opportunities and to reduce the dangers of annoying conditions created in the America and possibly from the external surroundings (NPC, 2013).

The thirteenth 3-12 months' plan (2013/14-2015/16) is an overarching country-wide development plan set with the useful resource of the National Planning Commission. It is the 1/three interim plan as America is unable to have an entire five-three hundred and sixty-five days' plan due to the protracted political transition. It has a long-term

vision of graduating Nepal from the LDC magnificence to developing of America reputation by using 2022 developing the USA from the least advanced. Repute within the next ten years. The number one approach of the plan is enhancing the dwelling desired of the humans with the intention of decreasing the huge form of humans beneath the poverty line to 18 percent from the existing 24 percent. Nutrition is incorporated times underneath the headings of sectoral development tips - 'meals protection and vitamins underneath 'agriculture, irrigation, land reforms and forests' plus 'health and nutrition below 'social development.' (NPC, 2013).

The Fourteenth Plan (2016/17-2018/19) emerge as based on the 2015 Constitution of Nepal and Nepal's willpower to the 2030 Agenda for Sustainable Development. The plan goals to spend a super amount on developing infrastructure related to electricity, avenue, air journey, and information and communications besides strengthening America's social safety and social protection systems. Other dreams encompass introducing reforms inside the financial and social sectors, making sure sound and accountable public finance, handing over terrific public services in an obvious manner, and selling proper governance by protecting and promoting human rights. Moreover, the focus has been laid on pass-reducing problems inclusive of gender equality, inclusive society, environmental protection, and the ability improvement of numerous establishments. The plan changed into anticipated to repair the USA from the effects of the 2015 earthquakes, the repercussions of the long political transitions, and the setback created by way of the use of disruptions on the Nepal-India border elements.

The Fifteenth Development Plan (2019/20-2023/24) has made the motto as “Prosperous Nepal, Happy Nepali”. In accordance with this, the national purpose of the scheme is to construct a basis for upgrading the center-income united states of America through the way of reworking it into socialist-oriented public welfare with a wealthy monetary machine, social justice, and nonviolent living. The lengthy-term objectives of rich Nepal are on hand modern infrastructure and in-depth connectivity, development and full usage of humanoid investment capacities, high and sustainable construction and productiveness, and high and equitable country-wide income. Similarly, the prolonged-time period objectives of Happy Nepali are wellbeing and extraordinary existence, comfortable, civilized, and just society, healthful and

balanced surroundings, suitable governance, complete democracy, USA-extensive team spirit, safety, and dignity.

2.5.4 Health and Poverty Reduction Strategy in Nepal

Over the years many regulations and plans (MoHP, 2012; MoHP, 2017;) have been shaped. It appears that more or much fewer concurrently two units' different types of legal papers have been developed, onec the government has pushed and associated with the five-12 months' improvement plan cycle, the opposite outside development associate (EDP) driven. The paintings completed by means of the MoHP together with the EDPs has to a point knowledgeable the development of the documents for the fifteenth five-year Plan. The trouble seems to be that the maximum present day, triumphing files have somewhat unique objectives, techniques, and activities. The prime administration file in burden is the 10^{th} plan itself, the fitness chapter and price range of which are prepared by way of precedence software and/or organizational center, likely following present price range traces. The NHSP-IP, greater donor-pushed, is prepared by way of goals, outputs, and sports in a rational outline and does no longer have a finances but. The poverty reduction strategic plan (PRSP), speculated to be a summary of the Fifteenth Plan, consists of elements of each the NHSP-IP, however also consists of new activities. It is consequently now not clean at this factor which documents the MoHP is enforcing and using to display its sports. Formally the MoHP is sure via the Fifteenth Expansion Plan.

2.5.5 Education and Poverty Reduction Strategy in Nepal

Throughout the facts of tutorial development in Nepal, numerous hints and plans have been developed. The provision of education is covered in Article 31 of the charter offered in Nepal Law Commission, 2015. The provision has ensured the right to primary schooling, obligatory and loses schooling up to the number one level, unfastened training as an extraordinary deal because the secondary diploma, unfastened get entry to better schooling for the disabled and economically backward people, education in mother's tongues, and the right to open colleges and one-of-a-kind educational establishments, amongst others. To ensure the implementation of this provision, the government have launched New Education Policy in 2019 (GoN, 2015).

The new country-wide coverage desires to boom technology and technology in better schooling and function laid emphasis on generating technical manpower. The coverage mentions the inclusion of Ayurveda in health subjects which include e-medicinal pills, dentistry, nursing, public health, and pharmacy. It moreover mentions well-timed revision of training-mastering techniques, technology, approach, and curriculum. Institutional development may be accomplished for sound coordination, grant distribution, top-notch assurance, accreditation, guiding precept power of the mind, research, and regulation of better schooling, consistent with the policy. An expert code of conduct can be made for all instructors, principals, and faculty staffers, consistent with the coverage.

Currently, the training software program software software in Nepal is guided via the School Subdivision Expansion Plan (SSDP, 2016/17–2022/23) and the consolidated equity method for the college training place, it really is being applied with the aid manner of the education ministry. The SSDP is guided via the Constitution of Nepal (Nepal Law Commission, 2015) and gives the general framework for America's federal republic in Nepal. The SSDP' idea of alternate is based totally on strengthening the faculty training area in its middle dimensions, but, the reality that some of the crucial aspect consequences are areas inner and within the route of the size of the handiest so as for the SSDP to benefit its dreams; the size of the most effective are fairness, outstanding normal common general overall performance, governance and control, and resilience.

2.5.6 Poverty Alleviation Fund and its Functions

The Government of Nepal installed the Poverty Alleviation Fund (PAF) as a self-maintaining government frame in 2003. The reason for the enterprise is to lessen immoderate poverty in Nepal and assemble a democratic, actually, equitable and sustainable society; mainstream the excluded agencies and function the horrible and disadvantaged organizations themselves within the use of seat of improvement efforts. On the entire, the final purpose of PAF is to bring about improvement in the livelihoods, dwelling conditions and empowerment of the rural terrible with precise interest to corporations/companies which can be historically been excluded from the floor of gender, caste/ethnic belongings, residential places and others. Though the PAF is directed to reduce profits poverty and enhance the circle of relatives-diploma

meals protection, it is obvious to count on to have multi-pronged implications to reduce multidimensional poverty of the precious corporations.

The fund has taken a network mobilization method of organizing individuals in self-assist organizations referred to as network organizations to gain the aim of assuaging poverty. Such COs are self-help businesses empowered thru the use of PAF to uplift the poorest and most willing organizations. Until the date, PAF reached the targeted extremely terrible and bad 900,000 households and four million of the populace of its 60 programme districts (Table 2.10). It facilitated forming 32,360 COs to get a guide for profits technology sports, network infrastructure improvement and functionality constructing or both for households. PAF persevered to help COs on a provisional foundation; COs had been getting regular presents from PAF on the premise of demand of CO individuals and giving to its individuals on a revolving basis charging a nominal hobby. For this PAF is utilizing presents obtained from international donor agencies to assist the negative for strengthening their living notorious and to help meet there on the spot food protection dreams particularly. To the contemporary, PAF has reached 60 districts with regular programmes (55 districts), present-day programmes (three districts) and initiative of peri-town piloting (districts). Districts via brilliant styles of programmes and batches of obligations are as in Table 2.10.

Table 2. 9: Districts of PAF Programme Intervention by Batches

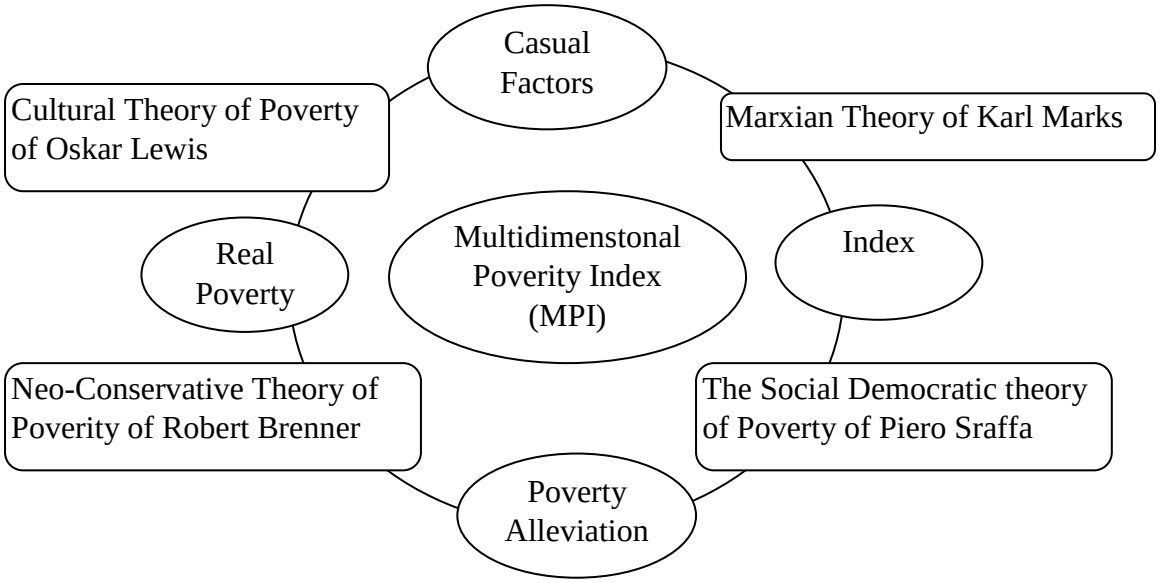
Batch/year of Intervention	Districts of Interventions by PAF	Total
First Batch: Initial Pilot Districts (2004/05)	Darchula, Mugu, Pyuthan, Kapilbastu, Ramechhap and Siraha	6
Scaling up for other Districts (2005/06)	Achham, Baitadi, Bajhang, Bajura, Dadeldhura, Dailekh, Dolpa, Doti, Humla, Jajarkot, Jumla, Kalikot, Mahottari, Rasuwa, Rautahat, Rolpa, Rukum, Sarlahi and Sindhuli	19
Recruitment of Second Batch Districts (2008/09)	Okhaldhunga, Bara, Khotang, Salyan, Saptari, Udaypur, Solukhumbu, Sindhupalchowk, Panchthar, Dhanding, Taplejung, Parsa, Bardiya, Dhanusha and Terhathum	15
Recruitment of Third Batch Districts (2013/14)	Nuwakot, Arghakhachi, Gulmi, Myagdi, Gorkha, Lamjung, Banke, Dailekh, Bhojpur, Nawalparashi, Sunsari, Surkhet, Morang, Dolakha and Kaillali	15
Innovative programme districts	Kanchanpur, Makwanpur and Chitwan	3
Peri-Urban Pilots to tackle urban poverty	Kathmandu and Butwal (Rupandehi) to be implemented by 20 COs in each peri-Urban	2

(Source: PAF Study, 2020)

2.6 Theoretical and Conceptual Framework

In the model, the study considers two models: Alkire-Foster model consists of three causal factors of MPI (e.g., health, education, and living standard) and Moser Model comprises five causal factors (Income Poverty, Human Poverty, Occupancy Insecurity, Physical/Productive Assets Insecurity and Disempowerment) to define Paucity as a multidimensional notion ultimately increases the query of the way to measure normal poverty and the way to weigh the special dimensions of it. Different dimensions of poverty have different individual significance and contributions to the composite measurement of multidimensional poverty on PAF household data.

Figure 2.1: Theoretical and Conceptual Framework



Source: PAF Household Survey, 2018

Conceptually, the observation of multidimensional poverty has analyzed causal elements, actual poverty, poverty comfort, and exclusive indices as proven inside the figure. Collected records are aggregated into an ordinary measure of poverty if you want to be interpreted from four theories of poverty (Marx, Cultural, Neo-conservative, and Social Democratic). The weightage assigned to everything measurement of those indices does no longer undergo any correspondence with the regional or the national impact factors nor the alternatives of the populace of the location below observe.

Founded on one's dispossessions, in an incredibly family, someone is assessed as terrible or non-poor based on a weighted rating of his/her deficiencies. This fact is amassed into a traditional diploma of poverty if you want to be interpreted from 4

theories of poverty like Marx's view, Cultural view, Neo-conservative view, and Social Democratic views in evaluation. The pragmatic approaches of gift-day poverty evaluation directed by the above-stated college students are applied in a contextual analysis of multidimensional poverty measurements.

2.7 Research Gaps

Multidimensional poverty tendencies do not fit monetary poverty developments, suggesting unique drivers. However, the situation of Nepal isn't specifically analyzed. From the critiques of the study, there may be a wide gap in reading the numerous dimensions of MPI and its implications in Nepalese Development Programs for poverty relief techniques. Specifically, to discover the capacities of the complexity of multidimensional paucity in Nepal, causal elements responsible, and the important thing size of poverty remedy interventions. The take a look at will similarly inspect the opportunities of ways the local authorities can follow the MPI strategies and increase their plans for the point of interest on economically and socially disadvantaged households that may be supported by using their interventions.

CHAPTER III

RESEARCH METHODOLOGY

This chapter at the start starts with the creation of Nepal and observes districts in short. This chapter then movements to the strategies adopted in survey layout and survey implementation approaches. Thirdly it affords methodological instances are in the making of the MPI and its composition with an evaluation of information great and output of the survey techniques.

The MPI study-2018 undertaken by PAF is based totally on the survey of two,660 households concerned in PAF-supported activities from 133 localities/groups of its intervention from 14 districts. The 14 survey districts are decided on two-each from seven provinces. The selected districts similarly represent the first, second, and 1/3 phases of intervention. The pattern size is decided at a 95 percent self-belief degree and five percentage of margin of mistakes. The normal purpose of the examination become to look at the motive and appropriateness of shifting the focus on the method of terrible households from meals security (profits method) to multidimensional poverty one. It implemented the Alike & Foster (2007 & 2011) and NPC & OPHDI (2018) methodology of accounting multidimensional poverty with minimum contextual modifications. However, the observation become not published by means of PAF and the look at has officially acquired consent to apply the records for the examination. Seven days of rigorous training of 32 discipline enumerators have been held. Actual fieldwork started out on the twenty-first of May and ended in the 0.33 week of June. The survey successfully performed interviews of 1656 families- with a 0.2 percentage of nonresponsive charge. Data is gathered in pc-assisted interview (CAPI) module in android based smartphones/tablets i.e. in order that mistakes are often minimized at field degree.

3.1 Design of Research

It is a method that is concerned about whole studies' trouble or observes, whereas the studies approach is concerned with strategies, collections of facts, its evaluation, and validation. The study's technique can be regarded as a subset of the study's method (Sahu, 2013). Techniques or methods used in acting research operations are known as studies strategies. The research method is especially concerned with the collection and

analysis of facts generated in answering the research hassle that researchers have in mind.

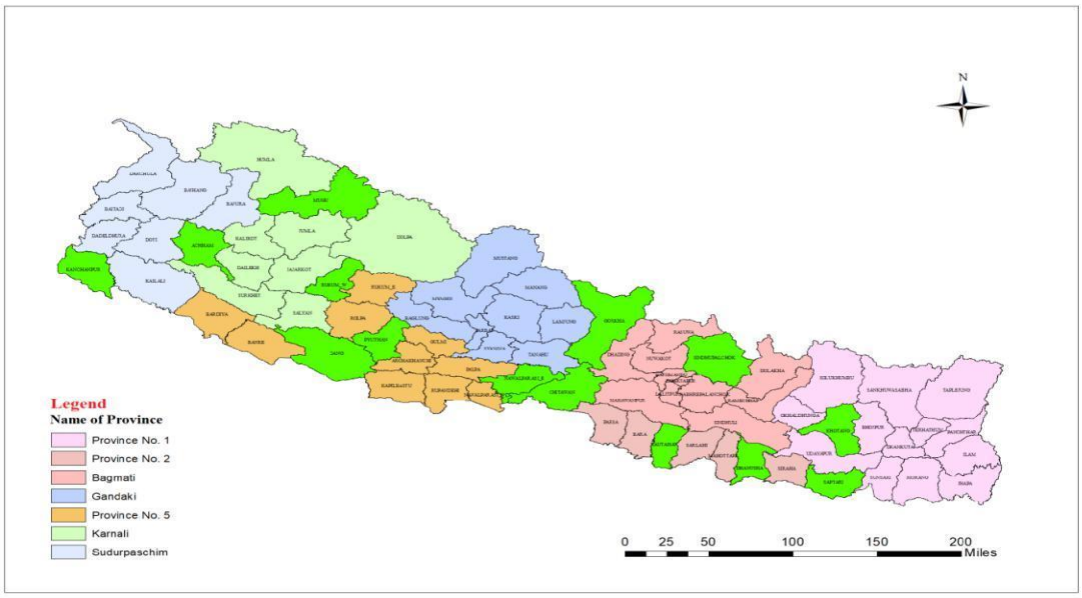
At a five% margin of errors and ninety-five%, self-assurance degree a pattern length of 2,660 respondents of 7 provinces on 14 districts have been selected. Selection of districts from every seven Provinces, number of PSUs, and Households be surveyed by Provinces are summarized.

3.2 Introduction to Study Area

Study Districts

The geography of Nepal is divided quite virtually into 3 crucial environmental areas: Highland, Peak, and Tarai. The socio-economic setting and cultural contexts of the humans dwelling those regions variety immensely. Nepal is installed alongside hierarchical strains. There are 3 precise tiers (listed from the bottom to maximum): Rural municipalities (460/ Urban municipalities (293), Districts (77), and Provinces (7). According to Population Census 2011 (CBS, 2012), the complete populace of Nepal stands at 2, 64, 94,504 with a yearly normal growing rate of 1.35. Similarly, the whole variety of family's interior is 5, 427,302 with 5,423,297 person households and 4005 institutional households.

Figure 3.1: Study Districts on Nepal's Map



(Source: Google Nepal Map, 2020)

About 27 percent of Nepal's populace is multidimensional terrible. By place of residence, the rural-urban divide is obvious, with 7 percent of the city populace and

33 percent of the agricultural population being multidimensionally terrible. Similarly, Karnali Province and Madhesh province have the best price of multidimensional poverty – with each second man or woman being multidimensional bad (50 percent) – followed by using Lumbini province and Sudurpaschim province (about 30 percent). The number one contributing symptoms to average poverty in Nepal and in rural Nepal are malnutrition and insufficient years of education (NPC & OPHDI, 2018).

Nepal displays a vertical zonation of ethnic (janajatis)/caste (jat) settlements. High mountain areas throughout the northern part of the country are inhabited by the mountain ethnic groupsearly as well as recent migrants from Tibet. In the hills, ethnic groups generally occupy the temperate zone and sub-tropical zone by castesincluding Hill untouchable caste (locally called Dalit). The forested foothills and inner Terai (plain) valleys are the home of small groups of autochthonous people who engage in hunting, gathering, and fishing, but they have been overwhelmed by Madhesis castes[1] spilling over from the Gangetic plain (CBS, 2012). For the analysis of data throughout the thesis the classification of caste/ethnicity as shown in Annex 1 has been adopted.

3.3 Profile of Study Districts

From the mountain region, two districts i.e., Sindhuplchowk and Mugu were selected for this study. Mugu is a remote mountain district with the second lowest Human Development Index (0.397) has a population of 55,286 (male: 28,025 and female: 27,261). From the hill region, five districts (Khotang, Gorkha, Pyuthan, Rurkum west and Achham) were selected representing four provinces such as 1, 4, 5, 6 and 7 respectively. Among these, Rukum has the lowest population of 210,004 (male: 104,654 and female: 122,421); but Gorkha has the lowest population density (269,388: male: 120,541 (male) and 158.847 (female)) of 75 persons per square kilometre. From Terai region, six districts (Dhanusha, Rautahat, Chitwan, Nawalprasi, Dang, and Kanchanpur) were chosen and Dhanusha has the highest population of 754,777 (male: 378,538 and female: 376,239) among the Terai study districts resulting population density of 640 persons per square kilometre (CBS, 2012). Analysis based on information collected from these districts may not represent the whole nation but may be useful findings was led by staffs of PAF.

Methodological Approaches to Data Collection

It is a quantitative most effective but non-experimental descriptive study. The study has selected 2226 respondents each of two districts of each 7 provinces. Selection of two districts from every seven Provinces, range of PSUs and Households be surveyed through Provinces are presented in table no 3.1.

Table 3. 1: Population by Area, Population Density and HDI

Name of selected Districts	Household	Total Population	Male	Female	Total Areas (km2)	Population Density (persons)	HDI*
Nepal	5,427,302	26,494,504	12,849,041	13,645,463	147,181	180	0.490
Province No. 1	992,445	4,534,943	2,166,536	2,368,407	25,905	175	-
Sunsari	162407	763,487	371,229	392,258	1,257	607	0.496
Khotang	42,664	206,312	97,092	109,220	1,591	130	0.494
Province No. 2	932,308	5,404,145	2,717,938	2,686,207	9,661	559	-
Dhanusha	138,249	754,777	378,538	376,239	1,180	640	0.431
Rautahat	106,668	686,722	351,079	335,643	1,126	610	0.386
Bagmati Province	1,270,797	5,529,452	2,747,633	2,781,819	20,300	272	-
Sindhupalchowk	66,688	287,798	138,351	149,447	2,542	113	0.455
Chitwan	132,462	579,984	279,087	300,897	2,218	261	0.551
Gandaki Province	640,078	2,735,661	1,251,704	1,483,957	22,585	121	-
Gorkha	66,506	271,061	121,041	150,020	3,610	75	0.481
Nawalparasi	128,793	643,508	303,675	339,833	2,162	298	0.493
Lumbini Province	858,691	4,356,628	2,070,409	2,286,219	18,780	232	-
Pyuthan	47,730	228,102	100,053	128,049	1,309	174	0.413
Dang	116,415	552,583	261,059	291,524	2,955	187	0.485
Karnali Province	309,568	1,623,609	792,903	830,699	31,873	51	-
Rukum West	41,856	208,567	99,159	109,408	2,877	72	0.431
Mugu	9,619	55,286	28,025	27,261	3,535	16	0.397
Sudurpaschim Province	469,971	2,552,517	1,217,887	1,334,630	19,539	131	-
Achham	48,351	257,477	120,008	137,469	1,680	153	0.378
Kanchanpur	82,152	451,248	216,042	235,206	1,610	280	0.475

*Source: CBS (2012), * NPC & UNDP (2014)*

3.4.1 Sampling Design

Purposive Sampling

Two districts from each province have been purposively selected. It represents seven provinces with fourteen districts including the entire ecological belt of Nepal with Himal, Pahad and Tarai, in 133 clusters as presented in Appendix.

Kerjcie and Morgan Method

The decided on clusters have been surveyed by means of the quantitative technique with the sampling size supplied via Kerjcie and Morgan technique (1970). The modern examination is based on quantitative information collection.

$$\frac{X^2NP(1-P)}{d^2(N-1)+X^2P(1-P)}$$

The formula has been applied to determine the sample size.

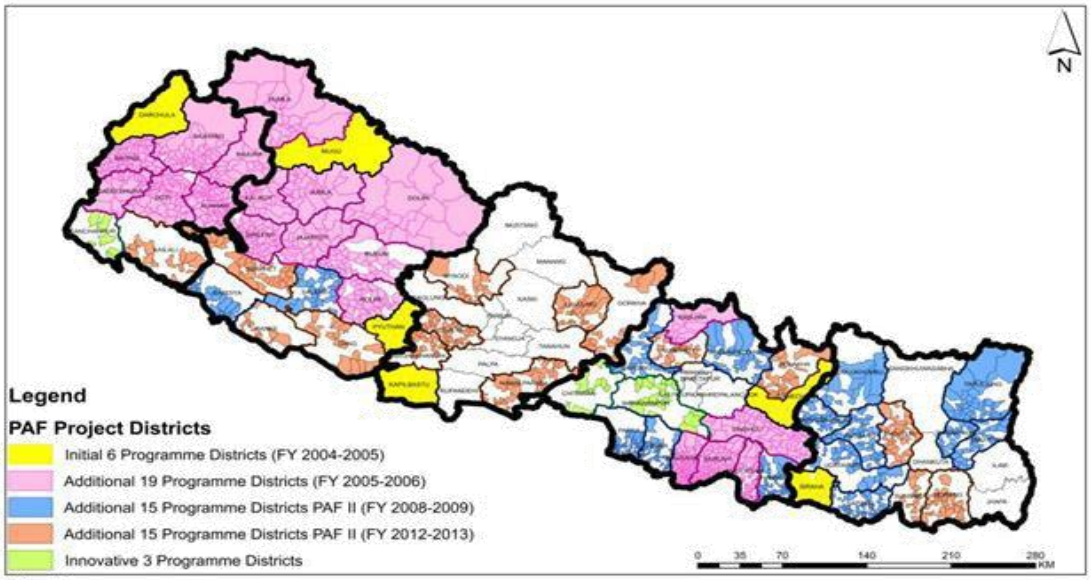
Table 3. 2: Provincewise Distribution of Sample Districts, Clusters and Households
*Source: * Population Census, 2012; ** PAF Household Survey, 2018*

SN	Selected Districts	Total Household*	PAF Working Households**	Allocated Households	Allocated PSU/Clusters
1	Province No. 1				
a	Sunsari	162,407	19,616	240	12
b	Khotang	42,664	15,731	140	7
2	Province No. 2				
a	Dhanusha	138,249	70,453	200	10
b	Rautahat	106,668	88,212	210	11
3	Bagmati Province				
a	Sindhupalchowk	66,688	20,805	180	9
b	Chitwan	132,462	12,736	200	10
4	Gandaki Province				
a	Gorkha	66,506	23,439	260	13
b	Nawalpur	128,793	14,299	100	5
5	Lumbini Province				
	Pyuthan	47,730	45,786	140	7
	Dang	116,415	43,502	240	12
6	Karnali Province				
a	Rukum	41,856	32,117	240	12
b	Mugu	9,619	9,128	120	6
7	Sudurpaschim				
a					
	Achham	48,351	41,381	180	9
b	Kanchanpur	82,152	23,486	200	10
	Total	1,190,560	460,691	2660	133

(Field Survey, 2019)

The table presents the 14 selected districts allocated households and cluster area to collect the primary information.

Figure 3.2: PAF Interventions Districts on Nepal's Map



(Source: PAF Working Area Map, 2020)

3.4.2 Determination and Selection of PSUs

In the subsequent degree, numbers of number one sampling gadgets (PSUs) by means of provinces had been determined at a 5% margin of errors and 95% self assurance level. The assigned numbers of PSUs are disbursed to the districts of respective provinces making use of the PPS technique. A ward of the previous neighborhood administrative unit (VDC) is assigned as a sampling cluster or PSU and is selected using a systematic random sampling method. Wards of all PAF application intervention municipalities of each district were organized in alphabetic order of municipal name in ascending order in line with household length given by National Population Census, 2011(CBS, 2012). Sample interval I for PSU choice is decided by dividing the whole range of households counted inside the PAF application intervention municipals (N) by means of the variety of families to be surveyed from the province (i.E. I=N/n). As the first cluster as PSU is decided, a scientific random sampling method is used to pick next wards as pattern clusters.

3.4.3 Selection of Sample Households

From every selected cluster sample of 20 households is taken. For the choice of the required pattern families from each PSU a sampling frame that includes an entire listing of currently residing PAF program supported households is ready to visit local groups. A sample interval is determined by way of dividing the full number of

households inside the list (N) via the desired sample length (n). For example, if there are a hundred seventy-five Households inside the listing, then pattern c programming language i=eight.75 is given with the aid of one hundred seventy-five/20. Suppose, the sixth family is chosen because the first of the 20 sample families, then the second family turns into 15th and the 1/3 one 23rd and so on. In this way, the systematic random sampling technique is applied to pick out 20 households from the entire list with the aid of selecting every ith family till it selects the 20th family.

3.4 Survey Instruments

The field level instruments were developed and finalised through series of consultative meetings with professionals of PAF and review of survey instruments used in (Nepal Living Standard Survey-2011) and (Nepal Multiple Indicator Survey-2014). It used household survey schedule. The major indicators incorporated in field questionnaires are grouped as following (See also Annex 3).

Section 1: Basic Information about survey site

Section 2: Household Socio-demographics

Household's Age, and gender, birth registration, married or not (5+), received citizenship (16+) Disability status, and Current residence at household and duration of absence

Section 3: Literacy and Education of family members and schooling details of current school going children (Education MPI)

Ability to read and write, ever school enrolment, highest grade completed Current enrolment status, Reason for non-enrolment, Grade enrolled in and type of school enrolled, Receipt of scholarship by amount received in last year, and annual educational expenditure in per currently schooling child

Section 4A: Employment and work activities (5 years and older by gender), primary (main) and secondary occupation duration of the occupation, status in the occupation (employer, employee, paid/unpaid, unpaid family worker, Hours and days of work in a particular week, Basis of payment of paid workers, level of earning, Reason for unemployment, availability for work and search for work

Section 4B: Labour Migration and Remittance, place of living, work at destination, duration of living, sending remittance during last 12 months, recipients of remittance,

mode of remitting (formal or informal), process of withdrawing remittance, amount sent during last 12 months, saving and use of the remittance.

Section 5: Living Standard- Housing Condition and Physical Assets (Living Standard MPI). Occupancy and ownership of house/dwelling (gender), total rooms, separate kitchen, stories. Materials of flooring, wall, roof, lighting, heating, main source of water, distance to water, toilet facility, size of land ownership, land in female's name. Livestock in house by type, number, current price, contribution in HH income and employment Practice of livestock insurance, HH assets, radio, TV, Telephone/Mobile phone, bicycle, motorcycle, refrigerator, sewing machine and car, tractor, etc.

Section 6: Consumption and non-consumption Expenditure and Income (Income Poverty)

Quantity of different food items consumed in a typical month (both home produced and purchased), Amount of the purchased items and market price of the home produced items Frequency of consumption, Food security status of the household, if insecure source of meeting the deficit times, non-food expenditure, fuel, clothes, personal care, transportation, entertainment, information and communication, medical and health, legal and insurance, house repair, paying tax, donations, social and religious, gifts, electricity and water, house rent and others, Income from Different sources.

Section 7: Anthropometry

Date of birth of child under five in household, Height/lengths and weight of child 6 to 59 months in household vital status of mothers of child below 5years, deaths of any persons during last five years by age and sex of dead persons.

Section 8: Access to Financial Services, Financial Inclusion and Literacy, Family members age 16+ of either sex having account in any FIs, type of account, purpose of holding account, reasons for not having account, savings and borrowing practices, purchase of insurance scheme by type

Status of family's borrowing (loan), principal amount, reason for borrowing, sources of loan, reason for not borrowing from formal (financial) sector, interest rate and collateral, and Purchase of different types of insurance products

Section 9: PAF affiliation module and willingness to accept the shift of business plan

3.5.1 Interview, Data Collection Method and Quality Control

The survey questionnaire is designed to be uploaded in a computer assisted interview (CAPI) module in android based smart phones or tablets. To support this, share of server of ONA system is purchased for a month period. This is expected to control omission and error entry of any responses of any questions during interview process as like in paper based questionnaire interviews. For the interview purpose, enumerators visited survey households carrying tablets in hand, established rapport with and convinced the respondents to sit in for interview. Questionnaire in the tablet was designed in such a way that only after completing response of one question another question appears in the screen otherwise give notification or warning for its completion. Possible list of responses as much as possible were made to appear in the screen of the tablet and the interviewer had to select the appropriate one if it was single and more than one in case of multiple response questionnaires. There was a chance to select an inappropriate response, because of finger slip while selecting, in such a case review and editing scheme was inbuilt in the system. Once the interview was completed, the interviewer re-checked the completed form in the tablet, if found any inconsistencies, corrected immediately, and confirmed completion of the interview and saved it. Interviewers uploaded their completed forms in the evening of the same day or in couples of days in case of unavailability of networks.

For the quality assurance, the designed interview module itself is built in such a way that it automatically controls omission and erroneous entry of any responses. Furthermore, it is designed a systematic monitoring and supervision schemes of field work by the study team member. Data management expert regularly download the interviewer's uploaded data, review the major data trends and gave feedback if needed to data collection supervisor to pass the instruction to the enumerators. Data collection supervisor updated daily work of every enumerator and continuously did follow-up of the field operation process.

3.5.2 Data Analysis and Management Plan

Study used descriptive and explorative statistical methods to see variation in MPI by differential characteristics of study population. It includes devising composite index of MPI; share of different components in making up the composite of MPI. A data entry template was developed in android mobile. The contract was made with ONA to

store data through internet. A tabulation plan was developed for guidance on data processing. Data entry template was also prepared and finalized.

3.5.3 Quality Control Measures

Questionnaires were developed in such a way that data could be collected on Android based Smartphones. All the filled information was sent via the internet to a server where the filled information can be checked and reviewed. To Manage data, Quantitative data obtained from the questionnaire surveys were analysed using SPSS/STATA. Before going to the field, orientation training on data entry in Mobile was provided to the field workers regarding rules of data entry. Data cleaning and processing were done. The current study was done as per the Statistical Act 2015; all information was kept confidential that must be maintained by survey implementing institution. For the purpose of data safely, confidentiality and disposal, all cleaned data belongs to the study.

3.5 Ethical Issues

The researcher got the written permission from PAF to use the secondary data for this dissertation. In addition, the study process at its best attempted to maintain the basic research ethics such as asking informed consent of participants to ensure their voluntary participation, use of the collected information, release of data before report finalization and others. The following measures were taken to maintain ethical issues in this study:

3.6.1 Informed Consent

The individuals make certain they may be voluntarily participating inside the studies with full knowledge of applicable risks and advantages. Informed consent taken in household-stage interviews would no longer apply while interviewing ladies and girls of the specified age groups. Separate knowledgeable consent is asked from everyone eligible for character interviews in a family. They have been completely knowledgeable on the subsequent issues:

a. Purpose of interviewing/discussing with them, expected length, and procedures

b. Participants' rights to say no to participate and to withdraw from the studies as soon as it has begun, in addition to the expected results of doing so

c. Reasonably foreseeable factors which can have an effect on their willingness to take part, along with potential risks, pain, or unfavorable outcomes

d. Any prospective research blessings

e. Limits of confidentiality, along with statistics coding, disposal, sharing, and archiving, and whilst confidentiality should be broken

f. Make clean of what incentives she/he will get by way of taking part within the interview Participants can contact with questions.

3.6.2 Matter of Secrecy

Maintenance of individuals' rights to secrecy and confidentiality is a dominant principle of every investigation effort. Private matters of research participant have been kept confidential adopting the following measures:

a. Interviewing in lonely places out of outsider's intervention
b. Not disclosing their information before other persons even to the family members on an individual basis. In some context, feeling power over on daughters, daughter in law or wife, male members in the family may opt to know the information given by the female members of the target group. In such a context, research team ensured to maintain confidentiality at their best.
c. Participants were informed about the use of data they supplied Confidentiality in storing of the confidential records
d. Data are kept confidential until and unless the study report is finalized and use of the data will be granted to any academic work in PAF’s jurisdiction.

3.6 The Survey

The results of the survey are presented on the table as below:

Table 3. 3: Result of Survey Attributes

Results of Survey Attributes									
Belt	**1st Visit**	**%**	**2nd Visit**	**%**	**Final**	**%**	**Non Resp**	**%**	**HH Visit**
Mountain	299	99.7	1	0.3	300	100.0	0	0.0	300
Hills	887	92.4	70	7.3	957	99.7	3	0.3	960
Tarai	1322	94.4	75	5.4	1397	99.8	3	0.2	1,400
Province									
Province 1	338	88.9	42	11.1	380	100.0	0	0.0	380
Province 2	403	96.0	16	3.8	419	99.8	1	0.2	420
Bagmati	379	99.7	1	0.3	380	100.0	0	0.0	380
Gandaki	325	90.3	33	9.2	358	99.4	2	0.6	360
Lumbini	371	97.6	8	2.1	379	99.7	1	0.3	380
Karnali	327	90.8	32	8.9	359	99.7	1	0.3	360
Sudurpaschim	365	96.1	14	3.7	379	99.7	1	0.3	380
Districts									
Sunsari	209	87.1	31	12.9	240	100.0	0	0.0	240
Khotang	129	92.1	11	7.9	140	100.0	0	0.0	140
Dhanusha	190	95.0	9	4.5	199	99.5	1	0.5	200
Rautahat	213	96.8	7	3.2	220	100.0	0	0.0	220
Sindhupalchok	179	99.4	1	0.6	180	100.0	0	0.0	180
Chitwan	200	100.0	0	0.0	200	100.0	0	0.0	200
Gorkha	233	89.6	26	10.0	259	99.6	1	0.4	260
Nawalpur	92	92.0	7	7.0	99	99.0	1	1.0	100
Pyuthan	138	98.6	1	0.7	139	99.3	1	0.7	140
Dang	233	97.1	7	2.9	240	100.0	0	0.0	240
Rukum-West	207	86.3	32	13.3	239	99.6	1	0.4	240
Mugu	120	100.0	0	0.0	120	100.0	0	0.0	120
Achham	180	100.0	0	0.0	180	100.0	0	0.0	180
Kanchanpur	185	92.5	14	7.0	199	99.5	1	0.5	200
Total	2,508	94.3	146	5.5	2,654	99.8	6	0.2	2,660

(Source: PAF, 2018)

3.7 Logistic Regression

The author tested the likelihood of households being MPI poor (when k>=0.33) across a number of variables using Alkire-Foster Method and Moser method. This study formulated four different models. In model 1, the impact of place of residence, ecological belt, and province was tested. Model 2 explores the impact of all the variables included in model one and the equity quintile, in model 3, the impact of all the variables in model 2 and female headship. Finally, model four includes variables included in model three and cultural variables.

Table 3. 4: Summary of Models and Included Independent Variables

Model 1	Model 2	Model 3	Model 4
Place of residence (Urban/Rural)	Place of residence (Urban/Rural)	Place of residence (Urban/Rural)	Place of residence (Urban/Rural)
Ecological region	Ecological region	Ecological region	Ecological region
Province	Province	Province	Province
	Equity quintiles	Equity quintiles	Equity quintiles
		Female headship	Female headship
			Cultural variable

(Source: Developed by author in 2020)

Gujarati & Porter (2009) clearly expressed that the analysis of causal elements is cozy and useful through logistic reversion study by using the following formulae.

$$P_i = \frac{\exp\left(\Sigma\beta_K X_{iK}\right)}{1 + \exp\left(\Sigma\beta_K X_{iK}\right)}$$

$$\log\left(\frac{P_i}{1 - P_i}\right) = \Sigma\beta_K X_{iK}$$

There are 3 primary hypotheses for the analysis:

a) Is there any widespread dating between the fitness indicators and socioeconomic and cultural variables?

b) Is there any good-sized relationship between schooling indicators and socioeconomic and cultural variables?

c) Is there any extensive relationship between residing well-known indicators and socioeconomic and cultural variables?

Dependent and Independent Variables

Some selected background characteristics (e.g., types of respondents, place of house (ecological area), socioeconomic (equity quintals/profits/women empowerment), and Caste/Ethnic composition) are considered to evaluate casual elements of MPI. The logistic regression model becomes a suit for the most likelihood approach. Health, education, employment, and migration are unbiased variables for the take a look at. All statistics are analyzed using the SPSS 22.0 version.

CHAPTER IV

SOCIO-DEMOGRAPHICS OF SAMPLE HOUSEHOLDS

This chapter presents general population and social characteristics of respondents of the study. It discusses the composition of the population on age, sex, caste/ethnic composition, and household size nuptial or marital status, population absent of household under demographic and social attributes. Further discussion is made about birth registration status of all population, status of getting citizen certificates by population age 16 and above and proportion of population with some types of disability and their types.

4.1 Demographic Characteristics

Age and sex composition, caste/ethnicity, household/family size, marital status and migration (household absenteeism) status of the household population.

4.1.1 Age and Sex Composition

Of all the characteristics of human populations, age and sex are the most important, relevant and are referred as "the demographic variables" (Bogue 1969). The demographic processes of fertility, mortality, and migration produce the population's age and sex structure and the age and sex structure influences the demographic processes. Age and sex structure reflects the size of population entering into the school education, labour force, need of age and sex specific health facilities. Therefore, the importance of age and sex extends considerably beyond demography. It is equally important to calculate food and calorie requirements, poverty headcounts and the like. Age and sex structure of the population also is predictive factors for market behaviours and business activities – shifting consumer behaviour by shift in age and sex composition of population.

If the proportionate share of population in the base years (0-4 or 5-9 years) is highest of all subsequent higher ages, population is characterized as with high infant and child mortality and fertility. On other, if its proportionate share is declining, implies substantial decline in infant and child mortality and thereby fertility. Such decline in fertility allows an upward shift in age composition of population – leading toward the times of 'demographic dividend'. This is well reflected from the age composition of the household population of the study presented in Table 4.1. Clear to see from the table is that fertility in the recent most five-year period has declined substantially

compared to past five to twenty-five years' period. Since, proportion of population born during last five-year period (age group 0-4 years) is less than eight percent, which is bit above 10 percent of those born during past five to ten years; nearly 12 percent of those born during past 10 to 15 years, 12 percent born during past 15 to 20 years and about 11 percent born during past 20 to 25 years.

Table 4. 1: Age and Sex Distribution of Household Population (%)

Five Year	PAF Household Survey, 2018*				NDHS, 2017**			
Age Groups	Male	Female	Total	Sex Ratio	Male	Female	Total	Sex Ratio
00-04	7.5	8.2	7.8	95.3	12.2	9.2	10.6	112.5
05-09	10.1	10.3	10.2	101.9	12.0	10.2	11.1	99.8
10-14	11.5	12.0	11.7	98.9	13.6	11.3	12.3	102.1
15-19	12.5	11.5	12.0	112.8	9.9	10.4	10.2	80.8
20-24	11.0	10.1	10.6	112.5	6.8	9.4	8.2	61.4
25-29	8.4	8.2	8.3	105.3	5.5	8.3	7.0	49.6
30-34	6.5	6.8	6.7	100.0	5.6	7.2	6.5	66.0
35-39	6.5	6.7	6.6	100.6	5.3	6.5	6.9	69.2
40-44	5.3	5.6	5.4	99.0	5.0	5.4	5.2	78.6
45-49	5.4	5.3	5.3	106.5	4.7	4.3	4.5	92.7
50-54	4.4	5.1	4.7	89.7	4.7	4.8	4.7	83.1
55-59	3.7	3.6	3.6	106.8	4.0	3.5	3.8	97.0
60-64	2.8	2.3	2.6	125.8	3.2	3.3	3.2	82.3
65-69	1.9	1.6	1.7	124.3	2.8	2.3	2.5	103.3
70-74	1.4	1.8	1.6	84.0	2.5	2.0	2.2	106.1
75+	1.2	1.1	1.2	115.4	2.2	1.8	2.0	103.7
	100.0	100.0	100.0	103.8	100.0	100.0	100.0	84.8
Total	7,305	7,040	14,345		21,487	25,326	46,814	
Median Age	23.0	23.0	23.0		20.2	20.9	20.6	

*Source: PAF Household Survey, 2018, ** MoHP, 2017*

This shifting pattern in age composition of the household population holds typically true for both male and female population. However, excess of girls over boys at the age 0-4 years as indicated by the value of sex ratio at birth (ratio between boys to girls) indicated no context of missing girls in the study population. However, the sex ratio of the total population 103.8 indicated that, there is excess of 4 male populations over per 100 female populations among the study population. By five-year age group, deficit of male over female is seen in 0- years, 10-14 years, 40-44 years, 50-54 years and 70-74 years, and in other age groups there appears excess of male over female population. However, the sex ratio based on NDHS data shows that female deficit is

observed high among some age group of female population (0-4, 10-14 and 65 years and above).

The survey data is compared with the 2016 Nepal Demographic and Health Survey (MoHP, 2017) graphically in Figure 4.1 and Figure 4.2.

Figure 4.1: Pyramid Showing PAF Household Population, 2018

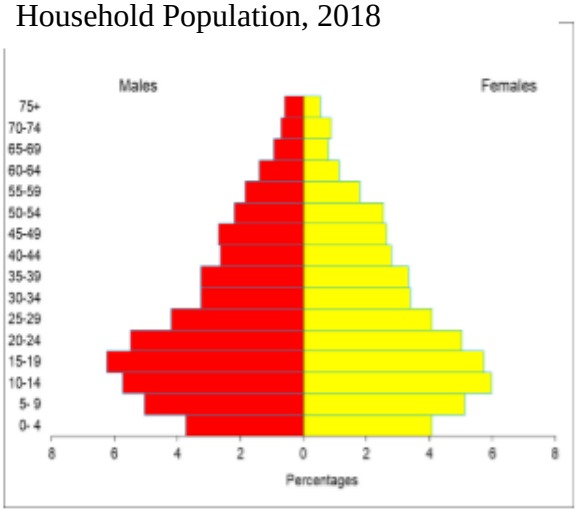
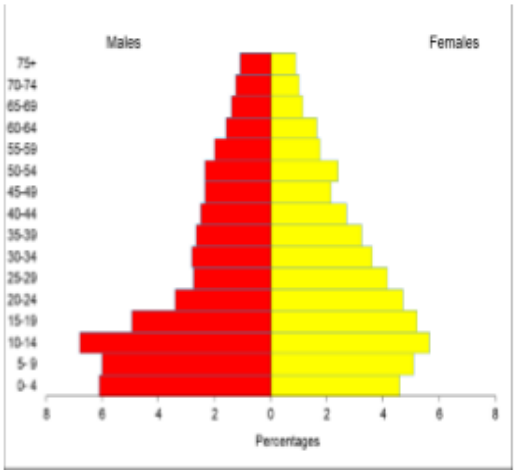


Figure 4.2: Pyramid showing NDHS population, 2017



(Source: PAF, 2018)

Review of the median age of the population indicated the population to be of intermediate age composition. Since, theoretically it has been said that if median age falls below 20 years, population is of young age structure, and if it is 30 and above population is of old age structure and if it is in between 20 and 30 intermediate age structure. As shown in Table 4.2, the median age lies between 20 and 30 years for both studies, suggesting the intermediate age structure of the population is evident.

As discussed in the Chapter III, Nepal is a multi-ethnic, multi-cultural, multi-religious, and multi-lingual country. Until quite recently no anthropological/ sociological survey has been carried out in Nepal to identify different ethnic and caste groups and their cultures. Due to gap in various sources of data (e.g. CBS, 2012; among others), the number of ethnic/caste groups differs from one source to another. Only 60 ethnic/caste groups in the 1991 census, 100 ethnic/caste groups were further identified in the 2001 census and the list of ethnic/caste groups was 125 in the 2011 census. The Adibasi/Janajati Uthan Prathistan provided a list of 59 cultural groups within the Adibasi/Janajati category alone. A Technical Committee formed by Adiabsi/Janajati Pratisthan further updated this list to 81 groups The Dalit Ayog listed 22 separate cultural groups within Dalits. A Technical Committee formed by the Rastiya Dalit Ayog further updated the list of Dalits, adding 7 more groups in the

Dalit category, making a total of 29 cultural groups within Dalits. The Government identified 92 cultural groups as "Madhesi" in Nepal, although this list is vague as many of these groups are listed under the Madhesi Dalit and Adibasi/Janajati categories. The "Other Backward Caste" Committee listed 24 Madhesi groups in addition to high caste Hindu Madhesi and Dalits in the Tarai. The current study also adopted a similar questionnaire of CBS (CBS, 2012) to record the caste/ethnic composition and then categorized as shown in Table 4.2. The study surveyed highest number of households of disadvantaged Janajati communities (about 32%), followed by Dalit (about 30%) and Brahman/Chhetries (21%).

Table 4. 2: Caste/Ethnic Composition of Survey Households and Populations

Caste/Ethnicity	**Survey HHs**		**Population in the HHs**		**Family**
	N	**%**	**N**	**%**	**Size**
Relatively Disadvantaged Janjati	836	31.5	433	30.2	5.2
Dalit	794	29.9	4,321	30.1	5.4
Brahman/Chhetry	565	21.3	3,101	21.6	5.5
Disadvantaged Non-Dalit Terai Caste	202	7.6	1,158	8.1	5.7
Relatively Advantaged Janjati	126	4.7	625	4.4	5.0
Muslim	74	2.8	474	3.3	6.4
Others	57	2.1	328	2.3	5.8
Total	2,654	99.9	14,345	100.0	5.4

Source: PAF Household Survey, 2018

On the contrary, the highest proportion of the household population is accounted to Relatively Disadvantaged Janjati communities (30.2%), followed by Dalit (30.1%) and Brahman/Chhetri communities (21.6%). The variation in proportion share of study households and population by caste/ethnic origin is explained by size of family. The average household size of the study population is 5.4, which is higher than in 2016 (MoH et al., 2017). It is highest (6.4%) for Muslim communities and lowest (5.0%) for Relatively Advantaged Janjati (Gurung, Thakli and Newar) communities.

Proportionate distribution of the household population by broader age group i.e. below age 15, in between 15 and 59 and 60 years and above is worthwhile to present to gain sense on the size of child dependents, and aged dependents to the population of active/productive ages. To the total population proportion of young age (below 15 years) consist bit below 30 percent, similarly, 63 percent share of the total population is taken by aged 15 and 59 years and it is about seven percent for the population aged 60 years and above (Table 4.3). The scenario of age composition of the study

population found to be in favour of working/productive age groups than the young age and old age dependents in comparison to the 2016 Nepal Demographic and Health Survey (MoHP et al., 2017). According to the survey result, the young population (under age 15) constituted about 34 percent; the old age population constituted about 10 percent and the proportion of working age constituted about 56 percent.

Young age structure of the population is seen to the Muslim communities, as revealed by the 42 percent share of population under age 15 and 18 years of median age. By residential characteristics, the population of Province No. 2 and Karnali province found to be of young age structure (consisting over 33 percent population below age 15) and relatively smaller value of median age.

Table 4. 3: Distribution of Household Population According to Broader Age Group and Dependency Ratio by Background Characteristics

Description	**Age Groups**				**Dependency Ratio**			**Median**
Ecological Region	0-14 Yr	15-59 Yr	60+	Total	Young	Old	Both	Age
Mountain	31.3	60.7	8.0	1,566	51.5	13.1	64.7	22.0
Hills	29.5	62.8	7.7	5,208	47.0	12.2	59.2	23.0
Tarai	29.5	64.0	6.5	7,571	46.2	10.1	56.3	23.0
Province								
Province 1	32.0	62.7	5.3	2,045	51.0	8.5	59.5	22.0
Province 2	35.5	58.0	6.4	2,515	61.3	11.1	72.4	20.0
Bagmati	24.3	66.6	9.1	1,839	36.5	13.7	50.2	26.0
Gandaki	23.7	66.7	9.6	1,782	35.5	14.4	49.9	25.0
Lumbini	29.6	63.2	7.3	2,006	46.8	11.5	58.3	24.0
Karnali	33.2	61.5	5.2	1,850	54.0	8.5	62.6	21.5
Sudurpaschim	27.7	65.3	7.0	2,308	42.4	10.7	53.2	22.0
Caste Ethnicity								
Relatively Disadvantaged Janjati	25.9	66.3	7.8	4338	40.6	13.6	54.2	25.0
Dalit	32.7	64.3	7.3	3,101	55.5	9.0	64.5	21.0
Brahman\Chhetry	28.4	64.3	7.3	3,101	44.2	11.4	55.6	23.0
Disadvantaged Non-Dalit Terai Caste	32.4	60.9	6.7	1,158	53.2	11.1	64.3	22.0
Relatively Advantaged Janjati	27.0	62.2	10.7	625	43.4	17.2	60.7	27.0
Muslim	41.8	51.9	6.3	474	80.5	12.2	92.7	18.0
Others	32.0	60.4	7.6	328	53.0	12.6	65.7	23.0
Total	29.7	63.2	7.1	14,345	47.0	11.2	58.2	23.0

Source: PAF Household Survey, 2018

Ageing process of population seems to be accelerated in Gandaki and Bagmati; among the Relatively Advantaged Janjati communities and among the disadvantaged Janajati communities. Since, proportionate share of the population aged 60 and above for these attributes accounts for about nine percent and higher (10.7% in case of Gurung/Thakali/Newar communities) and median age 25 and above. The median age

divides population into two-halves, first halves below of the age and second halves above of the age.

The age-dependency ratio is the ratio of people in the "dependent" ages (those under age 15 and ages 60 and older) to those in the "economically productive" ages (15 to 59 years) in a population (CBS, 2012). The age-dependency ratio is often used as an indicator of the economic burden the productive portion of a population must carry. This sort of measure consider all populations aged in between 15-59 as active/productive, even some of them are dependent and all population below 15 and above 60 as dependent/unproductive even though they are 'active/productive' in practice. The value of young age dependency ratio (number of population under age 15 to per 100 population aged 15-59 years) 47 implied that on the whole 100 populations of working age have to support for 47 young age dependents. On the other hand, per 100 of working age population have to bear the burden of about 11 aged populations. As shown in Table 4.3, on the whole per 100 population of active/productive ages have to bear the burden of 58 age dependents, which is lower than that of national figure of 78.6 percent (MoHP, 2017)

The overall age dependency ratio is extremely high (93%) among the Muslim communities followed by in Province No. 2 (>72%). It is lowest for Disadvantaged Janajatis (around 54%) and in Bagmati and Gandaki (about 50%).

4.1.2 Household Headship and Family Size

Throughout the literature the data on household headship and family size have been documented (CBS, 2002, 2012; MoHP, 2007, 2012, 2017). The survey operationally defined household head as 'any person of either sex if is responsible for management of daily family matters at the time of survey, and she/he is doing it for more than six months'. Accordingly, the household roster asked to enter the name and attributes of household head in the first row and then her/his spouse in second, first daughter/son in third row and the like. The related information presented in Table 4.4 clearly envisaged that nearly three-fourth of the households is headed by male member and the rest one-fourth by female member.

Table 4. 4: Distribution of the Study Households According to Sex of Household Heads

Background Characteristics	Male		Female		Total	
	N	%	N	%	N	%
Ecological Region						
Mountain	265	88.3	35	11.7	300	100.0
Hill	741	71.5	295	28.5	1036	100.0
Terai	976	74.1	342	25.9	1318	100.0
Province						
Province 1	328	86.3	52	13.7	380	100.0
Province 2	319	76.1	100	23.9	419	100.0
Bagmati	294	77.4	86	22.6	380	100.0
Gandaki	230	64.2	128	35.8	358	100.0
Lumbini	228	60.2	151	39.8	379	100.0
Karnali	307	85.5	52	14.5	359	100.0
Sudurpaschim	276	72.8	103	27.2	379	100.0
Caste Ethnicity						
Relatively Disadvantaged Janjati	609	72.8	227	27.2	836	100.0
Dalit	569	71.7	225	28.3	794	100.0
Brahman\Chhetry	463	81.9	102	18.1	565	100.0
Disadvantaged Non-Dalit Terai Caste	167	82.7	35	17.3	202	100.0
Relatively Advantaged Janjati	82	65.1	44	34.9	126	100.0
Muslim	59	79.7	15	20.3	74	100.0
Others	35	61.4	22	38.6	57	100.0
Total	1,982	74.7	672	25.3	2,654	100.0

Source: PAF Household Survey, 2018

Share of female headed households is lowest (<12%) in Mountain and it is above 28 percent in Hills. Extent of female headed households is low as 14 percent in Provinces 1 and Karnali. On the contrary, it is nearly 40 percent in Lumbini and 36 percent in Gandaki. The female head among PAF intervention households is accounted for about 25 percent, which is slightly lower than in 2016 (around 31%: MoHP et al. 2017). By caste/ethnicity, above 25 percent households are headed by females among Others, Relatively Advantaged Janjati, Dalit, and Relatively Disadvantaged Janajatis communities. Its extent is as low as 18 percent for Tarai caste and Brahman/Chhetry communities.

As shown in Table 4.5, on average one study household consists of bit more than five members, which is higher than in 2016 - 4.2 members (MoHP, 2017). Besides, about 41 percent households are of five to six members, 37 percent of up to four persons and about 23 percent of persons seven and more. Households of Province 2 and Sudurpaschim and of Muslim communities consist on average of six or more members.

Table 4. 5: Percentage Distribution of the Study households according to Family Size

Background Characteristics	<=4 Persons	5-6 Persons	7 and More	Average HH Size	Total (N)
Sex of HH Head					
Male	33.8	40.7	25.5	5.6	1,983
Female	45.2	40.1	14.8	4.9	671
Ecological Region					
Mountain	35.3	43.7	21.0	5.2	300
Hills	36.3	39.0	24.8	5.4	957
Tarai	37.2	41.0	21.8	5.4	1,397
Province					
Province 1	36.1	41.3	22.6	5.4	380
Province 2	25.5	41.8	32.7	6.0	419
Bagmati	49.5	36.6	13.9	4.8	380
Gandaki	45.0	38.3	16.8	5.0	358
Lumbini	42.2	37.2	20.6	5.3	379
Karnali	36.5	46.0	17.5	5.1	359
Sudurpaschim	23.5	43.0	33.5	6.1	379
Caste Ethnicity					
Relatively Disadvantaged Janjati	42.0	38.9	19.1	5.2	262
Dalit	35.8	41.2	23.0	5.4	307
Brahman\Chhetry	33.8	41.8	24.4	5.5	565
Disadvantaged Non-Dalit Terai Caste	26.7	46.5	26.7	5.7	202
Relatively Advantaged Janjati	47.6	37.3	15.1	5.0	126
Muslim	16.2	44.6	39.2	6.4	74
Others	36.8	26.3	36.8	5.8	57
Equity Quintiles					
Poorest	35.2	41.0	23.8	5.3	940
Poor	35.6	40.4	24.0	5.5	759
Middle	37.2	40.5	22.2	5.5	454
Rich	40.7	40.5	18.8	5.2	430
Richest	39.4	38.0	22.5	5.5	71
Total	36.7	40.6	22.8	5.4	2,654

Source: PAF Household Survey, 2018

Household size tends to be lower in Bagmati and Gandaki that of Relatively Advantaged Janjati communities and female headed ones. Information on household size is relevant to compute indices of housing condition poverty, since, if more than three persons share one room for living, is considered to be in housing condition poverty or crowding living condition.

4.1.3 Nuptiality and Marital Status

A number of studies (CBS, 2015; MoHP, 2007, 2012, 2017) have been conducted to understand marriage or nuptiality characteristics of any population in general that determine fertility level and there by age and sex composition. If highest proportion of population age five or ten years and above is marital union, would live longer years of

reproductive ages exposed to fertility and vice-versa in case of higher proportion of unmarried population. Hence, it is important to collect information on marital status of the population taking a threshold age for it. The survey asked information on marital status of all family members aged five years and above and under five categories as unmarried; currently married, widow/widower, divorced and separated.

The obtained information presented in Table 4.5 clearly indicated that 54 percent of the populations above age five are currently in marital union, 42 percent are unmarried, some more than three percent are widow/widower and less than one and half percent are in divorced or separated state. Proportion currently married seems relatively to be high in Tarai region (56%) than that of hills (52%) and Mountains (54%). The higher proportion of currently married in Tarai is compensated by the correspondingly lower proportion of unmarried in the region. This pattern holds typical in Bagmati and Gandaki; disadvantaged Janajatis (40.5%) and for females (38.2%).

Ninety-nine percent population of the young age (<15 years) found to be unmarried, it is 27 percent for the population aged 15-59 years. On the contrary, 71 percent of the age group 15-59 is in currently married status. As obvious, 27 percent of aged 60 years and above are in the state of widow/widower, which is below two percent in case of age group 15-59 years. Proportion unmarried tends to be higher for males (46%) against 38 percent of female and the vice-versa in case of currently married.

According to the 2016 Nepal Demographic and Health Survey (MoHP, 2017), more than three-quarters of women age 15-49 are currently married (77%), as compared with two-thirds of men (66%). One in every three men (33%) and 21% of women have never been married. The percentage of never-married women age 15-49 increased from 17% in 1996 to 21% in 2016. The proportion of young women age 15-19 who have never been married has also increased (from 56% to 73%), indicating a trend toward later marriage among women in the country.

Table 4. 6: Percent Distribution of Household Population Age Five Years and Above according to Marital Status

Background Characteristics	Unmarried	Married	Widow/ widower	Divorced/ Separated	%	Total N
Sex						
Male	45.6	52.7	1.6	0.1	100.0	6,758
Female	38.2	56.3	5.3	0.2	100.0	6,466
Broader Age Group						
0-14 Yrs	99.0	1.0	0.0	0.0	100.0	3,143
15-59 Yrs	26.7	71.1	1.9	0.2	100.0	9,066
60+Yrs	2.2	70.9	26.8	0.1	100.0	1,015
Ecological Region						
Mountain	42.6	54.3	2.9	0.1	100.0	1,435
Hills	44.1	52.2	3.6	0.1	100.0	4,809
Tarai	40.4	56.0	3.4	0.2	100.0	6,980
Province						
Province 1	45.5	53.2	1.2		100.0	1,865
Province 2	42.3	54.2	3.4	0.1	100.0	2,274
Bagmati	37.8	58.9	3.2	0.2	100.0	1,710
Gandaki	39.6	55.4	4.7	0.3	100.0	1,690
Lumbini	42.3	53.6	4.0	0.1	100.0	1,855
Karnali	43.5	52.7	3.7	0.1	100.0	1,711
Sudurpahim	42.6	53.6	3.6	0.3	100.0	2,119
Caste Ethnicity						
Relatively Disadvantaged Janjati	40.5	56.0	3.3	0.2	100.0	4,041
Dalit	42.5	53.7	3.7	0.2	100.0	5,938
Brahman\Chhetry	42.6	54.3	2.9	0.1	100.0	2,870
Disadvantaged Non-Dalit Terai Caste	42.9	53.4	3.7	-	100.0	1,054
Relatively Advantaged Janjati	41.2	54.6	4.3	-	100.0	588
Muslim	48.2	49.5	2.3	-	100.0	434
Others	40.8	55.5	3.7	-	100.0	299
Total	42.0	54.4	3.4	0.2	100.0	13,224

Source: PAF Household Survey, 2018

4.1.4 Current Residence and Migration

Until quite recently attention has generally focused on economic, social, and to a lesser extent, cultural factors to model human migration theoretically and study it empirically. Migration is a widely studied topic in Nepal. The first major sample survey in Nepal on internal and international migration was carried out in 1983. A number of studies on internal migration have been conducted by geographers, economists, and demographers to show the effect of population pressure on resources in Nepal. The Nepal Labour Force Survey (NLFS) measures migration patterns which are captured between provinces (inter-municipal migration) as well as between Nepal and other countries (international migration) (CBS, 2019).

Table 4. 7: Percent Distribution of Household Population According to Current Residence Status

Background Characteristics	% Currently Out of Home	Total (N)	Duration of absence in Months			Total absent 60+ Months)	Mean months of absence
			6-12 Mths.	13-35 Mths.	36+ Mths.		
Sex							
Male	22.1	7,305	46.2	31.1	22.7	1,256	25.7
Female	5.9	7,040	41.1	23.7	35.2	355	33.3
Broader Age Group							
0-14 Yrs	5.8	4,264	41.2	19.6	39.2	194	33.9
15-59 Yrs	19.5	9,066	45.4	31.0	23.6	1,404	26.6
60+Yrs	1.7	1,015	69.2	15.4	15.4	13	14.5
Ecological Region							
Mountain	12.2	1,566	19.3	27.7	53.0	166	39.7
Hills	17.6	5,208	46.2	32.1	21.7	760	26.6
Tarai	12.2	7,571	50.1	27.0	22.9	685	25.3
Province							
Province 1	9.7	2,045	47.3	33.3	19.4	165	24.3
Province 2	15.0	2,515	58.0	20.0	22.0	255	22.5
Bagmati	14.7	1,839	23.8	39.6	36.7	240	32.2
Gandaki	14.3	1,782	40.5	19.4	40.1	222	37.6
Lumbini	16.7	2,006	53.5	26.7	19.8	258	22.4
Karnali	9.4	1,850	34.8	56.0	9.2	141	21.0
Sudurpaschim	18.3	2,308	50.3	25.2	24.5	330	28.8
Caste Ethnicity							
Relatively Disadvantaged Janjati	13.4	4338	58.3	23.0	18.7	583	19.1
Dalit	14.7	4321	50.3	27.2	22.5	635	24.9
Brahman\Chhetry	14.2	3,101	51.3	31.4	17.4	357	22.3
Disadvantaged Non-Dalit Terai Caste	11.7	1,158	59.0	13.0	28.0	100	26.0
Relatively Advantaged Janjati	18.4	625	22.1	22.1	55.8	95	58.9
Muslim	16.7	474	65.4	21.2	13.5	52	16.1
Others	13.4	328	38.7	35.5	25.8	31	25.8
Total	14.2	14,345	45.1	29.5	25.5	1,611	27.4

Source: PAF Household Survey, 2018

An attempt to determine the extent of household absent population is made based on the obtained information on current residing status of each and every family member in the household. If any member is absent of home at present, subsequent question is asked for how long she/he is out. If anyone is absent for more than six months from home, is counted as absentee or migrated out population from home. It was imperative to collect information on absentee population to calculate the size of population migrated from home for work/employment (within country or abroad) and remittance received in the home/family during last 12 months from the labour migrant

member. The absentee related information presented in Table 4.7 showed a 14 percent population is out of home at the time of survey.

Extent of the household absent population is about 18 percent in Hill region and 12 percent each in Mountain and Tarai regions. It is highest in Sudurpaschim (18%) followed by Lumbini (about 17%) and below 10 percent to the total household population in Provinces 1 and Karnali. By caste/ethnicity around 18 percent family members of Gurung/Newar and Thakali communities, followed by 17 percent of Muslim communities and about 14 percent of Dalits and found absent from home at the time of survey. Less migratory characteristics is seen among other Tarai castes (11.7 %) and Disadvantaged Janajatis (13.4%).

Distribution of the population out of home for more than six months is classified according to duration of absence as six months to one year, one year to within three years, and three years and more (in months). The distribution revealed that 45 percent are absent of home for less than one year, about 30 percent are absent for more than one year to less than three years (13-35 months) and about one-fourth for more than three years. The average duration of absence is about 27 months.

The average duration of absence of the absentee population is longest in Mountain region (about 40 months) and lowest in Terai (25 months). Longest duration of absence of household absentee population at provinces level is seen in Gandaki, followed by Bagmati and it is shortest in Karnali, followed by Bagmati. Similarly, it is longest for absentees of Gurung/Newar and Thakali communities (59 months) and shortest for Muslims (16 months) followed by Relatively Disadvantaged Janajati communities.

According to NLFS (CBS, 2019), about 36 percent of the total population were lifetime migrants. The survey further identified that internal migration accounted for a larger share of total migration in Nepal, with 91.9 percent migrating from one municipal to another within Nepal and 8.1 percent of migrants coming from outside Nepal. Of the migrants currently residing in urban areas, 87.9 percent had moved from rural parts of Nepal, 4.8 percent from other urban areas and 7.4 percent from outside Nepal. A similar picture was observed for those currently residing in rural areas, where a larger proportion (86.8 percent) of migrants had moved from a rural area (rural to rural migration); 3.1 percent had moved from urban areas to rural areas

and 10.1 percent had moved from another country. This pattern was also observed within different sexes

4.1.5 Birth Registration and Citizenship Certificate

The first citizenship Act was enacted on May 8, 1952, laying down formally for the first time the qualifications of becoming a Nepali citizen. The Act specified that the following persons born in Nepal; persons whose father or mother was born in Nepal; and persons with permanent residence in Nepal living with their families could acquire the citizenship of Nepal. Quite remarkably, article 10(1) of the Constitution of Nepal (GoN, 2015) recognized acquisition of citizenship as a right of all Nepali citizens. Additionally, Article 10 (2) states that there will be a single federal citizenship with provincial identity.

Similarly, Nepal has a legal and administrative structure stipulating official registration of births according to standard procedures. The practice of formally registering births is not widely adhered to in the country, even though the registration system was implemented about 36 years ago and is enforced through the Births, Deaths and Other Personal Events (Registration) Act of 1976.

Table 4. 8: Distribution of Household Population According to Birth Registration Status

Background Characteristics	Birth Registration			Total		Age 16+ population with Citizenship Certificate			Total	
	% Yes	% No	% DK	%	Num	% Yes	% No	% DK	%	Num
Sex										
Male	59.1	38.4	2.5	100.0	7,305	89.3	10.6	0.1	100.0	4,977
Female	55.6	41.4	3.0	100.0	7,040	84.2	15.7	0.1	100.0	4,714
Broader Age Group										
0-14 Yrs	91.5	8.3	0.3	100.0	4,264	-	-	-	-	0
15-59 Yrs	47.1	49.5	3.4	100.0	9,066	85.5	14.4	0.1	100.0	8,676
60+Yrs	6.0	86.4	7.6	100.0	1,015	98.1	1.8	0.1	100.0	1,015
Ecological Region										
Mountain	60.4	35.9	3.7	100.0	1,566	90.8	9.0	0.2	100.0	1,033
Hills	54.2	43.3	2.4	100.0	5,208	86.1	13.6	0.2	100.0	3,525
Tarai	58.9	38.3	2.8	100.0	7,571	86.5	13.5	0.0	100.0	5,133
Province										
Province 1	69.3	27.3	3.4	100.0	2,045	81.7	18.2	0.1	100.0	1,328
Province 2	57.6	38.5	3.9	100.0	2,515	85.6	14.4	0.1	100.0	1,551
Bagmati	52.5	46.5	1.0	100.0	1,839	89.6	10.3	0.1	100.0	1,358
Gandaki	64.5	32.0	3.4	100.0	1,782	89.9	10.0	0.2	100.0	1,306
Lumbini	57.4	41.7	0.8	100.0	2,006	85.7	14.1	0.2	100.0	1,359
Karnali	52.3	42.3	5.4	100.0	1,850	90.3	9.6	0.1	100.0	1,184
Sudurpaschim	49.0	49.7	1.4	100.0	2,308	85.7	14.1	0.2	100.0	1,605
Caste Ethnicity										
Relatively Disadvantaged Janjati	59.0	39.2	01.9	100.0	4338	88.0	11.8	0.1	100.0	3100
Dalit	55.1	41.4	3.5	100.0	4321	85.0	14.9	0.1	100.0	2789
Brahman\Chhetry	52.5	44.5	3.0	100.0	3,101	88.5	11.3	0.2	100.0	2,135
Disadvantaged Non-Dalit Terai Caste	66.8	30.2	3.0	100.0	1,158	84.8	15.2	-	100.0	749
Relatively Advantaged Janjati	52.8	44.0	3.2	100.0	625	88.4	11.1	0.5	100.0	440
Muslim	73.2	25.3	1.5	100.0	474	82.5	17.5	-	100.0	263
Others	64.6	32.6	2.7	100.0	328	85.1	14.9	-	100.0	215
Total	57.4	39.9	2.8	100.0	14,345	86.8	13.1	0.1	100.0	9,691

Source: PAF Household Survey, 2018

Awareness of the households in getting basic documents that guarantees citizenship rights of each member of family is attempted to know through the status of having birth registration certificate and getting citizenship certificate by members aged 16 years and above. The obtained information presented in Table 4.7 clearly revealed that 57 percent of the household populations have done birth registration. Status of getting a birth registration certificate is 60 percent in Mountain and 54 percent in Hill

regions. Similarly, its extent is 69 percent in Province 1 and lowest 49 percent in Sudurpaschim.

Status of getting birth registration is highest, 73 percent in Muslim community, followed by Tarai caste group communities (67%) and it is lowest Brahman/Chhetry communities (about 53%). As obvious, birth registration is above 91 percent for children under age 15 and it is mere six percent for the population aged 60 years and above.

Further it has been found that about 87 percent of the population aged 16 and above have had taken citizenship certificate. Extent of the population getting citizenship certificate is above 90 percent in Mountain and 86 percent each in Hill and Tarai regions. Similarly, its extent is highest in Karnali (90%) followed by Gandaki and Bagmati and lowest in Province 1 (82%). Getting citizenship certificate on time is seen relatively better (above 88%) among Disadvantaged Janajatis; Brahman/Chhetry; and Gurung/Newar and Thakali communities. Getting citizenships certificate is more common for male (89.3%) than females (84.2%) and for the population of higher ages (85.5% for 15-59 years and 98.1% for 60 and above years). According to the 2016 Nepal Demographic and Health Survey, there has been an improvement in birth registration over the past 5 years. Forty-two percent of births were registered in 2011, as compared with 56 percent in 2016 (MoHP, 2017).

4.2 Determining Living Standard Poverty

Methodology to measure multidimensional poverty by Alkire & Foster (2007; 2011) has logically given one-third weight in counting poverty and drawing poverty line beyond the scope of one-dimensional income line approach. It includes ranges of wellbeing related indictors at household level, satisfaction of which is expected to raise the condition of all members in the family. Such includes housing condition, lighting, water and sanitation, types of fuel used, ownerships and possessions of basic household assets. It further includes land and livestock ownerships and their valuation at current market prices.

4.2.1 Assessment of Living Standard

Of the six indicators used to measure poverty from living standard dimension the Alkire & Foster (2007; 2011) methodology has taken and suggested to take 'flooring[2]'

[2]Poor if the floor is dirt, sand, or dung.

of housing unit in which the family is living to measure poverty or wellbeing in terms of hosing condition. Following the same methodological instances, the Nepal Multidimensional Poverty Index study by NPC & OPHDI (2018) used composites of 'flooring' and 'roofing'[3] standards of the households to ascertain whether the household is poor or not in terms of housing condition/standard. Both of these seem to forget other three basic fundamental indicators of housing associated to safety and protection (wall), health/hygiene and sanitation (separate kitchen) and maintenance of privacy and crowding (persons per room). Since, condition of outer wall of a house is believe provide to protection to a family from outside invasion, thieves, extreme weathers (storms, winds) and the like, having separate kitchen room is associated to maintenance of health hygiene and inside sanitation of households from kitchen produced smokes, gases and tars. Accordingly, if a room is shared by more than three persons (Alkire and Roche, 2011; Delamonica, Minujin, Davidziuk and Bonzalez, 2006; Delamonica, and Minujin, 2007) is considered as overcrowding in living condition – especially for child poverty.

Therefore, this study has proposed to use five housing condition related indicators to come up with a single composite indicator as shown in Table 4.9. The first five columns in the table present data on percentage households that meet the standard of the indicator. For instance, over 78 percent households are living in a housing unit/dwelling with an outer-wall in good condition, 88 percent households live in dwelling with good flooring condition (either daily cleaned/swept or not made of mud, sand or dung. Similarly, 61 percent households have separate kitchen room; condition of roof of nearly 80 percent household's dwelling unit is in good condition and one sleeping room is shared by three persons or less in nearly 85 percent cases.

Wall of the main housing unit of the study household is considered as poor if it is made off unbaked bricks, bamboo strips and branches, clay/husks, unspecified others or if it has no outer wall; housing condition is taken as poor if it has no separate kitchen room and further considered to be poor if one sleeping room is shared by more than three members in the family. On the whole, a household is categorized as living in poor housing condition if it is found poor in more than one of the five indicators of observation.

[3]Poor 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).

Table 4. 9: Percentage Households According to Good Condition of Main Housing Unit in Wall, Roof, Flooring, Separate Kitchen Room, and Sharing One Room

Background Characteristics	Good Wall	Good Floor	Separate Kitchen	Good Roof	<3 person	Poor Condition	Total
Sex of HH Head							
Male	76.8	90.0	63.5	78.5	84.0	30.3	1,983
Female	83.3	82.3	55.3	82.4	86.4	28.3	671
Ecological Region							
Mountain	99.0	89.3	66.0	60.0	85.7	30.7	300
Hills	97.2	84.3	49.8	77.5	79.3	31.5	957
Tarai	61.1	90.3	68.4	85.0	88.0	28.5	1,397
Province							
Province 1	35.0	88.9	59.7	49.2	75.3	60.3	380
Province 2	45.8	92.6	61.3	91.9	77.1	35.1	419
Bagmati	92.4	96.8	69.2	96.3	88.7	9.7	380
Gandaki	98.9	96.4	63.4	92.7	81.0	16.2	358
Lumbini	97.4	69.7	54.4	74.1	88.9	31.7	379
Karnali	99.2	87.7	57.9	55.2	99.2	30.1	359
Sudurpaschim	86.0	84.2	63.9	95.0	83.6	24.3	379
Caste Ethnicity							
Relatively Disadvantaged Janjati	83.4	85.4	66.0	80.1	87.0	26.6	836
Dalit	73.3	85.4	53.1	75.6	80.6	39.7	794
Brahman\Chhetry	95.2	89.2	63.9	74.0	91.5	22.8	565
Disadvantaged Non-Dalit Terai Caste	39.6	95.5	68.3	95.0	84.2	28.2	202
Relatively Advantaged Janjati	97.6	96.8	54.0	85.7	74.6	21.4	126
Muslim	21.6	94.6	66.2	94.6	70.3	43.2	74
Others	78.9	98.2	70.2	89.5	80.7	15.8	57
Equity Quintiles							
Poorest	94.1	78.7	48.1	62.3	78.5	41.6	940
Poor	63.1	91.8	63.2	80.9	81.3	33.6	759
Middle	65.2	91.0	72.5	91.6	91.4	22.2	454
Rich	83.0	96.7	74.4	98.1	94.7	9.3	430
Richest	90.1	100.0	69.0	100.0	97.2	5.6	71
Total	78.4	88.1	61.4	79.5	84.6	29.8	2,654

Source: PAF Household Survey, 2018

The sixth column on the Table 4.9 shows nearly 30 percent of the study households are estimated to be in housing poverty i.e. living in a housing unit that is poor in two or more of the five attributes taken under consideration. Poor living standard from the view point of housing condition is relatively high in Hill than Mountain and Tarai regions; it is unexpectedly high in Province 1 (above 60%). Housing condition poverty is above the average (30%) for Dalits, Muslims and Janajatis and for the households belonging to the bottom of equity quintile. Better living standard of all, in

terms of housing condition is seen in Bagmati and households categorized as rich and richest in equity-quintile classifications (below 10%).

Alkire and foster methodology of accounting multidimensional poverty proposed to construct a composite of six assets ownership related indicators as one of six indicators of living standard poverty. The same approach is used to compute Nepal Multidimensional Poverty Index in the study by NPC &OPHDI (2018). This study also found relevant to remain intact in computing assets ownership composite of living standard poverty (5.5% weight in MPI). Such six assets taken into measures are ownership of television (TV), radio, telephone (landline and mobile), bicycle, refrigerator or motorcycle/scooter and any one of the car/van/bus/truck/tractor or any other four-wheeler vehicle.

Studies have taken ownership of television or radio as means of access to information to alleviate family from information poverty. Its importance in alleviation of childhood poverty from information dimension is highly accorded (Gordon, Nandy, Pantazis, Pemberton and Townsend, 2003). Of the eight indicators of measurement of childhood deprivation, the seventh indicator 'Information' accorded household's affordability to newspapers and books, ownership of radio and television is taken to measure mild, moderate, severe and extreme poverty. For instance, if household cannot afford newspapers or books labelled as children in mild deprivation; if household cannot afford television but a radio labelled as in moderate deprivation; if household has no access to radio television or books or newspapers labelled to be in severe deprivation and if household is totally prevented from gaining access to information by government, etc. is labelled household in extreme deprivation (ibid). Similarly, telephone/phone is taken as means of communication and expansion of personal contacts. Bicycle/motorcycle/scooter is taken as means of local transportation and enhance of local level mobility to expand personal relations and social participation. Refrigerators are important assets for food safety and protection. For instance, most of the fresh but shortly perishable foods if kept in refrigerator in temperature below 5 degrees Celsius remain safe and fresh for long. Similarly, the cooked food is to be eaten after five or six hours of cooking, better to keep in refrigerator for its safety, the same is true in case of left-over foods. Car/van/bus/truck is taken as high value consumer durables.

Ownership status of these six assets by the study households presented in Table 4.9 revealed that about 35 percent households own a television set and 17 percent households own a radio set. On the contrary, 94 percent households own at least one sets of telephone or mobile phone (11 households own landline telephone and 2,484 i.e. 93.4% households own mobile phones). About one-third of the study households reported to have a bicycle and 13 percent own either refrigerator of motorcycle/scooter and less than half (0.3%) households reported to own any of a four wheeler motor vehicle. Ownership status of television, phone, bicycle and refrigerator/motorcycle/scooter is relatively better in Tarai region and it is in Mountain in case of radio.

On the whole, nearly 41 percent of the study household estimated of not owning more than one of the six assets. Its extent is nearly two-third in Hills, and 58 percent in Mountain and one-fifth in Tarai region. At provincial level, assets ownership poverty is as high as 58 percent in Gandaki followed by 56 percent in Karnali. It is lowest in Province 2 (19%) followed by one-third in Bagmai. By caste/ethnicity of the study households, three in every five (61%) disadvantaged Janajatis, followed by Brahman/Chhetries (50 %) found to be poor in asset ownerships. Its extent is as low as four and ten percent in case of Tarai Janajatis and Tarai caste communities. Poverty associated to assets ownership is higher by eight percentage points in female headed against male headed households. Proportion households afflicted to assets ownership poverty tends to decline with the increase in the ladder of equity quintile. For instance, the 76 percent households not owning more than one of the six assets of poorest equity level declines to 39, 14, 4 and below two percent as the equity quintile level rises respectively from poorest, poor, middle, rich and richest (Table 4.10).

Table 4. 10: Percent Households according to Ownership of TV, Radio, Phone (Mobile and Landline), Bicycle, Refrigerator or Motorcycle/Scooter, Car/Van/Bus/Truck and Not Owning More Than One

Background Characteristics	TV	Radio	Phone	Cycle	Ref/Scot	Vehicle	> 6	Total
Sex of HH Head								
Male	34.0	17.5	94.6	34.5	13.6	0.4	38.5	1,983
Female	36.4	14.9	92.3	27.7	10.4	0.1	46.6	671
Ecological Region								
Mountain	17.3	27.3	91.0	0.3	6.0	0.7	57.7	300
Hills	18.9	20.7	92.3	0.7	3.1	0.2	65.3	957
Tarai	49.0	12.0	95.8	61.7	20.8	0.4	20.0	1,397
Province								
Province 1	35.3	5.3	90.3	56.8	5.8	0.0	36.3	380
Province 2	43.2	2.6	95.2	67.5	22.0	0.5	18.9	419
Bagmati	44.5	29.2	95.8	35.5	23.2	0.5	33.4	380
Gandaki	28.8	21.2	94.4	4.7	6.1	0.3	58.1	358
Lumbini	37.5	21.9	96.0	18.2	12.7	0.8	42.2	379
Karnali	14.2	32.3	94.2	0.0	2.5	0.3	56.0	359
Sudurpaschim	36.4	8.2	92.1	39.6	15.3	0.0	43.3	379
Caste Ethnicity								
Relatively Disadvantaged Janjati	38.3	15.6	92.5	32.1	11.1	1.1	61.0	836
Dalit	32.5	15.7	91.2	34.5	6.7	0.4	19.5	794
Brahman\Chhetry	25.8	24.6	96.8	15.9	12.4	0.5	49.9	565
Disadvantaged Non-Dalit Terai Caste	53.0	3.0	97.0	76.7	23.8	0.5	10.4	202
Relatively Advantaged Janjati	41.3	31.7	96.8	9.5	15.1	0.8	40.5	126
Muslim	13.5	1.4	94.6	59.5	17.6	0.0	31.1	74
Others	43.9	12.3	98.2	47.4	33.3	0.0	22.8	57
Equity Quintiles								
Poorest	0.0	21.0	88.1	4.0	0.6	0.2	76.1	940
Poor	28.3	11.6	94.5	36.6	2.9	0.1	36.8	759
Middle	63.7	14.5	98.2	52.6	16.5	0.2	13.9	454
Rich	80.0	17.4	99.8	63.0	38.6	0.9	4.4	430
Richest	98.6	31.0	100.0	62.0	98.6	1.4	1.4	71
Total	34.6	16.9	94.0	32.8	12.8	0.3	40.6	2,654

Source: PAF Household Survey, 2018

Living standard poverty of study households is summarized in Table 4.11. From the Table, it is clear that 72 percent households have connected electricity, 54 percent households get water for household use from safe and improved sources. Source of water is considered as poor if it is from shallow hand pumps (private or public); open well (private or public), rain water stored, directly from river/ponds/streams or other open water bodies and from tanker/water vendors. It is considered as safe and protected if households get it from piped sources (private connected at home or public

tap); and deep hand pumps (private or public). Similarly, about 22 percent households found to use non-smoky fuel (bio-gas, LP gas, kerosene and the like) indicating nearly four-fifth households still depending on traditional smoky fuel for cooking and heating.

Table 4. 11: Percentage Households Connected Electricity, Getting Water from Improved System, Used Modern Non-Smokey Fuel for Cooking, have Built Toilet Facility

Background Characteristics	Elect-ricity	Safe Water	NS Fuel	Toilet	House > 6	% Poor	Tot	% Standard	Total
Sex of HH Head									
Male	72.4	54.9	20.5	69.8	69.7	61.5	48.9	1,983	49.2	11015
Female	72.4	50.8	24.7	74.5	71.7	53.4	49.5	671	51.2	3317
Ecological Region									
Mountain	66.3	96.7	10.0	77.7	69.3	42.3	46.0	300	44.4	1565
Hills	60.7	76.9	9.3	78.3	68.5	34.7	55.1	957	56.0	5203
Tarai	81.7	28.9	32.5	64.6	71.5	80.0	45.5	1,397	46.4	7564
Province									
Province 1	63.2	43.4	8.7	28.9	39.7	63.7	86.1	380	86.2	2043
Province 2	80.2	14.8	27.2	74.9	64.9	81.1	46.5	419	46.8	2513
Bagmati	75.5	57.1	46.1	74.2	90.3	66.6	27.6	380	28.1	1839
Gandaki	73.5	82.1	20.1	50.0	83.8	41.9	46.9	358	49.4	1781
Lumbini	72.6	60.7	18.5	79.4	68.3	57.8	50.1	379	50.8	2003
Karnali	63.2	94.7	4.5	97.8	69.9	44.0	41.8	359	40.7	1848
Sudurpaschim	77.6	32.2	24.5	91.8	75.7	56.7	43.8	379	44.1	2305
Caste Ethnicity									
Relatively Disadvantaged Janjati	73.9	54.4	21.9	66.7	73.4	56.8	51.2	836	52.1	4337
Dalit	68.4	50.9	21.8	67.9	60.3	58.9	55.7	794	55.9	4316
Brahman\Chhetry	64.6	75.6	15.8	94.2	77.2	50.1	39.1	565	40.7	3095
Disadvantaged Non-Dalit Terai Caste	89.6	11.9	28.2	58.9	71.8	89.6	50.5	202	50.8	1158
Relatively Advantaged Janjati	81.0	88.1	33.3	41.3	78.6	59.5	39.7	126	44.0	625
Muslim	78.4	0.0	12.2	56.8	56.8	68.9	79.7	74	75.9	473
Others	96.5	15.8	35.1	75.4	84.2	77.2	35.1	57	30.5	328
Equity Quintiles									
Poorest	51.6	75.5	-	80.1	58.4	23.9	67.7	940	68.1	5029
Poor	73.3	51.0	8.0	57.3	66.4	63.2	60.5	759	60.1	4153
Middle	90.5	39.9	23.6	64.5	77.8	86.1	38.5	454	40.1	2517
Rich	92.8	28.4	77.7	78.4	90.7	95.6	7.2	430	8.4	2244
Richest	100.0	42.3	100.0	94.4	94.4	98.6	0.0	71	0.0	389
Total	72.4	53.9	21.6	71.0	70.2	59.4	49.0	2,654	49.7	14,332

Source: PAF Household Survey, 2018

Over seven in ten households (71%) found to use toilet facility of either improved or of acceptable standard. Flush toilets connected to sewerage system and septic tank are considered as improved toilet facility; flush toilet connected to pit, flush toilet

connected to other places, slab connected air circulating improved pit latrine are considered as of acceptable standard. Households having pan installed slab covered pit latrine, pit latrine without slab, biogas composite connected toilet, bucket toilet and no toilet facilities are characterized as toilet poor. Likewise, nearly 70 percent of the study households live in a housing unit of minimum standard – characterized as non-poor and 59 percent own more than one of six assets in household – to be out of assets poverty.

Based on the 2011 Population Census (CBS, 2012), discrepancies in access to household amenities and facilities (such as radio, television, mobile phone, vehicles etc.) exist in different parts of the country. The coverage of improved source of drinking water has substantially increased. However, there was no substantial change in the use of solid fuel (firewood, leaves, cow-dung and agricultural residue) for cooking. On the contrary, the share of kerosene as cooking fuel has drastically decreased and the percentage of LPG users has significantly increased between the two censuses. Similarly, the coverage of kerosene as a source of lighting fuel has sharply declined during the census periods. Electricity is now a major source of lighting fuel and its coverage has significantly increased in 2011 compared to 2001. The coverage of toilet facilities has also increased during the period, exceeding 90% in urban areas. A higher disparity was observed in the possession of consumer durable goods and services among urban/rural, ecological zones and development regions.

On the whole nearly one-half of the study households and household population estimated to be in living standard poverty. Living standard poverty is ascertained following the same criteria of taking 33 percent cut-off score. Of the six, if a household gets 33 percent or more score to be poor (i.e. more than 2 of 6) are characterized as living standard poor. Living standard poverty is well above 50 percent in Hill regions, in Provinces 1 and 5; among Muslims, Dalits, Janajatis and Tarai caste communities and for the poorest and poor in equity quintiles.

4.2.2 Land and Livestock Ownership

Opulence of land asset, from the entitlement perspective draws attention of different basis of claims on resources which prevails in societies. In rural agrarian societies, ownerships of land assets in combination with household labur power (land and

labour endowments) determine possession of other tangible assets such as type of house, agricultural equipments, livestock, store of food and other consumer durables.

Table 4. 12: Percentage Distribution of Study Households According to Ownerships Status of Agricultural Land, Land in Female's Ownership and Average Size of Land

Background Attributes	% HHs with agri. Land	% HHs have land in female ownership	Total (N)	Average size of Land Holding	
				Total in HH	In Female's name
Ecological Region					
Mountain	91.3	13.5	300	0.389	0.169
Hills	79.4	17.5	957	0.303	0.082
Tarai	68.5	23.3	1,397	0.214	0.053
Province					
Province 1	68.7	17.6	380	0.278	0.049
Province 2	80.4	26.7	419	0.230	0.087
Bagmati	92.9	20.1	380	0.313	0.160
Gandaki	60.9	17.9	358	0.199	0.037
Lumbini	67.0	32.7	379	0.377	0.092
Karnali	91.1	14.1	359	0.266	0.077
Sudurpaschim	63.6	7.5	379	0.228	0.012
Caste Ethnicity					
Dalit	62.5	16.6	794	0.164	0.0412
Muslim	67.6	16.0	74	0.146	0.041
Brahman\Chhetry	84.1	17.5	565	0.332	0.081
Relatively Disadvantaged Janjati	67.2	21.6	836	0.328	0.0741
Relatively Advantaged Janjati	76.2	26.0	126	0.260	0.080
Disadvantaged Non-Dalit Terai Caste	80.7	27.0	202	0.342	0.096
Others	78.9	24.4	57	0.246	0.149
Sex of HH head					
Male	75.8	14.4	1,983	0.288	0.057
Female	72.7	36.3	671	0.224	0.091
Equity quintiles					
Poorest	75.9	13.3	940	0.290	0.062
Poor	74.7	17.6	759	0.261	0.060
Middle	77.3	26.2	454	0.253	0.081
Rich	71.6	27.9	430	0.261	0.067
Richest	73.2	38.5	71	0.336	0.133
Total	**75.0**	**19.7**	**2,654**	**0.272**	**0.069**

Source: PAF Household Survey, 2018

Exchange of labour power with land (to exploit land) gives production based entitlement, and the robustness of production-based entitlement fosters trade-based exchange entitlements to prevent occurrence of poverty. In Nepalese rural sector, possession of agricultural land is taken as important means of livelihoods, income

security and tangible assets/endowment to put into entitlements generation. Being tangible, land assets show wealth status of a household under study. Owing such facts, this study included questions about household's ownership status of agricultural land, if owns, how is its size. Similarly, it asked question on land ownership of women in the household. The size of land is asked in two types of measurement i.e. Ropani, Aana, Paisa in hill and mountain regions and in Bigha, Kttha and Dhur in Tarai regions. Then the land size of both measurements is converted into a hectare system using a standard conversion factors.

Obtained information from the household survey presented in Table 4.12 showed that three-fourth of the study households own some of the agricultural land and one-fourth (25%) are land less. Extent of landlessness is about 32 percent in Tarai, and nine percent in Mountain region. Proportion of land less households is about 39 percent in Gandaki; and about seven percent in Bagmati.

Caste/ethnic variation in landlessness showed more of Tarai Dalits followed by Hill Janajatis and Muslims as land poor and it is lowest in case of Brahman/Chhetries, Dalits and Tarai caste groups (all 80% or more to own some of agriculture land). There appears no more conclusive variation in ownership of land ownership by sex of household heads and equity quintile.

The study further unveiled a fact that female members of the households also own some of the land in nearly 20 percent of the study households. Women's land ownership is in 23 percent households of Tarai region; one-third households of Lumbini and 27 percent households of Province 2. Its extent is in 36 percent of female headed households and 28 and 38 percent respectively in households of rich and richest quintile. The average size of household's ownerships on total agricultural land is mere 0.3 hectare and in case the size of female owned land is less than 0.1 hectare.

According to the Population Census (CBS, 2012), in the last five decades, while the population has increased by nearly 3 fold, the volume of cultivated land has increased by less than two fold (from 1.6 million hecares to almost 2.5 million hectares). During this period, the average farm size has decreased from 1.1 ha to 0.7 ha per holding.

Livestock is taken as supplementary to agricultural activity in rural context. Livestock tending helps to enhance dietary diversity in food intake, supply nutrient diet to guarantee the required calorie to eliminate malnutrition in general and childhood

malnutrition in particular. Owing such facts, the survey asked question on status of household's livestock ownerships by types.

Table 4. 13: Distribution of Study Households According to Ownership and Types of Livestock

Background Characteristics	HH with any livestock	% Milking* Animal	% Small animals for meat and income **	% Poultry and Birds	% Draft Animal	Total (N)
Sex of HH Head						
Male	82.7	68.0	65.3	38.2	1.5	1,983
Female	80.3	59.3	65.3	36.4	0.4	671
Ecological Region						
Mountain	87.7	70.0	58.7	42.3	4.0	300
Hills	88.8	76.1	76.8	45.4	1.5	957
Tarai	76.3	57.9	58.8	31.6	0.5	1,397
Province						
Province 1	83.4	76.8	67.1	47.1	0.5	380
Province 2	67.3	47.3	47.7	8.8	0.2	419
Bagmati	80.0	55.0	62.4	51.3	0.5	380
Gandaki	83.5	68.4	76.5	43.6	1.4	358
Lumbini	86.8	63.3	74.7	67.5	2.6	379
Karnali	91.1	76.9	71.0	25.1	3.1	359
Sudurpaschim	84.7	75.7	60.2	23.5	0.5	379
Caste Ethnicity						
Relatively Disadvantaged						
Janjati	85.9	68.4	73.4	59.6	1.6	836
Dalit	78.5	58.4	58.1	31.1	0.6	794
Brahman\Chhetry	88.8	78.4	71.3	29.0	2.7	565
Disadvantaged Non-Dalit						
Terai Caste	64.9	52.5	40.1	1.5	-	202
Relatively Advantaged						
Janjati	80.2	61.1	73.0	51.6	-	126
Muslim	75.7	62.2	59.5	28.4		74
Others	84.2	68.4	64.9	7.0	-	57
Equity Quintiles						
Poorest	89.3	78.7	70.2	45.5	1.9	940
Poor	84.6	68.1	70.5	35.7	1.1	759
Middle	81.1	60.4	64.1	35.2	0.9	454
Rich	68.4	45.3	51.6	29.8	0.5	430
Richest	50.7	29.6	33.8	21.1	1.4	71
Total	82.1	65.8	65.3	37.8	1.2	2,654

*Source: PAF Household Survey, 2018, * Cow, buffalo, yak ** Goat, sheep, pigs*

The obtained information presented in Table 4.13 indicated that 82 percent of the study households own any of the livestock. It is further revealed that two-thirds of the study households own any of milking animal (cow, buffalo and yak), nearly the same proportion of the households own small animals for meat and income (goat, sheep and

pig). Households owning fowls (poultry, duck, and pigeon) estimated to be 38 percent and owning draft animals (horse, donkey and mule) mere one percent.

On average a house owns three of milking animals, about six of small animals for met and income, nearly two of draft animal and 11 of fowls (Table 4.14).

Table 4. 14: Types of Livestock and Current Prices of the Livestock

Background Characteristics	Milking Animals	Animals for meat and income	Draft Animal	Poultry and Birds	Total price of Livestock	Total (N)
Sex of HH Head						
Male	2.9	6.0	2.1	11.4	80,242	1,630
Female	2.6	5.1	4.0	9.0	64,927	535
Ecological Region						
Mountain	2.9	9.5	2.4	10.8	98,604	260
Hills	3.0	5.6	1.9	7.8	86,046	844
Tarai	2.6	5.2	3.0	13.7	63,403	1,061
Province						
Province 1	3.1	4.5	3.0	7.1	67,694	317
Province 2	1.6	2.9	1.0	8.2	41,729	277
Bagmati	2.2	6.3	4.0	18.4	85,568	301
Gandaki	3.3	8.3	2.0	13.6	93,470	298
Lumbini	3.6	6.1	2.5	8.4	80,520	325
Karnali	3.0	7.9	2.1	5.6	110,972	327
Sudurpaschim	2.5	3.5	1.5	9.9	51,392	320
Caste Ethnicity						
Relatively Disadvantaged Janjati	3.3	6.8	2.7	10.3	79578	714
Dalit	1.8	3.9	2.0	10.2	55,200	618
Brahman\Chhetry	2.9	7.0	2.1	13.7	100,469	500
Disadvantaged Non-Dalit Terai Caste	1.9	2.7	-	16.7	56,529	128
Relatively Advantaged Janjati	3.2	8.4	-	11.5	118,306	101
Muslim	2.1	2.8	-	4.6	42,613	56
Others	1.8	4.6	-	11.0	58,181	48
Equity Quintiles						
Poorest	3.3	7.0	1.9	7.4	87,811	833
Poor	2.6	5.2	2.8	8.4	65,438	636
Middle	2.4	5.2	2.0	11.8	69,802	368
Rich	2.2	4.7	3.5	25.4	79,788	292
Richest	1.9	3.4	5.0	15.1	49,452	36
Total	2.8	5.8	2.3	10.8	76,457	2,165

Source: PAF Household Survey, 2018

The average current market price of all livestock owned by the study households is estimated at about Rs. 76,500.00. The current valuation of livestock tends to go above 100 thousand in Karnali (Rs. 110,000), among the Gurung/Newar/Thakali

communities (Rs. 118,000.0), and in Brahman/Chhetry communities (Rs. 100,500.0). The valuation of livestock is below Rs. 60,000 in Provinces 2 and Sudurpaschim; for Dalits, Muslim and Tarai caste Communities and in the richest quintile group.

CHAPTER V

ASSESSMENT ON HEALTH AND EDUCATION DIMENSIONS

The chapter analyses the assessments of Health and Education dimensions of multidimensional poverty in Nepal.

5.1 Assessments of Health and Education Dimensions

Health and education are taken as the key and objectively measurable component of capability and 'well-being and functioning'. Arguably, the Human Development approach include indicators of education as knowledge capability and the single indicator of health i.e. longevity as health capability. Both health and education are taken as vehicles to capacitate a person for the expansion of her/his choices. Of the 17 sustainable goals, goal three is devoted to 'good health and wellbeing' and goal four for 'quality education'. The sustainable development approach has placed 'health' in the centre of all as a major contributor to and beneficiary of SDGs achievements. There are many linkages between the health goal and other goals and targets, reflecting the integrated approach that is underpinning the SDGs. Similarly, the first outcome targets of SDG goal 4 urges to 'ensure that all girls and boys to be complete free, equitable and quality of primary and secondary education leading to relevant and effective learning outcomes'.

Health and education though consumed privately are accorded as social and public goods (Colclough, 1997) with multiple implications. Operating through at least five distinct ways health and education from Dreze and Sen's (1995) sense, can elevate one's capability and value own self as: intrinsic importance; instrumental personal roles; instrumental social roles; instrumental process roles; and empowerment and distributive roles. Owing to immense importance of health and education for being social goods, the state's responsibility for their indiscriminately enhanced services and financing is argued for based partly upon: possibility of market failure; distributive consideration and to satisfy the notion of rights. Though, education and health are similar to the commodities of private consumption, market failure may arise from four particular characteristics (Colclough, 1997) of their viz.:

Externalities: not all the benefits of health and education services are privately captured by direct recipient,

Imperfection of information: not all the private benefits of education and health services are obvious – thus, some consumers remain unaware of some of them – such as child immunization,

Merit goods: education and health services can be thought of as goods with special merit deserving of public support to a level of supply, beyond that which consumer sovereignty would imply.

Public Goods: The consumption of some types of health and education services cannot be restricted easily, and cannot, therefore, be sold to consumers.

Taking the thread of argument of Sen's 'capability, functioning and well-being', empowerment and capability expansion in the sense of human development paradigm and addressing the instrumental health and education goals of MDGs and SDGs, the multidimensional poverty perspective has given 66 per cent relative weights to four indicators of health and education dimensions (Table 5.1). Argument is that if a person or household is deprived of one in four dimensions of health and education and three in six dimensions of living standard then fall under criteria of multidimensional poverty.

Table 5. 1: Dimensions, Indicators, cut-offs and Weights of Health and Education Dimensions of the MPIs

MPI Dimension and Indicators	**Used Indicators in the Study with some modification**	**Address to MDG and SDG**	**Relative weight**
Education			
Years of Schooling -No household member has completed five years of schooling	Households are deprived of Education and Health if: -No adult member 10+ in the household has completed five years of schooling (Grade 5),	MDG 2	16.7%
-Child School Attendance: Any school-aged child is not attending school in years 1 to 8	- Any school-aged child (5-17 years) is not attending school for any reason		
Health			
Nutrition: Malnourished	Any women 15-49 with BMI below 18.5 and height below 145 cm, and children under 5 for whom weight for age is below -2 z score,	MDG 1	16.7%
Child Mortality: Dead	Any child and person under 5 is dead in the family	MDG 4	16.7%

Note: MDG-1: To Eradicate Extreme Poverty and Hunger; MDG-2: To Achieve Universal Primary Education, MDG-4: To Reduce Child Mortality. Owing to the

forgone discussion, this chapter at first present educational/knowledge attributes of the study population/households followed by attributes of health capabilities.

5.2 Assessment of Education/Knowledge Characteristics

Education is taken as a fundamental human right and is indispensable for the achievement of sustainable development goals. The constitution of Nepal (GoN, 2015) has taken right to education as one of the key fundamental right and stated 'every citizen shall have the right of access to basic education (Article 31.1). The article further explains the right of access to basic education in subsequent sub clauses (2-5) as: Every citizen shall have the right to get compulsory and free education up to the basic level and free education up to the secondary level from the State.

The citizens with disabilities and the economically indigent citizens shall have the right to get free higher education in accordance with law.

The visually impaired citizens shall have the right to get free education through brail script and the citizens with hearing or speaking impairment, to get free education through sign language, in accordance with law.

Every Nepalese community residing in Nepal shall have the right to get education in its mother tongue and, for that purpose, to open and operate schools and educational institutes, in accordance with law.

Table 5. 2: Seven outcome and Three Implementation Level Targets of SDG Goal-4 'Quality Education'

Target No.	Goals	Description of Targets
	Outcome Level Targets by 2030	
4.1	Universal primary and secondary education	Ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes
4.2	Early childhood development and universal pre-primary education	Ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education
4.3	Equal access to technical/vocational and higher education	Ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university
4.4	Relevant skills for decent work	Substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship

4.5	Gender equality and inclusion	Eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations
4.6	Universal youth literacy	Ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy
4.7	Education for sustainable development and global citizenship	Ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non- violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development
4.a	Three means of implementation Effective learning environments	Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all
4.b	Scholarships	Substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programs, in developed countries and other developing countries
4.c	Teachers and educators	Substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States

(OPHDI, 2018)

The goal of gender equity and equality, ending inequality and extreme poverty and combating climate change are possible only if all development stakeholders are committed to advancing the education goal. Education is often being a community level issue and need, which will require all related stakeholders to work in close coordination with local education systems and in communities to determine the best utilization of resources. Such fact seems well addressed in the seven outcome level and three implementation level targets of goal 4 (Quality Education) of SDGs in Table 5.2.

This section of the chapter attempted to present educational attributes of population age five years and above such as ability to read and write (literacy status), status of ever and current schooling; level of completed education and grade current attending. Children aged five and 18 years currently in school and out of school and reason for non-schooling of the out of school children. Status of children currently in school getting scholarships in the last 12 months, household's education expenses on each of current children in school. Further exploration is made on the distance to get to school (in minutes) regularity of children in school attendance and parent's satisfaction with the school of children. Hence, this study sees the mitigation status of education related SDG's outcome level targets one 'access to universal primary and secondary education'; target two 'early childhood development and universal pre-primary education' five 'gender equality and inclusion' and six 'universal youth literacy'. Similarly, the implementation level targets assessed include 'effective learning environment' through the children's regularity in school and 'scholarship' by proportion children awarded it during last 12 months

5.2.1 Universal Literacy and Access to Education

Development of the country is considered as the function of the educational status of the country. The government invests in their human resources to increase their potential for development and productivity. The present study is as a source of data for an analysis of the human resource potential of the country from an educational perspective.

The definition of literacy has changed over the years. In earlier censuses of Nepal literacy was defined as the ability to read and write. In the 1991 census the definition of literacy was changed and it included the ability to read and write with understanding and to perform simple arithmetic calculations (CBS, 1995). This same definition was also being followed in the 2011 census (CBS, 2012). The following definition has been used in the PAF household Survey.

Literacy status of the population aged five years and above of a study household is determined by asking question about the ability of person to read and write. The responses were recorded as 'able to read only' 'write only' and read and write both. If a person is able to read and write categorized as literate otherwise not. The survey adopted the following definitions of the level of education.

Table 5. 3: Definitions

SN	Status	Definitions
1	Literate	Those who can read and write with understanding in any language and to perform simple arithmetic calculation through informal literacy program.
2	Primary Education	Those who have completed less than one year or at least one year of primary education (pre-school to grade five).
3	Secondary Education	Those who have completed the final grade at second level education or have entered secondary school but have not completed the final grade (grade six to ten).
4	Higher Education	Those who have completed the School Leaving Certificate (SLC) and undertaken beyond the SLC regardless of whether they have completed the course.

(CBS, 2012)

Information on ever and current school enrolment satisfies the goal of access to universal primary and secondary education and youth literacy. The obtained information presented in Table 5.4 reveales that two-third of the population aged five years and above are literate. By sex of family members, the level of male literacy rate increases at three-fourth (74%) and for female goes down to below 58 percent. The literacy figure for total, male and female population found in this study is virtually identical to the national average of 2011 national population census (CBS, 2012).

According to ecological regions, proportion population of the age of five years and above is high (73%) in Hills and it is about 55 percent in Mountains. Provinces five and Gandaki are in better position in terms of literacy rates of its inhabitants (74% and above) and the Province No. 2 is poor (52%) in this matter. Dalits (60%), followed by Muslims (below 53%) are poorest of poor in literacy/numeracy and it is above 70 percent for Gurung/Newar and Thakali, Brahman/Chhetry and Relatively Advantaged Janajati communities. As obvious, literacy level tends to take steep declining path with the increase in age of family members. For instance, the 85 percent of literate population aged 5-14 declines to 65 percent.

The survey asked a question about all family members aged five and above 'whether ever admitted to school or not' irrespective of delimiting the upper age range. The responses summarized in Table 5.4 indicated nearly 65 percent had once admitted to school. Again ever school enrolment status is relatively better in Hills (71%), in Provinces five and four, for Gurung/Thakali/Newr, Hill Janajatis and Brahman/Chhetry communities (69% or more), for male (73%) against female (57%)

and for younger age groups. On the contrary it is poor in Mountain (58%), in Province 2 (49%), Tarai Dalits, Muslims and Tarai caste communities.

Table 5. 4: Distribution of Household Population Age Five Years and Above according to Literacy and Ever School Enrolment

Background Characteristics	Lit%	Ilit%	No Sch%	N	In sch%	In out sch %	N
Sex of HH Member							
Male	74.4	25.6	73.3	5,659	48.5	51.4	4,146
Female	57.5	42.5	56.7	6,170	56.8	43.1	3,500
Broader Age Group							
5-14 Yrs	84.9	15.1	93.2	3,012	97.1	2.9	2,807
15-59 Yrs	64.7	35.3	60.5	7,812	26.8	73.0	4,729
60+Yrs	14.6	85.4	10.9	1,005	3.6	96.4	110
Ecological Region							
Mountain	55.3	44.7	58.1	1,284	61.1	38.6	746
Hills	73.0	27.0	70.6	4,134	54.4	45.6	2,918
Tarai	62.9	37.1	62.1	6,411	49.1	50.8	3,982
Province							
Province 1	63.4	36.6	65.2	1,714	52.1	47.8	1,118
Province 2	52.2	47.8	48.8	2,106	59.5	40.5	1,027
Bagmati	66.5	33.5	68.2	1,486	44.3	55.3	1,013
Gandaki	73.8	26.2	71.2	1,518	42.6	57.4	1,081
Lumbini	76.5	23.5	74.1	1,609	47.3	52.6	1,192
Karnali	62.7	37.3	64.9	1,577	63.1	36.9	1,024
Sudurpaschim	68.3	31.7	65.5	1,819	57.7	42.3	1,191
Caste Ethnicity							
Relatively Disadvantaged Janjati	68.9	31.1	68.4	3631	45.4	54.5	2482
Dalit	60.0	40.0	59.8	3492	56.5	43.5	2088
Brahman\Chhetry	70.5	29.5	69.2	2,535	57.1	42.8	1,755
Disadvantaged Non-Dalit Terai Caste	62.0	38.0	59.1	990	53.3	46.7	585
Relatively Advantaged Janjati	72.7	27.3	71.3	501	47.1	52.7	357
Muslim	52.6	47.4	50.9	407	58.0	42.0	207
Others	66.3	33.7	63.0	273	54.7	45.3	172
Total	65.6	34.4	64.6	11,829	52.3	47.6	7,646

Source: PAF Household Survey, 2018

Of the ever school enrolled, bit above 50 percent (52%) found currently enrolled in school. However, the current schooling status of ever school enrolled is above 60 percent in Mountain, 63 percent in Karnali. It is lower in Tarai (49%), and Province No. 5 (below 50%).

Table 5. 5: Distribution of household population age five and above who have ever enrolled to school according to highest level of completed education by background attributes

Background Characteristics	Primary	Secondary	Higher	Total	
				%	N
Sex of HH Member					
Male	45.0	38.8	16.2	100	4,146
Female	45.4	40.6	14.0	100	3,501
Broader Age Group					
5-14 Yrs	77.3	22.5	0.1	100	2,808
15-59 Yrs	25.4	50.2	24.3	100	4,729
60+Yrs	71.8	23.6	4.5	100	110
Ecological Region					
Mountain	53.9	33.0	13.1	100	746
Hills	42.8	39.4	17.8	100	2,919
Tarai	45.3	41.1	13.6	100	3,982
Province					
Province 1	47.4	38.0	14.6	100	1,118
Province 2	49.7	38.4	12.0	100	1,027
Bagmati	47.5	36.4	16.1	100	1,013
Gandaki	45.8	38.9	16.3	100	1,081
Lumbini	44.5	40.9	14.6	100	1,192
Karnali	42.4	41.7	16.0	100	1,024
Sudurpaschim	40.8	42.6	16.6	100	1,192
Caste/ Ethnicity					
Relatively Disadvantaged Janajati	46.5	39.8	13.7	100	2482
Dalit	53.5	38.5	8.0	100	2089
Brahman\Chhetry	34.1	42.1	23.7	100	1,755
Disadvantaged Non-Dalit Terai Caste	43.2	39.1	16.6	100	585
Relatively Advantaged Janajati	47.9	35.9	16.2	100	357
Muslim	59.9	32.4	8.7	100	207
Others	42.4	39.5	18.1	100	172
Total	45.2	39.6	15.2	100	7,647

Source: PAF Household Survey, 2018

Of the ever school enrolled population age five and above, about 40 percent have completed secondary (grade 6-10) level of schooling, some 38 percent found to complete some of primary grades (grades 1-5), and some 15 percent either have passed higher education. Similarly, about 45 percent have completed primary level of education (Table 5.4). The same pattern of achieved level of education more or less holds true in case of background attributes of observation. Hence, there appears not much conclusive variation in completed level of education of population by background attributes of observation. Table 5.5 shows that over one-third of the population aged five years and above is out of coverage of the universal literacy goal.

Table 5. 6: Distribution of currently school attending population age five and above according to grade attending by background characteristics

Background Characteristics	Currently Educational Attainment				Total	
	Pre-primary	Primary 1-5	Secondary	Higher	%	N
Sex of HH Member						
Male	9.4	40.8	34.1	15.6	100.0	2,007
Female	7.0	38.5	39.5	15.0	100.0	1,989
Broader Age Group						
5-14 Yrs	11.6	56.9	31.5	0.1	100.0	2,727
15-59 Yrs	1.1	2.5	48.3	48.1	100.0	1,269
Ecological Region						
Mountain	6.0	42.6	35.3	16.1	100.0	453
Hills	5.3	37.0	38.9	18.8	100.0	1,587
Terai	11.1	41.1	35.5	12.3	100.0	1,956
Province						
Province 1	8.8	45.5	34.2	11.5	100.0	582
Province 2	15.7	51.3	26.2	6.7	100.0	610
Bagmati	6.7	39.0	34.8	19.5	100.0	446
Gandaki	5.4	33.5	43.3	17.8	100.0	460
Lumbini	5.7	39.4	40.6	14.4	100.0	564
Karnali	4.0	40.4	39.3	16.3	100.0	646
Sudurpaschim	10.0	28.3	40.0	21.7	100.0	688
Caste/ Ethnicity						
Relatively Disadvantaged						
Janajati	9.0	36.8	39.1	15.1	100.0	1133
Dalit	7.5	47.5	35.6	9.3	100.0	1168
Brahman\Chhetry	5.0	30.3	38.7	25.9	100.0	1,002
Disadvantaged Non-Dalit						
Terai Caste	13.5	45.5	30.1	10.9	100.0	312
Relatively Advantaged						
Janajati	2.4	42.3	41.1	14.3	100.0	168
Muslim	26.1	47.9	23.5	2.5	100.0	119
Others	12.8	40.4	35.1	11.7	100.0	94
Total	8.2	39.6	36.8	15.3	100.0	3,996

Source: PAF Household Survey, 2018

5.2.2 School Age Children in School

Proportion of school age children is taken as one of the two education indicators to account for the multidimensional poverty index. This indicator bears 16.5 percent weights in MPI dimension. Owing this fact, current school enrolment status of all children aged 5 and 18 years is obtained in the survey. Upper age is taken 18, considering age grade parity up to grade 12, since grade 12 is now incorporated in school education. Data presented in Table 5.7 reveals that about 17 percent of the school age population is currently out of school. Its extent is 23 percent in Tarai region and above one-third in Province-2. Further extent of school age children out of school is 43 percent in Muslim communities, 32 percent in Tarai Dalits and 24

percent in Tarai caste communities. There appears no variation in proportion children out of school by sex of children and it is above one-third for the children aged 15-18 years.

Table 5. 7: Percentage Distribution of School Age population (5-18 years) in the study Households According to Current Schooling Status

Background Characteristics	In School	Not in School	Total	Reasons for not school enrolment						Total N
				1*	2*	3*	4*	5*	6*	
Sex of HH Member										
Male	83.2	16.8	2,351	37.3	44.3	11.1	1.4	4.9	1.1	396
Female	83.5	16.5	2,247	51.0	19.8	10.2	15.5	2.9	0.6	371
Broader Age Group										
5-14 Yrs	90.9	9.1	3,143	38.8	27.2	26.9		6.3	0.7	285
15-18 Yrs	66.9	33.1	1,455	47.0	35.7	0.9	13.0	2.5	0.9	482
Ecological Region										
Mountain	87.8	12.2	508	24.2	33.9	27.4	4.8	8.1	1.6	62
Hills	91.2	8.8	1,666	27.5	34.1	13.8	16.7	7.2	0.7	147
Tarai	77.0	23.0	2,424	50.7	32.0	7.8	6.2	2.5	0.8	558
Province										
Province 1	81.9	18.1	697	55.0	26.7	10.0	5.8	2.5		126
Province 2	66.5	33.5	911	56.6	27.5	8.6	4.6	2.3	0.3	305
Bagmati	90.0	10.0	478	31.9	48.9		8.5	10.6		48
Gandaki	81.4	18.6	510	29.4	49.0	5.9	15.7			95
Lumbini	88.0	12.0	633	26.3	43.4	10.5	13.2	3.9	2.6	76
Karnali	92.5	7.5	652	12.2	24.5	44.9	8.2	8.2	2.0	49
Sudurpaschim	90.5	9.5	717	29.4	35.3	7.4	16.2	8.8	2.9	68
Caste /Ethnicity										
Relatively Disadvantaged										
Janajati	85.7	14.3	1264	23.5	49.4	6.2	12.3	6.2	2.5	191
Dalit	67.7	32.3	1472	51.3	29.8	10.5	4.2	3.7	0.5	309
Brahman\Chhetry	94.3	5.7	974	16.1	21.4	35.7	16.1	8.9	1.8	56
Disadvantaged Non-Dalit										
Terai Caste	75.8	24.2	389	52.2	37.8	2.2	5.6	2.2		94
Relatively Advantaged										
Janjati	93.7	6.3	189	9.1	45.5	18.2	27.3			12
Muslim	57.3	42.7	206	71.6	11.4	11.4	3.4	1.1	1.1	88
Others	83.8	16.2	105	64.7	5.9	17.6	11.8			17
Total	83.3	16.7	4,598	43.9	32.5	10.7	8.1	3.9	0.8	767

Source: PAF Household Survey, 2018

1 Family reasons include family's inability to pay fee, had to help at home, guardian did not send, see no benefits of reading*

2 Age and distance: too young to go to school and school is far for the age of child*

3 Other reasons include harassment: harassment on the route, in the school and unsafe rout; getting job and no practice of sending school at that time*

4 Long-term sickness*

5 Child marriage*

6 Finance*

Family stands as a major determining factor for non-schooling of school aged children. For instance, 44 percent of the out of school children are abstained of school attendance due to family reasons. Family reason holds more prominent for girl child (51%), children of older ages (47% for aged 15-18 years than 39% of below age 15). Similarly, family reasons hold true for 50% or more of the out of school children from Tarai region, 57 and 55 percent out of school children respectively of Provinces-2 and 1. According to caste/ethnicity, 72 percent out of school children of Muslims, 52 percent of Terai caste communities and 51 percent of Terai Dalits are out of school because of family reasons. Next to family reasons, children's less interest in reading and going to school is seen as second reason of school age children to be out of school. Children's unwillingness in schooling and reading may attract the implementation level targets of SDG-4 such as 'effective learning environment' and 'teachers and educators' (See Table 5.2 above). Child related reason (on interest in reading) is highly prominent in Bagmati, Gandaki and Province No. 2 (above 40%) and for Janajati (hill and Tarai both), and Gurung/Newar and Thakali community followed by Terai caste communities.

About 11 percent of the children are deprived of school education on time due to their young age to go to school and distance of nearest school is far for children's age. Its extent is as high as 27 percent in Mountain, 45 percent in Karnali, 36 percent for the children of Brahman/Chhetry community and 27 percent for children below age 15. Similarly, eight percent of the out of school children are out of school for the reason of Marriage. This implies widespread prevalence of child marriage in the study communities. Extent of marriage as reason for stopping children from the right to education is about 17 percent in hill region, 16 percent in Provinces 4 and 7. Similarly it is above 12 percent for out of school children of Gurung/Newar and Thakali communities (27%), Brahman/Chhetry, Hill Dalits and Hill Janajatis (Table 5.6). Further analysis of the results is presented in the subsequent chapter.

About four percent of the out of school children are unable to attend school due to long-term sickness and about one percent for other reasons. Prevalence of sickness is highly pronounced to the children of Mountain region, of Provinces Bagmati, 7 and Karnali, among the Brahman/Chhetry communities and for male and young aged children.

Table 5. 8: Getting Scholarships During last 12 months, average amount of scholarships if received and average annual per child household expenses an education

Background Characteristics	% Class Repeater	% Got Schola-rships	Total (N)	Amount of Scholarships		Total (N)	HH Expenses per child Education	
				Mean	Median		Mean	Median
Sex of HH Member								
Male	8.5	8.5	1,785	1,113	500	152	12,105	8,000
Female	7.2	30.4	1,790	948	500	544	10,685	6,000
Broader Age Group								
5-14 Yrs	7.5	20.6	2,725	927	500	560	8,871	5,000
15-18 Yrs	8.9	16.0	850	1,210	500	136	19,430	12,000
Ecological Region								
Mountain	4.3	30.4	414	2,124	2,400	126	10,948	6,000
Hills	8.6	28.7	1,366	646	500	392	11,899	7,000
Tarai	8.1	9.9	1,795	938	500	178	11,113	7,000
Province								
Province 1	17.9	19.0	548	600	500	104	10,648	6,000
Province 2	1.7	8.7	576	1,176	500	50	9,555	5,000
Bagmati	4.8	15.9	397	1,443	500	63	11,075	6,000
Gandaki	7.7	25.1	379	558	500	95	8,358	5,000
Lumbini	3.4	16.8	506	505	500	85	16,563	10,000
Karnali	8.9	15.8	575	2,629	2,400	91	11,828	10,000
Sudurpaschim	9.6	35.0	594	682	500	208	11,145	8,000
Caste/ Ethnicity								
Relatively Disadvantaged Janajati	9.3	16.2	1014	926	500	164	1154	6,000
Dalit	11.1	30.6	1087	764	500	332	8210	4500
Brahman\Chhetry	5.8	18.1	838	1,478	500	152	14,191	10,000
Disadvantaged Non-Dalit Terai Caste	1.0	2.4	286	3,625	500	7	10,594	5,000
Relatively Advantaged Janjati	7.4	20.8	149	643	500	31	10,117	6,000
Muslim	1.7	0.0	115				9,033	9,500
Others	1.2	11.6	86	650	500	10	14,753	12,000
Total	7.9	19.5	3,575	983	500	696	11,393	7,000

Source: PAF Household Survey, 2018

Of the currently school enrolled children some eight percent found to have repeaters of current reading class, nearly one-fifth have received some sorts of scholarship during last 12 months as motivation for reading. Extent of class repeaters is above 8 percent in Hill and Tarai regions; it is about 18 percent in Province-1 and 18 and 14 percent respectively of current school attending children of Tarai Dalits and Tarai Janajatis (Table 5.7). Extent of school attending children getting scholarship is 30 and 29 percent respectively in Mountain and Hill regions and about 10 percent in Tarai.

Above one-fourth of the currently school attending children of Provinces seven and four found to have received scholarship during last 12 months and it is below 10 percent in Province two. Getting scholarships is highly pronounced to the currently school attending children of Hill Dalits (38%), followed by Gurung/Thakali/Newar (21%) and Hill Janajatis. It is nil for children of Muslim communities and below three percent for Terai caste communities.

Average amount of scholarship received during the last 12 months' period by receiving children amounts less than Rs. 1,000.00. It is above 2,000 in the Mountain region, less than 650 in Hill region, above 1,000 in Provinces 2 and 3 and above 2,600 in Province six.

Average annual household expenses made in per child education amounts nearly 11,400 and 50 percent or more have expended more than Rs. 7000 and another 50 percent less than it during last year as exhibited by the median value of per child education expenses. The average total expenses in per child's education was found less than Rs. 10,000 in Province 2, and 4; among Tarai Dalits, Muslims, and Tarai Janajati communities. This implied that a sizable school enrolled children are bound to repeat the current reading grades – may be associated to learning environment and teachers and educators related targets of SDG-4 and still children of disadvantaged communities to a most part are claimed not to get scholarship-again inability to mitigate the target 4.b of SDG-4.

Households' poor in educational dimension based on none of adult family members completed five years of schooling and not completed eight years of schooling. Table 5.9. clearly shows that from 18 percent of the households included in the study, any children of school age are out of school for family reasons, for their private reasons, age and distance to school, marriage and others. In about 11 percent households none of adult family members have completed five years of schooling. Its extent is 24 percent in case of none of the family members complete eight years of schooling. Taking none of family members completing five years of schooling, households afflicted by the education dimension of poverty is estimated to be about 27 percent and the figure increased at 37.5 percent based on none of the family members completed eight years of schooling. Extent of household's poor in education dimension is high in Tarai region, Provinces 2, Gandaki and 1; among Muslim

communities (62%), followed by Tarai Dalits, Tarai Janajatis and Tarai Caste communities (Table 5.9).

Table 5. 9: Distribution of study households according to school age children out of school, any family member not completing five or eight years of education

Background Characteristics	% HHs any school age children (5-18) not in school	% HHs none of family members aged 15 and above completed five years of schooling	% HHs none of family members aged 15 and above completed eight years of schooling	HHs poor in education dimension based on not completing 5 grade	HHs poor in education dimension based on not completing 8 grade	Total (N)
Sex of HH Head						
Male	19.4	10.9	24.7	28.1	39.2	1,983
Female	13.6	10.6	22.1	22.2	32.2	671
Ecological Region						
Mountain	17.0	9.3	17.3	24.7	30.3	300
Hills	11.3	12.6	24.5	21.0	31.2	957
Tarai	22.7	9.9	25.1	30.9	43.2	1,397
Province						
Province 1	20.0	10.8	25.8	27.6	39.2	380
Province 2	40.1	4.5	13.6	43.0	48.0	419
Bagmati	11.3	15.0	30.8	24.7	38.2	380
Gandaki	12.0	18.4	33.8	26.3	40.5	358
Lumbini	14.2	12.1	29.3	23.5	38.5	379
Karnali	9.7	6.4	15.6	15.3	23.7	359
Sudurpaschim	15.0	9.5	20.3	23.7	32.5	379
Caste /Ethnicity						
Relatively Disadvantaged Janjati	14.9	13.7	28.4	26.4	38.7	836
Dalit	26.2	9.5	22.6	32.3	42.9	794
Brahman\Chhetry	7.1	6.5	19.1	13.1	24.8	565
Disadvantaged Non-Dalit Terai Caste	30.2	7.9	20.3	36.6	44.6	202
Relatively Advantaged Janjati	8.7	20.6	35.7	27.0	40.5	126
Muslim	58.1	6.8	12.2	62.2	62.2	74
Others	19.3	8.8	22.8	28.1	38.6	57
Equity Quintiles						
Poorest	15.4	11.5	23.2	23.9	33.5	940
Poor	25.3	10.9	23.8	33.6	43.6	759
Middle	18.1	9.0	23.6	26.0	38.3	454
Rich	12.8	10.5	26.0	22.6	36.0	430
Richest	2.8	15.5	26.8	16.9	26.8	71
Total	17.9	10.9	24.0	26.6	37.5	2,654

Source: PAF Household Survey, 2018

5.2 Accounting Health Dimension of Poverty

Health is taken in most of the poverty studies as one of key –capability element and as fundamental human rights. Any methodologies and approaches beyond income line, uses health capability as one of the core indicators to measure deprivation. For

instances, the in measurement ‘Physical Quality of Life Index’ takes infant mortality and life expectancy at age one as proxy of health capability; the basic need approach takes health as one of the six fundamental basic needs of human population, the human development perspective takes life-expectancy at birth as proxy of health capability and the multidimensional poverty approach of Alkire & Foster (2008, 2011) takes two indicators of health i.e. under five-mortality and any symptoms of malnutrition in any one of the household population and assigns one-third weights to account MPI. Owing to the importance of health to attain quality of life of all citizens and to enhance living standard on the whole, the Constitution of Nepal-2015 in its article 35 puts health as one of the fundamental right and forwards following explanation under its sub-clauses:

a. Every citizen shall have the right to free basic health services from the State, and no one shall be deprived of emergency health services
b. Every person shall have the right to get information about his or her medical treatment
c. Every citizen shall have equal access to health services, and
d. Every citizen shall have the right of access to clean drinking water and sanitation.

The overarching global development agenda of 2030 – Sustainable Development Goal (SDG) devoted one of the 17 goals specifically to health (goal-3). It deliberately framed broad terms ‘ensure healthy lives and promote well-being for all at all ages’ that is relevant to all countries and all populations. The health goal is associated with 13 targets, including four means of implementation targets labeled 3.a to 3.d (As in Table 5.10).

Table 5. 10: The 9 Outcome level and four implementation level targets of SDG-3 'Health and Wellbeing'

No.	Theme of Goal	Target by 2030
3.1	Maternal Mortality	Reduce the global maternal mortality ratio to less than 70 per 100 000 live births
		Outcome Level Targets
3.2	Infant and under mortality	End preventable deaths of new-borns and children under five years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1000 live births and under-five mortality to at least as low as 25 per 1000 live births.
3.3	End epidemics	End the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, waterborne diseases and other communicable diseases
3.4	Mental health and well-being	Reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well- being
3.5	Control substance abuse	Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol
3.6	Deaths from injuries and accidents	Halve the number of global deaths and injuries from road traffic accidents Ensure universal access to sexual and reproductive health-care services,
3.7	Sexual and Reproductive health care	including for family planning, information and education, and the integration of reproductive health into national strategies and programmes
3.8	Universal Health Coverage	Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all
3.9	Reduction in pollution induced deaths	Substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination
		Implementation level Targets
3.a	Strengthening Implementation framework	Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate
3.b	Research and development	Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS. Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all
3.c	Health service Providers	Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least-developed countries and small island developing States
3.d	Capacity building	Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks

(UN, 2015)

Owing the aforementioned facts, this section at first presents the current nutritional status of children aged 6-59 months applying methodology of WHO for measuring new-child growth standard. Secondly, it assesses the nutritional status of women 15-49 years of age whose anthropometric records are obtained in the process of household survey, and thirdly accounts the incidences of under-five mortality during preceding five years of survey. Last, but not the least, determines the level of deprivation from health dimensions of the study households and population.

Nutritional Status of Children

Nutritional status of children 6-59 months of age is measured through the following three indicators, if child is found falling below -2SD of the respective z score (centiles) of the measures is categorized as malnourished: height/lengths for age (status of stunting), weight for age (status of under-weight), and weight for height/lengths (Status of wasting), Children who are more than two standard deviations below the international reference population for stunting (height for age) or wasting (weight for height) or are underweight (weight for age). The standardization follows the algorithms provided by the WHO Child Growth Reference Study (WHO, 2006). With the new child growth standard WHO (2006) claimed that 'it is now possible to show how children should grow and demonstrate - that children born in different regions of the world and given the optimum start in life, have the potential to grow and develop to within the same range of height and weight for age. As a major care giver the 'women agency' and their empowered or deprived status is thought to be must crucial to decide for giving the 'optimum start' in life of children for their betterments. Nature of data and their collection method used to compute centiles include:

a. Date of birth of child in day-month-year (DD-MM-YY) format. It is used to determine centiles by exact day or month of child age calculating by subtracting century date[4] of birth of child from century date of interview.
b. Length of child in centimetre – if child is below 24 months of age, her/his length was taken straight laying down on smooth surface

[4]Century date of birth or interview is derived as (Year of birth*12+month on birth*30+date of birth).

c. Height of child in centimetre – if child is 24 and above months of age, her/his height was taken straight standing

Weight of child in kg- if child is of age below 24 months, first weight of his/her mother or her/his caregivers was taken and recorded, and then asked to stand on the digital weighing scale carrying the child. Then the child's weight is determined subtracting the mother's weight from the combined mother-child weight. Accuracy of weight measured in the digital weighing machine was of ±100 gram. Weight of children 24 months and above was taken standing the child her/himself in the weighing machine

Children's edema status was determined by gentle pressing by thumb on the opposite mussels of hand palm and feet paw of each child for some time. If the pressed place remains with deep spot for sometimes, child is categorized as severe malnourished with bilateral pitting edema, also called nutritional edema.

The centiles to determine nutritional performance of children by age is computed applying the WHO prescribed corresponding LMS values by age and sex of child. The biologically implausible or extreme z-scores for each indicator have been flagged (excluded) according to prescribed by WHO Anthro PC manual (WHO, 2011). The extreme z-scores flagged (excluded) from the analysis are as follows:

Table showing the extreme z-scores flagged

Indicator	Variable name	Extreme z-scores flagged
Weight-for-age z-score	(ZWAZ)	ZWAZ<-6 or ZWAZ >5
Length/height-for-age z-score	(ZHAZ)	ZHAZ<-6 or ZHAZ >6
Weight-for-length/height z-score	(ZWHZ)	ZWHZ<-5 or ZWHZ>5

Source: WHO, 2011

Note: The biologically implausible extreme cases flagged out differs by indicators, therefore, the number of children included in study vary from one to another indicator. The centiles for height for age, weight for age, weight for height and MBI for age have been computed to determine proportion children below -2 z score or above it.

Malnutrition is caused by poverty and perpetuates poverty. United Nations Convention on the Rights of the Child, article 24.2C states that governments have a responsibility to combat disease and malnutrition through the process of adequate nutritious food. The participating States in the United Nations World Food

Conference 1974, emphasized on the right to be free from hunger and malnutrition and accorded every man, woman and child has the inalienable right to be free from hunger and malnutrition in order to develop fully and maintain their physical and mental faculties. The nutritional or food deprivation among children include children whose heights and weights for their age were more than –2 standard deviations below the median of the international reference population (WHO, 2006) is considered as anthropometric failure.

Based on the determined z-score values by age of child, the study identified 45 percent children in total stunting and nearly 27 percent under severe stunting and the average value of stunting (mean z score) comes -1.65. Likewise, 28 percent of children found total underweight in terms of weight-for-height and ten and half percent children found falling in range of severe underweight (<-3 SD). Proportion children under wasting range found nearly 20 percent and some nine percent are in the range of severe wasting (weight-for-age).

Both gross (z <-2 SD) and severe (z<-3 SD) stunting is excessively high in Mountain regions, in Provinces 5, Bagmati and 2; in urban areas, for the children of Brhman/Chhetry and Hill Janajatis. Compared to the finding of Nepal Demographic Health Survey (2016), proportion children with symptoms of stunting based malnutrition found in this survey is higher by about 9 percentage points (45% of this survey and 36% of NDHS 2016). This might be justified that the survey captures those households identified as food insufficient or poorest of the poor in the society.

Proportion children below -2 SD in terms of weight for height are estimated at about 28 percent and below -3 SD about 11 percent. Again prevalence of underweight is highest in

All

Length/height for child in CM Weight (kg) for boys and girls

Range of measurement

45-110 cm
65-120 cm
0.9- 58.0

The flagging criteria includes if any extreme observation recorded either below or above of the following measurement.

Unit of measurement

Age range

<24 Months

≥ 24 Months

Mountain, Provinces 3 and 2; urban areas, among the Dalits, Muslims, Terai Janajati Tarai Caste communities (over 30% falling in -2 SD). Similarly, proportion children below -2 and - 3 SD found to be insensitive according to equity quintile ranking of the study households. The mean z-score of the centiles to measure weight-for-height for children is estimated at - 1.24.

Another measure of childhood malnutrition weight-for-age (wasting) revealed about 20 percent of children to be below -2 SD and some nine percent below -3 SD. The similar pattern of variation in childhood wasting is revealed as like to the variation of stunting and underweight by differential attributes of observation.

The study inquired and observed as well about the prevalence of oedema of the children whose anthropometric records are obtained and found 17 (2%) children affected of it. Of those 17, two are from Mountain, six from Hill and 9 from Tarai regions. By caste/ethnic origin, five each are from Hill Janajati communities and Dalits and four from Brahman/Chhetri communities. If children found with oedema were not taken their height and weight records, since, the height and weight record may reveal them as well nourished. Children with oedema have swollen limbs and may look well fed, but oedema is a clinical sign of being severely undernourished. To determine whether oedema is present, method is used to grasp the foot so that it rests in hands of surveyors with thumb on top of the foot. Then pressing the thumb down gently for a few seconds, the children with oedema found a pit (dent) remain in the foot after lifting the thumb. If the child has oedema, the retained fluid in limbs and skin increases her/his weight, masking what may actually be very low weight.

Table 5. 11: Nutritional Status Children under age 5 classified as malnourished according to three anthropometric indices of nutritional status

	Height-for-age (Stunting)			Total (N)	Weight-for-height (Underweight)				Weight-for-age (Wasting)		
Background Characteristics	Severely stunted (% below <-3 DS)	Total stunted (% below -2 SD)	Mean z score		Severe under-weight (% below <-3 DS)	Total underweight (% below -2 SD)	Mean z score	Total (N)	Severe wasting (% below <-3 DS)	Total wasted (% below -2 SD)	Mean z score
Sex of HH Head											
Male	25.8	45.9	-1.63	543	10.2	27.5	-1.20	668	9.5	21.1	-0.38
Female	29.2	43.5	-1.71	168	11.4	30.3	-1.37	201	6.9	15.6	-0.30
Rural/Urban											
Rural	21.9	39.8	-1.43	324	9.4	26.2	-1.25	404	11.7	22.2	-0.44
Urban	30.5	49.9	-1.83	387	11.4	29.9	-1.22	465	6.4	17.7	-0.28
Ecological Region											
Mountain	36.5	50.0	-1.77	74	12.6	34.7	-1.45	95	6.6	21.1	-0.43
Hills	24.2	45.7	-1.71	256	9.4	20.1	-0.94	319	7.5	16.0	0.12
Tarai	26.2	44.1	-1.58	381	10.8	32.5	-1.40	455	10.3	22.2	-0.68
Province											
Province 1	10.0	28.3	-0.76	120	12.1	32.6	-1.44	141	22.0	35.4	-1.09
Province 2	32.1	53.6	-1.97	168	13.2	34.2	-1.55	190	7.0	16.3	-0.45
Bagmati	38.3	55.3	-2.11	47	15.1	36.6	-1.21	93	3.9	17.6	-0.13
Gandaki	16.7	31.3	-1.04	48	15.9	25.4	-1.13	63	12.5	22.9	-0.94
Lumbini	33.0	57.8	-2.06	109	4.2	21.0	-1.20	119	4.5	13.4	0.01
Karnali	34.7	49.0	-1.86	98	3.4	18.6	-0.96	118	4.0	11.9	0.39
Sudurpaschim	22.3	38.0	-1.59	121	11.0	25.5	-0.94	145	6.6	20.7	-0.30
Caste /Ethnicity											
Relatively Disadvantaged Janajati	32.5	40.0	-1.88	1578	10.7	28.3	-1.18	205	9.8	0.1	-0.254
Dalit	26.1	42.0	-1.55	238	13.8	34.2	-1.43	304	10.8	23.6	-0.53
Brahman\Chhetry	29.8	50.3	-1.82	161	4.2	15.9	-0.76	189	3.7	11.1	0.28
Disadvantaged Non-Dalit Terai Caste	19.0	39.2	-1.40	79	10.2	34.1	-1.50	88	13.4	23.2	-0.83
Relatively Advantaged Janjati	8.0	40.0	-1.25	25	10.7	17.9	-1.10	28		20.0	-0.69
Muslim	21.4	42.9	-1.03	28	9.4	31.3	-1.55	32	11.5	23.1	-0.82
Others	21.7	43.5	-1.89	23	17.4	34.8	-1.84	23	8.7	21.7	-1.14
Equity Quintiles											
Poorest	29.5	46.9	-1.80	258	10.1	23.5	-1.04	327	6.7	18.5	0.05
Poor	27.6	44.4	-1.75	196	12.2	34.8	-1.47	230	11.5	22.5	-0.72
Middle	26.8	48.6	-1.63	142	9.8	30.7	-1.38	163	11.6	19.0	-0.52
Rich	15.5	36.9	-1.04	103	9.2	25.4	-1.11	130	6.9	20.8	-0.68
Richest	41.7	58.3	-2.17	12	10.5	26.3	-1.32	19		7.1	0.82
Total	26.6	45.3	-1.65	711	10.5	28.2	-1.24	869	8.9	19.8	-0.36

Source: PAF Household Survey, 2018

Nutritional Status of Women

Attempt is made to obtain anthropometric measures of women in reproductive age (15-49 years) available in the survey household. Such indicators include height in centimeter and weight in Kg. The height related measure is used for two purposes. First is to ascertain proportion women below 145 centimetres in height and second is to construct body mass index (BMI). BMI is an anthropometric indicator based on weight-to-height ratio. It is used to classify malnutrition in non-pregnant/non-postpartum adults particularly of women. BMI is not an accurate indicator of nutritional status in pregnant women or adults with edema, therefore anthropometric records of pregnant women and women with edema is not taken. Weight in KG.

The composite index of BMI is determined as BMI=$\frac{Weight in (kg)}{Height in (m^2)}$

BMI values according to WHO range (2017) for malnutrition, normal nutritional status and overweight/obesity is as following.

BMI Values

BMI values	Nutritional status
< 16.0	Severe malnutrition
≥ 16.0 to < 17.0	Moderate malnutrition
≥ 17.0 to < 18.5	Mild malnutrition
≥ 18.5 to < 25.0	Normal nutritional status
≥ 25.0 to < 30.0	Overweight
≥ 30.0	Obesity

(WHO, 2017)

If women characteristically short in height below 145 centimetre and fall below 18.5 in BMI score, is taken as deprived of nutritional intake and dietary deficiency – for deficiency of beings and doings. The term being stands for the state of undernourishment and doing for achievements and work performances yielded by a poorly nourished body. Women's weak physical 'beings' apparently translates into the 'doings' of reproductive performances and in care works. Due to their body size, thin and short woman most likely to give birth of 'under-weight' babies or to terminate pregnancies in still births or miscarriage. With this one can assume that children born to malnourished mothers are at high risk to be nutritionally poor, and growth retarded with lifelong implication.

Table 5. 12: Nutritional Status of Women: Percentage Distribution of Women 15-49 of age by thin, normal and overweight and below height 145 CM by background characteristics

Background Characteristics	Total thin (BMI< 18.5)	Normal (18.5-24.9)	Total Overweight (>=25)	Obese (>=30 BMI)	Mean BMI	% below 145 CM	Total (N)
Sex of HH Head							
Male	14.0	68.4	12.1	5.7	22.2	11.9	2,000
Female	12.7	64.3	16.2	6.8	22.7	14.9	631
Rural/Urban							
Rural	12.0	73.3	11.5	3.2	22.0	10.4	1,185
Urban	15.0	62.5	14.3	8.2	22.5	14.5	1,446
Ecological Region							
Mountain	6.3	74.8	15.0	3.9	22.7	12.6	254
Hills	11.0	75.1	11.3	2.6	22.1	9.6	831
Tarai	16.3	62.0	13.6	8.0	22.3	14.2	1,546
Province							
Province 1	18.8	71.4	8.6	1.3	21.0	9.9	384
Province 2	26.7	63.7	9.0	0.7	20.4	6.6	454
Bagmati	4.9	44.0	22.0	29.1	26.0	34.6	327
Gandaki	10.9	65.7	17.8	5.6	22.9	12.1	338
Lumbini	8.8	67.1	17.6	6.4	23.0	11.0	374
Karnali	7.6	83.6	6.8	2.0	21.8	11.0	354
Sudur Paschim	13.3	74.3	11.8	0.8	21.8	7.5	400
Caste Ethnicity							
Relatively Disadvantaged Janjati	11.4	65.9	15.6	7.1	22.7	13.3	828
Dalit	14.9	66.0	11.7	7.3	22.5	14.8	803
Brahman\Chhetry	10.4	74.5	10.2	4.8	22.2	11.9	537
Disadvantaged Non-Dalit Terai Caste	25.5	62.7	11.8		20.6	5.0	220
Relatively Advantaged Janjati	3.9	60.8	26.5	8.8	24.1	13.7	102
Muslim	24.7	68.8	3.9	2.6	20.4	6.5	77
Others	15.6	68.8	14.1	1.6	21.3	14.1	64
Equity Quintiles							
Poorest	10.8	76.1	10.1	3.0	22.1	13.6	825
Poor	16.2	70.5	10.0	3.3	21.6	9.8	767
Middle	15.6	65.2	14.4	4.9	22.1	9.5	494
Rich	12.6	53.0	19.7	14.7	23.6	18.2	468
Richest	13.0	44.2	26.0	16.9	24.4	16.9	77
Total	13.6	67.4	13.0	5.9	22.3	12.6	2,631

Source: PAF Household Survey, 2018

The nutritional status of women taken in the study presented in Table 5.11 clearly indicated that over two-third (67%) women of reproductive age (non-pregnant) are in the range of normal nutritional status (BMI 18.5-24.9); some 14 percent are undernourished (thin) with BMI <18.5; and another 13 percent are overweight

including five percent obese. The average BMI value comes 22.3, and the proportion women short in height than 145 centimetres is about 13 percent. 75 percent or more women from Hill and Mountain regions are in normal BMI range. Its extent is about 84 percent in Province-6; and goes down to 44 percent in Gandaki. Proportion women falling below normal BMI (<18.5) is found above average in Tarai region (16%), Provinces 1 and 2, women of all Tarai origin caste/ethnic communities (Dalits, Muslims, Janajatis and Tarai Caste), in male headed households, poor and middle equity quintile and in urban areas. Proportion women characterized as overweight and obsess is conclusively high living in Tarai region and Bagmati, women of Tarai Dalit communities and belonging to rich and richest equity quintiles. Proportion women falling below 145 CM is as high as 35 percent in Bagmati; 20 percent for Muslim.

Determining Health Dimension of Deprivation

The study found that about 11 percent of the survey households are with any children whose nutritional status measured in terms of height-for-age is malnourished. The corresponding figure for the households with under-5 children whose nutritional status measured according to weight-for-age (wasting) is about five percent and for weight-for-height (under-weight) is about 8.5 percent. Children are considered malnourished if their z-score of the respective measurement i.e. height-for-age; weight-for-age and weight-for-height are below minus two standard deviations (<-2 SD) from the median of the reference population.

Table 5. 13: Percentage of study households according to any sign of childhood malnutrition (6-59 months) height-for age (stunting), weight-for-age (wasting), weight-for-height (under-weight) and under-five mortality during last five years and women aged 15-49 with BMI<18.5 and any symptoms of health deprivation by background characteristics

Background Characteristics	Stunting	Wasting	Under-weight	U5 Mortality in last 5 yrs	Women 15-49 BMI<18.5	Combined Deprivation	AF & NPC Method	Total (N)
Sex of HH Head							0.0	
Male	10.7	5.4	8.6	1.0	13.1	26.4	6.3	1,983
Female	9.8	3.4	8.2	2.4	11.0	24.7	5.8	671
Rural/Urban								
Rural	8.8	5.4	7.7	2.0	10.8	24.7	7.3	1,255
Urban	11.9	4.5	9.1	0.8	14.2	27.1	5.1	1,399
Ecological Region								
Mountain	11.0	5.3	11.0	1.0	5.3	21.3	6.3	300
Hills	10.3	3.9	6.1	2.0	9.3	23.1	5.9	957
Tarai	10.5	5.6	9.6	1.0	16.3	28.9	6.4	1,397
Province								
Province 1	7.6	10.5	11.3	2.4	17.6	33.2	12.6	380
Province 2	17.2	6.0	13.6	1.0	25.8	40.1	6.4	419
Bagmati	6.1	2.4	8.7	0.3	4.2	15.0	2.6	380
Gandaki	4.2	2.8	4.5	3.6	9.5	19.3	6.4	358
Lumbini	14.2	3.4	5.3	0.8	8.4	22.7	4.2	379
Karnali	12.3	3.3	6.1	1.1	7.5	22.3	4.5	359
Sudurpaschim	10.8	5.8	9.0	0.5	12.9	27.2	6.3	379
Caste Ethnicity								
Relatively Disadvantaged Janjati	8.1	3.6	7.5	2.7	10.3	22.0	6.1	836
Dalit	10.7	6.6	12.4	0.7	14.2	29.2	7.1	794
Brahman\Chhetry	12.6	3.0	5.0	1.1	9.6	23.5	4.1	565
Disadvantaged Non-Dalit Terai Caste	13.4	7.9	13.4	1.0	24.3	39.1	8.4	202
Relatively Advantaged Janjati	7.9	4.0	4.0	-	3.2	14.3	4.0	126
Muslim	12.2	6.8	9.5	1.4	24.3	33.8	8.1	74
Others	14.0	8.8	12.3	-	15.8	31.6	8.8	57
Equity Quintiles								
Poorest	11.1	4.9	7.6	1.9	9.1	24.4	6.7	940
Poor	9.6	5.3	9.4	0.9	15.3	26.4	6.1	759
Middle	13.2	5.7	10.6	1.5	15.9	32.4	7.0	454
Rich	8.1	4.2	7.2	0.9	11.9	23.0	5.1	430
Richest	8.5	1.4	5.6		11.3	19.7	1.4	71
Total	10.5	4.9	8.5	1.4	12.5	26.0	6.2	2,654

Source: PAF Household Survey, 2018

The study found 37 children died during last five years from 36 households, which accounts 1.4 percent of the study households (2,654). Similarly, twelve-and half percent of the study households contains any women of reproductive age (15-49 years) with BMI below 18.5 (Table 5.12). Taking all five symptoms of health deprivation[5] under consideration, the study accounted 26 percent of the study households in the state of health deprivation. This is taken in account because the Human Development Index Technical note (UNDP, 2016) suggested to take nutrition measure if a household member (for whom there is nutrition information) is malnourished, as measured by the body mass index for adults (women ages 15–49 in most of the surveys) and by the height-for-age z-score calculated based on World Health Organization standards for children under age 5.

On the contrary, if we stick to Alkire and Foster methodology and its use by NPC to account Nepal multidimensional poverty index-2018, i.e. weight-for-age (under-weight) of children and under-five mortality, the level of household's deprivation from health dimension declines at six percent. When we consider level of household's deprivation from health dimension, its extent is high in Terai region than hills and mountains, in Province 2, 1 and 7, and among the Tarai origin caste/ethnic communities.

[5]Stunting, wasting, under-weight and under five mortalities of children and BMI<18.5 for women 15-49.

CHAPTER VI

EMPLOYMENT, MIGRATION, AND ECONOMIC DIMENSIONS OF MPI

This chapter contains four parts. The first part is devoted to work employment characteristics of population age five years and above currently living at home. Second part presented details about migrant's labourers and their remittance behaviour. Third part is devoted to present composition of household income and expenditure and last, but not least the fourth part discusses about financial access and inclusion of family members age above 16 and the household as a whole.

6.1 Employment Characteristics

Main occupation, activity rate, status in employment hours of work in a typical reference period of the currently working population, status of full, under or open employment and status of receiving any occupational training and annual wage earnings of the wage workers is presented in this section. Full employment, under employment and open-unemployment is determined by aggregating the responses:

a. Fully employed if worked for more than 40 hours in a reference week and did not search for another work and not available for extra work
b. Fully employed if worked less than 40 hours, but did not search extra work and n and not employ available for extra work
c. Under employed if worked less than 40 hours in a reference week (reference period), searched for extra work and available for extra work,
d. Under employed if worked for more than 40 hours in the reference period, but searched for extra work and available for extra work,
e. Open unemployed – did not work during the reference period bur available for work and search for work.

A number of studies (CBS, 1995, 2012, 2015, 2019) have been carried out to understand the labour market and patterns of work.

Economically Active Population

The study in its household questionnaire schedule asked about current activity status by sector of employment of the household population aged five years and above.

Activity status refers to whether a person is economically active or not active in current and usual context. Of the two approaches of measuring activity rate i.e. current and usual, here the current approach is considered to the most part. The current activity status refers to:

he/she is either employed for at least one hour during previous seven days, or has a job attachment if temporarily absent from work, or is available for work (if work could be found) (CBS, 2012).

The current activity status of the population is measured in relation to a reference period of one week, while the concept of "usually active" is used to measure a person's activity status over a period of one year. The notion of currently economically active population in the use of this study is those who are currently employed or unemployed. This chapter describes the current activity status of individuals aged ten years and over. Also presents status in employment of the currently working population.

Data presented in Table 6.1 on the current activity status and status in work revealed that about 71 percent of the household population aged 10 and above is currently economically active. This economic activity rate is derived excluding those whose main activity is reported currently schooling, unemployed and searching for job, too young to work/disabled and aged.

This study estimated overall 71 percent population age 10 and above currently economically active, and about 29 percent economically inactive. However, with reference to the usually active population age 10 years and above of the national population census 2011 the proportion of economically active population is high in this survey.

Current employment/activity rate is 82 percent in Mountain region and 74 percent in Tarai hills being in 64 percent. Economic activity rate is highest 84 percent in Province-2 followed by Gandaki and Bagmati (78%) and it is lowest in Provinces 7 and Karnali (<65%). Caste/ethnic variation in economic activity rate revealed to be highest for Non-Dalits Terai caste (about 79%) followed by Disadvantaged Janajatis (about 75%) and lowest for Brahman/Chhetry (64%) followed by others (approximately 68%). There appears no conclusive variation in economic activity rate by rural/urban residence; however, it is variably low for female headed households.

Table 6. 1: Distribution of household population 10 years and above according to types of current work occupation by background characteristics

Background Attributes	Economically Active						Inactive				
	Self Agricu-lture	Self Non-Agricu-lture	Wage in Non-Agricu-lture	Govt. and profess-ional jobs	House-ehold Work	% Eco Active	Student s	Unem-ployed searching Job	Too Young old & Disabl e	% Inactiv e	Total (N)
Ecological Region											
Mountain	67.2	1.6	6.6	1.1	5.3	81.7	12.2	0.2	5.8	18.3	893
Hills	47.0	2.5	2.8	2.4	9.4	64.0	30.8	1.9	3.2	36.0	3,393
Tarai	25.2	7.9	12.9	2.3	26.0	74.4	22.8	0.3	2.5	25.6	5,122
Province											
Province 1	28.9	7.3	9.2	1.7	25.4	72.4	24.9	0.4	2.3	27.6	1,376
Province 2	18.6	7.5	14.3	1.3	42.2	84.0	14.5	0.4	1.1	16.0	1,341
Bagmati	48.2	3.9	13.3	3.1	9.2	77.7	17.6	0.4	4.3	22.3	1,219
Gandaki	72.1	3.0	1.3	1.6	0.2	78.1	19.8	0.1	2.0	21.9	1,281
Lumbini	25.0	5.1	10.7	3.0	20.4	64.2	32.0	0.3	3.6	35.8	1,536
Karnali	40.4	0.9	3.1	1.6	14.6	60.7	31.3	4.5	3.6	39.3	1,302
Sudurpaschim	31.0	9.3	8.4	3.2	12.3	64.1	30.8	0.4	4.7	35.9	1,353
Caste Ethnicity											
Dalit	34.2	5.2	12.0	1.4	19.8	72.4	24.5	0.5	2.6	27.6	2612
Muslim	11.5	9.1	8.4	0.7	42.2	71.8	24.7	0.3	3.1	28.2	287
Brahman\Chhetry	40.3	4.0	3.3	4.2	12.3	64.1	29.3	2.7	3.9	35.9	2,037
Relatively Disadvantaged Janjati	42.3	5.5	9.7	1.8	15.1	74.6	22.5	0.4	3.2	26.0	3099
Relatively Advantaged Janjati	57.4	3.3	4.0	1.8	2.9	69.3	26.9	0.2	3.5	30.7	453
Disadvantaged Non-Dalit Terai Caste	17.4	8.9	10.4	2.0	40.1	78.8	18.3	0.5	2.4	21.2	661
Others	22.0	7.1	9.1	2.5	27.0	67.6	31.1	0.4	0.8	32.4	241
Rural/Urban											
Rural	44.1	4.2	5.8	2.0	14.5	70.6	25.6	0.4	3.4	29.4	4,362
Urban	31.0	6.4	11.1	2.4	21.1	72.0	23.9	1.3	2.8	28.0	5,046
Sex of HH head											
Male	37.3	5.5	8.3	2.3	18.7	72.2	23.6	1.1	3.2	27.8	7,316
Female	36.4	4.7	9.8	1.9	15.7	68.4	28.6	0.4	2.6	31.6	2,092
Equity quintiles											
Poorest	47.9	2.3	4.9	1.0	11.7	67.8	26.7	1.9	3.6	32.2	3,248
Poor	38.2	4.8	9.7	1.5	20.0	74.2	22.6	0.3	2.9	25.8	2,622
Middle	28.6	6.7	11.1	2.9	22.8	72.2	24.5	0.5	2.7	27.8	1,752
Rich	25.0	9.4	11.8	4.1	22.9	73.2	24.1	0.4	2.3	26.8	1,511
Richest	18.9	16.4	9.8	8.0	17.5	70.5	24.7	0.4	4.4	29.5	275
Sex of Member											
Male	34.7	9.2	17.2	3.3	4.3	68.6	26.0	1.7	3.7	31.4	4,341
Female	39.1	2.1	1.4	1.3	29.9	73.7	23.5	0.3	2.5	26.3	5,067
Broader age group											
10-14 Yrs	4.6	0.1	0.4	0.1	3.1	8.3	89.4	0.1	2.3	91.7	1,768
15-59 Yrs	43.5	6.8	11.3	2.9	21.9	86.5	10.8	1.2	1.5	13.5	6,882
60+Yrs	54.0	4.9	3.6	0.5	17.8	80.7		0.1	19.1	19.3	758
Total	**37.1**	**5.4**	**8.7**	**2.2**	**18.1**	**71.4**	**24.7**	**0.9**	**3.1**	**28.6**	**9,408**

Source: PAF Household Survey, 2018

Due to excessive participation in household activities, female's economic activity rate tends to be higher than males (74% of female against 69% of male) and obvious to see is that activity rate tends to increase with the increase in age of family members. It is still above 80 percent participation rate of population aged 60 years and more (Table 6.1).

According to Nepal Labour Force Survey (CBS, 2019), the working age population (15 + years) had a share of 71.5 percent (20.7 million) of the total population of which 55.6 percent were females. There is an unemployment rate of 11.4 percent. Females reported a higher unemployment rate of 13.1 percent, which is 2.8 percentage points higher compared to males.

Table 6.2 summarized information on sector of work/employment of the currently economically active population. From the Table it has been clear that 68 percent of the active population are involved in own account household activities, some 26 percent is working in paid employment and some six percent operating own account business or productive units. Extent of paid workers is highest in Tarai region, in Provinces 2 and Sodurpaschim, for the Dalits (31.4 %) followed by others (30.1%). It is again high in urban area than rural and richest quintile households and for male (49%) member of the family and extent of paid work is above 28 percent for the population 15-59 years of age.

Operation of own account productive activity (business or industry) is relatively high in Tarai, in Lumbini, for Gurung/Newar and Thakali communities, in female headed households, in richest equity groups and for 60 years and older population. Extent of involvement in unpaid family work activity is highly pronounced in Hills and Mountain regions, in Karnali and Gandaki, for Brahman/Chhetry and Muslim (above 70%). Similarly, it is high for rural residents, in poorest families and for female members of family (Table 6.2).

Table 6. 2: Percent distribution of economically active population aged 10 and above and status of current work employment by background characteristics

Background Characteristics	% Eco. active	Population (5+)	Paid worker	Own account work	Un-paid family work	Other	Total (N)
Sex of Member							
Male	68.6	4,341	49.0	6.7	44.2	0.1	2,979
Female	73.7	5,067	8.3	5.2	86.4	0.1	3,734
Sex of HH Head							
Male	72.2	7,316	26.4	4.4	69.1	0.1	5,282
Female	68.4	2,092	26.1	11.1	62.5	0.3	1,431
Broader Age Group							
10-14 Yrs	8.3	1,768	6.8	0.7	91.1	1.4	146
15-59 Yrs	86.5	6,882	28.3	5.8	65.8	0.1	5,955
60+Yrs	80.7	758	12.4	7.0	80.6	0.0	612
Rural/Urban							
Rural	70.6	4,362	21.5	6.5	71.9	0.1	3,081
Urban	72.0	5,046	30.5	5.3	64.1	0.2	3,632
Ecological Region							
Mountain	81.7	893	22.1	2.3	75.3	0.3	730
Hills	64.0	3,393	15.1	4.1	80.8	0.0	2,173
Tarai	74.4	5,122	33.6	7.5	58.7	0.2	3,810
Province							
Province 1	72.4	1,376	27.2	3.0	69.8	0.0	996
Province 2	84.0	1,341	36.1	1.2	62.4	0.2	1,126
Bagmati	77.7	1,219	29.0	4.9	65.9	0.2	947
Gandaki	78.1	1,281	15.4	6.1	78.4	0.1	1,001
Lumbini	64.2	1,536	26.0	19.1	55.0	0.0	986
Karnali	60.7	1,302	18.2	2.3	79.5	0.0	790
Sudurpaschim	64.1	1,353	30.2	4.0	65.3	0.5	867
Caste Ethnicity							
Relatively Disadvantaged Janjati	74.6	3099	25.7	7.3	66.9	0.1	2312
Dalit	72.3	2612	31.4	4.7	63.6	0.2	1892
Brahman\Chhetry	64.1	2,037	21.1	4.2	74.5	0.2	1,306
Disadvantaged Non-Dalit Terai Caste	78.8	661	29.6	2.7	67.8	0.0	521
Relatively Advantaged Janjati	69.3	453	14.0	18.2	67.8	0.0	314
Muslim	71.8	287	28.2	1.0	70.9	0.0	206
Others	67.6	241	30.1	3.7	65.6	0.6	163
Equity Quintiles							
Poorest	67.8	3,248	18.3	3.3	78.3	0.1	2,203
Poor	74.2	2,622	29.0	5.3	65.4	0.2	1,945
Middle	72.2	1,752	30.1	6.7	63.1	0.1	1,265
Rich	73.2	1,511	32.0	8.6	59.1	0.3	1,106
Richest	70.5	275	34.0	18.0	47.9	0.0	194
Total	71.4	9,408	26.4	5.8	67.7	0.1	6,713

Source: PAF Household Survey, 2018

According to Nepal Labour Force Survey (CBS, 2019), there were also geographical disparities in the labour market outcomes. Bagmati reported the lowest unemployment rate of (7 percent) while Province 2 reported the highest unemployment rate (20.1 percent) which was 8.7 percentage points higher than the national average. Although the gap between urban and rural unemployment rate is minimal, i.e 10.9 percent vs 11.6 percent, the disparity in the employment to population ratio was pronounced, i.e 36.9 percent for urban versus 29.3 percent.

Accounting Full or Under-employment

It is customary to take hours of work in a week to categories an employed person as fully employed or under/partially employed. If works 8 hours a day and 40 hours or more in a week, a person is categorized as full employed, otherwise under employed. This is the time approach of employment. If a person works for more than 40 hours a week and seeking for more job and available to work more, from the job satisfaction and perception perspective, categorized as under employed.

From the point of view of 40 hours' cut-off as full employed and under employment, nearly 78 percent of economically active population found as fully employed, bit above one-fifth as under-employed (Table 6.3). Since, nearly 60 percent of them found working for more than 40 hours in the reference week, nearly 30 percent were available for additional work and 15 percent also did search of additional job.

Table 6. 3: Distribution of population aged 10 and above currently economically active according to hours of work in a week, status of getting occupational training, searching for additional job and full or under employment by background characteristics

Background Characteristics	Hours of Work			Training and more job search			Full or Under Employment		
	<40 Hours	40+ Hours	Median Hrs of Work	Skill Training	Available for additional job	Search additional Job	Full	Under	Total (N)
Sex of Member									
Male	37.1	62.9	45.0	11.9	32.9	18.6	73.2	26.8	3,970
Female	43.4	56.6	42.0	5.2	26.8	11.0	81.5	18.5	4,686
Sex of HH Head									
Male	40.0	60.0	45.0	8.2	31.2	15.7	76.4	23.6	6,773
Female	42.4	57.6	42.0	8.6	23.8	10.4	82.0	18.0	1,883
Broader Age Group									
10-14 Yrs	74.3	25.7	19.0	1.3	11.5	3.4	97.3	2.7	1,016
15-59 Yrs	33.8	66.2	45.0	9.8	33.8	17.1	73.3	26.7	6,882
60+Yrs	56.1	43.9	35.0	3.6	16.2	6.2	89.8	10.2	758
Rural/Urban									
Rural	40.7	59.3	45.0	10.0	28.7	18.1	78.6	21.4	3,979
Urban	40.3	59.7	42.0	6.8	30.4	11.4	76.8	23.2	4,677
Ecological Region									
Mountain	29.6	70.4	48.0	7.8	33.3	14.2	66.6	33.4	855
Hills	37.2	62.8	45.0	10.6	25.0	15.8	80.3	19.7	3,069
Tarai	44.6	55.4	42.0	6.8	31.9	13.7	77.9	22.1	4,732
Province									
Province 1	47.8	52.2	42.0	6.9	25.7	22.8	87.8	12.2	1,248
Province 2	46.9	53.1	42.0	6.0	39.9	8.3	74.2	25.8	1,265
Bagmati	24.8	75.2	50.0	10.4	24.2	8.1	77.4	22.6	1,155
Gandaki	40.4	59.6	46.0	18.5	44.5	26.3	62.7	37.3	1,194
Lumbini	34.1	65.9	49.0	4.1	18.3	5.1	83.8	16.2	1,382
Karnali	50.7	49.3	40.0	6.5	34.5	20.7	72.7	27.3	1,161
Sudurpaschim	38.8	61.2	42.0	6.3	21.8	11.9	82.5	17.5	1,251
Caste Ethnicity									
Relatively Disadvantaged Janajati	38.5	61.5	45.7	10.2	34.1	17.9	73.4	26.6	2886
Dalit	42.7	57.5	43.8	6.5	27.4	13.2	79.3	20.7	2390
Brahman\Chhetry	40.8	59.2	42.0	7.9	27.4	15.1	79.5	20.5	1,868
Disadvantaged Non-Dalit Terai Caste	44.6	55.4	42.0	7.2	35.5	9.5	76.7	23.3	623
Relatively Advantaged Janajati	32.4	67.6	52.0	12.9	21.9	9.8	80.3	19.7	420
Muslim	47.5	52.5	42.0	1.6	31.8	10.6	83.2	16.8	255
Others	35.5	64.5	42.0	6.5	8.4	7.0	91.7	8.3	214
Equity Quintiles									
Poorest	36.8	63.2	45.0	6.8	31.5	18.0	73.7	26.3	2,979
Poor	44.3	55.7	42.0	7.1	31.1	15.5	78.7	21.3	2,412
Middle	41.2	58.8	45.0	9.0	28.9	12.9	78.7	21.3	1,611
Rich	41.4	58.6	42.0	11.2	25.7	9.1	81.7	18.3	1,397
Richest	38.1	61.9	42.0	14.8	19.8	5.1	85.0	15.0	257
Total	40.5	59.5	42.0	8.3	29.6	14.5	77.6	22.4	8,656

Source: PAF Household Survey, 2018

The median hours of work in a week of the employed population indicated that the first half of the workers work less than 42 hours in a week and the second half more

than this long hours of work. Acceding to Nepal Labour Force Survey (CBS, 2019), Nepalese usually worked 44 hours on average per week and those in transport and storage industry usually worked the longest hours (55 hours per week). Other industries where people worked excessive hours (i.e more than 48 hours) included, accommodation and food services and construction. Males usually worked more hours (48) on average compared to females (39 hours).

6.2 Labour Migration and Remittance

Migration and Remittance Interrelationship

The role of migration and remittances sent by the migrants is a matter of debate in the existing literature on migration research. The primary motivations for internal and international are generally linked to economic opportunities and sharing part of this newly acquired economic opportunity with family members remained behind (KC, 2008). A huge diversity exists in the utilisation of internal and international remittances in the areas of origin. It has also been suggested that internal and international remittances not only reshape the life chances of remittances receiving households but also fulfil the diverse non-food necessities.

Migrant remittances generally refer to 'transfers of cash or in kind from migrants to resident households in the country of origin' (Bilsborrow et al., 1997: 321). The key sources of official data on remittances are the records of annual balance of payments of respective countries. These are compiled in the Balance of Payments Yearbook by the International Monetary Fund (IMF). The IMF provides a comprehensive definition of the Balance of Payments Manual (BPM5) in its fifth edition by incorporating three distinct categories in its statistical yearbook: (i) workers' remittances, (ii) compensation of employees, and (iii) migrants' transfers. Workers' remittances cover current transfers by migrants who are employed in new economies and considered residents there. Compensation of employees comprises wages, salaries, and other benefits earned by individuals in other countries rather than those they are currently residing. Migrants' transfers refer to transfers of financial assets made by migrants as they move from one country to another. Later, the IMF simplified the definition of remittances and brought it in line with compilation practices applied in many economies. The sixth edition of the IMF Balance of Payments and International Investment Position Manual (BPM6) introduces 'personal

transfers' and 'compensation of employees' to estimate remittances (IMF, 2009: 20). Personal transfers include all current transfers between resident and non-resident individuals. Recent remittance data published by IMF Balance of Payments Statistics Yearbook provide data on remittances following BPM6 definition, that is, remittances as personal transfers and compensation of employees.

Table 6. 4: Distribution of migrant labourers according to remittance sending status and average amount of remittance sent during last 12 months by background characteristics

Background Characteristics	% Sent Remittance	Total (N)	Average Remittance Sent		Total (N)
			Mean	Median	
Sex of Member					
Male	63.7	1,065	222,850.3	150,000.0	678
Female	9.6	271	177,269.2	140,000.0	26
Sex of HH Head					
Male	49.3	896	196,051.6	133,500.0	442
Female	59.5	440	263,537.0	200,000.0	262
Broader Age Group					
10-14 Yrs	2.8	72	29,500.0	29,500.0	2
15-59 Yrs	55.5	1,254	222,755.6	150,000.0	696
60+Yrs	60.0	10	100,766.7	100,000.0	6
Rural/Urban					
Rural	38.3	664	177,322.9	132,000.0	254
Urban	67.0	672	245,914.4	150,000.0	450
Ecological Region					
Mountain	35.0	140	198,040.8	100,000.0	49
Hills	38.5	637	110,603.6	60,000.0	245
Tarai	73.3	559	289,999.0	210,000.0	410
Province					
Province 1	59.0	144	193,741.2	180,000.0	85
Province 2	71.2	163	241,449.1	201,000.0	116
Bagmati	56.8	213	486,041.3	360,000.0	121
Gandaki	42.9	161	147,159.4	100,000.0	69
Lumbini	49.8	233	213,418.1	159,500.0	116
Karnali	46.2	132	164,262.3	130,000.0	61
Sudurpaschim	46.9	290	55,028.6	31,000.0	136
Caste Ethnicity					
Relatively Disadvantaged Janjati	57.7	395	243,274.0	170570.2	228
Dalit	56.1	429	21,2041.7	129,883.8	241
Brahman\Chhetry	40.9	318	169,365.7	80,000.0	130
Disadvantaged Non-Dalit Terai Caste	66.7	63	294,700.0	250,000.0	42
Relatively Advantaged Janjati	25.3	79	297,300.0	287,500.0	20
Muslim	81.5	27	193,681.8	197,500.0	22
Others	84.0	25	215,761.9	180,000.0	21
Equity Quintiles					
Poorest	42.7	483	113,687.9	52,500.0	206
Poor	48.1	335	176,462.0	150,000.0	161
Middle	59.4	234	219,089.9	160,000.0	139
Rich	72.3	235	346,587.6	245,000.0	170
Richest	57.1	49	517,785.7	390,500.0	28
Total	52.7	1,336	221,166.9	150,000.0	704

Source: PAF Household Survey, 2018

As shown in Table 6.4, nearly three in every four (73.3 %) living in Tarai region reported sending remittance (NPR 210,000.0), followed by Province No. 2 (71.2 %). Migrant labourers from Bagmati province recoded highest proportion of remittance sent (NPL 360,000.0). About 64 percent were males and 60 percent of total labour migrants were from female headed households. The proportion of urban migrant labourers is 67, which is two times of rural migrants (38.3%).

By caste/ethnicity, the lowest percent of labour migrants among realtively disadvantaged janjatis (25.3 %) with the highest percent of remittance sent was observed while cpmaring to other communities. As level of equity qunitle increases the income from remittance increases.

6.3 Aggregating Household Income and Expenditure

Determination of Income Level

Income is aggregated to reflect and measure the flow of resources in a household in the past 12 months. In the study attempt is made to capture the flow of resources that enabled a surveyed household to achieve its living standard. This section of the report describes the methodology applied to in constructing household income aggregates, and income levels by sources.

Methodology for constructing income aggregates in this survey, though exactly not, borrowed from the methodology of Nepal Living Standards Survey (2010/11). Like in NLSS, the main components of household income are: agricultural such as crop and non-crop farm income, livestock income, rent and wage from land and draft animal. It also captures the income from wage employment, income from nonfarm enterprises, income from remittances, rental income and income from other sources. The components of total household income used in this study are listed below.

Income from Agriculture/Farm Sector

The study instead of recording gross values of crops harvested, in its section 6C of household questionnaire collected information on net value of quantity sold of cereal crops, cash crops, vegetables and fruits by products of the crops. Income from selling of agriculture by-product and renting out of draft animal, tractor, thresher, other machinery is added. Expenditures on seeds, fertilizers, hired labour, irrigation, and renting in of agriculture inputs has been deducted from the income of the respective items. Crop income here thus, is the net of the sold value of agricultural output. Home

based agricultural products consumed in family livelihoods are not accounted in income in the current study.

Income from livestock includes from selling of cattle (cow, ox, buffalo, water-buffalo, and yak), ruminants (goat, sheep, and pigs) and fowls (poultry, ducks and pigeons) and selling of livestock products such as milk, ghee, eggs, curd and meat. If a household has bought cattle and latterly sold, then the margin value between buying and selling is recoded. Expenditures on animal feed, transportation of feed, veterinary services are deduced. Income from livestock is then calculated as total value of sold livestock minus total value of purchased livestock plus net income from livestock by-product. Agriculture or farm income also includes income from rented-out land (net of the income and production share paid to the rented-in land).

Wage Income

Employment details of all persons aged 10 and above currently residing in the surveyed household are asked in Section 4A. It asked about main work activity person involved during last 7 days (if not worked last seven day work activity he/she usually involved in) and asked about status[6] of the person's involvement in the work/activity. If the person is wage earner either in agriculture or non-agriculture sector, salaried worker and retired on pension were asked about the sum of her/his wage earning during last 12 months. Wages received by an employee is accounted in each activity either on daily, long-term or contract/piece-rate basis.

[6]a. Paid/wage worker; b. Own account activity with employing others; c. Own account activity without wage workers; d. Unpaid family workers; and e. Retired worker.

Table 6. 5 Components Used to Aggregate Household Income

Components	Items Included	Items Deduced while recording
Agriculture/Farm	- Value of the quantity sold of the cereal crops production in the last 12 months (net of share paid to landlord) - Value of the cash crops, vegetables, fruits sold in the last 12 months - Value of by-products sold in the last 12 months - Value of the livestock and dairy products sold in the last 12 months (milk, ghee, eggs etc.) - Value/earning of the livestock/domestic animal fowl sold in the last 12 months - Net income from renting farm assets (draft animal, tractor, thresher etc.) - Total cash and in-kind received from tenants on land leased-out (if any)	- Cultivation costs (seeds, fertilizers, hired labour, irrigation etc.) - Maintenance expenditures on farm machinery and buildings (if any) - Fodder and other livestock expenditure (veterinary services) - Expenditure for the purchase of livestock (only net profit is taken into account) - Cash or kind rent paid to landlord for land rented-in
Wage Income	- Value of earned wage of all paid-workers of the family in cash or in-kind per year from agriculture sector (includes daily, piece-rate and permanent labour) - Value of earned wage of all paid-workers of the family in cash or in-kind per year from non- agriculture sector (includes daily, piece-rate and permanent labour)	-
Transfer	- Remittances (total of cash or in-kind)	-
Non-farm or Enterprises Income	- Net income from non-agricultur enterprises/activities during last 12 months	- Wage paid to workers in both cash or in-kind - Energy expenditure - Expenditure on raw material - Other operating expenditure - Share of net revenues paid to partners (or kept by partners)
Non-agriculture Rental-income	- Rental income from renting out non-agriculture property and assets	
Other Income	- Interest, dividends, profit earning from shares and savings/deposit	-

	accounts - Social security payment - Pension income (domestic and foreign) - Commission fees and royalties, other incomes - Other Income if any that is not covered above

Daily Wage Income: Annual aggregation of daily wage income is made adding up of a cash received per day and value of any in-kind received per day multiplied by number of days worked in that particular activity during last 12 months.

Long-term Wage Income: Wage received in agriculture is calculated as total cash received from any work activity for that long-term period plus daily in-kind payment multiplied by number of days worked plus in-kind payment received for the whole period. Wage outside of agriculture is calculated as monthly payment and monthly transportation allowances times number of months worked, plus bonuses, tips, allowances, clothing and any other payments received yearly from each work activity.

Piece-Rate/Contract Income: Piece rate or contract basis wage income is the total of cash and in-kind received by individual per each work.

For each individual wage earner in a household, all these wage components are annualized and then summed up to obtain annual wage income. Wage income figures for every earner are then aggregated at the household level to obtain total wage income to each household.

Transfer/Remittance Income: Total remittance amounts received by household from different remitting members during the past 12 months is aggregated for each recipient household and added to the aggregate source of household income. Share of remittance, then to the total household income is then determined.

Non-farm Income: Non-farm income comprises three components namely income (profit)from non-agriculture enterprises, non-agricultural rental income of residential property (land, house), and other social security allowances, bonuses, bonds, shares, commissions, royalties and others. Income from all these components is aggregated to get annual non-farm income for each household.

Total Income and Per Capita Income: The aggregate household income then is obtained by summing up of the income from the above mentioned sources such as

farm income, wage income, transfer/remittance income and different components of non-farm income. Wage income from any sector (agriculture or non-agriculture) is estimated separately. The per capita income is obtained dividing household income by household size.

Table 6. 6: Composition of Household Income (Annual Average in NRP) by Background Characteristics

Background Characteristics	Remittance income	Labour Income	Total Income	Per capita annual	Total (N)
Sex of HH Head					
Male	40606.3	66028.6	151824.9	30219.0	1,983
Female	97815.5	44619.8	180805.6	39596.1	671
Rural/Urban					
Rural	34786.1	49372.6	124992.6	25477.4	1,255
Urban	73266.6	70701.9	189795.4	38970.2	1,399
Ecological Region					
Mountain	27580.0	36644.7	112080.0	23393.0	300
Hills	26729.6	32719.4	94492.0	18674.6	957
Tarai	80388.2	84873.8	213555.2	44097.2	1,397
Province					
Province 1	41698.7	72464.0	148741.1	29581.3	380
Province 2	59724.6	85189.5	208703.8	36857.0	419
Bagmati	147011.4	77877.0	287078.8	66181.2	380
Gandaki	27497.2	32294.1	97677.4	21773.9	358
Lumbini	62466.1	69723.2	174095.9	36650.8	379
Karnali	26817.5	26484.9	83845.6	17203.3	359
Sudurpaschim	16559.0	54237.9	101001.4	17938.9	379
Caste Ethnicity					
Relatively Disadvantaged Janjati	62695.2	62132.2	170085.3	36246.0	836
Dalit	59546.0	63202.9	158282.2	32630.7	794
Brahman\Chhetry	37838.7	46795.5	123450.6	25726.0	565
Disadvantaged Non-Dalit Terai Caste	56620.8	80287.0	203861.8	36891.9	202
Relatively Advantaged Janjati	47190.5	52695.8	144999.6	33257.6	126
Muslim	55891.9	71810.3	200472.5	32154.2	74
Others	62552.6	72595.3	183989.1	30274.1	57
Equity Quintiles					
Poorest	23553.8	31934.8	81642.7	16322.9	940
Poor	35704.0	63462.5	138159.2	27797.1	759
Middle	62203.4	77512.6	183367.3	36781.2	454
Rich	127112.2	91212.1	290121.1	61827.0	430
Richest	197436.6	116561.7	461712.4	95318.1	71
Total	55070.3	60615.9	159152.0	32589.8	2,654

Source: PAF Household Survey, 2018

Aggregation of Household Monthly Expenditure

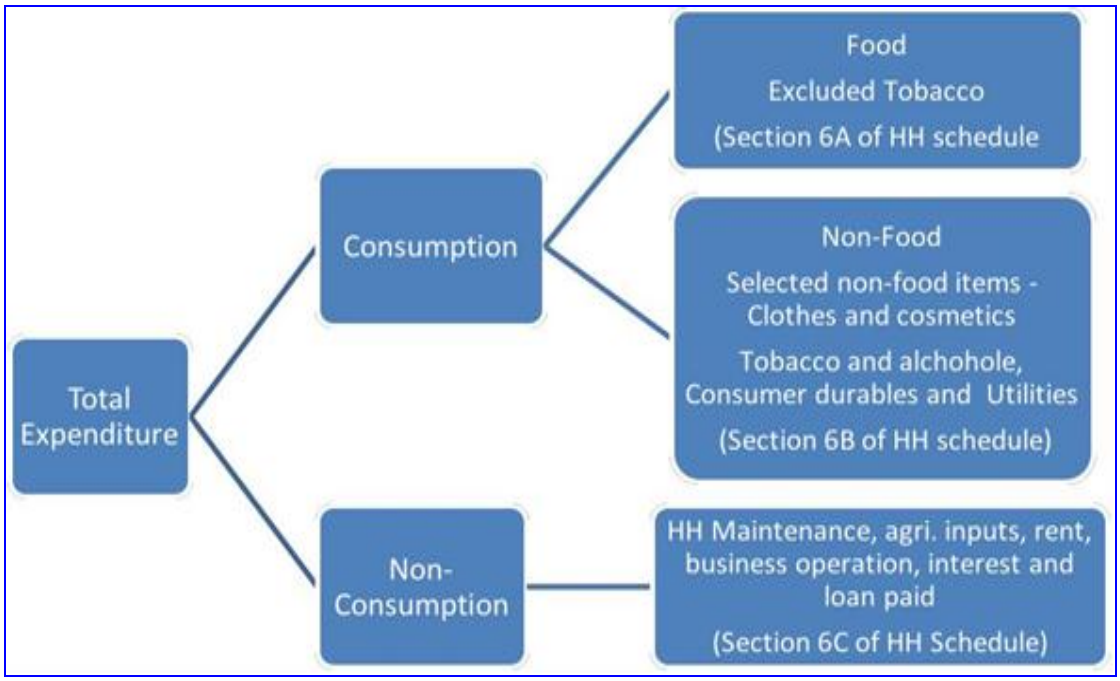
Elements of household expenditure comprise consumption expenditure and non-consumption expenditure. Consumption expenditure measures meeting a household's basic needs of food and non-food cost. Non-food cost includes clothing, personal care utilities, tariff of electricity, telephone, piped water; house rent, maintenance of house, transportation, entertainment and others. Non-consumption expenditure includes operation cost of farm/agriculture or non-farm activities enterprises.

Consumption expenditure is the widely used monetary indicators of measuring well-being. Nepal Living Standard Survey 2010/11 takes consumption expenditure as better proxy than income to measure household's well-being for three reasons:

a. actual consumption measures a person's well-being in terms of meeting current basic needs while income is just an element that allows such consumption
b. consumption is usually measured with more reliability than income; and
c. consumption better reflects a family's long-term welfare as it captures that family's ability to smooth out income fluctuations (CBS, 2012).

This section looks at level and composition of household and per capita annual expenditure (at nominal price). The basic concept in composition and aggregation of household expenditure used in this context is summarised in Figure 6.1. The total expenditure composed up of the consumption and non-consumption expenditure.

Figure 6.1: Composition of Total Household and Per Capita Expenditure



Source: PAF Household Survey, 2018

The consumption expenditure again consists up of two i.e. food and non-food consumption. Though the section 6A asks about expenses made by household on tobacco, is taken out from aggregates of food consumption expenditure and added into non-food consumption headings. Non-food consumption expenditure includes clothes, personal utilities, makeup and cosmetics, consumer durables, household utilities and fees (tax, tariffs and bills). Other expenses include maintenance, inputs (agriculture, business enterprises, and industries), rent, and interest and loan payment. Items of expenses by category of food, non-food and other expenses included in the survey schedule are as in Table 6.9.

Aggregation of Consumption Expenditure

The process of the construction of expenditure aggregates follows approaches adopted in the NLSS-III with some modifications. This is made by adding together the various goods and services consumed by each household during a period of 12 months. Various components of expenditures are grouped together into three main categories: expenses on consumption of food items, expenses on consumption of non-food items and expenses made on other non-consumption matters. Schematic breakdown of the expenditure aggregate is presented in Figure 7.2 and Table 7.10 along with the appropriate section of the household questionnaire, from which these expenses are

computed. The approach used to ascribe a rupee value to consumption of the specific items included in each component is outlined in following.

Food Consumption

Section 6A of the household survey schedule collects information on consumption of 30 food items by trimming down from the 72 items of NLSS 2010/11. The survey asked questions on consumed quantity of a typical food items in a month in general either from home production or purchased from market. If it is purchased, how much was paid to buy the consumed quantity or if consumed from home production, were asked how much it would have cost in the current local market price. It further asks about frequency of consumption as daily, twice or more in a week, once or twice in a month or occasionally. The daily, weekly and monthly frequencies of consumption then are used to extrapolate into the 12 months' value of the consumed food item.

Table 6. 7: Food, Non-food and Other Items of Expenditure Included in Household Survey Schedule

Food Items (HH Schedule 6A)	**Non-Food Items (HH Schedule 6B)**	**Other Items of Expenses (6C)**
- *Most frequently consumed (daily or twice+ a week) 19 of 30* - Rice, Maize, Wheat, pulses, Meat, egg, Milk, baby/powder milk, curd, whey, ghee, oil (mustard, soybean, etc.), - Potato/colocation, onion, vegetables (green leafy vegetables, etc.), - Spices (salt, cumin seed, pepper, garlic, ginger, etc.), - Sugar, tea/coffee, - Other foods (noodle, biscuit, other fast foods) - *Less than twice a week or less frequent (11 of 30)* Beaten rice, - Barley/oat/sorghum, Millet/buckwheat, Gram/peas, other beans, - Fish, honey, vegetable-ghee, Fruits/ nuts, - *Sakhar/Gud/Khudo*, sweets, and Non-alcoholic beverages (cold drinks juice, etc.)	- Fuel (Wood, Kerosene, LPG etc.) - Clothes/Apparel, Personal care items (Soap, Comb, Shampoo, cosmetics, etc.), - Transportation (Horse, Mule, Bus, Taxi, Rickshaw, etc.), - Entertainment/Excursion, Newspapers, Books, Copies, etc., and Educational and Professional Services, Medicines and Health Services, - Legal Expenses and Insurance, Repair of House and Household Effects, Direct Tax (Land taxes, Housing and Property taxes, Registration, etc.), - Donations/gifts, - Religious, Marriage, Funeral, etc. - expenses, - Tariff of electricity, water, etc. - (Household use only), - House rent (if paid), and - Other non-food expenses	- Agricultural inputs (Seeds, Fertilizers, Insecticides, Labour, Bullocks, Irrigation, etc.), - Fodder/Straw, Veterinary services, etc. - Buying animals (Cow, Bullock, Buffalo, Goat, Sheep, Pig, Chicken, Duck, etc.) and their feed - Paid value for rented/ sharecropped/mortgaged land - Wages of enterprise employees - Fuel of enterprise operation (Electricity, Kerosene, etc.) - Raw materials of enterprise operation - Share given to the partner of enterprise if any - Other expenditure of enterprise operation (House or room rent, Postal, Telephone, Faxes, etc.) - Interest paid of loan, - Other total expenditure (except reported above)

Source: PAF Household Survey, 2018

The food consumption module collects information on food items that were purchased, home produced or received in-kind. For food items that were purchased or home produced, it asks the amount of money spent or the value of, for home produced. For each of the purchased or home produced food items, consumption value in the typical month is multiplied by the number of months consumed (based on frequency of consumption Q601D) to get annual consumption of food items that were purchased or home produced. The annual value for all the food items (except tobacco, tobacco products and alcoholic beverage) consumed by the household in the past 12 months is aggregated to get annual food consumption.

Non-Food Consumption

The Section 6B of household questionnaire collects information on household expenditure on several frequent and non-frequent non-food items of consumption. The items are categorized into: fuels, apparel and personal care, other frequent expenses, infrequent expenses, miscellaneous expenses and durable goods.

For the 'frequent' non-food expenditures (Section 6B), the survey collects information on the expenses incurred in the past 30 days, and, separately, in the past 12 months. It is not always clear as to which reported figure gives the best estimate of the expenses. The 30 day estimates have lower recall bias but would miss items that are not consumed every month (for example, LPG gas and clothing), the 12 month estimates include expenses on non-regular items but would have greater recall bias. To get around this problem, these items could be divided into categories as regular and aren't regular. However, for the present level of analysis, the annual (12 months) reporting of expenses is aggregated for all items (either regular or irregular) to get aggregate of non-food consumption expenditure.

Expenditure on Selected Other Infrequent Items

Expenditure made by the household on buying agricultural inputs (seeds, fertilizer, pesticides, labour, draft animal, and other agriculture tools), fodder for livestock; buying of livestock; rent paid for other's land, wage amount paid for enterprise workers, tariffs and fees incurred in running business, paid for raw materials for the business, share paid for shareholder, other expenses in running enterprise (rent, telephone and other), principal and interest paid of loan and other expenses are fairly straightforward. The survey asks the related expenditure made in the past 12 months.

A single annual value of expenses made in all the selected other infrequent items is then derived adding up into one.

Aggregate of Consumption Expenditure

Total annual expenses made in food consumption, in non-food consumption and in other irregular infrequent item then are aggregated to get a single value of household consumption expenditure. To get per capita annual expenditure, the total value of household expenditure is divided by household size for each component of expenses.

Table 6. 8: Composition of Household Monthly Expenditure (NPR) by Background Characteristics

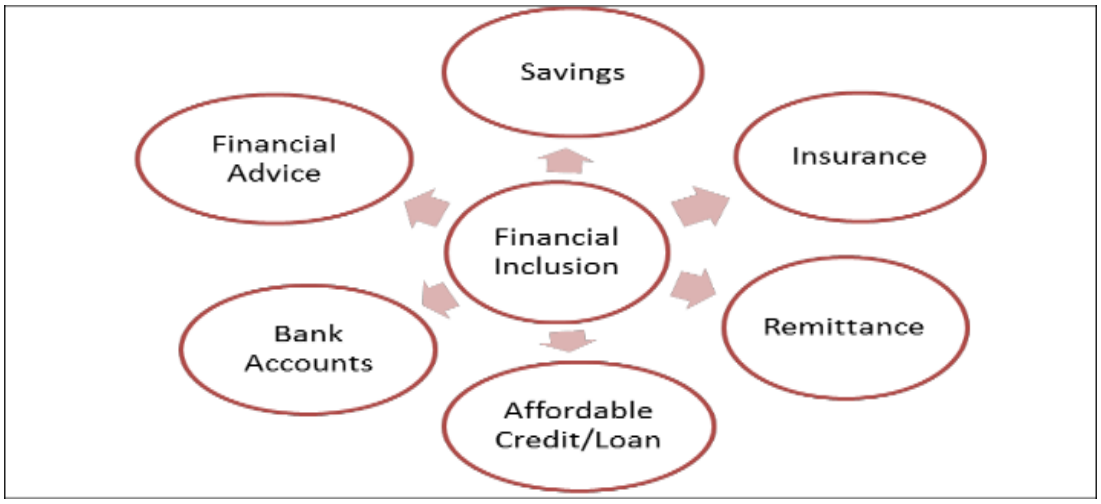
Background Characteristics	Food expenditure	Non-food	Education (annual)	Total Monthly	Per-capita	Total (N)
Sex of HH Head						
Male	14,501.1	7,318.1	11,394.9	24,629.7	4,792.6	1,983
Female	12,456.0	6,400.5	12,249.1	21,111.0	4,599.4	671
Rural/Urban						
Rural	14,607.5	6,415.0	10,688.0	23,404.9	4,789.5	1,255
Urban	13,424.8	7,688.2	12,430.3	24,040.8	4,702.7	1,399
Ecological Region						
Mountain	16,996.9	8,207.8	11,261.1	27,525.4	5,709.2	300
Hills	14,583.8	7,486.1	11,731.9	24,286.3	4,891.2	957
Tarai	12,926.2	6,571.3	11,595.4	22,553.1	4,435.4	1,397
Province						
Province 1	16,727.3	5,276.2	10,908.1	24,761.2	4,877.7	380
Province 2	11,880.1	9,866.6	9,686.9	24,360.7	4,360.5	419
Bagmati	14,046.5	7,587.2	11,413.3	25,527.8	5,623.4	380
Gandaki	14,749.5	7,089.9	8,529.6	24,594.4	5,322.9	358
Lumbini	13,890.8	4,342.6	17,066.8	20,578.0	4,289.9	379
Karnali	15,843.6	8,604.9	11,956.7	26,260.9	5,267.0	359
Sudurpaschim	11,105.8	6,626.1	11,168.3	20,205.3	3,562.1	379
Caste Ethnicity						
Relatively Disadvantaged Janjati	14553.4	6440.5	13241.6	23812.8	4952.7	836
Dalit	12340.7	6,007.2	8509.3	21092.2	4220.5	794
Brahman\Chhetry	15,141.4	8,037.0	14,075.5	25,474.6	4,992.6	565
Disadvantaged Non-Dalit Terai Caste	14,459.1	10,212.6	10,175.8	27,559.2	4,934.6	202
Relatively Advantaged Janjati	15,240.8	6,735.2	10,040.2	25,045.3	5,694.4	126
Muslim	13,824.4	9,030.9	8,668.7	24,473.3	4,016.0	74
Others	12,798.3	9,330.1	16,769.5	24,994.2	4,669.2	57
Equity Quintiles						
Poorest	14,705.9	5,423.7	9,650.1	21,618.8	4,407.3	940
Poor	12,752.3	6,857.8	9,332.5	21,992.8	4,240.8	759
Middle	13,756.2	8,340.5	14,534.4	25,540.1	5,002.8	454
Rich	14,555.6	9,018.1	15,731.0	27,801.2	5,753.6	430
Richest	15,591.2	11,815.8	21,085.4	34,398.7	6,801.2	71
Total	13,984.1	7,086.1	11,606.6	23,740.1	4,743.7	2,654

Source: PAF Household Survey, 2018

6.4 Financial Inclusion and Access to Finance

Financial access/inclusion means that households and business have access and can efficiently use appropriate financial services. Such services must be provided responsibly and sustainably in a well regulated environment. In principle, the components of financial inclusion or access could be summarized as in Figure 8.1.

Figure 6.2: Components of Financial Inclusion/Access



Source: PAF Household Survey, 2018

The household survey captures the indicators related to inclusion/access to the financial services like accounts, saving, credit/borrowing and insurance. The survey questionnaire provides opportunity to calculate the access to financial services at two levels: at the individual levels and at the household levels. The financial advice related indicator captured is attendance of any family member in any financial literacy classes in the last 12 months or not and household with proper knowledge in opening a bank account. The individual level indicators have been aggregated at household level if any member of the family age 16 and above has access or inclusion, the household is included. Key indicators of financial services included in the survey were the following:

Financial Advice: two questions asked at household level are: 1) whether any member of the family attended to any financial literacy training program or not during last 12 months, if attended, gender of the attending member, and 2) whether know about the process of opening an account in bank or other financial institutions or not.

Accounts- A series of questions were asked about all adults 16 years and above in the family about the following: whether the account opened? If have an account, type of

FIs in which the account opened; the mechanics of the use of these accounts; the purpose of accounts and barriers to account use.

Saving - A question was asked about all those adults aged 16 years and above who have bank accounts that whether or not they have saving for the last 12 months of the survey.

Credit/Borrowing – A question was asked to the respondent of the household survey questionnaire, namely, head of the household or knowledgeable person, whether any of his/her family members borrowed money from a formal or informal institution. If borrowed, a detail of the borrowing: number of loans, amount, sex of the borrowers, duration of borrowing, purpose of borrowing, sources of borrowing, collateral were also asked for each loan of the household.

Insurance – In the household survey questionnaire, a question was asked whether any of the adult family member aged 16 years and above has purchased any insurance products in their life-time. If purchased, a further question was asked about the types of the insurance products such as life insurance, education/health insurance, house/assets, agriculture and livestock, business.

Remittance: whether any member of the family received remittance from formal banking or remittance transfer companies sent by family member working outside of the home (within country or abroad) in the last 12 months.

As shown in Table 6.9, nearly one in every three (27.9%) population aged 16 and above reported having bank account. As the level of poverty decreases, the proportion of having bank account increases. Respondents living in Urban, Mountain, and Bagmati province stated that they had bank account during the survey.

Only five percent of total population (16+) has insurance policy. Among them, more people living in Mountain (8.5%) and Gandaki province (8.8) and relative Advantaged Janjati (12.6%) have insurance policy than that of others. About 41 percent people do not have financial access. By sex, male (42.6%) has more access than female (35.0%). People from rural municipal (49.3%), hill (46.5%), Karnali (53.5%) stated that they did not have financial access.

Table 6. 9: Percentage distribution of 16 years and above population of study households according to access to different financial activities from formal sector during last 12 months and households receiving remittances and level of access to five levels of financial activities by background characteristics

Background Characteristics	16 + population					Households Financial Access			
	% Have Bank Account	% Saving in account	% Taken Loan	% Insur-ance Policy	Total (N)	% Remit tance	No access	In 2 activities	In 3+ activities
Sex of HH Head									
Male	27.7	19.2	26.5	4.9	5,633	3.9	42.6	42.5	14.9
Female	28.8	18.9	26.5	5.7	1,517	7.5	35.0	41.4	23.5
Rural/Urban									
Rural	25.0	16.6	24.6	5.1	3,258	3.6	49.3	36.6	14.1
Urban	30.4	21.3	28.0	5.0	3,892	5.9	33.0	47.3	19.7
Ecological Region									
Mountain	37.2	23.3	21.6	8.5	838	4.0	32.7	44.7	22.7
Hills	16.6	7.0	26.8	5.7	2,369	5.5	44.3	46.5	9.2
Tarai	32.8	25.6	27.3	3.9	3,943	4.4	39.9	38.8	21.3
Province									
Province 1	32.0	26.7	33.2	3.1	913	3.2	50.3	34.7	15.0
Province 2	12.8	5.6	30.2	4.2	1,185	4.1	45.6	48.7	5.7
Bagmati	54.6	40.7	33.5	3.0	1,083	7.1	17.9	45.0	37.1
Gandaki	20.2	12.8	23.9	8.8	1,033	3.1	51.7	33.0	15.4
Lumbini	25.5	17.0	12.4	3.5	1,020	6.9	48.3	32.7	19.0
Karnali	19.0	12.9	29.0	8.6	968	4.7	34.0	53.5	12.5
Sudurpaschim	32.7	19.9	22.8	4.3	948	4.5	36.9	47.5	15.6
Caste Ethnicity									
Relatively Disadvantaged Janjati	31.1	22.5	26.5	4.3	2384	5.4	38.6	41.3	20.3
Dalit	26.9	19.0	29.4	2.5	2043	5.0	43.4	41.6	15.0
Brahman\Chhetry	28.2	17.9	23.0	7.7	1,515	5.0	36.6	45.1	18.2
Disadvantaged Non-Dalit Terai Caste	21.4	13.1	26.7	4.4	528	4.0	40.1	51.5	8.4
Relatively Advantaged Janjati	31.0	21.6	26.1	12.6	348	1.6	45.2	31.0	23.8
Muslim	10.1	5.1	27.2	2.5	158	1.4	59.5	33.8	6.8
Others	24.1	12.1	23.6	12.1	174	5.3	42.1	40.4	17.5
Equity Quintiles									
Poorest	14.9	8.4	22.2	4.6	2,348	3.7	48.6	42.6	8.8
Poor	25.7	17.7	28.6	2.8	2,023	4.0	45.6	39.8	14.6
Middle	35.3	23.7	28.9	7.1	1,327	5.7	31.9	44.9	23.1
Rich	43.5	32.6	28.9	6.4	1,229	7.4	27.9	42.3	29.8
Richest	55.2	44.8	25.1	10.8	223	5.6	16.9	46.5	36.6
Total	27.9	19.2	26.5	5.0	7,150	4.8	40.7	42.2	17.1

Source: PAF Household Survey, 2018

CHAPTER VII

STATISTICAL MODELS OF MPI

Based on the philosophy of four statistical models of MPI as discussed in Chapter II and Chapter III, this chapter is divided into three parts. In the first part, methods of two models along with indicators will be defined. In the second part, values of indicators of two models and other two indexes (Equity Quantiles and Gini Coefficient) was also analysed and interpreted. The chapter ends by employing the logistic regression model to test hypotheses regarding MPI based on PAF households.

7.1 Empirical Assessment of Models

7.1.1 Methods of MPI Assessment for Two Models

The *MPI* is the composite measure of the multidimensional poverty and is the accumulation of discrete dimensions of poverty/deprivation. The composite index is an empirical aggregation of a number of economic, social and political variables synthesized into one given factor representing the cumulative influence of these variables. Household level MPI is derived by multiplying each indicator score with the associated weighted coefficient and aggregated to obtain the MPVI of poverty of each individual household. Thus, MPI is a weighted arithmetic mean of the indicator score, where the sum of weight is always

This composite index of deprivation is termed as '*Multidimensional Poverty Index (MPI)*' after the household level poverty assessment done base on the asset/vulnerability framework. The MPI is computed using the following function:

Model I: Following the structure of the Adjusted Headcount (M0) measure of AF methodology, the MPI combines two key pieces of information: (1) the proportion or incidence of people (within a given population) whose share of weighted deprivations is k or more and (2) the intensity of their deprivation: the average proportion of (weighted) deprivations they experience.

Formally, the first component is called the multidimensional headcount ratio (H):

$$H = \frac{q}{n}$$

Here q is the number of people who are multidimensional poor and n is the total population. The second component is called the intensity (or breadth) of poverty (A).

It is the average deprivation score of multidimensional poor people and can be expressed as:

$$A = \frac{\Sigma_{i=1}^{n} C_i\ (k)}{q}$$

where $C_i\ (k)$ is the censored deprivation score of individual i and q is the number of people who are multidimensional poor.

The MPI is the product of both: $\mathrm{MPI} = \mathrm{H} \times \mathrm{A}$

Vulnerability to Poverty and Severe Poverty: The first refers to people who are 'vulnerable' to poverty. This is defined as the people whose 'A' deprivation score is between 20 and 33 percent (20% <ci<33%). The second refers to people in severe poverty. This is defined as people whose deprivation score is 50 percent or more (ci>50%) as shown in the following table.

SN	Level of Poverty	Range of MPVI
1	Non-poor	<0.33333
2	Vulnerable to poverty	0.20000-0.33332
3	MPI Poor	=> 0.33333
4	Severe poverty	> 0.50000

Source: PAF Household Survey, 2018

7.1.2The Poverty Cut-off (Identification of the MPI Poor)

Despite having different method for ranking in the AF method, the study has adopted the poverty cut-off - the Alkire-Foster methodology (see Alkire et al, 2015; Alkire and Foster, 2011; Alkire and Robles, 2015) in order to identify the multidimensional poor. For both Models, each person is assigned a deprivation score according to his or her deprivations in the component indicators. The deprivation score of each person is calculated by taking a weighted sum of the deprivations experienced, so that the deprivation score for each person lies between 0 and 1. The score increases as the number of deprivations of the person increases and reaches its maximum of 1 when the person is deprived in all ten indicators. A person, who is not deprived in any indicator, receives a score equal to 0.

According to this methodology, the poverty cut-off is the share of (weighted) deprivations a household must have in order to be considered poor, and we will denote it by k. Someone is considered poor if her deprivation score is equal to or greater than the poverty cut-off, that is, if ci ≥ k. In the MPI, a person is identified as

poor if he or she has a deprivation score higher than or equal to 1/3. In other words, a person's deprivation must be at least a third of the (weighted) considered indicators to be considered MPI poor (For Model II, the threshold poverty line is defined for MPI value as the mean + std. deviation of MPI for the entire population). For those whose deprivation score is below the poverty cut off, even if it is non-zero, their score is replaced by a '0' and any existing deprivations are not considered in the 'censored headcounts'. The current study has adopted this important step as censoring the deprivations of the non-poor. To differentiate the original deprivation score from the censored one, we use the notation ci(k) for the censored deprivation score. Note that when cik, then ci(k) = ci but if ci < k, then ci(k) =0. ci(k) is the deprivation score of the poor.

7.2 Results and Discussions

7.2.1 Model I (Alkire & Foster Method)

Table 7.1 shows that the largest uncensored headcount ratio is found in the cooking fuel indicator (74.51 percent) for Nepal as a whole whereas 100 percent of assets is noticed, however, this proportion of population deprived has been gone down by about 72 percent (28.4 percent) while data are censored (=>33).

Table 7. 1: Uncensored and Censored Headcount Ratios by Indicators

Indicators	**% of Population Deprived, 2018 (Uncensored)***	**% of Population Deprived, 2018 (Censored)***	**% of Study Population Deprived, 2018 (uncensored)****	**% of Study Population Deprived, 2018 (Censored)****
Year of Schooling (YS)	15.74	13.45	14.7	14.7
School Attendance (SC)	7.9	7.29	33.5	24.8
Nutrition	15.87	12.06	12.5	7.5
Child Mortality	13.93	9.46	1.4	0.9
Consumption of Fuel	74.51	28.18	78.4	26.0
Sanitation	36.62	18.68	7.0	4.8
Water	11.25	5.21	15.3	4.6
Electricity	15.66	9.87	31.0	14.7
Floor and Room	67.28	27.22	89.5	27.4
Assets	20.97	11.92	100.0	28.4

** NPC (2018), **PAF Household Survey, 2018*

Figure 7.1: Proportion of Deprived Population (uncensored)

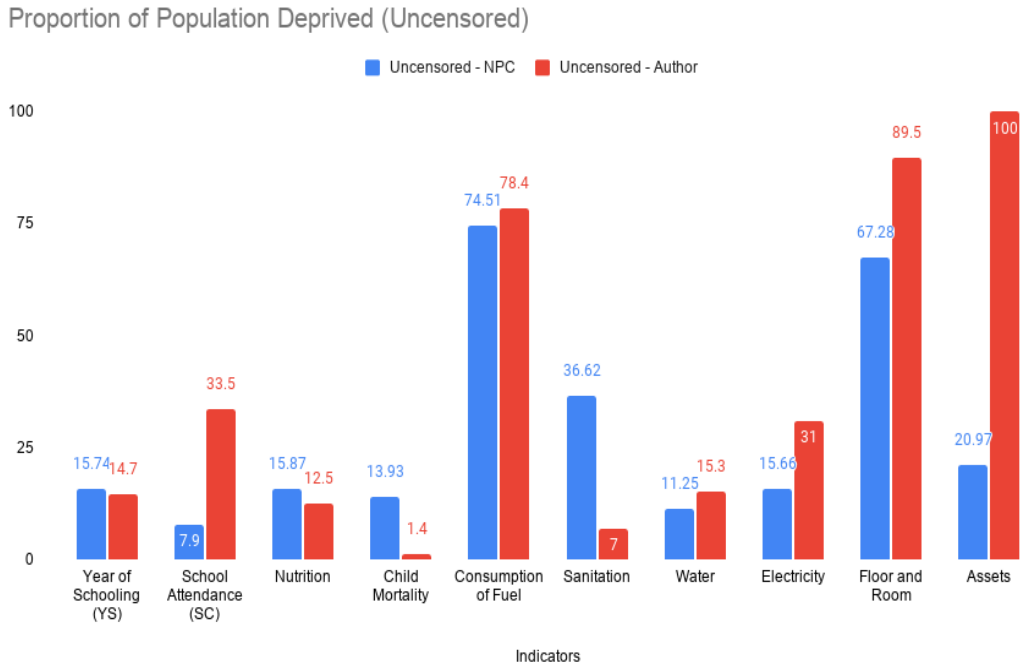


Figure 7.2: Proportion of Deprived Population (Censored)

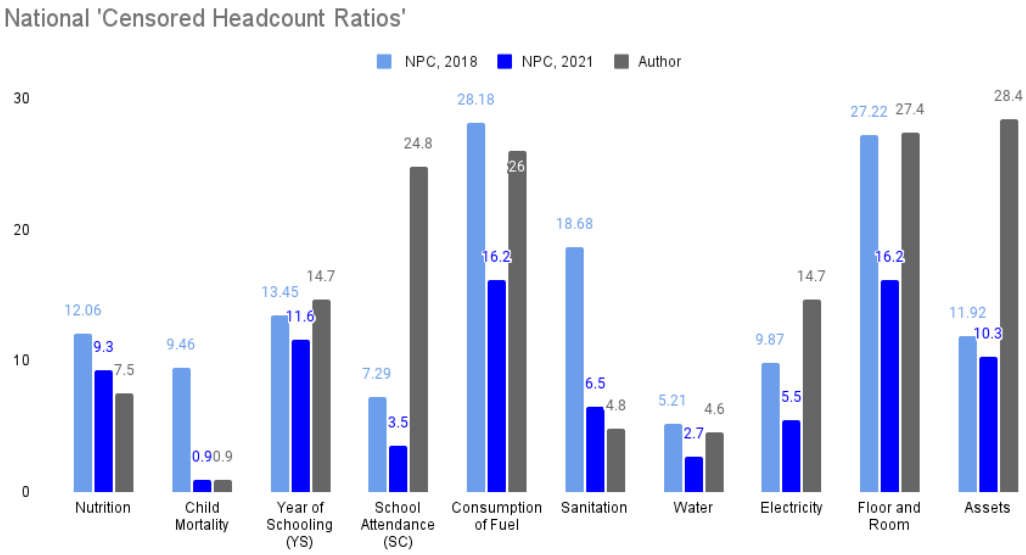


Table 7.2 represents the multidimentional poverty index. The MPI for the study population is slightly higher (0.133) than that of national level (0. 127: NPC & OPHDI, 2018). The plausible reason is that the current study was based on PAF households only or economically it is homogeneous population. People living in three different places of residence (urban (0.117) and hill (0.116) found to have better quality of life as compared to corresponding other places (Rural (0.153), Mountain

(0.162) and Terai (0.138)). Despite having low human development index (NPC &OPHDI, 2014), Sodurpaschim recorded the lowest MPI value (0.084), which is urgently needed to be investigated again. By caste/ethnicity, other categories (e.g., Marwadi, Bangali, Sikh. Jain, Panjawi among others) found lowest poverty level (0.064), followed by Brahmin/Chhetri) (0.069). The highest proportion of headcount ratio (51.5) is noticed in Province No. 2. The gravity of poverty is found high among the Muslim community (44.6). One in every four households (22.9 percent) has the likelihood of being vulnerable to poverty. Households situated in Province No.1 are more vulnerable to poor as compared to population from other provinces.

Table 7. 2: Multidimensional Poverty Index when k>=0.33

Selected Background Characteristics	MPI (H x A)	% share within	Intensity - A	Proportion of Population Vulnerable to Poverty	Severe Poverty	% share between	N
		Incidence H	Intensity A	Population Vulnerable to Poverty	Severe Poverty	%	MPI
Urban/Rural							
Urban	0.117	25.3	45.7	25.0	9.9	43.3	0.051 1399
Rural	0.153	31.8	48.0	20.5	11.6	52.7	0.080 1255
Ecological Region							
Mountains	0.162	34.0	47.6	23.3	14.3	11.3	0.018 300
Hills	0.116	25.8	45.1	22.7	8.9	36.1	0.042 957
Terai	0.138	28.9	47.6	22.9	11.2	52.6	0.073 1397
Provinces							
Province 1	0.206	43.9	46.9	29.5	17.4	14.3	0.029 380
Province 2	0.213	41.3	51.5	21.5	20.8	15.8	0.034 419
Bagmati	0.090	19.7	45.7	20.5	4.7	14.3	0.013 380
Gandaki	0.104	23.7	43.8	22.1	5.6	13.5	0.014 358
Lumbini	0.110	24.8	44.5	20.1	8.2	14.3	0.016 379
Karnali	0.109	24.0	45.5	20.6	10.3	13.5	0.020 359
Sudurpaschim	0.084	19.3	44.2	25.9	6.6	14.3	0.012 379
Caste/Ethnic Group							
Relatively Disadvantaged Janjati	0.119	26.4	44.9	25.4	7.4	31.5	0.037 836
Dalit	0.189	39.2	48.3	21.2	17.5	29.9	0.057 794
Brahmin/Chhetri	0.069	15.8	43.7	23.7	4.8	21.3	0.015 565
Disadvantaged Non-Dalit Terai Caste	0.154	31.7	48.7	23.3	14.9	7.6	0.012 202
Relatively Advantaged Janjati	0.090	20.6	43.6	13.5	5.6	4.7	0.004 126

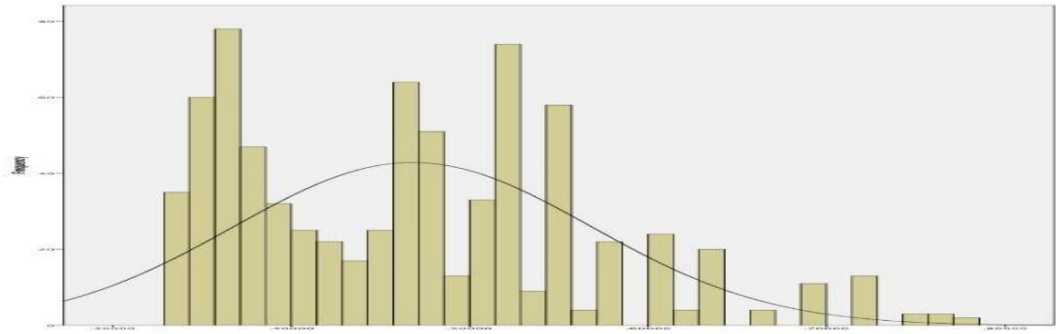
Muslim	0.228	44.6	51.2	18.9	23.0	2.8	0.006	74
Others	0.100	20.8	47.9	26.3	3.5	2.1	0.001	57
Total	**0.133**	**28.4**	**46.8**	**22.9**	**10.7**	**100.0**	**1.000**	**2564**
Nepal	**0.127**	**28.6**	**44.2**					
Selected Some Background Characteristics	**MPI (H x A)**	**k=>20 Incidence H**	**Intensity A**	**MPI (H x A)**	**k=>40 Incidence H**	**Intensity A**	**N**	
Urban/Rural								
Urban	0.188	50.3	37.3	0.073	19.4	19.0	1399	
Rural	0.199	52.3	38.0	0.311	18.2	40.7	1255	
Ecological Region								
Mountains	0.188	57.3	39.3	0.281	25.3	51.7	300	
Hills	0.177	48.5	36.4	0.173	14.5	52.1	957	
Terai	0.197	51.8	38.1	0.186	20.5	52.3	1397	
Provinces								
Province 1	0.280	73.4	38.1	0.177	28.7	52.4	380	
Province 2	0.272	62.8	43.3	0.249	36.8	53.5	419	
Bagmati	0.147	40.3	36.4	0.145	14.5	49.2	380	
Gandaki	0.164	45.8	35.8	0.309	13.7	49.5	358	
Lumbini	0.162	44.9	36.0	0.308	11.3	53.6	379	
Karnali	0.163	44.6	36.5	0.025	13.9	52.7	359	
Sudurpaschim	0.153	45.1	33.9		10.8	50.8	379	
Caste/Ethnic Group								
Relatively Disadvantaged								
Janjati	0.186	51.8	35.9	0.079	15.4	51.1	836	
Dalit	0.245	60.3	40.6	0.148	27.8	53.1	794	
Brahmin/Chhetri	0.130	39.5	32.8	0.041	8.0	51.6	565	
Disadvantaged Non-Dalit								
Terai Caste	0.217	55.0	39.5	0.136	26.7	51.0	202	
Relatively Advantaged								
Janjati	0.124	34.1	36.3	0.055	11.1	49.3	126	
Muslim	0.287	63.5	45.2	0.223	41.9	53.2	74	
Others	0.147	42.1	34.8	0.063	12.3	51.3	57	
Nepal	**0.193**	**51.2**	**37.7**	**0.098**	**18.9**	**52.1**	**2654**	

Source: PAF Household Survey, 2018

A third of the weighted indicators are applied to determine the level of poverty cut-off values of MPI. The option of the poverty cut-off in this case is normative, as in income poverty. A change in the poverty cut-off may identify the multidimensionally poor differently, which may alter the ranks of sub national and other socioeconomic characteristics. For this reason, Table 7.2 shows the rankings for alternative poverty cut-offs: k = 0.2 and k = 0.4. The value k 0.2 was used as the lower bound to identify household as 'vulnerable' to poverty, hence the incidence of poverty at k = 0.2 is also the proportion of people who are either vulnerable or acute poor; it is about 40 percent of people across Nepal. At k = 0.4 approximately19 per cent of people across the

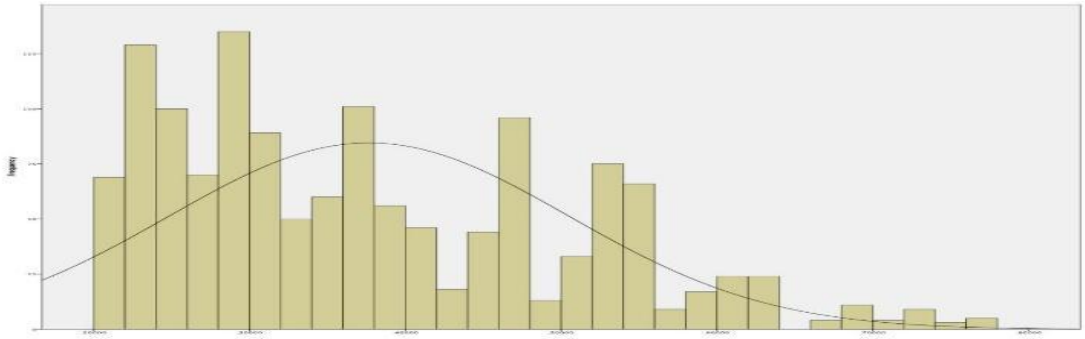
country are identified as multidimensionally poor, whereas for the MPI cut-off of k=1/3, roughly 37 percent of people are identified as multidimensionally poor. For the analysis of data throughout the report one-third of MPI will be used. The headcount ratio by background characteristics are presented graphically below

Figure 7.3: Censored Headcount ratios, 2018 (k=>0.3333)

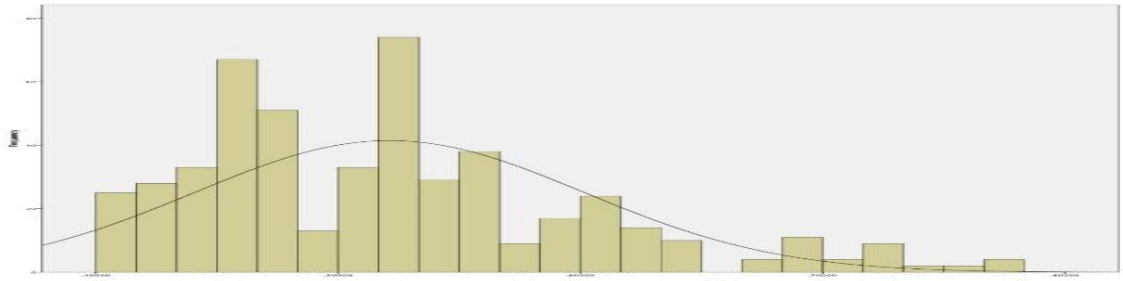


Source: PAF Household Survey, 2018

Figure 7.4: Censored Headcount Ratios (k=>0.2000)



Source: PAF Household Survey, 2018



7.2.2 Model II (Moser Method)

The alternative model is schematized a five-level pyramid: income/consumption (a best proxy for poverty) with food security (coping strategy for food stress) and loan status (when household income declines, the most important response is to borrow money from others to maintain the food insufficiency), investment in basic health and education (human capital, which enables the poor to use their labour productivity), occupancy insecurity (which is related to housing characteristics); physical/productive assets (land holding and building ownership including households' amenities) are the net result of accumulation over time. The more assets people have, the less vulnerable they are, and the greater the erosion of people's assets, the greater their insecurity. Disempowerment is concerned with gender and gender relations that are socially constructed and, therefore, embedded in the socio-cultural context. In the multi-culture society like Nepal, gender is intersected with caste, class and ethnicity and this diversity is an important factor in any assessment of poverty.

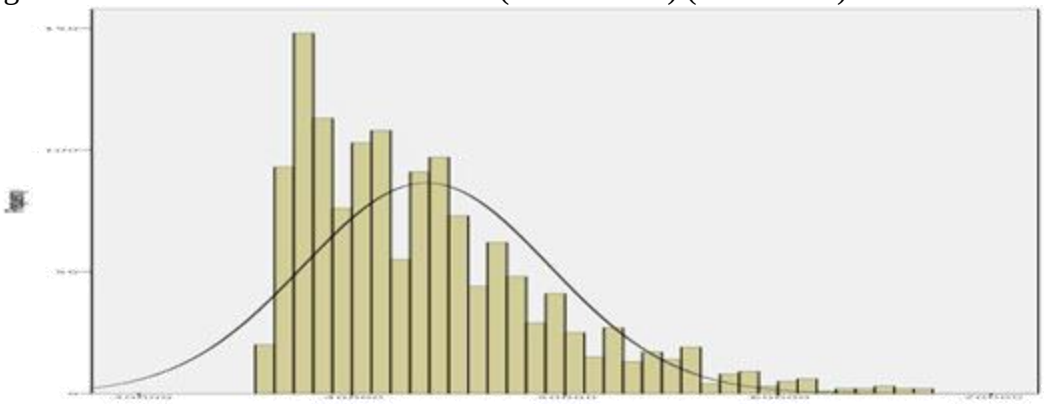
From this perspective, 31 indicators are defined under five-level pyramid of poverty dimension aforementioned. The first includes three indictors, for example, income level, food sufficiency and the loan status. Second dimension involves seven indicators: five years of schooling, school attendance, child mortality, BMI, sanitation, improved water and consumption of fuel. The third poverty dimension is occupancy insecurity which comprises six indicators like rooms in household, floor, roof and wall materials and kitchen crowding, access to electricity/solar. The vulnerability is closely linked to physical/productive assets that consist of 13 indicators: landholding, building ownership, TV, radio, telephone, mobile, refrigerator, computer, internet, bicycle, motorbike, car and other vehicles like bus or truck. The last dimension has two indicators: access to finance and female headed household. This model has applied threshold of MPI is defined as mean+ standard deviation, which is very close to the one-third of weighted indicators, as defined by Alkire & Foster method (2011).

Table 7. 3: Multidimensional Poverty Index when k=>0.33

Selected Some Background Characteristics	% share within			Proportion of population		% share between		N
	MPI (H x A)	Incidence H	Intensity A	Vulnerable to Poverty	Severe Poverty	%	MPI	
Place of Residence								
Urban	0.217	52.0	41.7	37.2	5.5	43.3	0.094	1399
Rural	0.323	77.0	42.0	22.1	7.9	52.7	0.170	1255
Ecological Region								
Mountains	0.301	76.3	39.7	23.7	0.7	11.3	0.034	300
Hills	0.326	75.9	42.9	22.7	10.6	36.1	0.118	957
Terai	0.219	52.8	41.5	36.4	5.2	52.6	0.114	1397
Provinces								
Province 1	0.417	92.9	44.9	7.1	23.2	14.3	0.060	380
Province 2	0.233	54.9	42.5	40.1	9.5	15.8	0.037	419
Bagmati	0.171	43.7	39.2	37.9	0.5	14.3	0.024	380
Gandaki	0.301	74.3	41.7	24.3	4.7	13.5	0.041	358
Lumbini	0.211	51.2	41.2	39.6	4.0	14.3	0.030	379
Karnali	0.328	80.5	40.8	18.1	0.8	13.5	0.044	359
Sudurpaschim	0.207	51.5	40.2	41.2	2.9	14.3	0.030	379
Caste/Ethnic Group								
Relatively Disadvantaged								
Janjati	0.216	47.8	45.2	27.9	7.4	31.5	0.085	836
Dalit	0.286	57.2	44.1	28.7	9.6	29.9	0.086	794
Brahmin/Chhetri	0.171	40.6	42.1	31.3	1.9	21.3	0.055	565
Disadvantaged Non-Dalit								
Terai Caste	0.229	54.1	42.4	41.1	4.5	7.6	0.016	202
Relatively Advantaged								
Janajati	0.182	42.8	42.5	27.8	7.9	4.7	0.013	126
Muslim	0.320	77.0	43.5	20.3	8.1	2.8	0.009	74
Others	0.194	48.6	42.0	45.6	3.5	2.1	0.004	57
Total	**0.226**	**51.9**	**43.5**	**30.0**	**6.6**	**100.0**	**1.000**	**2654**
Nepal	**0.127**	**28.6**	**44.2**					

Source: PAF Household Survey, 2018

Figure 7.5: Censored Headcount Ratios (for Model II) (k=>0.3333)



Source: PAF Household Survey, 2018

The value of MPI is found high conspicuously (0.226) as compared to two models (0.127 for Nepal: see NPC & OPHDI (2018)). The intensity of poverty for both analyses has more or less same but gravity of poverty is noticed considerably in the second model. In this model, the MPI value is lowest in terai. People living in rural (0.323) and Province No.2 (0.417) including Dalit people are very poor. The MPI values are presented graphically below.

7.2.3 Equity Quintile Index

As discussed in Chapter II, households are given scores based on the number and kinds of consumer goods they own, ranging from a television to a bicycle or a car, and housing characteristics such as drinking water, toilet facilities, and flooring materials. These scores are derived using principal component analysis. National wealth quintiles are compiled by assigning the household score to each usual (de jure) household member, ranking each person in the household population by her or his score, and then dividing the distribution into five equal categories, each comprising 20% of the population.

Table 7.5 represents the equity quintiles according to residence, region, province, and caste/ethnic composition. Nearly two-third of total households (35.4 +28.6 =64.0 percent) are found below the poverty line, followed by beyond the middle class (16.2+2.7=18.9 percent). About 5 percent of total households are concentrated in urban municipals where more than half (51.3 percent) belongs to the two lowest households. Nearly four in every five rural households (78.2 percent) fall into poor and poorest households.

Approximately a third-fourth majority of the households (74.1 percent) in Karnali fall in the poorest. People living in Terai (12.2 percent) and Province No. 2 (4.5 percent reported having the lower percent of poorest households, which is very close to the national figures (Karnali: 69.1 percent, Terai: 5.7 percent and Province No. 2: 3.9 percent) (MoHP, 2017).

Table 7. 4: Proportion of Households Based on Equity Quintiles by Selected Some Background Characteristics

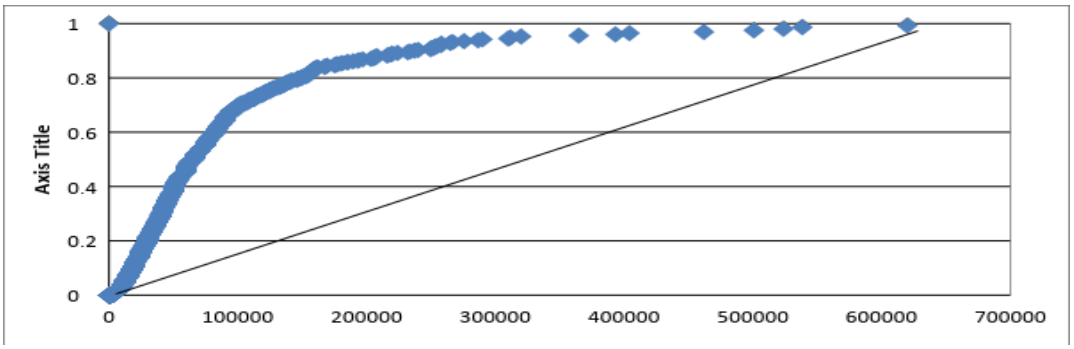
Selected Some Background Characteristics	Poorest	Poor	Middle	Rich	Richest	Total	N
Place of Residence							
Urban	27.1	24.2	19.9	23.9	4.9	100.0	1255
Rural	44.7	33.5	13.9	7.6	0.2	100.0	1399
Ecological Region							
Mountains	57.7	23.7	10.7	7.3	0.7	100.0	300
Hills	62.3	25.8	8.3	3.0	0.6	100.0	957
Terai	12.2	31.6	24.6	27.1	4.5	100.0	1397
Provinces							
Province 1	31.3	40.8	17.6	10.0	0.3	100.0	380
Province 2	4.5	40.6	24.1	26.5	4.3	100.0	419
Bagmati	21.3	23.4	16.3	33.4	5.5	100.0	380
Gandaki	36.6	39.7	16.8	6.7	03	100.0	358
Lumbini	45.4	20.3	18.2	12.4	3.7	100.0	379
Karnali	74.1	13.6	8.9	1.9	1.4	100.0	359
Sudurpaschim	40.1	20.3	16.6	20.1	2.9	100.0	379
Caste/Ethnic Group							
Relatively Disadvantaged							
Janajati	33.3	28.7	20.2	15.0	2.9	100.0	836
Dalit	34.6	33.1	14.6	16.1	1.5	100.0	794
Brahmin/Chhetri	58.8	16.1	11.7	10.4	3.0	100.0	565
Disadvantaged Non-Dalit Terai							
Caste	3.5	31.2	28.7	32.7	4.0	100.0	202
Relatively Advantaged Janajati	31.0	30.2	12.7	23.0	3.2	100.0	126
Muslim	2.7	66.2	17.6	13.5	0.0	100.0	74
Others	12.3	26.3	28.1	22.8	10.5	100.0	57
Total	35.4	28.6	17.1	16.2	2.7	100.0	2654

Source: PAF Household Survey, 2018

Gini Coefficient Indicator

The method for Gini Coefficient has been discussed in Chapter II. Accordingly, the study areas' Gini coefficient is 0.60, which is nearly double of Nepal (0.33) (CBS, 2016).

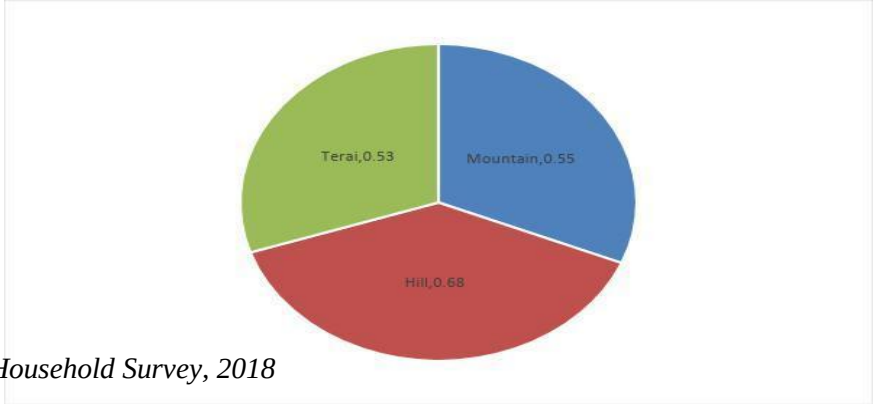
Figure 7.6: Lorenz Curve for Study Areas



Source: PAF Household Survey, 2018

If each unit receives the same income, obviously the Lorenz curve coincides with the egalitarian line and consequently the concentration ratio assumes value zero. If on the other hand a single unit receives all incomes the concentration ratio becomes unity. Both of these are extreme cases which do not occur in practice. The Gini coefficient is further classified in terms of ecological region.

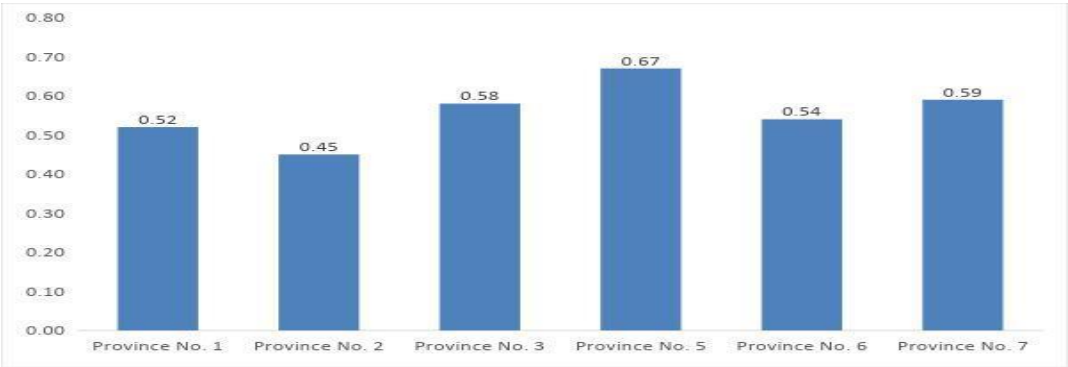
Figure 7.7: Gini Coefficients for Ecological Region



Source: PAF Household Survey, 2018

The Gini coefficient is further classified according to ecological and provincial level in the Figure 7.7 and Figure 7.8 respectively. The Hill consists of more than two-third majority of total population under the category of poverty. Similarly, Province No-5 comprises the highest (0.67 %), followed by Province No. 7(Sudurpaschim). The striking point is that Terai and Province No. 2 have the lowest Gini Coefficient despite having high intensity of poverty in terms of MPI dimensions.

Figure 7.8: Gini Coefficients for Provinces



Source: PAF Household Survey, 2018

7.2.4 Statistical Analysis

The section analyses casual factors of MPI statistically. The two MPI composite indicators as defined by Alkaire-Foster (2011) and Moser (1998) Methods were developed to answer research objectives of the study quantitatively using logistic regression. Each composite indicator was created if a household had a "=>33" for censored households.

Table 7. 5: Variables and their Proportions

	Dependent/Independent variable	**Overall**	**MPI => 33.33 (Alkire-Foster Method)**	**MPI => 33.(Moser Method)**
1	Dependent variable: MPI		28.4	63.8-
	Independent variables			
2	Rural/Urban			
	Rural	47.3	31.8	77.0
	Urban	52.7	25.3	52.0
3	Ecological Region			
	Mountain	11.3	34.0	76.3
	Hill	36.1	25.8	75.3
	Terai	52.6	28.9	52.8
4	Province			
	Province No. 1	14.3	43.9	92.9
	Province No. 2	15.8	41.3	54.9
	Bagmati	14.3	19.7	43.7
	Gandaki	13.5	23.7	74.3
	Lumbini	14.3	24.8	51.2
	Karnali	13.5	24.0	80.5
	Sudurpaschim	14.3	19.3	51.5
5	Equity Quintiles			
	Poorest	35.4	36.4	89.1
	Poor	28.6	36.1	75.0
	Middle	17.1	19.4	41.0
	Rich	16.2	10.9	15.6
	Richest	2.7	2.8	1.4
6	Female Headship	25.3	28.1	61.6
7	Cate/Ethnicity			
	Dalit	29.9	39.2	67.0
	Muslim	2.8	44.6	77.0
	Brahman\Chhetry	21.3	15.8	62.7
	Relatively Disadvantaged Janajati	31.5	26.4	64.0
	Relatively Advantaged Janajati	4.7	20.6	63.5
	Disadvantaged Non-Dalit Terai Caste	7.6	31.7	53.5
	Others	2.1	15.8	47.7
	Total	100.0	28.4	63.8

Source: PAF Household Survey, 2018

At the outset, each composite indicator was considered as a dependent variable in the logistic regression equation. Some places of residences, for example, rural/urban, ecological and provincial as independent variables and socioeconomic and cultural background characteristics, for example, equity quintiles and caste/ethnic composition as intervening variables were considered to examine to what extent the MPI has been influenced by independent and intervening variables. One of the reasons for selecting these variables is that the human development and multidimensional poverty indexes are found variations over the place of residence and socioeconomic variables (NPC, 2014; 2018).

Table 7.5 presents the proportions of dependent and independent variables. Overall, around 28 percent and 63 percent of total households have been found poor during the survey as per Alkire & Foster method whereas nearly 63 percent of total households have been identified as poor in terms of Moser method. One in every five households was headed by females. Muslim households (44.6 % and 77 % under Alkire & Foster and Moser methods respectively) were experienced more vulnerability while comparing with other caste/ethnic households. Poorest households consist of highest proportion of poor among equity quintiles. One key reason behind the gap in proportion of MPI among two approaches is due to the number of variables included in determining MPI. Alkire & Foster method uses 9 indicators to determine MPI. In the meantime, Moser method uses 31 indicators to determine MPI.

Table 7. 6: Logistic Regression Model for MPI (OR and 95% CI) based on Alkire-Foster Method

Some independent and control variables	**MPI when k>=0.33**			
Place of Residence	**Model I**	**Model II**	**Model III**	**Model IV**
Rural/Urban (Ref. Urban)	.768** (.628-.938)	.635** (.513-.785)	.634** (.512-.784)	.625** (.503-.777)
Ecological (Ref.Terai)				
Mountain	3.792**(2.677-5.371)	1.750** (1.200-2.553)	1.766** (1.210-2.578)	1.943** (1.210-2.578)
Hill	1.259* (1.014-1.562)	.618** (.482-.792)	.615** (.479-.789)	.649** (.479-.789)
Province (Ref. Sudurpaschim)				
Province No. 1	4.038**(2.895-5.632)	4.223** (2.669-6.007)	4.281**(3.005-6.100)	4.489**(3.082-6.533)
Province No. 2	2.189**(1.621-2.955)	2.542** (1.851-3.492)	2.548** (1.855-3.500)	2.811** (1.935-4.084)
Bagmati	.486** (.346-.682)	.721 (.504-1.032)	.720 (.503-1.031)	.660*(.454.960)
Gandaki	1.131 (.828-1.545)	1.275 (.918-1.770)	1.267 (.913-1.761)	1.303 (.909-1.867)
Lumbini	1.086 (.810-1.457)	.951 (.698-1.295)	.940 (.690-1.282)	.960 (.695-1.326)
Karnali	.624** (.452-.861)	.525** (.374-.737)	.529** (.377-.742)	.611** (.432-.865)
Equity Quintiles (Ref. Richest=0)				
Poorest	-	14.820** (7.651-8.710)	14.874** (7.682-28.798)	13.230** (6.797-25.752)
Poor	-	6.400** (3.350-12.298)	6.404** (3.354-12.228)	5.513**(2.868-10.597)
Midde	-	3.232** (1.683-6.208)	3.229** (1.682-6.199)	3.915** (1.512-5.619)
Rich	-	2.052* (1.067-3.948)	2.047* (1.065-3.936)	1.877 (.972-3.625)
Female Headship (Yes)	-	-	.917 (.755-1.114)	.954 (.783-1.162)
Cultural variable (Ref. Others)				
Dalit	-	-	-	**2.294** (1.267-4.153)**
Muslim	-	-	-	1.117 (.529-2.357)
Brahman/Chhetri	-	-	-	1.045 (.559-1.953)
Disadvantaged Janjati	-	--	--	1.602 (.876-2.928)
Newar/Gurung/Thakali	-	-	-	1.119 (.546-2.996)
Other Terai Caste	-	-	-	1.171 (.623-2.201)
Omnibus tests of model coefficients				
Model (Chi-square)	200.725**	427.923**	428.683**	479.237**
Step (Chi-square)	200.725**	227.198**	.760	50.554**
-2 Loglikelihood	3476.859	3242.661	3248.901	3198.347
Cox & Snell R^2	.073	.149	.149	.165
Nagelkerke R^2	.097	.199	.199	.220

*P<.05, ** P<.01, 95% CI are in the parenthesis

Table 7. 7: Logistic Regression Model for MPI (OR and 95% CI) based on Moser Method

Some independent and control variables	**MPI when k>=0.33**			
Place of Residence	**Model I**	**Model II**	**Model III**	**Model IV**
Rural/Urban (Ref. Urban)	**.672** (.536-.843)**	.917 (.698-1,205)	.926 (.704-1.216)	.905 (.686-.1193)
Ecological (Ref.Terai)				
Mountain	**.183** (.122-.276)**	.680 (.404-1.142)	.647 (.384-1.088)	.637 (.380-1.070)
Hill	**.465** (.362-.598)**	**1.689** (1.207-2.365)**	**1.693**(1.208-2.374)**	**1.625** (1.150-2.296)**
Province (Ref. Sudurpaschim)				
Province No. 1	**.091** (.057-.146)**	**.052** (.029-.092)**	**.048**(.027-.085)**	**.048**(.026-.089)**
Province No. 2	**.569** (.420-.771)**	**.397** (.272-.579)**	**.391** (.268-.572)**	**.380** (.242-.597)**
Bagmati	**2.360** (1.624-3.431)**	1.067 (.644-1.713)	1.069 (.665-1.719)	1.307 (.804-2.125)
Gandaki	**.543** (.386-.764)**	.343 (.227-.518)	**.347** (.229-.525)**	**.441** (.282-.689)**
Lumbini	1.032 (.762-1.398)	**1.452* (1.003-2.104)**	**1.496* (1.032-2.169)**	**1.617* (1.101-2.376)**
Karnali	**.527** (.368-.755)**	**.542** (.352-.833)**	**.526** (.342-.810)**	**.451** (.291-..699)**
Equity Quintiles (Ref. Richest)				
Poorest	-	**001** (.000-.009)**	**001** (.000-.009)**	**.001** (.000-.009)**
Poor	-	**.006** .001-.042)**	**.006** .001-.043)**	**.006** (.001-.045)**
Middle	-	**.019** (.003-.142)**	**.019** (.003-.144)**	**.019** (.003-.146)**
Rich	-	**.107* (.014--.805)**	**.109* (.014--.820)**	**.109** (.014-.828)**
Female Headship (Yes)	-	-	**1.414* (1.106-1.808)**	**1.378* (1.075-1.768)**
Cultural variable (Ref. Others)				
Dalit	-	-	-	.718 (.358-1.442)
Muslim	-	-	-	.734 (.288-1.870)
Brahman/Chhetri	-	-	-	1.335 (.634-2.811)
Disadvantaged Janjati	-	--	--	.747 (.366-1.523)
Newar/Gurung/Thakali	-	-	-	.522 (.221-1.234)
Other Terai Caste	-	-	-	1.279 (.602-2.718)
Omnibus tests of model coefficients				
Model (Chi-square)	525.749**	1270.340**	1278.070**	1301.101**
Step (Chi-square)	525.749**	744.590**	7.730**	23.031**
-2 Loglikelihood	2948.942	2204.352	2196.622	2173.690
Cox & Snell R^2	.180	.380	.382	.388
Nagelkerke R2	.246	.521	.524	.531

*P<.05, ** P<.01, 95% CI are in the parenthesis

Looking at the Alkire-Foster Model as shown in Table 7.6, by rural/urban category, rural households (Model I: OR= .768** and CI= .628-.938; .Model II: OR= 635** and CI=.513-.785; .Model III: OR= 634** and CI=.512-.784, and Model IV: .OR= 625** and CI=.503- 777)) are found better in comparison to Urban households for all models. The PAF households are situated at Mountain (Model I: OR: 3.792**and CI= 2.677-5.371; Model: OR= 4.223** CI=2.669-6.007; Model III: OR=4.281** and CI= 3.005-6.100) and Model IV: OR= 4.489** and CI=3.082-6.533) are economically secured than in Terai. Except Model I of Hill (OR= 1.259 and CI= 1.014-1.562), for remaining three Models the PAF households located at Terai are found statistically significant.

By provincial level, Province No 1 (Model I: OR=4.038** and CI= 2.895-5.632; Model II: OR=4.223** and CI=2.669-6.007; Model III: OR=4.281** and CI= 3.005-6.100, and Model IV: OR= 4.489** and CI= 3.082-6.533) and Province No. 2 (Model I: OR= 2.189** and CI= 1.621-2.955; Model II: OR= 2.542** and CI= 1.851-3.492; Model III: OR=4.281** and 3.005-6.100; and Model IV: OR= 4.489** and 3.082-6.533) have low vulnerable situation as compared to Sudurpaschim for all four models.

By controlling equity quintiles, female headship and cultural variable i.e., caste/ethncity, both poorest (Model II: OR= 14.820** and 7.651-28.710; Model III: OR= 14.874** and CI= 7.682-28.798; and Model IV: 13.230** and 6.797-25.752) and poor (Model II: OR= 6.400** and CI= 3.350-12.298; Model III: OR= 6.404** and CI= 3.354-12.228); and Model IV: OR= 5.513** and CI = 2.868-10.597)) households found to have good economic situation rather than that of rich households after launching PAF programme. Similarly, Dalit households (Model IV: OR = 2.294** and CI 1.267-4.153) have improved their economic condition upon the intervention of PAF programme in comparison to other caste/ethnic.

For MPI based on Moser method, the model comprises 31 health, education and different socioeconomic variables. Only Bagmati (Model I: OR= 2.360** and 1.624-3.431) seems to have better economic before controlling intervening variables as compared to the households situated at Sudurpaschim, which is also more sound economically than that of Province No.1 and Province No. 2. The households from

Hill (Model II: OR= 1.689** and CI 1.207-2.365; Model III: OR= 1.693** and CI= 1.208-2.374; and Model IV: OR = 1.625** and CI = 1.150-2.296) reported having no vulnerability after controlling equity quintiles, female headship, and caste/ethnic composition.

CHAPTER VIII

SUMMARY AND CONCLUSION

The chapter is specifically divided in two sections; summary, and conclusion. It has given the way out to the future researchers and policy makers on poverty analysis.

8.1 Summary of Findings

The findings of the study are exciting. Across a hundred and one countries, 1.3 billion human beings that is 23.1 percent are multidimensionally poor. Two-thirds of multidimensionally poor humans live in middle-earnings international locations. This year's attention on child poverty in South Asia reveals a large variety. While 10.7 percent of South Asian ladies are out of college and live in a multidimensional bad household, that common hides variant. In Afghanistan forty-four percent do live. Despite the continuous decrease in the share of the populace below the poverty line, the fulfillment has no longer been as expected. As of now, about 21.6 percent of human beings (extra than 6 million) are under the poverty stage. Moreover, the scenario of the multidimensional poverty rate in Province No. 1, Bagmati Province, and Gandaki Province is below the country-wide common, while it's miles above the countrywide common in different provinces. The multidimensional poverty rate is the highest in Karnali Province and the lowest in Bagmati Province. Multidimensional poverty indices are even worse in other sectors of economy.

8.2 Conclusions

The main objective of the study to see rationale and appropriateness of shifting targeting approach of poor households from food security (income approach) to multidimensional poverty one. It applied the Alkire & Foster (2008, 2011) and NPC & OPHDI (2018) methodology of accounting multidimensional poverty with minimal contextual alterations in evaluation.

Specifically, to measure the extent on multidimensional deprivation of PAF targeted households in the study area the study was set. Non-experimental quantitative survey design used a nine section survey schedule containing information on survey site identification and results of survey, demographics of households, literacy, education, current schooling and years of schooling; work/employment, migration and remittance; consumption and non-consumption expenditures and income; health and mortality; financial access and inclusion and nature of involvement in PAF

intervention schemes and willingness-to-accept shift of support modality from grants to financing scheme in future.

The survey successfully accomplished interview of 2656 households- with 0.2 percent of nonresponsive rate. Data was collected in computer assisted interview (CAPI) module in android based smart phones/tablets i.e. ONA, so that errors is mostly minimized at field level.

Of the 2,656 successfully interviewed households 11, 36 and 53 percent respectively are from Mountain, Hills and Tarai regions. Provincial distribution of the surveyed households ranged from about 16 percent in province-2 to a low of below 14 percent (13.5%) in province-6. By districts of survey nearly 10 percent (9.8%) of the interviewed households come from Gorkha followed by nine percent each in Sunsari, Dang and Rukum-west and lowest share of households is included from Nawalpur (<4%).

22 percent of the surveyed households belonged to Disadvantaged hill Janajati communities followed by 21 percent of Brahman/Chhetry. Hill Dalits comprised of 18 percent and 12 percent that of Terai Dalits and size of Muslims comprised below three percent. Study households that are female headed comprised of one-fourth and average household size is of 5.4 members. Among them 57 % of respondents have birth registration and 87 percent population aged 16 and above have had made citizenship certificate. The objective-wise conclusion of the survey is as follows:

Measurements of Intensity of Multidimensional Poverty in Nepal

Two major statistical models have been developed to measure the concentration of multidimensional paucity of Nepal. The first model is highly influenced by Alkire-Foster (Alkire & Foster, 2011; NPC & OPHDI, 2018) and second one by Moser (1998). In addition to those models, equity quintiles adopted by Nepal Demographic and Health Survey (MoHP, 2017) and Gini Coefficient (Morgan, 1962; Kendall and Stuart, 1961) were analyzed statistically.

According to Model I, the calculated MPI 0.133 is higher than national MPI 0.127(NPC & OPHDI, 2018). A similar study has already been carried across the world (Alkire, et al., 2015; OPHDI, 2018). According to Model II, the value of MPI is high conspicuously (0.226) while comparing with other two findings (0.127 for Nepal: see NPC & OPHDI (2018)). The intensity of poverty for both analyses have

more or less same but gravity of poverty is noticed considerably in the second model.

The component method was used in terms of equity quantiles. Nearly two in every three households (64 percent) are found below the poverty line, followed by beyond the middle class (19 percent). The Gini coefficient is also calculated and the value of Gini Coefficient 0.60, which is nearly double of Nepal (0.33) (CBS, 2015).

Responsible causal factors of MPI calculation in Nepal

The causal factors that are responsible in calculation of MPI are not other than 10 variables of 3 interventions of Health, education, and Living standerd of the people of Nepal. The logistic regression (Bland, 2000) was applied to understand the casual factors responsible for MPI in Nepal based on the PAF intervention households. The following hypothesis has been significant statistically: There is significant relationship between the health/education/living standard indicator and socioeconomic and cultural variables.

For model I, there is a strong relationship between composite indicators of MPI and places of residence. PAF households situated a rural municipal are economically better than in urban Municipal (Model: OR=.768** and CI=.628-.938; Model II: OR= .635** and CI= .513-.785; Model III: OR = .634** and .512-.784; and Model IV: OR=.625** and .503-.777) after controlling the three socioeconomic and cultural variables (equity quintiles, female headship and caste/ethnic composition). By provincial Province No. 1 and Province No. 2 are found better in terms of level of vulnerability as compared to Sudurpaschim, which is recorded statistically good economic situation rather than households located at Karnali. Looking at equity quintiles, the PAF intervention has played vital role in reducing poverty level as other households (poorest, poor, middle and rich) are more benefitted than that of richest households.

This model is unexplained by 79 percent (Nagelkerke R^2=.220), suggesting more confounding variables (e.g., socioeconomic variables) are needed to explain a mechanism that includes the casual factors responsible for MPI in Nepal.

For Model II, as variables of dimensions increase the proportion of level of vulnerability also increase among the PAF intervention households. This model is explained by around 51 percent ((Nagelkerke R^2=.513). Households from Sudurpaschim are noticed economically less vulnerable than households from Karnali

(Model I: OR=.527** and CI=.368-.755; Model II: OR=.542** and CI= .352-.833; Model III: OR=.526** and CI = .342-.810); and Model IV: OR= .451** and .291-.699) for all Models Richest households (Model III: OR=1.414* and CI=1.106-1.808; Model IV: OR=1.378* and CI=.075-1.768) were more benefitted than other households after controlling female headship and caste/ethnic cultural variables.

Key dimensions of poverty alleviation interventions from the elements of MPI in Nepal

Deprivation in Living Standard

Around 49 % nearly 50 % household population found deprived of living standard dimension of MPI. 28 percent households are not connected to electricity; 46 percent households are relying on poor source of drinking water; 78 percent households use smoky firewood in cooking fuel; 29 percent households do not have sanitation/toilet facility of acceptable standard; standard of currently residing house of 30 percent households is of sub-standard; and 41 percent households do not own more than one of different six types of livelihood and consumer durable assets during the assessment.

About 30 % households are deprived of housing condition; outer wall of 22 percent households is of sub-standard materials; flooring of 12 percent household is either dirt, dusty or muddy; 39 percent households have no separate kitchen room; roof of 20 percent households are either made of poor materials or leaking and one room is shared by more than three persons in 15 percent of the study households.

Most common consumer durable asset possessed in the study households (in 94% HHs) is phone/ mobile phone. Instead 65 percent households do not have a television; 83 percent households reported not to have a radio; two-third households do not have a bicycle; 87 percent households do not have a refrigerator or scooter; and nearly 100 percent households do not have any means of four-wheeler transportation.

Deprivation inside the schooling measurement

About 27 % of the study families have been determined to be deprived of training and know-how dimensions of MPI. Current non-education of any of college-elderly children (aged 5 and 17) is counted from 18 % of the study families and none of the own family contributors 15 and above finished 5 years of training/schooling in 11 percent of the examined families.

Health Dinension Deprivation

As it constructs a composite of all forms of fitness deprivation at the side of stunting, losing, and underweight of youngsters 6 to 59 months of age (below five); incidences of a toddler and little one mortality in the course of ultimate five years, and percentage of girls falling under 18.5 BMI, 26 % households accounted deprived in health dimension of MPI toward best six percent taking handiest NPC & OPHDI (2018) approach. They have a look at discovered the superiority of stunting among (quick in height for age) youngsters in eleven percentage households; the prevalence of wasting (weight for peak) in five percentage families; the prevalence of underweight (weight for age) nearly in 9-% families. Women in reproductive age lagging in the back of in desired BMI (>18.5) is located almost in thirteen percent of the found families and that of the prevalence of toddler or toddler mortality at some point of remaining 5 years in a piece extra than 1 percentage families.

Accumulation of MPI

Take a look at the estimated aggregated MPI value of 0.133. It is maximum in Madhesh Province (0.213) and one (0.206) and lowest in Provinces seven (0.084) and three (0.090). The headcount index (H) of poverty (populace in MPI deprivation) is estimated at 28.4 % and the intensity of poverty (A) is 47. Muslim is the most multidimensional disadvantaged caste/ethnic community (45%) followed via Dalits (39%) and disadvantaged Janajatis (32%). 23 % of the have a look at populace is vulnerable to poverty/deprivation (with MPI fee between zero.20 to 0.332) and 11 % is inside the state of extreme deprivation (MPI>0.50). The extent of intense poverty is once more high in Muslim groups (23%) and for Dalits (17.5%).

A comparable look at has been performed through NPC & OPHDI in 2018 which shows that there was statistically giant progress being made throughout all the ten indicators of multidimensional poverty. To spotlight just one, the occurrence of those who are multidimensionally negative and shortage access to ok sanitation centers went down from greater than 50% to less than 20% (NPC &OPHDI, 2018).

In addition, the weights for the fitness and education signs are three times higher than the ones for the dwelling standards indicators, due to the fact there are handiest two indicators for these dimensions, while there are six signs for the residing requirements measurement. So the contribution of health and training indicators to MPI is higher

because there are fewer indicators in total. The largest members of rural and countrywide poverty are deprivations in years of education (17.7%) and nutrients (15.8% and 15.9%, respectively). In terms of dimensions, residing requirements are the largest contributor to multidimensional poverty in rural regions, with a contribution of 44.6%. The dimensions of health and education make a contribution kind of 28% every situation. Poverty in Nepal is traditionally measured with the aid of some financial indicators. The gross home according to capita profits has been predicted the usage of statistics from Living Standard Surveys (CBS, 2005; 2011)) primarily based on monetary values of intake prices on multiple aspects of life, such as food, education, housing, and property, etc. After which as compared against poverty strains below which individuals are deemed negative. This has been the traditional measure of poverty in Nepal.

With the growing recognition that earnings poverty on insufficient to become aware of the maximum inclined agencies in society. The Multidimensional Paucity Indicators (MPI), which identifies the poor primarily based on their overlapping deprivations, might be one sensible technique for better evaluetion. In addition, the sustainable improvement goals (SDGs) have identified and sought to stop poverty in all its forms and dimensions. A multidimensional idea of paucity is now embedded inside the SDGs. MPI is not supportive of useful resource flows that are complex and are the handiest part of any poverty analysis approach. Measured in international currencies, they do no longer replicate the unit charges of lowering a deprivation. They need to be analyzed along with national public rates and different flows they complement (Alkire & Robles, 2017). The first application of this practice became the Global Multidimensional Poverty Index, an across the world similar degree of acute multidimensional dearth. This measure became evolved in 2010 through OPHDI and the United Nations Development Program (UNDP, 2010).

The PAF envisages the usage of the strength of the market to enhance negative peoples' lives and livelihoods. In precise, PAF envisages using two important techniques to achieve endogenous growth – cost chain linkage connecting negative households to market corridors and imparting financing (loans) to families that had formerly been given grants. As PAF has very low operational and protection charges, it may provide low-interest loans to the poorest households and poverty wallets. As noted earlier, a multidimensional dearth profile can help to discover households with

their related scarcities. On the flip, this could allow for higher targeting. Given PAF's new strategy of being a company of monetary services to the poorest, multidimensional scarceness can also assist hyperlink financing to dispossessions. Households and even poverty wallet deprived in a particular measurement may receive financing the one's targets into that dimension. For instance, if a selected poverty pocket is maximum disadvantaged in fitness services, agriculture, handicrafts companies, PAF can offer precedence financing in such sectors. The multidimensional measures provide an opportunity lens thru which poverty can be considered and understood. As this is quite a departure from traditional one-dimensional and multidimensional poverty size – especially with recognize to the identification step – further elaboration can be warranted. The contemporary has a look at elucidates the strengths, obstacles, and misunderstandings of multidimensional poverty measurement as a way to clarify the talk and catalyze further studies. It starts off evolved with widespread definitions of one-dimensional and multidimensional methodologies for calculating dearth. It affords an intuitive description of the size approach, which includes a 'twin reduce off identification step that views poverty as the country of being multiply deprived, and an aggregation step based totally on the traditional measures. The findings are continual with the perspectives of Sen (1976) who wrote a seminal paper entitled 'Poverty: An Ordinal Approach to Measurement'. He defined two predominant steps that dearth depth ought to deal with: (i) recognizing the negative a few of the total population, and (ii) building a numerical degree of dearth. These -step tactics of identification and aggregation have ended up the standard conceptual framework for poverty size in our dialogue of one-dimensional and multidimensional methods (Alkire, 2015). The dimension of poverty has been beneath consistent scrutiny from teachers and coverage-makers. This remark is an instance of such a takes a look at.

Policy Implications

There is significant relationship between the health/education/living standard indicator and socioeconomic and cultural variables. Despite the continued poverty alleviation efforts from the government, the likelihood of HHs from rural areas, mountain, and hill being MPI poor are high. Similarly, provinces like one, two, and Karnali require special attention from the government in reducing multidimensional poverty compared to other provinces. Hence, poverty measurement and alleviation

approach should take territorial development approach to eradicate poverty and improve the livelihood of the citizens.

In addition, gender sensitive poverty reduction interventions are needed as the evidence suggests that likelihood of women led HHs being multidimensional poor are higher. Similarly, poverty reduction strategies should place Dalits and other marginalized communities in their priorities as their likelihood of being MPI poor is higher than other communities.

8.3 Recommendations

The mode as it stands, as well as lots of the quantitative evaluation within the subject of multidimensional poverty index, may also want to alternatively resultseasily be implemented to some of the countries all through the world wherein the united states of America-particular PAF application have been launched. One must distinguish amongst a more formal software of Nepal's MPI based totally on PAF and an easy switch of the Nepali findings. In the number one case, one has to essentially use the MPI approach to the United States selected. By this, one has to derive new empirical findings of direct relevance to the selected USA. The other, really tons smaller, efforts could be to honestly take the findings from Nepal and see how a bargain of the number one message can be fairly transferred to the other situation. For widespread insurance pointers, this will even be sufficient.

The scientific aspirations of the take a glance offered on this thesis go beyond Nepal. It has been hoped that the observe will help shape the nonetheless alternatively debated problem on MPI, which cuts in the course of numerous disciplines by using manner of looking at particular empirical evidence in phrases of each qualitative historical assessment and a definitely primarily based quantitative version. In addition, researchers are advised to conduct in extra research to recognize the country of multidimensional poverty on the nearby degree. As nicely as provincial and community authorities are counseled to in addition develop a strategic plan to undertake poverty size the usage of MPI method to have holistic information of the dominion of poverty.

ANNEX 1

CLASSIFICATION OF CASTE/ETHNICITY GROUPS

The caste and ethnicity groups and their codes are used as per folloings;

Classfication	**Geography**	**Caste/Ethnicity**	**Code no**
Dalit	Mountain	Kami, Damai, Sunar, Sarki, Ganie and Badi	1
	Terai	Chamar, Musahar, Dhusdah/Paswan, Tatma, Khatway, Bantar, Dom, Chidimar, Dhobi, Halkhor	
Muslim		Churauta/e, religious minority (Musalman living in Terai)	2
Brahmin /Chhetri	Mountain	Brahman, Kshhetri, Thakuri and Sanyasi	3
	Terai	Rajoure, Kayastha, Baniya,	
Newar		All type of Newars	4
Disadvantaged Janajati	Disadvantaged Janajati Hill	Kumal, Sunwar, Chhantel, Jirel, Darai, Dura, Majhi, Danuwar, Thami, Chepang, Bote, Raji, Raute and Kusunda. Sherpa, Bhotia, Walung, Byasi, Hyolomu, Baramu, Pahari, Yakkah, Lepcha and Hayu	5
	Disadvantaged Janajati Tarai	Tharu, Dhanukh, Dhimal, Rajbansi, Tajpuriya, Meche, Kisan, Gangai, Rajbansi, Munda, Satar, Koche, Patharkatta/Kushbadiya and Jhanger	
Gurung and Thakali		Magar, Tamang, Newar, Gurung, Thakali, Rai, Limbu, Gharti/Bhujel,	6
Other caste and ethinicty of Terai		Yadav, Teli, Kalwar, Sudhi, Sonar, Lohar, Koiri, Kurmi, Kanu, Haluwai, Hajam, Thakur, Badhe, Bahee, Rajbar, Kewat, Mallah, Nuniya, Kumhar, Kahar, Lodhar, Bing, Banda, Bhediya, Mali, Kamarm, Dhunia	7
Others		Marwadi, Jain, Nurang, Bangali and others	8

ANNEX 2

SELECTED WARDS OF LOCAL UNIT

District	Cluster/PSU No.	Old VDC/Municipality	Ward No.	New Rural/Urban Municipality
Sunsari	1	Amaduwa	2	Barju RM
Sunsari	2	Basantapur	6	Harinagara RM
Sunsari	3	Bhokraha	7	Bhokara RM
Sunsari	4	Dhuskee	9	Harinagar RM
Sunsari	5	Dumraha	2	Ramdhuni UM
Sunsari	6	Haripur	3	Koshi RM
Sunsari	7	Madhuwan	8	Barahachhetra UM
Sunsari	8	Narsingha	3	Bhokara RM
Sunsari	9	Ramnagar Bhutaha	5	Harinagar RM
Sunsari	10	Satterjhora	4	Gadhi RM
Sunsari	11	Sonapur	9	Koshi RM
Sunsari	12	Sripurjabdi	7	Koshi RM

District	Cluster/PSU No.	Old VDC/Municipality	Ward No.	New Rural/Urban Municipality
Khotang	13	Bahunidanda	8	Haleshi Tuwachung UM
Khotang	14	Barahapokhari	5	Barahapokharai RM
Khotang	15	Dhitung	3	Haleshi Tuwachung UM
Khotang	16	Durchhim	2	Haleshi Tuwachung UM
Khotang	17	Magpa	1	Aaishulukharka RM
Khotang	18	Rakha Bangdel	3	Rupakot Majhuwagadhi RM
Khotang	19	Suntale	9	Barahapokharai RM

District	Cluster/PSU No.	Old VDC/Municipality	Ward No.	New Rural/Urban Municipality
Dhanusha	20	Bateswor	4	Bateshwor RM
Dhanusha	21	Dhanusha Govindapur	7	Dhansuhsadham UM
Dhanusha	22	Dhanusadham	9	Dhansuhsadham UM
Dhanusha	23	Hariharpur	2	Chhireshwor UM

Dhanusha	24	Itaharwa	3	Bideha UM
Dhanusha	25	Janakpur Municipality	11	Janakpur SubMetroplitan
Dhanusha	26	Kanakpatti	6	Janakpur SubMetroplitan
Dhanusha	27	Manshingpatti	6	Janakpur SubMetroplitan
Dhanusha	28	Ramadaiya Bhawadi	4	Chhireshwor UM
Dhanusha	29	Suga Nikash	5	Hanshpur RM

District	Cluster/PSU No.	Old VDC/Municipality	Ward No.	New Rural/Urban Municipality
Rautahat	30	Auraiya	7	Ieshnath RM
Rautahat	31	Birtiprastoka	6	Katahriya RM
Rautahat	32	Dharampur	5	Gadhimai RM
Rautahat	33	Garuda Bairiya	9	Garuda UM
Rautahat	34	Jatahara	6	Ieshnath RM
Rautahat	35	Karuniya	2	Dewahi Gonahi RM
Rautahat	36	Bhasedawa	3	Katahriya RM
Rautahat	37	Paurai	4	Chandrapir UM
Rautahat	38	Rajpur Tulsi	5	Durga Bhagwati RM
Rautahat	39	Santapur (Dostiya)	6	Phatuwa Bijayapur RM
Rautahat	40	Tejapakar	7	Paroha RM

District	Cluster/PSU No.	Old VDC/Municipality	Ward No.	New Rural/Urban Municipality
Sindhupalchok	41	Baramchi	3	Jugal RM
Sindhupalchok	42	Chokati	4	Tripurasundari RM
Sindhupalchok	43	Gati	6	Barhabishe UM
Sindhupalchok	44	Gunsakot	5	Panchkhal Thangpal RM
Sindhupalchok	45	Kunchok	6	Indrawati RM
Sindhupalchok	46	Pangtang	7	Jugal RM
Sindhupalchok	47	Sangachok	5	Chautara Sangachouk UM
Sindhupalchok	48	Thampal Chhap	8	Panchkhal Thangpal RM
Sindhupalchok	49	Thulo Pakhar	4	Lisankhu Pakhar RM

District	Cluster/PSU No.	Old VDC/Municipality	Ward No.	New Rural /Urban Municipality
Chitawan	50	Bagauda	8	Maadi UM

	51	Bagauda	9	Maadi UM
Chitawan	52	Kathar	3	Khairehani UM
	53	Kathar	7	Khairehani UM
Chitawan	54	Khairahani	5	Khairehani UM
Chitawan	55	Patihani	2	Bharatpur Metropolitan
Chitawan	56	Ratnanagar Municipality	3	Ratnanagar UM
	57	Ratnanagar Municipality	4	Ratnanagar UM
	58	Ratnanagar Municipality	9	Ratnanagar UM
Chitawan	59	Sibanagar	6	Bharatpur Metropolitan

District	Cluster/PSU No.	Old VDC/Municipality	Ward No.	New Village/Urban Municipality
Gorkha	60	Aarupokhari	4	Aarughat RM
Gorkha	61	Bhumlichok	5	Gandaki RM
Gorkha	62	Darbung	6	Gandaki RM
Gorkha	63	Jaubari	7	Siranchouk RM
Gorkha	64	Laprak	4	Dharche RM
Gorkha	65	Makaising	5	Gandaki RM
Gorkha	66	Manbu	8	Aarughat RM
Gorkha	67	Masel	3	Bhimsen RM
Gorkha	68	Mirkot	3	Palungtar UM
Gorkha	69	Palungtar	7	Palungtar UM
Gorkha	70	Saurpani	1	Sulikot RM
Gorkha	71	Taklung	4	Sahid Lakhan RM
Gorkha	72	Tanglichok	5	Gandaki RM

District	Cluster/PSU No.	Old VDC/Municipality	Ward No.	New Rural /Urban Municipality
Nawalpur	73	Dadajheri Tadi	2	Bulingtar RM
Nawalpur	74	Devachuli	6	Debchuli UM
Nawalpur	75	Dhaubadi	4	Hupsekot RM
Nawalpur	76	Kolhuwa	1	Madhyabindu UM
Nawalpur	77	Rakachuli	7	Madhyabindu UM

District	Cluster/PS	Old VDC/Municipality	Ward	New Village/Urban

	U No.		No.	Municipality
Pyuthan	78	Belwaspur	2	Swargdwari UM
Pyuthan	79	Chuja	3	Mallarani RM
Pyuthan	80	Dhuwang	4	Aairawati RM
Pyuthan	81	Khung	5	Goumunkhi RM
Pyuthan	82	Markawang	7	Mandawi RM
Pyuthan	83	Puja	2	Goumunkhi RM
Pyuthan	84	Syauliwang	1	Naubahini RM

District	Cluster/PS U No.	Old VDC/Municipality	Ward No.	New Rural /Urban Municipality
Dang	85	Baghmare	6	Shantinagar RM
Dang	86	Bijauri	9	Tulsipur SubMetroplitan
Dang	87	Gadhawa	3	Gadhawa RM
Dang	88	Laxmipur	1	Ghorahi Submetroplitan
Dang	89	Narayanpur	3	Ghorahi Submetroplitan
Dang	90	Purandhara	2	Babai RM
Dang	91	Satbariya	7	Lamahi UM
Dang	92	Shreegaun	5	Dangsisharan RM
Dang	93	Ghorahi Municipality	7	Ghorahi Submetroplitan
Dang	94	Ghorahi Municipality	18	Ghorahi Submetroplitan
Dang	95	Tulsipur Municipality	2	Tulsipur SubMetroplitan
Dang	96	Tulsipur Municipality	8	Tulsipur SubMetroplitan

District	Cluster/PS U No.	Old VDC/Municipality	Ward No.	New Rural /Urban Municipality
Rukum West	97	Aathbiskot	5	Aathbiskot UM
Rukum West	98	Banfikot	6	Banfikot RM
Rukum West	99	Chunwang	4	Bhume RM
Rukum West	100	Garayala	9	Sanibheri RM
Rukum West	101	Ghetma	3	Aathbiskot UM
Rukum West	102	Khara	7	Tribeni RM
Rukum West	103	Kotjahari	4	Chaourjahari UM
Rukum West	104	Khalanga	5	Musikot UM

	105	Khalanga	8	Musikot UM
Rukum West	106	Pipal	7	Banfikot RM
Rukum West	107	Simli	3	Sanibheri RM
Rukum West	108	Syalapakha	5	Musikot UM

District	Cluster/PSU No.	Old VDC/Municipality	Ward No.	New Rural /Urban Municipality
Mugu	109	Hyanglu	2	Khatyad RM
Mugu	110	Kimri	3	Mugu Markamarong RM
Mugu	111	Mangri	6	Mugu Markamarong RM
Mugu	112	Pulu	4	Mugu Markamarong RM
Mugu	113	Seri	9	Khatyad RM
Mugu	114	Sukadhik	5	Khatyad RM

District	Cluster/PSU No.	Old VDC/Municipality	Ward No.	New Rrual /Urban Municipality
Accham	115	Bhagyaswori	9	Mangalsen UM
Accham	116	Chaphamandau	1	Ramaroshan RM
Accham	117	Gajara	4	Bannigadhi RM Bannigadhi RM
Accham	118	Kalika	6	Bannigadhi RM
Accham	119	Malatikot)	7	Ramaroshan UM
Accham	120	Nawathana	8	Sanphebagar UM
Accham	121	Ridikot	4	Sanphebagar UM
Accham	122	Soukat	3	Chourpati RM
Accham	123	Warla	2	Panchaldewal Binayak UM

District	Cluster/PSU No.	Old VDC/Municipality	Ward No.	New Rural /Urban Municipality
Kanchanpur	124	Bhimdatta Municipality	1	Bhimdatta UM
	125	Bhimdatta Municipality	11	Bhimdatta UM
	126	Bhimdatta Municipality	18	Bhimdatta UM
Kanchanpur	127	Chandani	4	Mahakali UM
Kanchanpur	128	Daijee	3	Bedkot UM
Kanchanpur	129	Dodhara	5	Mahakali UM
Kanchanpur	130	Jhalari	4	Shukalaphanta UM

Kanchanpur	131	Krishnapur	2	Krishnapur UM
Kanchanpur	132	Pipaladi	9	Shukalaphanta UM
Kanchanpur	133	Suda	7	Bedkot UM

ANNEX 3

QUESTIONNAIRE

Household questionnaire

A Study on Contribution of PAF Programmes Support in Alleviating Multidimensional Poverty, 2018

SECTION 01: SURVEY SITE INFORMATION & HOUSEHOLD IDENTIFICATION

INTRODUCTION AND INFORMED CONSENT

NAMASTE!

My name is……. I work for the poverty alleviation fund, Nepal (paf/Nepal). The organization is going to conducting a study on *contribution of PAF programmes support in alleviating multidimensional poverty* taking cases of 14 districts *(two districts each from seven provinces).* In this regard,we would like to ask you something about family composition,age,sex,education,health andmortality, occupation and work employment, migration and remittance related of the family members. We also would like to ask about land holding, housing condition and assets in house, water and sanitation issues, about consumption expenditure and income details of your family of the past one month and one year. Further information of our concern are involvement status in paf supported programme, type of support received and its effectiveness in rising level of children's education, health and nutrition and the like. Similarly, we want to know about your willingness to accept the shift f paf's support model from grant to financing scheme. The valuable information provided by you is important in guiding formulation of practicable plans and policies for the elimination of any forms of poverty from the family and the society. In this respect we believe that you will help the study by correctly answering the questions asked herewith. All personal information asked within this questionnaire will be kept confidential according to statistical act, 2015. The information recorded in this form will be used only for statistical purposes. No part of this interview is being recorded in tape or video. You don't have to be in the survey, but we hope you will agree to answer the question since your views are important. If i ask any question you don't want to answer, just let me know and i will go on the nextquestion or you can stop the interview at any time.

Do you have any question?

May I begin the interview now?

101. PSU/Cluster Number ……

102. House Serial Number

103. Selected HH S.No……

Ecological (Mountains…….1, Hills……..2, Tarai……..3) .....

104.Region ……

105. Province (1, 2, 3, 4, 5, 6, 7) ……

106.District (Code) ..... ……..

107.Name and Code of old VDC/Municipality ....

108.Ward Number in old VDC/Municipality .....

109.Name and Code of new Rural/Urban Municipality ....

110.Ward Number in new Rural/Urban Municipality .....

Postponed ……..……..4

Refused ……..……. 5

Dwelling vacant or address not not valid …….....6

Dwelling destroyed ……..……... 7

Dwelling not found ……..... ..8

Dwelling occupied by family not interviewed in earlier round ….. 9

Any Other (Specify): ……....10

Name of the respondents and Identity number (Copy from SECTION 03: HOUSEHOLD ROSTER):

Name of the Main Respondent ……ID CODE

Name of the Second Respondent ……..…ID CODE

Name of the Household Head: _____;

121. Name of the Household Head's Spouse: _____

Which religion do you follow mainly in your household?.....

Caste/Ethnicity of the household.....

Main and Second Language Spoken in the household: Main Language … Second Lnguage ……

I D C O D E	201 Name of usual Resident in the Household. Please give me the names of the persons who usually live in your household (*Also include those who are not relative to your family but regularly live here*). Start from the name of HH head, his/her spouse and children in seniority order	202 [Name's] Relationship to household head Head……1 Spouse…….....2 Son/Daughter.....3 Grandchild..……4 Parent..……...5 Brother/Sister…....6 Nephew/Niece.....7 Son/Daughter-in-law..8 Brother/Sister-in-law..9 Parent-in-law……10 Other relative.....11 Servant/Servant's relative……..12 Adopted/foster child.13 Other not related…..14	203 Sex of [NAME] Male….1 Female..2 Third …3	204 Is [NAME] younger or older than age five? (Younger 0-59 months and older 60+ Completed Months) Younger …1 Older ……2	205 Age of [NAME] in Completed months/years Note*: record the completed age in months if the person is under age five and in completed years if age five and above; hence months 0-59, age 5 and above "999" Don't know*	206 Whether [Name] has done Birth Registration? Yes....1 No.....2 DK.....8	207 What is [NAME's] Marital status (if age is >5 years) Unmarried …1 Married……2 Widow…….3 Divorced…..4 Separated…5	208 Does [NAME] has taken citizenship certificate? (if age is >= 16 years) Yes …1 No…..2	209 Is [Name] with any types of disabilities? Yes…..1 No…2 → Q211	210 If yes, what types of disability is [Name] with Physical…1 Visual…2 Hearing…3 Dumb…..4 Mental…5 Cognitive..6 Multiple..7 Sensory ..8	211 Is [name] currently residing in this HH? Yes …1 Nest No….2	**212** If no, since how long [NAME] is absent? (in Months)
01												
02												
03												
04												
05												
06												

SECTION 02: HOUSEHOLD ROSTER- Interviewer: Now we would like TO ASK some information about the people who usually live in your household as below

SECTION 03: EDUCATION AND LITERACY INFORMATION (To be asked to members who are 5 years or older)

	301	**302**	**303**	**304**	**305**	**306**	**307**
ID CODE	Can [NAME] read and write a letter in any one language with understanding? Rread/write both …….1 Read only …2 Write only…3 None ……...4	Has [NAME] ever attended formal school? Yes…1 No….2 □305	What is the highest grade [NAME] completed? (Use EDUCATION CODE)	Is [NAME] currently enrolled in school or studying? Yes enrolled….1 Study completed..2 Left studying in between .3 Never enrolled …4 If 1 and 2 □306	What is the main reason that [NAME] never attended school or left studying? Too young……01 School too far away…….02 Unsafe route to and from school (Jungle, river, land slide area) …...03 Harassment (sexual) in shool…….04 Harassment (sexual) in route of shool……..06 No desire of schooling…….07 Unable to pay fee……..08 Had to help at home ……..09 Guardians did not send ……10 No benefit of schooling ……11 Married while schooling ……..12 Sick/disabled ……13 Job opportunity ……14 At that time no system of reading……..…15 Other (specify) ____	At what grade [NAME] is enrolled in? (Use EDUCATIO N CODE)	What type of school does [NAME] attending? Government, aided…...1 Community-managed, aided…2 Community-managed, unaided.3 Private/Institutional ….4 Technical/Vocational ...5 Others……6
01							
02							
03							
04							
05							
06							

Ask only for the children or young adolescents of age group 05-19 who are currently attending school.

I D C O D E	**308** Did [NAME] repeat the class currently studying? Yes…….1 No……..2	**309** Did [NAME] receive any scholarship during the past 12 months? Yes …1 No.....2 311	**310** How much did [NAME] receive for scholarship over the past 12 months?	**311** How much was spent for [NAME's] schooling during the past 12 months?	**312** How old was [NAME] when first enrolled in grade 1? (Record age in completed years.) *"99" Not applicable*	**313** How far (in km) is the school from the household? (Note:1 Kosh=3 km)	**314** Hong long (in minute) does it take to reach the school?	**315** How frequently does [NAME] go to the school? Always (almost).... 1 Most of the time….2 Some of the time... 3	**316** As a parent, how satisfied are you with the school? Very satisfied ……1 Satisfied……..2 Neither satisfied nor dissatisfied ….....3 Dissatisfied..……..4 Very dissatisfied.....5
01									
02									
03									
04									
05									
06									

SECTION 4A: DETAILS ABOUT EMPLOYMENT, LABOR MIGRATION AND REMITTANCES

EMPLOYMENT: Ask following work/employment related information of all persons aged 5 years and older in the family

	401		402	403	404	405	406	407	408
ID CODE	What was the main type of work [Name] did in last 7 days? *(If did not work in last 7 days, but has a job or business in which he/she will return, then write about that job)* (Use OCCUPATION CODE) If answer is 31-35 **Q405** OCCUPATION CODE		What is/was the status of [Name] involved in the main job? Paid employee.....1 Operating own business or farm with regular paid employees…2 Operating own business or farm without regular paid employees.....3 Contributing family member without pay .....4 Retired/pension holder 5 Others (specify).....	How many hours did [NAME] work on the main job during last 7 days? *(If not worked in last 7 days, write usual working hours when s/he was in work)* If retired/pension holder, write 0	***Ask only if Q40 is 1 or 5*** During the past 12 months, how much did [NAME] earn from wage (salary)?	What is the main reason that [NAME] has no regular job? Student.....1 Housewife, HH work ..2 Sick/Disabled .....3 On leave/vacation .....4 Waiting for work .....5 There is no work .....6 Lack of finance, raw materials .....7 Too young/old .....8 Other (specify).....	Was [NAME] available for additional work during the past 7 days? Yes .....1 No…….2	Did [NAME] look for additional work during the past 7 days? Yes .....1 No ……2	Has [Name] received any occupational, or job specialisation training? Yes …….1 No. ……..2
	Primary	Secondary		Hours	Rupees				
01									
02									
03									
04									
05									
06									

SECTION 4B: LABOUR MIGRATION AND REMITTANCES: ***Ask for all the persons aged 5 years and older who is currently away from home (those of >6 in Q212).***

408. Is anybody from your household away from home for work or study for more than six months? Yes…1

I	409	410	411	412	413	414	415		416	
D C O D E	Reason for Leaving HH Marriage…...1 Work…….2 Education….3 Family feuds……4 Other (Specify)	What is the highest level of education that [NAME] completed? (Use EDUCATION CODE.)	Where is [NAME] currently living? Same dist. Urban……..1 Same dist. Rural…..2 Other dist. urban 3 Other dist. rural Other countries (country code) 4	What does [NAME] do there? Wage in Agriculture …1 Wage in Non-Agriculture ……2 Self Employment in Agri.…….3 Self Employment in Non-Agri.....4 Study……..….5 Household chores…….6 Other_____	Has/Had [NAME] sent remittances during the past 12 months? Yes…....1 No……2 NEXT	How did [PERSON] send you most of the money or goods during the past 12 months? Remittance company ..... 1 Directly deposited in bank account ..... 2 Hundi ..... 3 Self ..... 4 Through friends..... 5 Family relatives..... 6 Mobile transfer ..... 7 Other (specify)	How much was the remittance amount (Rupees) that [NAME] sent for the past 12 months? (Write in Rupees converting in cash if it is received in kind. In ,000)		How is the remittances sent by [NAME] used mainly? Buy food…….01 Agriculture/ Livestocks ……..02 Education……...03 Use in trade/business, .04 Buy land, house, vehicle, etc……...05 Pay off loan.…….06 Household rituals (wedding/birth/death, ceremonies)…....07 Saving……08 Clothing…….09 Health/treatment…10 Other (Specify)___ No second option…….99	
							Cash	Kind	Primary	Secondary
01										
02										
03										
04										
05										
06										

SECTION 05: HOUSING CONDITION AND PHYSICAL ASSETS

I would like to know more about your housing units used by your household or currently residing.

501. Is this dwelling unit occupied by your household only?

Yes 1

No… 2

What is the ownership status of the dwelling that your household residing?

Own house (Male ownership)...…1

Own house (Female ownership)…2 Rented……..…...3 Provided free of charge……..4

How many rooms are used by your household?

How many stories are there in your household?

Has your household used separate room as a kitchen?

Yes ……1

No……..2

What is the main flooring material of the house that your family using? (also observe and record)

Earth/soil with daily sweeping/cleaning ….1

Earth/soil, dusty not sweeping/cleaning ….2

Wood/Planks……..……..3

Stone/Brick ……..4

Cement …….……...5

Other ……...6

507. What is the main construction material of the outside wall of the house?

Bamboo/Wood/Cement (centre wall)…..0

Cement bonded Stones/Bricks ….……...1

Mud bonded Stones/Bricks ……..……..2

Wood…….…….....3

Concrete……..4

Unbaked Bricks…….....5

Bamboo/Branches ……..……6

Clay, Husk, etc.……..….....7

Other…….……...8

No outside walls……..……9

508. What is the main construction material of the roof of the house?

Thatch/Straw……..….1

Earth/Mud ……..…2

Wood/Planks……...3

Galvanized iron……...4

Concrete/Cement……..…...5

Tiles/Slates……..……6

Other…….……..7

509. What is the maintenance status of housing unit?

A. Roof leakage Yes…..1, No…..2

B. Wall crack Yes…..1, No…..2

C. Windows broken Yes…..1, No…..2

D. Neat/Clean status of floor Yes…..1, No…..2

Does your household connected with regular electricity, installed power generator or Solar Power?

A. Regular electricity Yes…..1, No…..2

B. Power generator Yes…..1, No…..2

C. Solar power Yes…..1, No…..2

511. What is the main source of lighting for your households?

Electricity……1 Kerosene..……2

Bio Gas……. ……3 Tuki Mara..……..4

Oil…...…….5 Solar Power…….6

Diyalo……..……7 Other._____

512. What is the main source of drinking water?

Piped water directly to the household/compound…..01

Piped water from a public water tap..……02

Private Hand-pump (Shallow)……..……03

Hand-pump (Deep)…….……..…04

Public Hand-pump (Shallow)…….…05

Public Hand-pump (Deep)……..……06

Private Well ……07

Public Well …….08

Stored Rain Water……09

River, Pond, Stream, or other open water bodies ….10

Water Vendor/Tanker...……...……..11

Other…….……12

Ẇhat types of fuel does your household mainly use for cooking?

Electricty 01

LṖG 02

Natural gas 03

Bio gas 04

Kerosene 05

Coal/lignite 06

Charcoal 07

Wood 08

Crop residues (husk/straw/shrubs/grass) 09

Agricultural crops 10

Animal dung 11

No food cooked in household 12

Other (specify) .....

If main type of fuel is wood, crop residue and animal dung, who is the main responsible person to collet?

Female of all ages……1

Female Under age 20 ……2

Male female both ……3

Others (specify) _____

If needed to collect, how long des it takes (minutes) to go there, collect fuel and come back? : _____

What kind of toilet facility do members of your household usually use?

Flush to piped to sewer system	01
Flush to septic tank	02
Flush to pit	03
Flush to somewhere else	04
Ventileted improved pit latrine	05
Pit latrine with slab	06
Pit latrine without slab	07
Compositing toilet	08
Bucket toilet	09
No toilet facility	10

Others (specify) .....

519. **Does any member of this household own any agricultural land?**

Yes 1

No 2 **Q523**

If yes, how many bigha/ropani of agricultural land do members of this household own?

A. Bigha				Kaththa			Dhur
B. Ropani				Aana			Paisa

Does there any land in the household in female's ownership?

Yes
.....1

No
..... 2 Q523

If yes, size of land in female's ownership (include land in all female members)

A. Bigha				Kaththa			Dhur		
B. Ropani				Aana			Paisa		

Note: Write the area under Irrigated and Unirrigated only for lowland and dry land.

Conversion Table

1	Ropani	=	0.05087 Hectare, 74 * 74 Sq. Feet, 16 Ana, 64 Paisa, 4 Matomuri
1	Ana	=	0.00317 Hectare, 4 Paisa
1	Paisa	=	0.00079 Hectare
1	Bigha	=	0.67730 Hectare, 270 * 270 Sq. Feet, 20 Kattha, 400 Dhur, 13.63125 Ropani
1	Kattha	=	0.03386 Hectare, 20 Dhur
1	Dhur	=	0.00169 Hectare

523. Does your household have Kitchen garden?

Yes…...1, No……2 □ 526

524. Do you grow veg1etables there?

Yes…..1, No……2 □ 526

525. For what purpose, do you grow vegetables?

Household consumption ……..1

Selling……...…….2

Both……..….3

526. Has your household owned any livestock?

Yes ……...1, No…….2 □ 528

If one has kept livestock other than their ownership, write the share. For example, if one has kept bullock of other's ownership, write 0.5 under B and its price under C.

527. Type of Livestock	A. Has owned now? Yes……...1 No……...2 Next Livestock	B. If yes, Number	C. If yes, Current Price
01. Bullock/Cow			
02. Buffalo			
03. Goat/Mountain goat			
04. Sheep			
05. Yak/Nak			
06. Pig/Pork/Boar			
07. Horse/Donkey/Mule			
08. Poultry/Duck/Pigeon			
09. Other Livestock			
10. Total			

Which of the following assets does your household own?

S.N.	Asset	A. Yes …1; No….2 Next Asset	B. If yes, Number	S.N.	Asset	A. Yes …1 No…….2 Next Asset	B. If yes, Number
1	Bed/Cot			18	Bullock cart		
2	Chair/Sofa			19	Thresher		
3	Table			20	Water pump		
4	Clock/watch			21	Scooter/ Motorcycle		
5	Telivision (TV)			22	Bicycle		
6	VCR/VCD			23	Tractor/Power tiller		
7	Electric fan			24	Rickshaw		
8	Refrigerator			25	Horse cart		
9	Sewing machine			26	Rice cooker		
10	Radio/Stereo			27	Dhiki/Janto/Okhal/Ghatta		
11	Telephone (Landline)			28	Pulling cart		
12	Mobile Phone			29	Mobile shop		
13	Camera			30	Solar power set		
14	Computer/Laptop			31	Cupboard		
15	Internet connection			32	Cloth/Carpet/Homespun weaver		
16	Car/Van						
17	Bus/Truck			33	Improved plough		

SECTION 6: CONSUMPTION, NON-CONSUMPTION EXPENDITURE AND INCOME

Now we would like to ask some information about particulars of food consumption and expenditure made in your household in a typical month

	did you consume this		in total to buy	did you consume		have to spend	[FOOD]?
	[FOOD] in a typical		the quantity	[FOOD] in a typical		in the market	(Do not ask this
	month that you		consumed?	month that you		to buy the	question if consumed
	purchased?			produced?		quantity	none.)
						consumed in	Daily……1
	(If none, write 0 and			(If none, write 0		Q. D?	Once a week…2
							Once a month…3
	□D)			and□F)			Sometimes..…4
	Quantity	Unit	Rupees	Quantity	Unit	Rupees	

Contd….

		FOOD PURCHASES			HOME PRODUCTION		FREQUENCY
A.		B.	C.		D.	E.	F.
		On an average, how	How		On an average,	How much	How frequently
FOOD ITEMS		much [QUANTITY] did	much did		how much	would you	did you consume
		you consume [FOOD] in	you spend		[QUANTITY] did	have to spend	[FOOD]?
		a typical month that you	in total to		you consume	in the market	(Do not ask this
		purchased?	buy the		[FOOD] in a	to buy the	question if

		(If none, write 0 and □D)		quantity consumed in Q. B?		typical month that you produced? (If none, write 0 and□F)		quantity consumed in Q. D?	consumed none.) Daily……1 Once a week…2 once a month…3 Sometimes..…4
		Quantity	Unit	Rupees		Quantity	Unit	Rupees	
13. Milk									
14. Curd/Whey etc.									
15. Baby/Powder milk									
Ghee									
Honey									
Vegetable ghee									
Oil (Mustard, Soyabean, etc.)									

Potato/Colocasia

Onion

Other vegetables (Green leafy vegetables, etc.)

23. Fruits/Nuts

24. Spices (salt, cumin seed,

marich, garlic, ginger,

chillies, etc.)

25. Sugar

26. Sakhar/Gud/Khudo

27. Sweets

28. Tea/Coffee

Alcoholic beverages (Jand, Wine, Beer, etc.)

Non-alcoholic beverages (Coke, Frooti, Sarbat, etc.)

Tobacco and tobacco products

Other foods (Noodle, Biscuit, Other fast foods)

Unit Code: Kilogram……..01, Gram…..02, Maund……..03, Litre……..04, Muri……..05, Pathi……..06, Mana……..07,

Karuwa……..08, Number……..09, Dozen……..10

How many months can your family consume food with your own agricultural production and regular income? (If theanswer is 12 months, go to Q604)

Note: Regular income refers to monthly salary, wage (except infrequent wage), pension, trade business, regular in-kind receipt of of the work, etc.

How do you fulfill the shortage of food during these months?

From loan……1 Borrowing/Received from relatives/Donation…2

On credit……..……...3 Wages (living in household) …….…….4

Wages (not living in household)..……..5 Going abroad (saving food) …….……..6

Wild fruits …….……7 Selling livestock ……..…..8

Selling land, jewellery ……...9 Eating little (half)……..10

Other (Specify)……..11

List the particulars of the expenditure that your family made to the following items during the past 12 months. (If there is no expenditure in any item, write zero throughout that row.)

	Item	Amount (Rupees)	
		A. during past 30 days	B. during past 12 months
01	Fuel (Wood, Kerosene, LPG, etc.)		
02	Clothes, Apparel		
03	Personal care items (Soap, Comb, Shampoo, cosmetics, etc.)		
04	Transportation (Horse, Mule, Bus, Taxi, Rickshaw, etc)		
05	Entertainment/Excursion		
06	Newspapers, Books, Copies, etc. (except collected in SECTION 04)		
07	Educational and Professional Services		
08	Medicines and Health Services		
09	Legal Expenses and Insurance		
10	Repair of House and Household Effects		
11	Direct Tax (Land taxes, Housing and Property taxes, Registration, etc.)		
12	Donations		
13	Religious, Marriage, Funeral, etc. expenses		
14	Gifts		
15	Electricity, Water, etc. (Household use only)		
16	House rent (If not paid rent, write asking how much rent has to be paid in case this house is rented in)		
17	Other (Specify)_____		

SECTION 06B: HOUSEHOLD INCOME

606. List the particulars of the income and expenditure of your family during the past 12 months.

S.N.	Particulars of Income and Expenditure	Annual (Rupees)	
		Income	Expenditure
A. Agriculture			
01	Total selling value of the grain crop production (Paddy, Maize, Millet, Wheat, Buckwheat, Mustard, Pulses, etc.)		
02	Total selling value of the cash crop production (Flower, Jute, Tea, Coffee, etc.)		
03	Sale of agricultural by-product (Straw, husk, etc.)		
04	Renting out agricultural property (Draft animals, Tractor, Thresher, etc.)		
05	Sale of Livestock		
06	Sale of livestock product (Milk, Ghee, Egg, Meat, Wool, etc.)		
07	Total value of the vegetable production (Cauliflower, Tomato, Potato, Onion, etc.)		
08	Total value of the fruit production (Orange, Apple, Mango, Lychee, Banana, etc.)		
09	Income from renting out land		
10	Expenditure on agricultural inputs (Seeds, Fertilizers, Insecticides, Labour, Bullocks, Irrigation, etc.)		
11	Expenditure on Fodder, Straw, Veterinary services, etc.		
12	Expenditure on buying animals (Cow, Bullock, Buffalo, Goat, Sheep, Pig, Chicken, Duck, etc.) and their feed		
13	Value of payment for rented/sharecropped/mortgaged-in land		

B. Non-Agriculture Enterprise			
14	Income from Non-agriculture enterprise (Shop, Trade, Industry, etc.)		
15	Expenditure on wages of enterprise employees		
16	Expenditure on Fuel of enterprise operation (Electricity, Kerosene, etc.)		
17	Expenditure on Raw materials of enterprise operation		
18	Share given to the partner of enterprise if any		
19	Other expenditure of enterprise operation (House or room rent, Postal, Telephone, Faxes, etc.)		
C. Non-Agriculture Current and Fixed Assets			
20	Rent received from renting out assets to others		
21	Interest paid if borrowed loan from others		
D. Social Security Allowances			
22	Old age pension/allowances		
23	Widow pension/Allowances		
24	Disability allowances		
25	Minority caste/ethnic protection allowance		
E. Other Income			
26	Interest from bank deposit or borrowing, Bonus from shares, Profit from investment, etc.		
27	Pension (Domestic, Foreign)		
28	Commission, Fees, Royalties and other income		
	F. Any Other not reported above		
29	Other total income (except reported above)		
30	Other total expenditure (except reported above)		

SECTION 07: ANTHROPOMETRY

701. Is there any children under 5 years (00—59 months) of age in your household?

Yes……...1, No…….2 □ 808

A. Get the following information of children 6-59 months of age available in the household (measure the lengths of child under 24 months by laying/sleeping and tht of 24 months and bove standing)

	702	703			703	704	705	706	707	708
ID of Child (Copy from SECTION 02)	ID of mother of Child (Copy from SECTION 02)	Date of birth of the Child (DD MM YY fromat)			Where the child ws born? At health facility …. 1 At home ..2	Is the child currently breastfeeding? Yes..1□706 No…2	How long was the child breastfed? (Specify breastfed period in months. If not breastfed, write 99.)	Height/ length of Child (to nearest 0.1 cm) Centimeters	Weight of Child (to nearest 100 gm. If 3 kg 400 gm, write 3.4 kg) Kilograms	Is the child with oedema? (observe and record) Yes…..1 No……2
	. .	DD	MM	YY						

709. Measure of the height and weight of all members in the family age 5 to 59 years.

ID CODE of the member (Copy from SECTION 02.)	709a Weight of the person (to nearest 100 gm. If 36 kg 400 gm, write 36.4 kg) Kilograms	709b Height of Person (to nearest 0.1 cm) Centimeters	709c If person is female (15-49 years) Is she pregnant or brestfeeding? Pregnant…….1 Breastfeeding…..2 Pregnant & breastfeeding…...3 None…….4	709d Is the person sick that causes loss or gain of weight within last month? Yes…..1 No……2 DK….8	709e Is the person with oedema? (observe and record) Yes…..1 No……2 DK…..8	709f Is this person smoking, chewing tobacco and drinking alchole regularly? Smoking and taking tobacco ……..…1 Drinking alchole …2 Taking both ..……..3 Nothing ….……4

Was there any death occured in your family during the past three years (36 months)?

Yes…….1,No……2 □ SECTION 8

If death was occured, what was the age (in years/months) of deceased persons? (if under age five record in months)

.

Number of deceased	Sex : Male….1; Female ….2 ; Ohter…3	Age of deceased Under five or abov five Under 5 …1 ; Above 5..2	Age at Death (in completed months if under five, years if above five)
1.			
2.			
3.			
4.			

SECTION 8: FINANTIAL INCLUSION AND ACCESS TO FINANCE

801. Now we would like to know about the following financial services of your family members (currently residing at home) aged 16 and above

I N C O D E	Has [Name] an account in any formal FIs? Yes 1 801c No……2 DK……8 81f 81a	If no account opened in a FI, reasons for it? Not enough money .....01 Too expensive.....02 Too far away.....03 No citizenship……04 Lack of awareness…..05 Lack of trust…….06 Low interest rate…07 Behaviour of bank people ……..08 Long administrative process……..09 Odd time of bank opening ……10 Other (specify)	If yes, types of FIs account opened Commercial Bank……1 Dev. Bank…2 Finance Com….3 MF Dev. Bank……4 Cooperatives…5 SHG/CBO…6 Other (specify) Multiple responses possible)	Types of account Current.. 1 Saving ...2 Fixed….3 Pension . 4 Other….5 DK……8 Multiple responses possible)	Does [Name] has saving in the account for the last 12 months? Yes …..1 No….2 DK….8	Has [Name] borrowed loans from anyone over the past 12 months? Yes …..1 No….2 DK….8	From where did [Name] borrow the loan? Banks Commercial .,……01 Dev. Banks……02 Finance com….03 Local MFI and SHGs …04 PAF COs….05 Cooperatives….06 Money lenders…..07 Business person ….08 Employer…..09 Relatives/neighbours …..1 Other (specify) …..	What is the annual interest rate of the loan? (Write in %)	Is the interest rate affordable or higher than expected? Affordable…1 Higher…..2 No idea….3	Has [Name] purchased any insurance scheme? Yes……1 No…..2 Next member	If yes, which scheme [Name] has purchased? Life……1 Education/health ……2 Non-life house and assets …3 Non-life agri. & livestock……4 Non-life business-enterprises…5 Against loan …6 (Multiple responses possible)

SECTION 9: PAF AFFILIATION MODULE AND WILLINGNESS TO ACCEPT THE SHIFT OF BUSINESS PLAN

Is this household affiliated to any of the Poverty Alliviation Fund (PAF) supported programme? (if affiliated in the past but

now now, are affiliated) . Yes…….1; No……..2906

From which date the household is affiliated? Date of affiliation in DD/MM/YY format: ____; _____; _____

903. In which type of support your household is/was affiliated?

Income Generation …….……1

Infrstructural Development…….2 905

Both ……3

With PAF Support what types of income generation activities dose your household crried out?

Agriculture: Fruits and vegetables ……..1

Agriculture: Crops and food grain……2 Livestock …….3

Micro enterprises/Cottage industries ……4

Small business/trade …….5

Skill based services …….6

(if 2 or 3 in 903) In which of the Infrastructure development activities your household is involved as directly beneficiary? Micro-irrigation ……1

Foot trails, link road, culvert, bridge …2 Ropeway……3

Electricity and micro-hydro……..4 Water mill ……5

Drinking water supply and sanitation ..6

Community building …….7

Filter: take a reference time of the beginning of PAF supported activities in the village and community and note down it ----------

ask the following questions for both PAF and Non-PAF households

Q.N.	Questions	PAF HHs	Non-PAF HHs
906	After that reference date, is there any change in household's condition to support in education of children's schooling and education? Improved well ……1 Little improvement…….2 The same as before ……3 Deteriorated ……...4 Largely deteriorated ……...5		
907	a. If improved (1 or 2 in 906) what may be the causes? b. If deteriorated (4 or 5 in 906) wat may be the causes?		
908	After of that reference date dose your household started any income generation activity that could have generated at least one or more full time employment? Yes…..1; No….2; DK……..8		
909	(If yes in 908) Can you say how many of such employment is generated?		
910	Does that generated employment been effective to stop any family member going from labour (foreign) migration? Yes…..1; No….2; DK……..8		
911	After that reference date, have you done any change in the house that your family is living in?		

	Yes…..1; No….2; DK……..8		
912	(If yes in 911), what did you do in the house? (up to two) Built new one……1 Changed roof ……..…2 Changed wall of it ……3 Changed flooring of it ……..4		
913	How did you manage the expenses for the improvement in housing condition? Saving of PAF supported IG activities……..1 Personal savings……2 Selling land or HH assets……..3 Borrowing ……4 Family business/enterprises ……5 Remittance ……..6 Others (Specify)_____		
914	Have you connected electricity in the household after of the reference date? Yes……1; No…..2: Still not connected ….3		
915	Does availability of drinking water facility improved in your household after of		

	the reference date? Yes……1; No…..2□917
916	(If yes in 915) how it is improved?
	PAF's Infra support ……1
	RWSS schemes ……2
	NWSC scheme ……3
	Community effort ……4
	Others (specify)_____

Is there any change/improvement in toilet facility in your household after of the reference date? Yes……1; No…..2

Have your household move from using smoky fuel for cooking and heating to non-smoky (improved one) after of the reference period?

Yes, to LP Gas……1

Yes, to electricity……2

Yes to kerosene ……..3

Yes to bio-gas ……4

Not at all……..5

Which of the following household assets you add in the household after of the reference date? (Multiple Answer)

Television (TV)……..1 Radio/Sterio……2
Telephone/Mobile phone ……..3 Bike/motorbile……4 Refrigerator ……5

Car or Motorvehicles ……6

After of the reference date do you feel any changes/improvement in food and non-food consumption status in your family?

Increased.……1

Same……2 Decreased..……..3 Don't know/Can't say……..4

After of the reference date, do you feel any changes/improvement health and nutritional status of children in your family?

Yes……1; No…..2, Not cared of it …..8

Ask following Questions Only for PAF HHs (Q901=1)

What is the name of community organization (CO) to which your household is affiliated? _____

What was the principal amount you/your household for the first time borrowed from the CO? RS. _____

Was there any interest rate you needed to pay for the money? If yes, how much? _____%

After how long you needed to pay back the principle amount to the CO? In Months _____

How much principal amount you borrowed last time? RS. _____

What is the interest rate of last time borrowing? _____%

Do you have idea that from where the CO managed fund to support you to start IG activity?

Yes, it is from PAF……..1

Yes, it is from Bank ……2

No Idea ……3

Do you know that how much fund is accumulated in the account of CO that you involved in till the date?

NPR. _____; DK ……..

Does the CO have to return back the fund to PAF? Yes……..1; No…….2; DK……..8

Until now, Poverty Alleviation Fund (PAF) was supporting COs on grant baisi; COs were getting fixed grants from PAF and giving to its members on revolving basis charging nominal interest. Were you aware of this scheme? Yes…..1; No…….2; DK…….3

Now PAF is changing its scheme, it is planning to shift from grant model to financing model in which COs have to return

back the fund with nominal interest. In this context, CO may increase in the current interest rate in finncing to the schemes of its members. Whether your household is willing to accept the scheme?

Yes…..1; No…….2; DK…….3

What interest rate your family is willi not to accept in the changed financing context? _____% Thank you

HH MM

Note down the Time at the end of interview:

CODES:

Codes for district, country, caste/ethnicity, and mother tongue/language

Taplejung 01	Panchtrahr 02	Ilam 03
Jhapa 04	Morang 05	Sunsari 06
Dhankuta 07	Terhathum 08	Sankhuwasabha 09
Bhojpur 10	Solukumbu 11	Okhaldhunga 12
Khotang 13	Udayapur 14	Saptari 15
Siraha 16	Dhanusha 17	Mahottari 18
Sarlahi 19	Sindhuli 20	Ramechhap 21
Dolakha 22	Sindhupalchouk 23	Kavreplanchouk 24
Lalitpur 25	Bhakatpur 26	Kathmandu 27
Nuwakot 28	Rasuwa 29	Dhading 30
Makwanpur 31	Rauthat 32	Bara 33
Parsa 34	Chitwan 35	Gorakha 36
Lamjung 37	Tanuhuan 38	Syanja 39
Kaski 40	Manang 41	Mustang 42
Myagdi 43	Parbat 44	Baglung 45
Gulmi 46	Palpa 47	Nawalparasi 48
Rupandehi 49	Kapailbastu 50	Arghankhanchi 51
Pyuthan 52	Rolpa 53	Rukum 54
SAalyan 55	Dang 56	Banke 57
Bardiya 58	Surkhet 59	Dailekh 60
Jajarkot 61	Dolpa 62	Jumala 63
Kalikot 64	Mugu 65	Humla 66
Bajura 67	Bajhang 68	Achham 69
Doti 70	Kailali 71	Kanchanpur 72
Dandheldhura 73	Baitadi 74	Darchula 75

CASTE/ ETHNICITY

Chhetri 01	Brahmin (Hill) 02	Magar 03
Tharu 04	Tamang 05	Newar 06
Muslim 07	Kami 08	Yadav 09
Rai 10	Gurung 11	Damain / Dholi 12
Limbu 13	Thakuri 14	Sarki 15
Teli 16	Chamar / Harijan/ Ram 17	Koiri 18
Kurmi 19	Sanyasi 20	Dhanuk 21
Mushar 22	Dusadh / Paswan /Pasi 23	Sherpa 24
Sonar 25	Christian 26	Shikh 07

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