



AWASAR Project
Baseline Survey Report

Submitted to:
CARE Nepal
Dhobighat, Lalitpur, Nepal

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April 2016

**Baseline Survey of
AWASAR Project
In Bajura and Mugu Districts, Nepal**

**Submitted to:
CARE Nepal
Dhobighat, Lalitpur, Nepal**

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LIST OF ABBREVIATIONS

ANC:	Antenatal care
DADO:	District Agriculture Development Office
DDC:	District Development Committee
DEO:	District Education Office
DHO:	District Health Office
ECA:	Extra Curricular Activities
FCHV:	Female Community Health Volunteer
FGD:	Focus Group Discussion
GoN:	Government of Nepal
HF:	Health Facility
HH:	Household
I/NGO:	International/Non-Governmental Organizations
KII:	Key Informant Interview
NGO:	Non-Governmental Organizations
NTFP:	Non-timber Forest Product
PNC:	Postnatal Care
PTA:	Parent Teacher Association
RECID:	Research Center for Integrated Development
SD:	Standard Deviation
SMC:	School Management Committee
SIP:	School Improvement Plan
VDC:	Village Development Committee
WASH:	Water, Sanitation and Hygiene

EXECUTIVE SUMMARY

Introduction and objective

CARE Nepal has entrusted RECID Nepal to carry out a baseline survey of AWASAR project. The main objective of the baseline survey was to establish baseline benchmark by collecting quantitative and qualitative information. The baseline survey has yielded the parameters which can be used during the midline and end line evaluation. The baseline survey assessed the existing situation of agriculture/livelihoods, education, nutrition and food sufficiency status of migrating families of the project VDCs.

Methodology

The study was based on primary data collected through household (HH) survey, focus group discussion (FGDs) and key informant interviews (KIIS). HH survey was conducted with 344 sample households in four out of 10 project VDCs in Mugu and five out of 10 project VDCs in Bajura districts. HH survey was supplemented by 21 FGDs (12 with community people and 9 with children) and 25 KIIs for obtaining qualitative information. The participants of community FGDs were members of women's group and farmer's groups. FGDs with children were conducted with school children (6 FGDs) as well as out of school children (3 FGDs). The participants of KIIs were school teacher, members of school management committees, resource persons, staff from agriculture service center and local health facility, representatives from District Development Committee, VDC Secretary, District Agriculture Development Office (DADO), District Education Office (DEO) and District Health Office.

Major Findings

Seasonal migration

Out of total 344 households surveyed, around half (48.3%) of the households have family members who are involved in temporary migration. Escape from cold, livestock rearing and collection of herbs are the major reasons for such migration. Migration during winter season to sell the collected medicinal herbs and woollen products is traditionally associated with their livelihood. Around 90% of the sample households mentioned that the school going children also migrate with their parents.

Household income

Almost 94% of the respondents mentioned agriculture as the major source of income of the household, followed by livestock (56.7%), herbs collection (32.3%), daily wage (25.9%), foreign employment (13.1%), service (9.3%) and business/self-employed (9.0%). Higher proportion of respondents from Bajura district mentioned daily wage/labour, foreign employment, service and business as compared to Mugu. The livestock farming is the integral part of agriculture and most of them kept few livestock for fertilizer, milk, and meat; and bulls were used for ploughing the field.

Agriculture and livelihood

Almost 92% of the sample households had agricultural land while around 98% were involved in agriculture counting share croppers. Out of those households involved in self-farming, only 10.4 % of the households were found to have food sufficiency around the year from their own production. Around 38% of the households had food sufficient for only less than 3 months and almost similar proportion of the households reported food sufficiency for 3 to 6 months. Animal husbandry, unskilled work (labour work) and foreign employment are other major sources of income in which the households are dependent on.

Around 29% of the respondents or any of their family members were involved in group(s) related to agriculture. As compared to Bajura district, Mugu has higher proportion of households involved in such groups. Only 7.7% of the respondents or any member of their family have attended new or improved agriculture related technical training during the previous two years, and the proportion was higher in Mugu district. Almost half (49.5%) of the respondents were not getting any type of agricultural advice and information, while around 16% did not know about the source of agricultural advice available. The sources of improved agricultural advices were agricultural groups (21.3%), agricultural Service Center (18.6%), neighbours and friends (13.2%) and NGOs (10.8%). The improved and hybrids seeds cultivation in the study area was found very low.

Education of children

Around half of the respondents (47%) mentioned that their children do not go to the school regularly, and 8% of the households have children who do not go to school at all. Higher proportion of respondents from Mugu district reported regular attendance of children (66.7%) as compared to Bajura (37.0%). The major reasons for not going to the school reported by the respondents include temporary migration of the children together with their parents, agricultural work, children do not want to go, and children go to collect herbs, livestock rearing and look after smaller children.

During the winter, children do migrate with their parents for around 2 to 4 months which hamper the education of children. Some of the parents send their children to nearby school of their temporary settlement. However, most of the children did not get a chance to study regularly.

The study had made some attempt to assess the school facilities in the project area. Out of 12 schools visited, 8 schools did not have sufficient classrooms for students to study and 9 schools have no library. Even the schools having library facility were found to have insufficient books and educational materials. Half of the schools were found to have a congested office setup. In most of the schools, there were inadequate infrastructure including chair, desk, and tables for both students and teachers. More than 80% of schools have no availability of educational materials available but not in sufficient quantity. Additional materials such as newspaper, poem book, story book, cartoon, audio-visual aids, etc. were almost non-existent. Out of 12 schools visited, only one school had celebrated nutrition day.

The interaction with school authority and resource persons revealed that parents like to send their children to school. They mentioned that the enrolment rate of girl students, in general, is more than

boys, except in Dalit ethnicity. The participants mentioned that there is big problem of irregularity in school attendance during the season of migration. There is a high rate of dropout among girls, students with poor socioeconomic status, deprived and Dalits. The drop out is more frequent in higher grade students as the elder students can support to their parents in their household work.

Health and nutrition

Almost 60% of the children were provided solid or semi-solid foods from 4 or more food groups during the previous one week prior to the survey. The average number of food serving to pregnant and lactating women was 2.9 (SD = 0.7) times per day. Around half of the women (47.8%) consumed 3 times food during past 24 hours, while the proportion of women who consumed food 2 times was 29.2%. Only 17.7% of the women consumed food for 4 times.

The proportion of women, with a child under 2 years of age, who received at least one ANC during the pregnancy of most recent birth, was 73.3 percent. In Mugu around 80% of the women had received at least one ANC, while in Bajura, only 69.6% received ANC service. Out of the total women interviewed, only 30.5% had made the recommended 4 or more ANC visits. The proportion of women, who delivered their last birth at health facility, was 34.3%. Health facility delivery was higher in Bajura (39.1%) compared to Mugu (25.0%). 42.9% of the women had received at least one PNC care during their most recent birth, while only 4.8% had made the recommended 3 or more PNC visits.

The interaction with District Health Staff showed that around two-third of the under five children were suffered from malnourishment, stunting, and iron deficiency anemia. The problems are more severe among Dalit and poor families. Health worker retention in remote VDCs were another problem due to which community people are not getting proper services as expected.

The water and sanitation facility at the study area was found to be satisfactory. Piped water was reported by majority (83.1%) of the sample households as the main source of drinking water. Almost 93.3 % had toilet available at the household, which signifies better coverage in the study area. Slightly higher proportion of household in Mugu district (96.4%) had latrine compared to household in Bajura district (91.8%). Majority of the households (64.2%) had improved latrine i.e. water seal latrine. Outstandingly larger proportion (88.4%) of the respondents reported washing hands with soap and water. Major conditions reported for hand washing with soap and water were before eating (75.0%), followed by after defecation (73.0% and after touching dirt (60.2%). Other critical moments for hand washing such as before feeding child and after cleaning a child that has defecated were less frequently mentioned.

The sanitation condition in the temporary shelter (migration camps) was quite poor. They were found to be living in congested and unhygienic condition. In the temporary settlement area, there was poor sanitation and usually did open defecation.

Recommendation

Agriculture

- The production and productivity of agriculture land was found poor in the study area. It is required to to promote mixed, inter cropping with improved varieties of seeds and application of manure and fertilizer with promotion of improved agriculture technologies at farmers' level which contribute food security.
- There are many farmers groups (especially women and dalits) but they are not registered in DADO, the project need to facilitate them to make registration in DADO and build the formal relation between service providers and receivers that support to disseminate new and improved agricultural technologies in communities.
- There is need to promote agriculture inputs and technologies supplies chain in coordination with private sector and cooperatives. The road network and road corridor are in increasing trend which has opened opportunity for viable high value crops (HVC) along the road corridor. It creates opportunities to farmers to get market linkage and market place to sale their products and support their economic growth.
- Local communities are depends on imported food grain from Terai. To reduce the dependence of food grain from Terai, there is a need to implementation of new small irrigation scheme and rehabilitation of irrigation cannels in collaboration with DADO, district irrigation office and communities.
- Almost HHs in the study area do not have enough production from their farm land and they have to depend on wage labour, livestock and foreign employment. So there is need of creating off farm livelihood option in the project area. The project needs to promote off farm employment opportunities through skill promotion to youth and entrepreneurship development as alternative option and coping strategies for their livelihoods.
- The high altitude farmers are depended on livestock rearing especially goat and sheep, due to lack of technical knowledge there are usually keeping local varieties of herds which have low livestock productivity. On the other hand, there is no imporved fodder and grass cultivation practices. Therefore the project could orient to farmers on improved livestock management, introduction of improved breeds and fooder/grasses cultivation practices and preservation support to livestock production.
- The promotion of kitchen gardening and fruit cultivation in the study area will support to improve nutritional status of under five children and pregnant/lactating mothers and also support to increase household economy.

Education

- The national level education calendar may not fit in high mountain area and need to make advocacy for revision of educational caleder and school holidays as considering snowfall and Yarsagubba collection time.
- The educational text books in mountain area do not reach on time. In addition, there is lack of physical infrastructures and extracurricular activities in schools. Making necessary

arrangements for availing the textbooks on time in coordination with private sector is important. Efforts should also be made to improve the physical facilities and promoting extracurricular activities in schools that will decrease the school drop out rate of students.

- As considering the availability of working days (escaping winter and rainy season) in mountain area either needs to make amendment of text book or manage the working hours of opening the school for the benefits of migrated children to give opportunities to them for their school education.
- The school children have kin interest in extracurricular activities in schools, but there is lack of physical facilities like playground, sports material and sports teachers in schools. So provision and improvement of extracurricular activities in school motivate to school children for their regular attendance.
- The migrated children have shown great enthusiasm to go to school for reading and writing. So, provision of special class and tuition will support to recover their education.
- The migrated school children parents do like to continue their kids' education, but they have no other option taking them in temporary settlement. The provision of hostel with food to potential migrant children during winter and rainy season will support to give continuity for their education.
- The schools teachers who are on leave are not to back on time, the school administration and DEO need to monitor those teachers who are not back after leave.
- The day meal and cooking oil support to school children and especially dalits student has showed positive impact on regular attendance in classes. So, such system need to give continuation in the future day.

Health

- Community are not aware on the provision of free medicinal scheme of the government, so orientation to community on such scheme and keeping a citizen charter in Nepali will increase access to health facilities and also increase accountability of health facilities toward service receivers.
- Lactating mother and care taker of under-five children are not aware how to prepare nutritious food for their children. So, pregnant/lactating mother and care takers need to orient how to prepare nutritious food from locally available grains.
- Health facility delivery and postnatal service utilization among women in the study area are found low. Efforts should be made to promote service utilization.
- The sanitation and hygiene coverage found quite satisfactory, however the behavioural practices need to improvement, because a large proportion of households do not know the critical handwashing time and use of soap and water. The orientation and campaign of promotion of proper handwashig will support to make positive change in sanitation and hygiene. Especial attention should be provided in temporary shelters where the sanitation hygiene condition is very poor.

CHAPTER I. INTRODUCTION AND OBJECTIVES

1.1 Background

The mountain children and their families in the far western and western mountains of Nepal are the poorest people in Nepal and deprived of the most fundamental human rights and basic needs including health and education. Improving basic nutrition and health will play a key role in reducing poverty sustainably and meeting the national and Sustainable Development Goals. Ensuring the access to education for the children is also crucial to enable them to enjoy their right to a better life, be considered as citizens and participate in decisions which affect their lives and lives of their family. CARE Nepal is implementing "AWASAR Project" in Bajura and Mugu districts of Far and Mid-Western hills of Nepal. The project aims to improve the nutritional and educational status of hard to reach children in the project area.

1.2 Project introduction

The AWASAR project is designed to meet their basic needs in education and food security and equip their organisations with the tools for claiming the progressive realization of human rights. The project aims to reach the unreached children and their families in 10 VDCs of Bajura and 10 VDCs of Mugu districts.

1.2.1 Project objectives

The overall objective of the AWASAR project is to improve the nutritional and educational status of hard to reach children in the project area. Following are the specific objectives:

- Improve access to flexible and better quality education for seasonal migrant children (high hills to lower elevation).
- Improve nutrition and food security.
- Strengthen links between communities and service providers to ensure quality services.

Major areas of program interventions are education; nutrition and livelihood and health promotion. After completion of the activities, it is expected that approximately 2072 girls and boys in 30 schools, members of 180 mothers' groups' (approximately 4,500 women) and members of 90 farmer's groups (approximately 1,800 women and men) in Bajura and Mugu will have benefitted from the project.

1.2.2 Project activities

Following are the core activities of the project under each of the expected outcomes (objectives) of the project

***Improved access to flexible and better quality education for seasonal migrant children
(high hills to lower elevation)***

- Upgrade school facilities with basic furniture, toilets (basic water equipment tank, pipes, taps), solar lamps, solar cookers, local sports, teaching materials and library materials based on actual needs.
- Formulate accelerated learning model
- Training of teachers in the developed accelerated learning model
- Training to peer educators on education promotion
- Awareness campaigns to parents
- Radio spots on project messages
- Distribution of IEC/BCC materials in the communities
- Orientation to child clubs

Improved nutrition and food security

- Training to extension agents
- Training to lead farmers (50% women) from farmers groups
- Prepare demonstration plots with improved technologies and varieties each year
- Linking farmers and extension agents to agriculture research stations
- Training to mothers group and FCHVs
- Celebration of biannual "Food day" and "Nutrition Week" in schools
- Orientation to parents on personal hygiene, sanitation and nutritious food preparation and consumption

Strengthened links between communities and service providers to ensure quality services

- Development of capacity assessment and development plan
- Training to CSO members in advocacy and VDC/DDC planning process
- Training to VDC secretaries in participatory planning
- Training to representatives from mother groups, school management committee and farmers group in community scoreboard and VDC planning processes
- Dialogue meetings between service providers and communities using community score boards

CARE Nepal is implementing the project in close coordination and collaboration with District Education Office, District Agriculture Development Office (DADO), District Health Office (DHO), District Livestock Service Office (DLSO), Women Development and Children Office (WDCO) at district and community level. Community mobilization related activities are implemented by one

local NGO in each of the project districts. The project focuses on addressing gender, equity and social inclusion (GESI) issues on addressing the identified concerns and gaps to increase equity and access among different social class and caste.

1.3 Objectives of baseline survey

The baseline study was conducted to establish baseline benchmarks by collecting quantitative and qualitative information on outcome as well as outcome and output indicators mentioned in the log frame that was utilized in outcome monitoring and impact measurement of the project.

The specific objectives of the baseline study are to collect baseline information as per the project requirements based on log frame and project document, which include:

- Food sufficiency status at the household level
- Education level of children under 15 years (school enrolment, completion and dropout rates for boys and girls)
- Identify the nutritional, education and food sufficiency status of migrating families of the project VDCs
- Assess the agricultural status (production and productivity of plants/crops, season specific production of plants/crops, types of plants/crops currently grown) of the project VDCs, especially among the migrant family households
- Identify and assess the food habits (food preparation, consumption) among the households of project VDCs
- Identify the current nutritional status of pregnant and lactating mothers, and children under 5 years (measures: protein energy malnutrition rates for children under 5, anaemia level among pregnant and lactating mothers)
- Asses the current hygiene and sanitation practice
- Assess the current links between communities and service providers (health posts, extension agents, FCHVs, etc.)
- Identify the gaps and needs of the schools (infrastructure) in project areas

1.4 Report structure

The report of the baseline survey is structured into the following five chapters:

- Section I presents a brief introduction and outlines the objectives of the study,
- Section II of this report describes the methodology of the study. It describes the study designs, study sample, methods of data collection and organization of field work. Finally, it gives an explanation on how the collected data was analyzed.
- Section III of this report includes results of the baseline survey

- Section IV includes discussion section in which the major findings relate to education, livelihood and health. This section also presents concluding remarks and offers recommendations to inform further programming

CHAPTER II. METHODOLOGY AND PROCESS

This chapter describes the methodology, process and tools adopted while carrying out the baseline survey.

2.1 Study design

The study design was cross sectional, using primarily quantitative methods supplemented with qualitative methods. Quantitative methods were used to measure the baseline value of indicators related to education, food security, livelihood, nutrition and migration.

2.2 Study methods (Data collection tools and techniques)

The study methods consisted of questionnaire survey at household level; Focus Group Discussion (with community people, farmer's group, women's groups, school children and out of school children); school checklist and key informant interviews.

2.2.1 Questionnaire survey

Questionnaire surveys at household level were conducted among representative sample from the project districts. The questionnaires were administered by trained enumerators by one-to-one interview. The questionnaire was developed in English and translated into Nepali for final use. Quantitative indicators of the project impact and outcomes were generated by questionnaire survey. A total of 344 households were surveyed.

2.2.2 Focus group discussion (FGDs)

Twenty-one FGDs were conducted with members of women's groups, farmer's groups, school children, and out of school children. Out of 21 FGDs, 12 FGDs were conducted with community people and nine with children. Among the 12 FGDs with community people, 8 FGDs were conducted in project VDCs and 4 in temporary settlements. Out of these 12 FGDs, five were with women's groups, five with mixed groups and two with farmer's groups. A total of nine FGDs were conducted with the children, of whom 6 FGDs were conducted with school going children, one FGD was conducted with out of school children at project VDCs and 2 FGDs were conducted with out of school children at migration camps.

2.2.3 Key informant interview (KII)

Semi structured questionnaire were used to collect information from school authority, health facility staff, VDC secretaries, DDCs, DHOs, , District Agriculture Development Office (DADO) and District Education Office (DEO) and Agricultural Service Center.

2.3 Data collection instruments

The data collection instruments were structured questionnaire for questionnaire survey, FGD guidelines, KII guidelines and observation formats. The tools (schedules, interview/FGD guidelines, and checklists) were developed based on the review of the literature and documents, and in close consultation with CARE Nepal.

2.4 Study area and sampling

The study was conducted in the intervention area of AWASAR project, which include 10 VDCs of Bajura and 10 VDCs of Mugu districts.

2.4.1 Sampling for Household survey

For the HH survey, the target population is composed of all the households in the project area. The sampling frame for the selection of HH was all households of project VDCs and wards in program area. The unit of sampling was the household. Systematic random sampling method was adopted to select the households.

Sample Size

Applying the finite population correction formula the sample was calculated by the following formula:

$$\text{Sample size (n)} = \frac{z^2 \times pq}{d^2 + z^2 pq/N}$$

Where,

n = required sample size

z = 1.96 for 95% confidence level

p = prevalence of main outcome indicators (*Net Attendance Rate¹: 73.9 in in Mid and Far Western Hills²*) ($p=0.739$), has been taken)

d = precision or error allowed in the study = 0.05

q = (1-p) = 1-0.739= 0.261

N= total study population (2072, as the ToR mentioned that around 2072 primary level children will be benefitted from the project interventions)

$$\text{Sample size (n)} = \frac{z^2 \times pq}{d^2 + z^2 pq/N}$$

$$= \frac{(1.96)^2 \times 0.739 \times 0.261}{(0.05)^2 + (1.96)^2 \times 0.739 \times 0.261 / 2072}$$

$$= 324$$

Taking non-response rate as 5% the total sample size was $324 + 324 \times 5\% = 341$.

However, a total of 352 questionnaires were successfully filled and 344 were used for final analysis.

¹ Net attendance ratio (NAR) is related to the number of students in the specified age group who are currently attending school. For example, the primary school attendance ratio is the percentage of children of primary school age that are attending primary school.

² NLSS, 2011, CBS

Sampling process

Out of 20 project VDCs (10 in each of the project districts), 9 VDCs (4 in Mugu and 5 in Bajura districts) were selected using three criteria which include distance from district headquarter, Disadvantaged Group (DAG criteria) and proportion of out-migrants in the VDCs. In each of the selected VDCs, 3 – 4 wards were selected randomly for household survey. The household for survey was selected by probability proportionate method using systematic random sampling, calculating the sample interval. Within the sample households, head of household or any adult member of the households were targeted by questionnaire. The sampled VDCs were selected from in Bajura and Mugu project district to represent the project VDCs. The sample HHs were selected considering household number of the sampled VDCs. The number of households in Bajura is higher in sampled due to higher number of residents in Bajura compared to Mugu.

A total of 344 households were surveyed, out of which around one-third of the households (112, 32.6%) were from Mugu district while remaining 232 (67.4%) were from Bajura district. Higher proportion of the sample households from Bajura district was because of the higher proportion of population (household number) in Bajura compared to Mugu.

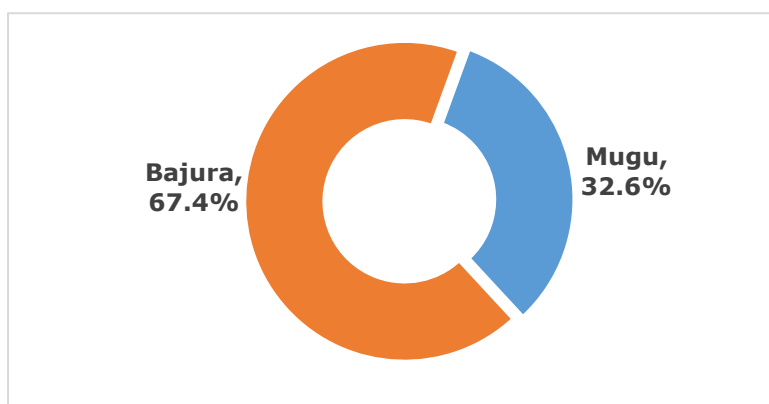


Figure 1. Distribution of surveyed households across study districts

Interviews were conducted with any adult member of the household (preferably head of household).

Table 1. Sample size by VDCs

District/VDCs	Sample Size
Mugu	112
Jima	32
Pulu	26
Seri	26
Sukadhik	28
Bajura	232
Dahakot	52
Gotri	48
Kolti	64
Pandusen	43
Rugin	25
Total	344

2.4.2 Sampling for Qualitative study (KIIs and FGDs)

A wide range of participants from different stakeholders ranging from district to community level were included in the study. In community level, members of women's groups, farmer's groups, partner organizations, school officials, VDC secretaries, social workers, etc. were consulted. At the district level representatives from DDC, DHO, DEO, DADO, WCO, project staff etc. were consulted. The sampling method for qualitative study was purposive.

Table 1 shows the summary of sampling of baseline survey.

Table 2. Sample size of the baseline study

	Household survey	FGD	KII
Community/VDC level	344	12	12
School authority/Resource persons			8
School children		6	
Out of school children		3	
District level			6
Total	344	21	26

2.5 Field work

The field work of the baseline survey started with training to field researchers. Twelve enumerators and two supervisors were recruited for the data collection. Supervisors and enumerators were identified from respective districts and recruited at field.

All the field researchers were from local community and had prior experience in data collection. RECID Nepal had organized two-day training to field researchers in Mugu and Bajura districts. The training was facilitated by the experts from RECID Nepal. The training consisted of sessions related to understanding of the study tools, interview techniques, and research ethics. A separate session for supervisors on sampling procedures at field level, role of supervisors in quality control and conducting FGD and KII was organized.

Field work (data collection) started immediately after the completion of enumerators training.

2.6 Data analysis and report writing

Collected data underwent series of checks for consistency and completeness. The field supervisors checked the completed questionnaire in the field. The questionnaires were gathered at RECID Nepal, where second level of checking was conducted. Database was prepared into SPSS version 20 and data was entered by two data entry staff. Before entering data, training was provided to data entry persons so as to ensure consistency and quality. After completing the entry, data cleaning was performed. Descriptive statistics (proportion for categorical data and mean and standard deviation for continuous data) were calculated.

For qualitative data management and analysis, data was translated into English and extracted into tabular form based on variables (questions built in the tools) and respondent categories. Data synthesis and analysis was done based on the themes as per qualitative data analysis guideline.

The findings of the analysis, together with all of the procedure of the study are summarized in this report. A draft report was prepared and consulted for feedback from CARE before finalization. After incorporating the feedback, a final report as per the prescribed format was submitted.

2.7 Quality Assurance

Detail orientation training to field staffs was provided. The training session included technical aspects of education, agriculture and health as well as interview and FGD techniques, data quality and research ethics. Enumerators were closely supervised during data collection by field supervisors. Any errors in data collection were recorded and the enumerators were informed of the errors and suggested the improvement measures in real time.

During the data analysis efforts such as filter errors, data cleaning, out-of-range values, and other logical check and balance, weighing, internal consistency measures, etc. were carried out to improve quality of study.

CHAPTER III. FINDINGS OF THE STUDY

This chapter presents the findings of the baseline survey. The findings of the survey have been presented as per the key project components. First the general socio-demographic findings related to household survey are presented, which is followed by findings related to agriculture and livelihood, education and health.

3.1 Socio-demographic characteristics of the respondents

3.1.1 General socio-demographics

The male respondents (69.8%) outnumbered the female respondents (30.2%) participated in the survey. Majority of the respondents (54.1%) were from the ethnic group Brahmin/Chhetri/Thakuri, followed by Janajatis/Adhibashi (the indigenous ethnicity) and Dalits.

Table 3. Socio-demographic characteristics of the respondents

	Mugu		Bajura		Total	
	n	%	n	%	n	%
Sex of the respondent						
Female	22	19.6	82	35.3	104	30.2
Male	90	80.4	150	64.7	240	69.8
Ethnicity						
Brahmin/Chhetri/Thakuri ³	58	51.8	128	55.2	186	54.1
Indigenous (Janajati)	26	23.2	57	24.6	83	24.1
Dalit	28	25.0	47	20.3	75	21.8
Age of the respondents						
18 to 24 years	21	18.8	40	17.2	61	17.7
25 to 34 years	29	25.9	61	26.3	90	26.2
35 to 44 years	31	27.7	66	28.4	97	28.2
45 to 54 years	18	16.1	39	16.8	57	16.6
55 to 64 years	11	9.8	20	8.6	31	9.0
65 years and above	2	1.8	6	2.6	9	2.3
Family type						
Nuclear	74	66.1	135	58.2	209	60.8
Joint	31	27.7	88	37.9	119	34.6
Extended	7	6.2	9	3.9	16	4.7

The mean age of the respondents was found to be 37 years (range: 18-80 years, SD: 12.9 years). Higher proportion of the respondents (28.2%) belonged to the age group 35 to 44 years. Almost 60% of the respondents lived in nuclear families. A higher proportion of households in Mugu (66.8%) was nuclear compared to Bajura (58.2%).

3.1.2 Household temporary migration pattern

Out of total 344 households surveyed, around half (48.3%) of the households have family members who are involved in temporary migration. Such type of migration was more frequently observed in Mugu (65.2%) compared to Bajura (40.1%).

³ The higher proportion of respondent belonging to the Brahmin/Chhetri/Thakuri ethnicity was because the Indigenous (Bhote) communities were found to have adopted Chhetri surname in general.

Table 4. Temporary migration

	Mugu		Bajura		Total	
	n	%	n	%	n	%
Temporary migration of family members	n=112		n=232		n=344	
Yes	73	65.2	93	40.1	166	48.3
No	39	34.8	139	59.9	178	51.7
Reasons for migration (Multiple response)	n=73		n=93		n=166	
Escape from cold	58	79.5	69	74.2	127	76.5
Tradition	48	65.8	53	57	101	60.8
Livestock rearing	31	42.5	14	15.1	45	27.1
Business purpose	11	15.1	18	19.4	29	17.5
Other (e.g. herbs collection, study, employment, etc.)	46	63	51	54.8	97	58.4
Temporary migration of children						
Yes	69	94.5	73	84.9	142	89.3
No	4	5.5	13	15.1	17	10.7

The major reasons for temporary migration included escape from the cold (76.5%). Around 61% of the respondents also mentioned 'tradition' as the reason behind migration. People in the study area have long tradition of migrating low-land during winter together with their sheep and goat. The seasonal migration pattern in a pictorial form is illustrated below:

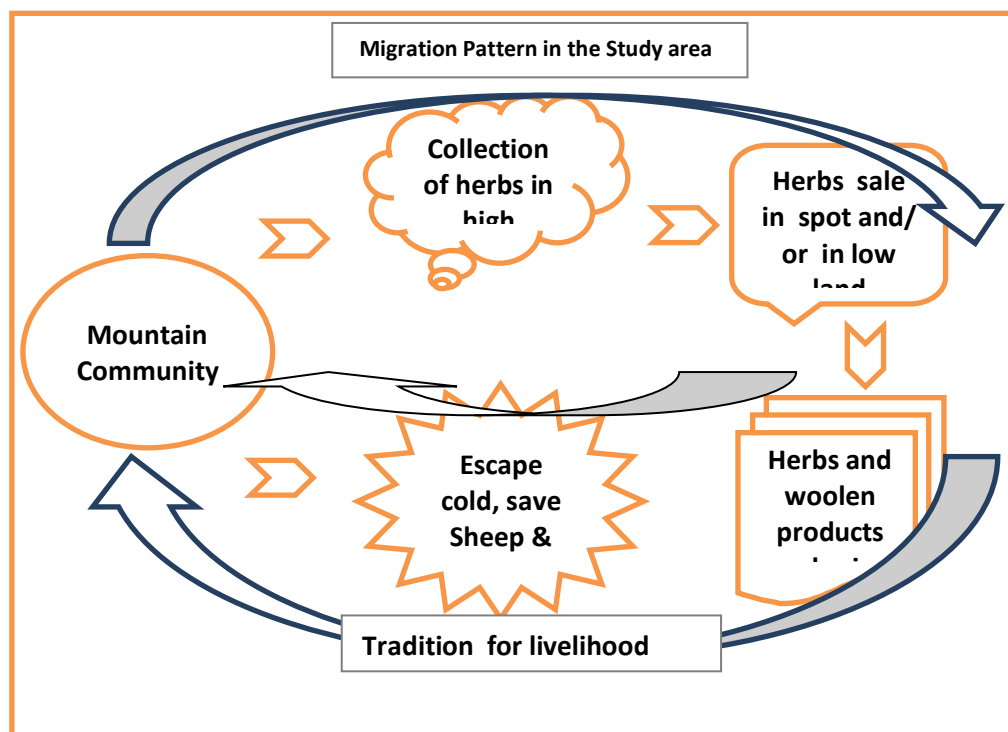


Figure 2. Household migration pattern

When they migrate, they took the collected forest products, especially the medicinal herbs (e.g. *Jimbu*, *Silajit*, *Panch aule*, *Timur*) and woollen products to sell in the market place. Livestock rearing and business purpose were mentioned by 27.1% and 17.5% of the respondents respectively. There are also significant proportion of households from the studied area had the practiced to collect YARSAGUBA in High Mountain during June-July as the source of livelihood is the primary reason of temporary migration. Small children can collect more amount of Yarsgumba

in a day then adult and most of the school students had practiced to go for Yarsagumba collection in each year.

Table 5 shows the major place of migration as mentioned by the respondents in household survey.

Table 5. Place of migration as mentioned by the respondents (HH survey)

District	Place of migration
Mugu	Baghchaur, Bhamwoda, Dhagarechaur, Dhayachudi, Dhungra, Gowachaur, Hyachuri, Khatyana, Mauberi, Rara, Ratamata, Ganghadhi, Chitai Kuna, Pipledi
Bajura	Devasthan (Acham), Kalchhila (Achham), Milla Duni (Achham), Budhakot (Achham), Dhuni (Achham), Ghugurkot (Achham), Lungra (Acham), Aatichaur (Bajura), Martadi (Bajura), Maranga (Bajura), Sera (Bajura), Rila (Achham), Tipada (Bajura), Sanagaun (Doti), Mauberi, Budhiganga (Bajura), Marku, Nepalgunj (Banke), Safe bagar (Achham)

Temporary migrated communities' livelihood mostly depends on goat and sheep keeping as major source of income. While winter season start then Bajura high altitude people move to Achham along with their goat and sheep. They leave elderly citizen in their home with the provision of food for 3 to 4 months. They mostly made their temporary settlement nearby forest where they can get facility to graze their animal and even produced woollen products (*RADI and PAKHI*) to sell in nearby market for their livelihood and source of cash income. One migrated farmer from Bajura generally kept 50 to 200 goats and sheep. Men are generally engaged on grazing their goat, sheep, produce raw wool and women are engaged to produce *RADI and PAKHI*. They shared that their one *RADI* cost is ranges from NPR 3,000 to 5,000 depends on quality and size of products. High altitude community people of Mugu district generally migrated before start snow fall and settled in Seri and Sukadhaki VDC and some of them go to Banke. The high altitude people life is depend on livestock production (sheep and goat), in winter they faced problem of grazing land and fodder.

The reason of migration in winter was to maintain the sheep and goat herd which was their livelihood. During winter, meadow and pasture land were covered by the snow and sheep and goat could not get for grazing land. Even in decade past when there was no motor road during that time Bajura people reached up to Dhangadhi, Kailai with their goat and sheep. They sold woollen and herbal products in winter season in *Terai* and when back to home they loaded food grains, salts, kerosene of businessman/traders to goat and sheep and got the money as transportation costs learnt from Safe Bagar FGD participants. The road facilities and community forestry has to some extent lost the business opportunities of migrant families.

People from Pandusen and Bichhaya VDCs of Bajura mostly migrated in Achham to escape cold winter and snow fall. Every year, around 120 HHs from Pandusen and 50-60 HHs from Bichhaya VDC migrated in November and return back to their village in March/April. The school going children also migrated along with their parents. The VDC secretary of Sukhadhik VDC of Mugu district also mentioned high frequency of seasonal migration. He has given data of migrated HHs in last year. Table 6 shows the seasonal migration from Sukadhik VDC as an example.

Table 6. Seasonal migration from Sukadhiki VDC, Mugu

Ward No	No. of HHs migrated	Ward No.	No. of HHs migrated
1	49	6	64
2	66	7	63
3	31	8	61
4	57	9	55
5	49		
	Total HHs	495	

Source: Sukadhiki VDC office, Mugu 2016

The income from sales of YARSHAGUMBA as the major livelihood options to them to buy food staff, clothes and household level expenses for year. During Yarshaguba collection time children were went for Yarshagumba collection and even the schools in that area were unofficially closed. This hampers the children education. The high altitude community their livelihood was depends on goat, sheep farming and herbal collection and sales.

3.1.3 Household income

When asked about the major source of income of the households, almost 94% of the respondents mentioned agriculture as the major source of income of the household, followed by livestock (56.7%), herbs collection (32.3%), daily wage (25.9%), foreign employment (13.1%), service (9.3%) and business/self-employed (9.0%). Higher proportion of respondents from Bajura district mentioned daily wage/labour, foreign employment, service and business as compared to Mugu.

Table 7. Household income

	Mugu		Bajura		Total	
	n	%	n	%	n	%
Major sources of income (Multiple response)						
Agriculture	108	97.3	216	93.1	324	94.2
Livestock	30	27.0	165	71.1	195	56.7
Herbs collection	36	32.1	75	32.3	111	32.3
Daily wage/labour	19	17.1	70	30.2	89	25.9
Foreign employment	8	7.1	37	15.9	45	13.1
Service	7	6.3	25	10.8	32	9.3
Business	6	5.4	25	10.0	31	9.0
Other	4	3.6	15	6.5	19	5.5
Trend of income in recent years						
Increasing	3	2.7	9	3.9	12	3.5
Same	36	32.1	20	8.6	56	16.3
Decreasing	73	65.2	203	87.5	276	80.2

The livestock farming is the integral part of agriculture and most of them kept few livestock for fertilizer, milk, and meat; and bulls were use for ploughing the farm land.

Respondents were asked whether the family income had been increasing or decreasing in recent years. Majority of the respondents (80.2%) mentioned that the trend of their family income was decreasing, because labor shortage, used local and traditional seeds and low level of manure application, while only 3.5% had a trend of an increasing income due to to used of improved seeds and fertilisers. Around 16% of the respondents reported their income to be consistant. (Table 7)

3.2 Findings related to household agriculture

3.2.1 Agricultural practice

Table 8 depicted that out of the total households surveyed, 91.6 percent had agricultural land and the remaining 8.4 percent did not have any agricultural land. The study showed that 2.3% of the sample households were not involved in agriculture.

Table 8. Agricultural practice

	Mugu	Bajura	Total
Availability of agricultural land			
Yes	99.1%	87.9%	91.6%
No	0.9%	12.1%	8.4%
Size of land available			
No land available	0.9%	12.5%	8.4%
1 to 2 Ropani	6.3%	19.8%	15.4%
3 to 5 Ropani	30.4%	36.2%	34.3%
6 to 10 Ropani	40.2%	23.7%	29.1%
More than 10 Ropani	22.3%	7.8%	12.5%
Size of irrigable land (low land-KHET) available			
No KHET available	38.4%	45.3%	43.0%
1 to 2 Ropani	31.3%	26.7%	28.2%
3 to 5 Ropani	17.9%	21.1%	20.1%
6 to 10 Ropani	11.6%	6.5%	8.1%
More than 10 Ropani	0.9%	0.4%	0.6%
Size of non-irrigable land (up land-BARI) available			
No BARI available	1.8%	29.3%	20.3%
1 to 2 Ropani	23.2%	31.0%	28.5%
3 to 5 Ropani	30.4%	22.0%	24.7%
6 to 10 Ropani	34.8%	15.1%	21.5%
More than 10 Ropani	9.8%	2.6%	4.9%
Agricultural practice			
Self-farming on own land	99.1%	87.5%	91.3%
Give land (Contract) to others	0.0%	3.0%	2.0%
Contract other's land	0.0%	6.5%	4.4%
No farming	0.9%	3.0%	2.3%

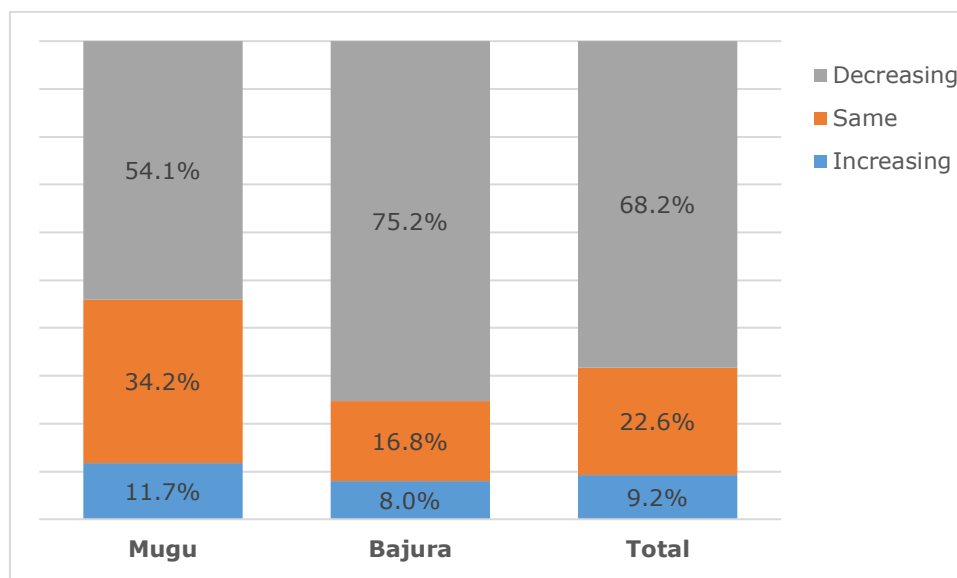


Figure 3. Trend of agricultural production in recent years

Figure 2 shows that 68.2 percent of the respondents reported that the trend of crop production in recent years was decreasing, while 22.6 percent reported as usual. Higher proportion of respondents from Bajura reported decreasing income as compared to Mugu, the reason behind which may be more farmer's groups are trained and practiced improved agriculture practices in Mugu compared to Bajura.

3.2.2 Major crops farmed in the study area

Table 9 shows the major agricultural products farmed in the study area. There was no variation in the agricultural products observed in Mugu and Bajura districts because the agro-climatic condition of the Northern part of Bajura is almost similar to Mugu.

Table 9. Major agricultural products

Season	Crops	Variety
Winter	Cereals	Paddy, Wheat, Barley (Jau), Mustard, Buck wheat
	Vegetables	cauliflower, cabbage, leaf mustards, onion, potato, Carrot, Reddish,
	Fruits	Lemon, Orange, walnut, Banana, Pears, Plum.
Rainny	Cereals	Millet, Chinu (look like fox tail grain), Maize, Rice
	Vegetables	Chily, Brinjal Potato, Tomato, Beans, Pumpkins, spong guard, Snacke guard, Cucumber, Pulses, Colacassia
	Fruits	Apple, Pears, Apricot, Guava, Mausam (similar to Sweat orang), Grapes, Peach

The qualitative information collected in the study also revealed similar pattern. Community people in the study area of Bajura district were mainly grown cereal crops (rice, maize, wheat, millet, barley) and buck wheat. Rice, maize and millet were grown in rainy season and wheat, barley and buck wheat in winter season. However, in Mugu in addition to above crops they also cultivated

CHINU (looks like fox tail) and Foxtail crop (**KAGUNO**), naked wheat (Uwa) as staple food for their family.

While discussed about vegetable crops, they mostly cultivated leaf mustard; spinach, peas, cabbage, cauliflower, onion, garlic, tomato; chilly, potato and carrot in winter and vine crops like sponge guard, pumpkin and beans are generally grown in rainy season. In addition farmers cultivated fruits such as walnut (**OKHAR**), lemon apple, pears and peach in the study area.

In past most of the farmer of Kolti area grown local varieties few vegetable crops in their kitchen garden. People of Kolti area said that CARE Nepal introduced improved varieties of vegetable seeds and cultivation practices in 1990's era. Recently HELVITAS through its partner NGO distributed some of winter vegetables seeds in Bajura. People have no practice of use chemical fertilizers and pesticides. However, few farmers of Jima VDC of Mugu district using chemical fertilizer provided by the DADO. Most of the farmers used livestock dung and compost in their cultivated field. Due to rain fed condition, use of local varieties and insufficient compost uses as well as labor shortage the crop production has been declining per unit area. While discussed about the cropping pattern in the study area the FGD participants said that **Khet** (low land) and **Pakho** (Upland) has different cropping patterns.

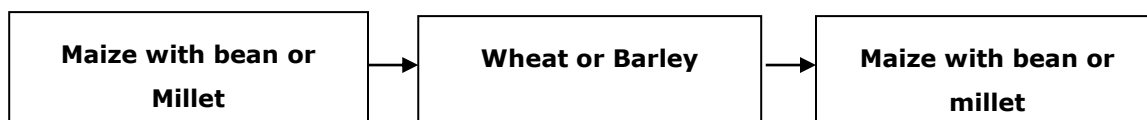
Cropping Pattern in KHET (Low Land)



Farmers of Bajura and Mugu generally grow 2-3 crops in a year in the same land. The major crop of low land is rice followed by wheat or winter vegetables. Some of them short period winter vegetable cultivated after rice and then followed maize and in rainy season cultivated rice. It is only possible in river basin where temperature is found high. But two crops cultivation is a general practice in low lands.

Cropping pattern in PAKHO BARI (Upland)

The PAKHO BARI upland crop cultivation land and farmer grow crop based on rain fall. The major crops of upland is maize and followed millet or wheat. Farmer generally grows beans as inter crop inside maize, beans are the source of protein for community people and usually they used beans as DAL to eat rice.



3.2.3 Food sufficiency from agriculture

Out of those households involved in self-farming, only 10.4 percent of the households were found to have food sufficiency around the year from their own production, while the remaining 89.6 percent of the households were found to not having food sufficient for the whole year (Table 10). The Table 10 revealed that Food sufficiency households are found higher in Mugu as compared to

Bajura. Around 38.0% of the households had food sufficient for only less than 3 months and almost similar proportion of the households reported food sufficiency for 3 to 6 months.

Table 10. Food sufficiency from own farm land

	Mugu		Bajura		Total	
	n	%	n	%	n	%
Food sufficiency from own farm land						
Yes	20	18.0	15	6.6	35	10.4
No	91	82.0	212	93.4	303	89.6
Number of food sufficient months						
Less than 3 months	22	19.8	107	47.1	129	38.0
3 to 6 months	32	28.8	95	41.9	127	37.6
6 to 9 months	35	31.5	13	5.7	48	14.2
9 to 12 months	5	4.8	8	3.5	13	3.8
More than 12 months	17	15.3	4	1.8	21	6.2

The FDG findings also depicted that maize, millet, wheat and some legumes are the main crops. The high altitude VDCs mostly suffered from food insufficiency, due to low productivity and high risk of food insufficiency. In Bajura district Bichhaya, Rugin, Sapata, Dahkot, Dogadi and Gotri VDCs fall under high risk VDCS of food deficits.

Most of the KII and FGD participants agreed that the produced food from agriculture is not enough for the food need of family members for a whole year. In an average it last no more than six months. The majority of farmers said that they have sufficient food from their own production for 3 to 6 months. Even Dalit communities, which do not have sufficient and productive land, can feed their family members up to 3 month from their own production. Animal husbandry, unskilled work (labor work) and foreign employment are other major sources of income in which the households are dependent on.

3.2.4 Involvement in agriculture related groups

Around 29% of the respondents or any of their family members were involved in group(s) related to agriculture. As compared to Bajura district, Mugu has higher proportion of households involved in such groups. Among them, around one-fourth (22.4%) of the respondents reported that the agricultural group they were involved in was not registered in any office/organization. While, around half (52%) of the respondents mentioned the registration of the groups in District Agricultural Development Office. More than half (54.1%) of such agricultural groups were women's groups and they mostly function informally through group approaches. Bajura district was better (67.9%) in terms of registering the agricultural groups in DADO.

Table 11. Involvement in agricultural groups

	Mugu		Bajura		Total	
	n	%	n	%	n	%
Involved in agricultural groups						
Yes	42	37.8	56	24.5	98	28.8

No	69	62.2	173	75.5	242	71.1
Type of agricultural groups	n=42		n=56		n=98	
Female	15	35.7	38	67.9	53	54.1
Male	2	4.8	6	10.7	8	8.2
Mixed	25	59.5	12	21.4	37	37.8
Is the group registered somewhere?	n=42		n=56		n=98	
No	12	28.6	10	17.9	22	22.4
Yes, in Agriculture Development Office	13	31.0	38	67.9	51	52.0
Yes, in cooperative	1	2.4	3	5.4	4	4.1
Yes, in <i>Gharelu</i> office	1	2.4	1	1.8	2	1.0
Don't know	15	35.7	4	7.1	19	19.4

3.2.5 Participated in (modern) agricultural training

Only 7.7% of the respondents or any member of their family have attended new or improved agriculture related technical training during the previous two years, and the proportion was higher in Mugu district. The trainings were mostly provided from the agriculture office and INF. The INF provided practice based training and more participants used knowledge gained from the trainings.

Table 12. Improved agriculture

	Mugu	Bajura	Total
Any member of the HH participated in training related to improved/modern agriculture			
Yes	15.3%	3.9%	7.7%
No	84.7%	96.1%	92.3%
Practice improved agriculture			
Yes	11.7%	4.4%	6.8%
No	88.3%	95.6%	93.2%

Around 7% of the respondents reported practicing improved agricultural practice (Table 12).

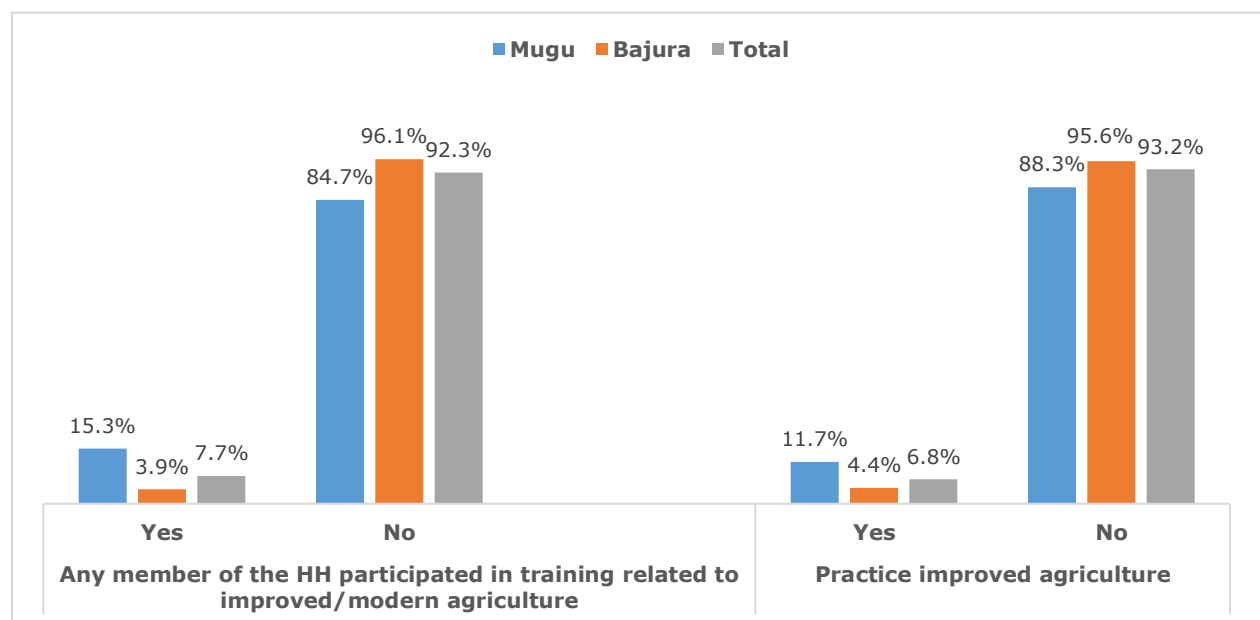


Figure 4. Participated in agricultural training and practicing improved agriculture

Some of farmer group members in Mugu districts participated in training organized from Agriculture Service Centre and DADO. In district there are mixed farmer group (men and women in group), Dalit farmer group and women groups were formed. The groups nearby Agriculture service centre are found relatively active compared to those VDCs, which are far from Agriculture Service centre and DADO. However, in Bajura district farmer groups said that they did not participated in training. The FGDs participants (farmer group) in Mugu district showed experience of participating in agriculture exhibition organized by DADO in annual basis. None of the farmer groups in both study area have been experienced to participate in VDC planning process and not to access fund for agricultural promotional activities even GON has made the mechanism to allocated at least 15% of VDC budget in agriculture and forestry sector.

3.2.6 Source of technical advice and information related to agriculture

Almost half (49.5%) of the respondents were not getting any type of agricultural advice and information, while around 16% did not know about the source of agricultural advice available. The sources of improved agricultural advices were agricultural groups (21.3%), agricultural resource center (18.6%), neighbours and friends (13.2%) and NGOs (10.8%). (Table 13)

Table 13. Source of agricultural advice

	Mugu		Bajura		Total	
	n	%	n	%	n	%
Source of agricultural advice (Multiple response)						
Don't know	16	15.0	36	15.9	52	15.6
No where	38	35.5	127	56.2	165	49.5
Agricultural groups	38	35.5	33	14.6	71	21.3
Agricultural resource center	24	22.4	38	16.8	62	18.6
Neighbour/friends	22	20.6	22	9.7	44	13.2
NGOs	25	23.4	11	4.9	36	10.8
Community resource center	7	6.5	1	0.4	8	2.4
FM/Radio/TV	1	0.9	2	0.9	3	0.9
Other	0	0.0	4	1.8	4	1.2

The improved and hybrids seeds cultivation in the study area was found very low. In Bajura there are 4 Agriculture Service Centre which are situated in Kolti, Kuldevmandau, Juda and Dogachi. Farmers from Kolti, Kotila and Pandusen are in better position of food sufficiency compared to other VDCs of the districts and they have feed their family 6 to 9 months in a year by their own production. DADO official of Bajura said that farmer who has well irrigated low land with good manure, they produced up to 2 Metric ton per hector of rice and 1.9 Metric ton per hector of Wheat crop. The DADO official of Bajura district said that in Bajura district 18,421 ha of agriculture land. The DADO official of Mugu district said that last year total food crop production in Mugu was estimated 10,335 Mt and there were 929 Mt food deficits. They further added improved crops species replace around 25% of local seeds cultivation area in Mugu district. They said that since last 5-6 years agriculture production in Mugu is decreasing in trend due labor problems, low

rate of application of manure and fertilisers and farmer used their own local and low yielding crop seeds.

The DADO official said that in Mugu only 6.53% land is suitable for agriculture. Low production and productivity was found in Ruga, Jima, Nathai, Bhie, Syadnu, Mugu, Dolphu, Chhhyalu and Sukadhik VDC. There were 10 VDCs which are fall in high risk of food insufficiency. There are four Agriculture Service Centre in Mugu. Surukot Agriculture Service Centre covers seven VDC namely Rara, Jima, Phulu, Lalai, Bhie, Nathrfu and Dhainkot. Srikot Agriculture Service Centre covers seven VDC namely Hyaglu, Sukadhik, Kotdanda, Gantha, Khamale, Seri and Srikot. Setibat Agriculture Service Centre cover five VDCs-Shrinagar, Karkibada, Pina, Ruga and Rowa. Pulu Agriculture Service Centre covers five VDCs- Mugu, Dolfu, Kimri, Pulu and Magri VDCs respectively.

The KII with farmer group (5 male and 5 female) members were carried out in both districts of the studied area. In Mugu district where INF has been implementing their programme the farmer group are active and collect monthly saving and distributed improved vegetable seeds with training. Training with vegetable seeds distribution approach encouraged farmer to grow vegetable in their own land and kitchen garden changing their vegetable and food consumption habits. KII participants of Bajura district said that they formed male and female group with the support of Agriculture Service Centre. They grow vegetable seedlings and distributed among the group member but hardly reach 3-6 months from their own production. Most of farmers used animal dung and compost in their farm land. They said that there are no irrigation facilities and grow the crops in rain fed condition. The most of information from KII are not different with FGD participants.

While discussed about the services provided from the Agriculture Service center the official said that they supported to form farmer groups, facilitate to run Farmer school (Krishak Pathasala), crop production demonstration plots, distribution of improve vegetable seeds, Fruit seedling distribution, farmers training and small scale irrigation scheme support. DADO officials said that there is high potential of fruit crops (Apple, apricot, pear and peach) production and that will get market with improving the road linkages. DADO organize the day celebration to create improve crop production awareness in the district like Rice planting day and World Food Day in each year. Both districts highly depend on GON food subsidy programme through Nepal Khadya Sansthan (Nepal Food Cooperation), who provided the rice in subsidy in each year from Nepalgunj since long.

3.3 Children's education

3.3.1 Regularity in attending school

Around half of the respondents (47.0%) mentioned that their children do not go to the school regularly, and almost similar proportion of the respondents (45.2%) mentioned regular attendance of children at school. Around 8% of the households have children, who do not go to school at all. Higher proportion of respondents from Mugu district reported regular attendance of children (66.7%) as compared to Bajura (37.0%). The major reasons for not going to the school reported by the respondents include temporary migration of the children together with their parents

(47.8%), agricultural work (36.0%), children do not want to go school due to lack of parent support and ignorance (32.0%), children go to collect herbs (25.3%), livestock rearing (18.5%, look after smaller children (16.9%) and others. (

Table 14).

Table 14. Children's regularity to school

	Mugu		Bajura		Total	
	n	%	n	%	n	%
Children go to school						
Do not go to school	5	4.5	21	9.6	26	7.9
Go regularly	32	28.8	117	53.4	149	45.2
Do not go regularly	74	66.7	81	37.0	155	47.0
Reasons for not going school regularly (Multiple response)	n=77		n=101		n=178	
Do not want to go	27	35.1	30	29.7	57	32.0
Temporary migration of children	41	53.2	44	43.6	85	47.8
Collect herbs	31	40.3	14	13.9	45	25.3
Livestock rearing/grazing	12	15.6	21	20.8	233	18.5
Look after small children	9	11.7	21	20.8	30	16.9
Agricultural work	23	29.9	41	40.6	64	36.0
Water fetching	4	5.2	5	5	9	5.1
Other	2	2.6	6	5.9	8	4.5

The school going children were migrated along their parents during the winter and they didn't go their school and classes 3 to 4 months. While discussed how to recover their children's education with migrated children parents. On that quarries migrated children parents during FGDs suggested that school should have make the provision of extra and coaching classes while children back to school from lowland, migrant parents make the provision of teaching environment like coaching and tuition classes from local people in temporary settlement and provision of hostel in the respective school are some of the alternatives for the benefits of migrated children. In addition they suggested that school will make leave provision in school holidays as considering the local situation and design curriculum as considering local context.

3.3.2 Attitude of parents towards education:

Nine different statements were presented to the respondents and asked whether they agree or disagree to the statements (Table 15). The proportion of parents, who agreed on the statements 'children should go to school regularly'; 'Girls also need education to contribute the development of country'; 'Son and Daughter are equally able to achieve quality education'; 'Girls have intellectual ability to utilize the education they have gained' and 'Educated sons and educated daughters are equally important' was more than 90%. Around 16% of the parents believed that there should be separate schools for sons and daughter and only 13.5% mentioned that Investment in girl's education is waste of resources.

Table 15. Attitude towards children's education.

	District		Total
	Mugu	Bajura	
Education affects the life of children.	51.8%	70.6%	64.4%

Son and Daughter are equally able to achieve quality education.	94.6%	94.3%	94.4%
There should be separate schools for sons and daughter.	8.9%	19.7%	16.2%
Children should go to school regularly.	98.2%	97.4%	97.6%
Educated sons and educated daughters are equally important.	95.5%	89.9%	91.8%
Girls have intellectual ability to utilize the education they have gained.	94.6%	92.5%	93.2%
Girls also can get job if they are educated.	92.0%	74.6%	80.3%
Investment in girl's education is waste of resources.	8.0%	16.2%	13.5%
Girls also need education to contribute the development of country.	94.6%	98.2%	97.1%

The findings showed that parents attitude towards education of children was relatively positive.

The qualitative findings showed that in both districts Bajura and Mugu community people generally send their children in community schools. The FGD participants shared that there was no discrimination between sons and daughters in terms of sending them to school. They regularly send their children to school, however upper area of Kolti, Bichhaya and Pandusen VDC where mostly snow fall during winter they were migrated to lower area like Budiganga in Bajura and Safabagar in Achham district. The FGD participants from Jima, Sukadhik, Seri and Pulo of Mugu district shared their experiences about education of their children. The children from poor and Dalits ethnic were less often admitted in schools. They mostly engaged as a care taker of their younger siblings and support to their parent in agriculture activities and did not get opportunity to go school. During the winter, children do migrate with their parents for around 2 to 4 months. During that time the children's education was hampered. Some of the parents send their children to nearby school of their temporary settlement. However, most of the children did not get a chance to study regularly.

3.3.3 Findings from school observation and interview with school authority (education related)

Information about Students:

The observation found that total 1,058 students were enrolled in 12 schools in fiscal year 2071/72, of which more than fifty (54.25%) were girls and remaining (45.75%) were boys. However, 2.65% students left their school in the middle of the fiscal year. Where, 54 percent are girl and 46 percent are boys. Out of total (969) students, who attended exam in last fiscal year, 95.67% passed their exam. Whereas, nearly hundred percent (99.5%) of girls were passed in comparison to boys (93.4%). This observation identified that there were still about 4% of the students repeated their class in this fiscal year. Among them boys are found high (66.7%) than girl (33.3%). It was highlighted that half (50%) of the total schools found to have students with dropout and repetition in the same class.

Facilities at School:

In the study it was found that all the 12 schools have classrooms. However, more than two third (66.7%) of schools have no sufficient classrooms for students to study and about three quarter (75%) of the schools did not have a library. Only 25 percent of the schools have libraries but they are found to have not sufficient books and educational materials. Less than fifty percent (41.7%)

schools had book shelves but not sufficient. This observation found that nearly all (92%) of the schools had play grounds but there was lack of sufficient areas for students to play. Half of the schools were found to have a congested office setup. More than 90 percent schools have separate boy and girl toilet facilities. It was found that more than two third (66.7%) of schools have male staff toilet. However, there was only one third (33.3%) of schools with female staff toilet.

Infrastructure and other facilities:

It was found that more than ninety (92%) of schools have windows but most of the windows need to be repaired or changed. More than two third (66.7%) schools did not have wall around their school areas. Whereas less than one fifth (16.7%) schools found to have a wall with good condition. This observation found that more than fifty percent (58.3%) of schools had minimum level of chair/table/desk for students. Similarly, 83.3% of schools had chair/desk for teachers but 16.7% of schools had chair/table/desk with good condition for both students and teachers. Almost three quarter of schools were found to not have a drinking water facility and they went nearby community tap or spring. Along with, 92% of schools found to not have taps that can be easily used by children for hand washing. The available taps were not found to be in good condition and most of them were insufficient and needed repair or change in time. Nearly all of the schools were found lacking sufficient electricity and solar light. It was found that almost all the schools were lacking a homestead food garden.

Educational materials:

The observation found that all the schools had availability of course books, however, only 16.7% of the schools had sufficient for the students. Similarly, less than one fifth of schools were found to have nutrition and hygiene related materials. Nearly one fourth (24%) of schools were found to have educational materials such as newspaper, poem book, story book, cartoon, audio aids, video aids, AV aids and playing materials. More than 80% of schools found to have no availability of educational materials or available but not in sufficient quantity.

Day/Week Celebration:

It was found from the discussion that only one school had celebrated nutrition day or week and rest of them had not such practiced.

3.3.4 Findings form Focus Group Discussion with children

Total nine (9) FGDs were conducted with the students. Whereas 6 FGDs were conducted with school going children, one FGD was conducted with school not going children and 2 FGDs were conducted with seasonal migrant students.

Facilities at school liked by students:

Around 50% participants have mentioned that they liked buildings, desk, library, bench and library of their school which support minimum level of facilities to run the classes. But in few schools, such things are also found to be less liked by the students because no proper repair, maintenance and required numbers. It was found that more than 60% schools do not have well facilitated toile, drinking water and furniture. Some of the participants form two school stated that they don't like educational materials of their schools because they are old and not fulfil the interest of students.

Availability of educational materials related to nutrition, sanitation, drinking water:

Participants' from all schools have noted that they do not have enough educational materials related to nutrition, sanitation and drinking water. Most of the participants have shared their non-participatory learning experiences, such as they have stated that their teachers are come to the class and teach them using books and white boards and they don't know that what types of book their teachers used during teaching them. *"Teachers come to school with the books and teach by seeing on the book. We don't know whether they are nutrition related educational materials"* (Nepal Rastriya Pra. Vi, Sorukot). Two to three schools out of twelve were found to have an educational material related to nutrition but none of the schools found to have materials related to sanitation and hygiene.

School Regularity

Almost sixty percent of the FGD participants from school going children are found that they have been regularly attaining their schools. Around twenty percent of the participants from such group stated that they have sometime dropped their school because of household work. It was found that around seventy percent children in High Mountain area during Yarsagubma collection period dropped their schools and around forty percent during winter from the seasonal migration and household works.

Support of parents to go to school:

All of the migrated children focus group discussion participants have noted that they love to go to school and study different books like Nepali, math, physical education, education and science. They thought that such subjects are important to be a good person in the future. Participants from school going children group added that their parents are also supporting them to attain school regularly. However, one twelve years old boy of migrant group from Safe Bagar shared that he also love to attain his school regularly, but due to the poor economical status and seasonal migration they are not getting support from his parent. Almost migrant children parents like to save their goat and sheep in winter and sold some herbal and woollen products to earn cash income that support to buy food stuff and run household business for a year round. They have said that their parents want to send their children to their school regularly, but due to the migration, they have not doing so. Because their parents didn't like to loose their sheep and goats from the cold which are the major source of livelihoods.

Preferred Game:

Volley ball is found to be a most popular and preferred game for all the participants. Participants from all groups have shared that they mostly play volley ball because no other playing games are available in their school. Some of the participants also noted that they sometime play other games like skipping, kabbaddy, football, and tato aloo. However girls' students mentioned their favourite game was skipping.

Most preferred teachers:

Participants from most of the FGD stated that they liked all the teachers of their schools. However, participants from some FGD point out the name of their best teachers along with the reasons.

They have highlighted that they like some teachers most because of their smiley facial expression, ability to make students understand, interactive and practical learning. A student of FGD participant said that *"he liked one teacher of his school who taught physical education because the teacher taught with a smile in the face, have ability to make student understand, practical and do not bit student"*.

Repetition of class:

Most of the participants told that they had not repeated the class as there is no trend of failing students in exam once they appeared in final examination. However, a boy student of participants from one FGD told that they have to repeat the class if they fail the exam.

Information on seasonal and temporary migration:

According to the participants of FGDs with children in Mugu they went for seasonal migration however, the children in FGDs from Safebagar who migrated from Bajura mentioned that they did not like to go for seasonal migration,

During the discussion a twelve year old children said that we couldn't take the decision and followed the parents where they like to go. He said that I'm in Safebagar this year and next year where I'll be I can't say and same situation of my friends too. But we like to read and write in our school regularly but who will listen to our voice. Our parents also came here to save our sheep and earn some money to feed our grand mother/father at home and to us what they earned from the temporary settlement. My mother weaving woolen garments (Radi) and my father go to village to sale those materials and my uncle is in forest for grazing sheep.

- A FGD Children from Safebagar temporary settlement.

Number of days in the school missed due to migration:

The participants, who had told that they do seasonal migration, were found to miss school tentatively for 35 to 120 days annually.

Special activities done to overcome the missed education of migrated students:

All the participants mentioned that there were no activities done for maintaining the education status of migrated children. However DEO Bajura mentioned that he suggested to teachers to enrolled migrant students in their school and provides learning oppoertunity for such students even they come to school in mid of the school calendar.

Nutrition programs of Nutrition week or day celebration:

Almost all the participants told that there was no nutrition program in their school.

Benefits of Education:

All the participants mentioned that they enjoyed reading. They told that education is a means to make their future bright and to get a good job for earning good money. According to the participants the main benefit of education is that it helps them to be a good human being in future. The aims of the participants are mostly to be a teacher, pilot, doctor. All the participants have positive attitude towards education.

"Education changes life of a man and women. It brings us into light from darkness. We can make our future bright and beautiful through education..... (A FGD participant from Mugu district)"

The participants of FGD with migrated students mentioned that Education has great role in maintaining political, social and economic activities of a country. *"To be a good citizen and professional in future and for the nation education is most and for that we shall go to school for reading and writing. So I go school for being self-dependent and a good citizen of our country. If I study well my future will be bright and I can give service to my country and can develop the country"*.

Factors that hampers regular school going/ education

More than fifty percent of the FGD participants told the reason for leaving school are household work (sometimes need to take care of siblings, sometimes need to take care of livestock, cooking foods, fetching water), flood in river during rainy season, poor economic status, migration, long distance to school. The participants of three FGD mentioned that there are no educational materials, pen, copy, books due to which the students left the school.

One FGD was carried out with school going children nearby Safe bagar, Achham in a temporary shelter, who were migrated from Pandusen VDC, Bajura. Six school going children were participated in the discussion. Those students age ranges from 6 yrs to 12 yrs old and classes ranges from lower KG to 2 class. Students said, they were from Badamalika English Boarding School, Pabdusen -5, Deepika Siddeswar Primary School, Pandusen-6. Both private and community school children liked those teachers who taught them in homely and friendly environment and who loved them as their own kids. Under those categories mostly students taken the name of female teachers from community and private schools. They highly appreciated the day meal facility in school and in their school had some of educational materials, desk, and bench and toilet facilities.

The children didn't know about extracurricular activities run in their schools and there were not sufficient school books, teaching aids and sports materials. Children said that they regularly went to school from April to November. The children said that they like mathematics, English and Nepali subjects. The school was only 30 minutes walking distance and teachers' behaviour found well, they motivate and encouraged to us to read and write, to do home work with smile face. While discussed with them about sports, boys liked volley ball and girl like skipping. Few of them repeated the class due to absence of their school classes due to seasonal migration for 3 to 4 months in a year and could not recover the text book. There was not special provision made by the school management committee and/or school teacher for seasonal migrated students while they back to their school.

While discussed with them about importance of education and why they went school what they like to be in future. In those questions they said that education support to make better life and good citizen; they will be a doctor, pilot, and school teacher and serve to their community and nation. Therefore, they like to go school to read and write. The seasonal migration hampered their classes and children they have no other options.

3.3.5 Findings of Discussion with Teachers and resource person, and FGDs with SMC

Interaction with teachers and resource persons were made regarding the education and school facilities in the study area. A total of 6 interaction meetings have been conducted with the Representatives of School management Committee and Parent Teacher's Organization. In almost all the FGD there was involvement of representative from each group, School management committee, Representative from parents, teachers and at least one female in each group.

They mentioned that the enrolment rate of upper caste girl students, in general is more than boys. However, in dalit caste the enrolment of boys is more than girls because dalits parents make engagement to their daughter in their household business. About 80 to 90 percent of the parents send their children to school. However, there had been irregularity in school attendance during the season of migration.

"Secondary students are regular but primary students will be regular up to migration after migration they will be irregular in the school. The rate of absenteeism in the school depends on the rate of migration. The greater the migration rate the greater will be the rate of absenteeism".....

-A Resource person in KII in Mugu

Around 70-80% of admitted students participate in final terminal examination. According to the participants, based on attendance, periodic monitoring and examination result, the students will be upgraded in further classes. There is a high rate of dropout among girls, students with poor socioeconomic status, deprived and dalits. However, the participants in one FGD from Pulu mentioned that upper class students are more to leave school than lower class due to upper class students can supports to their guardian in their household business. Except high altitude like Bichhaya, Pandusen and upper area of Kolti of Bajura district rest of the lower part there is no temporary migration and no students leave the school.

According to the teachers and resource persons, the main reason for leaving the school in the middle is due to poor socioeconomic status, lack of knowledge of parents, more household workload to girl students, early marriage, less number of teacher and poor quality of education system. The participant of one FGD told that the small age children from primary school grade one they leave school due to difficulties to go in school regularly and worked as care taker of their small brother or sisters. Parents have become more aware of the importance of the education and have positive attitude towards it. Despite this, because of the hard geographic situation, poor economic status and burden of household work they are unable to send their children to school and are unable to provide their children the desired education. In remote ared still there was discrimination between son and daughter and they send daughter to take of livestock and or support to parent in farms. It was happended due to lak of awareness, importance of education and low economic status.

“Son preference is more than daughter due to which girl students have to do household work before going to school. There is poor economic status and more number of family members in Dalit community. Though the attitude of the parents towards their children is equal, because of the above mentioned reasons, girl students and the students from Dalit community are not able to attend school regularly”.

-A teacher in KII, Mugu

The teachers and resource persons interacted in both districts mentioned that seasonal and temporary migration is not a great problem for student's school attendance. However, around thirty percent FGD participants mentioned seasonal and temporary migration were happened in high altitude area where there was snow fall in winter. According to them, there are other several reasons, e.g. household work load, poor socio-economic background, child marriage, collection of herbs, etc. that inhibit the school attendance and promote drop out. Almost all the participants of all FGD of both the districts mentioned that there were no programs or activities done for overcoming the missed education of migrated students.

Majority of the teachers and resource persons agreed that there were no any teaching learning materials related with nutrition, sanitation, hygiene and drinking water.

It was found that majority of the school have mid-day meal program for primary level students. Almost all the participants of all FGD told that the nutritional status of primary level students is good or normal.

The participants of majority of the FGD mentioned that there were no nutrition programs. However, the participants in two FGD mentioned that there has been conducted nutrition and sanitation program by nutrition committee and there is class wise education program for waste management inside class and within the school premises. Similarly, participants in one FGD told that the nutrition program has been conducted by HP and VDC.

According to the participants of FGD, there is mid-day meal program in all the schools of Mugu district but it was found that there are no mid-day meal program in all schools of Bajura district. Participants of FGD of Mugu mentioned that the students went home to eat snacks as the school is near to their home. Participants of one of the FGD told that students bring roti in school for day time meal. Most of the participants focused on awareness raising program that should be conducted by different organizations. The participants of two FGD mentioned that for improving nutritional status of children there should be variation in the mid-day meal and the local level food should be more encouraged. Participant of one FDG told that there should be training program on nutrition.

The KII was done with District Education Officer in Bajura and Mugu, they were not satisfied from the progress of school education. The remote and high mountain area children had not access to schools. There was low education enrolment mostly in Haliya (Plow worker), poor, Dalit and Bhotiya community.

Table 16 below shows some of the indicator of school improvement of Bajura district.

Table 16. Indicator of School Improvement programme in Bajura

S. No.	Indicators	Status 2014	Status 2015
1	New enrolment in class one including ECD	35	35
2	Total new admission in class one	155	155
3	Net new admission in class one	70	70
4	Primary class 1-5 net enrolment rate (NER)	140	138
5	Required academic qualification and Trained teacher %	97.45	97.5
5.1	Trained Women Teacher %	100	100
5.2	Trained men Teacher %	97	97
6	Teacher students ratio in primary education	1:45	1:40
7	Class repeated student % in primary level	10	9
8	The achievement of learning in grade 3 in %	44.5	43
9	The achievement of learning in grade 5 in %	40	40.1

Source: DEO, Bajura, Feb 2016

While discussed with DEO Mugu the new admission rate was 95%, class repeated and dropout rate was 15-20%, more drop out observed in Dalit ethnic group. Most off VDC people were migrated for 3 months to collect NTFPs and escape from cold in winter. The education situation of community schools of Bajura compared with Mugu seems slightly good.

While discussed how to improve the education of migrated children, DEOs suggested that, the school vacation need to give in winter and NTFPs collection season. The standard calendar of GON is not applicable in high mountain districts and need to develop separate education calendar for high mountain districts. Need incentives to teachers, who likes to do more efforts and teach out of class to recover the children education. The provision of mobile classes will support for migrated children. The provision of hostel for migrating children will support to give regular education while their parents goes for business in winter. Timely providing education materials, day snacks and sports materials support to children regular education. Teachers were mostly outside the districts and they have attitude to stay more days in leave while they went in their home and encourage them to back on their duty. In addition, parental education/orientation to parents on quality education and sending their children is important that support to them to send their children regularly in school.

The participants of one of the FGD with the members of School Management Committee (SMC) in Mugu district told VDC is supporting schools for infrastructure improvement. In last fiscal year, Rs 200,000 have been allocated for making walls of school compound. The participants of one of the FGD with SMC in Bajura district also mentioned that VDC allocates budget for repairing the school and for giving salary to private teachers. Similarly, another participants of FGD of Mugu district told that Rs. 50,000 has been provided by VDC for maintaining school compound. VDC support to the schools are largely concentrated on infrastructure development and the budgets are not allocated regularly.

Main Problems of Schools:

More than 50% of KIIs participants told that the main problems of school are: poor toilet maintenance and cleaning, no separate toilets for boys and girls, lack of educational materials, insufficient furniture, lack of budget, insufficient class room, no or poor playground maintenance, poor management of drinking water, less land of school, insufficient class rooms, location of school. According to the records of DEO Bajura 100 % female teachers and more than 95% male teachers had taken the subject mater trainings, however they were not trained on child psychological, how to behave and make child friendly teaching learning.

Measures that should be taken to improve the educational status of school:

Most of the participants told that for improving the educational status, different organization should conduct awareness raising programs for parents and should provide different educational materials, furniture and other necessary support to the school. There should be cooperation between school and the community, interaction among parents, teachers and students by conducting frequent parents teacher meeting so that counselling can be done to those students, who are weak, scholarships to the poor, deprived and hardworking students should be given, management of library and science laboratory and the division of sections of those classes where there are more number of students, need of training for school teacher, educational materials, practical lab, management of libraries, maintenance of school WASH facilities, ensure the adequate number of teachers and educational materials, maintenance of playground and school compound, etc.

Table 17. Baseline value of Project indicators related to school and education

	Mugu		Bajura		Total Mean (N=12)	Total Number
	Number	Mean (N=6)	Number	Mean (N=6)		
Number of enrolments per school	458	76.3	640	106.7	91.50	1098
Students appearing for exams	383	63.8	586	97.7	80.75	969
Students passing exams per year	375	62.5	552	92	77.25	927
Students leaving school in mid-year (Drop out)	19	3.16	9	1.5	2.33	28
Students who repeat the class (repeaters)	9	1.5	24	4	2.75	33
Types of school facilities	None of the school have facility of library, toilet, Almari. Some of the school had other type of facility but found inadequate		Most of the schools have not separate toilet, library and drinking water.			
Presently available supplementary teaching materials on nutrition, hygiene, food production	Only few (3) school had those materials with inadequate in number		Only one schools had materials regarding this but inadequate		Only few 4 school had those materials with inadequate in number	

schools who organized Bi-annual 'Food day' and 'nutrition week'	0	1		1
Number of 'nutrition week' celebrated	1	0		1
Number of participants of bi annual food day	None	60		60
Number of participants of nutrition weekly	97	None		97

3.4 Health and nutrition

3.4.1 Food items consumed during last 1 week

Respondents were asked about the food items women and children consumed during the previous one week prior to the survey. Table 18 shows that almost all the households (99.4%) had consumed food items made up of grains. More than three-fourth of the respondents (75.8%) mentioned consuming legumes/pulses. Other foods include fats and oils foods (55.4%), green leafy vegetables (38.8%), food made up of sugar (19.5%). Thirty seven percent of households mentioned eating milk, fish or egg. Almost 60 percent of the children were provided solid or semi-solid foods from 4 or more food groups.

Table 18. Food items consumed during last 1 week

	Mugu	Bajura	Total
Food items consumed during last 1 week			
Food made from grains	99.1%	99.6%	99.4%
Food made from legumes	86.6%	70.6%	75.8%
Green leafy vegetables	20.5%	47.6%	38.8%
Food made from roots and tuber	50.0%	34.6%	39.7%
Other vegetables	10.7%	15.2%	13.7%
Pumpkin/ Sweet potato	11.6%	22.1%	18.7%
Fruit	15.2%	14.7%	14.9%
yogurt /cheese	67.0%	42.4%	50.4%
Meat, fish, egg	61.6%	25.1%	37.0%
food made from oil fat, or butter	62.5%	51.9%	55.4%
Sugar and chocolate	6.3%	26.0%	19.5%
Food diversity (4 or more food groups)			
Yes	81.3%	49.8%	60.1%
No	18.8%	50.2%	39.9%

Food servings to pregnant and lactating women

Out of 344 households surveyed, around 33% of the households had pregnant or lactating women in the house. Respondents were asked about the number of food servings to the pregnant and lactating women during last 24 hours. The average number of food serving was 2.9 (SD = 0.7). Table 19 shows that around half of the women (47.8%) consumed 3 times food during past 24 hours, while the proportion of women who consumed food 2 times was 29.2%. Only 17.7% of the women consumed food for 4 times.

Table 19. Food servings to pregnant and lactating women

	Mugu		Bajura		Total	
	n	%	n	%	n	%
Presence of pregnant or lactating women in the house	n=112		n=232		n=344	
Yes	38	33.9	75	32.3	113	32.8
No	74	66.1	157	67.7	231	67.2
Number of food servings to pregnant or lactating women during last 24 hours	n=38		n=75		n=113	
2	12	31.6	21	28.0	33	29.2
3	16	42.1	38	50.7	54	47.8
4	4	10.5	16	21.3	20	17.7
Don't know	6	15.8	0	0.0	6	5.3

3.4.2 Perceived nutritional status of children

Women, having children below 2 years of age, were asked about the nutritional status of their children. Almost 22% of the women considered their children malnourished while 43.8% perceived them as normal and the remaining 27.6% considered good. Around 7% of the women mentioned 'Don't know' about the nutritional status of their children

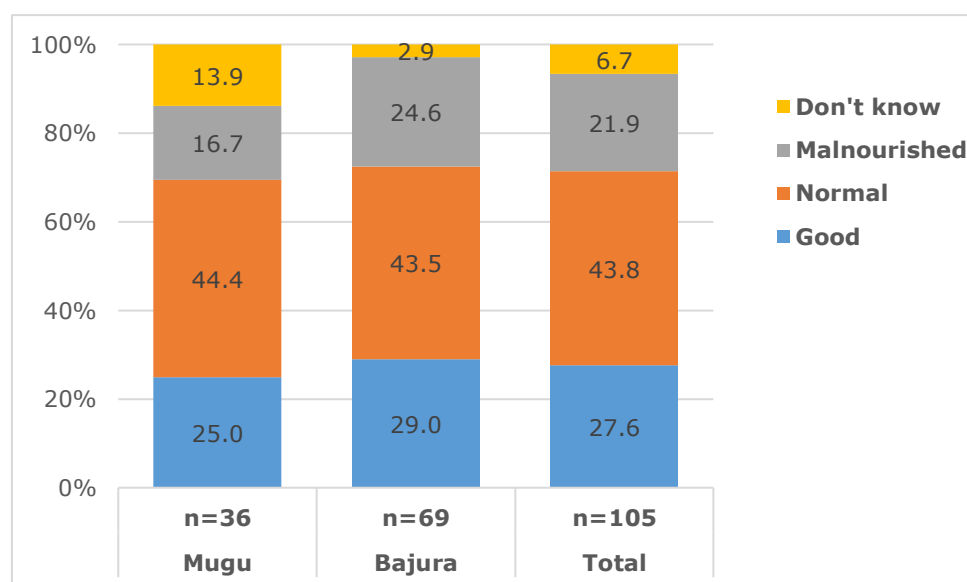


Figure 5. Perceived nutritional status of children

3.4.3 Antenatal care (ANC) service utilization

The proportion of women, with a child under 2 years of age, who received at least one ANC during the pregnancy of most recent birth, was 73.3 percent. In Mugu around 80% of the women had

received at least one ANC, while in Bajura, only 69.6% received ANC service. Out of the total women interviewed, only 30.5% had made the recommended 4 or more ANC visits. (Table 20)

Table 20. ANC care

	Mugu		Bajura		Total	
	n	%	n	%	n	%
ANC	n=36		n=69		n=105	
Yes	29	80.6	48	69.6	77	73.3
No	7	19.4	21	30.4	28	26.7
Number of ANC	n=29		n=69		n=77	
1	2	6.9	9	18.8	11	14.3
2	6	20.7	7	14.6	13	16.9
3	8	27.6	13	27.1	21	27.3
4	10	34.5	17	35.4	27	35.1
More than 4	3	10.3	2	4.2	5	6.5
Number of ANC visit	n=36		n=69		n=105	
Less than 4	23	63.9	50	72.5	73	69.5
4 or more	13	36.1	19	27.5	32	30.5

3.4.4 Delivery and postnatal care

The proportion of women, who delivered their last birth at health facility was 34.3%. Health facility delivery was higher in Bajura (39.1%) compared to Mugu (25.0%).

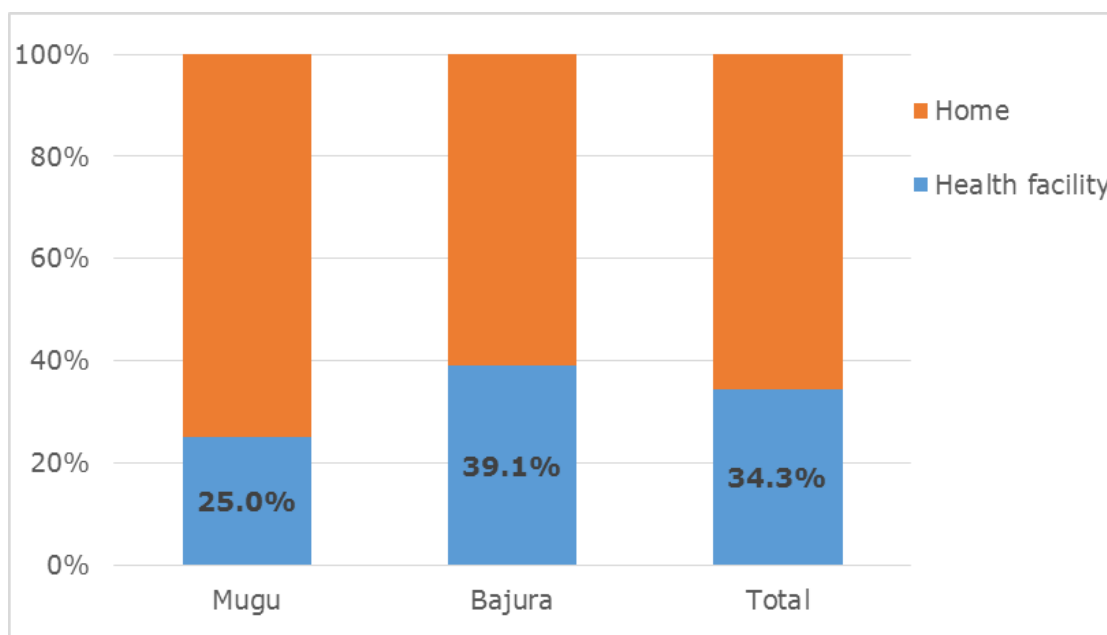


Figure 6. Place of delivery

Regarding the postnatal care (PNC), 42.9% of the women had received at least one PNC care during their most recent birth, while only 4.8% had made the recommended 3 or more PNC visits.

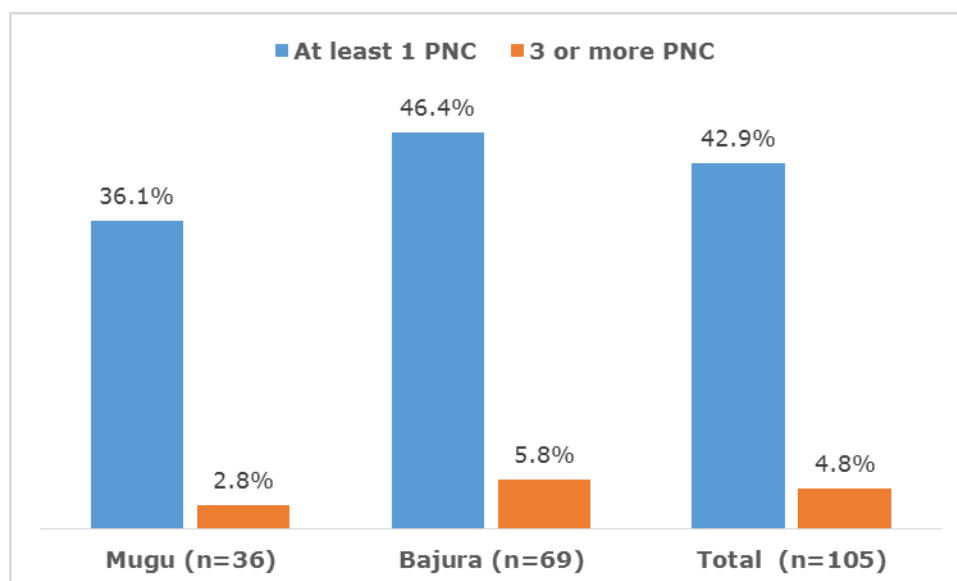


Figure 7. PNC visit⁴

The FGD participants of Bajura and Mugu discussed about the major health related problems especially to women, children, senior citizen and people with disabilities. Children (<5yrs) mostly suffered diarrhoea, typhoid in summer, pneumonia in winter. The majority of under five children suffered from malnutrition (**SUKENAS**) in both districts. Pregnant mothers regularly (4 times) went to health facilities, received iron tablets and usually pregnant mother used iron tablets in Bajura and delivery was done in health facilities and trained health personnel whereas FGD participants in Mugu shared their experiences most of the delivery was done in household level with the assistance of FCHVs.

The FGD participants said that last year, there were 2 cases of under five children death in Bajura and 5 in Mugu due to malnutrition and diarrhoea, because mothers were not aware how to prepare nutritious food (Sarbotam Lito) and oral rehydration therapy (Jeevan Jal) and Jeevan Jal also not available due to remoteness and poor economy people had not access to get treatment on time. Many of women in Bajura and Mugu suffered from uterus prolapse and elder citizen from respiratory ill health and **BATH** disease in winter. The participants in the studied areas mentioned that communities are not getting the benefits of government free drug schemes because they were not aware what types of medicines were provided by the government and what process they followed to get such facilities. While discussed with DHOs they said that women came for uterus problems, respiratory problems, malnutrition, night blindness, pneumonia and skin diseases are the major health problems. DHOs said that those problems mainly occurred due to lack of awareness, inadequate foods, food habits, smoking, etc. Two-third of the under five children were suffered from malnourishment, stunting, and iron deficiency anemia. The problems are more

⁴ Women, who delivered at health facility, were considered receiving the first PNC visit at health facility after birth.

severe among Dalit and poor families. The participants in KII from DHO also said that health worker retention in remote VDCs were another problem due to which community people are not getting proper services as expected.

3.4.5 Findings related to water, sanitation and hygiene practices

Source of drinking water:

The main source of drinking water was piped water, which was reported by majority (83.1%) of the sample households. Among the households who reported pipe water, almost all (94.8%) were referring to the community tap nearby the house. Around 10% of the households were dependent on stream and river spring water, while only 5.5% reported spring as the main source of drinking water.

Table 21. Drinking water

	Mugu		Bajura		Total	
	n	%	n	%	N	%
Main source of drinking water						
Pipe water	96	85.7	190	81.9	286	83.1
Stream/river	8	7.1	28	12.1	36	10.5
Spring	8	7.1	11	4.7	19	5.5
Other	0	0.0	3	1.3	3	0.9
Location of tap (in case of pipe water)						
Inside house	0	0.0	2	1.1	2	0.7
House yard	3	0.0	10	5.3	13	4.5
Community tap	93	96.9	178	93.7	271	94.8
Water fetching time						
Less than 5 minutes	2	1.8	20	8.6	22	6.4
5 to 15 minutes	85	75.9	130	56.0	215	62.5
15 to 30 minutes	24	21.4	56	24.1	80	23.3
More than 30 minutes	1	0.9	26	11.2	27	7.8

Around 62% of the households had source of drinking water within 5 to 15 minutes walking distance while 23.3% of the household had source of drinking water within 15 to 30 minutes. The proportion of households who had to walk more than 30 minutes for water fetching was 7.8% (0.9% in Mugu and 11.2% in Bajura).

Figure 8 shows that women were the ones, who were responsible for fetching water in more than 90% of the sample households, while children were also involved in water fetching in around 40% of the sample households because adults persons mostly engaged either in their farm or in rearing livestock.

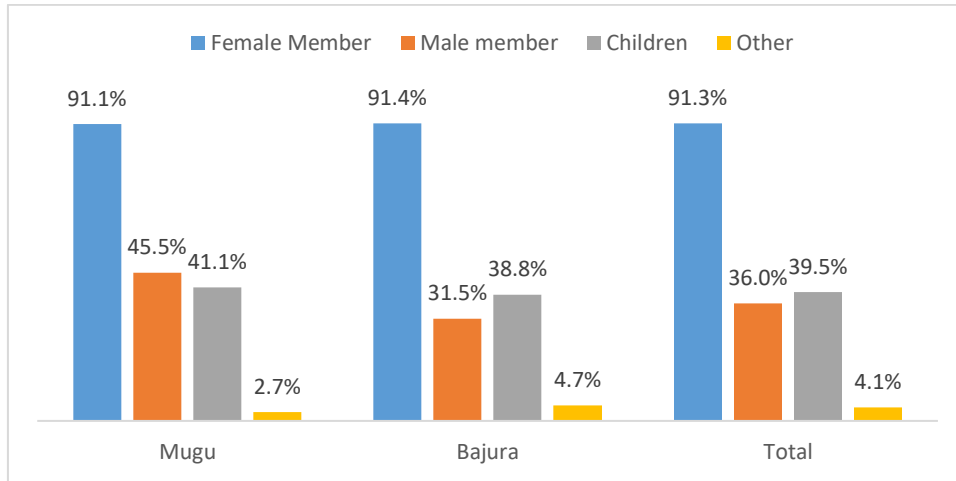


Figure 8. Person fetching water

Household water storage practice was observed during the time of interview. Only 52.9% of the households had water stored in covered container. The proportion of covered water containers was lower in Mugu compared to Bajura (45.5% vs 56.5%).

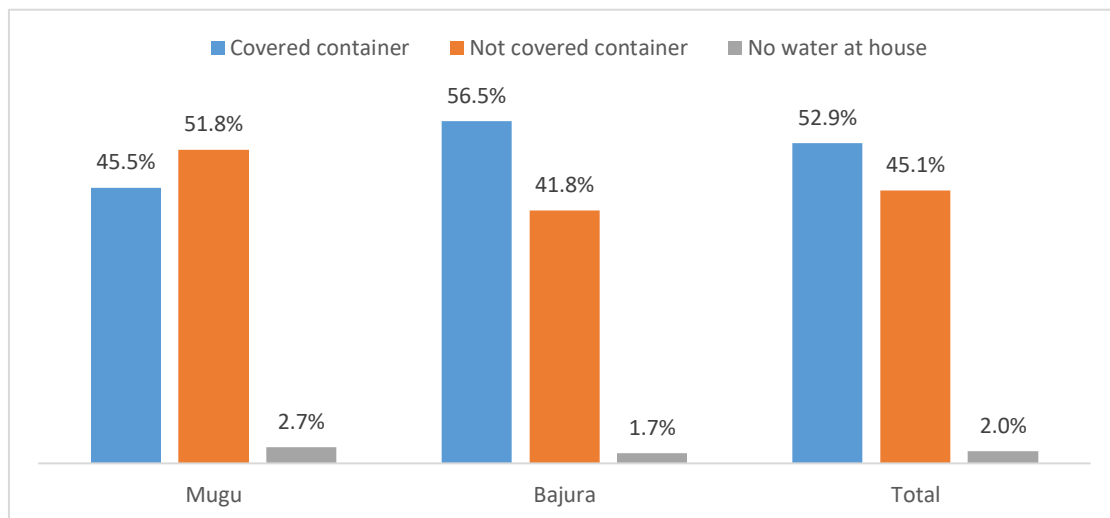


Figure 9. Water storage at household (at the time of observation)

Access to sanitation facilities

Out of 344 households, almost 93.3 % had toilet available at the household, which signifies better coverage in the study area. Slightly higher proportion of household in Mugu district (96.4%) had latrine compared to household in Bajura district (91.8%). Majority of the households (64.2%) had improved latrine i.e. water seal latrine.

Around three-fourths of the respondents (64.2%) mentioned that they had sufficient water to use in toilet, while 52% of the toilets had water available inside the toilet at the time of observation. Higher proportion of toilets in Mugu district had water available.

Table 22. Sanitation facilities

	Mugu		Bajura		Total	
	n	%	n	%	n	%
Toilet available at house						
Yes	108	96.4	213	91.8	321	93.3
No	4	3.6	19	8.2	23	6.7
Type of toilet						
Water-sealed	74	68.5	132	62.0	206	64.2
Traditional pit latrine	34	31.5	81	38.0	115	35.8
Water sufficiency in toilet						
Yes	79	73.1	127	59.6	206	64.2
No	29	26.9	86	40.4	115	35.8
Water available at toilet						
Yes	74	68.5	93	43.7	167	52.0
No	34	31.5	120	56.3	154	48.0
Toilet cleanliness						
Not clean (Foul smell, flies, dirty)	5	4.6	56	26.3	61	19.0
Somewhat clean	84	77.8	146	68.5	230	71.7
Clean	19	17.6	11	5.2	30	9.3

When observing the cleanliness of the toilet, only 9.3% of the households had clean (no fecal matter on floor and pan) toilet. Higher proportion of households in Mugu district had clean toilets (17.6%) compared to Bajura (5.2%).

Hand washing with soap and water

Handwashing practice was assessed by asking when they usually wash their hands with soap and water considering the six critical moments, which include before eating, before breast feeding or child feeding, before cooking and preparing food, after defecation, after cleaning a child that has defecated/changing child's nappy and after working in the field (touching dirt).

Outstandingly larger proportion (88.4%) of the respondents reported washing hands with soap and water. Major conditions reported for hand washing with soap and water were before eating (75.0%), followed by after defecation (73.0% and after touching dirt (60.2%). Other critical moments for hand washing such as before feeding child and after cleaning a child that has defecated were less frequently mentioned.

Around 20% of the households had no hand washing facility observed. Only 15.1% of the household had running tap water at handwashing station and 47.1% had water available in a container. Only 43% had soap available at the time of observation. (

Table 23)

Table 23. Hand washing with soap and water

	Mugu	Bajura	Total
Hand washing with soap and water (Multiple response)			
No handwashing with soap and water	2.7%	15.9%	11.6%
Before eating	82.1%	71.6%	75.0%
After defecation	86.6%	66.4%	73.0%
After working in field/dirt	77.7%	51.7%	60.2%
After cleaning children defecated	52.7%	43.1%	46.2%
Before cooking/preparing food	25.9%	46.1%	39.5%
Before breastfeeding/feeding child	14.3%	37.5%	29.9%
Hand washing station at house (Multiple response)			
No handwashing station at home	17.0%	20.7%	19.5%
Yes, running water	16.1%	14.7%	15.1%
Yes, water in container	69.6%	36.2%	47.1%
Yes, Soap available	42.9%	43.1%	43.0%
Yes, Ash, sand available	28.6%	22.8%	24.7%

Waste disposal:

Major methods of disposal of solid wastes generated at the household level were waste were throwing in manure/animal dung (39.1%), while around 43% of the households did not have any fixed arrangement of HH waste disposal or alternative disposal. Households in Bajura districts were more likely to dispose the solid waste elsewhere. Dumping and burying were less frequently mentioned.

Regarding the liquid waste management, more than one-fourths of the households practiced throwing in a pit (28.7%) and similar proportion of the households (25.1%) mentioned throwing at kitchen garden. Again 31% of the households throw the liquid waste elsewhere. (Table 24)

Table 24. Method of household waste disposal

	Mugu		Bajura		Total	
	n	%	n	%	n	%
Solid waste management						
Dumping	15	13.4	14	6.1	29	8.5
Burning	10	8.9	23	10	33	9.6
Throwing in manure	51	45.5	83	35.9	134	39.1
Throw elsewhere	36	32.1	111	48.1	147	42.9
Liquid waste management						
Throw in kitchen garden	40	35.7	46	20.0	86	25.1
Throw in land	3	2.7	23	10.0	26	7.6
Throw elsewhere	13	11.6	93	40.4	106	31.0
Throw in pit	44	39.3	54	23.5	98	28.7
Other	12	10.7	14	6.1	26	7.6

The researcher visited the temporary shelter in Safe Bagar area, where the migrated people had made their shelter from Trampoline (Tripal) and locally available materials and living in congested and unhygienic condition. In the temporary settlement area, there was poor sanitation and usually did open defecation.

3.5 Service center available at community and its utilization

The survey asked about the different types of government services available at the community and the visits made by the respondents during last one year. Table 25 shows that all of the respondents mentioned availability of schools at their communities in both of the study districts.

Table 25. Service centers at community

	Mugu		Bajura		Total	
	n	%	n	%	n	%
Service center available at community						
Health facility	92	82.9	197	86.4	289	85.3
Agricultural center	60	54.1	50	21.8	110	32.4
Livestock service center	29	26.1	84	36.1	113	33.2
School	111	100.0	229	100.0	340	100.0
Police station	55	49.5	51	22.3	106	31.2
Other	3	2.7	6	2.6	9	2.6
Visited service center during last one year						
No	15	13.5	24	10.5	39	11.5
Health facility	61	55.0	143	62.4	204	60.0
Agriculture resource center	29	26.1	36	15.7	65	19.1
Livestock service center	18	16.1	52	22.7	70	20.6
VDC/DDC	80	72.1	177	77.3	257	75.6
School	87	78.4	184	80.3	271	79.7
Other	2	1.8	3	1.3	5	1.5

Availability of health facility at the community were mentioned by 85.3% of the respondents, while the other service centers such as agricultural and livestock service centers were mentioned less frequently. Schools, VDC/DDC office and health facilities were mentioned as the more frequently visited service centers during the last one year, while livestock resource center and agriculture resource centers were less frequently visited by the respondents. (Table 25)

CHAPTER IV. CONCLUSION AND RECOMMENDATION

4.1 Conclusion

Agriculture and livelihood

There is poor level of awareness on farmer groups on improved crop production technologies and very low level of adaption of improved seeds and fertilisers in both studied districts. While compared with Bajura, Mugu is slightly better position for adaption improves agricultural practices. Farmers cultivate crops in rain fed condition and used local seeds except some Cole crops, traditional and local crop seeds having low productivity and produced low level of yield per unit area. Mostly two crops are grown in a year, in well irrigated land vegetable crops grown between rice and maize. Mostly in low land rice-wheat/maize and upland maize-wheat/millet, that cropping pattern reduced the soil fertility. Some of the farmers grow beans along with maize that practices contribute to increase the soil fertility. Majority of farmers they can feed from their own production up to six months and they depend on GON subsidized rice grain distributed from Nepal Food Corporation. High altitude people their livelihood is depend on animal husbandry mostly sheep and goat and they used local breeds, low production of meat and wool and faced grazing problems in winter season, because snow fall and no grazing land and migrated to lower area for grazing sheep and goat and at the same time they to the business of woollen products for their cash income. The farmers had lack of awareness and generally there was inbreeding practices in their sheep and goat heard. The inbreeding within family in sheep and goat is leads the low productivity.

Farmers groups are formed in all studied VDCs, but the group nearby DADO and Agriculture Service Centre relative get some support but farmer group who are far from service centre and DADO hardly provided technical services and other improved seeds and technologies. There is the need of promotion of cereal crops to stop the food deficit and hunger and vegetable and fruit crops for cash income. But there is need to value chain study of viable high value crops to address the need of local beneficiaries along road corridor. The world food day, *Dhan Divas* (Rice planting day) and agricultural exhibitions are mostly concentrated in district headquarter, that does not support to create awareness about improved agricultural practices where farmers are living in rural area and remote VDCs. Women farmer and Dalit groups formed in most of the studied area and they are interested to promote improved agriculture technologies but at present they could not get technical assistance and knowledge and skills what they expected. Most of they are not registered in DADO and due to lack of registration they couldn't able to get services from DADO/agriculture centre too.

DDC budget mostly allocated to infrastructure (road, school and community building) construction rather than in agriculture, education and health, however a small portion of VDC budget is allocated in agriculture, education and health but those budgets were not sufficient enough and did not observed positive change on those sector. Lack of coordination between local bodies and linne agencies and parellen planning system exist in line agencies may makes difficulties and plan and budget presentation in district council is ritual, because line agencies are more responsible towards their line ministries rather than local bodies.

In both districts there are limited agricultural land, high and steep slope, lack of irrigation and poor adaptation of improved seeds and technologies productivity and production per unit area found low. There are more number of households were fed their own production up to 3 months and no one have food sufficiency and they either brought from Nepal Food Corporation or from market. Due food deficit problem under five children suffered from malnutrition and pregnant mother hardly get enough food. There is need to promote private sector in agriculture and livestock sector for providing improved technologies and that will support to increase production and productivity in agriculture and livestock. Community people have not practice to grow vegetables and they mostly used beans (**DAL**) what they produced in rainy season. The participants in KIIs mentioned that food diversity found lower level and they do not have skills preparing different food items from potato, wheat, rice and beans.

Farmer groups in both districts suggested for irrigation support, improved seeds and cultivation practices and improvement in agriculture cultivation, post-harvest support for improving the food availability and sufficiency.

Education

The education level of community schools are not satisfactory, traditional teaching practices-reading the text book and given verbal instruction and lack of practical class, lack of teaching aids difficulty get good results. In other hand school teachers taken leave and mostly they didn't back on duty on time, teachers were irregular, books are not available on time and parents are not cautious on their children education those contribute low level of educational performance. These problems are more pertinent in Mugu as compared with Bajura. School going children of high altitude VDCs are migrated with their parents and they could not go school from November to March/April (3 to 4 months) and when they back to their school there is no special provision made by the school, DDC, VDC and DEO and high chance of class repetition and drop out. The drop out mostly found in migrated and Dalit community children because they didn't attended in classes as stipulated days by ministry of education (MOE) they went along with their guardian in seasonal migration and went them to collect herb (Yarsgumba) for their cash in come to by food and clothes for a year. The national educational calendar does not fit to high mountain region school education where there is long winter and snowfall and people migrates with their school going children to escape cold weather and cash income selling their animal products (woollen products and NTFPs). Migrated children are worried about their education and continue their school education, but without parent support they could not back in schools. There is lack of sports and extracurricular activities in schools, students are demanding sports materials, which will support their physical and mental growth and motivation to go school regularly. The day time *Khaja* (Tiffin) motivated to go school and that support to minimise school dropout.

Health and nutrition

Community people didn't get benefits from GON free medical scheme from health facilities and basic vaccination to under 2 years children mostly staff are in absence in health facilities, the problems more prominent in Mugu than Bajura district. The under five year children commonly suffered from diarrhea, pneumonia, malnutrition, typhoid, night blindness and women from proleptis, pregnant and lactating mother deficit of nutritious food and elder citizen from cough

and **BATH** diseases in both studied districts. Generally pregnant mother did four times health check-up during pregnancy period in health facilities and did the delivery in health facilities and even assistance from FCHV, however in Mugu utilising such facilities by pregnant mother is lower than Bajura district.

The sanitation and hygiene situation of seasonal migrated community in temporary shelter especially children and women are found very weak, limited space inside the shelter, congested and mostly they had open defecation practices. Two pregnant women and one child were dead in Mugu last year in the studied area due to poor health condition of women and malnourishment of child.

While discussed with DDC officials, the DDC budget mostly allocated for infrastructure (road and school building) construction. Politician work for vote bank and people are also demanding infrastructure rather than educational, health, entrepreneurs and agriculture supports activities. Whereas few VDCs secretaries of Mugu district said their village council allocated 15% annual budget in each agriculture, health, education, sanitation and hygiene sector, 35% for women and Dalits and 20% for infrastructure. There is no any especial programme for seasonal migrated children from DDC and VDCs.

4.2 Recommendation

Based on the finding the following recommendation given for further improvement and project intervention:

Agriculture

- The production and productivity of agriculture land was found poor in the study area. It is required to to promote mixed, inter cropping with improved varieties of seeds and application of manure and fertilizer with promotion of improved agriculture technologies at farmers' level which contribute food security.
- There are many farmers groups (especially women and dalits) but they are not registered in DADO, the project need to facilitate them to make registration in DADO and build the formal relation between service providers and receivers that support to disseminate new and improved agricultural technologies in communities.
- There is need to promote agriculture inputs and technologies supplies chain in coordination with private sector and cooperatives. The road network and road corridor are in increasing trend which has opened opportunity for viable high value crops (HVC) along the road corridor. It creates opportunities to farmers to get market linkage and market place to sale their products and support their economic growth.
- Local communities are depends on imported food grain from Terai. To reduce the dependence of food grain from Terai, there is a need to implementation of new small irrigation scheme and rehabilitation of irrigation cannels in collaboration with DADO, district irrigation office and communities.
- Almost HHs in the study area do not have enough production from their farm land and they have to depend on wage labour, livestock and foreign employment. So there is need of creating off farm livelihood option in the project area. The project needs to promote off

farm employment opportunities through skill promotion to youth and entrepreneurship development as alternative option and coping strategies for their livelihoods.

- The high altitude farmers are depended on livestock rearing especially goat and sheep, due to lack of technical knowledge there are usually keeping local varieties of herds which have low livestock productivity. On the other hand, there is no improved fodder and grass cultivation practices. Therefore the project could orient to farmers on improved livestock management, introduction of improved breeds and fodder/grasses cultivation practices and preservation support to livestock production.
- The promotion of kitchen gardening and fruit cultivation in the study area will support to improve nutritional status of under five children and pregnant/lactating mothers and also support to increase household economy.

Education

- The national level education calendar may not fit in high mountain area and need to make advocacy for revision of educational calendar and school holidays as considering snowfall and Yarsagubba collection time.
- The educational text books in mountain area do not reach on time. In addition, there is lack of physical infrastructures and extracurricular activities in schools. Making necessary arrangements for availing the textbooks on time in coordination with private sector is important. Efforts should also be made to improve the physical facilities and promoting extracurricular activities in schools that will decrease the school drop out rate of students.
- As considering the availability of working days (escaping winter and rainy season) in mountain area either needs to make amendment of text book or manage the working hours of opening the school for the benefits of migrated children to give opportunities to them for their school education.
- The school children have kin interest in extracurricular activities in schools, but there is lack of physical facilities like playground, sports material and sports teachers in schools. So provision and improvement of extracurricular activities in school motivate to school children for their regular attendance.
- The migrated children have shown great enthusiasm to go to school for reading and writing. So, provision of special class and tuition will support to recover their education.
- The migrated school children parents do like to continue their kids' education, but they have no other option taking them in temporary settlement. The provision of hostel with food to potential migrant children during winter and rainy season will support to give continuity for their education.
- The schools teachers who are on leave are not to back on time, the school administration and DEO need to monitor those teachers who are not back after leave.
- The day meal and cooking oil support to school children and especially dalits student has showed positive impact on regular attendance in classes. So, such system need to give continuation in the future day.

- The school performance observed very low and DEOs are also not satisfied from the results. Though the teachers were found on trained on content area, however, they have not trained on children psychology and children friendly teaching techniques. Therefore provision of children friendly and psychological training will contribute to increase school and teacher performance in school education.

Health

- Community are not aware on the provision of free medicinal scheme of the government, so orientation to community on such scheme and keeping a citizen charter in Nepali will increase access to health facilities and also increase accountability of health facilities toward service receivers.
- Lactating mother and care taker of under-five children are not aware how to prepare nutritious food for their children. So, pregnant/lactating mother and care takers need to orient how to prepare nutritious food from locally available grains.
- Health facility delivery and postnatal service utilization among women in the study area are found low. Efforts should made to promote service utilization.
- The sanitation and hygiene coverage found quite satisfactory, however the behavioural practices need to improvement, because a large proportion of households do not know the critical handwashing time and use of soap and water. The orientation and campaign of promotion of proper handwashig will support to make positive change in sanitation and hygiene. Especial attention should be provided in temporary shelters where the sanitation hygiene condition is very poor.

ANNEXES

Annex I: Baseline values of major project indicators

Data Requirements	Mugu	Bajura	Total	Remarks
# of enrollment (disaggregated by sex, caste/age)in FORMAL SCHOOLS (per year/ per school/vdc);	458	640	1098	# of enrollment in formal schools (12 sample schools)
types of school facilities available;	None of the school have facility of library, toilet, Almari. Some of the school had other type of facility but found inadequate	Most of the schools have not separate toilet, library and drinking water.	Facilities found inadequate	
# of students passing exams per year/school/vdc (disaggregated by sex/age/caste)	375	552	927	Disaggregated data not available
# of students appearing for exams per year/school/vdc (disaggregated by sex/age/caste);	383	586	969	Disaggregated data not available
# of children (disaggregated by sex/age/caste) enrolled in primary level (class1-5) YR -1(2014) TO YR 0(2015)	458	640	1098	Disaggregated data not available
# of children (disaggregated by sex/age/caste) leaving school in mid year yr-1 to yr 0 ;	19	9	28	Disaggregated data not available
# of repeaters (disaggregated by sex, caste/age) per year	9	24	33	
Presently available supplementary teaching materials on nutrition, hygiene, food production & cr	Only few (3) school had those materials with inadequate in number	Only one schools had materials regarding this but inadequate	Only few 4 school had those materials with inadequate in number	
attitude of parents towards importance of education for their children	Refer to Table 16			
% of parents sending schools every school days	28.8	53.4	45.2	
# of demonstration plots having improved technologies and varieties ;	There is no demonstration plots found. Households are practicing traditional agricultural practice. Around 91% of the households have agricultural land available. Only 6.8% reported practicing improved agriculture.			
% of households increased production of crops	11.70%	8.00%	9.20%	

Data Requirements	Mugu	Bajura	Total	Remarks
% of households with affiliation to farmers groups	37.80%	24.50%	28.80%	
% of households with food secure months (More than 9 months)	20.10%	5.30%	10.00%	
Toilet coverage	96.40%	91.80%	93.30%	
% of HH practicing healthy food habits (Food Diversity)	81.30%	49.80%	60.10%	
# of pregnant & lactating mothers, and children under 5 years (measures: reduced protein energy malnutrition rates for children under 5 who have improved nutritional status)	NA	NA	NA	
# of children under 5 years (measures: reduced protein energy malnutrition rates for children under 5 who have improved nutritional status)	NA	NA	NA	
# of pregnant and lactating mothers who have improved anemia level	NA	NA	NA	
# of anemia cases reported for pregnant and lactating mothers	NA	NA	NA	
# of cases reported for stunting/wasting and underweight (all data disaggregated by vdc/sex/caste)	NA	NA	NA	
# of schools who organized Bi-annual 'Food day' and 'nutrition week'	0	1	1	
# of Bi-annual 'Food day' celebrated	0	1	1	
# of 'nutrition week celebrated	1	0	1	
# of participants (disaggregated types -students ,teacher/ sex/caste/ethnicity) of bi annual food day	0	60	60	Disaggregated data not available
# of participants (disaggregated students /teacher/sex, caste) of nutrition week	97	0	97	Disaggregated data not available
# of alternate education initiatives that are started/ ongoing	0	0	0	

Annex II: Baseline Survey tools

(Attached in a separate folder)

Annex III: List of qualitative study participants and informants

List of schools where FGDs with children were conducted

Name and address of School	Total No. of Students	Total no. of teachers	Establish date
Nepal Rastrya Primary School Sorukot	46		
Nepal Rastriya Lower Secondary School	150	8	2024
Shree Sarbodaya Higher Secondary School, Sukadhik Mugu	408	16	2017
Thum Thala Primary School		5	2045
Duddhoshella Primary School	102		
Shree Bhawani Secondary School	365	14	2045

List of participants in Qualitative study (FGDs and KIIs)

S. No.	Name of Participant	VDC	District	Remarks
1	Manu Regmi	Kolti-3	Bajura	FGD with farmer group FGD
2	Raj Kala Regmi			
3	Apsara Regmi			
4	Sarmila Sanjel			
5	Hajari Bharati			
6	Janaki Devi Regmi			
7	Nara Kala Regmi			
8	Isara Regmi			
9	Ban Kala Regmi			
10	Bhidi Regmi			
11	Kala Khatry			
12	Ramaiti Jaisi			
13	Rabina Joshi			
14	Goma Regmi			
15	Sita Rregmi			
16	Dhauri Devi Rokaya	Dahakot-6	Bajura	FGD with farmer group
17	Nimi Rokaya			
18	Nirmala Rokaya			
19	Gita Rokaya			
20	Ganga Rokaya			
21	Jhalla Rokaya			
22	Durga Rokaya			
23	Jaikala Rokaya			
24	Gauri Sarki	Gotri -3	Bajura	FGD with farmer group
25	Birman Sarki			
26	Dudha Kala Sarki			
27	Kalikala Sarki			
28	Sima Sarki			
29	Jangre Sarki			
30	Asaso Sarki			
31	Dauri Sarki			
32	Krimi sarki			
33	Lali Thapa	Safe Bagar	Acham	FGD with migrated community from Pandusen VDC, Bajura
34	Tani Thapa			
35	Padam Bahadur Thapa			

36	Jagat Bogati			
37	Chandra Thapa			
38	Inda Thap			
39	Chin Bahadur Bista	Budhiganga-5	Acham	FGD with migrated group from upper Bajura
40	Mati Thapa			
41	Ram Bahadur Karki			
42	Sika Karki			
43	Thamos Bista			
44	Mangal Thapa			
45	Madan Thapa			
46	Pasang Lamu Gurung			
47	Pailamu Gurung			
48	Tshiring Thapa			
49	Mohan Lal Karki			
50	Kesang Bhandari			
51	Bishnu Lal Pande	Rugin-2	Acham	FGD with Farmer Group
52	Iswari Pande			
53	Dipu Pande			
54	Nama Karan Pande			
55	Hari Chandra Pande			
56	Anga ram Pande			
57	Chhirkali Pande			
58	Jhupa Pande			
59	Berma Rokaya	Kolti-6	Bajura	Farmer group member KII participant
60	Dhirjana Budha	Gotri-2		
61	Hajari Bohora	Dahkot-9		
62	Tulasa Kami	Gotri-2		
64	Manu Pande	Rugin-2		
65	Raju Rokaya	Sukadik-5	Mugu	FGD with Farmer Group
66	Kusha Rokay			
67	Dhurba Rokaya			
68	Jamuna Rokaya			
69	Lalkala Rokaya			
70	Prima Rokaya			
71	China Rokaya			
72	Saura Rokaya			
73	Panya Sarki			

74	Nyaura Sarki			
75	Muga Nepali			
76	Tara Sarki			
77	Sangita Rokaya			
78	Tank Bahadur Bsta	Jima-2	Mugu	FGD with Farmer Group
79	Jagisara Bista			
80	Panna Budha			
81	Kiranji Bista			
82	Dan Singh Bista			
83	Mitra Bista			
84	Sinki Bista			
85	Kaman Singh Bista			
86	Jagat Bista			
87	Jaya Lal Bista			
88	Ujala Bista			
89	Basanti Bhandari	Phulu-9	Mugu	FGD with migrated
90	Reshu Bhandari			
91	Nanda Bhandari			
92	Padami Tiwari			
93	Magi Bhandari			
94	Danta kala Tiwari			
95	Nanda Tiwari			
96	Lalpura Bhandari			
97	Khanyati Tiwari			
98	Sauni Bhandari			
99	Bhaduri Tiwari			
100	Laxim Bhandari			
101	Debu Bhandari			
102	Resu Bhandari			
103	Ramu Bhandari			
104	Manisha Damai	Seri-9	Mugu	FGD with farmer group
105	Rusara Malla			
106	Basana Shashi			
107	Ujala Shahi			
108	Rekha Pariyar			
109	Langya Shahi			
110	Punna devi Malla			
111	Maya Devi Malla			

112	Ratna Devi Malla			
113	Rajpura Malla			
114	Swati Shahi			
115	Saraswati Budha	Seri-1	Mugu	FGD with migrated
116	Ujala Budha			
117	Chaiti Budha			
118	Hajari Budha			
119	Nyauli Budha			
120	Saneni Budha			
121	Magi Budha			
122	Aaitu Budha			
123	Haikali Budha			
124	Hajjati Budha			
125	Saura Byal	Seri-4	Mugu	FGD with Farmer Group
126	Dhamal Bhyal			
127	Chin Kala Tamata			
128	Siddha Kala Byal			
129	Jaukala Tamata			
130	Rupa Tanmat			
131	Jan Devi Tamata			
132	Punnu Tamata			
133	Panasara Tamata			
134	Rammati Bhyal			
135	Kuskala Byal			
136	Prema Giri	Sukadhik-1	Mugu	KII farmer group
137	Kamala Lawad	Jima-8		
138	Lalpura Bhandari	Phulu-9		
139	Manisha Damai	Seri-9		
140	Chhebang tenjing Tamang	Phulo-1		
141	Arjun Rokaya	Martadi	Bajura	KII with GON officials, M/E Officer, DDC, Bajura
142	Ram Duttga Neupane	Kolti		VDC Secretary
143	Amrita Giri	Gotri		Social Mobiler
144	Damber Rokaya	Dahkot		Accountant
145	Min Bahadur Jaisi	Martadi		JT/DADO, Bajura
146	Ghamanda Bharati	Kolti		Agriculture service center, Kolti
147	Narendra Prasad Regmi	Martadi		DEO, Bajura
148	Rajendra Bhatta	Martadi		M/H Officer, CARE

149	Uttam Pandey	Martadi		Ag. Officer, CARE
150	Pema Thapa	Safe bagar		FGD with Student, Migrated from Pandusen-5, Bajaira,
151	Akash Thapa			
152	Nani ram Thapa			
153	Samjhana Thapa			
154	Suresh Thapa			
155	Pashan Thapa			
156	Janak Bahadur Malla	Gamgarhi	Mugu	KII- LDO, DD, Mugu
157	Biswarup sawat	Jima		VDC secretary
158	Karna Bahadur karki	Sukadhik		VDC Secretary
159	Khadga Bahadur Khatri	Seri		VDC official
160	Jabhar Lal Hamal	Gamgarhi		DEO, Mugu
161	Dr. Chandra Prasad Risal	Gamgarhi		DADO, Mugu
162	Milan Kumar Sejuwal	Karki Bada	Mugu	Agriculture service Centre
163	Dr. ratnabir Sunar	Gamgarhi	Mugu	DHO, Mugu
164	Mohan Mananadhar	Martadi	Bajkura	FO, CARE Nepal

