DFID-Nepal Rural Access Programme 3 (RAP-3)
Monitoring, Evaluation and Learning (MEL) Component

Mugu-Humla Link Road Household Baseline Survey (2019)

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In association with Square One Research and Training Ltd. and Statistics for Sustainable Development (Stats4SD)

Results in development

Disclaimer

Contents

List of acronyms

DFID	Department for International Development
FCS	Food Consumption Score
GoN	Government of Nepal
HH	Household
MEL	Monitoring, Evaluation and Learning
MHLR	Mugu-Humla Link Road
RAP-3	Rural Access Programme 3
RBG	Road Building Group
RMG	Road Maintenance Group
ToC	Theory of Change

1. Introduction

This report provides the results of two rounds of household surveys conducted between May and July 2019 that together provide a baseline assessment of households that reside along or close to the Mugu-Humla Link Road (MHLR) in Karnali Province in western Nepal. The MHLR is a 67km road that is in construction (construction completion is scheduled in late 2020) that will link the two districts of Mugu and Humla together. Humla is the last district in Nepal that is unconnected to any other road network in Nepal.

This household (HH) baseline uses two rounds of surveys: 1) a sub-set of HHs from the main RAP-3 endline impact assessment that covers eight districts across western Nepal, including Mugu and Humla, and 2) additional HH surveys sampled along the MHLR trail. Together this sample of 184 HHs provides a baseline of HHs. The surveys were completed around the same time of the year as the MEL impact assessment (2014, 2016 and 2019) to attempt to minimise any variables which would be impacted by seasonality particularly relating to the impact of agricultural seasons. The same questionnaire was deployed for the MHLR survey as was used in the RAP-3 endline impact assessment.

The baseline of HHs should be followed up by DFID and other stakeholders with additional surveys in the future to capture the impact of the MHLR once it is completed, and some years after the completion of the road. It is assumed that once the MHLR is completed it will be open to motorised vehicle traffic that will stimulate wider changes in this impact area, particularly for communities living along or close to the road allignment. The MEL component recommends that DFID follow-up a HH survey in 2021, once the road is completed, and again in 2026 some years after the road is completed. DFID should also consider follow-up surveys to the wider impact assessment (close to 3000 HHs) for the eight districts that RAP-3 and RAP-MHLR operates in to assess change at the community level over time.

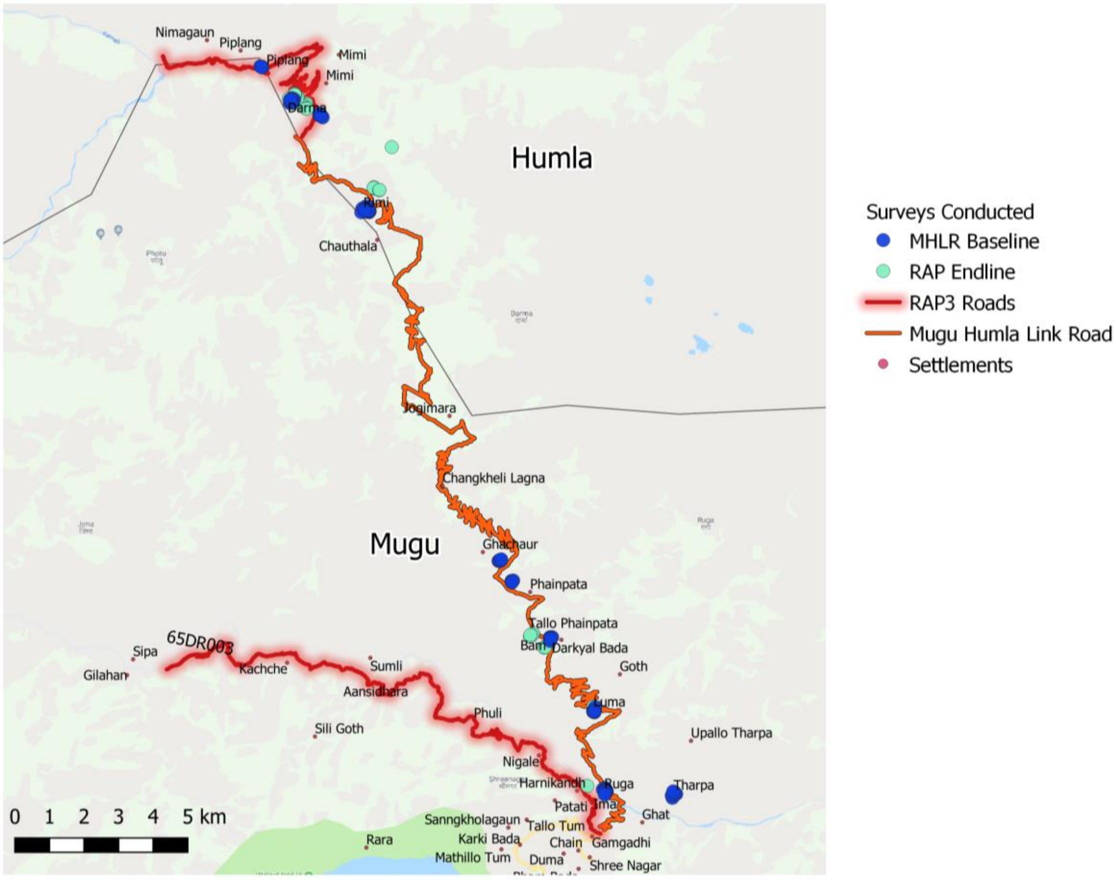
N.B. This report should be read in conjunction with the RAP-MHLR Market and Transport Study that details transport and market data in the same region. This report has been produced separately so as to keep the thematic findings separate and easier to read. However both reports should be read in tandem to fully under the baseline picture of the MHLR impact area.

2. Survey Location and Data

Interviews were take from a total sample of 184 households and these were included in this analysis. The household surveys were taken as part of the main Endline household impact assessment (covering around 3,000 HHs) undertaken by MEL as part of the overall impact assessment of RAP-3 across eight districts in Karnali Province and Sudurpashchim Province.

For the MHLR household baseline, a sub-set of HHs interviewed at the Endline were used. These HHs are situated in Humla and Mugu close to the beginning and end of the MHLR road that is under construction. In addition, a further 130 new HHs were interviewed to supplement the Endline – these HHs were purposively sampled along the MHLR trail using the same questionnaire as the Endline. Figure 1 locates these HHs along the trail.

Figure 1: Location of HHs along MHLR: RAP-3 endline HHs and MHLR-additional HHs



- **From the main RAP-3 Endline 2019 survey:** 54 households, from 6 communities, were interviewed as part of the RAP-3 endline survey conducted across all 8 of the RAP-3 implementation districts. These interviews were conducted in May 2019. From within this survey these 6 communities, which had been randomly selected from the communities within Mugu and Humla, were located along the route of the Mugu-Humla Link road. The communities the data was collected were Bam, Darma, Luma, Mimi, Rimi and Tharpa. At the RAP-3 baseline survey in 2014 there were 10 households randomly selected for interview in each of these six communities. 6 of those initial 60 households had been lost to follow-up up to the endline.

- **Additional HH surveys:** 130 households were interviewed as part of an additional survey in the region, conducted in July 2019. The additional samples were taken in order to ensure representativeness. While doing so 10 additional households were taken from each of the same 6 communities as part of the RAP-3 endline survey: Bam, Darma, Luma, Mimi, Rimi, and Tharpa without duplicating households that were interviewed in RAP-3 endline survey. Furthermore, 10 households were sampled from Piplang and then 20 households from each of the Ruga, Darkhe Khola, Bohara gaun were taken.
- **A combined total of 184 household surveys** were conducted along MHLR between May-July 2019, from the two surveys outlined above.

3. Analysis

The report presents the baseline analysis for the households surveyed as part of the MHLR household baseline study. Several topline indicators are presented here.

3.1 Demography

The results show that nearly two-thirds of the households interviewed for the MHLR baseline belong to the Chhetri caste group. Almost all of the heads of the households are male. The average size of the household is over five people per household.

Table 1: Household demographics: household head – caste

Sub-Group	n	% tot
Brahman (Hill)	12	7
Chhetri	127	69
Damain (Dholi)	11	6
Kami	31	17
Thakuri	2	1

Table 2 Household demographics: household head by sex

Household head (by gender)	n	% total
Female	16	8%
Male	167	92%

Table 3 Household size

Average HH size
5.67

As shown in table 4, a majority of HHs have been involved as a RBG member in RAP-3 and also in the MHLR construction work. This is unsurprising given the low population density in the impact area and the need for labourers to assist in the construction of the work.

Table 4 Involvement in RAP

	% Yes
Involvement in RAP RBG	73%
Involved in MHLR RBG	66%
Involved in RAP RMG	5%

The dependency ratio is 98:100 (or 98%). This means that it is almost 1:1 – and what this means is that for every one working age adult in the household there is at least one dependent household (old-aged member, disabled member, etc.).

Table 5 Dependency ratio of the member of household

Dependency Ratio
98%

The household construction and facilities refers to the facilities and material structure of households along the MHLR. A majority report safe water source (for drinking water) but lack of flush (or hygenic) toilets. Very few have galvanised iron roof material.

Table 6: Household Construction and Facilities

3 or less bedroom	Safe Water Source	Flush Toilet	Galvanised Iron Roof
92%	80%	4%	18%

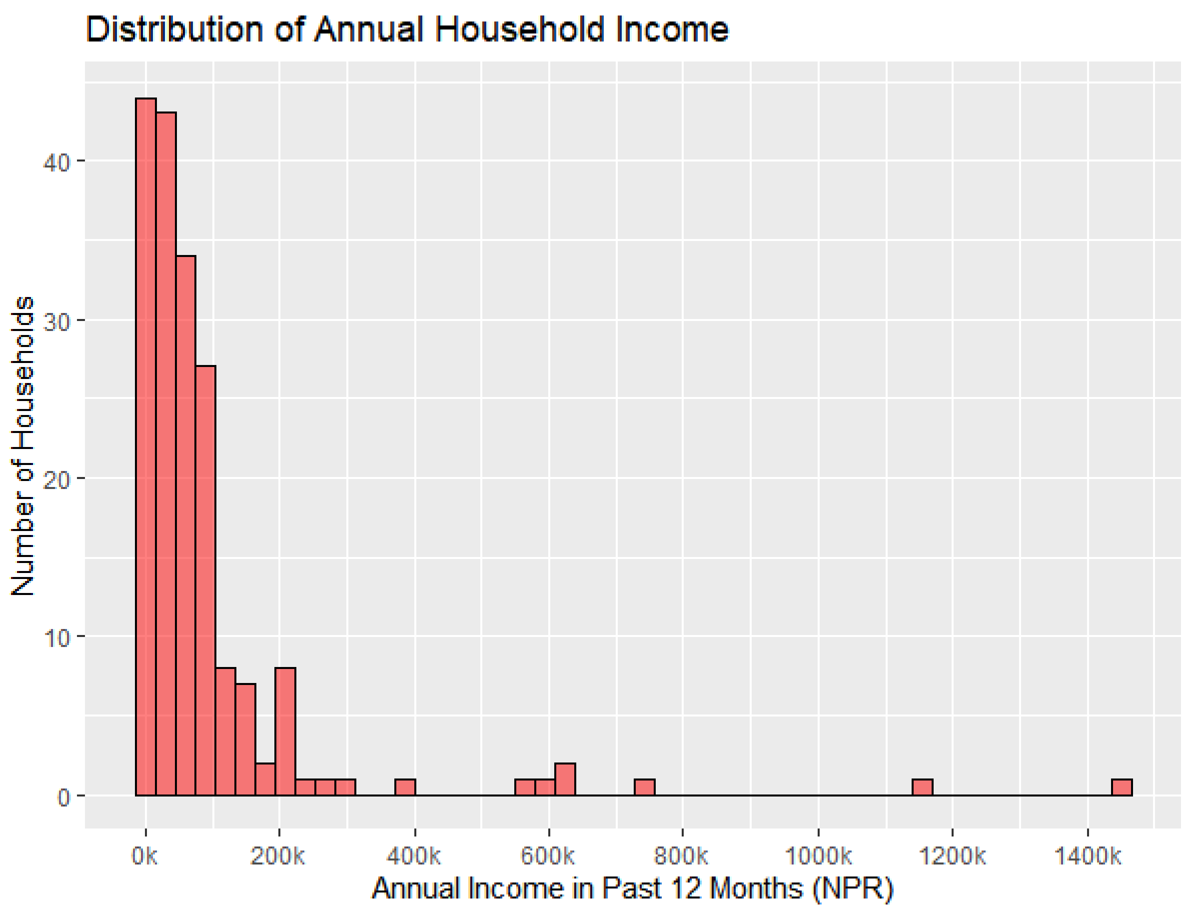
3.2 Income

This section provides a snapshot of the total household income and the reported source of income.

<u>Total Income</u>

Combining all sources of income recorded in the survey the median income of the households was 48,500 NPR/year. 29 of the households did not record any cash income in the past 12 months.

Figure 2: Distribution of annual household income



The breakdown of the sources of income are shown below, as the % of households receiving any income from this source (adds to more than 100% since households can receive multiple sources of income) and as the average % of households income that each source provides (adds to 100%).

Table 7: Sources of income

Source of Income	% Households Receiving Any Income	Average % Contribution to Total Income
Wages	72.2%	71.1%
Benefits	36.0%	18.7%
Herb sales	6.5%	2.0%
Enterprise	5.4%	5.9%
Crop Sales	4.3%	1.0%
Remittances	1.6%	0.9%
Animal products	1.1%	0.5%

Figure 3: % households receicing income by source

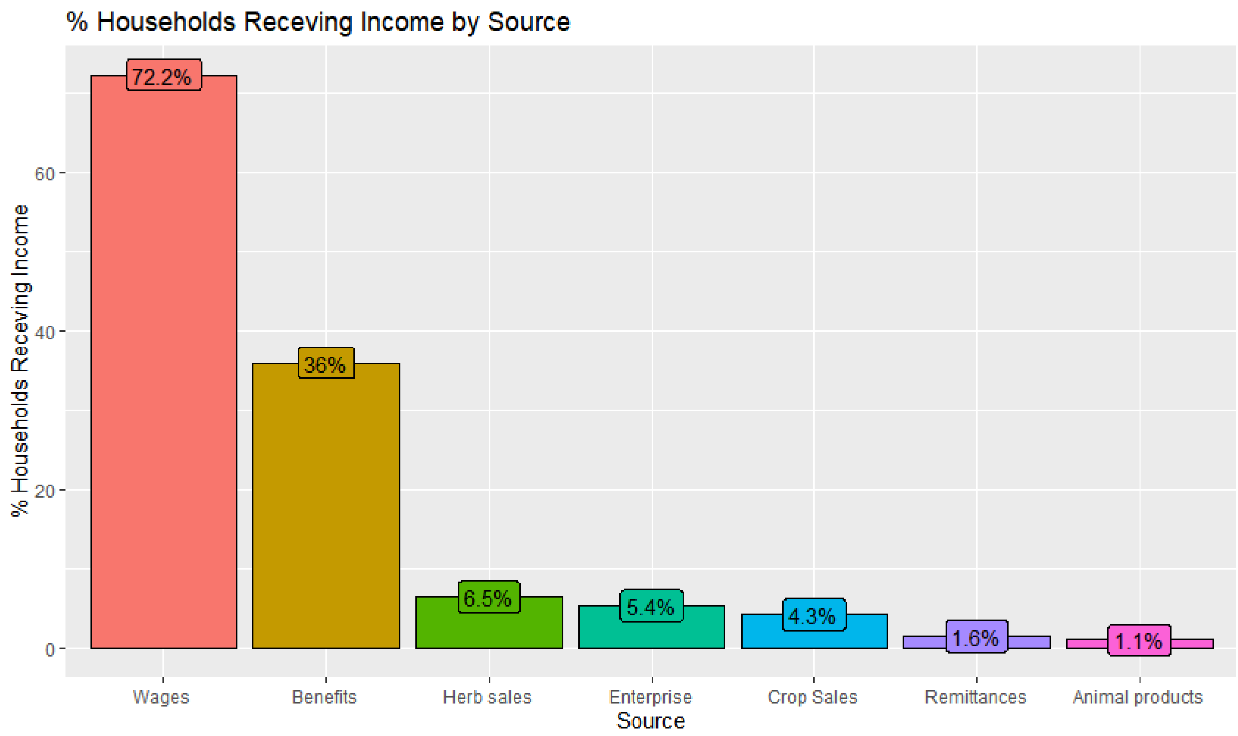
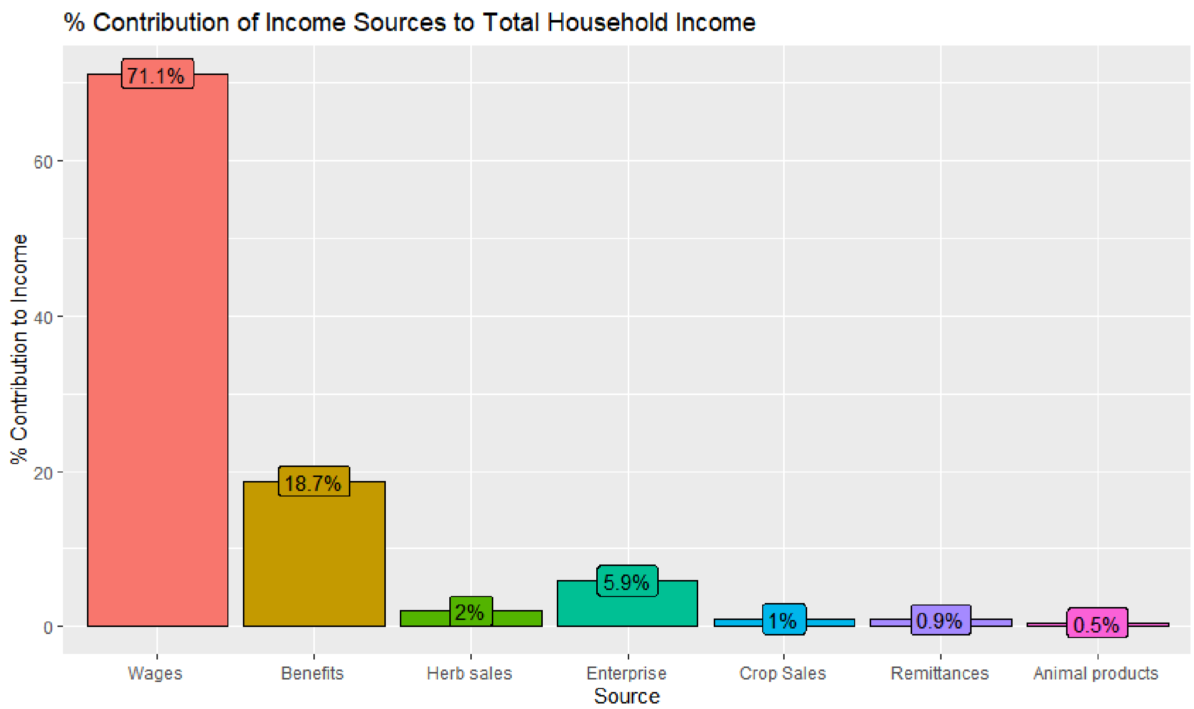


Figure 4: % contribution of income sources to total household income



<u>Wages</u>

133 of the households (72.2%) reported receiving income from waged jobs within the past 12 months. The average annual household income from waged jobs in the past 12 months for those households receiving wages was 75,600 NPR.

Construction work made up 82% of all waged jobs reported in the survey. Of which the majority were part of either the RAP3 construction or the MHLR construction. Overall 69% of all waged jobs in the past 12 months were part of either RAP3 or MHLR.

Table 8: Waged jobs

Summary of Jobs	N (%)
Total households	**184**
Total number of households with jobs *(% of all households)*	133 *(72.2%)*
Total number of households with RAP jobs *(% of all households)*	91 *(49.5%)*
Total number of jobs	**164**
Total number of construction jobs *(% of all jobs)*	135 *(82.3%)*
Total number of MHLR construction jobs *(% of all jobs)*	70 *(42.7%)*
Total number of RAP3 construction jobs *(% of all jobs)*	33 *(20.1%)*

Summary of Jobs	N (%)
Total number of RAP construction jobs (RAP3 or MHLR) *(% of all jobs)*	93 *(68.9%)*
Average wage (per job)	64,000 NPR/yr
Average wage (per job) from RAP3 job	48,000 NPR/yr
Average wage (per job) from MHLR job	59,000 NPR/yr
Average wage (per job) from non-RAP job	74,000 NPR/yr

Enterprise
10 of the households in the survey (5.4%) operated some form of non-agricultural enterprise. 7 of these involved trading or selling, one was a hotel business, one was a mule transportation business, and one was classed as "other". The average income from these businesses was 485,800 NPR in the past 12 months.

Remittances
Just 3 households (1.6%) reporting receiving any income from remittances in the past 12 months. Two from household members who were working overseas, and one from a household member who had recently returned.

Agriculture
8 (4.3%) households made income from selling crops. Average income from selling crops was 9,750 NPR/ year. 2 (1.1%) households made income from selling animal by-products (milk, ghee, curd) or meat. 12 (6.5%) households made income from selling herbs that they had collected/foraged. Average income from selling these herbs was 21,000 NPR/ year.

Benefits
67 households (36%) received income from some form of benefits. Average income from these benefits was 18,900 NPR/ year. Of these households 47 of the 67 were receiving income from a pension.

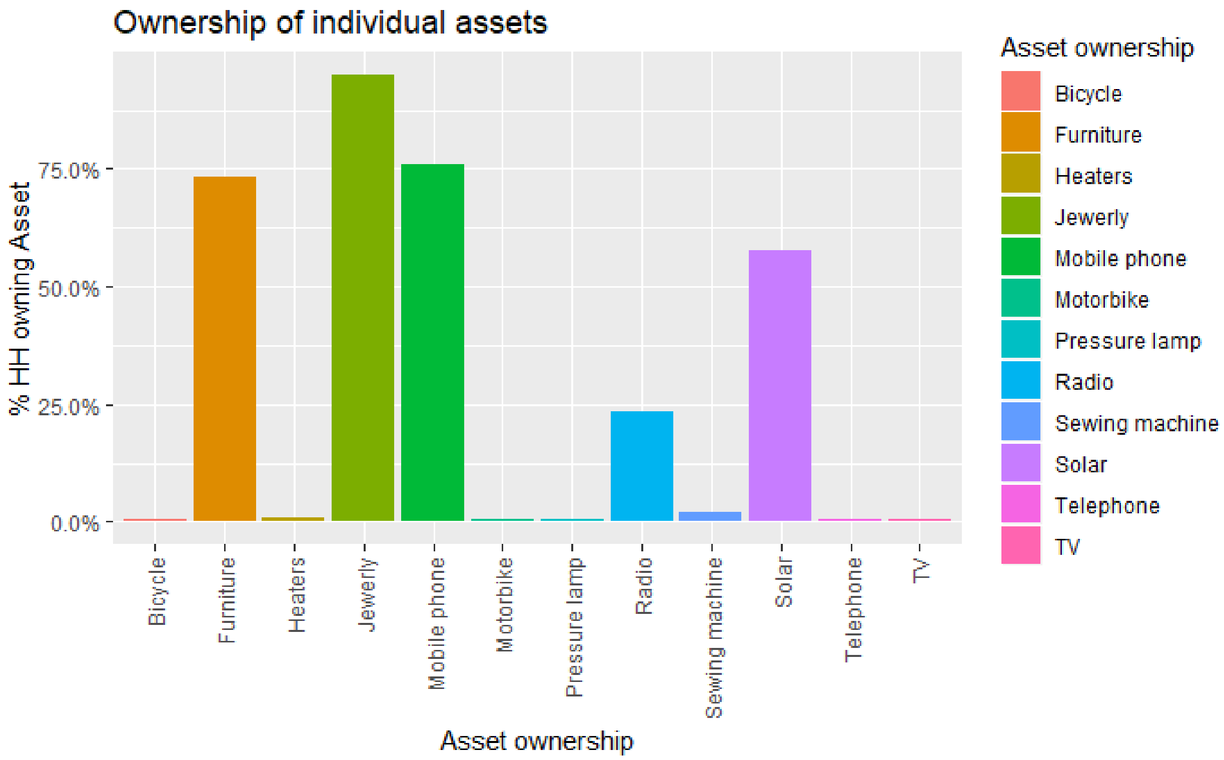
3.3 Assets

This section provides a breakdown of asset ownership including land.

Asset ownership

As show in figure 5, most households report owning some type of furniture, jewellery, mobile phones and solar panels. Very few report ownership of radios, and virtually no HHs report owning other types of assets.

Figure 5: Ownership of individual assets



Almost all HHs report that they have some land but all of less than 0.5 hectares in size. Very few HHs report using improved crop variety.

Table 9 Amount of Land Owned

None	0-0.5 hectare	0.5-1 hectare	1-2 hectares	>2 hectares
1%	93%	4%	1%	1%

Table 10 Adoption of improved crop varieties

% Households Using Improved Crops
8%

3.4 Access

This section provides an overview of access to key services. It details the maximum and minimum reported time taken (in minutes) to reach each service, as well as the median – to account for any skewing of results resulting from certain HHs reporting very large times taken. It also provides a percentage response of whether any vehicles are used to reach these services. Table 18 provides an overview of the percentage of HHs that report it takes less than 30 minutes to reach each of the services.

Table 11: Primary school

Primimary School Max time (mins)	300
Prim Sch Median time (mins)	5
Prim Sch Min time (mins)	1
% travelling using any vehicle	0%

Table 12: Secondary school

Second Sch Max time (mins)	210
Second Sch Median time (mins)	60
Second Sch Min time (mins)	2
% travelling using any vehicle	0%

Table 13: Health Post

Health Post Max time (mins)	180
Health Post Median time (mins)	60
Health Post Min time (mins)	3
% travelling using any vehicle	2%

Table 14: Public Hospital

Public Hosp Max time (mins)	4320
Public Hosp Median time (mins)	240
Public Hosp Min time (mins)	0
% travelling using any vehicle	8%

Table 15: Local shops

Local Shop Max time (mins)	60
Local Shop Median time (mins)	5
Local Shop Min time (mins)	1
% travelling using any vehicle	0%

Table 16: Microcredit

Micro Credit Max time (mins)	4320
Micro Credit Median time (mins)	210
Micro Credit Min time (mins)	0
% travelling using any vehicle	8%

Table 17: Agrovets

Agrovet Max time (mins)	4320
Agrovet Median time (mins)	120
Agrovet Min time (mins)	0
% travelling using any vehicle	8%

Table 18 provides an overview of the percentage of HHs that report it takes less than 30 minutes to reach each of the services. Secondary schools and public hospitals are two services that for most people take longer than 30 minutes to reach.

Table 18: Travel time

Primary School (<30 minutes)	Secondary School (<30 minutes)	Shops (<30 minutes)	Public Hospital (<4 hours)	Private Hospital (<4 hours)	Agr. Centre (<4 hours)	VDC HQ (<4 hours)
88%	16%	88%	48%	70%	70%	38%

<u>**Transport Fares**</u>

Table 19 shows the percentage of HHs reporting paying fares to reach four key services where any HH reported using a vehicle to reach their destination. The average fare where incurred appeared to be the same - approximately 100 NPR.

Table 19: Fares

Journey	% paying any fare	Average fare (where incurred)
Health Post	2%	100 NPR
Public Hospital	8%	100 NPR
Microcredit	8%	100 NPR
Agrovet	8%	100 NPR

3.5 Food consumption and security

This section provides a breakdown of food consumption and security. Table 20 shows that for the vast majority of HHs they are food secure.

Table 20: Any days in past 30 days where there was insufficient quantity of food available

Yes	No
2%	98%

Table 21 shows that the fooc consumption score. The food consumption score (FCS) is measured by assessing the frequency with which various food groups were eaten across a 7-day recall period. Generally, a score of 35 or above is considered to be 'acceptable', in terms of obtaining a sufficient quantity and diversity of food intake.

Table 21 Food Consumption

Food Consumption Score	
Poor	**0%**
Borderline	**5%**
Acceptable	**95%**
Average Number of Days Consumed in Past Week	
Rice	6.6
Maize	0.4
Millet, wheat, barley	6.3
Potatoes, yams, taro	4.4
Meat	0.4
Pulses or lentiles	6.4
Eggs	0.1
Milk curd	1.4
Milk (other)	0.0
Ghee, butter, oil	6.6
Green veg	3.7
Non-green veg	0.3
Fresh fruit	0.3
Dried fruit	0.0
Sugar, honey, sweets	3.6

3.6 Health

Table 22 Percentage of safe birth in the last two years.

Safe deliveries in presence of health worker %
48%

Nearly everyone says they would use the healthpost at some point – **95%**. Only 48% indicate they would sometimes use a public hospital, and 64% said they would sometimes use a private hospital. There were 25% of households who indicated they would never use either a public or private hospital.

Table 23: Main reasons for not using nearest public hospital

Main reasons for not using their nearest public hospital (of those who said they never used it):	
Inadequate facilities	1.05%
Not needed	66.32%
Too far away	32.63%

Table 24: Main reasons for not using nearest private hospital

Main reasons for not using their nearest private hospital (of those who said they never used it):	
Not needed	64.18%
Too far away	26.87%
Too expensive	8.96%

3.7 Migration

Only 2 households (1.1%) had members who had returned from periods away within the past 12 months. 8% of households had current migrant members, with the majority of these being children away for education. Less than 2% of households received any income from remittances in the past 12 months.

Table 25 Reasons for current migration

Education	For Work	Family reasons	Other
62%	24%	4%	10%

3.8 Negative Impact

Table 26: Perceptions of crime and insecurity

Crime levels	Decreased	Don't know	Increased	Stayed same
n	70	6	2	106
% tot	**38%**	**4%**	**2%**	**58%**

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