The Impact of COVID-19 on Households in Nepal

mVAM Household Livelihoods, Food Security and Vulnerability Survey

Ministry of Agriculture and Livestock Development

This report is made possible through cooperation with the Ministry of Agriculture and Livestock Development and by financial support from the Government of Australia.

May 2020

Contents

List of Figures

COVID-19 in Nepal: in April 2020 WFP interviewed 4,416 households via phone in all 7 provinces

23% of households had **inadequate food consumption**

Minimum dietary diversity not met by 46% of children between 6- 23 months of age

3 in 10 households **lost some income**

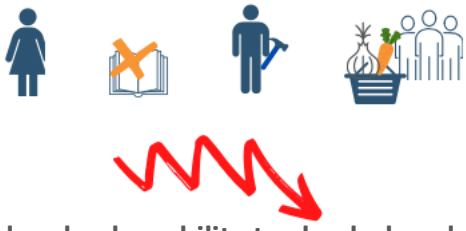
1 in 10 **lost jobs** due to COVID-19

3 in 4 households had **food stocks**

42% of these had **1-month** worth of food stocks

55% of households' **sources food through market purchase**

These households **need income to acquire food**



Access to food and vulnerability to shocks has deteriorated for:
→ **Certain types of livelihoods** - mainly daily wage labourers
→ Households that are **female-headed and illiterate**

4416 households interviewed

38% female respondents
18% of households are female headed

Average household size is 5.06 people

Average age of respondents is 34 years old

Highlights

Food insecurity across the country has increased slightly compared to estimates taken 3-4 years ago. This survey found that 23 percent of households had inadequate food consumption and 7 percent of households had poor dietary diversity. 7.2 percent adopted at least one negative coping strategy to address food shortages and about 5.7 percent of households reported that the food they had in stock was insufficient to meet their needs. Minimum dietary diversity was not met by about 46 percent of children between 6 and 23 months of age. In comparison, in the Annual Household Survey V (2016/17)[1], 15 percent of households reported consuming an inadequate diet, about 5 percent of households had poor dietary diversity.

Current food insecurity status, measured as a combination of poor food consumption and poor dietary diversity, was more common in three provinces - Sudurpaschim province, Province 2, and Karnali province. Similarly, more children with inadequate diet were in Sudurpaschim province, Province 2 and Karnali.

The COVID-19 crisis has affected the livelihoods of Nepalese households, with 1 out of 10 households reporting a loss of livelihood and 3 out of 10 households a reduction in income. Income reduction was relatively more common in Province 5, Sudurpaschim province, and Province 2, while loss of livelihood was more common in Province 5, Karnali, and Sudurpaschim province.

More than 3 out of 4 respondents reported to have food stocks, of which around 42 percent had more than one-month worth of food stock. Meanwhile, about 55 percent of households acquire food through market purchase and around 44 percent consume food from their own production.

Loss of income source was found to be more common for certain types of livelihoods, namely daily wage laborers, migrant workers, and households with a disabled person.

Food insecurity was more prevalent among certain types of income sources, namely daily wage labourers and cash crop producers and less diversified livelihoods. Higher levels of food insecurity were also observed among households that source food in the market and households that did not have food stocks. In terms of the socio-economic characteristics, households with low education levels, a chronically ill member, or female-headed households were found to be more food insecure. A higher proportion of households that reported job loss had inadequate food consumption, compared to households that didn't report loss of income source.

The fact that many households rely on markets for their food highlights a potential risk of deepening vulnerability, given that the COVID-19 crisis has resulted in broader losses of income in Nepal. This could be further exacerbated when households' food stocks are depleted, affecting those with existing vulnerabilities as well as other parts of the population that would be normally less vulnerable.

1 The Annual Household Survey V 2016/2017, Central Bureau of Statistics

I. COVID-19 impact on households

The COVID-19 crisis triggered multidimensional social and economic impacts that stretch beyond the primary health crisis. To assess how this crisis is affecting households, a series of questions related to food security, livelihoods, and vulnerability were asked. This household analysis reviews (1) impacts on food security, (2) impacts on livelihoods and income, and (3) examines household profiles of those most affected by the ongoing crisis.

WFP conducted a nation-wide phone-based survey to assess the current food security status and impact of COVID-19 on food security and vulnerability. 4416 households were interviewed from 14 to 24 April 2020, covering all 7 provinces and producing a nationally representative sample. The questionnaire included a standard WFP modules where possible, covering: i) demographics; ii) livelihood and income; iii) access to food and market; iv) food consumption; v) coping behavior, and vi) health status (further detail on methodology is presented in the following sections and in the Annex).

Impact on household food security

To ascertain the current food security situation of surveyed households, two dimensions were examined: (1) households' food consumption patterns and changes in food consumption habits, and (2) households' access to food. Additionally, the survey captured the diet quality of children between 6 and 23 months of age by measuring minimum dietary diversity.

Food Consumption Patterns

The Food Consumption Score[2] (FCS) is a key component for assessing diet quality. The FCS is used to categorize households into three groups: poor, borderline, and acceptable food consumption. Poor food consumption corresponds to less than 1500 kilocalories (kcal) eaten per person per day. Generally, households with poor food consumption consume mainly staples, oil, and vegetables. This diet normally does not meet the recommended energy requirement, lacks essential micronutrients and is associated with higher poverty rates and malnutrition. Borderline food consumption corresponds with energy intake of 1500-1800 kcal per person per day. In comparison, an average recommended energy intake is around 2100 kcal per person per day. Poor and borderline food consumption groups represent inadequate diets in terms of macro- and micro-nutrient requirements and are hence referred to as having inadequate food consumption.

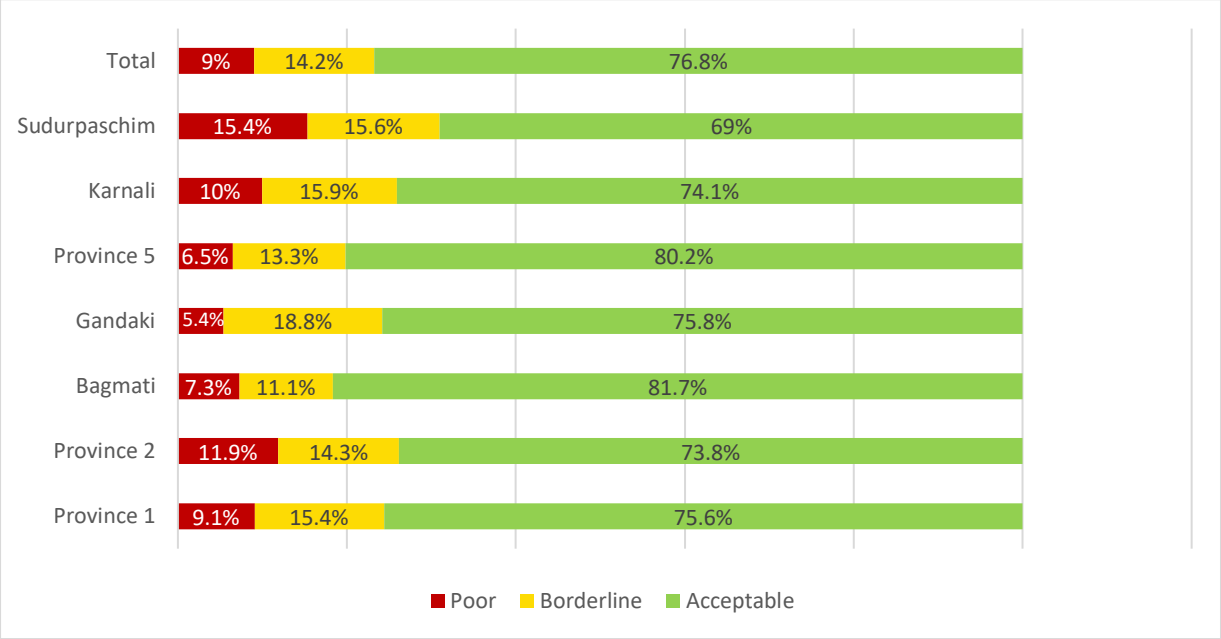
At national level, nearly 1 out of 4 households had inadequate food consumption, with 9 percent of households consuming poor diets and another 14 percent borderline diets.

[2] FCS uses information on food diversity, food frequency (the number of days each food group is consumed over a reference period of 7 days), and the relative nutritional importance of different food groups to measure food security. It is a standard WFP indicator of household food insecurity.

At provincial level, poor diets were more common in the far west of the country, concerning 15.4 percent of households in Sudurpaschim province and 10 percent in Karnali province. In addition, poor consumption was relatively more prevalent in Province 2, with 11.9 percent of household having poor diet. Borderline food consumption was also more common in these provinces as well as in Gandaki and Province 1.

To compare, the 2019 food security assessment in the most food insecure regions of the country found that about 6 percent of households in Karnali Hills and 7 percent in Karnali Mountains consumed poor diets in 2019.

Figure 1:Food consumption group by province



While FSC is a comprehensive measure of the overall diet quality, a simpler indicator (Dietary Diversity Score -DDS[3]), measuring the frequency of consumption of specific food groups provides useful insights into household dietary diversity.

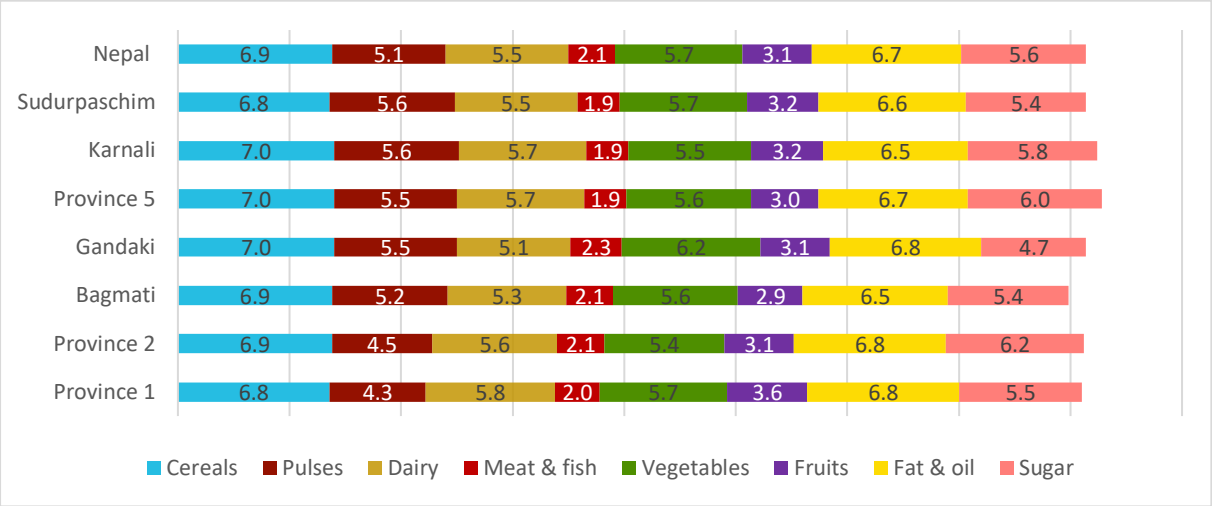
On average, surveyed households consumed 5.8 food groups out of a total of 8 during the 7-days prior to data collection. Households with poor food consumption ate only 3.3 food groups, and households with borderline food consumption 4.8. Households that consumed adequate diets consumed 6.2 food groups on average.

In total, 7.2 percent of surveyed households had poor dietary diversity. Similar to the Food Consumption Score, poor dietary diversity was more common in Sudurpaschim province, with 15.1 percent of households consuming a diet that lacks basic diversity, followed by 9.4 percent of households in Province 2 and 7.6 percent in Karnali province. Compared to 2016, the diversity of diets has deteriorated: in 2016 households consumed more food groups (6.9%), and the proportion of households with poor dietary diversity was lower (5.3%).

The comparison of changes in food consumption and diversity of diets is illustrative of potential deterioration of the overall food security status. This concerns both the areas that are traditionally food insecure, as well as other parts of the country that are normally less food insecure.

[3] See for details: https://docs.wfp.org/api/documents/WFP-0000007074/download/

Figure 2: Average days of consumption of food groups by province

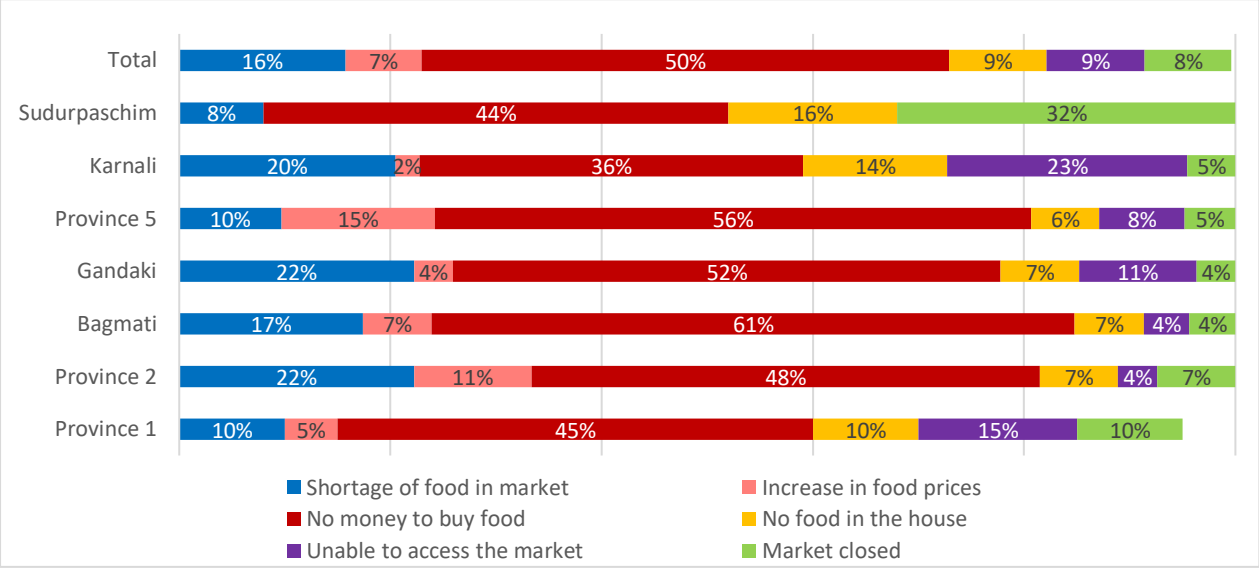


In addition, households were asked whether they had sufficient quantities of food to meet their needs. While this question does not provide an objective insight into food security status, it offers useful insights on the impact of the current situation on household vulnerability, particularly when combined with the reported reasons for insufficiency and impact on livelihoods.

In total, 5.7 percent of households reported to have insufficient quantity of food to meet their needs in the last 7 days. At provincial level, the highest proportion of households experiencing food insufficiency was found in Karnali province (17.5%), followed by Province 5 (7.6%) and Sudurpaschim province (7.3%).

Half of these households mentioned having no money to buy food as the most common reason for facing food insufficiency, followed by a shortage of food in the market and restricted access to markets.

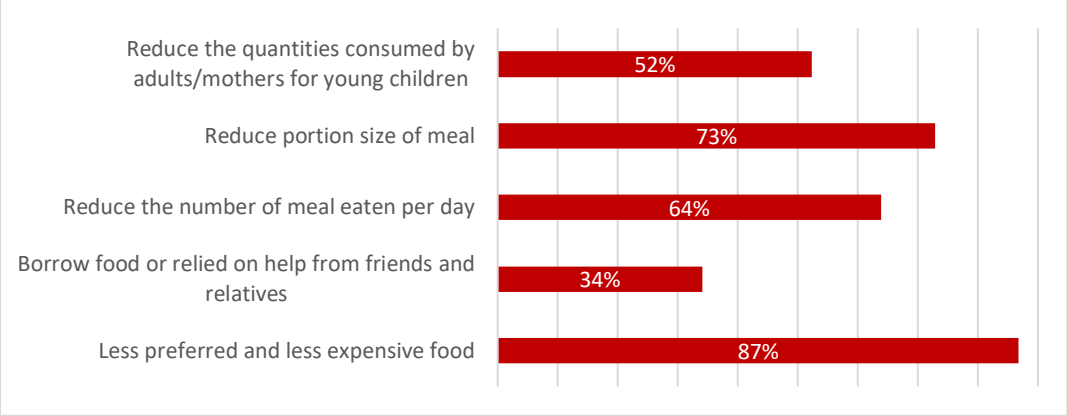
Figure 3: Reported reasons for food insufficiency (among households that reported food insufficiency) by province



To assess households' response to food insecurity, questions were asked about the severity of engagement in food related coping strategies. The Reduced Coping Strategy Index (rCSI)[4] was used, capturing changes in diet that households adopted in the past week due to reduced access to food.

In total, 7.2 percent adopted at least one coping strategy to address food shortages, with a mean score of 25. Relying on less preferred and less expensive food was the most employed change (by 87% of those that adopted coping strategies), followed by reduction in portion size (73%).

Figure 4: **Changes in dietary habits due to reduced access to food (among those that reported food related coping strategies**



Minimum dietary diversity (MDD), a proxy for adequate micronutrient density of foods, measures the consumption of diversified foods for children between 6 to 23 months. MDD is an indicator to measure a diet's micronutrient adequacy which is an important dimension of its quality. Globally more than two thirds of malnutrition related child deaths are associated with inappropriate feeding practices during the first two years of life[5]. The households surveyed were asked questions about the consumption of diversified foods within the 24-hour recall period to those households with children between 6-23 months of age. A total of 438 children were reported to be aged between 6-23 months.

45.9 percent of children between 6 and 23 months of age did not meet the minimum dietary diversity. In comparison, based on the 2016 Nepal Demographic and Health Survey[6], MDD was not met by 55.7 percent of children between 6 and 23 month of age (NDHS, 2016). The highest prevalence of children whose diet did not meet the minimum diversity standard was in Sudurpaschim (51.2%), Karnali (53.8%) and Province 2 (53.5%). In terms changes in the breastfeeding practices, a majority of respondents reported no change in the practice, while 6.2 percent reported breastfeeding less often, 6.2 percent reported having stopped and 9.6 percent, more often.

4 rCSI measures the frequency and severity of the behaviour households engage in when faced with shortage of food.

5 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5639776/pdf/12939_2017_Article_680.pdf

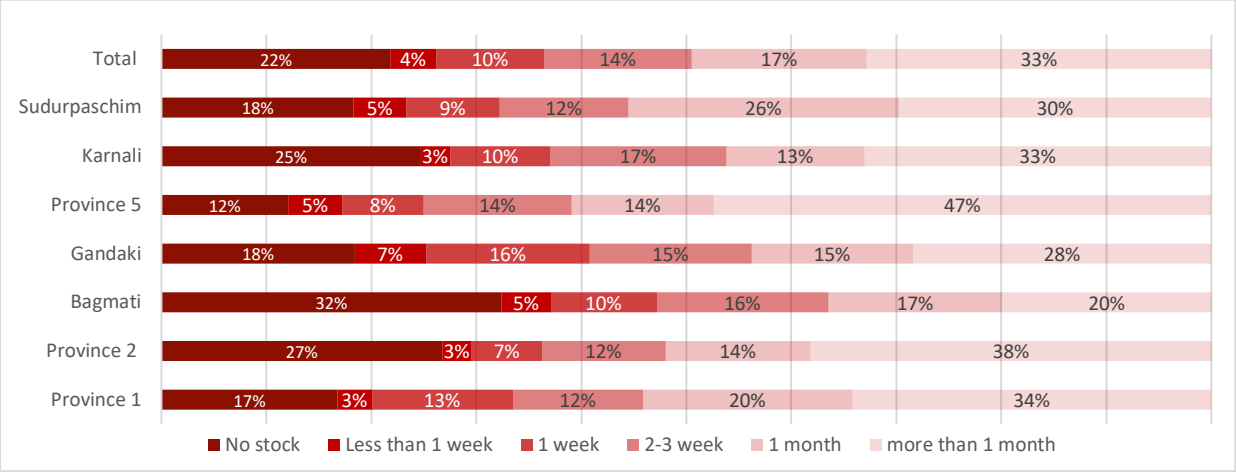
6 Nepal Demographic and Health Survey, 2016. https://www.dhsprogram.com/pubs/pdf/fr336/fr336.pdf

Access to food

An important component of food security is a household's ability to acquire food. The households surveyed in this assessment were asked several questions on food access – focusing on sources of food consumption and food stocks. Livelihoods and income, another essential element for gauging a household's ability to access food was also examined and is presented in the following section.

In total, nearly 78 percent of households had food stocks. 33 percent of households reported having stocks for more than a month, another 17 percent for one month and 14 percent for 2-3 weeks as shown in Figure 5. At the provincial level, food stocks were more common in Province 5 (88.1%) and Province 1 (83.4%).

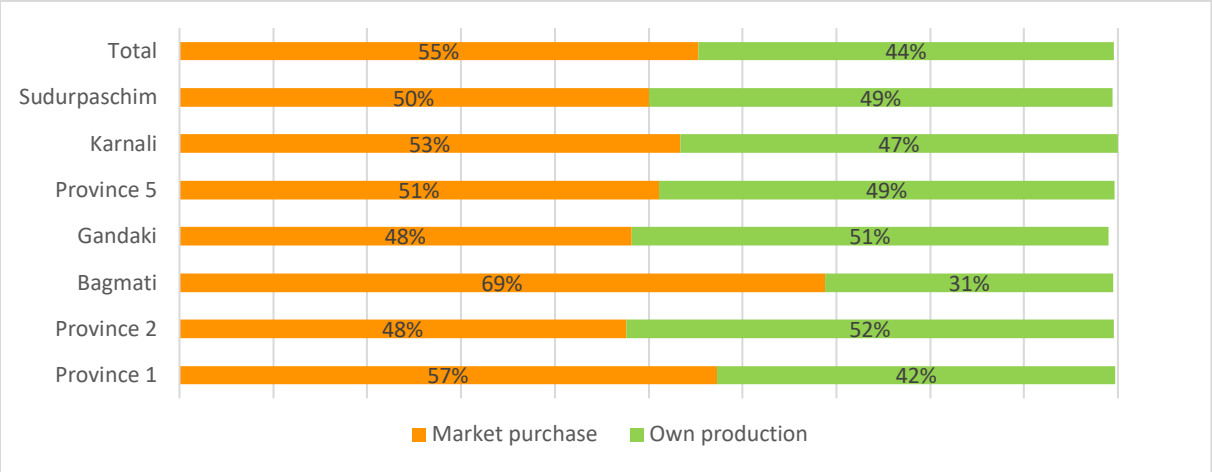
Figure 5: **Food stock duration by province**



At national level, more than half of all respondents reported acquiring food through market purchase (55.3%) and around 44 percent reported consuming food from their own production, while other sources such as gifts or assistance of food consumption was nominal. Accessing food through the market is more common in Bagmati (68.8%) and Province 1 (57.3%), followed by Karnali Province (53.4%).

In general, this type of food sourcing is conditioned by proper functioning of markets and stable income flow. In the current context, due to restrictions on accessing markets and certain livelihood activities, households relying on this food source are relatively more vulnerable. Normally, this would disproportionally affect poor households or households with volatile livelihoods (such as daily wage labour or seasonal labour). However, given the current situation the exposure is potentially broader, as even relatively more stable income sources have become volatile. Additionally, as markets are of critical importance to households' ability to access food, restrictions on physical access to markets and disruptions to their functioning can negatively affect households' ability to acquire adequate food. The reported reasons for experiencing food insufficiency further highlight these concerns and illustrate the importance of food access on the overall food security of households.

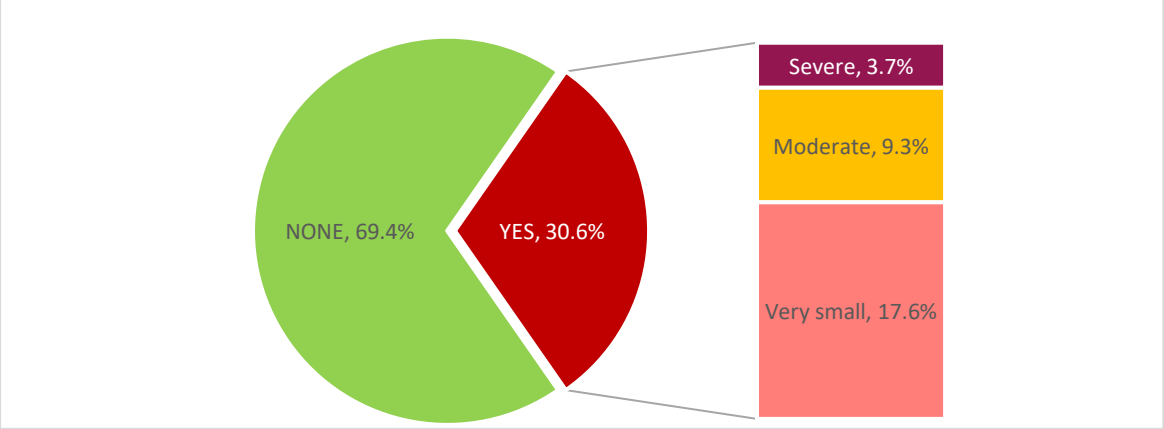
Figure 6: **Food source by province**



II. COVID-19 impact on livelihoods and income

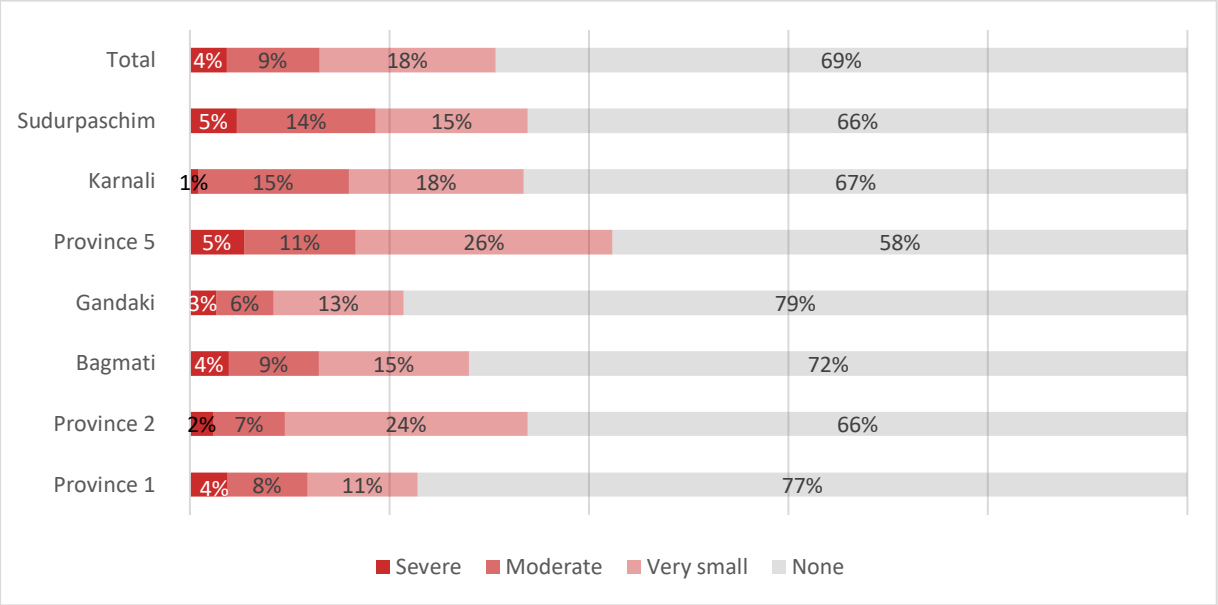
One of the most telling questions was on the impact of COVID-19 on livelihoods and income sources. Livelihood and income sources are central to assessing households' access to food as well as their vulnerability to shocks. Despite the potential respondent bias (self-reporting and attribution of COVID-19 as a causal effect), this question has shown meaningful results, particularly when combined with the current food security status described earlier.
In total, 3 out of 10 surveyed households (30.6%) reported a reduction in income in the last 30 days. A severe loss in income was reported by 3.7 percent of households. Another 9.3 percent of households reported a moderate reduction, while 17.6 percent noted a slight reduction.

Figure 7: **Impact of COVID-19 on income reduction at national level**



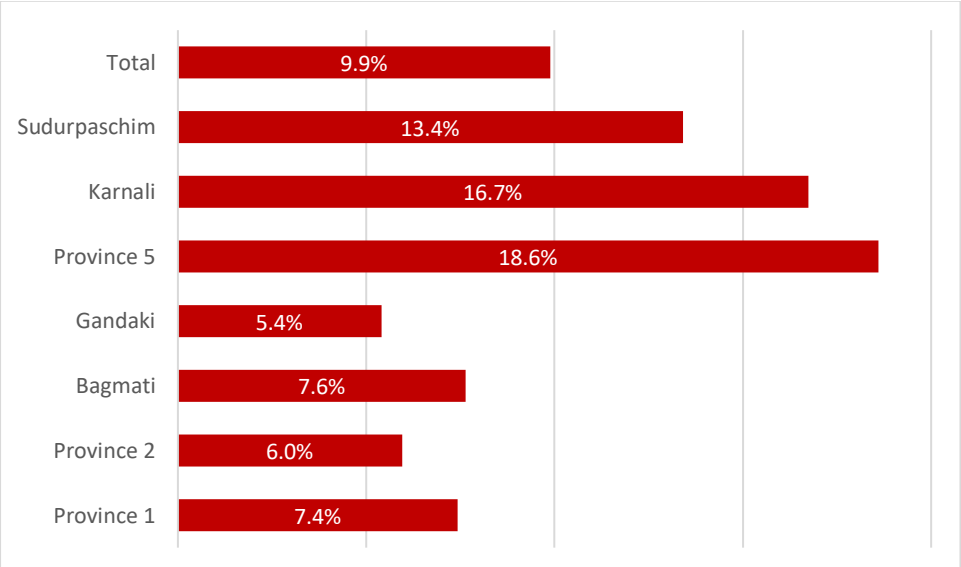
At provincial level, Province 5, Sudurpaschim and Province 2 were the most affected, with the highest reported income reductions. The least affected province was Gandaki, with 21.4 percent of households reporting a reduction in income, followed by Bagmati, with 28 percent.

Figure 8: Impact of the COVID-19 crisis on income reduction by province

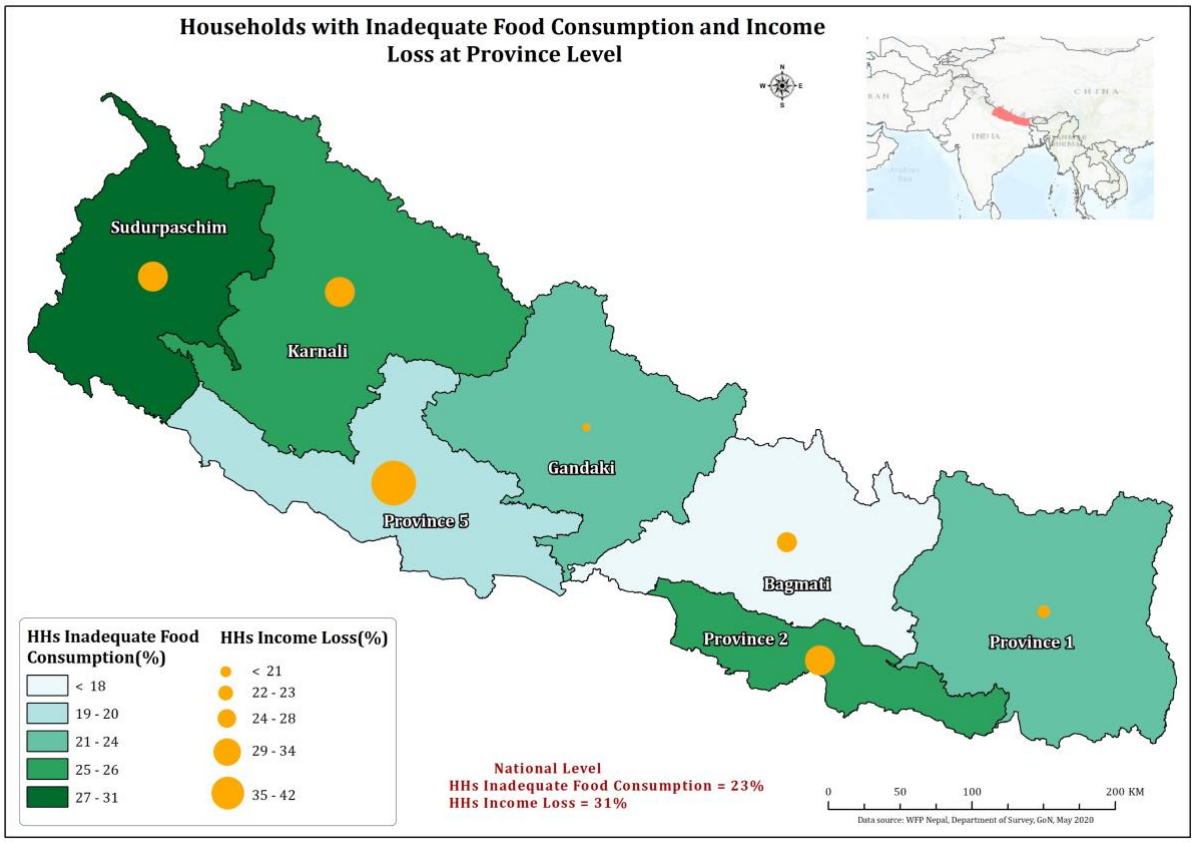


Nationally, 1 out of 10 surveyed households (9.9%) reported losing at least one source of income in the last 30 days. At the provincial level, job loss was more common in the western part of the country, with 18.6 percent of interviewed households reporting job loss in Province 5, 16.7 percent in Karnali, and 13.4 percent in Sudurpaschim province. On the other hand, the reported loss of livelihood source was lowest in Gandaki province (5.4 %).

Figure 9: Impact of the COVID-19 crisis on loss of income source by province



The impact of COVID-19 on the livelihoods of Nepalese households' highlights increasing pressure on households' ability to access food, and their vulnerability to shocks. This may lead to deepening of existing vulnerabilities, as well as the expansion of exposure to other parts of the population that would be normally less vulnerable.



III. Household profiles of the population most affected by COVID-19

In addition to considering the geographic distribution of COVID-19 impact on food security and livelihoods across the country, the impact on specific livelihood and household types was examined. This is intended to indicate the characteristics of households that were found to be relatively more affected by the COVID-19 situation, and that were more food insecure.

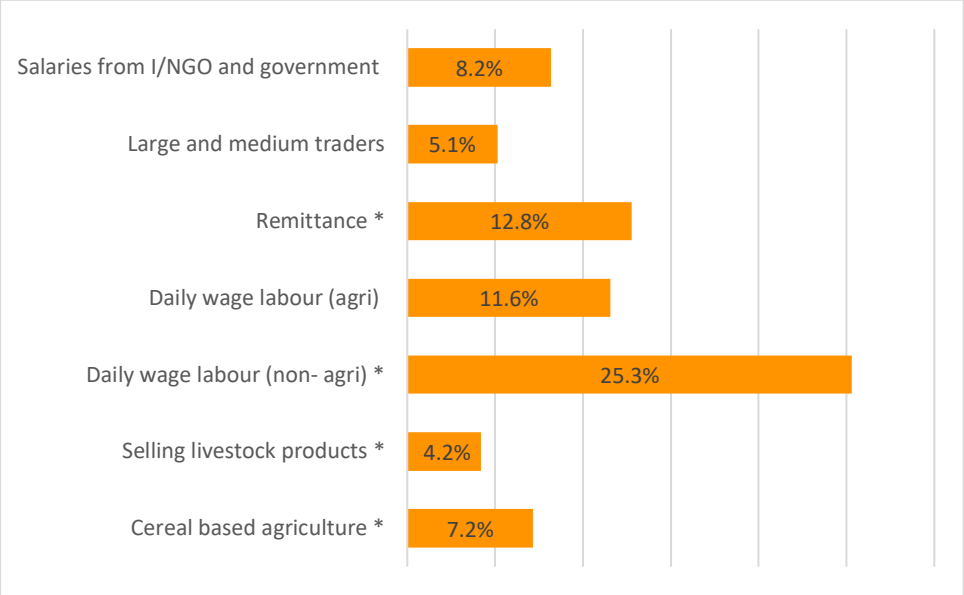
Livelihoods and income

Loss of income source was found to be more common for certain types of livelihoods, households with a disabled person and households with a member working abroad.

The loss of livelihood was most prevalent among daily wage labourers (25.3%) and migrant workers (or household receiving remittance, 12.8%). Similarly, livelihood loss was relatively more common for households that had a member of family working abroad (13.4%) compared to households without a migrant (9.3%). On average, 13.1 percent of households with a

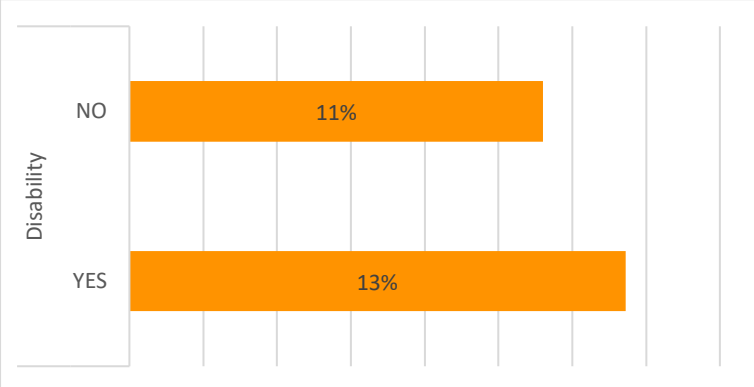
disabled person experienced job loss, compared to 11.3 percent of households without a disabled person.

Figure 10: Loss of income source by livelihood type



* Livelihood types that showed a statistically significant association with job loss

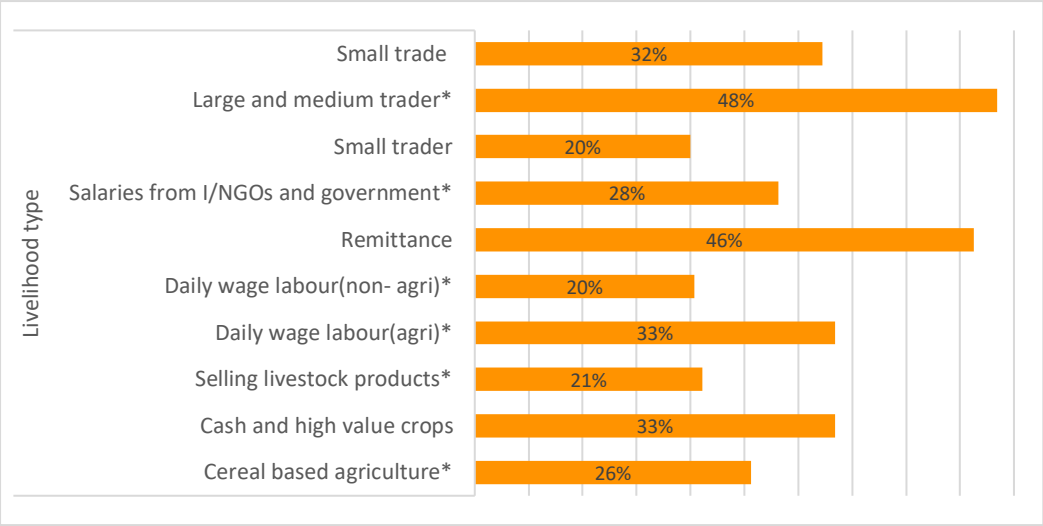
Figure 11: Loss of income source by household category



In line with job loss, a reduction in income was more prevalent for certain livelihood types and households with a migrant worker. Additionally, income reduction was more common among households with a chronic illness and those that are sourcing food through market purchase. The largest proportion of livelihoods that encountered an income reduction was found among large and medium traders (48%), remittance recipients (46%), followed by daily wage labourers in agriculture and cash crop producers (33%).

Households engaged in more volatile livelihood activities reported the highest rates of income reduction. Daily wage labourers had the highest rate of income reduction, with more than half reporting a severe income loss. These were followed by around half of those reliant on agricultural wage labour, and about 40 percent of sellers of livestock products.

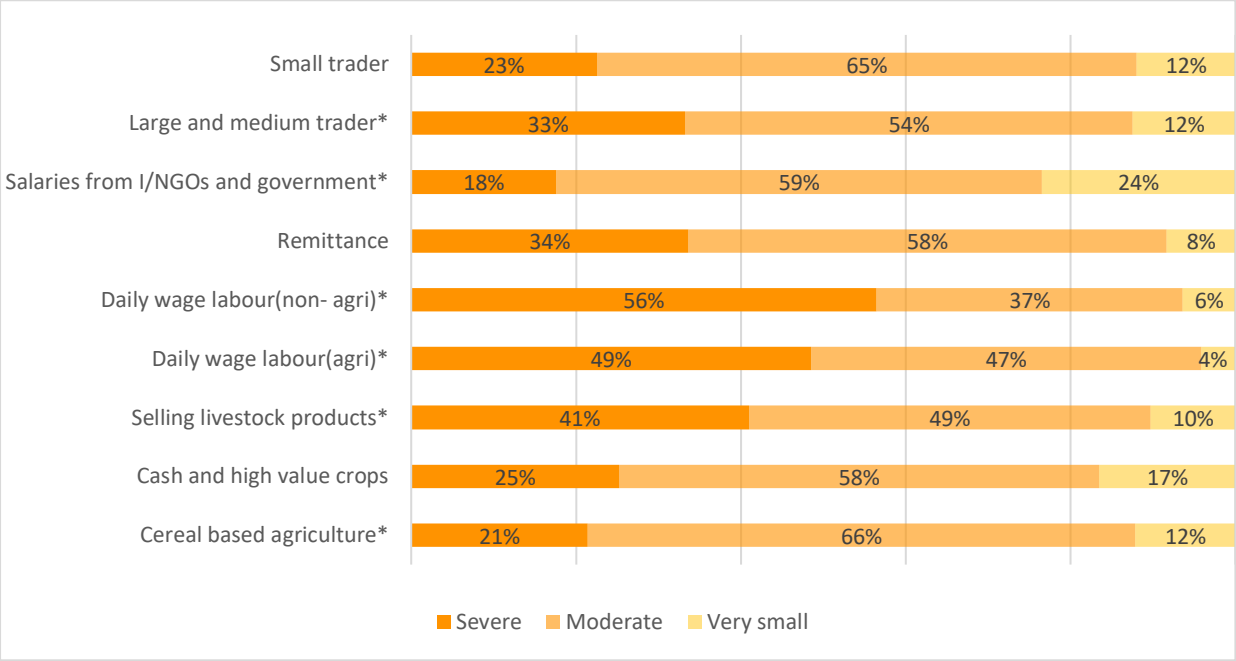
Figure 12: Reduction in income by livelihood type



* Livelihood types that showed a statistically significant association with income reduction

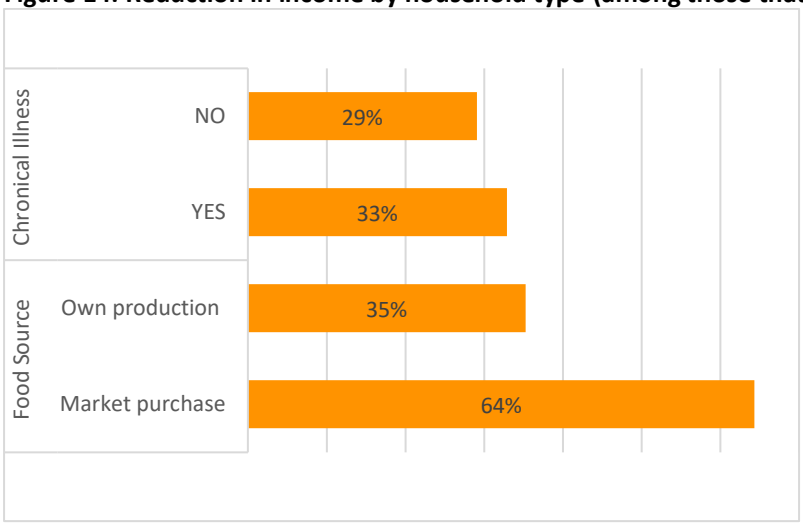
Interestingly, a reduction in income was found to be more common among households that sourced food through market purchase than households consuming food from their own production.

Figure 13: Severity of income loss by livelihood type (among those who reported income loss)



* Livelihood types that showed a statistically significant association with income reduction

Figure 14: Reduction in income by household type (among those that reported a reduction in income)



It is evident that the COVID-19 crisis has affected livelihoods and incomes of Nepalese households. Reductions in income and loss of livelihood sources have impacted households with volatile income sources but also traditionally more stable livelihoods. In turn, this can have a detrimental impact on households' ability to access food, and also on their underlying vulnerability to shocks. This is particularly concerning as a majority of those who reported income reduction depend on income to access food.

Food Security Status

While the food security status assessed in this study cannot be directly attributed to the COVID-19 crisis, it provides useful insights on household types that associate with current food insecurity levels. Combined with the livelihood and socio-economic profile of households that experienced negative impacts on livelihoods, this is illustrative of the overall household's vulnerability and will be particularly relevant, should the current situation continue.

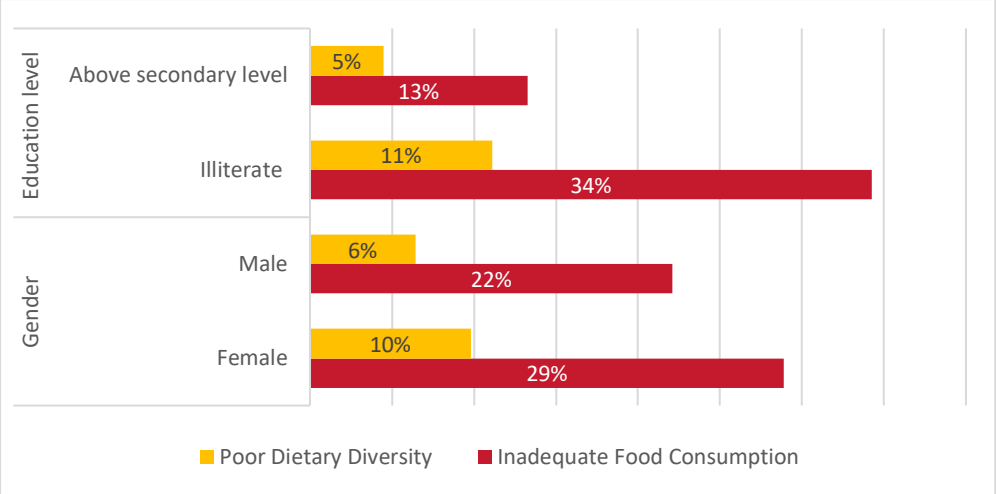
In terms of the livelihood profile, food insecurity was more common for certain types of income sources and less diversified livelihoods. Higher levels of food insecurity were observed among households that sourced food in the market and households that did not have food stocks. In terms of the socio-economic characteristics, households with low education levels (of the household head), with a chronically ill member, or female-headed households were found to be more food insecure. Additionally, a higher proportion of households that reported job loss had inadequate food consumption than those that reported no job loss.

About 13 percent of households with at least a secondary education had inadequate food consumption, while it was 34 percent for households with an illiterate household head. As presented in Figure 15, dietary diversity shows a similar pattern - poor dietary diversity was prevalent among 11 percent of households with an illiterate household head and 5 percent of households with at least a secondary education.

Female-headed households were found to be more food insecure than male-headed households. About 29 percent of female-headed households had inadequate food consumption, and about 10 percent had poor dietary diversity. In comparison, inadequate food consumption was found among 22 percent of male-headed households and around 6 percent had poor dietary diversity.

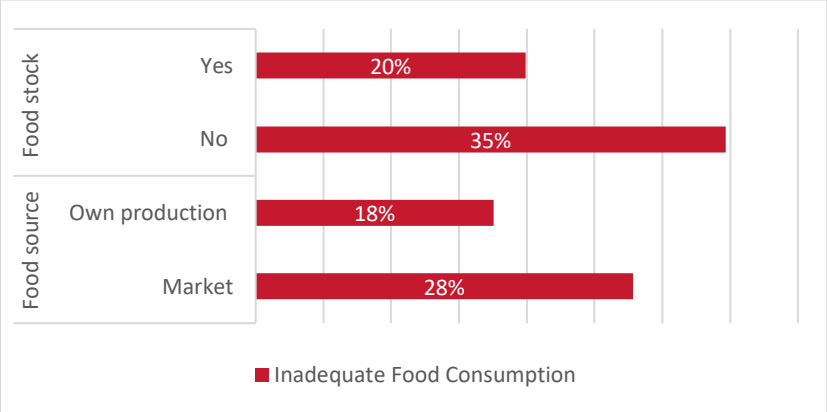
Additionally, a higher proportion of households with pre-existing conditions, such as chronic illness, had poor food consumption levels (19.1%), compared to households without chronic illness (9%).

Figure 15: Inadequate food consumption and poor dietary diversity, by gender and education level of the household head



Sourcing food in the market showed a strong association with higher levels of food insecurity. Inadequate food consumption was found in 28 percent of households that sourced food through market purchase, while that figure was 10 percent less for those consuming their own produce. Similarly, having food stocks in the house had a positive impact on household food consumption - with fewer households reporting consuming an inadequate diet, as shown in Figure 16.

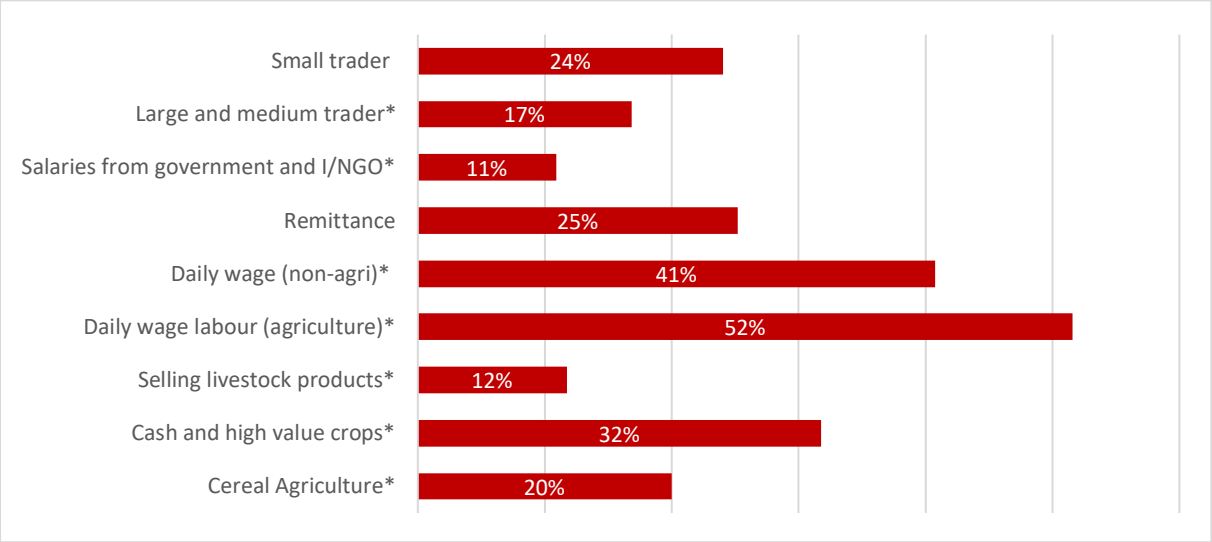
Figure 16: Food consumption by type of food source and food stock



In terms of livelihoods, inadequate food consumption was more prevalent among households dependent on a single livelihood (29.1%), compared to households with more diversified livelihood sources - 19.3 percent of households with 2 income sources and 16 percent of households with 3 income sources.

Similarly, some livelihood types showed an association with higher prevalence of inadequate food consumption. The highest proportion of households with inadequate food consumption was found among daily wage labourers (in agriculture 51.6% and non-agriculture 40.5%), followed by cash and high value crops producers (31.8%).

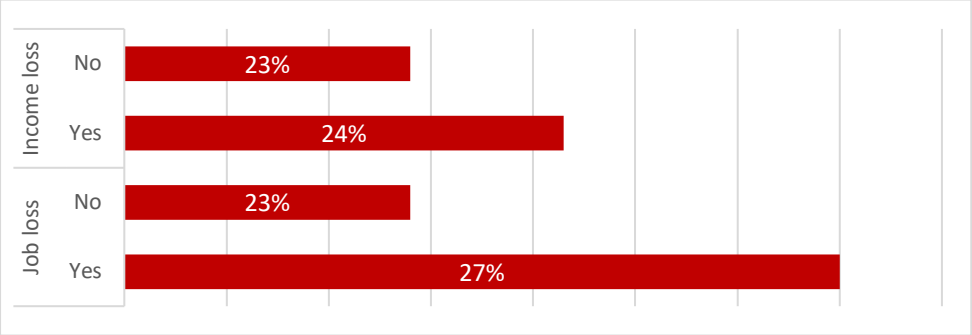
Figure 17: Inadequate food consumption by livelihood type



*These livelihood types showed a statistically significant association with food consumption

Relatively more households with a loss of income source were food insecure, compared to households that did not report job loss as shown in Figure 18. Meanwhile, a reduction in income was not strongly associated with food insecurity. While this may seem counter-intuitive, the level of food stocks and the type of households that were reached through this assessment provides a meaningful explanation. As this survey collected data via phone, it is likely that the most vulnerable households, with relatively higher levels of food insecurity are not adequately represented. Additionally, the widespread presence of food stocks among surveyed households suggests that for the time being households are consuming their stocks. In this case, even households that have encountered income reductions would not necessarily present higher levels of food insecurity yet. Should the current conditions continue that affect the livelihoods and incomes of Nepalese households, and as household food stocks continue to run out, food insecurity may increase. In this context, adequate and well-targeted assistance will be critical.

Figure 18: Inadequate food consumption by COVID-19 impact on livelihoods

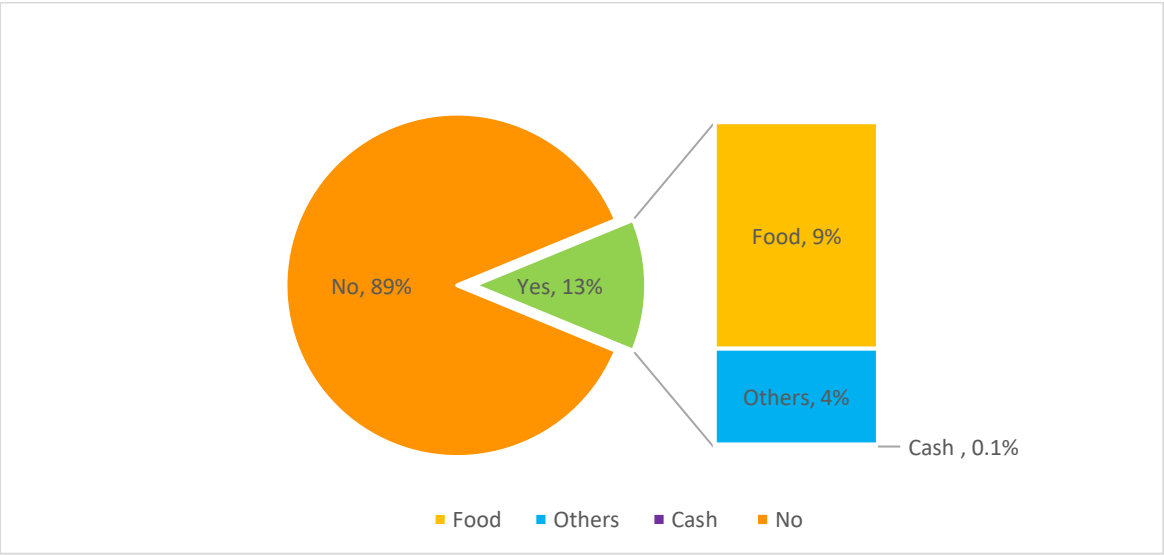


Government support for the COVID-19 crisis

At the time of assessment (14-24 April 2020), 12.6 percent of interviewed households reported to receive some form of COVID-19 assistance from the Government of Nepal. It is important to note that only a portion of the assistance was captured in this survey, as many distributions have happened since the time interviews were conducted. Additionally, the population that was targeted through assistance, the poorest communities, are likely underrepresented in this phone-based survey. Data collected from municipal governments across the country suggest that of the approximately 1.85 million households identified as 'most affected' by the COVID-19 crisis, 1.72 million, or about 93 percent, have received some form of assistance.[7]

Food aid was the most frequent form of assistance (69.8%), while cash assistance was negligible (0.8%); other forms of support, such as in-kind, non-food items represented 29.4 percent of assistance reported received.

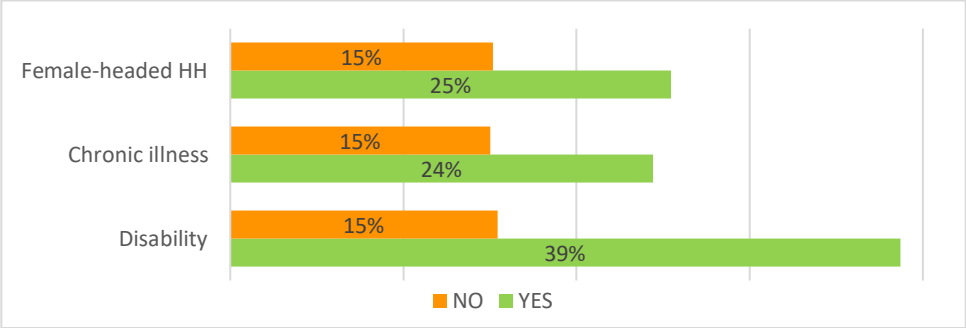
Figure 19: Reported government assistance to COVID-19, until 24 April 2020



[7] WFP Nepal. "COVID-19 Food Security and Vulnerability Update 4". May 2020.

Those that received food aid were relatively more food insecure, with 39.6 percent of households consuming an inadequate diet. In comparison, inadequate food consumption was found among 21.7 percent of households that did not receive any food assistance. In terms of household characteristics, the recipients of COVID-19 assistance were more commonly households with pre-exiting conditions, such as chronic illness and disability, and female-headed households as shown in Figure 20.

Figure 20: COVID-19 assistance household characteristics



IV. Household characteristics

The average household size of the sampled household is 5.1, ranging from the lowest in Gandaki Province (4.7) to the highest in Sudurpaschim Province (5.8). The average age of respondents is 34 years old, with the youngest being 18 years old to the oldest, at 87 years of age. Out of the total 4,416, 38 percent of respondents are female, while female-headed households are 18 percent of total sampled households.

About 26 percent of the household heads in the survey were illiterate, followed by those with secondary (22%) and primary (19%) levels of education. A higher proportion of female-headed households (46%) were illiterate, compared to male-headed households (22%).

About 7 percent of the households had at least one disabled person in the household, with the highest rate in Karnali (14%), followed by Sudurpaschim (9%) and Gandaki (8%). More than one-fifth of the surveyed households have at least one member with chronic illness, with the highest prevalence in Province 1 (24.2%), followed by Bagmati (23.9%) and Province 5 (23%).
More than 18 percent of surveyed households have at least one migrant member. Among these, the proportion of premature returnees is only 1.3 percent, while 2.3 percent of households were receiving a member during the last 40 days since the date these households were interviewed.

Nearly 5 percent of surveyed households reported at least one member in the household being sick, of which 72 percent sought medical care. 90 percent of these households received medical care either in hospitals, clinics, or healthcare centers. Adult women (61%) were most commonly the primary carers to the sick household member, followed by adult men (23%).

Nearly 13 percent of respondents reported safety risks related to access to hospitals, clinics, and healthcare centers for women and girls. The highest proportion of the reported safety risks was found in Province 1 (28%), followed by Karnali (19%) and Sudurpaschim province (12%).

Table 1: Household socio-economic characteristics

Province	Avg. age	Avg household (hh) size	Gender		Vulnerable Households		Absentee HHs	Remittance recipient HHs	COVID support recipient HHs
			Female	Male	Disables	Chronic illness			
Province 1	36.17	4.71	21.0%	79.0%	7%	24%	17.0%	2.5%	12.6%
Province 2	32.89	5.38	10.6%	89.4%	6%	17%	11.5%	2.5%	13.1%
Bagmati	34.40	4.94	18.7%	81.3%	6%	24%	15.7%	1.3%	9.6%
Gandaki	36.26	4.52	22.4%	77.6%	8%	21%	28.0%	3.8%	12.6%
Province 5	34.79	5.12	17.9%	82.0%	5%	23%	21.8%	2.8%	10.3%
Karnali	33.44	5.56	17.9%	82.1%	14%	21%	20.7%	2.0%	21.9%
Sudurpaschim	31.80	5.84	19.6%	80.4%	9%	17%	24.3%	1.1%	18.4%
Nepal	**34.38**	**5.06**	**17.7%**	**82.2%**	**7%**	**21%**	**18.3%**	**2.3%**	**12.6%**

V. Methodology

The household data presented in this report was collected from 14 to 24 April 2020 through live telephone interviews. Call interviews covered two national service providers (Nepal Telecom and Ncell) in all 7 provinces, producing a nationally representative sample. The numbers were generated by using the random-digit dialling method.

A total of 4,416 households were interviewed, with an average success rate of 14.4 percent (the ratio of successfully completed surveys to total dialled numbers, with 30,716 total dialled numbers). The success rate of telephone interviews ranges from the lowest at 8.6 percent in Narayani to the highest at 20.1 percent in Janakpur zone. The non-response and deadline phone numbers were replaced by the same location code. The survey method followed a standard operating guideline as described in Computer Assisted Telephone Interview (CATI) survey developed by WFP. The survey allowed participation in telephone interview for those at least 18 years of age.

A note on bias: Two main sources of bias exist in the design of this survey, both of which may result in under-estimating food insecurity. The first as already noted stems from using phones to reach people. The survey is able to do inference for the phone-owning population of Nepal, but research shows that phone ownership is correlated with higher levels of food security [8]. It is therefore reasonable to conclude that the results presented here may understate the extent of food insecurity in the country. The second main source of bias is from call failure. Calls can fail to result in a completed survey for several reasons. Some of these, like the number not existing, or it belonging to a business, do not bias results but others, which could themselves be related to food security or other outcomes (for example bad network connections which

8 Harman, P. 2020. "Sources of Bias in Mobile Phone Surveys in Developing Countries". Massey University.

can occur in underserved areas of the country) may result in bias. This survey has call failure due to both these types of reasons. In this case as well, the results would be biased upwards, meaning that our results might be underestimating food insecurity in the country. However, the magnitude of these biases is not readily estimated.

ANNEX

Annex 1: Sampling design

A nationally representative sample was constructed, with the survey domain of 7 provinces.

Table 2: Sample size by province

Province Name	Number of interviewed households	Target sample
Province 1	769	769
Province 2	673	722
Bagmati	1022	985
Gandaki	500	448
Province 5	812	686
Karnali	251	385
Sudurpaschim	360	405
Total	4416	4400

Annex 2: Food Security Indices

Food Consumption Score (FCS), a proxy indicator for food security, measures food diversity (the types of food consumed), food frequency (the number of days each food group is consumed over a reference period of 7 days), and the relative nutritional importance of different food groups by assigning weights to each food group[1]. The higher the FCS, the better the food consumption status of the household. FCS is calculated based on the past 7-day reference period and classified households into three categories: poor consumption (FCS=1.0 to 28); borderline (FCS=28.1 to 42); and acceptable consumption (FCS=>42.0). Due to high consumption of oil and fat, raised threshold for food consumption groups was used.

Table 3: Thresholds for food consumption groups

Food Consumption Groups	Standard Thresholds	Raised Threshold
Poor	0-21	0-28
Borderline	21.5-35	28.5-42
Acceptable	>35	>42

Dietary Diversity Score (DDS) is a measure of the number of food groups (out of a total of eight) that are consumed by the households in the past seven days preceding the survey. A diverse diet will help measure the consumption of diversified foods with adequate macronutrients and micronutrients[2]. Households that consume fewer than or equal to four food groups, out of 8, in a past 7-day reference period, are classified as low or poor dietary diversity.

Coping Strategy Index[3] (CSI) is a tool to measure the frequency and severity of the behaviour households engage in when faced with a shortage of food or financial resources to buy foods.

The CSI is based on the many possible answers to one single question: "what do you do when you don't have adequate food, and don't have the money to buy food?" Reduced CSI is a sub-set of context specific CSI that uses a standard set of five individual coping behaviours which can be employed by households anywhere. The coping behaviours are as follows:

1. Eating less preferred foods/ eating less expensive foods
2. Reduced quantities consumed by adults/ mother in favour of young children
3. Reduced portion size of meals
4. Reduced number of meals eaten per day
5. Borrow food or relied on help from friends and relative

Annex 3: Questionnaire

DEMOGRAPHIC SECTION

VARIABLE NAME	QUESTION
RESPAge	How old are you? [INELIGIBLE IF THE AGE IS LESS THAN 18]
RESPSex	What is the sex of the respondent? [OPERATOR: LISTEN TO THE VOICE AND CHECK THE BOX WHETHER THE RESPONDENT IS MALE OR FEMALE] 1. MALE 2. FEMALE 3. Other
ADMIN1Name	Currently, which province [ADM1] does your household reside in? [DROP DOWN LIST]
ADMIN2Name	Currently, which district [AMD2] does your household reside in? [DROP DOWN LIST]
ADMIN3Name	Currently, which municipality [ADM3] does your household reside in?
PERResi	Where has been your usual place of residence over the past 6 months? Province: District: Municipality:
RESPCaste	What is the caste/ethnicity of the respondent?
HHHGender	What is the sex of the head of household? 1. Male 2. Female 3. Other
HHHEdu	What is the highest level of education of the head of household? (Number of years)
HHSize	How many children and adults are PERMANENTLY living in this household?
HHUnder2	How many members of the household are under 2 years old?
HH2to15	How many members of the household are between 2 and 15 years old?
HH15to64	How many members of the household are between 15 and 64 years old?
HHOver64	How many members of the household are above 64 years old?
HHDisability	Do you or does anyone in your household have a disability (physical or mental)? 1. Yes 2. No
HHchronic	Do you or does anyone in your household have a chronic illness? 1. Yes 2. No
HHmigration	Does your household currently have a labour migrant abroad? 1. Yes 2. No
HHreturnee	Does your hh have a labor migrant who returned home prematurely in the past 40 days? 1. Yes 2. No
HHremit	Have you received remittances in the past 40 days? 1. Yes 2. No

LIVELIHOOD AND INCOME

INCSource	What are the primary, secondary and tertiary sources of household income? 1. Cereal based agriculture 2. Cash and high value crops 3. Daily Wage labour (agri) 4. Daily wage labour (non-agri) 5. Remittances 6. Salaries from Government and I/NGOs 7. Business and trade (medium and large) 8. Business and trade (small) 9. Tourism 10. Others (specify)
INCImportance	For each source of income selected, what is its share of total household income?
INCJobloss	Have you or a household member lost your job in the last 30 days? 1. Yes 2. No
INCIncloss	Have you or a household member lost income in your job in the last 30 days?
INCScaleloss	If yes, how significant of a loss was this to your household income? 1. Very small/Insignificant 2. Moderate 3. Severe
INCSupport	Do you or anyone in your household receive regular government support? 1. Yes 2. No
INCSupport_specify	If yes, what kind? 1. Senior citizen allowances 2. Single women allowances 3. Disability allowance 4. Endangered ethnic allowance 5. Child protection grant 6. others
INCCovid_support	Have you or anyone in your household received any assistance—either food or cash—from the government (local or provincial or federal) as a part of a COVID response in the last 30 days? 1. Yes 2. No
INCCovid_support_specify	If it is cash, how much did you receive (in NPR)? If it is food, how much did you receive cereal foods (in KG)?

ACCESS TO FOOD AND MARKET

VARIBLE NAME	**QUESTION**
HHFood	What is the **main source** of food for your household? [OPERATOR: DO NOT READ OUT THE RESPONSE OPTION, SELECT THE RESPONSE OPTION THAT BEST FITS THE INFORMATION PROVIDED BY THE RESPONDENT, OTHERWISE SELECT OTHER] 1. Own production 2. Market purchase 3. Gift or assistance 4. Other
HHFood_oth	Please specify what is the main source of food for your household?
HHFoodConstr_7D_YN	In the past 7 days, has there been any time when your household **did not have sufficient** quantities of food needed for the household? 1. Yes 2. No
	If Yes, who are prioritized for serving the limited food available? Choose in the priority order (Children, senior citizen, male adult members, female adult members, member with disability, other) [OPERATOR: DO NOT READ OUT THE RESPONSE OPTION, SELECT THE RESPONSE OPTION THAT BEST FITS THE INFORMATION PROVIDED BY THE RESPONDENT, OTHERWISE SELECT OTHER
HHFoodConstr	What was the **main reason** why your household **did not have sufficient** quantities of food needed? [OPERATOR: DO NOT READ OUT THE RESPONSE OPTION, SELECT THE RESPONSE OPTION THAT BEST FITS THE INFORMATION PROVIDED BY THE RESPONDENT, OTHERWISE SELECT OTHER] 1. Shortage of food in the market \ grocery store 2. Increase in the prices of food 3. No money to buy food 4. No food in the house

	5. Unable access the market \ grocery store 6. Markets \ grocery stores are closed 7. Other
HHFoodConstr_oth	Please specify the **main reason** why your household did **not have sufficient quantities** of food needed? [OPERATOR: SUMMARIZE THE RESPONSE IN FEW WORDS]
HHStock	Does your household **currently** have food stock? 1. Yes 2. No
HHStockDur	How long do you think the food stock would last? 1. Less than one week 2. 1 week 3. 2 - 3 weeks 4. 1 month 5. More than 1 month

FOOD CONSUMPTION SECTION

VARIBLE NAME	QUESTION
FCS_Intro	Now I will ask you about the foods and drinks you and your household ate or drank in the last 7 days.
FCSStap	How many days over the last 7 days, did members of your household eat starches, roots and tubers such as rice, maize, pasta, bread, sorghum, millet, potato, yam, cassava, white sweet potato? [OPERATOR: RECORD NUMBER OF DAYS 0 - 7]
FCSPulse	How many days over the last 7 days, did members of your household eat pulses and nuts such as beans, lentils, cowpeas, soybean, pigeon peas and peanuts or other nuts? [OPERATOR: RECORD NUMBER OF DAYS 0 - 7]
FCSDairy	How many days over the last 7 days, did members of your household consume fresh milk, sour milk, yogurt, cheese or other dairy products? [Excluding margarine/butter or small amounts of milk for tea/ coffee] [OPERATOR: RECORD NUMBER OF DAYS 0 - 7]
FCSPr	How many days over the last 7 days, did members of your household eat meat [pork, lamb, goat, rabbit, chicken, duck, other birds, liver, heart and / or other organ meats], eggs or fish [Including fresh fish, canned fish, and / or other seafood] as a main dish, so not as a condiment? [OPERATOR: RECORD NUMBER OF DAYS 0 - 7]
FCSVeg	How many days over the last 7 days, did members of your household eat vegetables or leaves such as cauliflower, cabbage, carrot, red pepper, radish, pumpkin, orange sweet potatoes, spinach, cassava leaf, okra, and/or other leaves/vegetables? [OPERATOR: RECORD NUMBER OF DAYS 0 - 7]
FCSFruit	How many days over the last 7 days, did members of your household eat fruits such as banana, apple, mango, papaya, apricot, peach and/or other fruits]? [OPERATOR: RECORD NUMBER OF DAYS 0 - 7]
FCSFat	How many days over the last 7 days, did members of your household eat oil/fat/butter such as Mustard oil, soybean oil, sunflower oil, vegetable oil, palm oil, groundnut oil, margarine, other fats / oil? [OPERATOR: RECORD NUMBER OF DAYS 0 - 7]
FCSSugar	How many days over the last 7 days, did members of your household consume sugar, or sweet such as sugar, honey, jam, cakes, candy, cookies, pastries, cakes and other sweets and sugary drinks? [OPERATOR: RECORD NUMBER OF DAYS 0 - 7]

BREAST FEEDING PRACTICES and MINIMUM DIETARY DIVERSITY (If there is a child aged 6-23 months in the household)

1. In the past month, have you breastfed your baby?
   i. Less often than usual
   ii. The same
   iii. More often than usual
   iv. Stopped breastfeeding

2. Randomly sample 1 child aged 6-23months
   Ask:

a. How many times did (**name of child**) eat yesterday?
b. Please tell me everything that (**Name of child**) ate yesterday during the day or night (whether at home or outside the home).

	FOOD GROUPS	Examples	Coding
Please tell me everything that (**Name**) ate yesterday during the day or night (whether at home or outside the home). Think about what (**Name**) ate from the time first he/she woke up yesterday until he/ she slept. Did he/she eat anything else? Tell me what it was. DO NOT LIST, CIRCLE ANY ITEMS MENTIONED, AND WRITE 1 IF CONSMED. 0 IF NOT CONSUMED	A. Cereals Grains, roots or tubers	Rice, Bread, pasta, biscuit, porridge, thin porridge, foods made from sorghum, maize, wheat, Irish potato, sweet potatoes that are white inside, white yams, cassava, rice, millet	Yes/ no/ don't know
	B. Vitamin A-rich plant foods	Pumpkin, carrot, squash, sweet potatoes that are orange inside, mango, papaya, ripe passion fruit, tree tomato,	Yes/ no/ don't know
	C. Other fruits or vegetables	**Other vegetables**: - tomato, onion, garlic, eggplant, cabbage, beetroot, mushroom, green pepper, fresh peas, wild vegetables, cucumber **Other fruits: -** avocado, apple, banana, guava, lemon, orange, pineapple, strawberry, watermelon, grapefruit, including wild fruits	Yes/ no/ don't know
	D. Meat, poultry, fish, seafood	Beef, lamb, goat, wild game, pork, chicken, organ meat, dried or fresh fish	Yes/ no/ don't know
	E. Eggs	Eggs	Yes/ no/ don't know
	F. Pulses/legumes/nuts	Beans, peas, chickpeas, lentils, Soya Bean, nuts, sesame, Harry cot bean, or foods made from these	Yes/ no/ don't know
	G. Milk and milk products	Milk, cheese, yogurt, butter, other milk products, infant formula	Yes/ no/ don't know

REDUCED COPING STRATEGIES

1. How many days in last 7 days did your households rely on less preferred or less expensive foods?
2. How many days in last 7 days did your households borrow food or rely on help from friends and relatives?
3. How many days in last 7 days did your households reduce the number of meals eaten per day?
4. How many days in last 7 days did your households reduce portion size of meal?
5. How many days in last 7 days did your households reduce the quantity consumed by adults/mothers for young children?

HEALTH AND ILLNESS SECTION

VARIBLE NAME	QUESTION	SKIP PATTERN
HHSICK_YN_1M	In the past 30 days, has anybody in your household been sick? 1. Yes 2. No	If the response is No -> skip to MEDCARE_PROTECT
	In case of any family members remained sick in the past 30 days, who usually took care of him/her? (select the person who contributed the most care) 1. Adult woman 2. Girl (under 18) 3. Adult man 4. Boy (under 18)	
MEDCARE_YN_1M	In the 30 days, did he\she **seek medical care** in a hospital, health centre or other medical facility (outpatient or inpatient)? 1. Yes 2. No	If the response is No-> skip to MEDCARE_PROTECT
MEDCARE_1M	If yes, in the 30 days, **was he\she able to receive the medical care**? 1. Yes 2. No	
MEDCARE_PROTECT	Are there any safety risks for accessing to the Hospitals\Clinics\Health Centers and other health services for women and girls? 1. Yes 2. No	

ADDITIONAL

VARIBLE NAME	QUESTION	SKIP PATTERN
RESPWorryRsnFirst	What are is **your most important concern** under the current circumstances? [OPERATOR: DO NOT READ OUT THE RESPONSE OPTION, SELECT THE RESPONSE OPTION THAT BEST FITS THE INFORMATION PROVIDED BY THE RESPONDENT, OTHERWISE SELECT OTHER] 1. Shortage of food 2. Increase in food prices 3. Shortage of medicine 4. Disruption of medical service 5. Disruption of educational institutes 6. Getting sick 7. Lack of work 8. Disruption of livelihood source 9. Travel restrictions 10. No concerns 11. Other	If the response is 1-10 -> End Survey
RESPWorryRsnFirst_oth	Please specify what is your **most important concern** under the current circumstances? [OPERATOR: SUMMARIZE THE RESPONSE IN FEW WORDS]	

[1] WFP, 2008. "Food Consumption Analysis" WFP VAM Technical Guidance Sheet, World Food Programme, Rome. http://documents.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp197216.pdf

[2] Swindale, A. and Bilinsky, P. 2006. Household Dietary Diversity Score (HDDS) for Measurement of Household Food Access: Indicator Guide, Ver.2, Food and Nutrition Technical Assistance, USAID. http://www.fantaproject.org/sites/default/files/resources/HDDS_v2_Sep06_0.pdf

[3] https://documents.wfp.org/stellent/groups/public/documents/manual_guide_proced/wfp211058.pdf

Further Information

Contact

Ram Krishna Regmi rkregmi@yahoo.com

Katarina Kohutova katarina.kohutova@wfp.org

Sridhar Thapa sridhar.thapa@wfp.org

Ministry of Agriculture and Livestock Development
United Nations World Food Programme

Reference

www.neksap.org.np
http://vam.wfp.org/sites/mvam_monitoring/index.html