



Papua New Guinea

mVAM Food Security & Livelihoods Monitoring System

Report 3 | July 2017



World Food Programme



Contacts and Information

This Papua New Guinea Food Security & Livelihoods Monitoring System Report is jointly produced by the Department of Agriculture and Livestock, the National Disaster Centre, and the United Nations World Food Programme. For further information, contact:

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FOREWORD



On behalf of the Government of Papua New Guinea, we are pleased to present the findings from the latest round of the mobile food security and livelihood monitoring system, conducted from 25 April to 26 June 2017.

Initiated by the World Food Programme (WFP) in Partnership with the Department of Agriculture and Livestock (DAL) and the National Disaster Centre (NDC) during the peak of the 2015-16 El Niño climate event, these assessments provide an indispensable window into the current food security situation of communities and households throughout the country. This latest survey highlights that while the direct impacts of 2015-16 on the food security situation appear to be fading, households, especially those dependent upon agriculture for their livelihoods, possess very little resilience to withstand even minor shocks, climate-related or otherwise.

The overarching message from this report is clear that Government and development partners must now redouble our commitment to understanding food insecurity in Papua New Guinea, and how to prevent households from experiencing it. If we are to be successful, creating policies and programmes that build resilience within our villages will be critical.

It is our hope that this report will invigorate our efforts to better prepare our communities for future shocks and strengthen their ability to cope when they do occur.

Sincerely,

Dr. Vele Pat Ila'ava
Secretary
Department of Agriculture and Livestock
Port Moresby, Papua New Guinea

Martin Mose
Acting Director
National Disaster Centre
Port Moresby, Papua New Guinea

KEY MESSAGES



Between 25 April and 26 June 2017 the World Food Programme (WFP), in support of the Department of Agriculture and Livestock (DAL) and the National Disaster Centre (NDC), conducted a mobile survey to establish a baseline for the food security and livelihood monitoring system in Papua New Guinea. The survey was carried out in 326 LLGs (Local Level Government) and a total of 4,490 respondents were interviewed by phone from the Digicel call centre in Port Moresby.



The food security status of households as measured during the April-June 2017 survey continues to improve as compared to the situation in early 2016. Across a range of underlying measures the sex head of household, main income activity, etc., the proportion of households reporting conditions indicative of food insecurity has decreased. However, pockets of vulnerability remain scattered and result, in large part, from micro-climate disturbances (e.g., localized flooding) that households appear to have little resilience to withstand. Thus Government and stakeholders are encouraged to continue to routinely monitor the situation in order to support policy design and future response activities.



Climate conditions at the beginning of 2017 (just preceding the survey) were indicative of relatively normal conditions based on historical averages. Areas in the far west and northwest experienced some shortages of rain; areas surrounding the National Capital District received rain in excess of the historical average. However, as noted above, even while extreme climatic conditions were not present, this did not prevent localized flooding and dry conditions from affecting the food security within some communities. Quite a few respondents noted that heavy rains resulted in lower yields, while others commented that food was sufficient.

These challenges underscore the need for Government and partners to assume a more resilience-based framework for understanding and addressing food insecurity in Papua New Guinea. The El Niño climate event was extreme and raised awareness to the challenges faced by communities; however, efforts must now be focused on improving the ability of communities and households to rebound from less extreme, but more frequent, disturbances to their situation.



The results from the April-June 2017 survey add further evidence that the sharp spikes observed in staple prices during the El Niño event have substantially normalized. The median reported price per heap of kaukau was 2.0 PGK. Moreover, the range of prices reported for all staples has narrowed sharply over the past 18 months, which suggests that the country's markets are operating more effectively. The price of rice (which is largely imported) has remained stable since the Nov-Dec 2016 survey; in the April-June 2017 survey the median reported price was 5.5 PGK/kg. This finding supports the thesis, presented in the previous report, that a weakening kina during the first half of 2016 likely had some effect on households' ability to purchase this food of last resort (the USD/PGK rate has remained stable since mid-2016).



Across all main livelihood groups, the level of food insecurity decreased. Grouping respondents into segments with similar socioeconomic characteristics reveal, however, that those households depending upon garden crops, fishing/hunting and, to a lesser degree, cash crops were much more vulnerable than their peers. The survey did not collect any absolute information on income or wealth but the findings strengthen the interpretation that a great proportion of households in PNG have very little resilience to cope with adverse shocks, be it climate-related or otherwise.



Access to drinking water was little changed compared to the findings from the Nov-Dec 2016 survey. Overall, 181 LLGs were classified as having some shortage in access to drinking water. Measures of health have improved somewhat, but still one-quarter of households with children reported that at least one was sick at the time of the survey. Reported diarrhea continues to appear to be strongly correlated with access to drinking water.

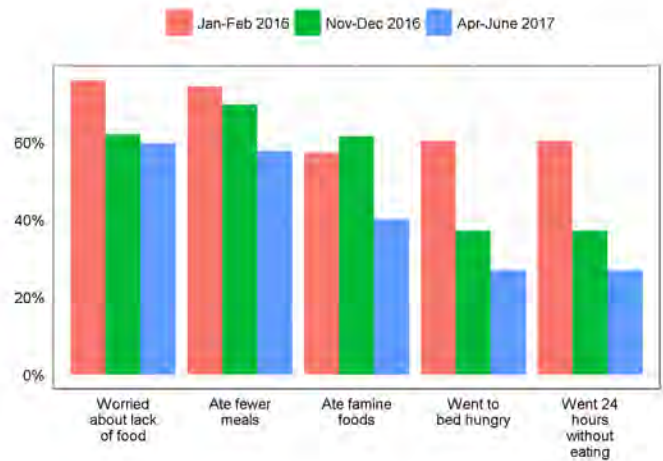
FOOD SECURITY SITUATION

The current food security situation in Papua New Guinea appears stable but with pockets of vulnerability, particularly in Western province and some interior LLGs.¹ Map 1 presents the Perceived Food Insecurity Index results as measured during 25 April-26 June 2017.

Figure 1 shows that the proportion of households who reported negative experiences relating to food insecurity continues to improve. A majority still express anxiety about having enough food but the prevalence of “going to bed hungry” and “going 24 hours without eating” are down from Jan-Feb 2016 levels (though one in five still report such experiences, which is relatively high).

It is not clear the extent to which seasonal factors may influence these findings, but it is hoped that with additional rounds of data collection this may be clarified. Relatively normal rainfall and temperature conditions during January-March 2017 may in part explain these findings (see page 4).

Figure 1. Percentage of households reporting various negative experiences resulting from food insecurity by survey round.



Map 1. Perceived Food Insecurity Index — June 2017



¹ The measure of food security used in this section—the Perceived Food Insecurity Index—is based on the Household Food Insecurity Access Scale (HFIAS). The index was calculated by summing the number of “Yes” responses for each of nine questions that gauge how households are coping with food insecurity conditions. These questions can be found in Section 3 of the questionnaire, which is presented in Annex I. More information on the HFIAS can be found here: <https://www.fantaproject.org/monitoring-and-evaluation/household-food-insecurity-access-scale-hfiас>

FOOD INSECURITY HOTSPOTS

At the end of the survey, respondents were given the opportunity to answer an open-ended question on whether and how the food security situation in their community had changed over the previous six months. Within the LLGs classified as having 'Very Poor' food insecurity during the survey (Burui/Kunai Rural, South Koroba Rural, and Kira Rural - see Table 1 and Map 1), the situations appear to be unique. In Burui/Kunai Rural LLG, heavy flooding at the end of 2016 inundated food gardens; according to respondents, the situation has not improved since then (see Box 1).

In South Koroba Rural LLG, the main theme from respondents was that drought conditions have prevented food gardens from producing sufficient food. And in Kira Rural LLG, respondents noted several unfavorable conditions for food security, including limited land, drought, heavy rains and landslide. These findings are summarized in Box 1 and the word cloud (Figure 10).

These responses make clear that Government and development partners must establish a sound mechanism for validating and, if necessary, effectively responding to communities experiencing severe food insecurity conditions.

Table 1. LLGs classified as having 'Poor' and 'Very Poor' perceived food insecurity in Round 3 survey

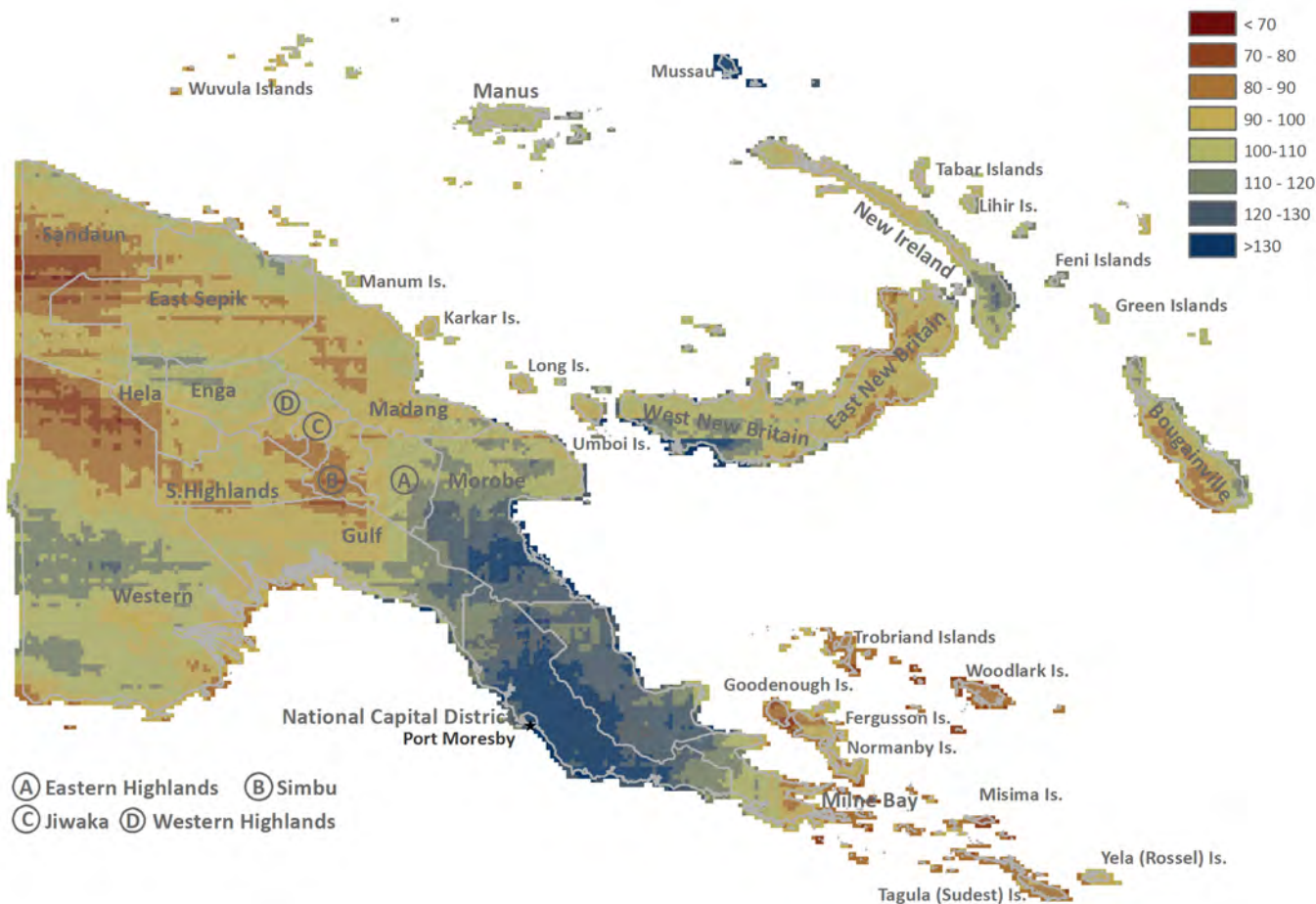
Sno	LLG	District	Province	Proj_Pop 2017	HFS_C
1	Nomad Rural LLG	Middle Fly	Western	16,328	Poor
2	Morehead Rural LLG	South Fly	Western	18,709	Poor
3	Ningerum Rural LLG	North Fly	Western	19,363	Poor
4	Rigo Central Rural	Rigo	Central	18,958	Poor
5	Kuare Rural	Kagua/Erave	Southern Highlands	12,171	Poor
6	Aiya Rural	Kagua/Erave	Southern Highlands	25,096	Poor
7	Lai Valley Rural	Mendi/Munihu	Southern Highlands	66,558	Poor
8	Lake Kopiago Rural	Koroba/Kopiago	Hela	21,223	Poor
9	Awai/Pori Rural	Koroba/Kopiago	Hela	24,872	Poor
10	Komo Rural	Komo/Magarima	Hela	22,184	Poor
11	Wapi-Yengis Rural	Kompiam	Enga	7,112	Poor
12	Paiela/Hewa Rural	Lagaip/Pogera	Enga	23,923	Poor
13	Tsak Rural	Wapenamanda	Enga	25,037	Poor
14	South Waghi Rural	Anglimp/South Waghi	Jiwaka	130,084	Poor
15	Elimbari Rural	Chuave	Chimbu	15,773	Poor
16	Suai Rural	Sina Sina Yonggomugl	Chimbu	29,769	Poor
17	Bomai/Gumai Rural	Gumine	Chimbu	15,224	Poor
18	Kundiawa Urban	Kundiawa/Gembogl	Chimbu	13,240	Poor
19	Dunantina Rural	Henganofi	Eastern Highlands	22,450	Poor
20	Gadsup/Tairora Rural	Kainanatu	Eastern Highlands	44,241	Poor
21	Yagaria Rural	Lufa	Eastern Highlands	33,026	Poor
22	Waria Rural	Bulolo	Morobe	12,817	Poor
23	Simbai Rural	Middle Ramu	Madang	21,818	Poor
24	Kovon	Middle Ramu	Madang	13,421	Poor
25	Gama Rural	Usino Bundi	Madang	12,719	Poor
26	South Wosera Rural	Wosera Gawi	East Sepik	25,811	Poor
27	Yuata Rural	Angoram	East Sepik	14,969	Poor
28	East Pomio Rural	Pomio	East New Britain	9,246	Poor
29	Kira Rural	Sohe	Oro	3,297	Very Poor
30	South Koroba Rural	Koroba/Kopiago	Hela	24,567	Very Poor
31	Burui/Kunai Rural	Wosera Gawi	East Sepik	15,365	Very Poor

CLIMATE CONDITIONS

Map 2 presents the rainfall anomaly between January–March 2017 throughout Papua New Guinea. The data indicate that a few spots in the far northwest and Milne Bay province received less rain than is normal. Areas to the east and southeast of Port Moresby, in contrast, received substantially more rain than is normal according to historical records. Notwithstanding these exceptions, most areas appear to have received an amount of rain that neither indicates drought nor waterlogging conditions.

The amount of rainfall is important to the traditional crops grown predominately in Papua New Guinea. Too much or too little can easily disrupt the balance that these plants—especially kaukau—require for optimal growth.

Map 2. Rainfall anomaly over the period Jan—Mar 2017 (% of 1981-2015 average)



Box 1. In the words of the respondents

“Shortage of food since December last year due to heavy rains, gardens have been destroyed by flood and we have been surviving on coconut and sago.” - Respondent from Burui/Kunai Rural LLG in East Sepik Province

“We have no food to eat this time because we were affected by drought.” - Respondent from South Koroba Rural LLG in Hela Province

“We do not have enough food because of poor soil fertility and also limited land to make gardens.” - Respondent from Kira Rural LLG in Oro Province

“Due to heavy rains we are unable to make gardens therefore we are relying on sago only.” - Respondent from Kira Rural LLG in Oro Province

“No, our gardens have been flooded due to the continuous heavy rain in the recent months resulting in low crop yield.” - Respondent from NINGERUM RURAL LLG, North Fly in Western Province.

FOOD GARDENS AND PLANTING MATERIALS

Home and community gardens play a significant role in meeting the food needs of households throughout PNG. The April-June 2017 survey assessed the production of these gardens and the availability of agricultural inputs to identify any potential challenges or shortages. Map 3 shows that, in general, the production of food gardens in most LLGs was categorized as normal or somewhat less than normal (only Burui/Kunai Rural LLG listed as much less than normal).

Among all respondents, just 6 percent reported that the production of food gardens in their communities was much less than normal. The comparative result from the Nov-Dec 2016 survey was 8 percent (the data was not collected in the Jan-Feb 2016 survey).

Figure 2. Supply of planting materials for main staple — June 2017

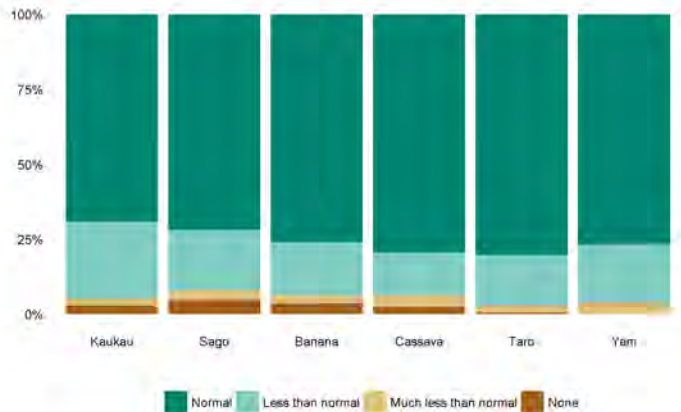
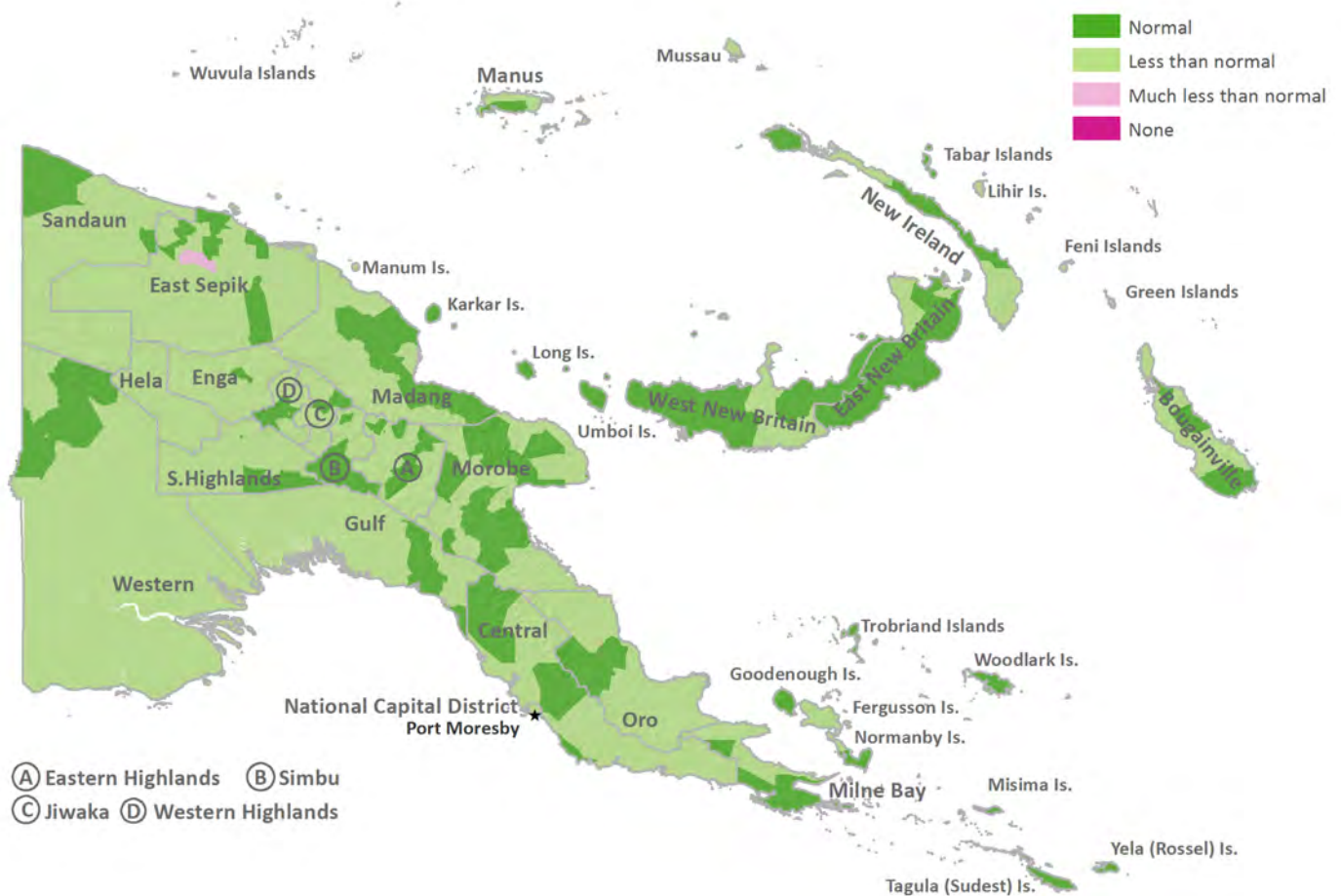


Figure 2 shows the reported availability of agricultural inputs (seeds, cuttings, etc.) at the community level by type of main staple. Nearly all respondents reported that, if the nearest market/shop normally sells the inputs, they were available at the time of the survey. This is a critical factor in the resilience of households that depend upon root crops for their food security.

Map 3. Production level of food gardens compared to normal — June 2017



MARKETS AND PRICES

Figure 3 reveals that the median reported price for a kilogram of the main staple (in PGK) at local markets varied by commodity. The median reported price for a heap of kaukau, the most widely grown and consumed staple, was 2PGK; the range of reported prices was also very tight, suggesting there was limited variability in the price by geographic location. In contrast, the price of a heap of yams (4PGK) was higher than kaukau and presented with a much wider variability.

These findings are consistent with data collected routinely for consumer price index purposes by the National Statistical Office.

To contextualize these findings, additional price information is shown in Figure 4. The median reported price for main staple (i.e. combining all staples) is presented for the three rounds of mVAM surveys which have been conducted in Papua New Guinea.

The data indicate that, since the height of the El Niño crisis in early 2016, the median price for main staples has decreased by nearly 50 percent. The more narrow distribution of reported prices are indicative of better functioning markets and information flow. (Market prices are more varied when inefficiencies in the flow of goods and information exist.) Map 4 shows the distribution of median reported prices for main staples between April-June 2017 and is largely consistent with this narrative. There is not much variation, though the conventional expectation of lower prices in the interior (closer to where the crops are grown) and slightly higher prices further south and near urban areas, is present. Higher-priced staples (e.g., banana) were also more likely to be reported as the main commodity in the latter areas.

For comparison, the median reported price of rice over the three surveys is presented in Figure 5. The price and variability around it is relatively stable throughout this period. This might have been expected given that rice is largely imported into PNG and thus not subject to shortages as a result of the El Niño climate event. Additional analysis (not shown) do indicate, however, that the weakening kina in early 2016 appear to have had a slight impact on the price as reported in the previous report (the USD/PGK rate stabilized after June 2016). Map 5 presents the distribution of reported median price for rice—the main pattern of note is the higher prices found in the far west and northwest.

Figure 3. Price per heap/kg (median) of staple, by type — June 2017

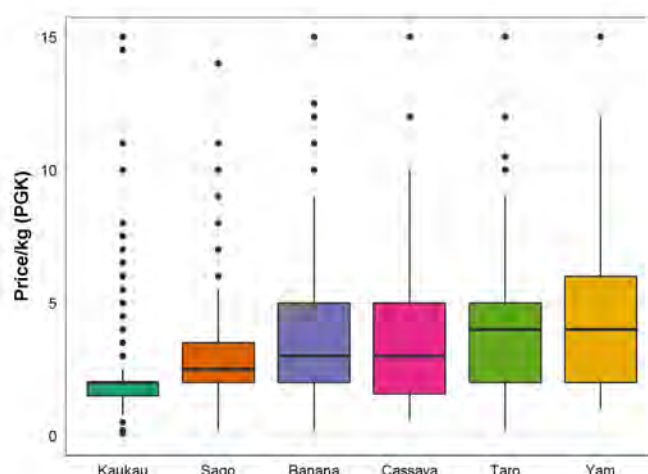


Figure 4. Price per heap/kg (median) of main staple by round

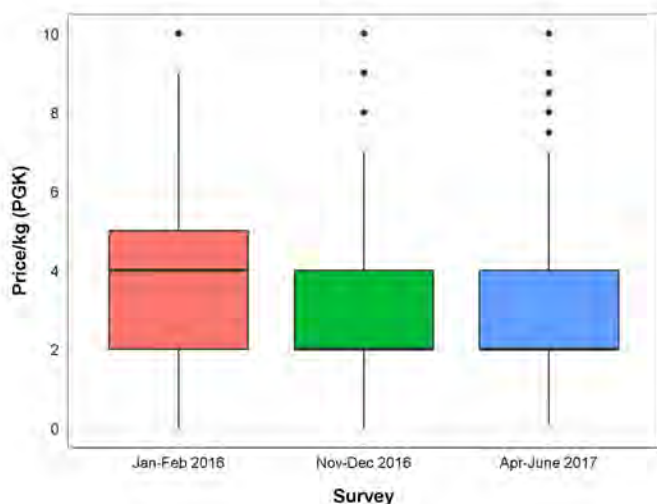
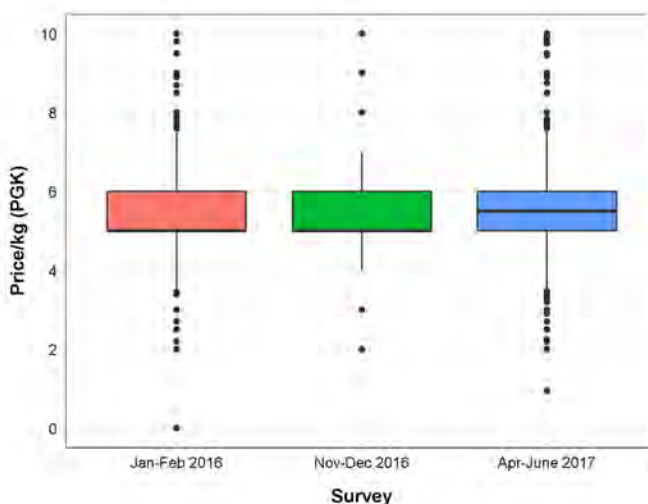
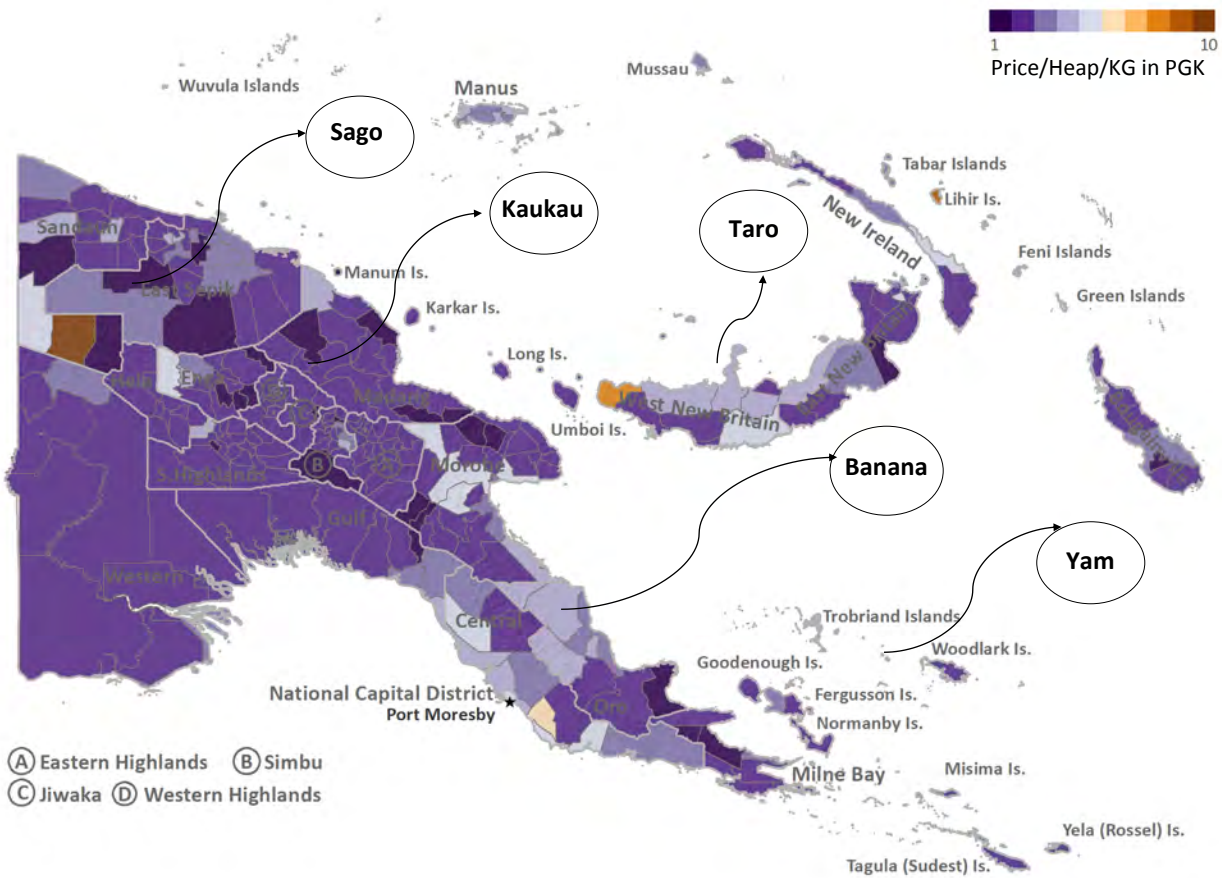


Figure 5. Price per kg (median) of rice by round

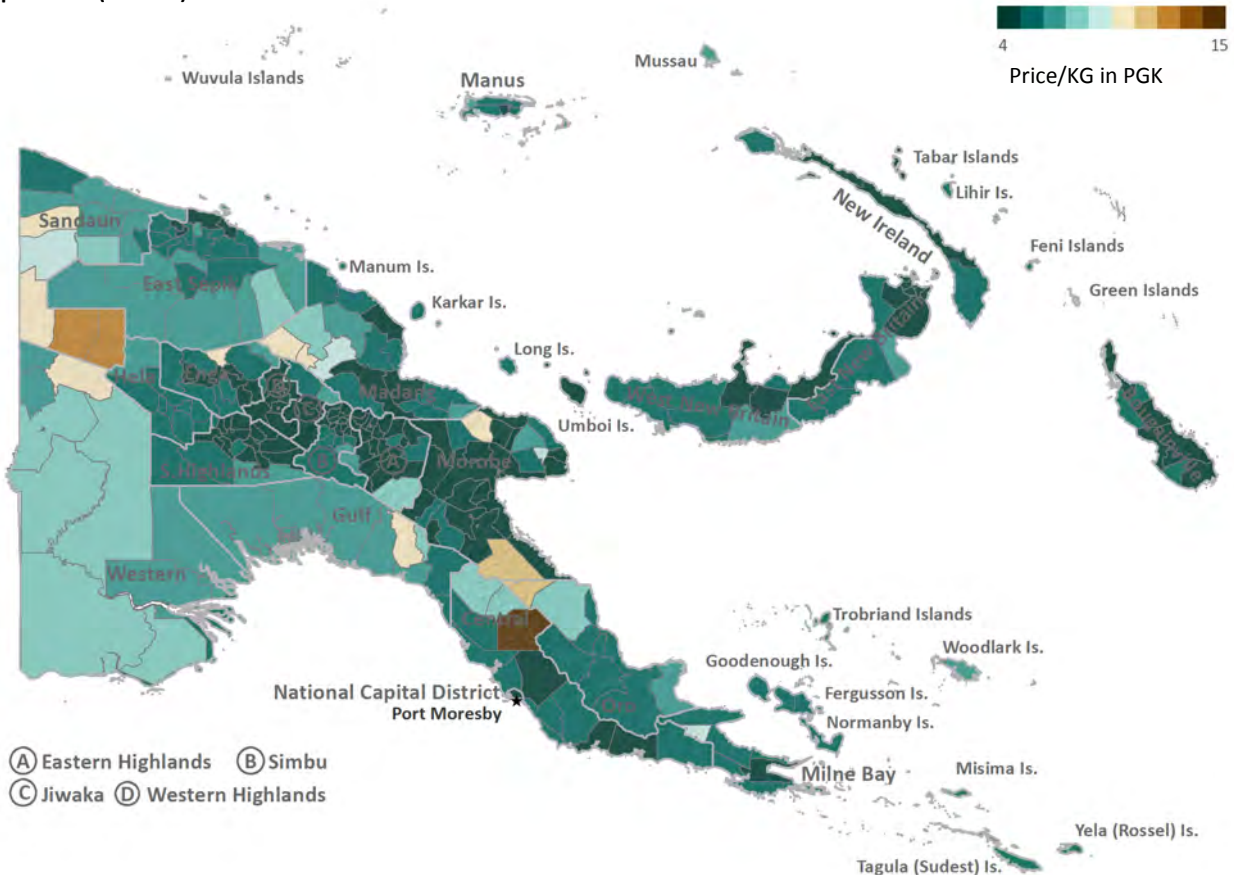


MARKETS AND PRICES

Map 4. Price (median) of main staple - June 2017



Map 5. Price (median) of rice - June 2017



LIVELIHOODS AND GENDER

In keeping with the general trend observed from the April-June 2017 survey, food insecurity amongst all livelihood categories (as measured by the mean of the index) continued to decrease, falling even compared to the Nov-Dec 2016 findings. Only those reporting livestock as the main income activity appear to remain more vulnerable than their peers.

Likewise, the level of food insecurity decreased proportionally for households headed by both males and females (Figure 7). Of note for Government and stakeholders active in the food security sector, however, is the persistent, additional vulnerability that female-headed households are reporting. To reiterate from the previous report:

“The reasons underlying this finding are complex and require policy makers and programme designers to carefully consider how best to support female-headed households in the future.”

Figure 6. Perceived Food Insecurity Index by main income activity

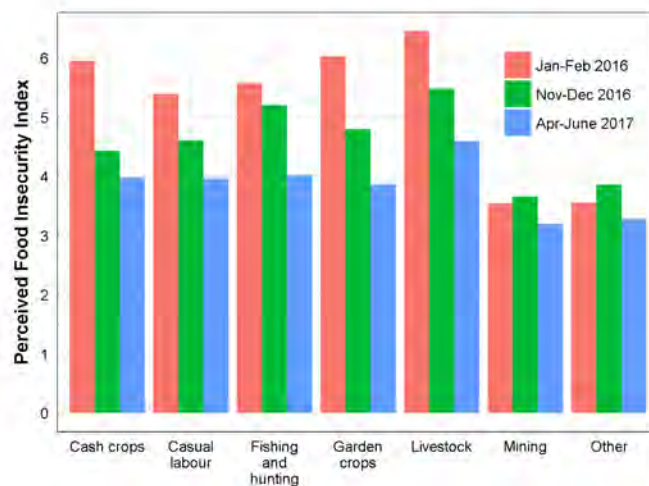
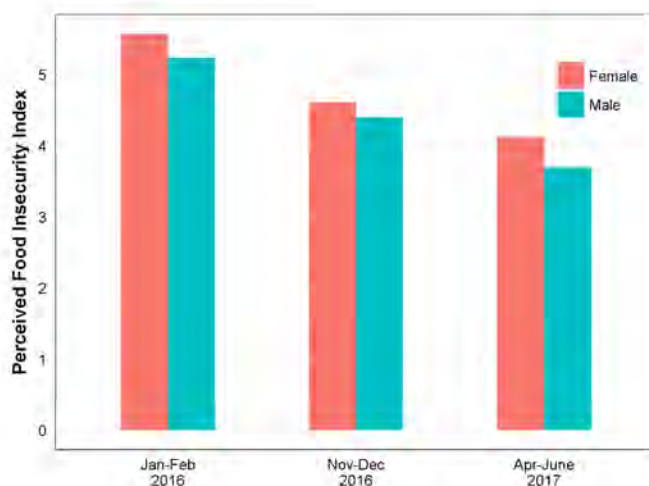


Figure 7. Perceived Food Insecurity Index by sex head of household



RESPONDENT SEGMENTS

In an effort to better understand the “types” of respondents that the survey was collecting information from, a clustering algorithm was performed that created six unique “segments” or groups. These groups have significant similarities across a set of underlying socioeconomic indicators; the algorithm works by minimizing the amount of overlap between the groups.³ Map 6 presents the most common group from which the survey collected information in each LLG.⁴

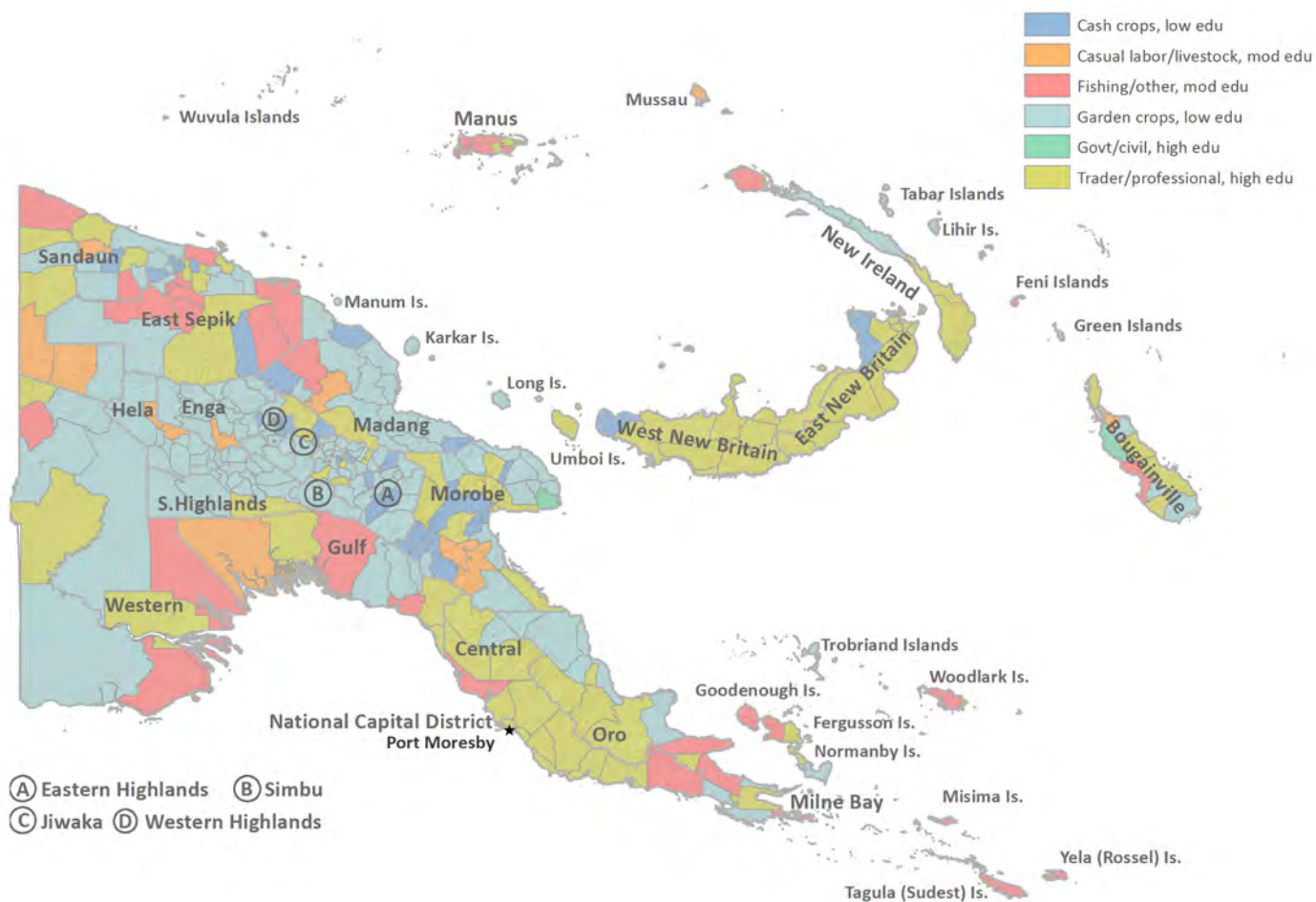
Breaking survey respondents into these fairly heterogenous groups provides some additional insights into the mechanisms underlying food insecurity in PNG. Figure 8 presents the food insecurity status of households within each segment. Households with high levels of education and those whose main income activities include civil servants, traders, and professionals were substantially less likely to report being food insecure than their peers. Indeed, a cursory comparison between Map 6 and Map 1 on page 2 reveal considerable overlap between these two groups.

³ More details on the composition of the respondent segments can be found in Annex ii.

⁴ It is important to note that this data does not reflect the most common group in the LLG in general, but the most common which the survey successfully contacted and collected information from randomly selected respondents using mVAM Survey. For more information will be found in methodology section.

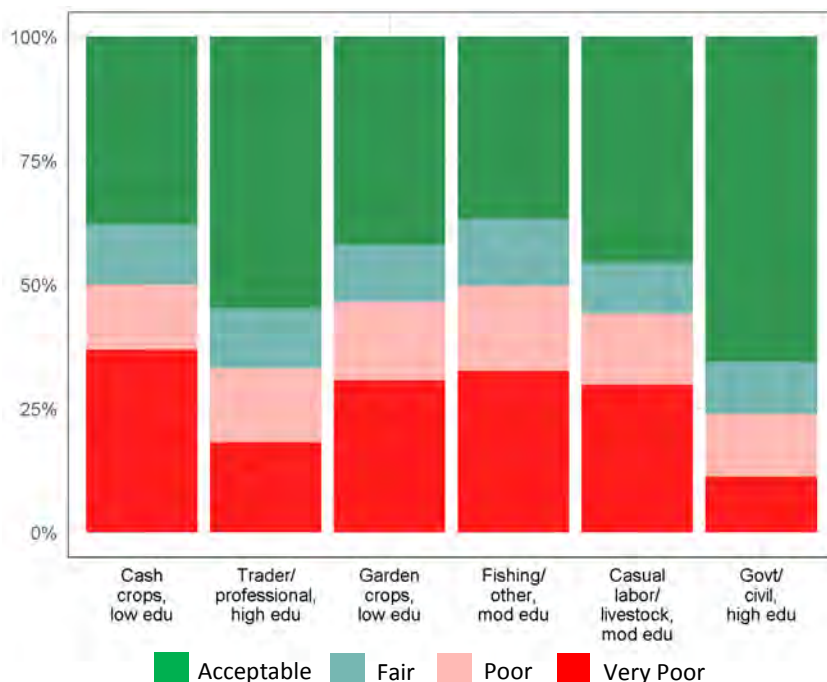
RESPONDENT SEGMENTS

Map 6. Most common respondent segment by LLG - June 2017



This relationship is not unexpected but the data provide a useful, geospatial perspective for interpreting the food insecurity findings. Most notably, the respondents living in areas surrounding the National Capital District, as well as West and East New Britain appear to have a socioeconomic profile that is protective against food insecurity. In subsequent rounds of the mVAM food security and livelihoods monitoring system, additional information may be analyzed to understand the various dynamics that are at play for these different groups.

Figure 8. Perceived Food Insecurity Index by segment



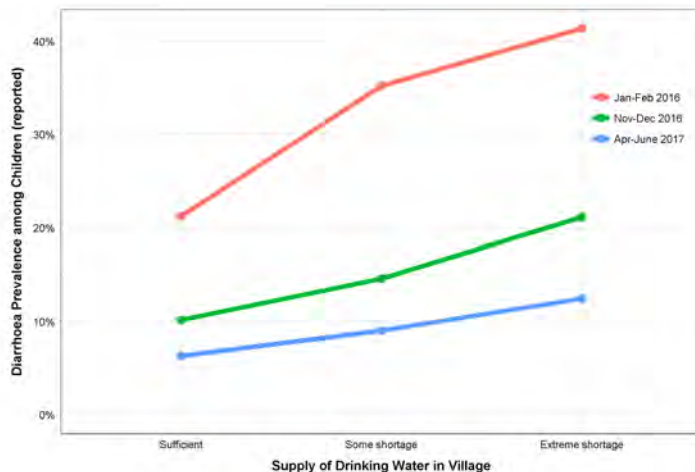
WATER ACCESS AND HEALTH SITUATION

Just 6 percent of survey respondents reported that there was an extreme shortage of (or no) drinking water in their community. As a result, all but one LLG was classified as having either sufficient or some shortage of drinking water based on respondents' reports for their community (Map 7). By comparison, the same results for the Jan-Feb 2016 and Nov-Dec 2016 surveys were 14 and 8 percent, respectively.

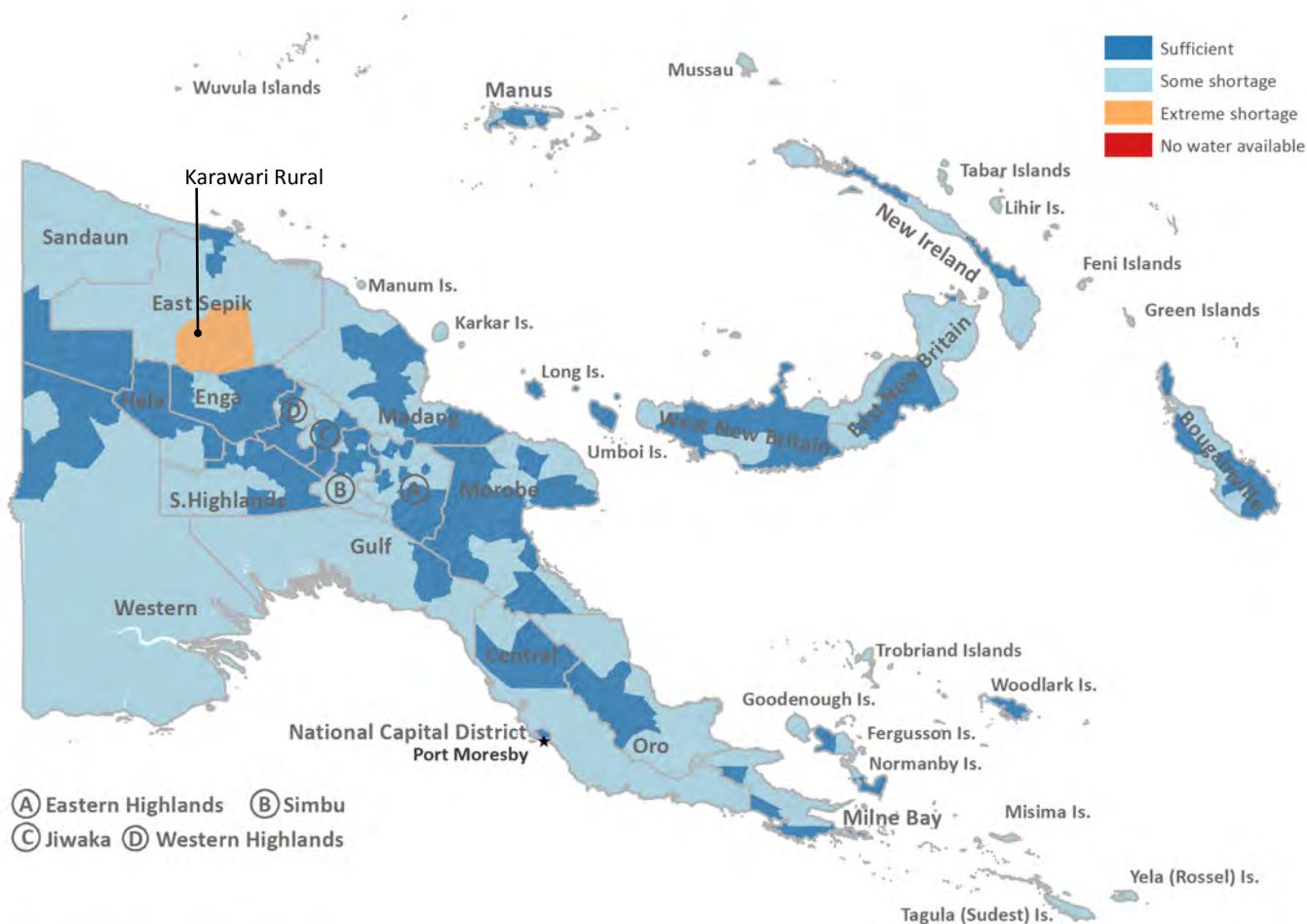
Among households with children, 24 percent reported that their children were currently suffering any kind of illness. (The comparative figures for the previous surveys were 47 and 30 percent, respectively) Diarrhea was again the most commonly reported illness at 7 percent and was again correlated with water access (Figure 8).

The dramatic decrease in reported illness from the peak of the El Niño event is noteworthy. However, collecting data at different times of the year and cross-referencing with health authorities is needed to better understand whether these improvements are truly material or whether they are driven by seasonal factors.

Figure 8. Prevalence of diarrhea (among households with children) by reported supply of drinking water



Map 7. Drinking water supply (reported) by LLG -- June 2017



PANEL DATA HIGHLIGHTS

Among the 4,490 respondents in the April-June 2017 survey were 399 respondents for whom information was also collected during the Jan-Feb 2016 and Nov-Dec 2016 surveys. This “panel” allowed more robust analyses and conclusions to be drawn about household food insecurity during this time. Figure 9 shows the food security dynamics over time within different respondent segments. Of note is the apparent lack of improvement among the cash crop and fishing cohorts since late 2016.

Figure 9. Perceived Food Insecurity Index by survey and segment

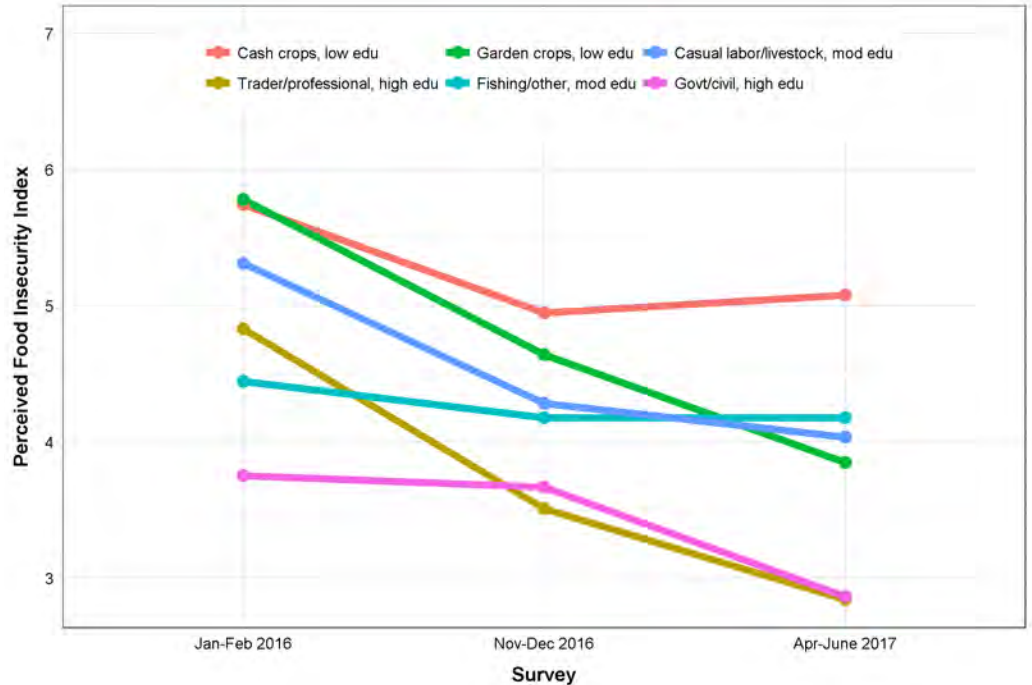


Figure 10. Word cloud of responses from LLGs worst affected LLG's



BACKGROUND

The 2015-16 El Niño climate event resulted in widespread drought and frost in Papua New Guinea (PNG), affecting approximately 2.43 million people (532,000 households) across the country. Nearly 480,000 people were estimated to have experienced severe food shortages during this time. Aside from food insecurity and malnutrition, the El Niño-induced drought was also directly or indirectly responsible for a number of suboptimal outcomes including shortages of drinking water, impaired sanitation facilities, and increased incidences of communicable disease. Water shortages also impacted the operation of schools, leading to the closure of many during the 2015-16 school years.

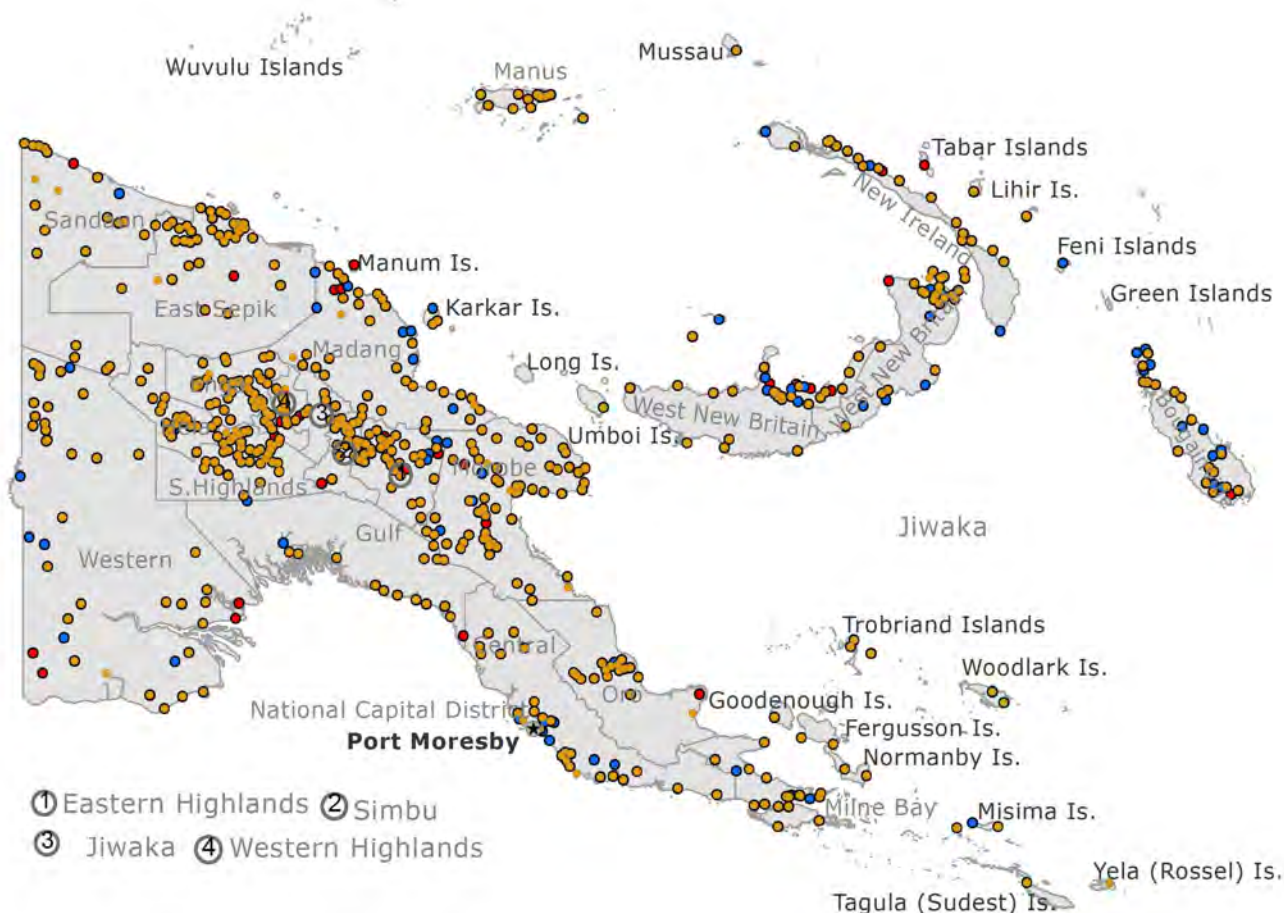
During the 2015-16 El Niño event, the World Food Programme (WFP)—in support of the National Disaster Centre (NDC) and the Department of Agriculture and Livestock (DAL)—conducted two mobile food security assessments (Jan-Feb 2016 and Nov-Dec 2016) to better understand how the drought and frost impacted the food security and livelihood situation of households throughout PNG. The assessments leveraged WFP’s mobile vulnerability analysis and mapping (mVAM) technology and methodology which was developed in 2013 and tested in more than 30 countries since. The surveys collected data via voice calls on the Digicel Network in all 326 LLGs and produced timely and relevant findings that Government and humanitarian stakeholders used to support decision-making.

Based on the success and demand that the first two surveys generated, WFP agreed to partner with NDC, DAL and the National Statistics Office (NSO) on a two-year food security surveillance and analysis programme in PNG. In May 2017, a third round of mVAM food security assessment was conducted in order to establish a baseline for the monitoring system, the findings of which are presented in this report.

METHODOLOGY

For the current survey, Digicel operators interviewed a total of 4,490 households by phone between 25 April and 26 June 2017. Surveys were conducted in the two main languages spoken in Papua New Guinea: Tok Pisin and English.

Map 8. Geographic distribution of calls by survey



The sampling methodology initially prioritized households reached during the first and second surveys: 399 households surveyed in Round 1 and 2 were successfully surveyed. Additional households were then randomly selected from Digicel's mobile subscriber database.

Within each LLG, the survey targeted 19 households for interview. However, due to the location of Digicel's mobile phone reception towers and the current location of the mobile phone subscribers, achieving this target was not always possible. Thus, some LLGs had far more than 19 interviews and some far fewer. Details on the number of households sampled per LLG are provided in Annex III. Any population figures used in this report represent projections from the 2011 Census using regional growth rates.

As per standard survey procedures, respondents' consent was obtained prior to the interviews. All respondents received a 2 kina airtime credit incentive after completing the survey. Annex I presents the full questionnaire used in the follow-up survey. A total of eleven operators conducted the interviews (seven female and four male).

Limitations

Mobile phone survey results tend to be skewed by wealthier households and those living in urban areas as these populations are more likely to own or have access to mobile phones. Despite mobile service coverage of 80 percent as of early 2016, an estimated 65 percent of the population of over 7.7 million do not have access to a mobile phone – the country currently has just 2.7 million unique subscribers. (Although it is also worth noting that while penetration is measured using subscription data, the percentage of actual usage may be higher as mobile access is communal in rural PNG societies. A handset is usually shared among groups and families).

In addition, women in PNG are much less likely than men to have access to a mobile phone, primarily due to cost, technical literacy, and cultural and infrastructure constraints. This may have led to bias in the sample due to the underrepresentation of women. Out of the 4,490 respondents in this survey, 1,081 were female (24 percent).

Due to the nature of mobile surveys, the questionnaire needed to be as short and simple as possible. As such, only a limited amount of information could be collected. Given these inherent biases in mobile surveys, it is important to note that the results of this survey should not be seen as precise estimates of food insecurity, but rather as a way of capturing patterns and relative levels of food insecurity between one area and another.

ANNEX I

Mobile Questionnaire

PNG Round 3 Survey Questionnaire: June 2017

Questionnaire Information

Name of Enumerator	
Respondent ID	
Site ID (tower)	
Date of the survey	(dd/mm/yy)

Introduction:

[Enumerator]: Hello, my name is *[Enumerator Name]* and I am calling on behalf of United Nations World Food Programme and National Disaster Center. We are conducting a survey to learn about the food security situation in your community and your household's food consumption. If you agree to participate, you will be providing valuable information to help your community. Your participation in this survey is voluntary, and all your answers will remain confidential. The survey will take maximum 12 minutes of your time. If you complete the survey, you'll receive an airtime credit of 2 Kina.

[Enumerator]: Are you interested in participating in this survey, now or another time?

YES, now → **SKIP TO QUESTION 0.1**

YES, later → When can I call you at another time? [Record when to call back - day/time]

NO → **END SURVEY**

Question 0.1: Age_Respondent

[Enumerator]: What is your age? [Record # of years] **If Age_Respondent is less than 16 → END SURVEY**

Section 1: Demographic and Geographic info

Question 1.1: Gender_respondent

[Enumerator]: The sex of respondent is man or a woman? [Record: Man or Woman]

Question 1.2: Gender_HoH

[Enumerator]: Is the head of your household a man or a woman? [Record: Man or Woman]

Question 1.3: ADM1_province

[Enumerator]: In which Province are you currently living? [Record: Name of Province]

Question 1.4: ADM2_district

[Enumerator]: In which District are you currently living? [Record: Name of District]

Question 1.5: ADM3_LLG

[Enumerator]: In which LLG are you currently living? [Record: Name of LLG]

ANNEX I

Section 2: Community food security section

[*Enumerator*]: I would like to ask you some questions about the food situation in your village.

Question 2.1: Food_supply

[*Enumerator*]: What is the current food supply situation in your village?

- SUFFICIENT SOME SHORTAGE EXTREME SHORTAGE NO FOOD AVAILABLE

Question 2.2: Water_supply

[*Enumerator*]: What is the current supply of drinking water in your village?

- SUFFICIENT SOME SHORTAGE EXTREME SHORTAGE NO WATER AVAILABLE

Question 2.3: Hunger

[*Enumerator*]: How many households in your village are currently suffering from hunger?

- NONE SOME MANY ALL

Question 2.4: Famine_foods

[*Enumerator*]: How many households in the village are currently **ONLY** consuming famine foods such as foods found in the forest? (for example: wild yam, wild berries, banana corm or green pawpaw)

- NONE SOME MANY ALL

Question 2.5: Food_availability_gender

[*Enumerator*]: In your community, who has the main responsibility to ensure there is enough food in the household?

- Men Women

Question 2.6: Mortality

[*Enumerator*]: In the last 6 months, did anyone in your village die because they did not have enough food to eat?

- YES
 NO

Question 2.7: Garden_production

[*Enumerator*]: What is the current production of food gardens in the village currently, compared to normal?

- NORMAL LESS MUCH LESS NONE

Question 2.8: Main_staple

[*Enumerator*]: What is the MAIN STAPLE FOOD ITEM in your area?.....[Record only one response]

- KAUKAU SAGO BANANA CASSAVA TARO YAM

Question 2.10: Main_staple_supply

[*Enumerator*]: What is the supply of [MAIN STAPLE FOOD ITEM] in your nearest market/shop?

- SUFFICIENT SOME SHORTAGE EXTREME SHORTAGE NONE MARKET DOES NOT NORMALLY SELL

ANNEX I

Question 2.11: Main_staple_price

[**Enumerator**]: Currently, how much does 1 heap of [MAIN STAPLE FOOD ITEM] cost in your nearest market/shop?

[Record the amount paid for 1 heap in PGK. Record "A" if respondent does not know amount paid. Record "B" if item is not available in the market]

Question 2.12: Planting_materials_supply

[**Enumerator**]: Currently, what is the supply of planting materials for [MAIN STAPLE FOOD ITEM] in in your nearest market shop? (for example: seeds or cuttings)

SUFFICIENT SOME SHORTAGE EXTREME SHORTAGE NONE MARKET DOES NOT NORMALLY SELL

Question 2.13: Rice_price

[**Enumerator**]: Currently, how much does 1 kg of rice cost in your nearest market/shop? [Record the amount paid for 1 kg of rice in PGK. Record "A" if respondent does not know amount paid. Record "B" if item is not available in the market]

Section 3: Household Food Security Experience Section

[**Enumerator**]: Now I would like to ask you some questions about your household's food situation DURING THE PAST 7 DAYS.

Question 3.1: Food_worry

[**Enumerator**]: DURING THE PAST 7 DAYS: Did you at any time worry that there wasn't enough food to eat for your household?

YES NO

Question 3.2: Food_normal

[**Enumerator**]: DURING THE PAST 7 DAYS: Was your household able to eat the kind of food that you normally eat?

YES NO

Question 3.3: Food_limited

[**Enumerator**]: DURING THE PAST 7 DAYS: Did your household eat a more limited variety of food than normal?

YES NO

Question 3.4: Food_not_preferred

[**Enumerator**]: DURING THE PAST 7 DAYS: Did your household eat food at any stage that no one really wanted to eat but there was no other choice?

YES NO

Question 3.5: Food_smaller_meals

[**Enumerator**]: DURING THE PAST 7 DAYS: Did your household eat smaller meals than needed because there was not enough food?

YES NO

NO

ANNEX I

Question 3.6: Food_fewer_meals

[Enumerator]: DURING THE PAST 7 DAYS: Did your household eat fewer meals per day than usual because there was not enough food?

YES NO

Question 3.7: Food_no_food

[Enumerator]: DURING THE PAST 7 DAYS: Did it happen that your household had no food to eat of any kind?

YES NO

Question 3.8: Food_bed_hungry

[Enumerator]: DURING THE PAST 7 DAYS: Did anyone in your household go to bed feeling hungry because there was not enough food?

YES NO

Question 3.9: Food_day_night

[Enumerator]: DURING THE PAST 7 DAYS: Did anyone in the household go a whole day and night without eating because there was not enough food?

YES NO

Question 3.10: Main_livelihood

[Enumerator]: What is your household's main income activity?[Record only one response]

- | | |
|--|---|
| <input type="radio"/> Garden crops | <input type="radio"/> Cash crops |
| <input type="radio"/> Livestock | <input type="radio"/> Fishing/Hunting |
| <input type="radio"/> Mining | <input type="radio"/> Casual labour |
| <input type="radio"/> Trader/business owner/seller | <input type="radio"/> Technical professional (mechanic, engineer, nurse, teacher, etc.) |
| <input type="radio"/> Government/public servant | <input type="radio"/> Religious activity |
| | <input type="radio"/> Other _____ |

Question 3.11: Income_change

[Enumerator]: Compared to this time last year, has your household income from [MAIN INCOME ACTIVITY] increased, decreased or stayed about the same?

INCREASED DECREASED STAYED SAME / NO CHANGE

Question 3.12: Displaced

[Enumerator]: At any time in the past 6 months, have members of your household been displaced from your household's normal location?

YES NO → **SKIP TO QUESTION 3.14**

Question 3.13: Displaced_reason

[Enumerator]: What was the main reason for this displacement?.....[Record only one response]

ANNEX I

Question 3.14: Child_sick

[Enumerator]: Are any of your children currently suffering from any sickness?

- YES NO NO CHILDREN → **SKIP TO QUESTION 3.16**

Question 3.15: Sick_type

[Enumerator]: IF YES: What are they suffering from?[Record all that apply]

- | | |
|--|---|
| <input type="checkbox"/> DIARRHOEA / DYSENTERY / VOMITING / STOMACH PROBLEMS | <input type="checkbox"/> MALARIA |
| <input type="checkbox"/> SIGNIFICANT WEIGHT LOSS / FAILURE TO GAIN WEIGHT | <input type="checkbox"/> DENGUE |
| <input type="checkbox"/> RASH/SKIN PROBLEM / PEELING SKIN / BRITTLE HAIR | <input type="checkbox"/> ANAEMIA |
| <input type="checkbox"/> GENERALIZED SWELLING / BELLY SWELLING | <input type="checkbox"/> FAINTING AND DIZZINESS |
| <input type="checkbox"/> COUGHING / TB / RESPIRATORY PROBLEMS | <input type="checkbox"/> OTHER _____ |

Question 3.16: SES_wall_material

[Enumerator]: What is the major construction material used in the external walls of your house?.....[Record only one response]

- | | |
|--|--|
| <input type="radio"/> Brick | <input type="radio"/> Wood |
| <input type="radio"/> Concrete | <input type="radio"/> Traditional bamboo / matting |
| <input type="radio"/> Fibro | <input type="radio"/> Mud |
| <input type="radio"/> Metal Sheets / tin | <input type="radio"/> Other _____ |

Question 3.17: SES_television

[Enumerator]: Does your household own a working television?

- YES NO

Question 3.18: SES_HoH_edu

[Enumerator]: Has the head of household ever attended any formal school?

- YES NO
 Don't Know

Question 3.19: SES_HoH_edu_attain

[Enumerator]: IF YES: What is the highest grade level [HEAD OF HOUSEHOLD] completed in school?.....[Record only one response]

- | | |
|--|--|
| <input type="radio"/> No grade completed | <input type="radio"/> Secondary (9 - 12) |
| <input type="radio"/> Elementary (P - 2) | <input type="radio"/> Tertiary (> 12) |
| <input type="radio"/> Primary (3 - 8) | <input type="radio"/> Don't Know |

ANNEX I

Section 4: Aid Assistance Section

Question 4.1: Aid_received

[**Enumerator**]: At any point in the last 6 months has your household received assistance (cash, food, agricultural inputs, building supplies, etc.) to help your household cope with any hardship?

- YES NO → **SKIP TO QUESTION 5.1**

Question 4.2: Aid_source

[**Enumerator**]: IF YES: From whom did you receive the assistance?.....[Record all that apply]

- | | |
|-------------------------------------|---|
| <input type="checkbox"/> Wantok | <input type="checkbox"/> UN |
| <input type="checkbox"/> Churches | <input type="checkbox"/> Private Business |
| <input type="checkbox"/> NGO | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Government | <input type="checkbox"/> Don't remember |

Open Question:

Question 5.1: Open_ended

[**Enumerator**]: Has the food security situation in your community changed during the last 6 months and, if so, why?
..... [Free text]

If respondent does not want to respond to the open ended question, go to the conclusion.

Conclusion:

Question 6.1: Call_back

[**Enumerator**]: May we call you back in 6 months?

- YES NO

[**Enumerator**]: Thank you very much for your time! Your answers will aid to the understanding and response to needs in your community.

Instructions for Enumerator:

Question 7.1: Survey_status

Please end the survey ticking one of the box below:

- Survey completed Survey incomplete

Question 7.2: Respondent_knowledge

Please rate your perception of the respondent's knowledge of the food security situation and ability to provide good quality information:

- Knowledgeable Not very knowledgeable

ANNEX II

No.	Province	District	LLG	n	No.	Province	District	LLG	n
1	Bougainville	Central Bougainville	ARAWA	10	46	East New Britain	Gazelle	CENTRAL GAZELLE RURAL	08
2	Bougainville	Central Bougainville	WAKUNAI	9	47	East New Britain	Gazelle	INLAND BAINING RURAL	19
3	Bougainville	North Bougainville	ATTOLS	8	48	East New Britain	Gazelle	LASSUL BAINING RURAL	17
4	Bougainville	North Bougainville	BUKA	11	49	East New Britain	Gazelle	LIVUAN/REIMBER RURAL	11
5	Bougainville	North Bougainville	KUNUA	8	50	East New Britain	Gazelle	VUNADIDIR/TOMA RURAL	11
6	Bougainville	North Bougainville	NISSAN	8	51	East New Britain	Kokopo	BITAPAKA RURAL	21
7	Bougainville	North Bougainville	SELAU/SUIR	8	52	East New Britain	Kokopo	DUKE OF YORK RURAL	9
8	Bougainville	North Bougainville	TINPUTZ	9	53	East New Britain	Kokopo	KOKOPO/UNAMAMI URBAN	13
9	Bougainville	South Bougainville	BANA	11	54	East New Britain	Kokopo	RALUANA RURAL	11
10	Bougainville	South Bougainville	BUIN	8	55	East New Britain	Pomio	CENTRAL/INLAND POMIO	21
11	Bougainville	South Bougainville	SIWAI	8	56	East New Britain	Pomio	EAST POMIO RURAL	8
12	Bougainville	South Bougainville	TOROKINA	9	57	East New Britain	Pomio	MELKOI RURAL	9
13	Central	Abau	AMAZON BAY RURAL	12	58	East New Britain	Pomio	SINIVIT RURAL	8
14	Central	Abau	AROMA RURAL	12	59	East New Britain	Pomio	WEST POMIO/MAMUSI	8
15	Central	Abau	CLOUDY BAY RURAL	10	60	East New Britain	Rabaul	BALANATAMAN RURAL	09
16	Central	Goilala	GUARI RURAL	19	61	East New Britain	Rabaul	KOMBIU RURAL	09
17	Central	Goilala	TAPINI RURAL	19	62	East New Britain	Rabaul	RABAUL URBAN	09
18	Central	Goilala	WOITAPE RURAL	19	63	East New Britain	Rabaul	WATOM ISLAND RURAL	13
19	Central	Kairuku–Hiri	HIRI RURAL	8	64	East Sepik	Ambunti-Dreikikir	AMBUNTI RURAL	16
20	Central	Kairuku–Hiri	KAIRUKU RURAL	10	65	East Sepik	Ambunti-Dreikikir	DREKIKIER RURAL	22
21	Central	Kairuku–Hiri	KOIARI RURAL	19	66	East Sepik	Ambunti-Dreikikir	GAWANGA RURAL	9
22	Central	Kairuku–Hiri	MEKEO KUNI RURAL	20	67	East Sepik	Ambunti-Dreikikir	TUNAP/HUSTEIN RURAL	7
23	Central	Rigo	RIGO CENTRAL RURAL	9	68	East Sepik	Angoram	ANGORAM/MIDDLE SEPIK	12
24	Central	Rigo	RIGO COASTAL RURAL	17	69	East Sepik	Angoram	KARAWARI RURAL	08
25	Central	Rigo	RIGO INLAND RURAL	8	70	East Sepik	Angoram	KERAM RURAL	08
26	Chimbu	Chuave	CHUAVE RURAL	24	71	East Sepik	Angoram	MARIENBERG RURAL	08
27	Chimbu	Chuave	ELIMBARI RURAL	11	72	East Sepik	Angoram	YUAT RURAL	07
28	Chimbu	Chuave	SIANE RURAL	11	73	East Sepik	Maprik	ALBIGES/MABLEP RURAL	08
29	Chimbu	Gumine	BOMAI/GUMAI RURAL	11	74	East Sepik	Maprik	BUMBITA/MUHIAN RURAL	08
30	Chimbu	Gumine	GUMINE RURAL	21	75	East Sepik	Maprik	MAPRIK/WORA RURAL	10
31	Chimbu	Gumine	MT DIGINE RURAL	23	76	East Sepik	Maprik	YAMIL/TAMAUI RURAL	09
32	Chimbu	Karimui-Nomane	KARIMUI RURAL	22	77	East Sepik	Wewak	BOIKIN/DAGUA RURAL	22
33	Chimbu	Karimui-Nomane	NOMANE RURAL	8	78	East Sepik	Wewak	TURUBU RURAL	19
34	Chimbu	Karimui-Nomane	SALT RURAL	23	79	East Sepik	Wewak	WEWAK ISLANDS	20
35	Chimbu	Kerowagi	GENA/WAUGLA RURAL	19	80	East Sepik	Wewak	WEWAK RURAL	21
36	Chimbu	Kerowagi	KEROWAGI RURAL	8	81	East Sepik	Wewak	WEWAK URBAN	17
37	Chimbu	Kerowagi	KUP RURAL	9	82	East Sepik	Wosera-Gawi	BURUI/ KUNAI RURAL	14
38	Chimbu	Kerowagi	Upper/Lower Koronigl	15	83	East Sepik	Wosera-Gawi	GAWI RURAL	08
39	Chimbu	Kundiawa-Gembogl	KUNDIAWA URBAN	8	84	East Sepik	Wosera-Gawi	NORTH WOSERA RURAL	12
40	Chimbu	Kundiawa-Gembogl	MITNANDE RURAL	19	85	East Sepik	Wosera-Gawi	SOUTH WOSERA	09
41	Chimbu	Kundiawa-Gembogl	NIGLKANDE RURAL	21	86	East Sepik	Yangoro-Saussia	EAST YANGORU RURAL	08
42	Chimbu	Kundiawa-Gembogl	WAIYE RURAL	24	87	East Sepik	Yangoro-Saussia	NUMBOR RURAL	20
43	Chimbu	Sina Sina-Yonggomugl	SUAI RURAL	21	88	East Sepik	Yangoro-Saussia	SAUSSO RURAL	10
44	Chimbu	Sina Sina-Yonggomugl	TABARE RURAL	21	89	East Sepik	Yangoro-Saussia	WEST YANGORU RURAL	10
45	Chimbu	Sina Sina-Yonggomugl	YONGOMUGL RURAL	08	90	Eastern Highlands	Daulo	Lower Asro Rural	08

ANNEX II

No.	Province	District	LLG	n	No.	Province	District	LLG	n
91	Eastern Highlands	Daulo	Upper Asro Rural	07	136	Gulf	Kikori	EAST KIKORI RURAL	08
92	Eastern Highlands	Daulo	WATABUNG RURAL	09	137	Gulf	Kikori	IHU RURAL	19
93	Eastern Highlands	Goroka	GOROKA RURAL	13	138	Gulf	Kikori	WEST KIKORI RURAL	08
94	Eastern Highlands	Goroka	GOROKA URBAN	11	139	Hela	Komo-Magarima	HULIA RURAL	19
95	Eastern Highlands	Goroka	Mimanalo Rural	11	140	Hela	Komo-Magarima	KOMO RURAL	20
96	Eastern Highlands	Henganofi	Dunantina Rural	10	141	Hela	Komo-Magarima	Lower Wage	15
97	Eastern Highlands	Henganofi	Fyantina Rural	09	142	Hela	Komo-Magarima	Upper Wage	19
98	Eastern Highlands	Henganofi	Kafentina Rural	08	143	Hela	Koroba-Kopiago	AWI/PORI RURAL	18
99	Eastern Highlands	Kainantu	Agarabi Rural	10	144	Hela	Koroba-Kopiago	LAKE KOPIAGO RURAL	21
100	Eastern Highlands	Kainantu	Gadsup/Tairora Rural	9	145	Hela	Koroba-Kopiago	NORTH KOROBA RURAL	26
101	Eastern Highlands	Kainantu	KAINANTU URBAN	08	146	Hela	Koroba-Kopiago	SOUTH KOROBA RURAL	12
102	Eastern Highlands	Kainantu	Kamano No. 1 Rural	09	147	Hela	Tari-Pori	HAYAPUGA RURAL	09
103	Eastern Highlands	Kainantu	Kamano No. 2 Rural	09	148	Hela	Tari-Pori	TAGALI RURAL	08
104	Eastern Highlands	Lufa	Mt. Michael Rural	8	149	Hela	Tari-Pori	TARI URBAN	08
105	Eastern Highlands	Lufa	Unavi Rural	08	150	Hela	Tari-Pori	TEBI RURAL	09
106	Eastern Highlands	Lufa	Yagaria Rural	09	151	Jiwaka	Anglimp-South Waghi	ANGLIMP RURAL	09
107	Eastern Highlands	Obura-Wonenara	LAMARI RURAL	10	152	Jiwaka	Anglimp-South Waghi	SOUTH WAGHI RURAL	13
108	Eastern Highlands	Obura-Wonenara	YELIA RURAL	21	153	Jiwaka	Jimi	JIMI RURAL	08
109	Eastern Highlands	Okapa	EAST OKAPA RURAL	21	154	Jiwaka	Jimi	KOL RURAL	09
110	Eastern Highlands	Okapa	WEST OKAPA RURAL	09	155	Jiwaka	North Waghi	Nondugi Rural	8
111	Eastern Highlands	Unggai-Bena	Lower Benna	19	156	Jiwaka	North Waghi	NORTH WAGHI RURAL	8
112	Eastern Highlands	Unggai-Bena	Unggai Rural	13	157	Madang	Bogia	ALMAMI RURAL	23
113	Eastern Highlands	Unggai-Bena	Upper Bena Rural	19	158	Madang	Bogia	IABU RURAL	09
114	Enga	Kandep	KANDEP RURAL	20	159	Madang	Bogia	YAWAR RURAL	20
115	Enga	Kandep	WAGE RURAL	21	160	Madang	Madang	AMBENOB RURAL	08
116	Enga	Kompam-Ambum	AMBUM RURAL	08	161	Madang	Madang	MADANG URBAN	08
117	Enga	Kompam-Ambum	KOMPIAM RURAL	20	162	Madang	Madang	TRANSGOGOL RURAL	10
118	Enga	Kompam-Ambum	WAPI-YENGIS RURAL	09	163	Madang	Middle Ramu	ARABAKA RURAL	10
119	Enga	Lagaip-Porgera	LAGAIP RURAL	20	164	Madang	Middle Ramu	JOSEPHSTAAL RURAL	09
120	Enga	Lagaip-Porgera	MAIP MURITAKA RURAL	09	165	Madang	Middle Ramu	Kovon RURAL	09
121	Enga	Lagaip-Porgera	PAIELA/HEWA RURAL	21	166	Madang	Middle Ramu	Simbai Rural	08
122	Enga	Lagaip-Porgera	Pilikambi Rural	19	167	Madang	Rai Coast	ASTROLABE BAY RURAL	21
123	Enga	Lagaip-Porgera	PORGERA RURAL	21	168	Madang	Rai Coast	NAHO RAWA RURAL	8
124	Enga	Wabag	MARAMUNI RURAL	12	169	Madang	Rai Coast	Nayudo Rural	10
125	Enga	Wabag	WABAG RURAL	19	170	Madang	Rai Coast	RAI COAST RURAL	22
126	Enga	Wabag	WABAG URBAN	17	171	Madang	Sumkar	KARKAR RURAL	08
127	Enga	Wapenamanda	TSAK RURAL	10	172	Madang	Sumkar	SUMGILBAR RURAL	8
128	Enga	Wapenamanda	WAPENAMANDA RURAL	24	173	Madang	Usino-Bundi	BUNDI RURAL	22
129	Gulf	Kerema	CENTRAL KEREMA RURAL	08	174	Madang	Usino-Bundi	Gama Rural	13
130	Gulf	Kerema	EAST KEREMA RURAL	10	175	Madang	Usino-Bundi	USINO RURAL	13
131	Gulf	Kerema	KAINTIBA RURAL	08	176	Manus	Manus	AUA WUVULU	08
132	Gulf	Kerema	KEREMA URBAN	14	177	Manus	Manus	BALOPA	8
133	Gulf	Kerema	KOTIDANGA RURAL	19	178	Manus	Manus	BISIKANI / SOPARIBEU	08
134	Gulf	Kerema	LAKEKAMU-TAURI RURAL	08	179	Manus	Manus	LELEMADIH BUPICHUPE	27
135	Gulf	Kikori	BAIMURU RURAL	08	180	Manus	Manus	LORENGAU URBAN	11

ANNEX II

No.	Province	District	LLG	n	No.	Province	District	LLG	n
181	Manus	Manus	LOS NEGROS	09	226	Morobe	Markham	WANTOAT/LERON RURAL	21
182	Manus	Manus	NALI SOPAT/PENABU	08	227	Morobe	Menyamya	Kapo Rural	12
183	Manus	Manus	NIGOHERM	08	228	Morobe	Menyamya	KOME RURAL	25
184	Manus	Manus	POBUMA	08	229	Morobe	Menyamya	Nanima Kariba	19
185	Manus	Manus	POMUTU/KURTI/ANDRA	09	230	Morobe	Menyamya	WAPI RURAL	8
186	Manus	Manus	RAPATONA	11	231	Morobe	Nawae	LABUTA RURAL	19
187	Manus	Manus	TETEDU	08	232	Morobe	Nawae	NABAK RURAL	08
188	Milne Bay	Alotau	ALOTAU URBAN	09	233	Morobe	Nawae	WAIN-ERAP RURAL	08
189	Milne Bay	Alotau	DAGA RURAL	25	234	Morobe	Tewae-Siassi	SIALUM RURAL	12
190	Milne Bay	Alotau	HUHU RURAL	19	235	Morobe	Tewae-Siassi	SIASSI RURAL	08
191	Milne Bay	Alotau	MAKAMAKA RURAL	18	236	Morobe	Tewae-Siassi	WASU RURAL	09
192	Milne Bay	Alotau	MARAMATANA RURAL	12	237	National Capital	National Capital	NATIONAL CAPITAL	10
193	Milne Bay	Alotau	SUAU RURAL	14	238	New Ireland	Kavieng	KAVIENG URBAN	15
194	Milne Bay	Alotau	WEURAURA RURAL	23	239	New Ireland	Kavieng	LOVONGAI RURAL	08
195	Milne Bay	Esa'ala	DOBU RURAL	12	240	New Ireland	Kavieng	MURAT RURAL	08
196	Milne Bay	Esa'ala	DUAU RURAL	11	241	New Ireland	Kavieng	TIKANA RURAL	09
197	Milne Bay	Esa'ala	WEST FERGUSON RURAL	12	242	New Ireland	Namatanai	CENTRAL NIU AILAN RURAL	09
198	Milne Bay	Kiriwina-Goodenough	GOODENOUGH ISLAND RURAL	24	243	New Ireland	Namatanai	KONOAGIL RURAL	10
199	Milne Bay	Kiriwina-Goodenough	KIRIWINA RURAL	19	244	New Ireland	Namatanai	NAMATANAI RURAL	13
200	Milne Bay	Samarai-Murua	BWANABWANA RURAL	17	245	New Ireland	Namatanai	NIMAMAR RURAL	08
201	Milne Bay	Samarai-Murua	LOUISIADE RURAL	21	246	New Ireland	Namatanai	TANIR RURAL	09
202	Milne Bay	Samarai-Murua	MURUA RURAL	11	247	Oro	Ijivitari	AFORE RURAL	20
203	Milne Bay	Samarai-Murua	YALEYEMBA RURAL	19	248	Oro	Ijivitari	ORO BAY RURAL	19
204	Morobe	Bulolo	Buang Rural	08	249	Oro	Ijivitari	POPONDETTA URBAN	13
205	Morobe	Bulolo	MUMENG RURAL	10	250	Oro	Ijivitari	Safia Rural	08
206	Morobe	Bulolo	WARIA RURAL	19	251	Oro	Ijivitari	Tufi Rural	08
207	Morobe	Bulolo	WATUT RURAL	20	252	Oro	Sohe	HIGATURU RURAL	21
208	Morobe	Bulolo	WAU RURAL	25	253	Oro	Sohe	KIRA RURAL	08
209	Morobe	Bulolo	WAU/BULOLO URBAN	24	254	Oro	Sohe	KOKODA RURAL	19
210	Morobe	Finschhafen	Burum Kwat	19	255	Oro	Sohe	TAMATA RURAL	08
211	Morobe	Finschhafen	Finschafen Urban	8	256	Sandaun	Aitape-Lumi	EAST AITAPE RURAL	09
212	Morobe	Finschhafen	HUBE RURAL	20	257	Sandaun	Aitape-Lumi	EAST WAPEI RURAL	09
213	Morobe	Finschhafen	KOTTE RURAL	10	258	Sandaun	Aitape-Lumi	WEST AITAPE RURAL	11
214	Morobe	Finschhafen	YABIM MAPE RURAL	21	259	Sandaun	Aitape-Lumi	WEST WAPEI RURAL	08
215	Morobe	Huon	MOROBE RURAL	10	260	Sandaun	Nuku	Maimai Wanwan	08
216	Morobe	Huon	SALAMAUA RURAL	09	261	Sandaun	Nuku	MAWASE RURAL	09
217	Morobe	Huon	WAMPAR RURAL	11	262	Sandaun	Nuku	PALMAI RURAL	09
218	Morobe	Kabwum	DEYAMOS RURAL	20	263	Sandaun	Nuku	YANGKOK RURAL	08
219	Morobe	Kabwum	Komba Rural	19	264	Sandaun	Telefomin	NAMEA RURAL	09
220	Morobe	Kabwum	Selepet Rural	08	265	Sandaun	Telefomin	OKSAPMIN RURAL	24
221	Morobe	Kabwum	YUS RURAL	23	266	Sandaun	Telefomin	TELEFOMIN RURAL	20
222	Morobe	Lae	AHI RURAL	10	267	Sandaun	Telefomin	YAPSIE RURAL	07
223	Morobe	Lae	LAE URBAN	09	268	Sandaun	Vanimo-Green River	AMANAB RURAL	09
224	Morobe	Markham	ONGA/WAFFA RURAL	19	269	Sandaun	Vanimo-Green River	BEWANI/WUTUNG ONEI	11
225	Morobe	Markham	UMI/ATZERA RURAL	15	270	Sandaun	Vanimo-Green River	GREEN RIVER RURAL	17

ANNEX II

No.	Province	District	LLG	n
271	Sandaun	Vanimo-Green River	VANIMO URBAN	10
272	Sandaun	Vanimo-Green River	WALSA RURAL	08
273	Southern Highlands	Ialibu-Pangia	EAST PANGIA RURAL	20
274	Southern Highlands	Ialibu-Pangia	IALIBU URBAN	34
275	Southern Highlands	Ialibu-Pangia	KEWABI RURAL	27
276	Southern Highlands	Ialibu-Pangia	WIRU RURAL	19
277	Southern Highlands	Imbonggu	IALIBU BASIN RURAL	20
278	Southern Highlands	Imbonggu	IMBONGGU RURAL	19
279	Southern Highlands	Imbonggu	LOWER MENDI RURAL	20
280	Southern Highlands	Kagua-Erave	Aiya Rural	10
281	Southern Highlands	Kagua-Erave	ERAVE RURAL	14
282	Southern Highlands	Kagua-Erave	KAGUA RURAL	12
283	Southern Highlands	Kagua-Erave	KUARE RURAL	8
284	Southern Highlands	Mendi-Munihu	KARINTS RURAL	21
285	Southern Highlands	Mendi-Munihu	LAI VALLEY RURAL	21
286	Southern Highlands	Mendi-Munihu	MENDI URBAN	14
287	Southern Highlands	Mendi-Munihu	UPPER MENDI RURAL	21
288	Southern Highlands	Nipa-Kutubu	LAKE KUTUBU RURAL	29
289	Southern Highlands	Nipa-Kutubu	MT BOSAVI RURAL	12
290	Southern Highlands	Nipa-Kutubu	NEMBI PLATEAU	20
291	Southern Highlands	Nipa-Kutubu	NIPA RURAL	20
292	Southern Highlands	Nipa-Kutubu	POROMA RURAL	22
293	West New Britain	Kandrian-Gloucester	GASMATA RURAL	10
294	West New Britain	Kandrian-Gloucester	GLOUCESTER RURAL	8
295	West New Britain	Kandrian-Gloucester	KANDRIAN COASTAL	18
296	West New Britain	Kandrian-Gloucester	KANDRIAN INLAND	14
297	West New Britain	Kandrian-Gloucester	KOVE / KALIAI RURAL	22
298	West New Britain	Talasea	BALI/WITU RURAL	09
299	West New Britain	Talasea	BIALLA RURAL	23
300	West New Britain	Talasea	HOSKINS RURAL	8
301	West New Britain	Talasea	KIMBE URBAN	15
302	West New Britain	Talasea	MOSA RURAL	15
303	West New Britain	Talasea	TALASEA RURAL	11
304	Western	Middle Fly	BALIMO URBAN	09
305	Western	Middle Fly	BAMU RURAL	19
306	Western	Middle Fly	GOGODALA RURAL	19
307	Western	Middle Fly	LAKE MURRAY RURAL	19
308	Western	Middle Fly	NOMAD RURAL	19
309	Western	North Fly	KIUNGA RURAL	23
310	Western	North Fly	KIUNGA URBAN	21
311	Western	North Fly	NINGERUM RURAL	20
312	Western	North Fly	OLSOBIP RURAL	19
313	Western	North Fly	STAR MOUNTAINS	19
314	Western	South Fly	DARU URBAN	18
315	Western	South Fly	KIWAI RURAL	19

No.	Province	District	LLG	n
316	Western	South Fly	MOREHEAD RURAL	19
317	Western	South Fly	ORIOMO-BITURI RURAL	22
318	Western Highlands	Dei	DEI RURAL	08
319	Western Highlands	Dei	Kotna Rural	08
320	Western Highlands	Mount Hagen	MT HAGEN RURAL	14
321	Western Highlands	Mount Hagen	MT HAGEN URBAN	10
322	Western Highlands	Mul-Baiyer	BAIYER RURAL	20
323	Western Highlands	Mul-Baiyer	LUMUSA RURAL	08
324	Western Highlands	Mul-Baiyer	MUL RURAL	23
325	Western Highlands	Tambul-Nebilyer	MT GILUWE RURAL	23
326	Western Highlands	Tambul-Nebilyer	NEBILYER RURAL	20