Photo: Venkat Dheeravath/WFP

El Niño Food Security Impact

in Papua New Guinea

Follow-up Survey, November/December 2016

Produced by WFP in support of National Disaster Centre and the Government of Papua New Guinea

KEY MESSAGES

Between 23 November and 31 December 2016 the World Food Programme (WFP), in support of the National Disaster Centre (NDC), conducted a follow-up mobile survey to assess the food security and livelihood situation in PNG nearly a year following the initial El Niño drought impact assessment in January/February 2016. The survey was carried out in 326 LLGs, including all 231 LLGs surveyed in January/February 2016 (and classified by NDC in September 2015 as experiencing severe, very severe or extreme drought conditions). A total of 4,708 respondents were interviewed by phone from the Digicel call centre in Port Moresby.

The food security situation, as calculated during the January/February 2016 assessment, has improved substantially during the intervening months between surveys. The proportion of LLGs wherein respondents reported extreme shortages of food, hunger, and consumption of famine foods was also lower during the follow-up survey. However, pockets of food insecurity continue to exist and the Government and stakeholders are encouraged to continue to routinely monitor the situation in order to support policy design and future response activities.

The results from the follow-up survey indicate that markets throughout PNG have stabilized compared to the January/February 2016 situation. At that time, 48 percent of surveyed LLGs were classified as having markets with no or much less than normal supplies of the main staple – and only 3 percent had normal stocks; in the follow-up survey just 1 percent of LLGs reported extreme shortage or no supplies, whereas nearly 46 percent had sufficient supplies. Moreover, the price of main staple in the markets also appears to have reduced: in 91 percent of LLGs the median staple price was less than that reported in the first survey. However, the price of rice seems to have increased slightly, due in part to the gradual devaluation of the kina (versus the US dollar) since 2015.

Among the livelihood groups found to be most affected by the El Niño drought in the January/February 2016 survey—i.e. those depending on cash crops, garden crops, and livestock—incomes were recovering, albeit slowly. However, when asked to rate their experience of food insecurity, those households relying upon fishing and hunting showed no improvement between the two survey rounds. This group was also least likely to report having received food assistance during the second half of 2016. Government and stakeholders are encouraged to explore why this group appears to be lagging behind other types of households and identify alternative ways of supporting them.

The proportion of households with children reporting any type of child illness decreased substantially between the two survey rounds from 47 percent to 30 percent. Diarrhoea remains the most commonly reported illness and a strong correlation exists between reported access to drinking water and child diarrhoea; nearly 55 percent of surveyed LLGs were still classified as having some shortage of water at the end of 2016.

Just over a quarter of households (27 percent) reported receiving food assistance in the six months prior to the follow-up survey (June-November 2016); however, this assistance appears to have been better targeted than the assistance received at the beginning of 2016, at least based on households' own perception of their food insecurity. Respondents were most satisfied with assistance received from their wantoks but generally rated all support as sufficient and timely for their needs.

INTRODUCTION

From early 2015 through about mid-2016, Papua New Guinea (PNG) was severely impacted by one of the strongest El Niño Southern Oscillation (ENSO) events in recorded history. The effects included successive episodes of floods, frost and drought that caused widespread damage to infrastructure, crop production, and livestock.

Agriculture is key to the country's economy and to the livelihoods and food security of its population – it accounts for approximately 25 percent of the GDP; over 90 percent of people are dependent on subsistence farming to meet their nutritional needs - particularly in rural areas; and more than three quarters of the food consumed in the country is locally grown. As such, the disruption to household food production caused by the 2015/16 El Niño had a severe impact on food security in the country.

To assess the effect of El Niño in PNG, WFP implemented a mobile phone-based survey (mVAM) in early 2016 to 3,708 households in all 231 Local Level Governments (LLGs) classified by National Disaster Centre (NDC) as experiencing 'severe', 'very severe' or 'extreme' drought conditions. The results were used to classify LLGs into four food security phases: low, moderate, high and severe food security impact. Findings were triangulated with other available assessment reports.

Due to some limitations of the mVAM survey related to mobile coverage and access in Milne Bay Province, WFP in close cooperation with the Milne Bay Provincial Disaster Committee (PDC) and partners conducted an interagency field assessment to further examine the areas of the Province previously classified by NDC as experiencing 'very severe' or 'extreme' drought conditions. The assessment used the same questionnaire as the mVAM survey, and confirmed that six LLGs were in urgent need of assistance.

The two assessments estimated a total of nearly 1.5 million people whose food security had been highly or severely impacted by El Niño-induced drought and frost in 54 LLGs. WFP subsequently targeted the worst affected LLGs and provided emergency food assistance to over 265,000 people during the period June – October 2016.

The follow-up mobile phone survey, the findings of which are presented in this report, marks the second round of remote community and household food security monitoring in PNG, and serves to build upon the January/February 2016 survey by assessing the recovery of food security and livelihoods following the 2015/16 El Niño, as well as the current conditions in PNG.

This report is divided into the following sections:

1. Methodology and limitations

2. Food security impact

3. Markets and prices

4. Livelihood impacts

5. Health impacts and access to water

6. Assistance provided

7. Community perception of the food security situation

Annex I: Mobile survey questionnaire

Annex II: Number of households sampled per LLG

**Annex III:** Food Security Impact Phase Classification

METHODOLOGY

For the follow-up (Round 2) survey, Digicel operators interviewed a total of 4,708 households by phone between 23 November and 31 December 2016. Surveys were conducted in the two main languages spoken in Papua New Guinea: Tok Pisin and English.

The sampling methodology initially prioritized households reached during the first survey: 1,204 households surveyed in Round 1 were successfully interviewed in Round 2. 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; LLGs which had fewer than five responses have been excluded from the analyses and maps presented in this report. Details on the number of households sampled per LLG are provided in Annex II. Figure 1 presents the geographic distribution of survey calls.

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.

**Map 1. Geographic distribution of phone calls (Round 2).**
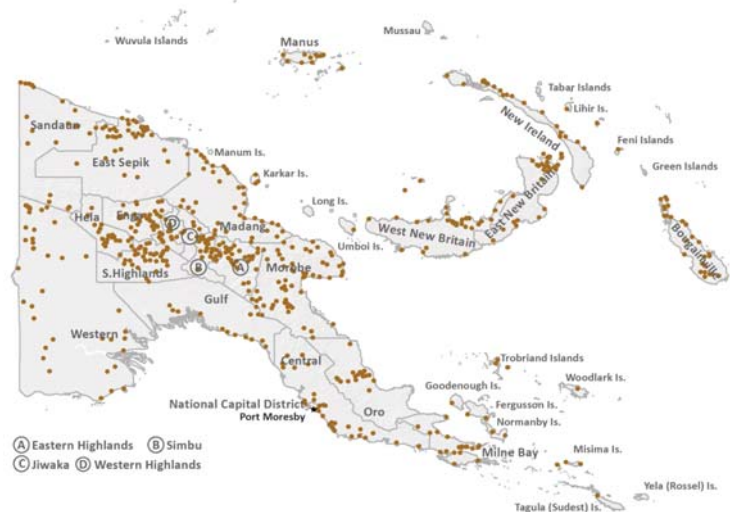
The survey questionnaire was divided into five sections, with questions relating to:

1. Demographic and geographic information;
2. Community food security situation;
3. Household-level food security experience;
4. Aid assistance received;
5. Open-ended question on community perception of the food security situation.

The average age of respondents was 32. For the entire sample, 87 percent of surveyed households were headed by men, with the remaining 13 percent headed by women. A total of seven operators conducted the interviews (three female and four male).

Photo: A. Sasha Guyetsky/WFP

Photo 1. Operators carrying out interviews in Digicel's Port Moresby call centre.

Households Surveyed: 4,708

Gender Head of Household
Male: 87% | Female: 13%

Average Age of Respondents: 32
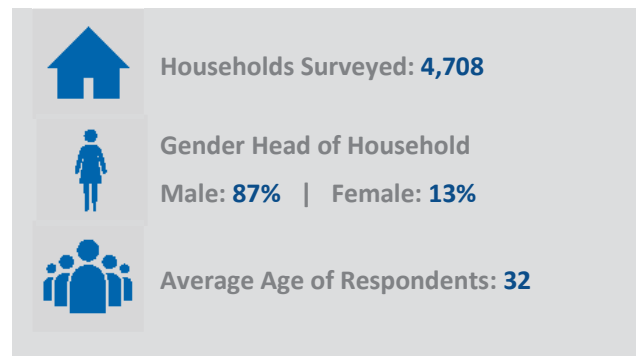
Limitations

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% 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 4,708 respondents in this survey, 1,166 were female (25%).

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. Moreover, this second round of remote monitoring was intended to serve as a follow-up to the initial survey conducted in January/ February 2016, to assess drought recovery and current conditions of food security and livelihoods in the country. Therefore, the questionnaire for Round 2 remained nearly unchanged from Round 1, with additions of a few questions aimed at capturing post-drought assistance and recovery.

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.

FOOD SECURITY IMPACT

Food Security Impact Phase Classification

One objective of the follow-up survey was to assess the changes in food security status of LLGs since the Round 1 assessment. Maps 2 and 3 show the original and current conditions using the food security phase classification system that was developed during Round 1. The classification system is summarized in Figure 1 and further elaborated in Annex III.

As the maps show, of the 231 LLGs surveyed in Round 1, all were found to have low food security impact in the follow-up survey. Just one LLG was found to have a severe classification (Burui-Kunai Rural LLG in East Sepik province-see box1). These findings suggest that according to this system, developed to describe food security impact in the LLGs during the height of the El Niño drought crisis, the dire situation observed in Round 1 had dramatically reduced in the intervening months. The following sections of this report seek to better describe the prevailing situation and identify areas that still require attention from Government and stakeholders.

Figure 1. Food Security Impact Phase Classification definitions.

1 — **Low food security impact**
Sufficient food supply.

2 — **Moderate food security impact**
Some shortage of food with some households consuming famine foods.

3 — **High food security impact**
High food shortages. Many households suffering from hunger and surviving on famine foods.

4 — **Severe food security impact**
Extreme food shortages or no food available at all. Most or all households are suffering from hunger and surviving on famine foods. People reportedly have died as a direct consequence.

Box1: Burui-Kunai Rural LLG Follow-up Survey Findings

Based on the findings of the mVAM survey, WFP and NDC coordinated a validation assessment mission to Burui-Kunai LLG between February 27 and March3, 2017. Fifteen households were randomly sampled for face-to-face interviews—the results are presented in Table 1. Overall the field visit served to confirm the generally poor findings obtained during the mobile phone interviews.
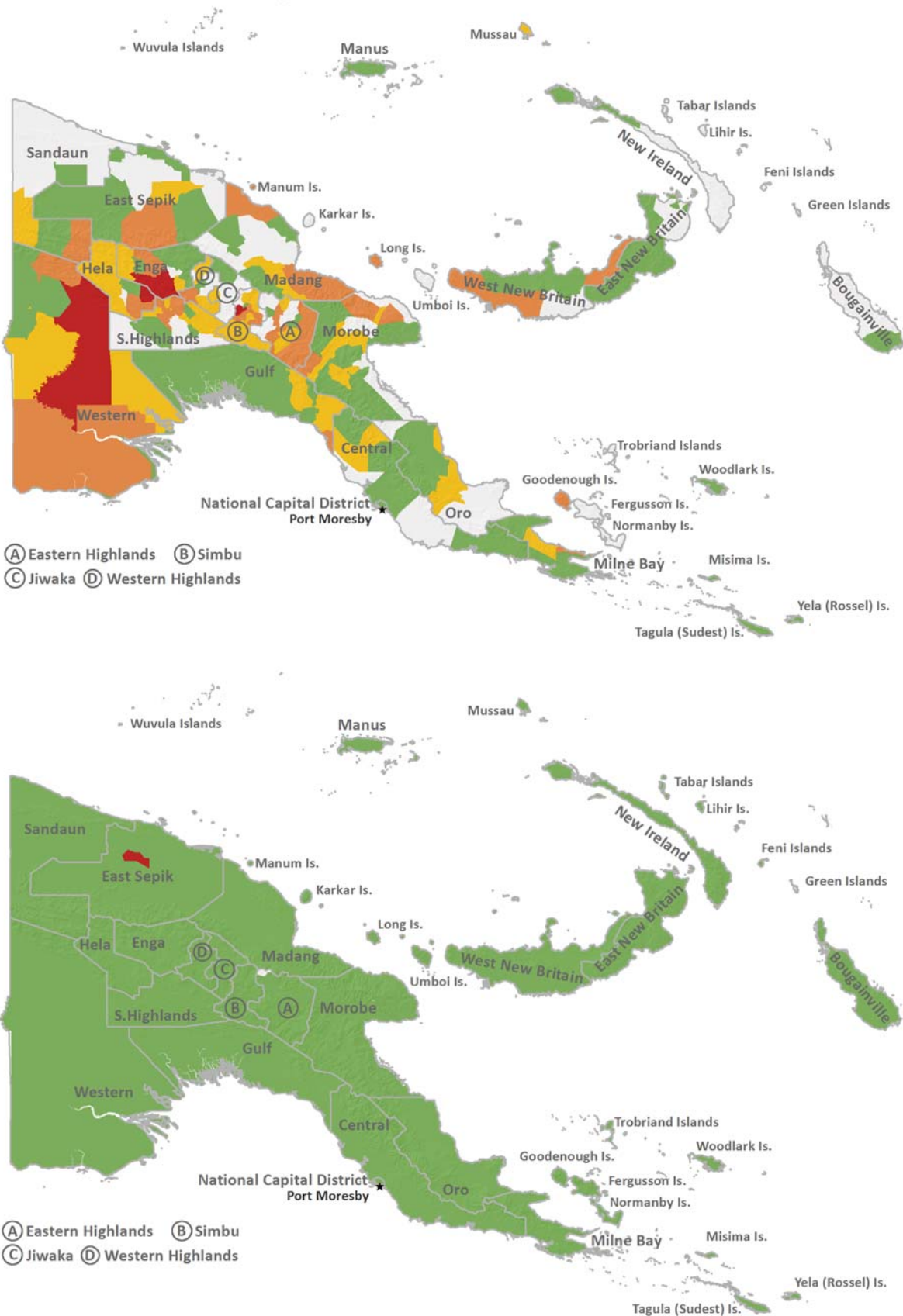
Interviews with locals indicated that severe flooding at the end of 2016 impacted at least eight villages located near the Gungus River (Parchi). This flooding inundated home gardens and prevented harvesting of sago in some areas, reducing incomes and affecting household coping strategies.

Provincial officials acknowledged that communication challenges prevented awareness of the situation in Burui-Kunai and were grateful that the mobile survey flagged the severe food insecurity situation in the LLG.

Table 1.Burui-Kunai Face-to-face Survey Findings

Indicator	Mobile Phone Survey	Face-to-face Survey
Food Security Impact Phase Classification	Severe	Moderate
Perceived Household Food Insecurity	Very Poor	Very Poor
Food Supply	Extreme Shortage	Some Shortage
Water Supply	Some Shortage	Some Shortage
Income Recovered	22%	27%
Child Sick	63%	67%

Map 2 & 3. Food Security Impact Phase Classification by LLG, Round 1 (top) & Round 2 (bottom).

Ⓐ Eastern Highlands Ⓑ Simbu
Ⓒ Jiwaka Ⓓ Western Highlands

Ⓐ Eastern Highlands Ⓑ Simbu
Ⓒ Jiwaka Ⓓ Western Highlands

Perceived Household Food Insecurity

The Round 1 survey also asked respondents a series of questions to gauge how they were experiencing and coping with food insecurity conditions. The follow-up survey assessed the same parameters and Maps 4 and 5 present the change in household perception of food insecurity between Round 1 and Round 2 (household data aggregated to LLG level).[1] According to this metric, the food security situation has improved throughout PNG; however, pockets of perceived food insecurity remain. Figure 2 highlights that a sizeable proportion of respondents still reported negative experiences related to food insecurity during the week prior to follow-up survey.

Figure 2. Percentage of households reporting various negative experiences resulting from food insecurity by round.

■ Round 1 ■ Round 2
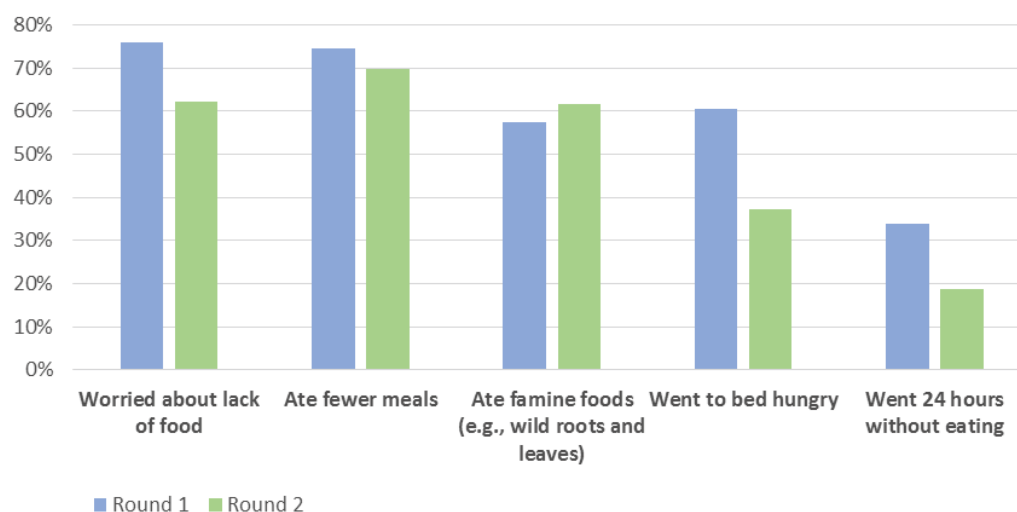
Box2: Panel Data Highlights

Among the 4,708 respondents in the follow-up survey were 1,204 respondents for whom information was also collected during the Round 1 survey. This "panel" enabled more robust conclusions to be drawn about household outcomes since the drought and analysis generally confirmed the improved conditions for households in PNG presented in this report. Of note, the proportion of panel households whose Perceived Food Insecurity was Acceptable increased 6 percentage points between Round 1 and Round 2 (29 percent to 35 percent). Contributing to this finding, the proportion of these households reporting that someone went to bed hungry because there wasn't enough food decreased from 58 percent to 34 percent. Finally, just one-third of households (33 percent) in Round 2 reported that their child had recently been sick compared to nearly half (46 percent) during Round 1.

While a comprehensive analysis of panel data fell outside the scope of this report, two additional relevant findings are highlighted here. Table 2 summarizes the results from fixed effects models[†] used to understand the impact of food and water supply at the community level on household food insecurity and child diarrhoea.

In the simplest terms, the results from Model 1 suggest that a respondent reporting sufficient food supply at the community level increased the likelihood of that household having an Acceptable Perceived Food Insecurity score by 30 percentage points. Likewise, a respondent reporting that access to drinking water at the community level was sufficient within the community decreased the likelihood of that household having a child sick with diarrhoea by 12 percentage points. While the results of these simple models cannot be interpreted too widely, they suggest the very powerful relationship between community welfare and household outcomes in Papua New Guinea.

Table 2.Fixed effects model results

Parameter	Coefficient	t-statistic
Model 1: Perceived Food Insecurity & Food Supply		
Intercept	0.237**	21.10
Food Supply = Sufficient	0.296**	11.05
Model 2: Child Diarrhoea & Drinking Water Supply		
Intercept	0.300**	19.17
Water Supply = Sufficient	-0.122**	-4.96
* p < 0.05, ** p < 0.01		

[†] Fixed effects models are used to control for time-invariant differences between respondents (e.g. race, gender, religion, etc.) in panel data analysis.

Map 4 & 5. Perceived Food Insecurity Index by LLG, Round 1 (top) & Round 2 (bottom).
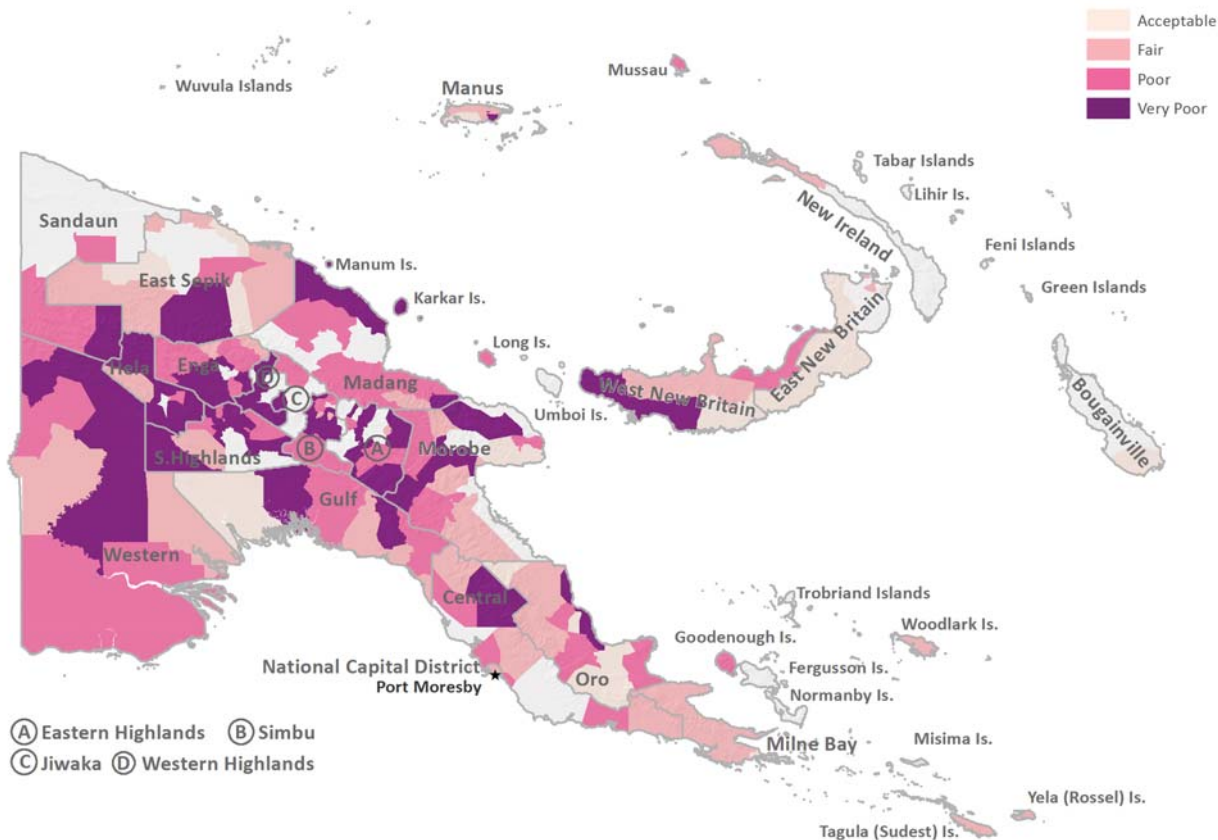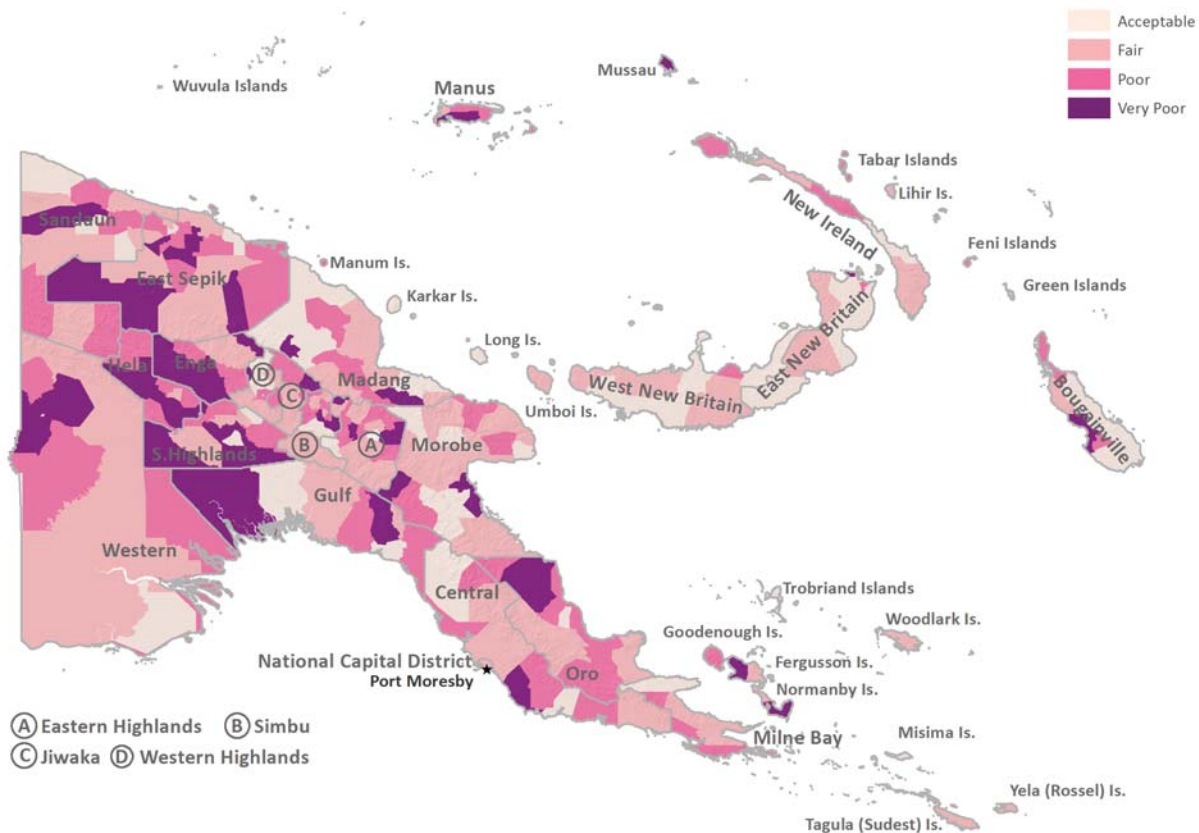
Food Supply, Hunger, and Famine Foods

As in the Round 1 survey, respondents were asked to report on the supply of food in their villages. As Maps 6 and 7 show, while a considerable number of LLGs in Round 1 were classified as either having extreme shortages of food or no food (26%), only one LLG in the follow-up survey was classified as such (Burui-Kunai in East Sepik). Similar improvements were observed in the reported proportion of households suffering from hunger (Figure 3).

However, while the follow-up survey found that headline food security impact results have improved dramatically, there still exist large numbers of communities throughout PNG that are facing challenges accessing enough food: a majority of respondents in 61 percent of surveyed LLGs reported that some households in their communities were still consuming only famine foods. These conditions and the locations facing acute shortages should be monitored on a regular basis in order to allow Government authorities and local partners to provide assistance when needed.

Figure 3. Improvement in reported food supply and hunger issues by round (% of LLGs).

Round 1 — Round 2

Food supply
Extreme shortages or no food

26%   1%

Suffering hunger
Most or all households

50%   2%
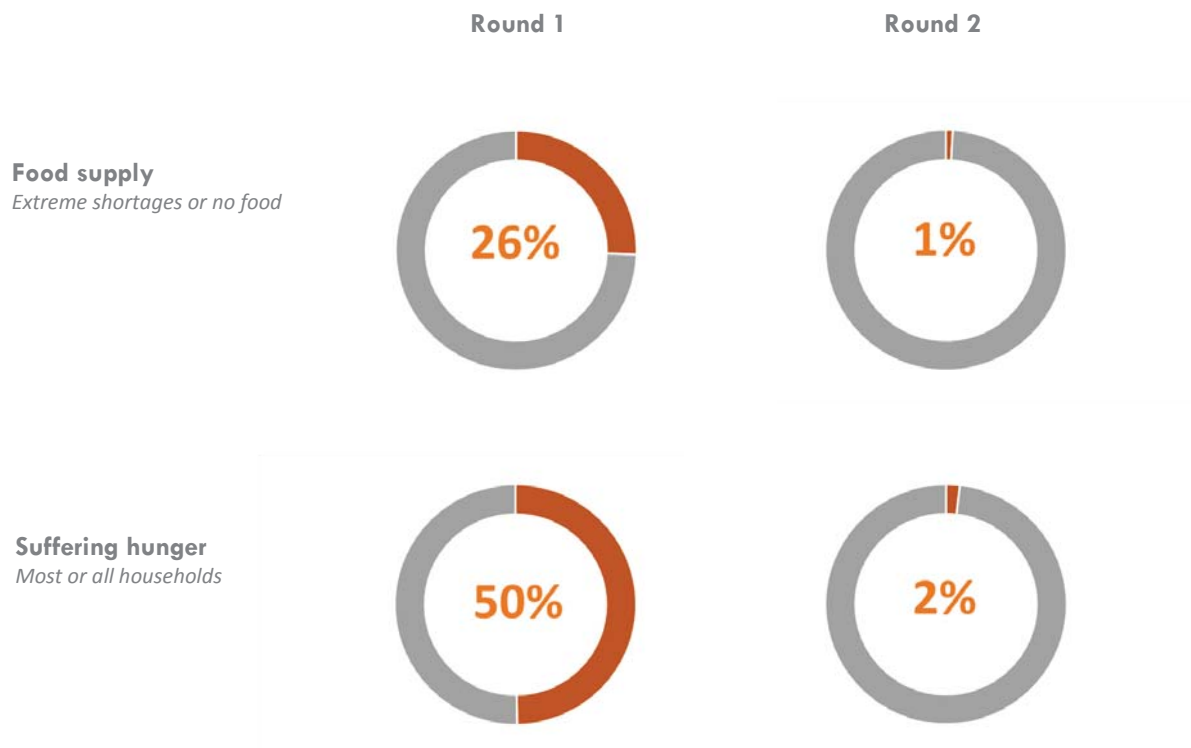
Map 6 & 7. Food Supply (reported) by LLG, Round 1 (top) & Round 2 (bottom).

Legend:
- Sufficient
- Some shortage
- Extreme shortage
- No food available

(A) Eastern Highlands (B) Simbu
(C) Jiwaka (D) Western Highlands

Legend:
- Sufficient
- Some shortage
- Extreme shortage
- No food available

(A) Eastern Highlands (B) Simbu
(C) Jiwaka (D) Western Highlands
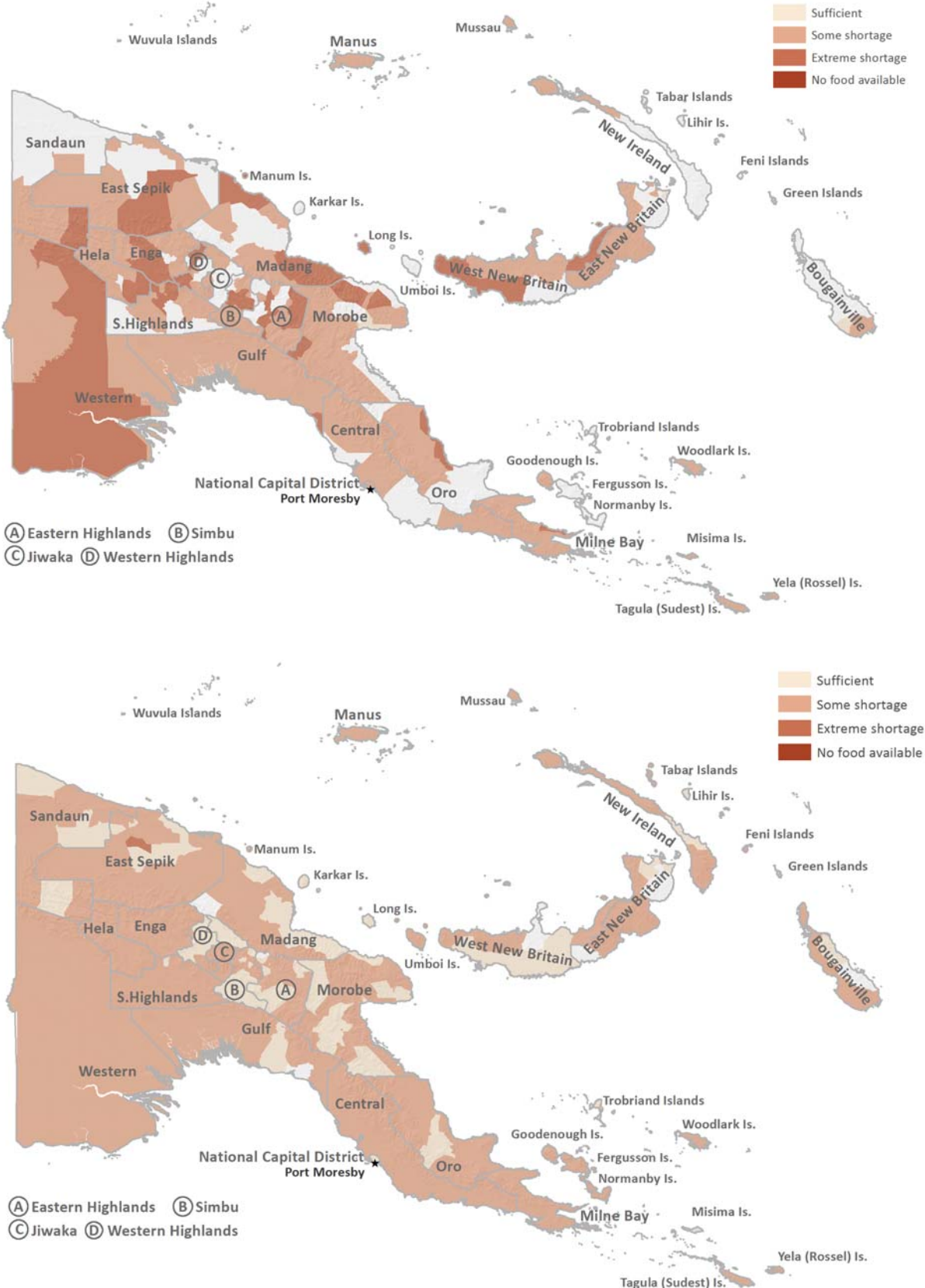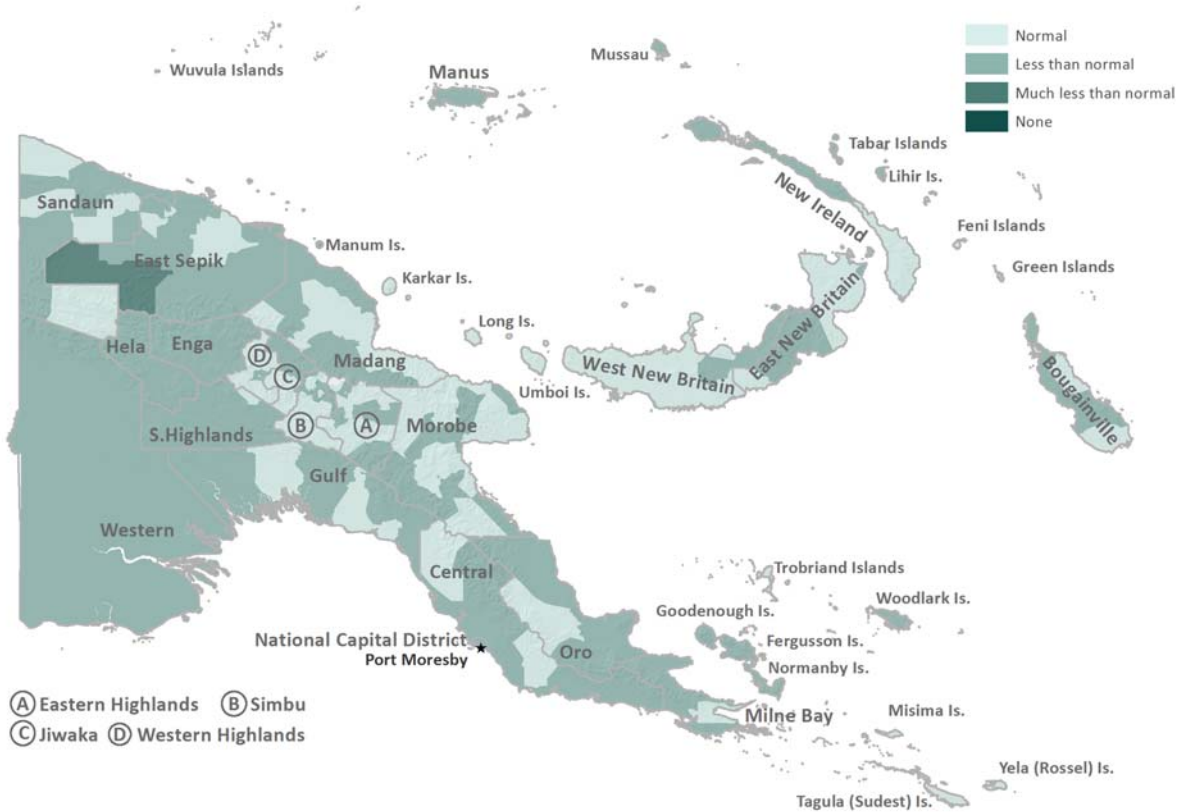
Gardens and Planting Materials

Given that household gardens play a significant role in meeting the food needs of families throughout PNG, the follow-up survey assessed the extent to which these gardens had recovered from the drought and were functioning at the end of 2016. In one-third of all surveyed LLGs (36 percent), respondents indicated that the gardens in the community were back producing at normal levels (see Map 8). Meanwhile, during the Round 1 survey, 81 percent of respondents reported that at least some of the gardens in the community failed to produce anything at all. This finding suggests that the traditional first line source of food security for communities in PNG is rebounding. Moreover, in a majority of LLGs assessed in Round 2, respondents reported that the supply of planting materials at their local market was sufficient to support their agricultural activities (Map 9).

"The community had not recovered from drought. Currently, there are some food shortages be-cause…[the drought] affected crop quality and pre-vent crops from reaching maturity at harvest time. Also due to climate change crops are now produc-ing less quantity than ever before. Also recent heavy rains have caused flooding and destroyed food gardens."

Respondent from Burui-Kunai LLG in East Sepik Province.[2]

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[2] WFP, Government and other stakeholders sought to verify the situation in Burui-Kunai LLG once preliminary results from Round 2 were prepared. The findings from the face-to-face household interviews are presented in box 1 on page 05. The projected population of Burui-Kunai LLG is 15,000 (based on 2011 Population Census).

Map 8. Functioning of gardens by LLG, Round 2.

Legend:
- Normal
- Less than normal
- Much less than normal
- None

(A) Eastern Highlands (B) Simbu
(C) Jiwaka (D) Western Highlands

Map 9. Supply of planting materials by LLG, Round 2.

Legend:
- Sufficient
- Some shortage
- Extreme shortage
- No planting materials available

(A) Eastern Highlands (B) Simbu
(C) Jiwaka (D) Western Highlands
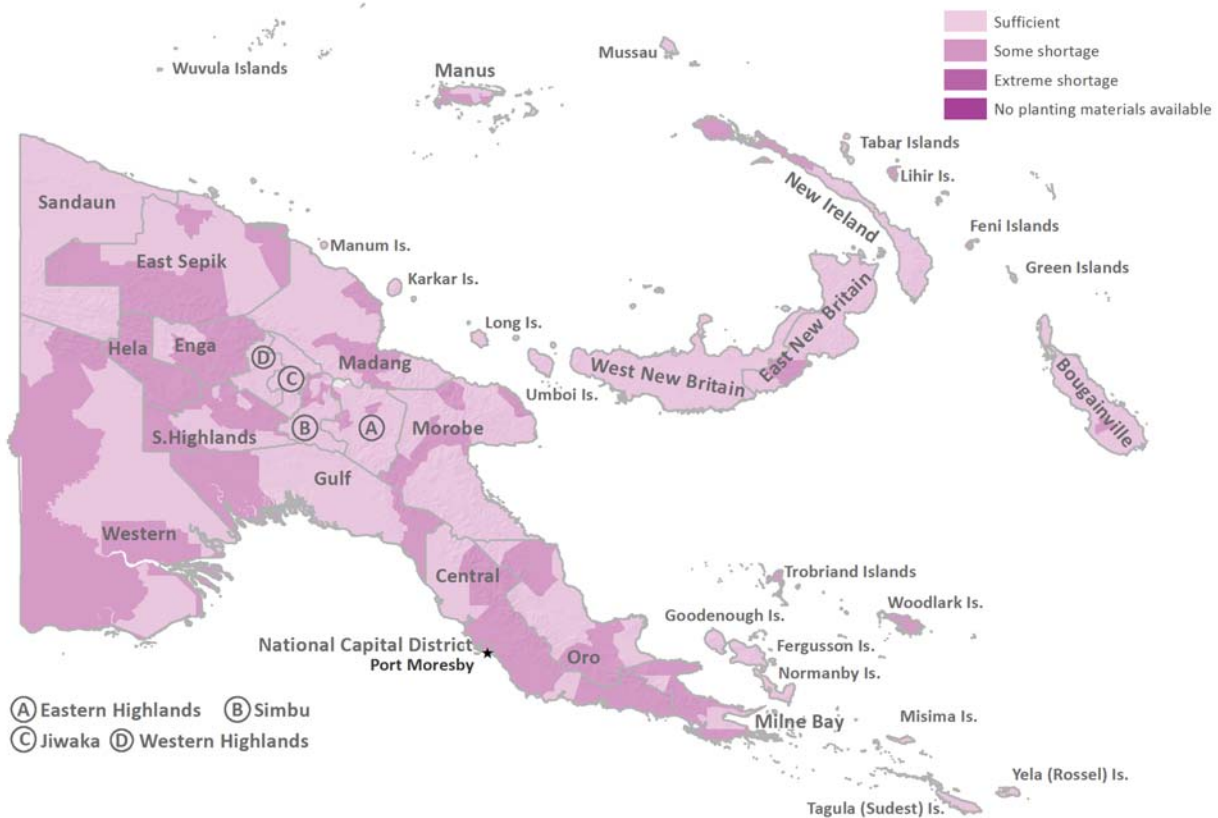
Markets and Prices

Map 10 reveals that the median price for the main staple (in PGK) at local markets in LLGs across PNG has improved dramatically relative to the results observed in Round 1. It also follows that the relative supply of main staples has improved in most LLGs surveyed (data not shown). Together these findings indicate more positive terms of trade conditions for those households which rely on obtaining staples from the local market.

However, the follow-up survey also revealed that the relative price of rice in many markets throughout PNG has increased over the intervening months (Map 11). One explanation for this observation is that the real purchasing power of the kina has deteriorated, falling 17 percent against the US dollar since January 2015. This devaluation directly impacts the local price of rice which is imported from neighboring countries and whose price is set by global markets.

The implications of this finding are unclear in the near-term but as rice serves as a fallback food source in times of extreme coping, policy makers and programme designers are encouraged to monitor this development and review current importation and pre-positioning strategies.

Livelihood impacts

Figure 4 highlights that while most livelihoods reported an improvement in their perceived food insecurity, households engaged primarily in fishing and hunting did not realize any significant improvement.[3] These findings correlate strongly with related findings (see page 16) that indicate this livelihood was least likely to received food assistance of any kind over the previous six months. Together these findings suggest that improved outreach efforts are needed to identify and respond to the food security needs of households engaged in fishing and hunting as a main source of income.

Figure 4. Perceived Food Insecurity Index by main income activity.

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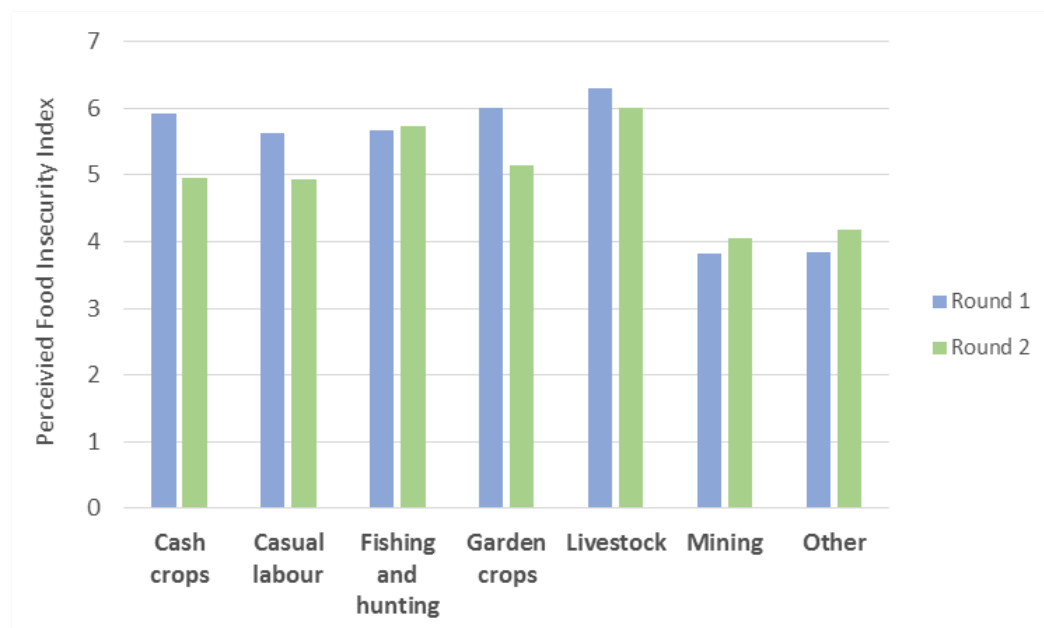
[3] Differences between Round 1 and Round 2 for Mining and Other livelihoods were not significant.

Map 10. Relative price (median) of main staple in Round 2.

Much less than Jan/Feb 2016
Less than Jan/Feb 2016
More than Jan/Feb 2016
Much more than Jan/Feb 2016

Ⓐ Eastern Highlands   Ⓑ Simbu
Ⓒ Jiwaka   Ⓓ Western Highlands
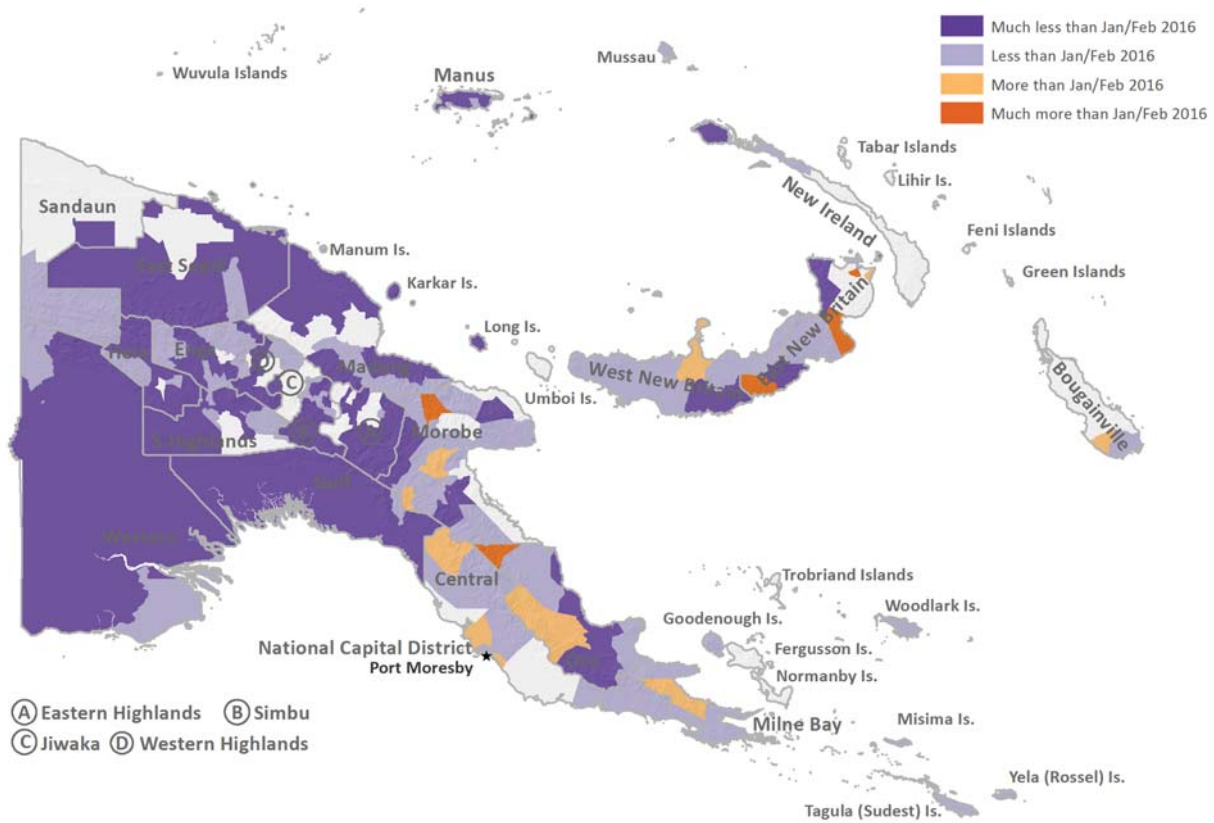
Map 11. Relative price (median) of rice in Round 2.

Much less than Jan/Feb 2016
Less than Jan/Feb 2016
More than Jan/Feb 2016
Much more than Jan/Feb 2016

Ⓐ Eastern Highlands   Ⓑ Simbu
Ⓒ Jiwaka   Ⓓ Western Highlands

Figure 5. Percentage of respondents whose income had fully recovered from (or not been affected by) drought by livelihood, Round 2.

The Round 1 survey found that households whose main income source derived from garden crops, cash crops, and livestock were most impacted (in terms of food security) by the El Niño drought. The follow-up survey sought to assess the extent to which the incomes fo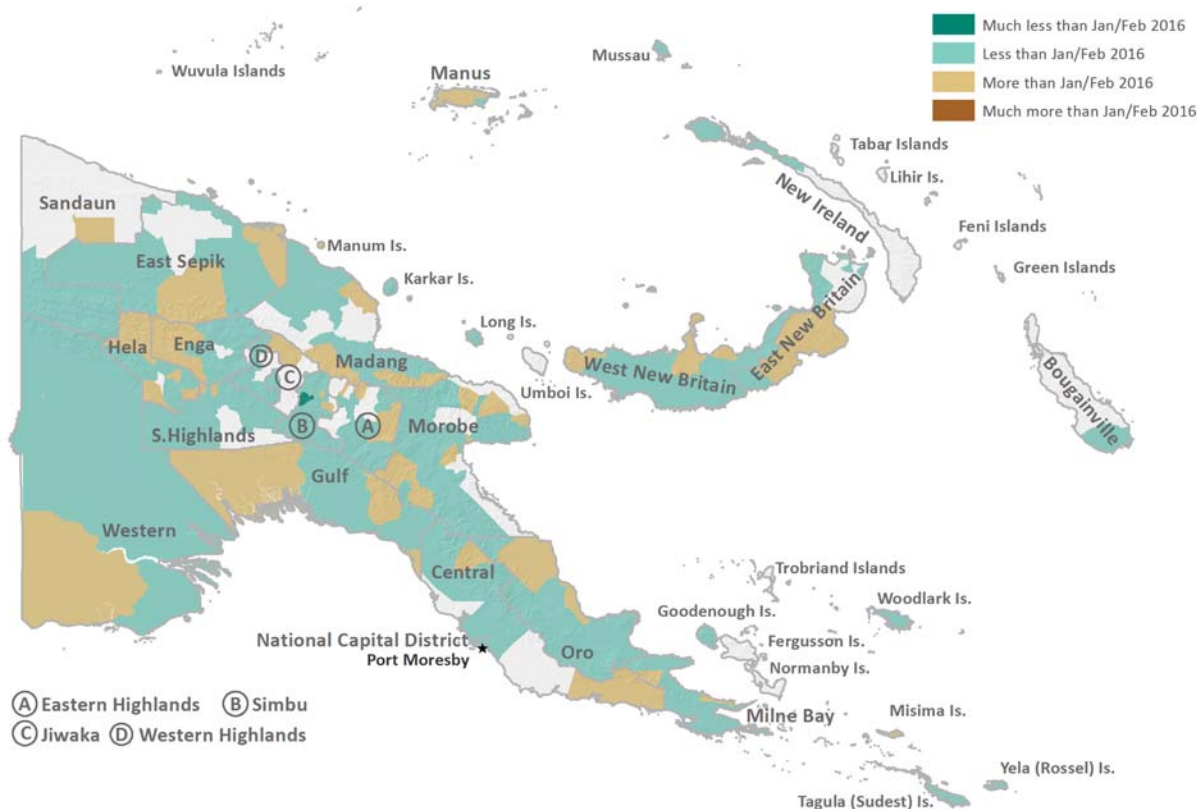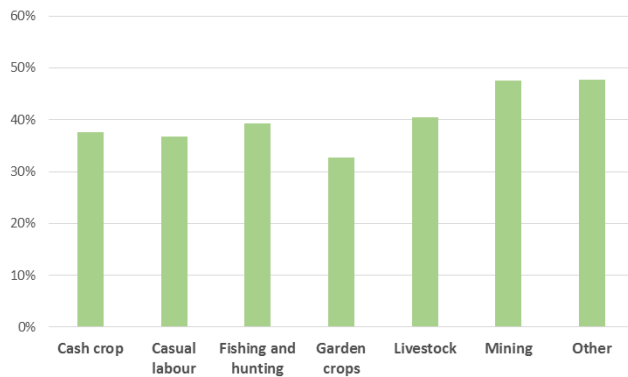r these livelihoods had recovered. Figure 5 shows that roughly one-third of these households reported that their income had either fully recovered or had not been affected by the drought. Nearly half of those households in the mining industry reported that their income had fully recovered or had not been affected.

The findings from the two surveys also provide more insight into the challenges faced by female-headed households in PNG during and following the El Niño drought. Figure 6 shows that in both surveys, female-headed households had higher perceived food insecurity compared to male-headed households. 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 sex head of household
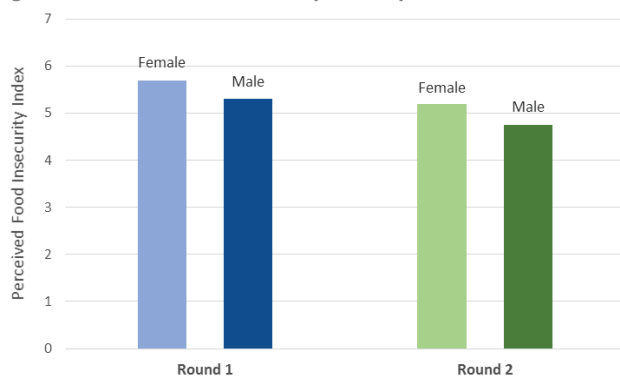
[4] Word clouds illustrate the terms most commonly found in responses and the size of the words depict their frequency.

Perceptions of Community Food Security

At the end of the follow-up survey, every respondent was given the opportunity to share a comment through an open-ended question on whether the food security situation in their community changed since the drought and if so how. Nearly all respondents (99 percent) provided feedback.

On the whole, respondents noted that the food security situation has improved since the ending of the El Niño-induced drought - mainly due to the start of rains, enabling them to replant their food gardens and increase food supply. However, looking more closely at responses from areas that where most impacted by the drought (as classified in Round 1), there seems to be some variation in the degree of the ensuing recovery. Some respondents from LLGs located in Milne Bay, Southern Highlands, Western, and Highlands (Enga and Hela) noted that their home gardens are still not back to full harvesting capacity – in some cases due to enduring unfavourable planting conditions (e.g. pests, heavy rainfall, landslides, heat spells), and that their community continues to face food scarcity. These find-

Figure 7. Word cloud of responses from LLGs worst affected by the 2015/16 El Niño where emergency food assistance was provided.

In the words of the respondents:

"The last Harvest was poor, so we are in shortage of food and waiting for the next harvest" - Respondent from Bwanabwana Rural LLG in Milne Bay Province

"Soil is dry and crops were not grown very well. It affects our kaukau. I only tend to eat greens found in the forest. Sometime when I have money I buy at the market" - Respondent from Kandep Rural LLG in Enga Province

"Food situation is partially recovered. We still have some shortages" - Respondents from Dobu Rural LLG in Milne Bay Province

"No, the situation has not changed. We have no food at this time, because our planting material were dried." - Respondent from Mt. Bosavi Rural LLG in Southern Highlands Province.

Health impacts and access to water

In the Round 1 survey, nearly half of all households with children (47 percent) reported that their child(ren) had been suffering from illness; in the follow–up survey a smaller but still sizeable proportion reported the same (30 percent).

The supply of drinking water had materially improved between the first and second surveys (Maps 12 & 13). However, as Figure 8 makes clear, water availability is still strongly correlated with the likelihood of reported child diarrhoea. These results present a strong argument for additional support to communities in strengthening access to drinking water, especially in those LLGs where extreme shortages still persist at the end of 2016.

Figure 8. Prevalence of child diarrhoea (among household with children) by reported supply of drinking water.
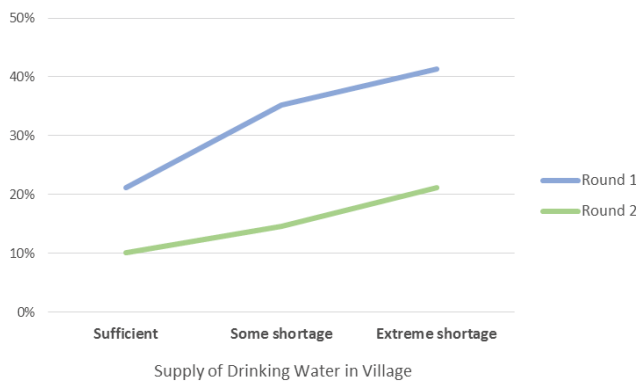
Food Assistance

Figure 9 presents the level of perceived food insecurity by livelihood type from Round 1 and the proportion of households by same livelihood type in Round 2 that reportedly received food assistance in the six months prior to the survey. These findings suggest that while the targeting of food during 2016 was generally in line with the (perceived) needs, some livelihoods were more likely to receive support than others. Notably, those households whose main source of income was from fishing and hunting were least likely to have reported receiving food assistance over the previous 6 months.

Figure 9. Perceived food insecurity and food assistance by livelihood type.
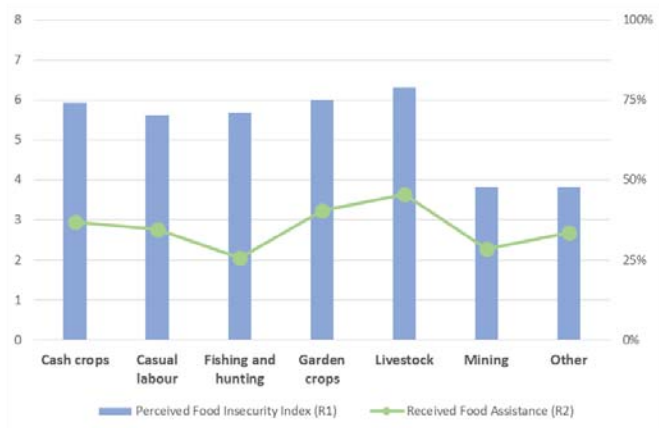
Figure 10 presents another angle from which to assess the general targeting of food assistance between the beginning of 2016 and the end of the year. The results suggest that the overall targeting efficiency (using the Perceived Food Insecurity Index as a proxy for need) improved between Round 1 and Round 2 of the survey: nearly 25 percent of households rated 0 or 1 reported receiving food assistance during Round 1 while less than 10 percent of such households reported the same during the follow-up survey.

Finally, the follow-up survey asked respondents who had reported receiving food assistance in the 6 months prior to the survey to rate how useful and timely this assistance was. Overall, households who received food assistance from the wantok were most satisfied with the amount and timeliness of that support.

Figure 10. Perceived food insecurity and percentage of households in each category receiving food assistance by round.
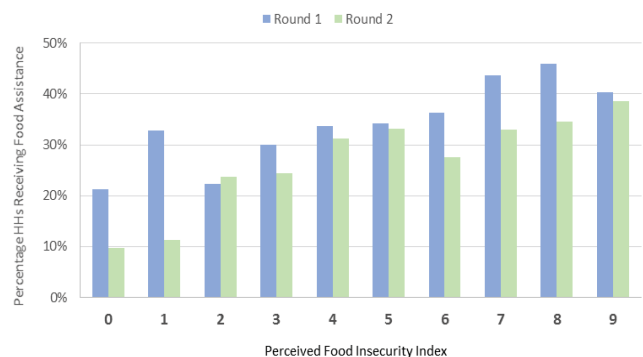
Map 12 & 13. Drinking Water Supply (reported) by LLG, Round 1 (top) & Round 2 (bottom).
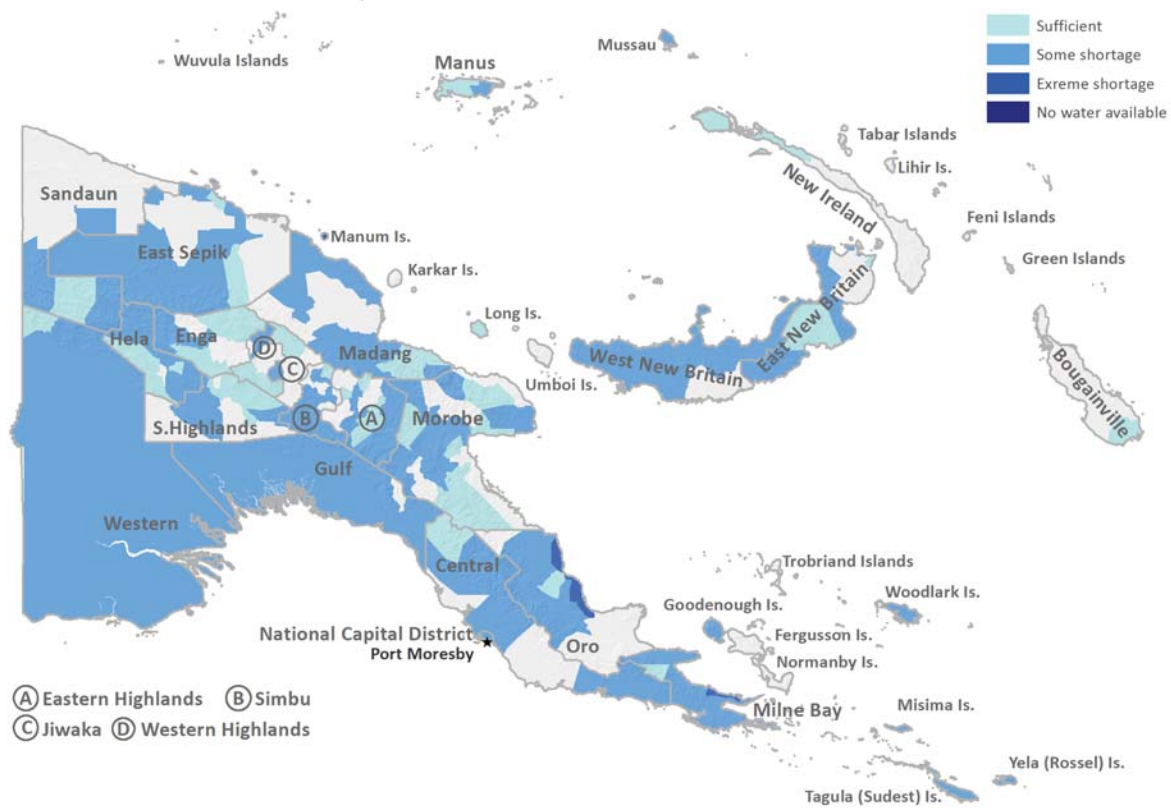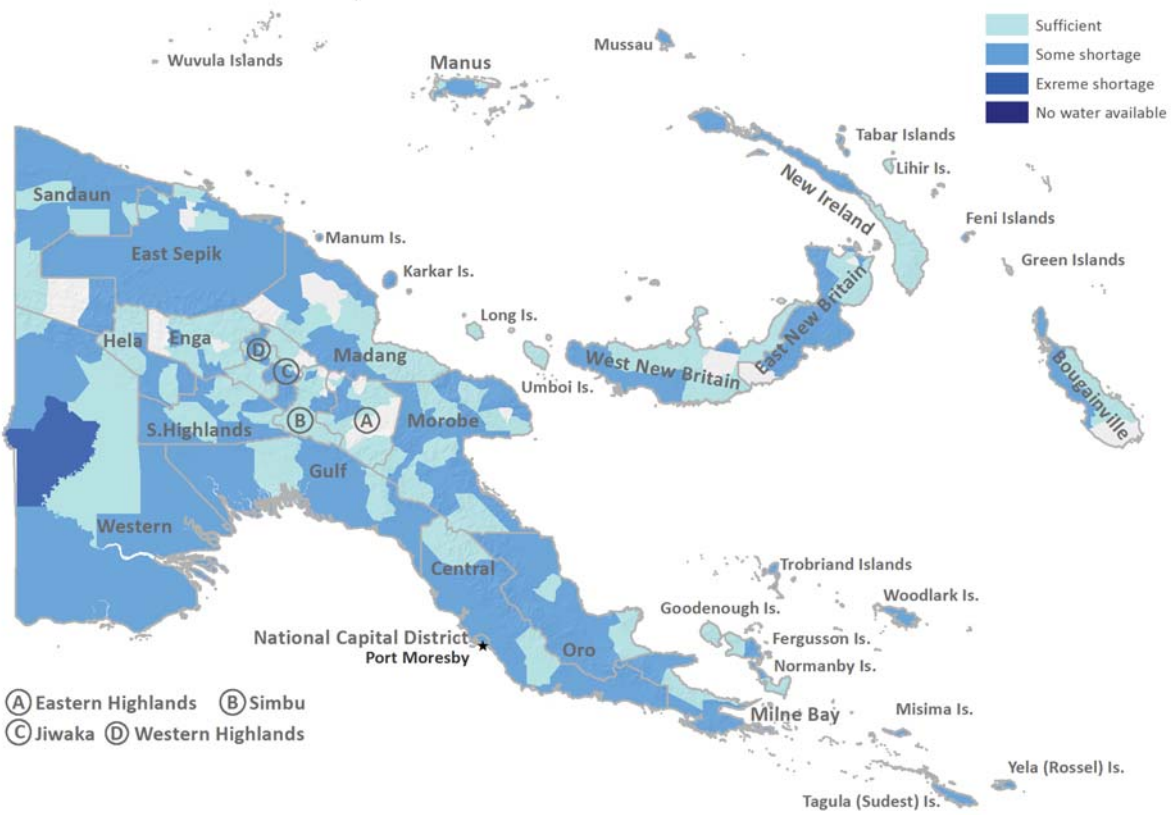
ANNEX I

Mobile Questionnaire

PNG Round 2 Survey Questionnaire

November 2016

Questionnaire Information

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

Introduction:

Enumerator Introduction: Hello, my name is […………………] [name enumerator]. 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. Each survey will take maximum 12 minutes of your time. If you complete the survey, you'll receive an airtime credit of 2 Kina.

Agree: Are you interested in participating in this survey, now or another time?

□ YES (Go to Question 1 *Age)*

□ NO, later   →   When can I call you at another time? (record when to call back - hour/day)

□ NO → End of the survey

Question 1: *Age*

Enumerator: What is your age? ……….. [Report # of years] **If the age of the respondent is under 16, end survey**

Section 1: Demographic and Geographic info

Question 1: *Gender_Respondent*

   Enumerator: The sex of respondent a man or a woman? ……….. [Report man or woman]

Question 2: *Gender_HoH*

Enumerator: Is the head of your household a man or a woman? ……….. [Report man or woman]

Question 3: *ADM1_Province*

   Enumerator: In which province are you currently living in? ……….. [Report the name of the Province]

ANNEX I

Question 4 *ADM2_District*

Enumerator: In which District are you currently living in? ………… [Report the name of the District]

Question 5 *ADM1_LLG*

Enumerator: In which LLG are you currently living in? ………… [Report the name of the LLG]

If you cannot find LOCATION in the list, please identify: _____

Section 2: Community food security section

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

Question 1: *Food supply*

Enumerator: What is the current food supply situation in your village, compared to normal?

O SUFFICIENT   O SOME SHORTAGE   O EXTREME SHORTAGE   O NO FOOD AVAILABLE

Question 2: *Water supply*

Enumerator: What is the current supply of drinking water in your village, compared to normal?

O SUFFICIENT   O SOME SHORTAGE   O EXTREME SHORTAGE   O NO WATER AVAILABLE

Question 3: *Hunger*

Enumerator: How many households in your village are CURRENTLY suffering from hunger?

O NONE   O SOME   O MANY   O ALL

Question 4:

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.

O NONE   O SOME   O MANY   O ALL

Question 5: *mortality*

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

O YES   O NO

Question 6: *Production*

Enumerator: What is the condition of food gardens in the village currently, compared to normal?

O NORMAL   O LESS   O MUCH LESS   O NONE

Question 7:

Enumerator: What is the MAIN FOOD ITEM in your area?

O KAUKAU   O SAGO   O BANANA   O CASSAVA   O TARO   O YAM

ANNEX I

Question 8:

Enumerator: Currently, how much does 1 heap of [MAIN STAPLE] cost? [Report with the amount you pay for 1 heap in PGK. If respondent does not know, enter A; if item is not present in the market, enter B]

_____

Question 9

Enumerator: What is the supply of [MAIN STAPLE] in your nearest market/shop, compared to normal ?

O SUFFICIENT   O SOME SHORTAGE   O EXTREME SHORTAGE   O NO SUPPLY AVAILABLE

Question 10

Enumerator: What is the supply of planting materials (seeds/cuttings) for the [MAIN STAPLE]?

O SUFFICIENT   O SOME SHORTAGE   O EXTREME SHORTAGE   O NO PLANTING MATERIALS AVAILABLE

Question 11: *Rice price*

Enumerator: Currently, how much does 1 kg of rice cost in your nearest market shop? [Report with the amount you pay for 1 package of 1 kg of rice in PGK. If respondent does not know, enter A; if item is not present in the market, enter B]

Section 3: Household Food Security Experience Section

Enumerator: I would like to ask you some questions about your household food DURING THE PAST 7 DAYS.

Question 1

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 2

Enumerator: Was your household able to eat the kind of food that you normally eat? YES/NO

Question 3

Enumerator: Did your household eat a more limited variety of food than normal? YES/NO

Question 4

Enumerator: Did your household eat food at any stage that no one really wanted to eat but there was no other choice? YES/NO

Question 5

Enumerator: Did your household eat smaller meals than needed because there was not enough food? YES/NO

Question 6

Enumerator: Did your household eat fewer meals per day than usual because there was not enough food? YES/NO

Question 7

Enumerator: During the past 7 days, did it happen that your household had no food to eat of any kind? YES/NO

ANNEX I

Question 8

Enumerator: Did anyone in your household go to bed feeling hungry because there was not enough food? YES/NO

Question 9

Enumerator: Did anyone in the household go a whole day and night without eating because there was not enough food? YES/NO

Question 10

Enumerator: What is your household's main income activity?

O Garden crops   O Cash crops
O Livestock   O Fishing/Hunting
O Mining   O Casual labour
O Trader/business owner/seller   O Technical professional (mechanical, engineer, doctor, nurse, teacher, etc.)
O Government/public servant   O Religious activity

O Other _____

Question 11

Enumerator: To what extent has your income or food derived from [MAIN INCOME ACTIVITY] recovered since the latest drought/frost?

O YES - FULLY   O YES - PARTIALLY   O NOT RECOVERED   O NOT AFFECTED

Question 12

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

O YES   O NO   O NO CHILDREN

Question 13

Enumerator: If, yes what are they suffering from?

O DIARRHOEA / DYSENTERY / VOMITING / STOMACH PROBLEMS

O RASH/SKIN PROBLEM   O MALARIA   O DENGUE

 O COUGHING / TB / RESPIRATORY PROBLEMS   O FAINTING AND DIZZINESS

O OTHER _____

Section 4: Aid Assistance Section

Question 1:

Enumerator: In the past 6 months, have you received any food assistance because of the drought/frost situation?

O YES   O NO (Go to next section - *Open question*)   O NO, I was not affected by the drought/frost (Go to next section - *Open question*)

ANNEX I

Question 2:

Enumerator: If yes, from whom did you receive the assistance? *(Multiple answers possible)*

Wantok   ◯ Churches   ◯ NGO   ◯ Government

UN World Food Program   ◯Private business

Other _____

I don't remember

Question 3:

Enumerator: was the assistance received sufficient to improve the food situation in your household?

O YES   O NO

Question 4:

Enumerator: was the assistance provided when you needed it the most?

O YES   O NO

Open Question:

Question 1:

Enumerator: This is our last question, has the food security situation in your community changed since the last drought/frost, and if so why?

………. [Free text]

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

Conclusion:

Question 1: *Call back*

May we call you back in 3 months?

O YES   O 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:

1. Please end the survey ticking one of the box below:

◯ Survey completed   ◯ Survey incomplete

2. 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	8	46	East New Britain	Gazelle	CENTRAL GAZELLE RURAL	17
2	Bougainville	Central Bougainville	WAKUNAI	8	47	East New Britain	Gazelle	INLAND BAINING RURAL	19
3	Bougainville	North Bougainville	ATTOLS	8	48	East New Britain	Gazelle	LASSUL BAINING RURAL	14
4	Bougainville	North Bougainville	BUKA	12	49	East New Britain	Gazelle	LIVUAN/REIMBER RURAL	8
5	Bougainville	North Bougainville	KUNUA	7	50	East New Britain	Gazelle	VUNADIDIR/TOMA RURAL	8
6	Bougainville	North Bougainville	NISSAN	1	51	East New Britain	Kokopo	BITAPAKA RURAL	22
7	Bougainville	North Bougainville	SELAU/SUIR	8	52	East New Britain	Kokopo	DUKE OF YORK RURAL	9
8	Bougainville	North Bougainville	TINPUTZ	12	53	East New Britain	Kokopo	KOKOPO/VUNAMAMI URBAN	8
9	Bougainville	South Bougainville	BANA	8	54	East New Britain	Kokopo	RALUANA RURAL	9
10	Bougainville	South Bougainville	BUIN	20	55	East New Britain	Pomio	CENTRAL/INLAND POMIO	18
11	Bougainville	South Bougainville	SIWAI	8	56	East New Britain	Pomio	EAST POMIO RURAL	7
12	Bougainville	South Bougainville	TOROKINA	8	57	East New Britain	Pomio	MELKOI RURAL	8
13	Central	Abau	AMAZON BAY RURAL	9	58	East New Britain	Pomio	SINIVIT RURAL	8
14	Central	Abau	AROMA RURAL	9	59	East New Britain	Pomio	WEST POMIO/MAMUSI	8
15	Central	Abau	CLOUDY BAY RURAL	9	60	East New Britain	Rabaul	BALANATAMAN RURAL	8
16	Central	Goilala	GUARI RURAL	13	61	East New Britain	Rabaul	KOMBIU RURAL	8
17	Central	Goilala	TAPINI RURAL	24	62	East New Britain	Rabaul	RABAUL URBAN	10
18	Central	Goilala	WOITAPE RURAL	21	63	East New Britain	Rabaul	WATOM ISLAND RURAL	8
19	Central	Kairuku–Hiri	HIRI RURAL	8	64	East Sepik	Ambunti-Dreikikir	AMBUNTI RURAL	22
20	Central	Kairuku–Hiri	KAIRUKU RURAL	10	65	East Sepik	Ambunti-Dreikikir	DREKIKIER RURAL	27
21	Central	Kairuku–Hiri	KOIARI RURAL	20	66	East Sepik	Ambunti-Dreikikir	GAWANGA RURAL	9
22	Central	Kairuku–Hiri	MEKEO KUNI RURAL	23	67	East Sepik	Ambunti-Dreikikir	TUNAP/HUSTEIN RURAL	6
23	Central	Rigo	RIGO CENTRAL RURAL	9	68	East Sepik	Angoram	ANGORAM/MIDDLE SEPIK	14
24	Central	Rigo	RIGO COASTAL RURAL	15	69	East Sepik	Angoram	KARAWARI RURAL	7
25	Central	Rigo	RIGO INLAND RURAL	10	70	East Sepik	Angoram	KERAM RURAL	8
26	Chimbu	Chuave	CHUAVE RURAL	22	71	East Sepik	Angoram	MARIENBERG RURAL	9
27	Chimbu	Chuave	ELIMBARI RURAL	12	72	East Sepik	Angoram	YUAT RURAL	8
28	Chimbu	Chuave	SIANE RURAL	10	73	East Sepik	Maprik	ALBIGES/MABLEP RURAL	10
29	Chimbu	Gumine	BOMAI/GUMAI RURAL	10	74	East Sepik	Maprik	BUMBITA/MUHIAN RURAL	8
30	Chimbu	Gumine	GUMINE RURAL	21	75	East Sepik	Maprik	MAPRIK/WORA RURAL	11
31	Chimbu	Gumine	MT DIGINE RURAL	19	76	East Sepik	Maprik	YAMIL/TAMAUI RURAL	8
32	Chimbu	Karimui-Nomane	KARIMUI RURAL	27	77	East Sepik	Wewak	BOIKIN/DAGUA RURAL	22
33	Chimbu	Karimui-Nomane	NOMANE RURAL	8	78	East Sepik	Wewak	TURUBU RURAL	24
34	Chimbu	Karimui-Nomane	SALT RURAL	24	79	East Sepik	Wewak	WEWAK ISLANDS	18
35	Chimbu	Kerowagi	GENA/WAUGLA RURAL	16	80	East Sepik	Wewak	WEWAK RURAL	22
36	Chimbu	Kerowagi	KEROWAGI RURAL	9	81	East Sepik	Wewak	WEWAK URBAN	19
37	Chimbu	Kerowagi	KUP RURAL	9	82	East Sepik	Wosera-Gawi	BURUI/ KUNAI RURAL	9
38	Chimbu	Kerowagi	Upper/Lower Koronigl	11	83	East Sepik	Wosera-Gawi	GAWI RURAL	7
39	Chimbu	Kundiawa-Gembogl	KUNDIAWA URBAN	16	84	East Sepik	Wosera-Gawi	NORTH WOSERA RURAL	8
40	Chimbu	Kundiawa-Gembogl	MITNANDE RURAL	25	85	East Sepik	Wosera-Gawi	SOUTH WOSERA	9
41	Chimbu	Kundiawa-Gembogl	NIGLKANDE RURAL	30	86	East Sepik	Yangoro-Saussia	EAST YANGORU RURAL	8
42	Chimbu	Kundiawa-Gembogl	WAIYE RURAL	22	87	East Sepik	Yangoro-Saussia	NUMBOR RURAL	10
43	Chimbu	Sina Sina-Yonggomugl	SUAI RURAL	25	88	East Sepik	Yangoro-Saussia	SAUSSO RURAL	7
44	Chimbu	Sina Sina-Yonggomugl	TABARE RURAL	20	89	East Sepik	Yangoro-Saussia	WEST YANGORU RURAL	9
45	Chimbu	Sina Sina-Yonggomugl	YONGOMUGL RURAL	11	90	Eastern Highlands	Daulo	Lower Asro Rural	13

ANNEX II

No.	Province	District	LLG	n	No.	Province	District	LLG	n
91	Eastern Highlands	Daulo	Upper Asro Rural	1	136	Gulf	Kikori	EAST KIKORI RURAL	11
92	Eastern Highlands	Daulo	WATABUNG RURAL	8	137	Gulf	Kikori	IHU RURAL	21
93	Eastern Highlands	Goroka	GOROKA RURAL	10	138	Gulf	Kikori	WEST KIKORI RURAL	7
94	Eastern Highlands	Goroka	GOROKA URBAN	8	139	Hela	Komo-Magarima	HULIA RURAL	18
95	Eastern Highlands	Goroka	Mimanalo Rural	10	140	Hela	Komo-Magarima	KOMO RURAL	24
96	Eastern Highlands	Henganofi	Dunantina Rural	8	141	Hela	Komo-Magarima	Lower Wage	20
97	Eastern Highlands	Henganofi	Fayantina Rural	8	142	Hela	Komo-Magarima	Upper Wage	31
98	Eastern Highlands	Henganofi	Kafentina Rural	12	143	Hela	Koroba-Kopiago	AWI/PORI RURAL	18
99	Eastern Highlands	Kainantu	Agarabi Rural	15	144	Hela	Koroba-Kopiago	LAKE KOPIAGO RURAL	21
100	Eastern Highlands	Kainantu	Gadsup/Tairora Rural	9	145	Hela	Koroba-Kopiago	NORTH KOROBA RURAL	18
101	Eastern Highlands	Kainantu	KAINANTU URBAN	9	146	Hela	Koroba-Kopiago	SOUTH KOROBA RURAL	12
102	Eastern Highlands	Kainantu	Kamano No. 1 Rural	15	147	Hela	Tari-Pori	HAYAPUGA RURAL	10
103	Eastern Highlands	Kainantu	Kamano No. 2 Rural	16	148	Hela	Tari-Pori	TAGALI RURAL	8
104	Eastern Highlands	Lufa	Mt. Michael Rural	8	149	Hela	Tari-Pori	TARI URBAN	9
105	Eastern Highlands	Lufa	Unavi Rural	7	150	Hela	Tari-Pori	TEBI RURAL	10
106	Eastern Highlands	Lufa	Yagaria Rural	10	151	Jiwaka	Anglimp-South Waghi	ANGLIMP RURAL	18
107	Eastern Highlands	Obura-Wonenara	LAMARI RURAL	11	152	Jiwaka	Anglimp-South Waghi	SOUTH WAGHI RURAL	20
108	Eastern Highlands	Obura-Wonenara	YELIA RURAL	19	153	Jiwaka	Jimi	JIMI RURAL	11
109	Eastern Highlands	Okapa	EAST OKAPA RURAL	21	154	Jiwaka	Jimi	KOL RURAL	15
110	Eastern Highlands	Okapa	WEST OKAPA RURAL	10	155	Jiwaka	North Waghi	Nondugl 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	11	157	Madang	Bogia	ALMAMI RURAL	20
113	Eastern Highlands	Unggai-Bena	Upper Bena Rural	19	158	Madang	Bogia	IABU RURAL	11
114	Enga	Kandep	KANDEP RURAL	20	159	Madang	Bogia	YAWAR RURAL	22
115	Enga	Kandep	WAGE RURAL	25	160	Madang	Madang	AMBENOB RURAL	9
116	Enga	Kompiam-Ambum	AMBUM RURAL	13	161	Madang	Madang	MADANG URBAN	8
117	Enga	Kompiam-Ambum	KOMPIAM RURAL	32	162	Madang	Madang	TRANSGOGOL RURAL	12
118	Enga	Kompiam-Ambum	WAPI-YENGIS RURAL	8	163	Madang	Middle Ramu	ARABAKA RURAL	9
119	Enga	Lagaip-Porgera	LAGAIP RURAL	24	164	Madang	Middle Ramu	JOSEPHSTAAL RURAL	7
120	Enga	Lagaip-Porgera	MAIP MURITAKA RURAL	10	165	Madang	Middle Ramu	Kovon RURAL	9
121	Enga	Lagaip-Porgera	PAIELA/HEWA RURAL	19	166	Madang	Middle Ramu	Simbai Rural	12
122	Enga	Lagaip-Porgera	Pilikambi Rural	25	167	Madang	Rai Coast	ASTROLABE BAY RURAL	19
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	9
125	Enga	Wabag	WABAG RURAL	21	170	Madang	Rai Coast	RAI COAST RURAL	17
126	Enga	Wabag	WABAG URBAN	13	171	Madang	Sumkar	KARKAR RURAL	9
127	Enga	Wapenamanda	TSAK RURAL	12	172	Madang	Sumkar	SUMGILBAR RURAL	8
128	Enga	Wapenamanda	WAPENAMANDA RURAL	20	173	Madang	Usino-Bundi	BUNDI RURAL	16
129	Gulf	Kerema	CENTRAL KEREMA RURAL	12	174	Madang	Usino-Bundi	Gama Rural	8
130	Gulf	Kerema	EAST KEREMA RURAL	10	175	Madang	Usino-Bundi	USINO RURAL	13
131	Gulf	Kerema	KAINTIBA RURAL	10	176	Manus	Manus	AUA WUVULU	5
132	Gulf	Kerema	KEREMA URBAN	21	177	Manus	Manus	BALOPA	8
133	Gulf	Kerema	KOTIDANGA RURAL	20	178	Manus	Manus	BISIKANI / SOPARIBEU	13
134	Gulf	Kerema	LAKEKAMU-TAURI RURAL	7	179	Manus	Manus	LELEMADIH BUPICHUPE	19
135	Gulf	Kikori	BAIMURU RURAL	6	180	Manus	Manus	LORENGAU URBAN	11

ANNEX II

No.	Province	District	LLG	n	No.	Province	District	LLG	n
181	Manus	Manus	LOS NEGROS	8	226	Morobe	Markham	WANTOAT/LERON RURAL	24
182	Manus	Manus	NALI SOPAT/PENABU	15	227	Morobe	Menyamya	Kapo Rural	7
183	Manus	Manus	NIGOHERM	6	228	Morobe	Menyamya	KOME RURAL	24
184	Manus	Manus	POBUMA	11	229	Morobe	Menyamya	Nanima Kariba	19
185	Manus	Manus	POMUTU/KURTI/ANDRA	13	230	Morobe	Menyamya	WAPI RURAL	8
186	Manus	Manus	RAPATONA	15	231	Morobe	Nawae	LABUTA RURAL	22
187	Manus	Manus	TETEDU	11	232	Morobe	Nawae	NABAK RURAL	12
188	Milne Bay	Alotau	ALOTAU URBAN	10	233	Morobe	Nawae	WAIN-ERAP RURAL	9
189	Milne Bay	Alotau	DAGA RURAL	18	234	Morobe	Tewae-Siassi	SIALUM RURAL	13
190	Milne Bay	Alotau	HUHU RURAL	23	235	Morobe	Tewae-Siassi	SIASSI RURAL	11
191	Milne Bay	Alotau	MAKAMAKA RURAL	19	236	Morobe	Tewae-Siassi	WASU RURAL	9
192	Milne Bay	Alotau	MARAMATANA RURAL	15	237	National Capital	National Capital	NATIONAL CAPITAL	18
193	Milne Bay	Alotau	SUAU RURAL	14	238	New Ireland	Kavieng	KAVIENG URBAN	27
194	Milne Bay	Alotau	WERAURA RURAL	20	239	New Ireland	Kavieng	LOVONGAI RURAL	11
195	Milne Bay	Esa'ala	DOBU RURAL	10	240	New Ireland	Kavieng	MURAT RURAL	10
196	Milne Bay	Esa'ala	DUAU RURAL	12	241	New Ireland	Kavieng	TIKANA RURAL	16
197	Milne Bay	Esa'ala	WEST FERGUSON RURAL	10	242	New Ireland	Namatanai	CENTRAL NIU AILAN RURAL	10
198	Milne Bay	Kiriwina-Goodenough	GOODENOUGH ISLAND RURAL	21	243	New Ireland	Namatanai	KONOAGIL RURAL	10
199	Milne Bay	Kiriwina-Goodenough	KIRIWINA RURAL	19	244	New Ireland	Namatanai	NAMATANAI RURAL	28
200	Milne Bay	Samarai-Murua	BWANABWANA RURAL	22	245	New Ireland	Namatanai	NIMAMAR RURAL	10
201	Milne Bay	Samarai-Murua	LOUISIADE RURAL	19	246	New Ireland	Namatanai	TANIR RURAL	8
202	Milne Bay	Samarai-Murua	MURUA RURAL	11	247	Oro	Ijivitari	AFORE RURAL	19
203	Milne Bay	Samarai-Murua	YALEYEMBA RURAL	20	248	Oro	Ijivitari	ORO BAY RURAL	23
204	Morobe	Bulolo	Buang Rural	14	249	Oro	Ijivitari	POPONDETTA URBAN	10
205	Morobe	Bulolo	MUMENG RURAL	9	250	Oro	Ijivitari	Safia Rural	6
206	Morobe	Bulolo	WARIA RURAL	21	251	Oro	Ijivitari	Tufi Rural	6
207	Morobe	Bulolo	WATUT RURAL	18	252	Oro	Sohe	HIGATURU RURAL	19
208	Morobe	Bulolo	WAU RURAL	26	253	Oro	Sohe	KIRA RURAL	8
209	Morobe	Bulolo	WAU/BULOLO URBAN	21	254	Oro	Sohe	KOKODA RURAL	25
210	Morobe	Finschhafen	Burum Kwat	21	255	Oro	Sohe	TAMATA RURAL	9
211	Morobe	Finschhafen	Finschafen Urban	8	256	Sandaun	Aitape-Lumi	EAST AITAPE RURAL	7
212	Morobe	Finschhafen	HUBE RURAL	23	257	Sandaun	Aitape-Lumi	EAST WAPEI RURAL	9
213	Morobe	Finschhafen	KOTTE RURAL	8	258	Sandaun	Aitape-Lumi	WEST AITAPE RURAL	23
214	Morobe	Finschhafen	YABIM MAPE RURAL	20	259	Sandaun	Aitape-Lumi	WEST WAPEI RURAL	6
215	Morobe	Huon	MOROBE RURAL	10	260	Sandaun	Nuku	Maimai Wanwan	9
216	Morobe	Huon	SALAMAUA RURAL	6	261	Sandaun	Nuku	MAWASE RURAL	11
217	Morobe	Huon	WAMPAR RURAL	12	262	Sandaun	Nuku	PALMAI RURAL	8
218	Morobe	Kabwum	DEYAMOS RURAL	19	263	Sandaun	Nuku	YANGKOK RURAL	23
219	Morobe	Kabwum	Komba Rural	18	264	Sandaun	Telefomin	NAMEA RURAL	8
220	Morobe	Kabwum	Selepet Rural	10	265	Sandaun	Telefomin	OKSAPMIN RURAL	20
221	Morobe	Kabwum	YUS RURAL	19	266	Sandaun	Telefomin	TELEFOMIN RURAL	21
222	Morobe	Lae	AHI RURAL	8	267	Sandaun	Telefomin	YAPSIE RURAL	9
223	Morobe	Lae	LAE URBAN	12	268	Sandaun	Vanimo-Green River	AMANAB RURAL	9
224	Morobe	Markham	ONGA/WAFFA RURAL	18	269	Sandaun	Vanimo-Green River	BEWANI/WUTUNG ONEI	20
225	Morobe	Markham	UMI/ATZERA RURAL	9	270	Sandaun	Vanimo-Green River	GREEN RIVER RURAL	19

ANNEX II

No.	Province	District	LLG	n	No.	Province	District	LLG	n
271	Sandaun	Vanimo-Green River	VANIMO URBAN	13	316	Western	South Fly	MOREHEAD RURAL	19
272	Sandaun	Vanimo-Green River	WALSA RURAL	6	317	Western	South Fly	ORIOMO-BITURI RURAL	20
273	Southern Highlands	Ialibu-Pangia	EAST PANGIA RURAL	28	318	Western Highlands	Dei	DEI RURAL	8
274	Southern Highlands	Ialibu-Pangia	IALIBU URBAN	27	319	Western Highlands	Dei	Kotna Rural	9
275	Southern Highlands	Ialibu-Pangia	KEWABI RURAL	21	320	Western Highlands	Mount Hagen	MT HAGEN RURAL	16
276	Southern Highlands	Ialibu-Pangia	WIRU RURAL	27	321	Western Highlands	Mount Hagen	MT HAGEN URBAN	8
277	Southern Highlands	Imbonggu	IALIBU BASIN RURAL	24	322	Western Highlands	Mul-Baiyer	BAIYER RURAL	25
278	Southern Highlands	Imbonggu	IMBONGGU RURAL	27	323	Western Highlands	Mul-Baiyer	LUMUSA RURAL	8
279	Southern Highlands	Imbonggu	LOWER MENDI RURAL	22	324	Western Highlands	Mul-Baiyer	MUL RURAL	20
280	Southern Highlands	Kagua-Erave	Aiya Rural	10	325	Western Highlands	Tambul-Nebilyer	MT GILUWE RURAL	34
281	Southern Highlands	Kagua-Erave	ERAVE RURAL	12	326	Western Highlands	Tambul-Nebilyer	NEBILYER RURAL	22
282	Southern Highlands	Kagua-Erave	KAGUA RURAL	9					
283	Southern Highlands	Kagua-Erave	KUARE RURAL	8					
284	Southern Highlands	Mendi-Munihu	KARINTS RURAL	21					
285	Southern Highlands	Mendi-Munihu	LAI VALLEY RURAL	20					
286	Southern Highlands	Mendi-Munihu	MENDI URBAN	20					
287	Southern Highlands	Mendi-Munihu	UPPER MENDI RURAL	22					
288	Southern Highlands	Nipa-Kutubu	LAKE KUTUBU RURAL	19					
289	Southern Highlands	Nipa-Kutubu	MT BOSAVI RURAL	12					
290	Southern Highlands	Nipa-Kutubu	NEMBI PLATEAU	21					
291	Southern Highlands	Nipa-Kutubu	NIPA RURAL	25					
292	Southern Highlands	Nipa-Kutubu	POROMA RURAL	19					
293	West New Britain	Kandrian-Gloucester	GASMATA RURAL	8					
294	West New Britain	Kandrian-Gloucester	GLOUCESTER RURAL	8					
295	West New Britain	Kandrian-Gloucester	KANDRIAN COASTAL	14					
296	West New Britain	Kandrian-Gloucester	KANDRIAN INLAND	6					
297	West New Britain	Kandrian-Gloucester	KOVE / KALIAI RURAL	18					
298	West New Britain	Talasea	BALI/WITU RURAL	10					
299	West New Britain	Talasea	BIALLA RURAL	24					
300	West New Britain	Talasea	HOSKINS RURAL	8					
301	West New Britain	Talasea	KIMBE URBAN	17					
302	West New Britain	Talasea	MOSA RURAL	24					
303	West New Britain	Talasea	TALASEA RURAL	8					
304	Western	Middle Fly	BALIMO URBAN	16					
305	Western	Middle Fly	BAMU RURAL	25					
306	Western	Middle Fly	GOGODALA RURAL	24					
307	Western	Middle Fly	LAKE MURRAY RURAL	17					
308	Western	Middle Fly	NOMAD RURAL	19					
309	Western	North Fly	KIUNGA RURAL	27					
310	Western	North Fly	KIUNGA URBAN	20					
311	Western	North Fly	NINGERUM RURAL	29					
312	Western	North Fly	OLSOBIP RURAL	19					
313	Western	North Fly	STAR MOUNTAINS	20					
314	Western	South Fly	DARU URBAN	32					
315	Western	South Fly	KIWAI RURAL	19					

ANNEX III

Food Security Impact Phase Classification

Three community-level criteria were used to classify each LLG into one of four food security impact phases (low, moderate, high and severe) as shown on page 5.

Criteria 1: The food supply situation, as reported by the majority of respondents in each LLG. For example, if the majority of respondents in a given LLG said the food supply in their community was sufficient, that LLG was classified as Phase 1. If the majority said there were some shortages, the LLG was classified as phase 2 or 3; and if the majority said there were extreme shortages, it was classified as phase 3 or 4.

Criteria 2: The number of households suffering from hunger and consuming famine foods in each LLG. If the majority of respondents reported that they were not suffering from hunger and were not consuming famine foods, the phase classification obtained through criteria 1 (above) was downgraded by one phase. Conversely, if the majority of respondents reported suffering from hunger and consuming famine foods, that LLG's phase classification was increased by one phase.

Criteria 3: The number of deaths in the community reported by respondents. If the average number of deaths reported by respondents in a category 3 LLG was 5 people or more, then that LLG was increased to phase 4. Conversely, if the average number of deaths reported in a phase 4 LLG was lower than 5, that LLG was downgraded to phase 3. Number of deaths did not affect the classification of phase 1 and 2 LLGs.