



**Australian Government**

**Australian Centre for  
International Agricultural Research**

# Final report

*Project full title* **COVID-19 gendered risks, impact & response in the Indo-Pacific: Rapid research and policy guidance**

---

*project ID* LS/2020/203

---

*date published* 22/06/2023

---

*prepared by* Sara E Davies, Griffith University  
Robin E Roberts, Griffith University

---

*approved by* Anna Okello, Research Program Manager  
Livestock Systems

---

*final report number* FR2023-024

---

*ISBN* 978-1-922983-20-6

---

*published by* ACIAR  
GPO Box 1571  
Canberra ACT 2601  
Australia

---

This publication is published by ACIAR ABN 34 864 955 427. Care is taken to ensure the accuracy of the information contained in this publication. However, ACIAR cannot accept responsibility for the accuracy or completeness of the information or opinions contained in the publication. You should make your own enquiries before making decisions concerning your interests.

© Australian Centre for International Agricultural Research (ACIAR) 2023 - This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced by any process without prior written permission from ACIAR, GPO Box 1571, Canberra ACT 2601, Australia, [aciarc@aciarc.gov.au](mailto:aciarc@aciarc.gov.au).

## Contents

<b>1</b>	<b>Preface</b> .....	<b>3</b>
<b>2</b>	<b>Executive summary</b> .....	<b>4</b>
<b>3</b>	<b>Background and project planning</b> .....	<b>7</b>
<b>4</b>	<b>Objectives</b> .....	<b>9</b>
<b>5</b>	<b>Method and research design</b> .....	<b>10</b>
5.1	Key informant interviews & focus group discussions – Myanmar, Papua New Guinea, the Philippines.....	11
5.2	Online training & development workshops .....	14
5.3	FIES COVID-19 survey – Myanmar & the Philippines.....	16
<b>6</b>	<b>Achievements against activities and outputs/milestones</b> .....	<b>18</b>
<b>7</b>	<b>Key results and discussion</b> .....	<b>21</b>
7.1	Phase 1: Rapid assessment .....	21
7.2	Phase 2: The recovery .....	31
7.3	FIES COVID-19 survey - Myanmar & the Philippines.....	40
7.4	Discussion - issues & opportunities .....	44
<b>8</b>	<b>Impacts</b> .....	<b>47</b>
8.1	Communication & dissemination activities.....	47
<b>9</b>	<b>Implications and conclusions</b> .....	<b>48</b>
9.1	Research lessons learned .....	48
9.2	Impact lessons learned .....	48
9.3	Recommendations .....	49
<b>10</b>	<b>References</b> .....	<b>51</b>
10.1	Bibliography .....	51
10.2	Project publications & outputs.....	52
<b>11</b>	<b>Appendix</b> .....	<b>54</b>
11.1	UNDP Global Gender Response Tracker, 2020-2021 .....	54

---

# 1 Preface

This report provides a summary of the project *COVID-19 gendered risks, impact response in the Indo-Pacific: Rapid research and policy guidance* as commissioned by the Australian Centre for International Agricultural Research (ACIAR). The project examined risks related to economic hardship and food insecurity experienced by women during the first and second years of the COVID-19 pandemic in Myanmar, the Philippines, and Papua New Guinea.

The authors of this report are Sara E Davies and Robin E Roberts, with additional thanks to Dominic Smith, Griffith University for his contributions. Researchers from four institutions participated in a variety of activities across this project over a two-year period. The authors regret not being able to name all the researchers involved but extend their sincere thanks to each one for their contributions.

The sub-contracted institutions included:

- National Young Women's Christian Association, Myanmar
- University of the Philippines Visayas Foundation, the Philippines
- Hauskuk Initiative Association, Papua New Guinea
- University of Hong Kong, Hong Kong

The in-country lead researchers were:

- Zin Mar Oo and Yadanar, Myanmar
- Claire Samantha Juanico and Darlene Joy Calsado, the Philippines
- Naomi Woyengu, Papua New Guinea

The research project team would like to thank the in-country researchers, farmers, traders, market stall vendors, and public service officers, involved in agriculture trade in Myanmar, the Philippines, and Papua New Guinea, who gave their time freely during the research activities. Finally, our appreciation and acknowledgement of Karen Grepin, University of Hong Kong; Julia Smith, Simon Fraser University, Canada; and Clare Wenham, London School of Economics and Political Science, United Kingdom; for their advice and support throughout the project.

The view expressed in this report are those of the research team and do not necessarily reflect the view of Griffith University, ACIAR or the governments of Australia, Myanmar, the Philippines, or Papua New Guinea.

Professor Sara E Davies  
Associate Professor Robin E Roberts  
Griffith Asia Institute, Griffith University

---

## 2 Executive summary

This report presents the summary and outcomes of the 2021-2022 project, *COVID-19 gendered risks, impact response in the Indo-Pacific: Rapid research and policy guidance* (LS/2020/203) prepared by Griffith University as commissioned by ACIAR.

The project examined the specific risks related to economic hardship and food insecurity that women have experienced during the first and second years of the pandemic in Myanmar, the Philippines, and Papua New Guinea. The project undertook two quantitative and qualitative studies simultaneously - i) modified Food Insecurity Experience Scale (FIES) surveys to capture an experience-based metric of the national food insecurity situation in Myanmar and the Philippines and ii) face-to-face data collection approach to examine gendered impacts within the three focus countries on those in the small-scale agriculture industries affected by COVID-19 public health interventions and the pandemic itself. This report involved the collation and review of outputs from seven small activities with inputs from 14 reports.

The findings and recommendations from this project will contribute to a broader development outcome by informing ACIAR in the design of longer-term research and development (R&D) programs to reduce poverty and improve livelihoods of many in the Indo-Pacific region. The summarised study findings are:

### ***Insights from rapid response study***

The rapid research study was designed to conduct a 'deep dive' to understand the diverse experiences of low-income women working in the agricultural sector across three countries experiencing the pandemic, and public health interventions, at different phases. This approach required rapid deployment of surveys and close engagement with local researchers who had strong connections with local communities. Insight gained from this experience, in the terms of the research experience and impact of the pandemic, include:

- Food rationing was already present before the crisis hit.
- Financing alternatives for women, especially low interest loans were identified as a challenge.
- Lack of gender specific access to affordable crop insurance and to training in the use of on-farm equipment was evident.
- Participants reported an inability to access no-cost PPE and in-kind relief assistance for market stall operators.
- During a crisis access to information is vital but was found to be difficult to access.
- Communication, clarity, and inclusion pathways for rapid welfare were found wanting – especially access to staple foods and cash.

### ***Insights from the 2021 and 2022 FIES surveys - Myanmar and the Philippines***

- Increased food insecurity was identified in both countries during the two studied periods during the pandemic.
- There is evidence of food insecurity in rural & urban areas in both countries.
- In rural areas food insecurity remains higher than in urban areas in both countries, but the gap has increased during the pandemic.

- COVID-19 and food insecurity revealed, in both countries, that the pandemic was responsible for food insecurity experiences.
- During the height of the pandemic, a high proportion of respondents *blamed* COVID-19 for less severe and severe food insecurity indicators.
- Gaps in food insecurity levels between women and men in Myanmar increased during the pandemic in contrast to the pre-pandemic period.
- Food insecurity levels of women in the Philippines during the pandemic had been significantly higher than male food insecurity.

### **Key research and impact lessons**

- Local women networks are vital for conducting this type of research but requires time to train and co-design approaches, data collection, and consistent thematic analysis.
- Local women farmers and vendors wanted to share their story and provided suggestions for their recovery and resilience.
- The women identified the barriers they experienced to access the minimal social welfare available. Awareness of gendered experiences during crisis is vital to identify the barriers connected to accessing welfare support.
- Extraction and expectations - return to community is vital to learn about recovery but there is a limit to data collection without it being extractive. Next step would be to design and implement an action-based research project or utilising a 'thinking and working politically' community of practice style study.
- Consideration should be given to engaging with men as well as women, especially as noted in Papua New Guinea, is needed to ensure a holistic study of gendered impacts during crises.
- Farmers were not protected from food insecurity. Livestock and produce were affected by the rumours in the absence of information. Food prices and food staples rapidly increased. Yields were destroyed and livestock were killed in anticipation of risk (affecting income and livelihood). Initially farmers were able to cushion the food insecurity impact of COVID-19 by pivoting production towards own consumption, but in the longer term the lack of markets for products and a lower level of cash crop production (due to needing to feed themselves) led to significantly worse outcomes for rural dwellers than urban dwellers.
- Access to information. 'Misinformation' lacks nuance. In this situation, it appears, rumours did not originate from social media but from previous experiences of disasters and emergencies. There is a need to follow up after emergencies to establish where communication chains broke down.
- Diversify information sources. During the health emergency, the local health sector was not the only the trusted information source for areas such as animal health, farming, or vending. These sectors were necessary for public health measures, but populations did not describe themselves as seeking advice or information from the health sector. The farmers and vendors sought information related to their business even though it had public health implications. Public health interventions measures did not reduce risk taking behaviours.

From a broader perspective, project insights have been used to outline opportunities and future research approaches that would seek to mitigate harm caused by dynamic disruptions at individual, household, and community levels. Recommendations for further areas of enquiry have been provided.

### **Recommendations**

Recommendations to inform ACIAR research and development activities linked to insights from this project are summarised below.

<b>R1</b>	<b>Examine the feasibility of cash assistance schemes during a crisis response</b>
<b>R2</b>	<b>Undertake a review of financial loan schemes available to small income farmers in a post COVID-19 recovery</b>
<b>R3</b>	<b>Lead an Annual Women's Agriculture Finance Forum that seeks to support understanding of financial security for women in agriculture ventures across the Indo-Pacific</b>
<b>R4</b>	<b>Revise and develop best practice material to support disaster communications in rural areas and amongst sectors</b>
<b>R5</b>	<b>Examine how One Health focused communications, through radio, web, and social media platforms can disseminate information in a more timely and accurate manner</b>
<b>R6</b>	<b>Introduce an annual Women in Agriculture Digital Economy showcase</b>
<b>R7</b>	<b>Examine the feasibility of an ACIAR Gender One Health Research Network Group to inform training and development</b>
<b>R8</b>	<b>Develop ACIAR training partnerships that develop skilled in-country facilitators</b>
<b>R9</b>	<b>Examine how regional research and training through online platforms can connect stakeholders in rural and remote areas</b>

---

### 3 Background and project planning

The project was commissioned to analyse the gendered impacts of COVID-19 on women self-employed in the food sector in the Indo-Pacific region, with a specific focus on Myanmar, Papua New Guinea, and the Philippines. These are three countries that, prior to COVID-19, already faced significant food security challenges and a high representation of women in self-employment. To identify the specific risk of economic hardship and food insecurity that women experienced during the first year of the pandemic (January 2020-January 2021), the study aims were to identify and understand the specific gendered impacts of COVID-19 on food and income security for women already in economic precarity across the three countries. Through a lens capturing productive and reproductive (care giving and domestic work) labour, the project focused on how women farmers and market vendors managed income and food security due to the impact of public health interventions (including lockdowns, school closures, and reduced transport).

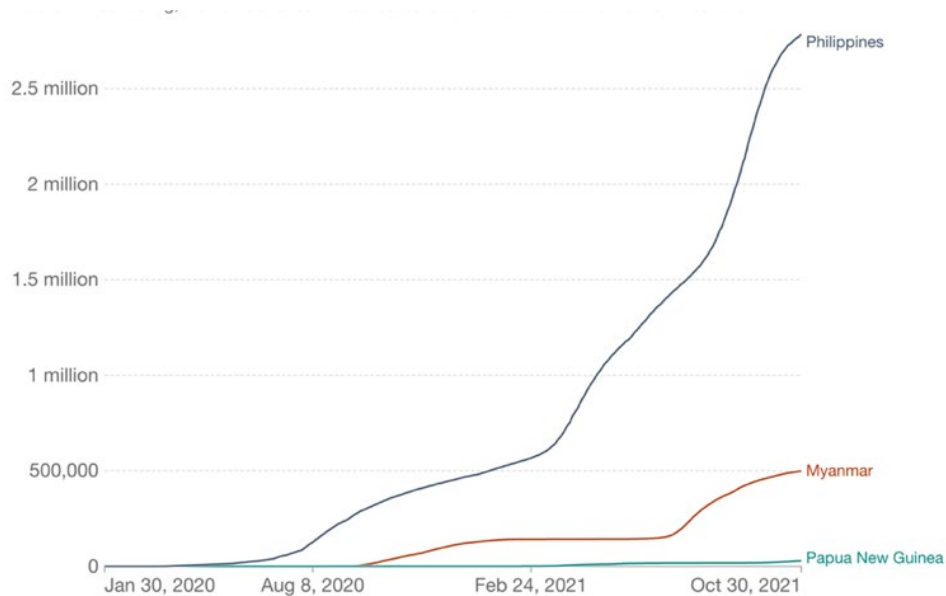
The project undertook two studies simultaneously - quantitative (survey) and qualitative (interviews and focus group discussions).

#### *Quantitative Study*

The first study, a pilot experiment, utilised the United Nations (UN) Food and Agriculture Organization (FAO) Food Insecurity Experience Survey (FIES), with a computer assisted response mechanism, in Myanmar and the Philippines to capture participant responses. The FIES survey is an experience-based metric of food insecurity severity developed by the Voices of the Hungry program from the UN FAO. The survey captures people's direct responses to questions about their experiences in the face of constrained access to food. The Voices of the Hungry program developed evidence-based protocols to examine food insecurity prevalence rates across countries used in this study. In 2020, an adaptation of the FIES for COVID-19 was designed to undertake rapid food insecurity research during the pandemic. The FIES COVID-19 survey instrument was adopted for this project.

#### *Qualitative Study*

The second study conducted 'deep dives' using interview/focus group methods to examine gendered impacts on those affected in Myanmar, the Philippines and Papua New Guinea by COVID-19 public health interventions and the pandemic itself. In cooperation with our women-led research teams in each country, this study needed to focus on the immediate impacts that small scale women farmers and women vendors experienced during the second half of 2020 and first half of 2021. All interviews were conducted in August 2021 (Myanmar and Papua New Guinea) and September 2021 (the Philippines). There were unanticipated delays in data collection across all three countries. All three countries were affected by the COVID-19 wave, as can be seen in Figure 3.1.



**Figure 3.1 Cumulative confirmed COVID-19 cases, Jan 2020 - Oct 2021**

*Note: Due to limited testing, the number of confirmed cases is lower than the true number of infections*

*Source: Johns Hopkins University CSSE COVID-19 Data*

With rising infections from May 2021, the decision was to postpone data collection until a decline in peak infection rates was seen. In the Philippines, data collection was limited to Western Visayas due to ongoing travel restrictions. In Myanmar, the military coup, initiated 1 February 2021, led to delays in travel due to safety considerations. In Papua New Guinea, in addition to various regions experiencing different rates of COVID-19 infections, weather conditions also affected travel to collect data.

After the successful completion of data collection from Phase 1, team presented their findings at a Griffith University-ACIAR sponsored webinar on 8 December 2021. The team began preparations for the final report, examining the impact of the lockdowns in the areas of economic security, care responsibilities, and diversification of income, identified by the women farmers and vendors. The 2021 FIES COVID-19 survey in Myanmar and the Philippines had also identified slight increases in food insecurity being experienced by women emerging in populations, in rural locations. A follow-up Phase 2 study with original participants in March and April 2022, focused on their experiences of recovery since the first interviews was undertaken. A second round of interviews across the three countries and repeated national FIES COVID-19 surveys in Myanmar and the Philippines were commissioned and completed in 2022. The objectives, research design, findings and recommendations are presented next.



---

## 4 Objectives

The overall aim of the project was to develop an evidence-based approach that identified the specific risk of economic hardship and food insecurity that women have experienced during the first and second year of the COVID-19 pandemic in Myanmar, the Philippines, and Papua New Guinea. Within this broader goal, the two high level objectives of the project were to:

1. Identify and understand the specific gendered impacts of COVID-19 response on food security and socio-economic outcomes for women across three countries and,
2. Utilise these insights to outline opportunities and design approaches that will begin to mitigate the harm caused by the COVID-19 disruption at the individual, household, and community levels.

The project's aim was to inform the ACIAR's strategic objective: *to improve gender equity and the empowerment of women and girls*. There are three main sections to this report. The first provides a brief background on the method and research design. The second section presents a short summary of the key findings across the three countries that illustrate how rapidly women experienced food and income insecurity at the start of the crisis, sometimes before intense COVID-19 waves reached their community. The third section of the report presents the research and impact lessons, and the recommendations to address livelihood improvements for women in a post-pandemic landscape.

The study in each country was sub-contracted to an organisation and facilitated by a lead researcher with support from a broader in-country team (see Figure 4.1).

- Myanmar - Young Women's Christian Association Myanmar
- The Philippines - University of the Philippines Visayas
- Papua New Guinea - Hauskuk Initiative, Madang

Research partner investigators from London School of Economics and Political Science, Simon Fraser University, and University of Hong Kong, advised in the early and mid-stages of the research project.



**Figure 4.1** Research team members

Source: author's image

## 5 Method and research design

The study utilised a mixed methods approach to capture the detailed information over a two-year period 2021 and 2022 for this project. This structured approach included national surveys, traditional field research through interviewing, and capacity building to develop the capability of the in-country research teams from Myanmar, the Philippines, and Papua New Guinea.

### *Research Studies*

- National FIES COVID-19 surveys - Myanmar and the Philippines in 2021 and 2022
- Semi-structured interviews/focus group discussions - Myanmar, the Philippines, and Papua New Guinea

### *Capacity Building*

- Bespoke online training and development workshops for in-country research teams, led by Griffith University, was undertaken by all in-country researchers. This training provided the researchers with the foundation to understand why a systematic approach for the study design, data collection and outputs was employed. The researchers gained a micro-credential as a record of their achievement.
- Weekly/fortnightly meetings facilitated participation in planning and research processes across all countries and allowed two-way communication between the project teams.
- Lead researchers presented the results of Phase 1 – “Gendered Risks, impact and response in the Indo-Pacific”, via an online webinar hosted by the Griffith Asia Institute. The researchers were guided in the preparation of their presentations and supported to undertake practice sessions prior to the formal online event (see Figure 5.1).



**Figure 5.1 Online Research Webinar**

*Source: author's image*

---

## 5.1 Key informant interviews & focus group discussions – Myanmar, Papua New Guinea, the Philippines

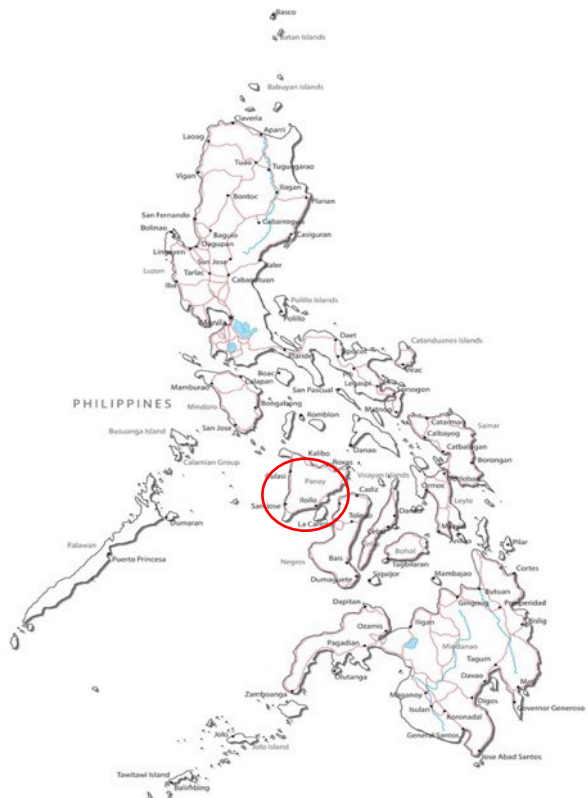
To facilitate the inclusion of the voices of local women in semi-rural and rural locations affected by the pandemic, the team used semi-structured interviews and focus group discussions to enable reflection and understanding through shared conversation. The decision to conduct semi-structured interviews with women in Myanmar and the Philippines, and focus group discussions with women (6 to 10 persons) in Papua New Guinea, was finalised in consultation with partner researchers in each country. In the first phase information and experiences were captured from 183 women (93 farmers and 90 market vendors) from three key country study sites (see Figures 5.2, 5.3, 5.4):

- Myanmar
  - Mandalay - Kyauk Se and Patheingyi
  - Ayeyarwaddy - Pathein and Pyarpone
- The Philippines
  - Antique - Hamtic and Sibalom
  - Iloilo - Cabatuan and Dumangas
- Papua New Guinea
  - Alotau - Milne Bay
  - Kokopo - East New Britain
  - Madang
  - Goroko - Eastern Highland



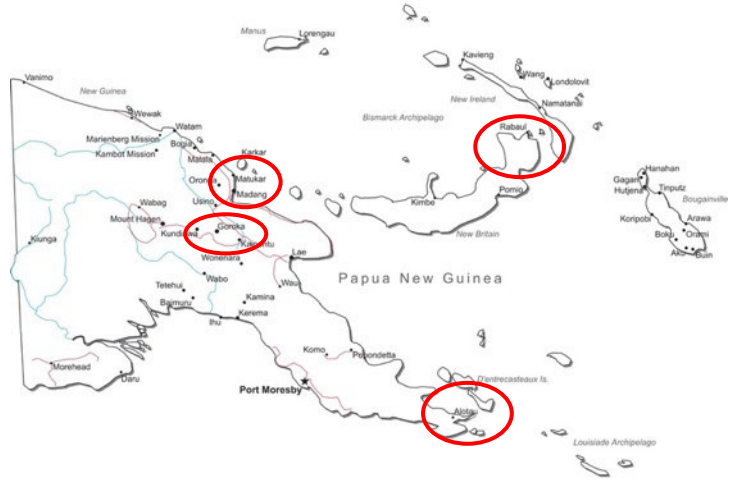
**Figure 5.2 Myanmar Study Site**

Source: Vector.com



**Figure 5.3 The Philippines Study Site**

Source: Vector.com



**Figure 5.4 Papua New Guinea Study Site**

Source: Vector.com

Focus group discussions were arranged in Papua New Guinea to ensure the following: efficient collection of data from farmers who would travel to markets to sell produce for short periods of time and market vendors' acceptance to discuss the issues collectively. The remoteness of the locations meant that research teams had to use their time efficiently in each location.

Semi-structured interviews (utilising an interviewee, interviewer, and a note taker) were chosen for Myanmar and the Philippines. In Myanmar, given the political and security

situation, it was determined that women participants would prefer discreet individual interviews. In the Philippines, the social distancing restrictions prohibited focus group discussions, and, like Myanmar, it was determined by local partners that women preferred individual interviews. Digital interview methods were not available in any location due to the rural remoteness and the meagre income of participants. The alternative option of mobile or telephone interviews was not available in Papua New Guinea and Myanmar. Therefore, all engagements were designed to be time- and location-sensitive to the existing care responsibilities, income priorities, and safety (health and physical) of participants.

The proposed interview sample size was 50 participants per country (25 farmers and 25 market stall holders), with an estimated 150 completed interviews. In actuality, the project secured **183 interviews** (93 farmers and 90 market vendors) across the three countries. All interviewees self-identified as women. Contact with farmers and market stall holders was negotiated by civil society and academic researchers in the locations within each country. Existing relationships were utilised to establish contact with interviewees. The interview and focus group instruments; Participant Information Sheet, Informed Consent, recruitment communication information, and processes, as well as COVID-19 safety protocols, received formal ethical approval from Griffith University in April 2021 (GU References - 2021/147, 2021/148, and 2021/149). As per guidelines, ethical approval details were noted on the dedicated documents; Participant Information Sheet (English and translated versions), Informed Consent, and Participant Screening Information Sheet (see [project field work](#)). The research instruments, encompassing semi-structured interview checklists and focus group moderators' outlines, were structured to understand how women farmers and market stall holders perceived the health crisis had affected the affordability of food, household duties and chores, income, and decision-making autonomy (see [project fieldwork information](#)). The instruments were designed to understand how women perceived the crisis whilst managing competing social, economic, and political impacts caused by the crisis on their small enterprise.

As the first principal approach, an emphasis on partnerships with local women researchers and civil society organisations located in each of the three countries was employed. The project drew together a team of cross-institutional multidisciplinary (agriculture, health economy, global health, and political science) researchers and civil society practitioners from various research, data collection, and community backgrounds across multiple locations (Australia, Myanmar, Papua New Guinea, and the Philippines, in consultation with research partners in Canada, Hong Kong, and the United Kingdom).

The first phase of the research project was completed within a 12-month period. In this timeframe the project team co-designed the research instruments. All researchers viewed the instruments, and discussed their structure, themes, and the translation to local language over three one-hour workshops in each country. The next step was to undertake the training to prepare for the field research as presented in the previous section (see 5.2). In the return visits for Phase 2 data collection in April and May 2022, the decision was made to alter the interview and focus group instruments to pursue how women were perceiving the pace of economic recovery, food insecurity, and access to vaccines (see [project fieldwork information](#)).

Second, this study is a starting point to improve local-level understanding about the impact of COVID-19 on women in the agricultural sector, especially small-scale farmers, and market stallholders. The report does not attempt to test causal relationships between



COVID-19 pandemic surges and socio-economic impacts across the three countries. The project's purpose was to reach out to small scale women farmers and market stallholders to understand and document the *differentiated* and *dual* impacts of the pandemic on them and their families. We sought information on income, access to food, increased labour (productive) and care (reproductive), and decision-making capacities. Through these conversations we learnt about their additional needs and concerns, which we communicate in this report. The research team believe the study was timely, and the women interviewees were ready to share their stories at such a length (average time for an interview - 55 minutes) because the participants trusted the local researchers, who were intimately familiar with their communities.

Third, all interviewees self-identified as women and were recruited by the local research teams' existing relationships with women's community associations and women's farmer groups in each country. The project adopted feminist research methodological principles in prioritising the co-design and collaboration through all stages of the research, data collection, and data analysis. Women were interviewed by women researchers (except for two male note takers in Papua New Guinea) who were local to the area and could therefore build trust and rapport with the participants, who were often experiencing periods of significant stress and exhaustion. It was important that women's own voices were centered in the study to get at 'the subjugated knowledge of the diversity of women's realities that often lie hidden and unarticulated' (Hesse-Biber, 2007, p.113). At all times, interviews and focus groups were designed to be time- and location-sensitive to the existing care and work responsibilities, time priorities, and safety of participants. We are immensely grateful to the women who shared their experiences during this period of high stress.

---

## 5.2 Online training & development workshops

The data collection methods sought to fulfil the goal of empowering both the participants and the researchers who led the data collection for this project. Additionally, this research approach contributed to the capacity development of in-country researchers across three partner countries.

The project team members co-designed the research instruments. All research partners viewed the instruments and discussed their structure, themes, and the translation to local language over three one-hour workshops in each country (see [project training](#)). Six bespoke training modules were developed and delivered online specifically to facilitate the successful completion of the research field work. These included:

- qualitative research methods
- interviewing
- focus group discussions
- gender analysis
- thematic analysis.

These bespoke modules were easily accessible and freely available (online and to download) to all local research teams. Follow up training and discussion groups online (via Zoom) were held with in-country researchers to address outstanding questions from modules, test knowledge, address context specific questions, and ensure competency in data collection and compiling reports. The training was undertaken over a period of a six

weeks, combining self-paced and online learning to allow researchers to engage with the content individually and as a group.

Training in data collection methods commenced, and shortly thereafter, a military coup in emerged in Myanmar in early February 2021. There was a one-month pause with the Myanmar research team, with contact with the lead country researcher maintained via WhatsApp to follow up on the safety of the local team members.

The pandemic wave continued to rise in the Philippines, then the COVID-19 Delta wave began to intensify across all three countries. Two of the Philippines team members contracted COVID-19 and one was deployed to assist with the new testing regime Iloilo. The decision was made in May 2021 to employ additional local researchers to assist with the data collection to reduce the need to unnecessarily travel and reduce exposure risk.

The training in data collection was expanded to accommodate a larger circle of research assistants in each country (four in the Philippines, six in Myanmar, and 15 in Papua New Guinea). This experience was invaluable for in-country team dynamics (getting to know each other) and required innovative approaches to manage remote access challenges in each location. Many participants used mobile phones to access the online training sessions. The researchers received a digital badge as a verifiable visual indicator of their achievement (see Figure 5.5).



**Figure 5.5. Digital Badge Training Recognition**

*Source: author's image*

---

### 5.3 FIES COVID-19 survey – Myanmar & the Philippines

To capture gender disaggregated food insecurity experiences in relation to the COVID-19 pandemic in Myanmar and the Philippines, a modified FIES instrument was developed and used in conducting surveys in both countries in 2021 and 2022. This modified survey was based on the extension of the FIES survey to study the impacts of COVID-19 proposed by FAO (2020). The survey received formal ethical review approval (GU 2021/156) from the University in April 2021. As required, ethical approval details were noted on all documents (English and translated versions); Participant Information Sheet, and Informed Consent (available online with hyperlinks provided).

The survey instrument included a set of categorical demographic and socio-economic questions (including, for example, questions relating to gender, geographic location, education levels), a set of experiential questions designed to elicit a measure of food insecurity severity levels and a further set of questions designed to elicit links between food insecurity experiences and COVID-19.

The analysis of the FIES data is based on an application of Item Response Theory (IRT). Using an IRT model in this case rests on the assumption that:

- i. For each respondent, the severity score of each of the observed variables (food insecurity experiences) are all on the same one-dimensional scale as the overall food insecurity experience of the respondent; and
- ii. Higher levels of overall food insecurity are associated with a higher probability of positive responses on observed variables.

The parameter logistic model that is used to estimate food insecurity experience levels is the Rasch Model (Rasch, 1960). Rasch postulates that the probability of a respondent reporting a given experience is a logistic function of the distance between the position reported by the respondent and the position of the item on the severity scale (Equation 1).

$$(1) \dots \dots \dots \text{Prob}(x_{h,i}=1 | \theta_h, \beta_i) = \frac{e^{\theta_h - \beta_i}}{1 + e^{\theta_h - \beta_i}} \dots \dots \dots \text{Prob} x_{h,i}=1 | \theta_h, \beta_i = \frac{e^{\theta_h - \beta_i}}{1 + e^{\theta_h - \beta_i}}$$

Where:

$x_{h,i}$  = response given by respondent  $h$  to item  $i$  (yes or no)

$\beta_i$  = set of items within the model (in this case the eight FIES questions)

$\theta_h$  = food insecurity severity condition of respondent  $h$

Food insecurity experiences are measured using a set of eight experiential questions relating to increasing severe levels of food insecurity. The respondents are asked to recall, if over the past 12-month period, they have had a particular food insecurity experience and answer either Yes or No to the question. The questions were posed as... During the last 12 months,

- was there a time when you were worried you would not have enough food to eat because of a lack of money or other resources? (Coded as WORRIED)
- was there a time when you were unable to eat healthy and nutritious food because of a lack of money or other resources? (Coded as HEALTHY)
- was there a time when you ate only a few kinds of foods because of a lack of money or other resources? (Coded as FEWFOOD)



- was there a time when you had to skip a meal because there was not enough money or other resources to get food? (Coded as SKIPPED)
- was there a time when you ate less than you thought you should because of a lack of money or other resources? (Coded as ATELESS)
- was there a time when your household ran out of food because of a lack of money or other resources? (Coded as RANOUT)
- was there a time when you were hungry but did not eat because there was not enough money or other resources for food? (Coded as HUNGRY)
- was there a time when you went without eating for a whole day because of a lack of money or other resources? (Coded as WHLDAY)

Responses to each question are coded as 1 for Yes and 0 for No. Summing the combined response levels for the 8 questions gives a raw score of between 0 and 8 for each respondent. This raw score can be considered a sufficient basis to determine the latent food insecurity expertise level of the respondent as the FIES has been statistically validated against the assumptions of the IRT based Rasch measurement model (FAO, 2016; Rasch, 1960). Food insecurity levels were defined for each respondent against the country-specific cut-offs for mild and moderate food insecurity levels as defined by the Voices of the Hungry project. In the case of Myanmar and the Philippines this provides three levels of food insecurity: i) at least Mild *Mild+* (Raw score of 2 or more); ii) at least Moderate *Moderate+* (Raw Score of 4 or more); or iii) *Severe* (Raw Score of 7 or 8).

Linkages between food insecurity experiences and COVID-19 are established through a series of supplemental questions added to the standard FIES questionnaire. If the respondent answers yes to any of the eight standard food insecurity experience questions, they are subsequently asked if they perceive that COVID-19 was the reason for them having the food insecurity experience (FAO, 2020). The supplementary questions are coded 1 (Yes) and 0 (No). In each country the sample was designed to be nationally representative, gender balanced, and composed of urban and rural locations. In terms of Myanmar this detail is captured by state and in the Philippines by region.

In 2021 the survey was administered between 14 and 23 June in Myanmar and between 16 and 25 June in the Philippines. The 2022 survey was administered between 23 May and 3 June in both countries. In each year, the survey was administered to 1000 individuals in each country using a 12 month recall reference period relating to a respondent's food insecurity experience. The survey was administered using computer assisted telephone interviewing (CATI) allowing fast data collection, with the data entered as the interviewer conducts the survey. To provide an interpretative basis for the data, from both surveys, and for an inter-temporal context, the research team applied to the Voices of the Hungry Program for access to previous FIES datasets for 2020 for Myanmar and for 2014-2019 for the Philippines<sup>1</sup> and licences were granted. The available data has been analysed using the same methods as for the 2021 and 2022 surveys. It should be noted Papua New Guinea was excluded from the survey due to poor mobile data coverage beyond the capital (less than 23%) and limited mobile phone access by gender.

---

<sup>1</sup> Data was not available for 2020 in the Philippines and prior to 2020 for Myanmar

## 6 Achievements against activities and outputs/milestones

**Objective 1: Identify & understand the specific gendered impacts of COVID-19 response on food security & socio-economic outcomes for women across three countries.**

	Activity	Outputs/milestones	Completion date	Comments
1.1	<b>To identify &amp; establish key partnerships with local women's networks</b> in Myanmar, The Philippines and Papua New Guinea including ways to collaborate & address market-level information gaps to develop each in-country research team.	In-country research leads & key informants confirmed in each of the three countries.	30 Apr '21	<b>Completed</b> Full evidence can be found at  <a href="https://indopacgendernet.org/partners/">https://indopacgendernet.org/partners/</a>
1.2	<b>Undertake online training &amp; development workshops</b> with the 3 in-country partners to collaboratively identify data needs, plan the research approach, develop the common instruments, to capture the required information.	Key in-country leads & researchers are trained & have a common understanding of the SRA goals. Research design & instruments & ethics approvals are finalised. Targeted groups & locations are confirmed.	30 Jun '21	<b>Completed</b> The project developed a bespoke online Gender Research Methods course.  In-country researchers were provided guidance to understand the activities, instrument design, research delivery, & results analysis that supported the undertaking of this social science study.  Evidence to support can be found at  <a href="https://indopacgendernet.org/publications-and-training/">https://indopacgendernet.org/publications-and-training/</a>
1.3	<b>Conduct a pilot study - Food Insecurity Experience Survey</b> using Interactive Voice Response (IVR) (sample 500 women) in Myanmar & the Philippines.  <b>Note</b> – surveys for PNG will be undertaken in conjunction with A2.2	Document the first comprehensive understanding of women's food-related behaviours & experiences associated accessing food due to resource constraints and COVID-19 in 2 key partner countries.  Demographic data (age, employment sector, location, marital status) - analytical and control purposes.	30 Dec '21	Completed Myanmar - 14 to 23 Jun '21  The Philippines - 16 - 23 Jun '21

1.4	<p><b>Undertake a ‘deep dive’ study (focus group/interview discussions) to examine gendered impacts</b> with those affected in Myanmar, the Philippines &amp; Papua New Guinea by COVID-19 to understand the first hand (qualitative) experiences. This will include – online focus group training for facilitators to undertake the activity &amp; provide trained in-country facilitators to enable ongoing data relevant data capture in these 3 key countries.</p>	<p>A report that provides a detailed understanding of the experiences of food insecurity amongst women in the agricultural sector. The report will also highlight gaps in the information.</p> <p>Training in focus group facilitation/interview methods successfully provided to in-country moderators (via online delivery).</p>	30 Dec ‘21	<p><b>Completed</b> Aug ‘21</p> <p>See Section 7 for full details.</p>
1.5	<p><b>Food Insecurity Experiences of COVID-19 – ‘Recovery Phase’</b></p> <p>Undertake a study – specifically focused on the ‘Recovery Phase’ in the first quarter of 2022.</p> <p>National Survey using Interactive Voice Response (IVR) (sample 500 women and men) in Myanmar &amp; the Philippines.</p>	<p>Undertake a follow up study to provide a comprehensive gender understanding of food-related behaviours &amp; experiences associated with accessing food due to resource constraints and COVID-19 in 2 key partner countries in the Recovery Phase – early 2022.</p> <p>Demographic data (age, employment sector, location, marital status) - analytical and control purposes.</p>	31 Aug ‘22	<p><b>Completed</b></p> <p>Myanmar &amp; the Philippines - 23 May to 3 Jun ‘22</p>
1.6	<p><b>Gender impacts – Extended ‘deep dive’ interviews</b></p> <p>Undertake additional ‘deep dive’ studies (focus group &amp;/or interview discussions) to examine ongoing gendered impacts experienced by women farmers and market stallholders in Myanmar, the Philippines &amp; Papua New Guinea in the COVID-19 Recovery Phase in the first quarter of 2022.</p> <p>This will include online ‘refresher’ style training for in-country facilitators as needed.</p>	<p>A report that provides additional understanding of the experiences of food insecurity amongst women in the agricultural sector directly linked to the ‘Recovery Phase’ in early 2022.</p> <p>The report will also highlight gaps in our understanding of population needs for strategic development &amp; investment at household and community levels.</p>	31 Aug ‘22	<p><b>Completed</b></p> <p>See report for full details.</p>

**Objective 2: Utilise the insights from Objective 1 to outline opportunities & design approaches that will begin to mitigate the harm caused by COVID-19 disruption at the individual, household & community level.**

	<b>Activity</b>	<b>Outputs/milestones</b>	<b>Completion date</b>	<b>Comment</b>
2.1	<b>Establish an action plan &amp; relevant communication channel to disseminate research findings</b> , as well as determine the appropriate online event/workshop & communication modes for wider dissemination of the SRA outputs.	<p>Research papers &amp; events successfully communicated including:</p> <p>A report, action oriented, providing an end of project summary.</p> <p>Including - brief articulation of (1) the scope/options to address gendered impacts of COVID-19 responses,</p> <p>(2) the development impact potential of addressing these</p> <p>(3) the role that ACIAR (and other development actors) may play in positively contributing to action in this area (e.g. new programs of research, new partners and relationships, etc.)</p> <p>(4) final document – submit a peer-reviewed academic journal paper for confirmation of project findings</p> <p>- ACIAR report – disseminated at provincial &amp; national levels in e-print and via webinars in 3 partner countries.</p>	<p>Dec '21</p> <p>31 Aug '22</p>	<p><b>Completed</b></p> <p><i>Articles</i></p> <p><i>Webinars</i></p> <p><i>News articles</i></p> <p><i>Conference Papers</i></p> <p>Evidence can be found at  <a href="https://indopacgendernet.org/gallery/">https://indopacgendernet.org/gallery/</a></p> <p>For full publication/communication list see Section 8.1 of this report.</p>

## 7 Key results and discussion

### 7.1 Phase 1: Rapid assessment

The rapid assessment summary based on thematic analysis of the interviews with women in August and September 2021 is presented below (see Table 7.1). The results present the experiences of women who were asked to reflect on the first 12 months of the COVID-19 pandemic in each country. There were commonalities across the three countries for women including: the need for rapid financing which placed them in high-risk credit situations; difficulties in following inconsistent lockdown information which heightened physical insecurity; women had prepared in advance, but the duration of the situation constrained food and income access; and difficulty accessing government support and knowing if they were eligible for support. A summary of the welfare available at each location has been summarised (see Appendix 11.1).

**Table 7.1 Common rapid assessment results, three locations – Phase One**

Farmers and Vendors	Farmers	Vendors
Misinformation about Covid – how it is spread & public health measures required.	Loss of income due to inability to reach markets during lockdown (negative).	Loss of income due to inability to open usual hours.
Rapid financing was a huge problem. Access to cash reduced (practically) overnight.	Food rotting & pest infestations. Inability to capitalise on the next farming cycle.	Limited produce to sell & loss of income due to inability to open usual hours.
High dependence on short term high-interest loans, loans from family, & prior savings.	Access to produce grown for eating but families had a very limited diet (for example, no meat, noodles or rice).	Women vendors reported higher instances of food rationing or skipping meals. Approximately 3:1. Three women vendors reported this for every one-woman farmer.
The need for additional personal protective equipment was added cost. No compensation or support was provided to meet this cost.		Feelings of unsafety in markets due to uncertain hours, & uncertainty about whether they could be open. Higher risks of violence, theft, & bribery.
Nearly all respondents did not know about the small number of social welfare schemes available from their governments.		Cost of (available produce rose which meant vendors had to sell at an even price or at a loss.
Education of children & access to income to continue their education (school fees, books, uniforms) was mentioned across all three countries.		

Source: author's analysis

There were also country specific results, including misinformation about the pandemic and how it infects individuals, uncertainty around market opening times, physical risks to women vendors, and lack of diverse income opportunities (see Table 7.2).

**Table 7.2 Country specific results - Phase One**

<b>Myanmar</b>	<b>Papua New Guinea</b>	<b>The Philippines</b>
The locations were under stay-at-home township rules during the interviews.	Most markets remained open but with reduced hours & reduced number of people allowed to access markets. This affected farmers & vendors alike.	Restrictions in mobility & transportation increased costs of all staple foods for farmers & vendors.
Local YWCA members were crucial in facilitating access to participants for interviews.	Women farmers & vendors were adaptive & ingenious at finding produce to sell: peanuts; clothes; donuts.	Women vendors reduced size of meals & number of meals.
The coup had an impact on food security & movement. Women report that they were uncertain whether Covid-19 or the coup was impacting on their situation.	Farmers had access to produce but still needed staple foods which were expensive. More vendors mentioned skipping meals & reducing meal sizes.	Many women vendors live away from families in makeshift houses in market and send money home & reduced their food intake to send food to family.
Farmers had access to crops for food. Cost of oil, eggs, garlic, rice & meat rose. – items were available but unaffordable. Diets started to change in anticipation of shortages.	Salt, soap, sugar, & oil was difficult to obtain.  On announcement of restricted movement, the prices for these items went up.  Seed feed for chickens was difficult to access & a higher cost. Betelnut prices went up as did their illicit sales.	Women vendors were affected due to transportation suspensions – they had to walk to reach public market (more time consuming & more labour intensive)
Women farmers took on additional work in other farms to earn money.	Travelling to markets was (more) time consuming & produce can spoil (which reduces income)	High number of women (farmers and vendors) took out high interest loans from cooperatives & moneylenders (Bombays).
Flooding & snails were rising concerns before COVID-19.	Travelling to markets with produce or to open stall was dangerous activity, i.e. bribes, physical violence, & theft.	In Antique, populations received welfare in 2020 (bags of rice and sardines) but no more after that; in Iloilo welfare & food packages more readily available in 2020 & 2021.
Rising costs of seeds, fertiliser & gasoline (doubling of costs) – concerns for next crop & crops after that.	Access to reproductive products was difficult & expensive. Access to maternal healthcare was almost impossible during lockdown	Small farmers discussed having to compete against larger farmers for fertilisers & produce sales. Difficult before COVID, exacerbated by pandemic.

Expressed need for rapid advice & support networks amongst women farmers.	Women farmers expressed a strong interest to diversify produce & move into livestock farming	Concerns about access to PPE and fines, & about need to maintain sales (farmers & vendors) versus risk of COVID fines.
Expressed need for disaster & risk management training from farmers & vendors.	Women vendors expressed interest in digital economies & training	Farmers and vendors expressed concerns about impact of lockdown on schooling (including an inability to afford digital education items).
	Some women became sole income earners for family = more control in finances.	Some women became sole income earners for family = more control in finances.

*Source: author's analysis*

Our findings were consistent with other COVID-19 rapid gender assessments and confirmed the overwhelmingly harmful economic impact of the COVID-19 responses on women already close to the poverty line (Sanderson et al., 2020, p.14; UN Women, 2021, p.5). Our respondents referred to food price increases, loss of income, inability to access welfare support, and entrenched economic hardship as the pandemic continued. At the same time, women's productive and reproductive labour increased significantly. Unique to our findings were women's descriptions of risk-taking behaviors and risk management activities adopted across all three countries.

**In terms of risk management, women prepared for the crisis before it arrived because they could observe that food costs were rising.** There was a high number of women who sought loans to cover rising costs to their business and there were a smaller but significant number of women who tried to conduct business in breach of restrictions to earn income despite the risk of bribery and physical violence.

**In addition to women rationing food before the crisis hit their province, they also engaged in risk behaviors to mitigate against food and income insecurity.** These included skipping meals, forgoing personal protective equipment (PPE) to afford food, taking out high-risk loans, and continuing to trade during lockdown despite risk of fines, infection, and physical insecurity (abuse and violence for trading during lockdown and walking home after dark). All the cohorts interviewed made decisions about food rationing whether COVID-19 was circulating in the community or not.

#### *Anticipation of rising costs*

In all three countries farmers referred to the farming conditions being difficult and costly prior to the pandemic, and the impacts of COVID-19 compounded this. They listed two interconnected difficulties: rising costs (seeds, fertiliser, and equipment) and weather impacts. The economic cost of increases to input costs was compounded by poor harvests. In the Philippines, farmers noted that 'almost everyone has a poor harvest right now' (PHILO F13), which made the increase in the cost of farm inputs such as fertilisers, seedlings, pesticides, and labour even more difficult to navigate.

Among the farmers interviewed, women frequently reported increased costs for agricultural inputs such as seed, fuel, fertiliser, and labour. For example, one farmer interviewed in Antique said:

*'[It's] too much, that's the problem now. Fertiliser is expensive. The price of the pesticide is expensive. Then, once we have a product, it seems that businessmen are almost asking for it [for free]. It's really like that. Then sometimes you don't seem to have an option...because the prices are somehow the same.'* (PHIANT F3, p.21)

The lockdowns impacted farmers access to markets to sell their produce. In Papua New Guinea, one farmer described how a loss of income meant that she couldn't purchase necessary household goods:

*'We are just village mothers we sell our garden food to support our husbands and children but after COVID-19, we no longer sell our produce, and it made it very difficult for us to buy store goods like soap, salt, and oil. But now with COVID, we aren't able to sell and aren't able to buy these small things for us.'* (PNGEHP F10, p.6)

Another farmer in Papua New Guinea described how market restrictions had impacted her sales:

*'For me, I can say that the prices of goods in the shops especially canteens in the villages has affected the affordability of food and so, when we come to the market (that's like last year when COVID-19 started), it was very hard to bring our goods and sell it at the market. Market was very restricted, so many of us, they put us market in zones each day so if the Yalavas are marketing on that (particular) day, the Maramatana, West Tau'ala, East Tau'ala, we are not marketing on that, they stop us not to come and sell. And most of our goods are... we bring fruits and they're rotten and oily, so I see that that it was a big problem for us when COVID-19 came.'* (PNGMBP F8, p.2)

Farmers in Myanmar also reported an increase in the cost of fertiliser and pesticides. There were different explanations provided for the increase: some attributed it to the pandemic, some to the 'instability' (coup), and others to farming as being more difficult due to climate and costs. Certainly, the pandemic had a dramatic effect. In Irrawaddy, prices doubled. The cost of seeds also rose. One farmer said:

*'Seeds for the crops are getting expensive.'* She said that *'it used to be like 60,000MMK but now it is 100,000 MMK for one bag...so one tin would cost 1million MMK'* (MMAIWD F15).

One farmer in the Mandalay sighed when she discussed the impact of COVID-19:

*'I think the outbreak has continued to affect the price of food because it is not easy for the price to fall once it gets higher. But farmers' produce does not get a good price and the cost of produce is not just doubled. The fertiliser price was 23,000 MMK last year but now it is 60,000 MMK. Currently, the buying price of onions is very low.'* (MMACDZ F14)

Only one farmer interviewed in the Mandalay said that she didn't have any worries about her farm before the pandemic. The combination of higher costs, instability brought about by the pandemic, and the conflict with urban and rural guerrilla conflict made business much more difficult. In Myanmar, farmers did not seem to have experienced a severe shortage of food, but they struggled to afford their general expenses due to the lack of



regular income. One explained how she had sent her eldest daughter to work at a gas station nearby to support the family while her school was closed.

Vendors also reported loss of income because of the effects of, or responses to, the pandemic. In Myanmar, all food vendors (12) interviewed in the Mandalay region reported that the price of goods - such as fish, meat, rice, and cooking oils - increased. Some items, such as garlic, increased to fourfold from the original price (1800MMK to 7500MMK) during the pandemic, and one viss (Myanmar unit of measurement, 1 viss = 1.6kg) of chicken doubled from 4,000MMK to 8,000MMK since the beginning of the pandemic. As a result of price increases, women reported that they could not buy the same amount of food that they could prior to the pandemic. Women in the Irrawaddy region also reported increases in food prices which meant that they could not buy as much food as they normally would, instead purchasing small amounts more frequently.

One vendor said, for example:

*'We just do it with the handful we have. We couldn't buy things in advance and store them. We can buy only a handful.'* (MMAIWD V16)

Another stated:

*'It was hard to get cooking oil. Now the price of cooking oil is going up. We used to buy it for 24,000 MMK and it is now 37,000 MMK. All prices are going up now.'* (MMAIWD V17)

Three market vendors interviewed in Irrawaddy described how an increase in wholesale prices meant they had to increase their selling price, even though demand for the products was not as high as before. One vendor told us:

*'In the past, one bundle of rosella is not much...around 20-30MMK, you know. But now, I pay 70MMK per bundle.'* (MMAIWDV12)

Four vendors interviewed in Irrawaddy said that they worried about the increasing wholesale buying prices, which impacted upon their selling price.

In the Philippines, the increase in the price of staple commodities had a considerable impact on household food consumption. Most commodities were locally available before the pandemic, but the imposition of border restrictions and the disruption of supply chains meant that the majority saw a major spike in the price of fish, chicken, pork, and beef. Some farmers stressed that the:

*'...difference in prices is really big; it's unaffordable, really expensive.'* (PHILO F12)

The government discouraged buying in bulk to ensure that everyone could access limited supplies, but the price of individual goods kept rising. One vendor told us that:

*'...some prices went up [and] you cannot buy in volume since it is being limited.'* (PHILO V12, p.6)

According to one food vendor in Iloilo, food was:

*'...expensive; the canned goods, fish, meat, rice—almost everything is expensive now.'* (PHILO V9, p.12)

The price surge was mostly attributed to restrictions in mobility and transportation, and where transportation was available, fares were inflated, and transport routes often

modified. The concern for the women was that their incomes were dropping while prices were rising.

In some regions of the Philippines, local governments introduced mobile markets (vehicles that travelled around town selling food to multiple neighborhoods on a schedule) during the pandemic to decrease attendance at the permanent markets in the town center. This approach was replicated in Antique, where the local government created cluster markets. Though these were convenient for some locals, the women farmers interviewed said:

*‘...the pricing is different of course; it became expensive.’ (PHINT F8, p.24)*

The market vendors that interviewed also reported higher food prices, including for fish, meat, fruit, rice, and vegetables. One vendor told us that:

*‘the price of pork, rice, everything essential, [including] fruits—the pricing is too much now... it’s limited, and too expensive.’ (PHILO V2, p.7)*

The increase in food prices—particularly of fish—was further compounded by the effects of typhoons and an extended monsoon season during the pandemic.

Among the women interviewed, many described the home-schooling demands as especially difficult for rural households, where poor internet infrastructure and connectivity, as well as the cost of equipment and data, made online learning challenging or in some cases impossible. Despite the added labour of caring for children at home, both farmers and vendors across the three countries expressed deep concern about the impact of school closures on their children’s future opportunities. When women spoke about access to income to continue their children’s education (school fees, books, uniforms) it was a primary concern across the three countries, and second to food affordability. Women absorbed the cost of lockdowns with working longer hours, sacrificing their food intake in anticipation of rising costs, and losing income to ensure their children were keeping up with their studies and being fed. The everyday reproductive labour of women (and girls) increased, and it was an economic contribution that was not formally measured in this study and should be noted that it made a significant difference for communities in 2020 and 2021.

Across the countries studied, women were observed limiting their individual and sometimes household food consumption or making changes to their food consumption, such as eating less meat, less rice, and purchasing cheaper brands or products. This finding is also supported in the FIES COVID-19 survey information (see Section 7.3). Significantly, women describe making these choices even before lockdowns arrived in their communities. They all refer to anticipation of rising food prices that led to their adaptive behaviors. In almost all cases, consumption changes were due to anticipated or actual increases in food prices and/or decreases in income.

### *Risk management and risk-taking behaviours*

In response to increased food prices, women frequently reported either reducing their food consumption, adapting their consumption (for example, purchasing cheaper products or brands or eating lesser quantities of expensive foods such as meat), or forgoing other essential items. Purchasing PPE to conduct business meant that there was less money for non-essential items, such as clothes and personal care items. These extra costs impacted women’s individual and household food security, limiting funds with which to purchase food. Significantly, women reported adaptive behavioral changes in response to

these additional costs: they ate less food to afford PPE, or they forwent PPE to purchase food.

In Myanmar, farmers often said that there was no shortage of food, but they could not afford to buy some items because of increases in prices. Only one farmer interviewed in Irrawaddy reported having to reduce her food intake due to the increased prices. Respondents said that while they were still able to eat three meals a day, they were still eating more rice and vegetables and less meat. They estimated they now ate meat once every three or four days. In Mandalay, five of the farmers interviewed stated there was no shortage of food but, because of food price increases, they could not afford to buy some items. Of all the farmers interviewed in Mandalay, two respondents said they had to reduce their food intake to two meals a day. One told us, for example:

*'We used to eat breakfast, but we could not eat it anymore; we ate two times a day'. (MMAIWDF29)*

Our findings revealed that vendors in Myanmar were fairing worse. In Mandalay, one food vendor said that before the pandemic she would buy a 24kg bag of rice, but since the beginning of COVID-19, she could only buy smaller bags and had to buy them more often. Five of the vendors that interviewed said they had reduced their food intake during COVID-19, and two reported altering the ingredients of cooking rather than reducing the meals (for example, by changing to a cheaper type of rice, using less cooking oil, eating more rice and vegetables, mixing meat with other ingredients such as potato, or eating less meat and fish). One food vendor described how, in response to increased prices, she would make her meals stretch further, and stated:

*For 1500 kyats of chicken, we mixed three or four parts of chicken with potatoes and ate that till the next day. So [a one day meal] it was for two days. (MMACDZ V8)*

Another food vendor in Mandalay said she reduced her breakfast portions and instead ate more for lunch and dinner during the pandemic. Another explained how, while she did not reduce her intake of food, she consumed less meat and oil since the pandemic had begun. She described paying for cooking oil and rice in instalments:

*In the beginning, I paid 2,000 MMK per day for buying cooking oil in instalments. It was 25,000 MMK per 9 liters of cooking oil. As I am selling vegetables in the market every day, I have some regular income, so I took a nine-liter [bottle] of cooking oil from the shop and paid 2,000 MMK each day. It is the same with buying rice; I cannot buy the whole bag of rice so pay 2,000/3,000 MMK daily. I try to stay economical in every possible way with spending during the COVID-19 period. (MMACDZ V23)*

Of the food vendors interviewed in Mandalay, two described having to reduce their food intake to two meals each day because:

*'We can't afford three meals a day.'* (MMAIWD V23)

Vendors in Irrawaddy reported that some medicines, potatoes, dry tea leaves, and cooking oil were out of stock in July because of travel restrictions and transport disruptions, which meant prices rose.

In the Philippines, women farmers and vendors were more likely to report limiting their food intake by skipping meals or reducing portion sizes in response to price increases. One farmer in Iloilo said:

*'You just take it slow when eating...just a little, just a little, so you won't get too hungry' (PHILO F3).*

Another said that while they did not go without food:

*'...you could not look for some delicious [food], like nutritious [food].' (PHILO F12)*

One food vendor in Antique said she had already experienced eating rarely, and described saving cold rice to have for dinner rather than eating it for breakfast. Most market vendors interviewed in the Philippines opted to eat vegetables and rice because they were the cheapest and most nutritious.

For other vendors, the increase in prices meant less food on the table or limiting meals from three to two a day:

*'So that was it, we could... sometimes we could still eat three times a day, sometimes, twice only [laughs].' (PHILO V11, p.14)*

*'Yes, it became smaller. The food you wanted to buy before—anything you like. Like, for example, you can eat up to three dishes before. Now, you're ok with just one.' (PHILOV2, p.8)*

Farmers and vendors in Papua New Guinea described similar challenges. One farmer said:

*'We are just village mothers we sell our garden food to support our husbands and children but after COVID-19, we no longer sell our produce, and it made it very difficult for us to buy store goods like soap, salt, and oil. But now with COVID, we aren't able to sell and aren't able to buy these small things for us.' (PNGEHP F10, p.6)*

One vendor described her experience:

*'Most of us were not prepared during the first lockdown and suffered. Those who saved money were able to afford food and they ate well but for us who were not prepared we had it hard,' (PNGEHP V5, p.9)*

Food shortages were not a significant concern for most of the farmers interviewed. Families could eat the food that they normally sold or consumed the produce they had grown in their gardens. However, FIES COVID-19 survey research revealed that farmers were about to experience heightened food insecurity heading into 2022 (see Section 7.3). Some farmers were initially able to maintain adequate food intakes, though the intake was limited due to their inability to afford supplemental foods as reported in the Phase 2 (see Section 7.2). This was clearly a different situation for vendors who had no access to land. The consequences are presented below.

In all three countries, farmers and vendors referred to *impossible choices* but vendors tended to describe significant impacts to their income. Restrictions on commerce (including curfews, social distancing requirements, and limitations to market trading hours) meant that vendors across all study locations had to limit their trading hours, resulting in loss of income.

Curfews were imposed in the Philippines, which shortened usual business hours. As one vendor in Antique said, vendors needed to close their stalls 'early, because there's a curfew there.' She explained that:

*'It's prohibited to stay late. You need to be gone by 5 o'clock. Well, it's needed and there on our road there in Egania, there's traffic there that—no one should pass,*

*so at around three o'clock, Ma'am, I should go home already because I'm just walking.'* (PHIANT V7, p.12)

The vendor's home was often not near the market where they conduct their trade. During lockdown the risks and costs of travel added to time and income pressures. Several vendors interviewed in Antique described how the location of a new public market, a few kilometers away from the town center, prevented people from coming to the market and buying their products:

*'It has become worse since the pandemic; there's no people who come here to buy, as you can see there's no people roaming around here in the market.'*  
(PHILO V10, pp.4-5)

It became impractical for people to travel to the town's public market since movement was restricted to limit the growth of COVID-19 cases, and this resulted in reduced sales and income for many market vendors. This was a similar experience in Papua New Guinea, where journeys to the town market could be lengthy and logistically difficult during the lockdowns. For vendors and farmers in Papua New Guinea, travelling to towns to sell their produce became one of the biggest concerns due to intimidation from police. Several described police intimidation and threats of violence, which resulted in high levels of fear and stress among women trying to sell their produce. For example, one farmer (also a vendor) described how, because police would rush farmers, she would drastically lower the cost of her produce so that she could leave the market and 'walk home quickly' (PNGMBP F7, p.4). One farmer described the risk of being 'chased by police' and said that—unlike vendors who live in the town—farmers 'don't know where to run to' (PNGEHP F10, p.3).

In addition to increased food and farming costs, women also frequently described the costs involved to protect themselves and their children from COVID-19 infection. There were additional household costs, such as those relating to children's education (for example, phone credit or internet to facilitate online learning during lockdowns), PPE, medicine, and transport costs (at different intervals of the lockdown bus services stopped in Papua New Guinea and the Philippines, forcing women to walk or hire private transport to reach markets). Women felt that the authorities expected them to absorb these costs.

One woman in Papua New Guinea shared her thoughts regarding the financial and emotional burden of the responsibility to care for herself and her family:

*They [government] told us that those who have money they can help their family and those of you who don't—you are on your own. These kinds of remarks made us feel bad. They said we should not be spending all our money; we have to spend wisely to take care of our family if they happen to be sick or in danger. That's why we are really suffering. Whatever little money that we have, we managed it wisely to look after our family and support us during emergencies or to the hospital.*  
(PNGEHP F7)

Another farmer in Papua New Guinea advised that, because of COVID-19, all health clinics were closed and even medicines sold in pharmacy were depleted. They further stated that because of this:

*Health officers advised us to go home and practice COVID-19 protocols and buy lemons and drink two times a day. But lemons are also expensive at the market because of COVID-19. For us, the dry season has made it another problem as our*

*lemon trees are not bearing fruit, so I had to pay K2 for 4 lemons at the market, which is expensive. (PNGEHP F4, p.12)*

Being told they were 'on their own' influenced their spending priorities. For example, some of the vendors and farmers interviewed opted to buy vitamins, medicines, and other basic needs instead of shopping or buying clothes. Therefore, over the counter medicine costs increased.

In Irrawaddy, Myanmar, one farmer said:

*'Before COVID-19, the price of medicine was fair. But now they are expensive. For example, the Para we used cost 1000 MMK. In the past it was not that much.'*  
(MMAIWD F5)

In the Central Dry Zone, Myanmar, all but one of the vendors interviewed indicated that the extra cost of PPE created a financial challenge. One explained that she had to pay 3500MMK for a box of masks; for the same price, she could buy 4kg of rice, which could feed her family for four days. She further indicated:

*'I cannot afford to buy hand gel because I don't have the extra income'*  
(MMACDZ V10).

Similarly, all but two of the vendors interviewed in Irrawaddy reported extra costs impacting their household budget, specifically masks, hand gel, and soap:

*"Of course, masks and hand gel were extra costs, costing 3000/4000MMK. With that money, we could buy valuable curries, but I had to buy them to protect myself. I worry I would get infected"* (MMAIWD V23).

In all countries the vendors mentioned that they risked (and sometimes received) fines due to selling market produce outside of designated hours because the restricted hours did not allow them to make sufficient income. For examine in Myanmar:

*"Earlier, if I was not able to sell until out of stock, I could still sell at neighborhood market...But now, there was time limitation, I could not sell like this and did not have enough time"* (MMACDZV23).

Women frequently described the tension of balancing the fear and stress of potentially being fined or intimidated by police with their need to earn income to cover essential costs, including food, business costs, and costs associated with their children's schooling. In Papua New Guinea, farmers continued to sell betel nuts against health restrictions (the chewing and spitting of betel nut was considered a risk to spreading the virus) due to a need to "make money" (PNGEHP F10, p.13).

During the pandemic, the productive and reproductive tasks of the 'everyday' rose drastically and presented considerable risks to women's physical, financial and mental health.

### **Rapid Assessment Summary**

Phase 1 Rapid Assessment established that women in each of the three countries examined were being impacted by COVID-19 at different stages of the pandemic and in distinct political, economic, climatic, and social contexts. However, *all* women described an impact on their labour (productive and reproductive) and private household dynamics. Their primary concerns were not having enough food to eat, the increasing prices of food

and other household products (such as medicine), additional household costs (such as those associated with online or remote learning, and PPE), having to work while caring, and ensuring that children could attend school where possible (and making sacrifices to achieve this).

The rapid assessment summary, based on thematic analysis of the interviews with women in 2021, indicated that women across the three countries were encountering serious financial and personal hardship after experiencing, nearly, two years of the pandemic risk and response measures. The situation had constrained food security, income security, and access to government support (already limited for some). Financial stress was leading to increased household debt. Women were physically and mentally exhausted after two years of seeking alternative income solutions, including selling produce by the road, planting different crops, cooking take-away meals, and selling clothes and other essential items.

Across all countries studied, women were observed engaging in behaviors including:

- skipping meals,
- limiting food consumption,
- attaining high-interest or high-risk loans to purchase food or keep their businesses running, and
- continuing to work without PPE or against public health restrictions and with the risk of fines, illness, or abuse.

These food security risk-management behaviours left women vulnerable to significant health, safety, and economic risks.

The evidence in this study reveals the pandemic significantly impacted the women in Myanmar, Papua New Guinea and the Philippines in their daily life, personal health, and placed a high level of risk on their physical, social, and economic security.

---

## 7.2 Phase 2: The recovery

By the start of 2022, the COVID-19 vaccine had been introduced to the general population in each country. At the beginning of March 2022, two years since the official declaration of the pandemic, vaccine access was very low in Papua New Guinea (5 doses administered per 100 people) compared to Myanmar (78 doses per 100 people) and the Philippines (114 doses per 100 people). The purpose of revisiting the populations six-months later was to understand if productive and reproductive labours, risk behaviour(s), and access to social welfare had reduced, increased, or stayed the same. There was also a decision made to understand country level knowledge of COVID-19 relating to infection risks and access to vaccines.

In Phase 2, it was difficult to reconnect with the same farmers and vendors across the three countries. In Myanmar, the same cohort was interviewed but fewer were available for interviews (13 rather than 24 individuals were interviewed). In Papua New Guinea nearly all of those interviewed came from a new cohort (9 out of 12 farmers and 10 out of 12 vendors). Therefore, the Phase 2 findings are provided with caution. The size of the cohorts were much smaller in Phase 2, with data collection limited to one location in one region or province.

Consistent patterns of increased financial debt across the three countries were evident for both farmers and vendors. A continued pattern of food insecurity caused by rising food prices in each location was present. Diets were less varied, and consumption was smaller than pre-Covid levels. Recovery took different forms in each of the three locations and accordingly, the findings are presented by country rather than theme in this section.

#### *Myanmar – Mandalay region*

Interviews with farmers and vendors were conducted in the first week of March 2022 in Pyin Oo Lwin, Mandalay. Myanmar's first Omicron cases were reported in late 2021 but these locations were not included in stay-at-home townships. The region has been experiencing increased violence due to the political instability in the country. This region has increasingly experienced bombings and shootings around the villages since 2021. Many respondents could not leave their villages due to increased rate of theft and violence. The majority of those interviewed (eight out of 13 respondents) had been vaccinated.

Feedback received revealed the financial impact on women farmers and vendors was significant. The impact for farmers was so severe that some had to sell their farmland to start new businesses. Some vendors had closed their businesses and taken on labouring roles. Over the last six months there have been dramatic changes amongst the women farmers and vendors. For example, one of the women vendors was in tears while sharing her experiences:

*'I never thought that I would need to take such job as a rice seller going on different places where I had never been to by a 12-wheeler truck. I had to carry 31.2 kg rice bag to sell to houses on the hillside. I even slipped and fell with a rice bag and got injured. I earned only on the number of rice bags I could sell. My husband also wouldn't be welcoming if I came back home empty-handed. What kind of woman would want to do such terrible job? I never talked about that to my family because I don't want to distress them. (MMA CDZ-Vendor-06-11092021)*

One farmer sold their farm in their original home village and relocated. Their financial situation has not improved:

*'Sometimes, I sit by myself thinking if I made a wrong decision to come to Pyin Oo Lwin and it would even be better to work in my hometown, Kyaukse. I didn't have that much debt when I was working in my hometown farm. You know now I have got lots of debt to repay and I couldn't even sleep well at night because of these thoughts. But then, when I think back, I am not alone in this and every farmer has the same struggle and even some are worse than me. That's how I consoled myself.'* (MMA CDZ-Farmer-03-10092021)

Vendors described ongoing food shortages due to the rising cost of food and lower incomes, coupled with ongoing debt repayments. Farmers described rising costs of fertilisers, seeds, and petrol. Women were increasingly farming on their own due to their husbands migrating to search for work. Several women vendors closed their business due to the impact of COVID-19 and the conflict. All interviewees described their situation as unpredictable, with minimal information available about the pandemic, rising costs of health care, and the country's political instability, resulting in rewinding any gains they had made prior to COVID-19.



### *Papua New Guinea – Goroka province*

Focus group discussions were held with 12 farmers and 12 vendors in Goroka, Eastern Highlands on 7 and 8 March 2022. After the completion of Phase 1 data collection, Goroka hosted several big events that resulted in a huge spike in COVID-19 cases in September 2021. The province was shut down and there was an isolation order put in place until December 2021 which dictated no travel outside or within the province.

Farmers stated that little had changed since the previous study in 2021. They were still experiencing lower prices for the same yield due to pandemic-related restrictions.

*'I will share my experience. During the COVID time, I was planting the big broccoli. Four plots of it and all of them were growing so nicely but when the time came for me to market them, there was a lockdown. COVID hit us the Eastern highlanders badly, a number of people died during that time and my broccoli was ready. The broccoli was not small, the people at Kabiufa saw this broccoli and was shocked. It was like the size of a man's head. Broccoli that I'll be getting K7 or K6 for each if COVID did not hit us. I would be sitting at the market and charging K6 but COVID made it and there was curfew. There was no one to buy my food so I dropped my price all the way down to K3, that K6 broccoli, I sit and market in the morning to midday...12 o'clock, that was curfew...I see the time when its 12 o'clock I put all my broccoli price down to K2...During the COVID it has really spoilt us the farmers. This sick COVID made it and some food had no proper place to store and market again, so in the morning we come and sit and market. We have to sell those things so the price must go down in order to sell. So that's what most of us been doing and it affected us the farmers so bad...The sick has ruined us. I've shared my experience. Thank you.'* (PNG EHP FF2[29:37-31:39])

The farmers shared how food affordability was a challenge because staple food prices increased, access to farming fertilisers and seeds were very costly, and new expenses that came with the pandemic, such as PPE's and the purchase of smartphones and internet data for their children who were at home to do their schoolwork when schools were (again) closed in later months of 2021. Produce sales were not faring well during lockdowns while farmers faced increased costs:

*'The prices of food were increased, and our marketing did not make enough, we thought we could buy more food but we saw that our money was not enough to buy food from the store to take care of our family.'* (PNG EHP FF4[39:58-40:17])

Although most farmers were affected by the pandemic and were struggling to recover financially, of the farmers interviewed, none had sought banks loans because they did not understand the process:

*'Why I did not get a loan is because I thought that only working people are allowed to get loan, and a village lady like me have no right to get a loan. So that is my opinion on why I don't go and ask the banks for loan.'* (PNG EHP FF9 (1:24:15 - 1:24:32))

Despite this province having gone through a serious second virus wave, only one women farmer was vaccinated. Some were reluctant to talk about vaccines; those who did expressed doubts about the safety of the vaccine

Several farmers suggested that recovery from COVID-19, and preparation for the next shock, required diversification of skills as farming was not earning enough income. Women wanted to learn to bake, sew, run a store, cook and sell meals. The shortage of water was causing crops to die and was influencing women to turn away from farming as their sole income. Crops didn't provide sufficient yield or return to be profitable. Women farmers experienced two years of longer travel times due to market curfews and had limited time to sell, which led to reduced prices and less income. Farmers expressed concern about the market fee system and the lack of support provided for sellers. Produce was not selling in markets where an oversupply of produce was present.

For the vendors in Goroka, the challenge remained the cost of food and the income returns for selling produce. The significant challenge for vendors was financial recovery:

*'I have to go to Lufa and even to Lopi to sell my produce. Prices have increased after COVID, and the price of sweet potato has also increased from K60 per bag to K120 per bag. There has been a lot of changes since the pandemic started. Operational costs have also increased, and I will not be able to make the money that I used to make before the pandemic. And shipment and transport from here to other places has affected us badly. We are hoping that this situation will improve for the better soon.'* (EHP FV10 01:22:11 -01:21:20)

The women vendors reported that they did not receive assistance from local government. Amongst this cohort, most did not understand the loan process. One vendor had tried but was unsuccessful. For vendors, the reopening of school was both a positive and a negative as it meant they were not having to care for children during the day, but there was a return to having to pay school fees and pandemic related expenses for their children's education.

*'Sorry I forgot to mention this when I spoke before. One of our great expenses was the purchase of phone credits. Where the lockdown was imposed students were told that they will be getting materials through the phone so we spent a lot of money on flex cards to get data.'* (46: 37 EHP FV4)

Vendors were at high risk of COVID-19 exposure, but few seemed to be vaccinated or willing to speak on the topic. Focus group discussions revealed that when the virus and/or vaccination was mentioned, the room went quiet and most participants' body language showed that they were not comfortable with sharing. Two participants shared their vaccine status openly. Due to the economic and emotional impact of the pandemic in the province (illness and fatalities), it was deemed too sensitive to push for further discussion.

It was clear that the vendors and their families made drastic decisions during the recent lockdown. Some of the decisions included relocation and business changes to 'survive':

*'When the pandemic started and the markets closed, I stopped selling there and I sold what I could here in my community and that is how I made a small income.'* (26:36 EHP FV11)

*'Thank you, COVID 19 really affected us. Some of us have to travel to buy produce to resell. Since the pandemic started, I now stay at home and make doughnuts to sell here at my home and that is how I make my income.'* (26:58 EHP V10)

*'So, I started baking and selling at the market and that income helped sustain my family and helped me survive in the village.'* (28:14 EHP FV4)

A common observation during focus groups discussions was the physical and emotional exhaustion and fatigue. Despite these challenges women had no other option than to push through with their farming; and vendors to diversify their businesses. All discussed increased food pricing and additional expenses relating to the pandemic, including PPE for themselves and their children, who had returned to school. Family finances remained strained.

#### *The Philippines – Antique province*

Female farmers (15) and female vendors (16) were interviewed in Hamtic and Sibalom in Antique province in late April 2022. From the original 26 participants interviewed in 2021, 25 of 31 were able to return for a repeat interview. In Antique province there were significantly less lockdown restrictions compared to the previous year's data collection period, and with reported cases of the virus at a low level. Many interviewees were double vaccinated.

Farmers and vendors both experienced food insecurity within their household. In the six months between 2021 and 2022, interviewees reported that the situation worsened. The farmers were continually affected by the pressure to sell fresh produce for lower prices during the pandemic. Some produce was unable to be sold at all during restriction periods due to issues with food storage. In 2022, the ease in restrictions had made it easier for trade, but there were new issues with fuel price hikes. The price of fuel went up as did the cost of machinery and transportation. The price of food staples has continued to rise and women are having to carefully manage the family food budget. The pandemic made it difficult to sell crops, while the seasonal typhoons destroyed what yield was left:

*'We experienced a typhoon. [Loss] was very huge, 3 crops were destroyed. Second crop, first crop. During the second crop that's when I spent too much. That's when I had huge expenses.'* (PHIANT F14 p. 10)

*'The problem now is that we sell for cheap price, I mean, they buy our produce for a low price, but when we buy our needs, it's expensive. How can they [government] help us?'* (PHIANT F8 p.11)

One benefit noted by interviewees was access to government assistance. Most of the women farmers were also able to receive assistance from the Municipal Agriculture Office including free seeds each season and cash assistance.

*'P5,000 cash assistance which I quickly used to buy two bags of fertilizer since money can easily be gone buying. Then seeds from DA, too. Those were the assistance we got from the DA [Department of Agriculture].'* (PHIANT F2 p. 10)

There was also a clear dependence on community-based associations which helped some women acquire farm equipment such as tractors and provide for their children's school allowances:

*'There's COMSCA (Community-Managed Savings and Credit Association)'*  
(PHIANT F12 p. 22)

*'Others [borrow] from the COOP.'* (PHIANT F8 p.13)

Membership to the Farmers Association made farmers eligible to access credit which they needed to purchase seeds and fertilisers. Despite the hardships, women were optimistic about being able to access these supports, and the range of support available.

Understanding of the virus was varied with some participants believing it was 'man-made and written in the Bible', the result of disobedience to health protocols, and came from other countries (PHIANT F12 p. 18). The impact of the virus on the families was not questioned. Several participants described financial distress after contracting the virus. Many had to undergo a 14-day quarantine which placed a strain on the family and the business. All farmers discussed no longer having savings, with most now being in debt and noting there would be no available funds for investment in their farms in the near future:

*'If I had an extra budget, I could allot for savings. But now, not anymore. Delayed payment, then we go into debt. It's because the income is really slow.'*(PHIANT F14 p. 18)

Women are the budget custodians and managers of daily household expenses, so they had the burden of taking out loans to meet the escalating demands of the household and the farm.

*'In desperate times, I joined the AGAP (a microfinance institution).'*(PHIANT F10 p.17-18)

*'Desperate because money lenders have charged exorbitant interest rates as high as 20% [interest]'. (PHIANTF14 p. 13)*

Despite their optimism, many are worried about the debt they have accumulated to survive the pandemic and to continue to remain on their farms.

In the case of vendors, the hardships continued despite the reduction in pandemic related restrictions. For these women, their daily survival was dependent on the income from their market stalls. However, the recent ease in restrictions has led to many women vendors diversifying their income. Some vendors purchased small farming allotments to sell their produce. One vendor expanded her business and added a second-hand clothes shop. She also works as a hairdresser, manicurist, seamstress, as well as a masseuse and a take-away cook. The vendors are worried about the continuing surge of food prices since the start of the pandemic.

*'It's extreme. The prices of everything increased.'* (PHIANT M7 p. 6)

Women vendors still describe 'scaling down' the meals they serve the family and looking for inexpensive food alternatives.

*'The truth really Ma'am, our food really is on budget. We cook one small cup of rice only, two small cups. That's it. Then sometimes if there is bread, that will be the breakfast of the children. Bread. They will just eat rice at lunch time.'* (PHIANT M16 p. 5.)

Many of the vendors spent their money on food and essentials, such as PPE and alcohol sanitisers. Unlike the farmers, vendors did not describe having access to welfare support or organisations to aid. They relied on loans offered by individuals or microfinance lending. The vendors described their preference for the loans because it involved less paperwork:

*'There's an Indian [migrant] that offers a loan if you don't have extra [income], or loans from a cooperative. Yes, when there's an emergency, but it's easier from an Indian, it's lighter. Of course, it's easier. There's no request, right? Compared to others, there's a lot of signatures, if you say that you are a good payer, they will lend you.'* (PHIANT M3 p. 9)

*'They're easier to approach because when you tell them, it's good that they won't have any questions as long as they know that you're paying. No talks.'* (PHIANT M5p. 3-4)

One vendor lamented that many like her can't rely on the government to help them alleviate their financial situation. She shared her attempt to seek help from the Department of Social Welfare and Development. She gave up because of the length of time it took, the need for paperwork and travel, all of which she could not afford:

*'There's no one here in Sibalom. You can only resort to lendings. Just there. But in the government, none. You can't really approach them.'* (PHIANT M7 p. 13)

Overall, and despite the ongoing challenges, many of the vendors described a feeling of normalcy returning to their everyday lives:

*'Yes. Slowly. It seems that everything is okay now. Everyone I ask, they said it's getting okay now.'* (PHIANT M9 p. 25)

*'For me, it came back to normal just a little bit. We were able to sustain the virus but the prices of goods are very high.'* (PHIANT M12 p. 20)

Some still feel the lingering effects of the pandemic:

*'I haven't recovered in my business yet. I still haven't. You see, I still have a lot to sell. I'm still trying to figure out how I can pay...How will you recover from that? The months end not so slowly, days passed by fast but your business, it's just the same, it's just the same you're suffering from really weak sales.'* (PHIANT M7 p. 15-16)

Much of the farming and vending cohort were double vaccinated. Many described being fearful of the vaccine but acknowledged it kept them alive and was essential to return to work. There was, however, hesitation amongst both cohorts about receiving the booster vaccine which had been on offer since December 2021.

## The Recovery Summary

Household debt across the three countries remained significant, but vendors, appeared to have been more negatively impacted (see Table 7.3). This is clear in the Philippines where farmers have access to government and organisational support while vendors do not. In Myanmar and Papua New Guinea, the negative impacts and lack of support are shared across the farming and vending cohort. Vaccine access and coverage is higher in the Philippines which accounts for the optimism compared to the other two countries. Farming did not protect families from food insecurity.

**Table 7.3 Phase Two – The Recovery, Country specific results**

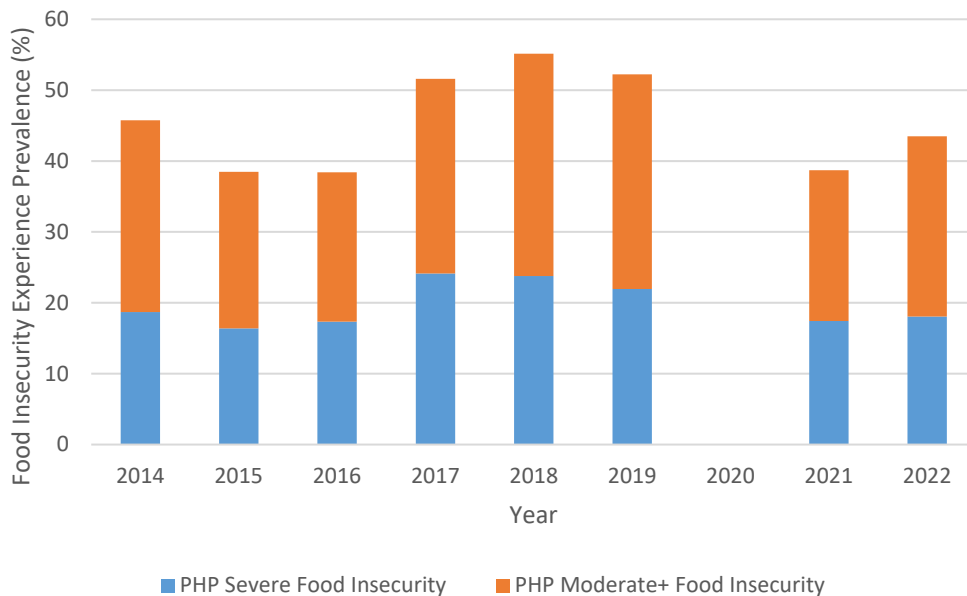
Myanmar	Papua New Guinea	The Philippines
Farming respondents from Central Dry Zone are still concerned about the higher cost of fertilisers, pesticides & rice seedling for paddy farmers. Urea fertilisers are commonly used in farming & costs over 3,000MMK (approx. 1.6 USD) for 2kg & around 50,000 -70,000MMK (approx. 37.8 USD) for 40kg of fertilisers.	Interviews in Goroka, Eastern Highlands, which had a huge spike in Covid-19 cases between first & second interviews. Movement restrictions between September & Jan 2022. One of the longest periods of lockdown in the provinces occurred where the interviews were conducted.	In Antique province the farmers & vendors describe being pushed closer to food insecurity (food supply & cost) between the first & second interviews. Food intake declined during this period. Farmers relied on produce to feed family. Vendors reduced their food intake. At time of interview, farmers had more confidence in food security improving.
Access to water & fuel is limited for farmers & vendors. For farmers it affects what crops they are deciding to grow; for vendors it is affecting how far they can travel to trade.	Women farmers & vendors are still unable to access the Eastern Highlands Provincial Market in Goroka town.  95% of farmers & vendors are women selling produce on the dirt. They have no safe sanitation (toilet) facilities.	Rising cost of food staples, fertilisers, & fuel costs. 'Upward pressures' for farmers & vendors.  Most farmers were eligible to receive support from Municipal Agriculture Office. This support included: free seeds &/or cash assistance. Vendors reported receiving no financial support – & were pushed to take out loans.
Knowing what to grow & sell is a dilemma for many farmers due to market instability & the price of fuel/water/fertiliser.  There is debate about growing flowers (more profit) versus kale (regular income).	Women report having to sell produce at discount prices to get rid of produce before market curfew. Women report huge financial losses during this period.	Majority of women vendors had been double vaccinated & were well informed about COVID-19.  Vendors reported trying to be 'Covid prepared' with extra money, soap, medicines.
Vendors report having less food to eat than farmers.	Women report feeling emotionally, financially & physically exhausted. Many reported reduced food intakes.	Most women farmers had been vaccinated. Some report being afraid of COVID-19 vaccine & avoided vaccination or lying about vaccination.

Return to school has been a beneficial for women's regular return to farming & vending.	Staple food prices increased & cost of schooling increased. Many had not sought loans because they did not understand the process & did not have capital.	Children had not yet returned to school, only college students. Women still responsible for schooling. Vaccination will be compulsory.
Majority of interviewees were double vaccinated. None had received boosters. Reasons for no vaccination: too busy, pre-existing health conditions (wary of vaccination).	Interviewers suspected that less than half of interviewees had been vaccinated. Some were very uncomfortable giving their vaccination status or discussing knowledge of Covid-19.	14-day quarantine restrictions for infected led to financial distress for several farmers & vendors.
Fear of Covid-19 & misinformation about how it is spread & treatments available is high in community.	Money to purchase seeds was in short supply. Market fees kept increasing.  Women raised the costs specifically associated with Covid-19 – curfew meant fewer hours to sell, increased costs of bus fares & 'flex data' for home schooling.	Some farmers adapted to online selling with door delivery.  Some vendors had diversified their business from selling food to also selling clothes & 'take away' meals.
Rising farming & food costs led majority interviewed to seek loans for the second, even third time. Interest repayments is all most can manage to repay.	Children had been home schooled for nearly four months which meant increased food consumption.	Many farmers have taken out loans against their farms. Some have approached Community-Managed Savings & Credit Association & Farmers Association, for farm equipment, seeds, grain & fertiliser loans.
Majority of farmers want to sell their land. Many women are now farming on their own (increase in female headed households). Work is increasingly difficult & costly.	Misinformation about Covid-19 infection, vaccination & risks were high. Many knew where to access the vaccine but were afraid.	Need for information about COVID-19 & other zoonotic viruses amongst farming community (especially).
Vendors report borrowing to cover medical expenses due flu & Covid-19 infections.	Prolonged drought has led to changes in harvest yield. Discussion about what crops are best to grow with changing weather patterns. Water supply is low across the region.	Reports of pandemic-induced depression & suicides.
A number of vendors had ceased trading.	Women report receiving no assistance from government despite being told they were eligible.	
	A number of women reported diversifying their income – selling, making, growing, baking, renting rooms.	

Source: author's analysis

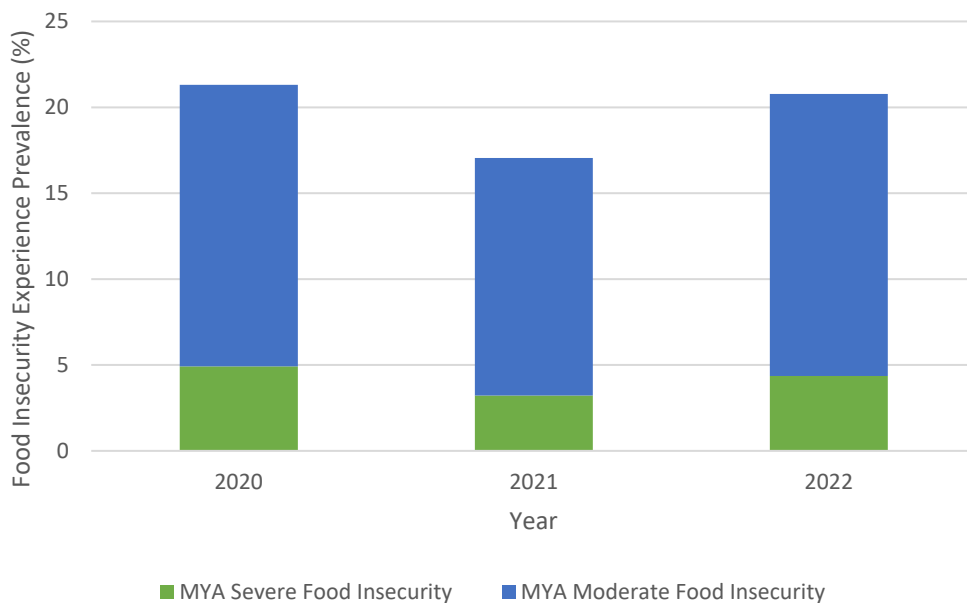
### 7.3 FIES COVID-19 survey - Myanmar & the Philippines

Based on the previous FIES datasets and the 2021 survey results, food insecurity prevalence levels had declined between 2018 and 2021 in the Philippines and between 2020 and 2021 in Myanmar (see Figure 7.1 and Figure 7.2). This suggests that the initial overall impacts of the pandemic on food insecurity were relatively mild and were not sufficient to reverse the general trend of improvements in the food insecurity situation in the Philippines and Myanmar.



**Figure 7.1 Food insecurity prevalence, the Philippines, 2014-2022**

Source: author's analysis



**Figure 7.2 Food insecurity prevalence, Myanmar, 2020-2022**

Source: author's analysis



However, as shown in Figures 7.1 and 7.2, the extended impact of the pandemic (and the impact of the February 2021 coup in Myanmar) has resulted in an increase in food insecurity prevalence in both countries between 2021 and 2022, with Mild+ food insecurity levels significantly increasing in the Philippines, and Moderate+ and Severe levels of food insecurity increasing in Myanmar (Tables 7.4 and 7.5).

**Table 7.4 Logit Regression FIE Levels, the Philippines, 2021-2022**

<i>Predictors</i>	<b>MILD+</b> <i>Log-Odds</i>	<b>MODERATE+</b> <i>Log-Odds</i>	<b>SEVERE</b> <i>Log-Odds</i>
(Intercept)	<b>0.73 **</b> <b>0.10 – 1.37</b>	0.09 -0.51 – 0.69	<b>-0.79 **</b> <b>-1.47 – -0.13</b>
Aged 18 to 35	0.15 -0.20 – 0.51	0.17 -0.18 – 0.53	0.14 -0.28 – 0.58
Aged 36 to 50	0.2 -0.17 – 0.56	0.05 -0.32 – 0.42	-0.14 -0.58 – 0.33
Female	<b>0.39 ***</b> <b>0.21 – 0.58</b>	<b>0.33 ***</b> <b>0.14 – 0.52</b>	<b>0.32 ***</b> <b>0.09 – 0.55</b>
Living in Rural Area	<b>0.33 ***</b> <b>0.14 – 0.52</b>	<b>0.59 ***</b> <b>0.40 – 0.78</b>	<b>0.51 ***</b> <b>0.28 – 0.75</b>
Secondary Education	<b>-0.96 ***</b> <b>-1.43 – -0.52</b>	<b>-0.92 ***</b> <b>-1.32 – -0.54</b>	<b>-0.77 ***</b> <b>-1.15 – -0.38</b>
Tertiary Education	<b>-1.52 ***</b> <b>-2.00 – -1.07</b>	<b>-1.46 ***</b> <b>-1.87 – -1.06</b>	<b>-1.17 ***</b> <b>-1.59 – -0.75</b>
3 to 5 members in household	-0.15 -0.56 – 0.26	-0.25 -0.67 – 0.18	<b>-0.48 *</b> <b>-0.96 – 0.04</b>
More than 6 members in household	0.17 -0.25 – 0.59	0.15 -0.28 – 0.59	-0.1 -0.59 – 0.42
Year 2022	<b>0.41 ***</b> <b>0.23 – 0.60</b>	0.15 -0.04 – 0.34	-0.03 -0.27 – 0.20
n	2025	2025	2025

\*  $p < 0.1$  \*\*  $p < 0.05$  \*\*\*  $p < 0.01$

Source: author's analysis

**Table 7.5 Logit Regression FIE Levels, Myanmar, 2021-2022**

<i>Predictors</i>	<b>MILD+</b>	<b>MODERATE+</b>	<b>SEVERE</b>
	<i>Log-Odds</i>	<i>Log-Odds</i>	<i>Log-Odds</i>
(Intercept)	<b>-0.42 **</b>	<b>-1.52 ***</b>	<b>-4.36 ***</b>
	<b>-0.85 – -0.00</b>	<b>-2.06 – -1.00</b>	<b>-5.90 – -3.02</b>
Aged 18 to 35	0.21	0.13	0.13
	-0.06 – 0.48	-0.21 – 0.47	-0.77 – 1.17
Aged 36 to 50	<b>0.27 *</b>	0.1	0.31
	<b>-0.01 – 0.55</b>	-0.26 – 0.46	-0.62 – 1.36
Female	<b>0.24 **</b>	<b>0.27 **</b>	0.45
	<b>0.05 – 0.42</b>	<b>0.03 – 0.50</b>	-0.19 – 1.11
Living in Rural Area	-0.02	0.21	0.37
	-0.22 – 0.18	-0.04 – 0.47	-0.31 – 1.11
Secondary Education	-0.03	<b>-0.28 **</b>	<b>-0.77 **</b>
	-0.27 – 0.20	<b>-0.55 – -0.00</b>	<b>-1.54 – -0.04</b>
Tertiary Education	<b>-0.66 ***</b>	<b>-0.92 ***</b>	<b>-0.82 *</b>
	<b>-0.90 – -0.41</b>	<b>-1.25 – -0.60</b>	<b>-1.71 – 0.01</b>
3 to 5 members in household	0.19	-0.11	-0.31
	-0.12 – 0.50	-0.49 – 0.29	-1.23 – 0.80
More than 6 members in household	<b>0.38 **</b>	0.14	0.13
	<b>0.04 – 0.73</b>	-0.28 – 0.58	-0.88 – 1.28
Year 2022	0.04	<b>0.26 **</b>	<b>0.93 ***</b>
	-0.16 – 0.23	<b>0.01 – 0.51</b>	<b>0.25 – 1.66</b>
n	1904	1904	1904

\*  $p < 0.1$  \*\*  $p < 0.05$  \*\*\*  $p < 0.01$

Source: author's analysis

### *Rural and Urban Food Insecurity Experience*

During the pre-pandemic period, Mild+ and Moderate+ Food Insecurity in both countries was more likely to be experienced by rural dwellers than by urban dwellers, and this trend has continued during the pandemic period. In the Philippines during the pandemic period, rural dwellers were also significantly more likely to experience severe food insecurity than urban dwellers, a situation which did not occur in the pre-pandemic period.

### *Food Insecurity and Education Levels*

In both countries, respondents with secondary and tertiary levels of education were significantly less likely to experience Mild+, Moderate+ or Severe Food Insecurity relative to their peers with primary or lower levels of education. Both before and during the pandemic, the level of education has been negatively correlated to the level of food insecurity experience and this points to education as a basis for job security and resilience.

### *COVID-19 and Food Insecurity*

Attribution of food insecurity experience specifically to COVID-19 in the Philippines and Myanmar in 2021 and 2022 is challenging, given other significant shocks experienced in the two countries during the same time, including African Swine Fever in the Philippines (discussed in Cooper et al., 2022) and the February 2021 coup in Myanmar (see World Bank, 2022). Despite the presence of these and other confounding factors, the attribution of food insecurity experiences to COVID-19 was high in both countries.

In Myanmar early in the pandemic, less severe indicators, such as “Worried about ability to obtain food” had COVID-19 rated highly as a source of worry or concern and a lower proportion of respondents indicating that COVID-19 was directly responsible for severe indicators of food insecurity such as “Running out of food”, “Going hungry” or “Going without food for a whole day”. This was also the case in the Philippines in the post-pandemic survey period. For both countries, during the time of highest caseload and highest impact on food systems (2021 for Philippines and 2022 for Myanmar), the relationship between severity of food insecurity indicator and proportion of respondents attributing the indicator to COVID-19 was relatively constant, with almost the same proportion of respondents attributing severe and less severe experiences to COVID-19.

### *Gender and Food Insecurity*

In Myanmar, the overall prevalence of Moderate+ and Severe food insecurity levels has increased between 2021 and 2022, and this is also the case for the prevalence of Moderate+ and Severe food insecurity for women which significantly increased over the same period. The pattern of gender differentiated food insecurity experience in Myanmar has persisted through the pre-pandemic and pandemic periods, with women being significantly more likely to be food insecure than males at the Mild+ and Moderate+ levels during both periods.

In the Philippines, for most of the years immediately prior to the pandemic, food insecurity experience prevalence was similar for men and women. In 2019, there was no significant difference in Mild+ and Severe food insecurity prevalence between men and women. Women were less likely to have Moderate+ levels of food insecurity than their male counterparts. The relationship between gender and food insecurity in the Philippines has changed dramatically during the pandemic period, with women significantly more likely than males to be food insecure at the Mild+, Moderate+ and Severe levels. This represents a major shift in the gendered dimension of food insecurity in the Philippines after a decade where food insecurity had little or no gender differentiation in the country.

In both Philippines and Myanmar, performing a Blinder-Oaxaca decomposition (Blinder, 1973); Jann (2008) on the FIES data from 2021-2022 shows that the unexplained component of the difference in food insecurity levels during the pandemic is large and significant. This implies that the differences in food insecurity experience between men and women in both countries during the pandemic are related to factors outside any socio-economic differences between men and women explored in the FIES-COVID-19 surveys. This echoes the findings of other studies in the Asia-Pacific, including ADB and UN Women (2022), and is consistent with the decomposition of gender differences in food insecurity reported by Broussard (2019).

## FIES COVID Survey Summary

The key takeaways and insights from the FIES survey undertaken in Myanmar and the Philippines in 2021 and 2022 are:

- Increased food insecurity was identified in both countries during the two study periods during the pandemic.
- There is evidence of food insecurity in rural & urban areas in both countries.
- In rural areas food insecurity remains higher than in urban areas in both countries, but the gap has increased during the pandemic.
- COVID-19 and food insecurity reveal
  - Most respondents in both countries indicated that COVID-19 was responsible for their food insecurity experiences. This pattern was the same for men and women.
  - During the height of the pandemic, a high proportion of respondents *blamed* COVID-19 for both less severe and severe food insecurity indicators. Prior to the peak of the pandemic and during the post-pandemic period, a higher proportion of respondents attributed less severe indicators to COVID-19 than was the case for severe indicators.
- Gender and food insecurity shows
  - The gap between women & men in food insecurity levels in Myanmar has increased during the pandemic and in contrast to the pre-pandemic period.
  - Women's food insecurity in the Philippines during the pandemic has been significantly higher than male food insecurity. This is in stark contrast to pre-pandemic patterns.
  - The differences in food insecurity experiences between men and women are largely not related to the socio-economic and demographic variables included in the FIES surveys (age, education levels, household size and rural or urban location). Differences in food insecurity experience are linked to structural inequalities between men and women.
  - In the case of the Philippines in particular, progress towards eliminating structural gendered differences in food insecurity experience appears to have been reversed during the pandemic.

---

## 7.4 Discussion - issues & opportunities

The findings from Phase 1 and Phase 2 revealed, that women's income and food insecurity were linked to their roles in social reproduction: unpaid labour and care increased, reducing women's earning capacity; and second, women's high representation in informal and self-employment (often to balance paid with unpaid labour) meant they were particularly vulnerable to the economic impacts of the pandemic, thus placing them at significant risk of food insecurity. In addition, because it was typically a women's responsibility to manage household food security, *women engaged in risks to mitigate food insecurity*. Women's roles in performing the bulk of labour, work, and care involved in social reproduction places them at considerable and *specific* health, safety, and financial risk. Notably, the women identified the barriers they experienced to access the minimal

social welfare available. These barriers were connected to their care, labour, and work roles: they had no time to wait in line, they felt unsafe waiting in line, and/or they did not have the identification papers or knowledge of welfare support available. Women vendors had no welfare supports available. Women farmers had more in the case of the Philippines that appeared to arrive by the time of the Phase 2 recovery interviews. The findings from the FIES COVID-19 surveys and the interview/focus group studies complement each other in that they women close to the poverty line have experienced more harmful, and sustained negative, impacts of the pandemic. A disaster on the scale of COVID-19 places more productive and reproductive demands on women to survive and leads to high risk-taking behaviors.

Based on the findings and analysis of this study, consideration of *gender centered* responses in research and development to ensure women engaged in agriculture activities have access to and engagement in economic and food security in times of crisis is an essential.

### **Rapid response findings**

1. **Food rationing occurs before the crisis hits.** All the cohorts interviewed made decisions about food rationing whether COVID-19 was circulating in the community or not. Meals were reduced and diets were altered to plan for rationing. Vendors appeared to fair worse than farmers. But both cohorts were affected. Two factors determined actions: cost of staples immediately rose and access to pathways for income were limited due to lockdown measures, movement restrictions, market hours and population restrictions, fear of infection, fear of police response (fines led to less movement). Women prepared for the crisis by observing food costs. Most of the women oversaw the budget.
2. **Financing alternatives for women, especially low interest loans.** There was a high number of women who sought loans to cover rising costs to their business. Cost of seed, fertiliser and livestock rose. Cost of market stall rent continued even when women could not access the stall. Women vendors wanted to keep their stalls and so had to take loans (Papua New Guinea and the Philippines especially).
3. **Gender specific access to crop insurance and training for use of equipment for farmers.** A lot of the women describe, by Phase 2, as being the sole farmers. Some men (especially in Philippines and Myanmar) have returned to migrant work. This means that women need training and support with specific information on loans, access to government initiatives, supply chains and markets, labour intensive farming, climate resilience farming, and insurance.
4. **Access to free PPE and in-kind relief assistance for vendors.** The vendors were at particular risk of COVID-19 infection. They described taking risks to maintain income and were vulnerable to infection, bribery, and violence. Lockdown restrictions impacted on their curfew and transportation. The personal protection equipment was necessary but costly for the vendors which led to risk taking or reduced food intake to meet PPE costs.
5. **Access to information on the crisis is vital but difficult to access.** Access to reliable and accurate information during the crisis was difficult. Batteries for radios is an added cost; mobiles are not ubiquitous amongst the cohort interviewed (with exception of the Philippines). Consideration of communication about disease events

has implications for One Health strategies. In the Phase 2, interviews the Philippines documented the majority of interviewees accessing double vaccination. Misinformation on vaccines was reported in the two other locations.

6. **Communication, clarity, and inclusion pathways for rapid welfare is essential – especially access to staple foods and cash.** Access to government funding and rations was difficult for the cohorts interviewed. Lack of knowledge (about schemes), paperwork obstacles (literacy, documentation, time), as well as uncertainty about the criteria (connection to information pathways above). Cash-based assistance (hard cash and digital cash) is on the rise in humanitarian and crisis response situations. The cohorts examined in each case reveal a need for consideration of such a measure in the immediate and medium term of a crisis to assist with household resilience.

---

## 8 Impacts

---

### 8.1 Communication & dissemination activities

The project brought together a multi-country and cross-disciplinary team with collective expertise on socioeconomics, gender, human rights, and agribusiness research. The project has benefited from these diverse perspectives and experiences.

After the completion of data collection, each country presented written reports that detailed the collective farmers experiences and vendors experiences per province. Translated transcripts from each interview were also presented and stored in a secure password-access only drive. The final reports presented by country team leads reflected on the following:

- situation at time of data collection,
- transcription and translation process (to ensure consistency),
- demographics of participants, (e.g., age, rent or owner occupied, level of education, produce sold or farmed), and
- analysis of transcript content under thematic headings
  - food affordability and availability,
  - business expenses and impact,
  - care responsibilities,
  - decision-making capacity, and
  - future planning.

The 14 reports were reviewed by the project lead, Sara Davies, and two additional project team members who were not involved in the data collection process (Robin Roberts and Belinda Eslick). Each independently compiled their list of key findings, as well as short-term and long-term recommendations based on having read the fourteen reports. Then each country team lead was invited to present a short summary of their suggested key findings, short-term and long-term recommendations, based on their analysis of the transcripts (available: <https://www.youtube.com/watch?v=cHgtJSgFu5A>).

A significant number of journal articles validating the project outputs have been submitted to leading academic publications and have been presented at leading conferences during the project (see Section 10.2).

---

## 9 Implications and conclusions

---

### 9.1 Research lessons learned

- Local women networks are vital to conduct this type of study but time is required to train and co-design approaches, data collection, and consistent thematic analysis.
- Local women farmers and vendors wanted to share their story and provided suggestions for their recovery and resilience.
- The women identified the barriers they experienced to access the minimal social welfare available. Awareness of gendered experiences during crisis, such as this rapid research fund, is vital to identify the barriers connected to accessing welfare support. Trials in cash-based assistance and access to digital tools, before the crisis, should be piloted in each location.
- Extraction and expectations. Return to community is vital to learn about recovery but there is also a limit to data collection without it being extractive. Next step would be to design and implement action-based research project, or ‘thinking and working politically’ community of practice research projects in the community. Men, especially in Papua New Guinea, expressed a strong desire to be included in the study of gendered impacts during crises.

---

### 9.2 Impact lessons learned

- **Farmers were not protected from food insecurity.** Food prices and food staples rapidly increased. Livestock and produce were affected by rumours in the absence of information. Yields were destroyed and livestock were killed in anticipation of risk (affecting income and livelihood). Initially farmers were able to cushion the food insecurity impact of COVID-19 by pivoting production towards own consumption, but in the longer term the lack of markets for products and a lower level of cash crop production (due to needing to feed themselves) led to significantly worse outcomes for rural dwellers than urban dwellers (confirmed in interviews and FIES COVID-19 surveys).
- **Access to information.** People anticipated risk based on previous experiences. To describe behaviours as working on ‘misinformation’ lacks nuance. In this situation, it appears, rumours did not originate from social media but from previous experiences of disasters and emergencies (for example, Avian flu, African Swine Fever, pest infestations). There is a need to follow up after emergencies to establish where communication chains broke down. Consistent and accurate information may not travel into rural communities. Failure to ensure follow-up risk communication after crisis at local community has consequences for the next emergency.
- **Diversify information sources.** During the health emergency, the local health sector was not the only the trusted information source for areas like animal health, farming or vending. These sectors were necessary for public health measures but populations did not describe themselves as seeking advice or information from the health sector. The farmers and vendors sought information to do with their business even though it had public health implications. Public health interventions measures did not reduce risk taking behaviour.



---

## 9.3 Recommendations

While this study focused on the experiences of communities and individuals relating to the COVID-19 event, this study is not about the pandemic itself but rather about the change that has occurred within three of our partner countries - Myanmar, Papua New Guinea, and the Philippines, and importantly the future response should this type of event occur in the future. Any large shock can have diverse livelihood effects, depending on our reaction - denial or adaptation.

The results reveal the experiences of resilience and vulnerability amongst neighbours in the Indo-Pacific are deeply interconnected. Most countries, if not all were unprepared, communities and economies were shut down. Post pandemic life will be different for many communities and individuals. Recommendations to inform ACIAR strategic discussions for research development activities have common ground across our partner countries.

### **R1 Examine the feasibility of cash assistance schemes during a crisis response**

Prioritise the study of informal workers in the food and agriculture and how cash assistance schemes could mitigate food insecurity.

### **R2 Undertake a review of financial loan schemes available to small income farmers in a post COVID-19 recovery**

Prioritise the understanding of how informal workers in the food and agriculture sector could access low interest loan schemes to mitigate populations turning to high risk, high interest loans.

### **R3 Lead an Annual Women's Agriculture Finance Forum that seeks to support understanding of financial security for women in agriculture ventures across the Indo-Pacific**

Examine how cash assistance schemes and low interest loan schemes could identify and target women agriculture operators (farmers or vendors) as beneficiaries.

### **R4 Revise and develop best practice material to support disaster communications in rural areas amongst sectors**

Through a collaborative in-country review (public and private sectors) examine how communications about support and assistance during emergencies that does not rely solely on digital communications can be produced.

### **R5 Examine how One Health focused communications, through radio, web, and social media platforms can disseminate information in a more timely and accurate manner**

Review how adapting public health communication messaging for farming and market sectors to address concerns about animal or produce contamination or human health during a disaster could be improved.

### **R6 Introduce an annual Women in Agriculture Digital Economy showcase**

Connected to the proposed Finance Forum (above), support and invest in the digital economy for food and agricultural sector, especially via mobile phones, could facilitate improved financial services (for example financial, health, farming and trading) and access to information.

### **R7 Examine the feasibility of an ACIAR Gender One Health Research Network Group to inform training and development**

Identify opportunities to develop regional gender responsive public health training and

communication campaigns in communities across partner countries that focus on 'grassroots' empowerment.

**R8 Develop ACIAR training partnerships that develop skilled in-country facilitators**

Identify opportunities to develop and run gender inclusive small business training in rural and remote communities, with particular focus on adaptation, recovery, and resilience.

**R9 Examine how regional research and training through online platforms can connect stakeholders in rural and remote areas**

Facilitate dialogues to establish and enhance the voice of civil society organisations led by women to assist in food and agriculture activities for women and communities.

---

## 10References

---

### 10.1 Bibliography

ADB and UN Women 2022. *Two Years On: The Lingering Gendered Effects of the COVID-19 Pandemic in Asia and the Pacific*, Report, Manila and New York.

Ayittey, F. K., Dhar, B. K., Anani, G., & Chiwero, N. B. (2020). Gendered burdens and impacts of SARS-CoV-2: A review. *Health Care for Women International*, 41(11-12), 1210-1225. <https://doi.org/10.1080/07399332.2020.1809664>

Ballard, T., A. Kepple, & C. Cafiero. 2013. *The food insecurity experience scale: Development of a global standard for monitoring hunger worldwide*, FAO Technical Paper. Food and Agricultural Organization of the United Nations, Rome, Italy.

Blinder, Alan S., 1973. Wage discrimination: reduced form and structural variables. *J.Human Resource*. 8 (4), 436–455.

Broussard N.H. 2019 What explains gender differences in food insecurity?, *Food Policy*, vol 83, 2019, pp 180-194, ISSN 0306-9192  
<<https://doi.org/10.1016/j.foodpol.2019.01.003>>

Cooper T., Smith D., Gonzales M., Maghanay M., Sanderson S., Cornejo M., Pineda L., Sagun R., Salvacion O. 2022. Beyond Numbers: Determining the Socioeconomic and Livelihood Impacts of African Swine Fever and Its Control in the Philippines, *Frontiers in Veterinary Science*, vol. 8. <https://doi.org/10.3389/fvets.2021.734236>

Dodd, W., Kipp, A., Bustos, M., McNeil, A., Little, M., & Lau, L. L. (2021). Humanitarian food security interventions during the COVID-19 pandemic in low-and middle-income countries: A review of actions among non-state actors. *Nutrients*, 13(7), 2333. <https://doi.org/10.3390/nu13072333>

FAO, 2016. *Methods for estimating comparable rates of food insecurity experienced by adults throughout the world*, Technical Report, Rome: Food and Agriculture Organization of the United Nations.

FAO. 2020. *Using the Food Insecurity Experience Scale (FIES) to monitor the impact of COVID-19*. Technical Report, Rome: Food and Agriculture Organization of the United Nations. <<https://doi.org/10.4060/ca9205en>>

Hesse-Biber, S.N. (2007). 'The practice of feminist in-depth interviewing'. In Hesse-Biber, & Leavy, P. (2007). *Feminist research practice: a primer*. SAGE Publications.

Jann, Ben. 2008. The Blinder-Oaxaca decomposition for linear regression models. *The Stata Journal*, vol 8 iss 4. pp 453-479.

Nord, M., C. Cafiero, and S. Viviani. 2016. "Methods for Estimating Comparable Prevalence Rates of Food Insecurity Experienced by Adults in 147 Countries and Areas." *Journal of Physics: Conference Series* 772(2016): 012060. doi:10.1088/1742-6596/772/1/012060

Picchioni, F., Goulao, L. F., & Roberfroid, D. (2021). The impact of COVID-19 on diet quality, food security and nutrition in low and middle income countries: A systematic review of the evidence. *Clinical Nutrition (Edinburgh, Scotland)*, <https://doi.org/10.1016/j.clnu.2021.08.015>

Rasch, G. 1960. Studies in mathematical psychology: I. Probabilistic models for some intelligence and attainment tests. Nielsen & Lydiche.

Sanderson T., Chapman G., Walker D., Horne P. (2020). Food systems security, resilience, and emerging risks in the Indo-Pacific in the context of COVID-19: a rapid assessment. ACIAR Technical Reports Series, No. 95, Australian Centre for International Agricultural Research, Canberra.

UN Women, (2021). *Women and girls left behind: Glaring gaps in pandemic responses*. <https://data.unwomen.org/sites/default/files/documents/Publications/glaring-gaps-response-RGA.pdf>

World Bank. 2022. Progress, Setbacks, and Uncertainty, Effects of COVID-19 & Coup on Poverty in Myanmar, World Bank Poverty Assessment. July 2022

---

## 10.2 Project publications & outputs

### List of conference publications

Davies, SE., Roberts, R.E., & Smith, D. 2022 COVID-19, Gender, Food Insecurity & Resilience: Evidence from Myanmar and the Philippines. XV World Congress of Rural Sociology, Cairns, July 19, 2022.

Davies, SE., & Roberts, R.E. 2022. Dual track access to information: Unintended findings from study of COVID-19 impact on women farmers and vendors. Global Health Security Network, Singapore, June 29, 2022.

### List of academic publications

Davies, SE, Eslick B, Roberts RE, Calsado DJD, Juanico CS, Oo ZM, Yadanar, and Woyengu N. 2022. Social reproduction, food (in)security, and risk-taking behavior during crisis: Women's experiences as farmers and food vendors in Myanmar, Papua New Guinea, and the Philippines during the COVID-19 pandemic, *Review of International Political Economy*. Under Review (submitted June 2022).

Davies, SE, Eslick B, Roberts RE, Calsado DJD, Juanico CS, Oo ZM, Yadanar, and Woyengu N. 2022. 'Confusion and Frustration' or accessing social welfare during crisis: Rural women's experience in Myanmar, Papua New Guinea, and Philippines during COVID-19, *Third World Quarterly*. Under Review (submitted September 2022).

Davies, SE, Eslick B, Roberts RE, Calsado DJD, Juanico CS, Oo ZM, Yadanar, and Woyengu N. 2022. Time for a dual track approach to information: Unintended findings from COVID-19 impact on women farmers and vendors. *Disasters* (submitted October 2022).

Smith, D., Roberts, R.E., & Davies, S. 2022. COVID-19, Gender, Food Insecurity and Resilience: Evidence from Myanmar and the Philippines, Food Policy. (submitted October, 2022).

### **List of project media communications**

Davies, SE, Calsado DJD, Grépin KA, Juanico CS, Oo ZM, Roberts RE, Smith J, Yadanar, Wenham, C, and Woyengu N. 2021. Food Insecurity and COVID-19: Recognising Women's Leadership. The Lowy Interpreter 8 March.  
<https://www.lowyinstitute.org/the-interpreter/food-security-and-covid-19-recognising-women-s-leadership>

Keeru, Linda. 2022. Gender and Covid-19, How the COVID-19 pandemic has affected female entrepreneurs in the agricultural sector in Southeast Asia, Gender and Covid-19 13 February. <https://www.genderandcovid-19.org/editorial/how-the-covid-19-pandemic-has-affected-female-entrepreneurs-in-the-agricultural-sector-in-south-east-asia/>

# 11 Appendix

## 11.1 UNDP Global Gender Response Tracker, 2020-2021

Country	All Measures	Gender sensitive	Unpaid care	Violence against women	Women's economic security
Myanmar	22	14		6	8*
Papua New Guinea	4	1			1#
Philippines	366	6		1	5~

\* Three measures of specific relevance to the women interviewed in this project: 1 May 2020: agriculture input e-voucher worth 120,000 for 300,000 farmers (those with less than 2 acre land) especially “women led households with returning migrants, households of ethnic minority, and households led by persons who are older than 45 of farmers through”; June-September 2020: a cash for work scheme to provide jobs for unemployed and impoverished; and 11 December 2020: Emergency Food Rations to vulnerable households and at risks populations.

# Two measures of specific relevance to the women interviewed in this project: 1 April 2020: \$38 million spend on nationwide food security activities, including distribution of food rations during April–December 2020. Main recipients: those affected by income and job losses, especially in urban areas “where they have fewer means to grow their own food”; 1 September 2020: the government announced \$57.3 million USD stimulus for small businesses struggling during the pandemic available in the form of loans from Bank South Pacific and National Development Bank. The interest rate will be low and repayment terms will extend over 15-20 years. The money would be available to sectors including agriculture, ventures for youth, woman-alone businesses.

~ 14 May 2020: Department of Agriculture (DA) distributed P5,000 cash subsidy to 600,000 rice farmers. The Financial Subsidy to Rice Farmers (FSRF) to assist small rice farmers, who plant one hectare or less, located in 24 provinces not covered under the Rice Farmers Financial Assistance (RFFA) program. 21 October 2020: Livelihood assistance grants (LAG) for families whose livelihood took a dip due to the quarantine measures amid the health crisis. Qualified beneficiaries of LAG will receive financial assistance not exceeding PHP15,000. LAG prioritizes households with low-income families in the informal sector, including “house helpers” (domestic workers), or whose small business has been affected by the pandemic. 18 September 2020: The Department of Agriculture (DA) allocated P400 million (M) under the “Bayanihan to Recover As One Act” or “Bayanihan 2” to further expand the Duterte administration’s urban agriculture program and attain family household food security. Distribute the edible Landscaping starter kit (packet of assorted vegetable seeds, a “how to plant” brochure, and sample designs for a pocket garden, container garden, and community garden). 11 December 2020: Under Bayanihan 2, subsidies and allowances to 60,000 qualified students in public and private elementary, secondary and tertiary education whose families are facing financial difficulties due to COVID-19. Also provide access to free, healthy meals to undernourished children. Food provisions are distributed by the Disaster Response Management Group. 21 February 2021: Extended the credit guarantee lines to September 2021 and made them available to more types of businesses including micro, small and medium-sized enterprises (MSMEs), manufacturing, housing, agriculture, and other areas of the economy to support businesses during the COVID-19 pandemic. 14 May 2021: The Department of Agriculture to give assistance to 800,000 farmers through the ₱24-billion budget for the sector under the Bayanihan to Recover as One Act, or the Bayanihan 2. ₱4 billion set aside for other sectors, namely fisheries, upland agriculture, coconut, and sugarcane industries. To qualify, farmers need to be registered in the Registry System for Basic Sectors in Agriculture.

Source: UN. 2022. COVID-19 Global Gender Response Tracker. Accessed June 2022.