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A QUALITATIVE ASSESSMENT OF COVID-19 SHOCK TO SMALLHOLDER VEGETABLE GROWERS IN ORMOC CITY, PHILIPPINES

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In March 2020, the Philippine government implemented the community quarantine regulation to prevent the spread of the COVID-19 pandemic, and this has brought significant changes in the livelihood of small-scale farmers. We conducted a study to understand farmers' experiences in the first two months of the pandemic to provide fundamental information for future immediate interventions. We found that farmers were immediately affected by the increased difficulty in the transportation of goods, narrowed options in selling vegetables, changes in the distribution channels and prices. Association activities also suffered as members prioritized their individual welfare. As such, farmers pursued off-farm alternative works to sustain livelihood. Moreover, the pandemic led them towards entrepreneurial thinking and strategic risk management as they now measure the availability of materials, finances, and markets before investing. Furthermore, findings also reveal the level of resiliency and vulnerability of farmers.

Keywords: sustainable livelihood framework, vegetable value chain, COVID-19

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1. INTRODUCTION

The Philippines' agriculture sector predominantly has rural communities working for their livelihoods. In Eastern Visayas, small-scale farmers with an average landholding size of 0.8 hectares (ha) comprised these communities, and they are impeded with numerous risks in their agricultural production such as typhoons, pest infestations, floods, and earthquakes being the most recently experienced destructive natural calamities (PSA, 2017). These events often undermine their household food and income security (Harvey et al., 2014). Poverty incidence among farmers in the region stands at 42.5% (PSA, 2018) and this could be much higher in rural communities. Additionally, financial problems prevented them from making upfront investments to become more resilient and productive due to their limited economic and physical resources, and inadequate access to information, despite having farmer's association in the community.

These situations have plagued the farmers' livelihood for years now and adding to these challenges is the coronavirus pandemic. The World Health Organization (WHO) declared the COVID-19 outbreak as a global pandemic on March 11, 2020. As a result, economic activities were interrupted, and daily routines were overturned (WorldBank, 2020). In addition, it brought adverse effects along the food supply chain (FAO, 2020a), and farmers had to cope.

Although the agricultural activities slowed down, farmers continued their activities, but necessary changes were made to adapt to the new normal. Many of those changes were perceived as strenuous on farmers (Hossain, 2020). Border security and lockdowns contributed to labor shortages, while delays in transport and logistics services affected the availability of intermediate inputs to farmers (OECD, 2020) and the outflow of their goods. Moreover, disruptions downstream are causing surpluses to accumulate, putting a strain on products' movement, especially for highly perishables – thus incurring high food losses. Both supply and demand-side disruptions, coupled with reduced off-farm income opportunities, placed a strain on farm incomes (OECD, 2020).

On March 16, the Philippine government implemented the community quarantine regulation to prevent its spread. Public measures such as social distancing, restriction of movement, closing some establishments, among others, were implemented and, in doing so, severed the flow of goods, ultimately affecting different businesses and industries. As of late March 2020, the pandemic's full impact on food security and agricultural food systems remains unknown as the virus's spread continues to evolve differently (FAO, 2020b).

Livelihood generally comprises the capabilities, assets, and activities that make a living (Scoones, 1998). These assets come in capitals categorized as natural, physical, human, financial, and social factors (Scoones, 1998; Sseguya, et al., 2009). Scoones (1998) mentioned that livelihood is sustainable if it can cope and recover with stresses and shocks while maintaining the capabilities, assets, and natural resources. Commonly, farmers with higher livelihood capitals can better manage shocks than those with fewer capitals (Su & Shang, 2012). The pandemic's recent shocks include the unstable markets, shortage of labor (Tran et al., 2021; Peprah, 2015), and transport delays (OECD, 2020), but this is experienced at different magnitudes by different farmers as people's exposure to shocks and their ability to withstand it depends on their asset base. (FAO, 2005).

Studies have also been conducted identifying the relationship of capitals to livelihoods' adaptive capacity (Frusher et al., 2015; Bryan et al., 2015; Huai, 2016; Singh and Nair, 2014). Adaptive capacity is the strategy that is directed towards responding to environmental and socioeconomic changes. Having this capacity is often seen as a key factor in sustainable development (Spiller, 2016). However, as per Ellis (2020), the extent of the pandemic's impact on smallholder farmers' livelihood varies depending on the environment they are exposed to, as livelihood assets vary within and between households.

Hence, we attempt to identify the immediate shocks the farmers experienced and understand its effects in the local context to provide basic information on the small-scale farmers' response to shocks—this way, providing better information for future interventions.

Objectives

The study generally aimed to identify the immediate events the farmers experienced in dealing with the pandemic for future policy recommendations. Specifically, it aimed to (1) present the early disturbances farmers experienced, (2) identify their coping strategies, and (3) recommend policy interventions.

2. METHODOLOGY

This exploratory study used a qualitative case study approach to have a rich understanding of the study subjects' contextual conditions. This approach guarantees the authenticity and uniqueness of the data collected. Three upland barangays in Ormoc City were selected (Table 1). All three barangays have vegetable farming as their main source of income.

Table 1. Selected socioe-conomic data of the study areas (source: BMIS, 2015, 2019a, 2019b)

Parameter	Barangay		
	Cabintan (2015)	**Liberty (2019)**	**Gaas (2019)**
Population	2,499	911	1,317
Average household size	5	4	4
Poverty Incidence*	66.73 %	41.56 %	19.26 %
Average family monthly income (PhP)	3,611.40	5,482.40	34,855.80
Major source of income	Farmer (vegetable, abaca, and coconut), farm laborer	Farmer (vegetable), construction laborer, farm laborer	Farmer (vegetable, abaca, and coconut), construction laborer, government employee

*Below annual per capita food threshold (PhP 11,686.00) by the National Statistics Coordination Board (NSCB) (NSCB, 2011)

Selecting Respondents

Using a purposive sampling method, we selected three respondents following an inclusion criterion in each of the four farmer associations for a total of twelve (12) respondents. The farmer association includes the CAFA (Cabintan Farmers Association) for Barangay Cabintan, GALFA (Gaas Livelihood Farmers Association) for Barangay Gaas, LUFA (Liberty Upland Farmers Association), and LIVEFA (Liberty Vegetable Farmers Association) for Barangay Liberty (Figure 1).

The criteria for the respondent selection included (1) members who have existing crops planted (2) has a level of insights and involvement in production, marketing, and association undertakings (3) can represent a typical farmer in their community; and (4) has access to cell phone reception and is willing to be interviewed. The respondents were informed beforehand to discover if they are willing to be interviewed, set their most preferable and convenient time and date for the interview.

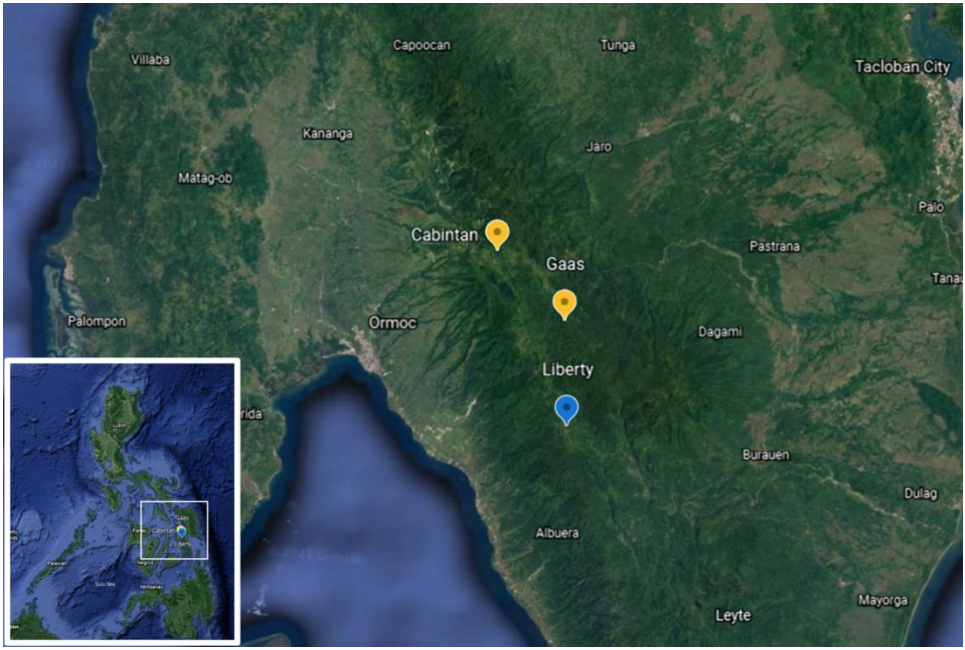

Figure 1. Location of the selected study sites (source: Google Earth, 2021)

Data Collection

Due to limitations on social contacts and border lockdowns, primary data were gathered through semi-structured phone interviews using a recorder and extra phone attached to speakers to record the conversation between the interviewer and the respondent. The interviewers were already exposed to the farming communities before the pandemic making the respondent comfortable in the conversations.

The interviews, which were conducted in June 2020, covered only the experiences of farmers in the first two months of the lockdown. The main questions are the following: (1) What disturbances have you experienced lately? (2) How did you cope with it? Follow-up questions were also asked. Each of the questions was repeated, exploring their activities on (1) production, (2) marketing, and (3) association.

Data Gathering and Analysis

Before collecting the data, a pre-test was conducted for the list of interview questions to determine the most logical and smooth-flowing order of the questions and identify wording issues that need to be addressed. This is to ensure a free-flowing conversation. Interviews were done in the local dialect. These were recorded and later transcribed and translated for thematic analysis. Thematic content analysis is a qualitative data method which categorizes patterns and similarities across multiple observations to present different dimensions of an occurrence. Observations on all four farming communities were consolidated to represent the upland farming community in Ormoc City.

3. RESULTS AND DISCUSSION

Results

The study collected data from 12 farmers which represented the four farming communities in Ormoc City. The respondents include three males and nine females with ages between 27 to 65. Five or 42% of these are household heads. Household size ranged from 2 to 9 members with a median value of 4. The respondents have an average of 18 years in farming. Table 2 shows the characteristics of the respondents. In the following discussions, farmers and respondents can be used interchangeably.

Table 2. Characteristics of the respondents

Characteristics		**Count (%) or Mean ± SD**	**Median (range)**
Age		44.30 ± 13.14	45 (27-65)
Household heads	Yes	5 (42%)	
	No	7 (58%)	
Gender	Male	3 (25%)	
	Female	9 (75%)	
Household size		4.45 ± 2.07	4 (2-9)
Farm size		1.09 ± 0.30	1 (1-2)
Years in Farming		18.20 ± 12.39	11 (5-40)
Crops planted	Spring onions, cabbage, Baguio beans, squash, corn, pechay, chayote, sweet potato, tomato, sweet pepper, eggplant, okra		

Production

Five themes were identified under the aspect of production. The themes reflected the farmers' shocks and their coping mechanisms.

Theme i: Pursuing alternative work or engagements to sustain livelihood

All the respondents interviewed have farming as their main source of livelihood. However, recently, three respondents focused on alternative employment. They shared that they engaged more in construction works or barangay police officers (*tanod*) to sustain their daily living.

Theme ii: A consistent concern for the recurring farm problems despite having a pandemic

Despite having the pandemic, five respondents shared their apprehensions on the vulnerability of farming. They are still somehow concerned about the damages brought by typhoons, rain, and drought. These are the common challenges farmers always experience in the region.

Theme iii: Increased difficulty in transportation

One of the highest numbers of responses under a theme was on the aspect of transportation. Seven farmers expressed more difficult access to transportation services because of the vehicles' reduced capacity imposed by the local government. Correspondingly, transport service providers increased their fare to compensate for the loss, and this was charged to the passengers. This further puts a financial burden on the farmers. Some also shared that they are no longer transporting their produce due to transportation constraints.

Theme iv: Understanding the risk in reinvestment.

Seven farmers shared the risks they encountered when reinvesting in another production cycle. They expressed the new limitations on labor availability and the uncertainty they will face when planting another cycle. They even correlated the risk to the marketing aspect as they see that the marketing of vegetables is now unstable since there are no sure buyers. One respondent also shared an experience where he learned to apply the right amount of fertilizer to manage costs.

Theme v: Being hopeful for the next cropping season

Three farmers also shared positivity towards the pandemic. They are hopeful that they can produce again when the pandemic ends. This theme shows how they cope with the difficulties brought by the pandemic.

Marketing

Under the marketing aspect, the themes were further categorized into subthemes due to a wider variety of responses.

Theme i: Narrowed options in selling vegetables

All (12 of 12) respondents shared that they were having difficulty in looking for buyers, or even if they have buyers, they cannot easily switch between buyers since traders visited less frequently to the production areas having less time and opportunity to negotiate. One respondent shared that he is now becoming more reliant on local *viajedors* (mobile traders). This respondent used to sell the vegetable himself but recently cannot cope with the new requirements. As a result, he sells to a *viajedor*. He also mentioned that other farmers who used to sell vegetables are now similarly selling to *viajedors* due to convenience.

Theme ii: New marketing arrangements and changes in the distribution channels

Respondents mentioned new arrangements established as they adjust with the preventive measures to prevent the pandemic's spread. Generally, in Ormoc City, vegetables need to be transported to different urban markets since local consumption cannot absorb all the farmers' vegetables. Nevertheless, recently, local municipal governments now require foreign travelers to have proper documents upon entering their geographic area. This includes health certificates, food pass, quarantine pass when traveling to other urban markets. They also need to comply with numerous checkpoints imposed by different local government units (LGUs) as they travel.

Four farmers mentioned that there is now a border-to-border trading and the community selling of vegetables. Border-to-border trading is where the farmers or traders transact with another trader at the city boundary. The transfer of vegetables is done at the border. Traders applied this scheme since crossing another municipal boundary would require them to comply with numerous paperwork which they found cumbersome.

Another scheme mentioned was the community selling of vegetables. Rather than transporting the vegetables to major markets in the province, farmers now opt to retail it at the community level.

Theme iii: Change in the economics of vegetable trading

Eight farmers expressed the irregularity in the price of vegetables. Some vegetables were expected to be high during the second quarter of the year; however, the actual price they experienced was significantly lower than what they anticipated. Farmers usually plant vegetables early in the year to target multiple barangay fiestas and graduation parties in May and June. Sweet pepper and tomato were typically planted early in the year to anticipate the huge demand in its harvest period. However, new regulations that prevented social gatherings were set amidst COVID-19 response, and this affected the potential demand the farmers initially targeted. Correspondingly, its matching demand for food was gone, and farmers no longer had the capacity to react since crops were already in the mature stage. Hence, there was a huge influx of vegetables. Further, due to the market's current low absorptive capacity, some vegetables were either thrown away or left in the field. Respondents shared that there were also farmers who were able to sell vegetables but at a lower price.

One respondent mentioned that Chinese cabbage usually costs P35/kg in this period (May-June), but the prevailing price was only at P12/kg. Respondents then proceeded to attribute the decrease in prices to oversupply. Nonetheless, this has affected their sales. They shared their experience of having decreased sales due to traders' lower buying prices, coupled with their increased production costs.

Association

Three themes emerged in their responses regarding association activities.

Theme i: Negative impact on the association.

Five respondents shared that their association gatherings, such as meetings and communal activities, were canceled due to local government restrictions. Any type of gathering was prohibited as the government prevented local transmission. A respondent also mentioned that their activities went on pending status. On the other hand, one also shared that the association's merchandising activities were still ongoing since it was not affected by the gatherings' restrictions.

Theme ii: Coping and welfare priority of association members

Three farmers mentioned that association members focused on their family's welfare by tilling their fields and looking for other job opportunities. This reduced the time allocated for association activities. Three farmers also expressed

confidence in compliance with government regulations to prevent the spread of the disease.

Theme iii: Directed realizations

One respondent shared that he gained a realization of diversification after the pandemic. He mentioned that it is better to plant different crops because when one crop fails, they can still recover the cost from the other crops.

Discussion of Results

Using thematic content analysis, the study has explored the shocks and farmers' coping mechanisms during the first two months of the local lockdown. The pandemic's impact on their production, marketing, and association activities was investigated.

A. Impact on production practices

The pandemic's direct shock, in the production aspect, was the limitation on logistics services as farmers faced a more expensive and limited transportation service. Prices for the same service have bloated, and this exerted a monetary burden on farmers who already have low financial resources. This affected their access both in sourcing inputs and the delivery of produce to urban markets, which eventually led to increased production costs. To cope, some farmers looked for alternative works to sustain their livelihood. They engaged in construction works or being employed as a local enforcement officer. However, these job opportunities cannot accommodate all farmers; hence, other farmers continue to till their land.

Findings also revealed that farmers are still stressed about the rain, drought, and typhoon damages. These events are unavoidable but come in seasons, yet it still exerted a considerable concern in their farm activities. An accumulation of these stresses is likely to increase the farming system's vulnerability, leading to tipping points when critical thresholds are crossed (Meuwissen et al., 2019). Despite experiencing it regularly and frequently, they are still concerned to these recurring events. These suggest farmers must develop transformative capacities to respond to these enduring stresses (Meuwissen et al., 2019, Termeer et al., 2017).

Interestingly, another observation was that farmers were now becoming aware of the risks involved in farming. The responses showed that farmers have realizations towards resource allocation, such as finances, inputs, and market

assurance before planting. They now measure the availability of materials, finances, and markets before investing in farming. This theme somewhat reflects a growth towards entrepreneurial thinking.

B. Impact on marketing activities

Respondents felt a greater impact on their marketing activities. Immediate impacts observed in the farmers' marketing activities include the changes in prices, increased difficulty negotiating with a buyer, and reduced options in selecting a buyer.

b.1. Shocks experienced

Farmers regularly experience price fluctuations as it is usually tied to the seasonality of vegetables. However, results showed that they experienced irregular prices due to oversupply of vegetables as buyers were purchasing less due to social gatherings' cancellation, which served as huge potential demand for vegetables. The difficulty in negotiation can be traced to the traders becoming less visible in the production areas due to travel restrictions. Traders based on the outside of Ormoc city cannot enter the community due to lockdown; hence, farmers have fewer options to negotiate and compare in search of better prices or arrangements. They can now only sell to traders based in Ormoc City.

b.2. Lengthening of the chain as a coping adjustment

Compliance with local regulations was found to become an essential part of the vegetable value chain. It is an added activity that must be performed to complete the value chain, and results revealed that the farmers face difficulty complying with these regulations. To sustain the farmer's business operations, they made new marketing arrangements. These are the border-to-border transactions, reliance on the *viajedors*, and the community selling of vegetables.

In performing border-to-border transactions, farmers or traders pass the vegetables to another player along a municipal boundary. They can still transact this way while avoiding the proper documents (e.g., food pass, health certificates, and quarantine pass) since they are not technically crossing another municipal boundary. However, this practice has split the trading node in the value chain since another transfer was performed (A > B > C > D) when moving to a different geographic area (Figure 2). Comparing with the previous practice, movement of vegetables to different geographic markets only involved two to three transfers (A > B > D, A > D). There was no transfer since documentation was not needed. This

coping mechanism made is expected to increase the transportation cost of delivering the vegetables to final consumers as it takes more time and labor to move the vegetables.

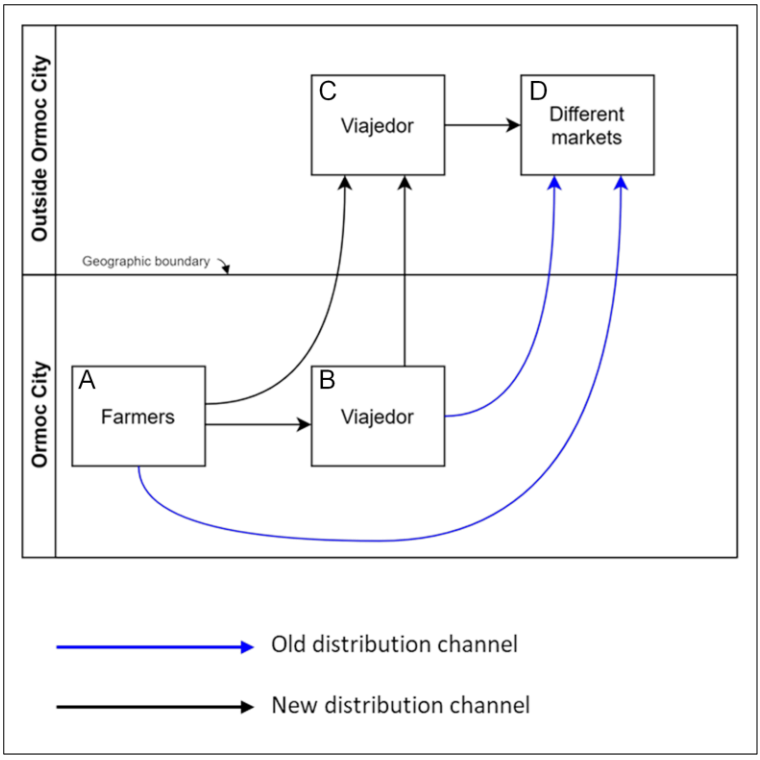

Figure 2. Changes in the distribution flow of vegetables

In some ways, COVID-19 disruptions introduced an opportunity to rebalance the system that currently creates unequal profits in the supply chain (Guido et al., 2020). However, results suggest that *viajedors* have become more vital in Ormoc's value chain since they can comply with new regulations and are more competent to sustain vegetable transportation to different markets. Despite the market situation's uncertainty, the *viajedors*, with their established networks, can spot different opportunities in different geographic areas. Farmers then resort to transfer ownership since they cannot meet these new demands when performing the chain's downstream part's new functions. This increased the farmers'

dependence on the *viajedors*. Nonetheless, *viajedors* now have a higher position to control the price since they have a larger capacity to travel and spot market opportunities.

These are dynamic events that, within two months, various responses are already observed. However, marketing practices will still settle down as value chain players look for new and innovative ways to make functions efficient.

C. Impact on Association activities

Similarly, the association was greatly affected as collective works, meetings, and other gatherings were canceled per local ordinance. Nonetheless, members have prioritized one's welfare over the association's activities. Members were individually looking for ways to sustain their well-being amidst the pandemic, leading to unattended communal farms. Also, other income-generating activities, such as sari-sari stores, were affected. As a result, the association somehow weakened during the early stages of the pandemic.

4. CONCLUSION

In conclusion, the pandemic has revealed the disturbances, situations, realizations, and coping strategies of small-scale farmers across different areas.

Farmers' marketing activities were greatly disrupted—the disturbances include decreased buyer options, logistic constraints, and reduced prices. Coupled with the increased production cost, this led to labor displacement in search of better welfare. Impacts on marketing are beyond the farmers' control, and the value chain player with larger resources (information, financial capital, and physical resources) can generally position better in the market. Moreover, new marketing strategies that evolved to cope with the pandemic lengthened the chain as supplementary activities must be performed. This can contribute to chain inefficiencies.

Distinct observations emerged as we also find that farmers, in doing their production and association activities, still exhibit low livelihood resiliency levels but displayed growth in entrepreneurship as they now measure the availability of materials, finances, and markets before investing.

These experiences provide insights for designing interventions for smallholder farmers. We highlight four recommendations for farmer interventions. These recommendations follow Balwinder-Singh et al.'s (2020)

argument that technological and management innovations are recommended. These recommendations are inclined towards strengthening the human and social capital of the farmers. Recommendations are the following.

- *Improve farmers' resiliency.* Farmers must be taught to invest in risk-mitigating facilities, practice new climate-resilient farming systems, and develop a proactive management strategy. This way, they can attend the new events that come as shocks (i.e., climate and market-based shocks) without being troubled by the seasonal events (i.e., rain, drought, flood, etc).
- *Entrepreneurial training.* The pandemic became the farmer's triggering event to develop this thinking. A follow-up training can be implemented to instill this mindset further. It is recommended to focus on valuing the resources, planning and monitoring, and identifying market opportunities.
- *Stimulus and relief package.* As farmers face uncertainty, enablers can offer alternative employment such as cash for work to sustain livelihood while farmers adjust and look for ways to recover. Shocks experienced are towards the physical and human capital.
- *Association empowerment*. Ensuring the continued conduct of association activities is recommended. As Rodrigue (2016) mentioned, strengthening communication networks and transport networks are key to the survival of the food supply chain, and the association can perform this function. Furthermore, association can be a recovery source since it is an avenue for strong leadership (Nicola et al., 2020) for hope and direction.

5. ACKNOWLEDGEMENT

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6. CONFLICT OF INTEREST

The authors declare no conflict of interest.

7. INFORMED CONSENT

Informed consent was obtained from all respondents involved in the study.

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Appendix

Table 3. Examples of selected quotations with their themes under production activities

Themes	Exemplar quotations
i. Pursuing alternative work or engagements to sustain livelihood	"As of now, I did not produce any vegetables. I am doing construction work." "My production is declining… because I do not have much time in farming as of the moment, because I am also a *barangay tanod*, I have a responsibility as a frontliner."
ii. A consistent concern for the recurring farm problems despite having a pandemic	"Because of the weather, we can experience drought and, at the same time, heavy rain." "Our vegetable production was affected, and some were damaged because of the typhoon." "Fertilizer applications are more frequent than before because the rain will just wash away the fertilizers."
iii. Increased difficulty in transportation	"…passengers were limited since they imposed social distancing." "Our transportation cost now is very high, the local jeep only travels every twice a week, and the transportation fare was increased to 200 pesos from 100." "…because if we would still transport our produce to the city, it would only incur us additional cost." "…we cannot sell our produce to Ormoc because of limited transportation." "Production input prices are still the same, but transportation cost doubled from the original cost."
iv. Understanding the risk in reinvestment	"It will be too risky in our side to invest in additional cost like labor since vegetable market right now is still unstable, there is no sure buyer." "Before, we can produce as much as we want, but now we are limiting our production because it would be too risky during this time to plant in bulk when there is no assurance of market." "We have learned to apply the right amount of fertilizer to our crops this time unlike before, where we apply any amount of fertilizer."
v. Being hopeful for the next cropping season	"We will just try to recover our loss to the next cropping season rather than gets too emotional and not try at all." "We will just wait for when this pandemic will end."

Table 4. Examples of selected quotations with their meaning units and themes in marketing activities

Theme	Condensed meaning Unit	Exemplar quotations
i. Narrowed options in selling vegetables	i. Difficulty in negotiation for a buyer	"We are having difficulty in marketing our produce, what is the use if you have produced but you do not have a market."
	ii. Reduced buyers to choose from due to border restriction	"Very challenging now… only a few traders trade now, and we cannot negotiate personally to them because of lockdown." "Difficulty in selling our produce during the lockdown, buyers from *waray* are not allowed to enter our barangay."
	iii. Farmers becoming more reliant on local *Viajedors*	"We can only sell a lesser volume of vegetable produce compared before, some were just left in the field to rot because the buyer can no longer accommodate our produce." "Before, there is an option of which we are going to sell our produce depending on who among the *viajedors* offers a higher price." "For now, we really depend on our local *viajedors* to market our produce; however, some *viajedors* are no longer trading."
ii. Changes in the distribution channels	i. New practice of border to border marketing transaction	"Rather than not selling, it is much better now because of that border to border marketing transaction… vegetables were delivered at the borderline. "One of these… is the border to border marketing, and payment is through money transfer."
	ii. Community selling of vegetables	"Since we only produce a small volume of vegetables, there is no need for us to sell our vegetables in the city, because it can be sold even here in our barrio."

Theme	Condensed meaning Unit	Exemplar quotations
iii. Change in the prices	i. Impacts and concerns towards the price ii. Oversupply due to low demand	"We are affected with regards to the sales of our produce since the price offered was low." "We have perceived that the price of our produce would be high during this time, but the prices were low because *viajedors* can no longer trade to other municipalities." "Prices vary depending on the type of crops, beans, and Chinese cabbage, for example, usually cost 35 pesos per kilo this week, but last week it was bought at 12 pesos per kilo." "We experienced an increase in production cost, …less profit now because the price is very low and there are only few buyers." "Because of Covid-19 restrictions, *viajedors* can no longer trade in other areas; that is why vegetables in the Ormoc City market are flooding." "Sweet pepper should be saleable during this time because of barangay fiestas from May to June, but due to covid -19 restrictions, like prohibiting of social gatherings, barangay fiestas were not pushed through" "Our produce will be delivered in Ormoc City market only; hence, there is already an oversupply, that is why prices are low."

Table 5. Examples of selected quotations with their themes under association activities

Themes	Exemplar quotations
i. Negative impact to association	"All our association meetings were postponed because of the restriction." "All our association activities are pending." "Merchandising activities are still ongoing; however, association meetings and pentakasi were not conducted since the start of community lockdown." "We were not able to maintain our communal farm because of community quarantine,"
ii. Coping and welfare priority of association members	"…most of our members were busy in their individual fields." "Our number one priority right now is to look for food for our household consumption," "…some members were also busy in their individual fields; other members were also looking for other job opportunities during this time." "Stay positive and looking forward to the end of this pandemic." "We still try to think positively amidst the pandemic situation in order for us to overcome the challenges that we have experienced right now, we only think of how to provide for our family, we do not overthink what might happen in the future."
iii. Directed realizations	"Lesson learned was that it is better to plant different type of crops rather than to focus only on a single crop because when one of the crops fail (sold at a lower price), we can still recover the cost to the other crop as long also we have enough capital."