



Monitoring the Impact of COVID-19 in Myanmar

Agricultural Input Retailers – mid-June and early July 2020 survey rounds

Joseph Goeb, A Myint Zu, Nang Lun Kham Synt, Duncan Boughton, and Mywish K. Maredia

Phone surveys were conducted with input retailers from Shan, Kachin, Bago, Ayeyarwady, Sagaing, and Mandalay between 17 and 20 June and again between 6 and 8 July 2020 to understand and monitor the effects of the COVID-19 crisis on the agricultural input sector.

Key findings

- Since the start of the COVID-19 crisis in Myanmar, the largest challenges to input retailers have been transport restrictions, lower demand for inputs, and difficulties receiving payments from farmers on credit lent out. By mid-June, most retailers were no longer experiencing issues with transport restrictions, although there were still challenges in Mandalay and Shan. Farmer demand and payment recovery for credit lent out had improved but were still challenges for most shops.
- Input prices were mostly stable, showing small changes between survey rounds. However, pesticide prices increased in Shan due to supply difficulties, and fertilizer prices decreased in some areas as sales declined.
- Fruit and vegetable seed sales are lower than in 2019, but seed sold primarily to households for their own production and consumption were mostly similar to 2019.
- Retailers are increasingly using mobile phone for business activities, particularly in coordinating input purchases from suppliers and sales to farmers.
- Use of mobile payments for buying inputs from suppliers is higher compared to 2019, but remains low for receiving payments from farmers.

Recommended actions

- To mitigate the cash-flow effects of low input demand and difficulties collecting repayment from farmers on credit lent out, the Myanmar government should extend working capital loan support (CERP 2.1.1) to input retailers and other key actors in the agri-food system and remove or delay payments of business taxes and fees (CERP 2.1.3).
- Input retailers are adopting mobile payment systems in response to the COVID-19 crisis. Government should promote through the agricultural extension service the use of mobile banking applications by both firms and farmers and by enabling and encouraging mobile transactions related to loans with the Myanmar Agricultural Development Bank.

Introduction

Agricultural input retailers play a key role in Myanmar's agri-food system by supplying farmers with fertilizer, seed, pesticides, and other inputs necessary for successful harvests. Because farm-level input use is an important driver of yields for all major food crops, shocks to the input retail sector have major implications for rural household welfare as well as food security.

This policy note presents results and analyses from rounds three and four of a five-round phone survey of agricultural input retailers during the COVID-19 pandemic in Myanmar. Our purpose is to provide data and insights to the Ministry of Agriculture, Livestock, and Irrigation (MOALI) and agricultural sector stakeholders so that they better understand COVID-19 related shocks to Myanmar's agricultural input retailers. The phone surveys are a panel of agricultural input retailers from Shan, Kachin, Bago, Ayeyarwady, Sagaing, and Mandalay, where the same retailers are called at two-week intervals to track the effects of the COVID-19 crisis and responses at the input-retailer level.^{1,2} There has been some attrition between survey rounds; the mid-June survey reached 172 retailers for interview and the early July survey reached 149.³

The results from previous survey rounds conducted in late May and early June showed that input retailers are experiencing large disruptions from the COVID-19 crisis, including demand shocks leading to much lower sales this year compared to 2019.⁴ The surveys also showed that informal lending is an important part of retailers' business, but that they are now having difficulties collecting payments on credit they have lent out to farmers. In response to the COVID-19 crisis, some shops are utilizing mobile phones to organize input purchases and sales. This note builds on these results from the previous surveys by (i) continuing to monitor COVID-19 related business disruptions, (ii) tracking input sales and prices over time, (iii) providing more information on vegetable seed sales, which may have important implications for household food security and nutrition, and (iv) detailing mobile phone use by input retailers to better understand technological adaptations to COVID-19.

Effects of COVID-19 crisis on input retailers

To continue to track the effects of COVID-19 on input retailers, we asked a series of questions about different types of potential disruptions. Figure 1 shows the overall shares of input retailers in each round that reported experiencing each type of disruption in the two-weeks prior to the survey.

The effects of the COVID-19 crisis persist for input retailers. Over half of the shops surveyed continued to report experiencing at least one type of disruption in the two weeks prior to each survey. The primary disruption reported is that of receiving payment for inputs provided to farmers on credit. This challenge was reported by 45 and 41 percent of retailers in the mid-June and early July surveys, respectively. Difficulties collecting repayment for credit lent out are correlated with other types of disruptions. Shops reporting credit repayment issues also reported more than one other disruption

¹ Collectively, these states and regions account for about 66 percent of Myanmar's agricultural production by value and cultivated area as well as 66 percent of Myanmar's farmers.

² For our sample, we identified a sample of agricultural input retailers through a combination of sources including previous studies, government registration lists, and private sector contacts. While our sample provides regional and agro-ecological variation, it is not representative at any municipal level. Thus, all analyses and results in this report are illustrative and provide useful insights into the sector, but should not be interpreted as population statistics.

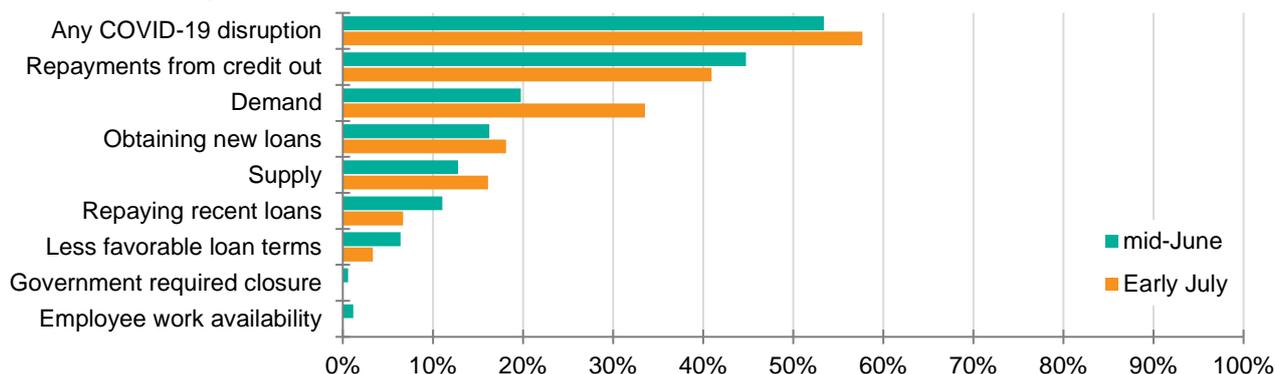
³ As a robustness check on our comparisons across survey rounds, we ran all analyses with a restricted sample containing only the agricultural input retailers interviewed in both the mid-June and July surveys. Results from that sample of 148 common retailers were similar to the results reported here. We are confident that sample attrition across rounds did not drive any changes observed between the mid-June and early July survey rounds.

⁴ The policy notes reporting on the previous rounds of the agricultural input retailer survey are:

- Goeb, J.; D. Boughton; and M.K. Maredia. 2020. *Monitoring the impact of COVID 19 in Myanmar: Agricultural input retailers – May 2020*. Myanmar SSP Policy Note [08](#). Washington, DC: International Food Policy Research Institute.
- Goeb, J.; D. Boughton; and M.K. Maredia. 2020. *Monitoring the impact of COVID 19 in Myanmar: Agricultural input retailers – June 2020*. Myanmar SSP Policy Note [15](#). Washington, DC: International Food Policy Research Institute.

on average. Only 9 and 16 percent of shops in the mid-June and early July surveys, respectively, reported another type of disruption, but did not also report difficulties in collecting repayments.

Figure 1. COVID-19 disruptions experienced by agricultural input retailers, percentage share experiencing



Source: Input Retailers Phone Surveys, mid-June and early July 2020

The second main challenge has been around disruptions to demand where substantial differences are seen across survey rounds. Only 20 percent of shops reported problems with demand in the third round of the survey in mid-June. However, that share jumped to 34 percent in the fourth round in early July. The increase was experienced in each state/region in our sample except Bago. Sagaing had the largest reported increase of 33 percentage points. The other disruptions noted by input retailers show similar shares – 4 percentage point differences or less – across rounds. Employee work availability and government required closures are no longer affecting input retailers.

To add more detail to the effects of COVID-19, we asked input retailers what their two largest challenges have been since the start of the crisis and whether there have been any changes to those challenges in the last month (Table 1).

Table 1. Largest challenges facing agricultural input retailers from COVID-19 crises and changes in challenges in the 30 days prior to interview

| | Largest challenges since start of COVID-19 crisis, percent of suppliers | | Changes in challenges in 30 days prior to interview, percent of those reporting as a challenge | | | |
|--|---|--------|--|-------------------|-----------|------------|
| | First | Second | Decreasing | | No change | Increasing |
| | | | No longer a challenge | Still a challenge | | |
| No challenges | 12 | 14 | | | | |
| Transportation restrictions | 14 | 24 | 60 | 17 | 22 | 2 |
| Lower demand from farmers | 37 | 33 | 23 | 58 | 16 | 3 |
| Receiving payments from credit lent out | 31 | 19 | 6 | 55 | 37 | 2 |
| Receiving credit from suppliers for inputs | 1 | 2 | 0 | 60 | 40 | 0 |
| Receiving other loans | 1 | 1 | 0 | 33 | 67 | 0 |
| Government required closure | 2 | 5 | 92 | 8 | 0 | 0 |
| Other, specify | 2 | 2 | 13 | 25 | 63 | 0 |

Source: Input Retailers Phone Survey, mid-June 2020

Three challenges dominate: (i) lower demand (mentioned by 70 percent of shops as either the first or second most important challenge), (ii) receiving payments for inputs lent on credit (50 percent), and (iii) transportation restrictions (38 percent). While each of these has had large impacts on input retailers during the COVID-19 crisis, they vary in their recent effects.

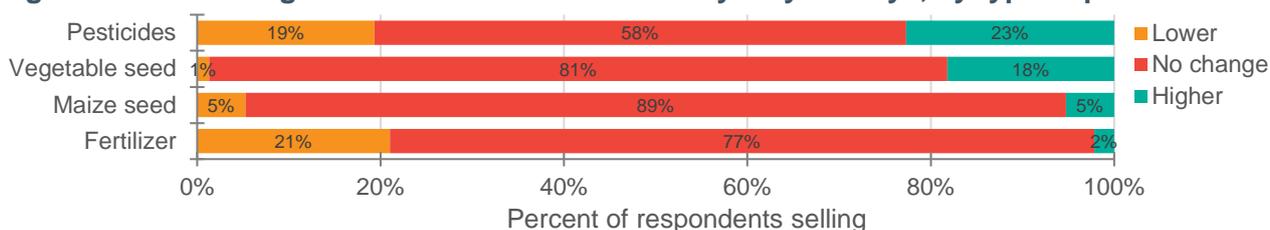
- Challenges from transportation restrictions lessened considerably in the 30 days prior to the mid-June survey round – 60 percent of shops that reported transportation as a major challenge

in earlier rounds of the survey are no longer facing this challenge. However, 22 percent claim no changes in this regard and continue to face transportation restrictions – Shan and Mandalay are the most impacted regions.

- Demand challenges are not as significant as they were earlier – 81 percent of retailers reported that this challenge has lessened in the last month, though only 23 percent claim that lower demand is no longer a challenge.
- Problems with receiving payment for credit lent out to input purchasers appears to be the most persistent challenge. Thirty-seven percent of the input retailers that reported collecting repayments on credit as a major challenge reported that there were seeing no improvements in the 30 days prior to interview in this regard. Only 6 percent say the problem has disappeared completely.

To get a better sense of input demand over the course of the monsoon season, we asked retailers about sales and price changes for four key categories of inputs – pesticides, fruit and vegetable seed, maize seed, and fertilizer. Figure 2 shows the price changes from mid-June to early July.

Figure 2. Price changes between mid-June and early July surveys, by type of product



Source: Input Retailers Phone Survey, early July 2020

For pesticide prices, similar shares of retailers reported increases (23 percent) and decreases (19 percent), but there were large regional differences. Pesticide prices increased for half of the retailers in Shan state, but decreased almost everywhere else. Shan state retailers cited difficulties in sourcing pesticides, not higher demand, as the reason for price increases. Elsewhere, retailers reported lower prices largely stemming from falling demand.

Fruit and vegetable seed prices were mostly stable (81 percent reporting no changes), but prices increased for 18 percent of the retailers selling, mostly due to increased demand. Maize seed prices are stable, but sales had nearly stopped in early July as it is late in the season. Half of the input retailers that sold maize seed had stopped carrying seed by the early July interview.

Fertilizer prices have been either stable or dropped. Sales of fertilizer are down in each state/region, though very few shops stopped carrying fertilizer. For the most part, fertilizer sales have slowed as the monsoon crops are well established. We may still see an increase in sales in later survey rounds in some regions where farmers were late to plant.

To provide more context for tracking fruit and vegetable seed sales, we asked a series of questions focusing on which varieties shops were selling and who were their primary customers. Table 2 shows that over half of the input retailers in our sample sell fruit and vegetable seed. Those that sell seed sell many different types – seven different fruits or vegetables on average. In terms of sales volume, the three most important in our survey regions are tomatoes, long-bean, and okra – each sold by at least 70 percent of the retailers selling seed. The types of seed sold appear to be somewhat fluid over time as 29 percent of those selling seeds sold at least one variety in the 2019 monsoon season that they were no longer selling in the 2020 monsoon season.

The most common customers for fruit and vegetable seed are farmers growing for commercial sale but growing less than one acre of vegetables. Sixty-two percent of retailers sold seed to these

types of farmers. The second most common customers are households growing for their own consumption. The least common category of customer is large commercial farms with one acre or more of fruit or vegetables planted. A larger share of retailers reported demand disruptions for seed than supply disruptions.

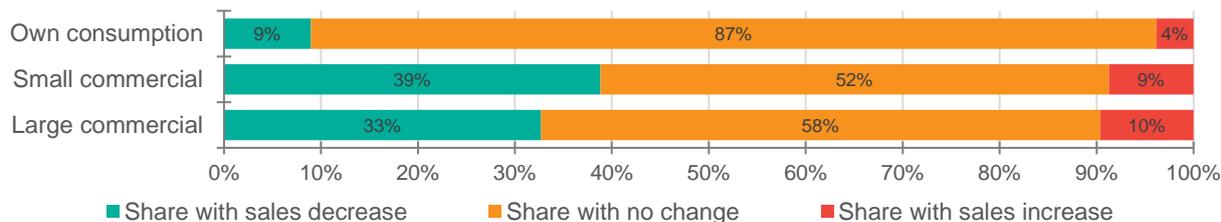
Table 2. Fruit and vegetable seed sales characteristics

| Characteristic | |
|--|----|
| Share of retailers selling, % | 56 |
| Mean seed types sold, number | 7 |
| Most important types of seed, % share selling | |
| Tomato | 72 |
| Long-bean | 84 |
| Okra | 70 |
| Discontinued sales of at least one seed type since 2019, % | 29 |
| Types of customers, % share selling | |
| Large commercial farms | 40 |
| Small commercial farms | 62 |
| Households for own consumption | 48 |
| Seed retailers who experienced... | |
| Disrupted seed supply, % share | 10 |
| Disrupted seed demand, % share | 18 |

Large commercial farms defined as ≥ 1 acre in fruits in vegetables grown for sale.
 Small commercial farms defined as < 1 acre in fruits and vegetables grown for sale.

To add further detail, we asked about the top-three seed types in terms of sales in 2020, changes in sales compared to the 2019 monsoon season, and the main type of customers for each. Overall, sales have either remained the same or decreased. However, Figure 3 shows some interesting differences in sales changes by the primary type of customer.

Figure 3. Vegetable seed sales changes in monsoon season 2020 compared to monsoon season 2019, by type of customer



Source: Input Retailers Phone Survey, early July 2020

For shops that mostly sell to households growing small plots of fruits and vegetables for their own consumption, seed sales have been stable – 87 percent of seed sellers reported zero change in sales volumes in the 2020 monsoon season compared to the 2019 monsoon season. In comparison, 33 and 39 percent of seed retailers reported that their sales to large and small commercial farms, respectively, were lower in 2020 than in 2019. One possible explanation for these differences is that market disruptions caused by COVID-19 are changing farmer behaviors. Lower output prices would have a negative impact on farmers producing for commercial sale, while households growing for their own consumption would be less affected by price volatility.

Retailer responses

To understand how input retailers are responding to COVID-19 shocks, we asked them a series of yes/no response questions in each survey round. Table 3 shows the responses for both the mid-June and early July survey rounds. In general, the response rates in mid-June are higher than in

early July, despite respondents citing more COVID-19 related shocks in the later round. Two possible explanations for the discrepancy are, first, that some responses are relatively insensitive to short-run changes and, second, that lower demand levels overall lead to smaller response rates.

The most common response to COVID-19 was to adopt a safety practice. Two-thirds or respondents adopted at least one safety practice in mid-June, but the share dropped 8 percentage points by early July. The change is most dramatic in Saguing. In general, the trend appears to show that shops are slowly dis-adopting preventative safety and health measures recommended to slow the potential spread of COVID-19.

Table 3. Input retailer responses to COVID-19 effects by survey round, percent of retailers surveyed

| Response | mid-June | early July |
|---|----------|------------|
| Closing at least one week without sales | 9 | 3 |
| Reducing hours or days of operations | 5 | 1 |
| Reducing number of workers | 5 | 1 |
| Reducing credit offered | 25 | 18 |
| Seeking loans | 3 | 2 |
| Changing supplier networks | 3 | 7 |
| Changing sales channel | 1 | 1 |
| Adopted safety practices | 67 | 59 |
| Adapted business operations or offered new services | 20 | 10 |

Source: Input Retailers Phone Survey, mid-June and early July 2020

The second most common retailer response to COVID-19 shocks was to reduce inputs offered on credit, which declined from 25 percent in mid-June to 18 percent in early July. This is a reasonable response considering that a large share of input retailers report difficulties collecting repayments on the credit they lent out (Figure 1).

The third most common response was to adapt business operations or offer new services. Twenty percent of retailers in mid-June noted that they had adapted their business operations versus 10 percent in early July. Table 4 shows more details on these adaptations. The largest changes are in the practice of selling and buying over the phone. There is also a decrease in the share of shops offering delivery services. Since the start of these surveys in May, the early July round shows the lowest adoption rates of these business adaptation strategies, indicating that things are returning to ‘business as usual.’ Further research is needed to understand the driving factors behind these changes or, alternatively resistance to change. Lower fertilizer sales in early July compared to mid-June likely play a role. Fertilizer is purchased in large volumes and accounts for a large share of input retailers’ revenues. As sales decline as crops reach later growth stages by early July, demand for delivery services will be reduced and there will be less need to coordinate sales in advance over the phone.

Table 4. Input retailer business or service adaptations

| Share of retailers adapting business practices or services | mid-June | early July |
|--|----------|------------|
| Buy over the phone | 13 | 6 |
| Sell or take orders over phone | 17 | 6 |
| Offer delivery service | 9 | 5 |
| Use mobile payment when buying | 3 | 1 |
| Use mobile payment when selling | 2 | 1 |

Source: Input Retailers Phone Survey, mid-June and early July 2020

To help provide a more comprehensive picture of technology use among input retailers, we asked respondents about their adoption of mobile phones for sales, purchases, and mobile payments.

Table 5 shows that mobile phone use to coordinate input purchases from their suppliers is nearly ubiquitous. Using mobile phones to sell or take orders from farmers is also a common practice. However, even for those adopting this practice, face-to-face sales are still the most common method as the median use rate of using phones to sell or take orders is only 20 percent over the past two months. Mobile payments (including bank transfers) are relatively less common. The median use rate among adopters is much higher for payments out compared to payments received. The use rate for mobile payment to suppliers is 10 percent higher on average than at the same time last year (a statistically significant change), but changes in use rates for other technologies are not statistically significant. Asymmetric results between upstream, i.e., input suppliers, and downstream, i.e., farmers, point to a need for both sides of sales transactions to be ready to adopt mobile phone technologies. For input suppliers, using mobile phones may be a small business adaptation. However, for farmers, it is a dramatic shift away from the face-to-face transactions to which they are long accustomed.

Table 5. Input retailer technology adoption, median use rate in the past two months, and expected use changes in the next year

| | Ever used | Median use rate in last two months, if ever used | Share expecting change in use in next year | |
|----------------------------------|-----------|--|--|----------|
| | | | Increase | Decrease |
| Buy over the phone | 98 | 100 | 10 | 2 |
| Sell or take orders over phone | 62 | 20 | 14 | 2 |
| Use mobile payment for purchases | 28 | 50 | 13 | 1 |
| Use mobile payment for sales | 12 | 10 | 5 | 1 |

Source: Input Retailers Phone Survey, early July 2020.

Policy recommendations

Based on the results from phone surveys with agricultural input retailers in five states and regions, we recommend the following three policies to mitigate the economic impacts of the COVID-19 crisis on the agricultural input retail sector in Myanmar.

- First, the government should take steps to mitigate cash-flow effects adversely affecting input retail businesses from low demand for inputs and from difficulties they face in collecting repayment from farmers on credit lent out.
- Two policies that would support input retailers are extending working capital loan support (Action 2.1.1 of the COVID 19 Economic Relief Plan (CERP) of the government of Myanmar) and removing or delaying payments of business taxes and fees (CERP 2.1.3).⁵
- The third recommended policy is promoting mobile banking applications among input retailers and farmers. This could be done partly through extension services and information campaigns. Input retailers have demonstrated a willingness to adopt mobile phone technologies in response to the COVID-19 economic crisis. They now may be more receptive to messages promoting digitization, which would have lasting benefits for the input retail business. A more powerful tool than extension to promote mobile banking may be the Myanmar Agricultural Development Bank (MADB). Thus, MADB should make mobile banking an option both for loan delivery and repayment. Once implemented, mobile banking could be incentivized with a promotional interest rate below the rate for cash loans.

⁵ Government of the Republic of the Union of Myanmar. (2020). *Overcoming as One: COVID-19 Economic Relief Plan*. Nay Pyi Taw: Government of the Republic of the Union of Myanmar.

ABOUT THE AUTHOR(S)

Joseph Goeb is a Research Associate in the Department of Agricultural, Food, and Resource Economics of Michigan State University (MSU), based in Yangon. **A Myint Zu** is a Consultant with MSU, based in Yangon. **Nang Lun Kham Synt** is a Research Assistant with the Development Strategy and Governance Division of the International Food Policy Research Institute, based in Yangon. **Duncan Boughton** is a Professor of International Development at MSU, Policy Advisor for the Ministry of Agriculture, Livestock, and Irrigation of the government of Myanmar, and a lecturer at Yezin Agricultural University, based in Nay Pyi Taw, Myanmar. **Mywish K. Maredia** is a Professor of International Development in the Department of Agricultural, Food, and Resource Economics at MSU, based in East Lansing, MI, USA.

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**INTERNATIONAL FOOD POLICY RESEARCH
INSTITUTE**
1201 Eye St, NW | Washington, DC 20005 USA
T. +1-202-862-5600 | F. +1-202-862-5606
ifpri@cgiar.org
www.ifpri.org | www.ifpri.info

IFPRI-MYANMAR
No. 99-E6 U Aung Kein Lane
Than Lwin Road, Bahan Township
Yangon, Myanmar
IFPRI-Myanmar@cgiar.org
www.myanmar.ifpri.info



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