



Monitoring the Agri-food System in Myanmar

Agricultural Input Retailers – June 2021 survey round

To understand the effects of recent disruptions on Myanmar's agricultural input sector, a phone survey of input retailers was conducted in June 2021.

Key findings

- Prices of key agricultural inputs—fertilizer, pesticides, maize seed, and vegetable seed—are higher in June 2021 compared to June 2020 during the first wave of COVID-19. On average, urea fertilizer prices are 52 percent higher and compound fertilizer prices are 29 percent higher.
- Reported input sales are much lower in June 2021 than in June 2020, with fertilizer sales volumes 48 percent lower on average and maize seed 39 percent lower on average.
- There continue to be widespread business disruptions stemming from political instability. Issues in the banking sector are the biggest disruption for 75 percent of our sample, though 84 percent also reported higher transportation costs.
- Nearly two-thirds of interviewed input retailers have offered inputs on credit to farmers this monsoon season. However, 79 percent intend to decrease their total value of credit compared to last year. Only 22 percent of input retailers reported that farmers in their area received MADB loans for the 2021 monsoon season.
- During the third wave of COVID-19 in Myanmar, adoption of safety practices is much lower than during the first wave. Sixty percent of input retailers adopted at least one practice, but only 44 percent were regularly washing their hands and only 47 percent were wearing masks.
- Higher input costs and lower access to credit will likely result in lower purchased input use and lower yields for monsoon crops. Measures to support combine harvesting and post-harvest management (e.g., drying) could help minimize further yield loss.

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, economic shocks to the input retail sector have major implications for rural household welfare as well as for food security.

In this Research Note, we present results and analysis of recent economic disruptions on agricultural input retailers from a telephone panel survey of 136 retailers in Shan, Kachin, Bago, Ayeyarwady, Sagaing, and Mandalay conducted in June 2021 (Table 1). This note examines (i) disruptions caused by the political and COVID-19 crises, (ii) responses to these disruptions, and (iii) sales quantities and prices of fertilizer, maize seed, vegetable seed, and pesticides. We show that banking and payment disruptions observed in March have persisted, with input retailers relying heavily on cash for input purchases and sales. There is a large increase in demand from farmers for inputs on credit, and while nearly two-thirds of input retailers have provided inputs on credit this year, 79 percent of them intend to decrease the total value of loans in the 2021 monsoon season. In general, business disruptions and input prices have increased markedly compared to the same period last year. Alarming, prices of urea and compound fertilizer have increased by 50 percent and 33 percent, respectively, and sales volumes have declined as a result.

Table 1. Input retailer sample and inputs sold by agro-ecological zone and state/region

	All	Hills Shan	Kachin	Bago	Delta Ayeyarwady	Dry Zone Sagaing	Mandalay
Active input retailers in June 2021	136	42	7	31	23	14	19
Common sample with March 2021	77	30	3	13	8	9	14
Common sample with June 2020	134	41	7	31	23	14	18

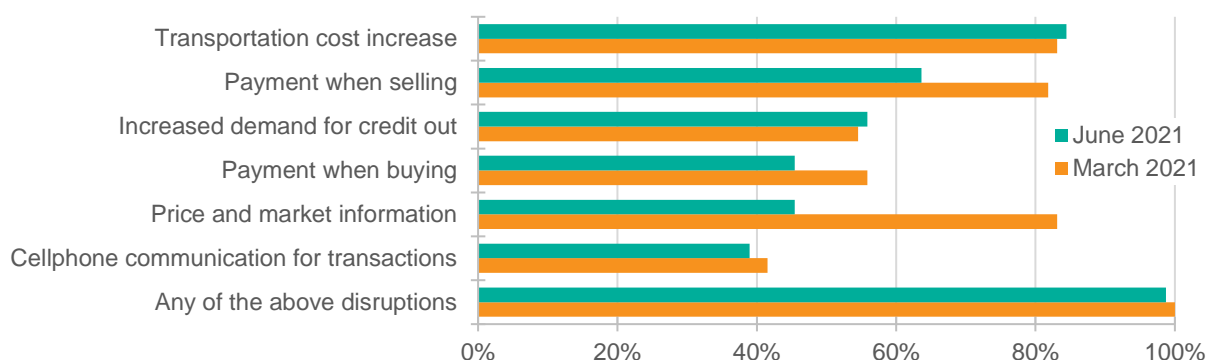
Source: Input Retailer Phone Survey, June 2021, March 2021, and June 2020 survey rounds.

The June 2021 survey is a continuation of a panel survey that began in June 2020, during the first wave of COVID-19 in Myanmar. Each of the seven survey rounds has called the same sample of input retailers, though the sample size varied based on voluntary participation and seasonality in input sales. For the analysis in this note, we make comparisons to two prior survey rounds using information only from the common shops interviewed in each round to mitigate potential biases in sample fluctuations across rounds. To track changes in disruptions during the current political instability, we compare data from June 2021 to data from March 2021 for the 77 retailers interviewed in both periods. We also evaluate the current disruptions to input retail relative to those one year ago during the first wave of COVID-19 by comparing data from June 2021 to June 2020 for the 134 retailers interviewed in both periods.

Effects of economic disruptions on input retailers

To understand the effects of recent economic disruptions on input retailers, we asked whether businesses had been affected by a list of potential shocks. Some disruptions that emerged during the political crisis were not major problems during the early periods of COVID-19. Figure 1 displays the comparisons in shocks between March and June 2021. Overall, there were still widespread disruptions in the June survey and the shares of retailers experiencing increased transportation costs (84 percent), higher demand for credit from farmers (56 percent), and difficulties communicating by cellphone (39 percent) were similar to their March levels. However, there were improvements in obtaining price and market information as cellphone internet services were restored in April, albeit with continued restrictions on some websites and applications.

Figure 1. Disruptions experienced by input retailers, comparisons between March and June 2021, percentage reporting

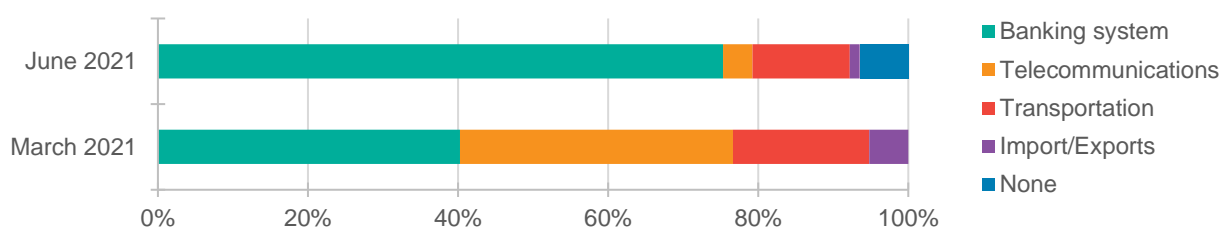


Source: Input Retailer Phone Survey, June and March 2021 survey rounds.

Note: Sample restricted to retailers included in both survey rounds. N=77.

Disruptions in payments—both to buy and to sell inputs—also declined slightly between March and June. However, the banking system remained the main obstacle in June for 75 percent of input retailers, which is up from 40 percent in March (Figure 2), and partly reflects a decline in the share of retailers experiencing telecommunication disruptions.

Figure 2. Most significant business disruption experienced by input retailers in March and June 2021, percentage reporting



Source: Input Retailer Phone Survey, March and June 2021 survey rounds.

Note: Sample restricted to retailers included in both survey rounds. N=77.

To better understand the business responses to disruption in banking, we asked input retailers how they paid for inputs from suppliers and how they received payments from farmers. While bank transfers were the most common means of payment for new inventory in the month prior to the political disruption, this method was no longer possible after February 1; there has been a heavy reliance on cash transactions since February (Table 2). In June, 85 percent of all input purchases and 94 percent of all input sales were conducted in cash. While cash sales to farmers were most common even before February 1, less than 30 percent of input purchases were in cash in January 2021. With the current difficulties and restrictions on cash withdrawals, there is a larger financial burden on retailers, many of whom are small enterprises that may be cash constrained.

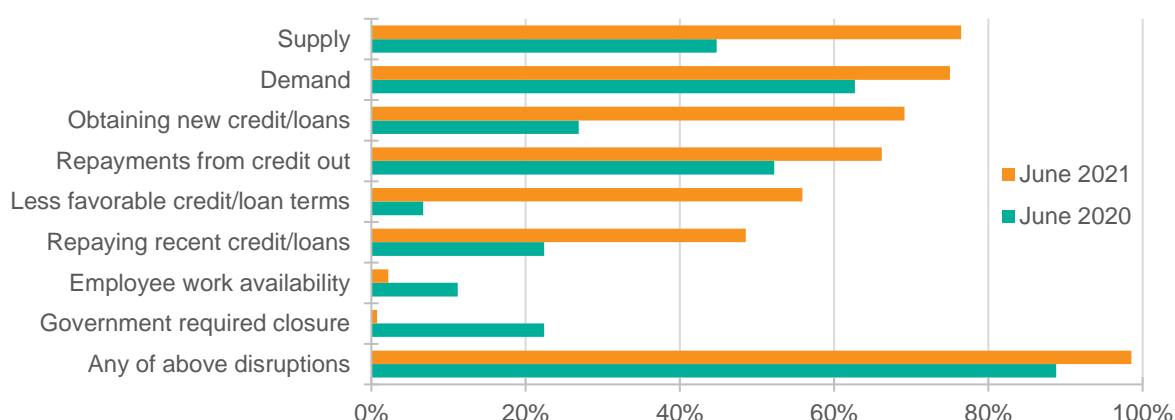
Table 2. Changes in payment methods by input retailers, percentage reporting

	Buying (%)			Selling (%)		
	January 2021	March 2021	June 2021	January 2021	March 2021	June 2021
Cash	29	64	85	87	90	94
Bank transfer in-person	59	1	4	6	0	2
Mobile payment	7	10	2	3	1	1
Hundi	0	13	9	0	2	3

Source: Input retailers phone survey June and March 2021 survey rounds. Sample restricted to panel observations common across both rounds: N= 77

The types of disruption experienced by input retailers were quite different in June 2021 compared to June 2020 (Figure 3). Three out of four input retailers experienced general disruptions to demand and supply in June 2021, compared to 45 percent and 63 percent, respectively, in June 2020. Strikingly, disruptions to finance (i.e., credit or loans) were much more pronounced in 2021, with increases to challenges in obtaining new credit or loans (69 percent this year compared to 27 percent last year), collecting repayments from farmers for credit lent out (66 percent compared to 52 percent), less favorable credit/loan terms (56 percent compared to 7 percent), and repaying recent credit/loans (49 percent compared to 22 percent). Overall, with the exceptions of employee availability and required closures, disruptions are much more common now than during the first wave of COVID-19.

Figure 3. Additional input retail disruptions, comparisons between June 2021 and June 2020, percent of retailers



Source: Input Retailer Phone Survey, June 2021 and June 2020 survey rounds.
Note: Sample restricted to retailers included in both survey rounds. N=134.

To better understand agricultural lending to farmers, we asked a series of focused questions. Nearly two-thirds of our sample had credit lent out to farmers in June 2021 (Table 3). Strikingly, eight out of ten input retailers expect to decrease the value of credit offered to farmers in the 2021 monsoon season relative to 2020, and only one retailer plans to increase their credit out. Among those lending this season, 82 percent experienced late repayments from the previous season, though 71 percent expect to be fully repaid eventually.

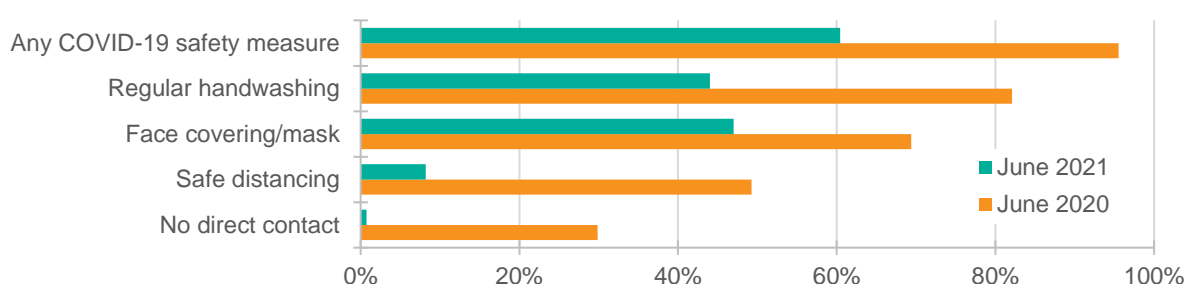
Farmers also appear to have limited access to alternative sources of credit/loans. The Myanmar Agricultural Development Bank (MADB) is the main source of agricultural credit, yet only 22 percent of retailers reported that farmers in their area had received MADB loans for the 2021 monsoon season. Access to MADB loans varies by state/region. In Sagaing, half of input retailers reported farmer access to MADB loans, compared to about one-fifth of the sample in Shan, Bago, and Ayeyarwady, and just one in seven and one in 19 retailers in Kachin and Mandalay, respectively. Other sources of credit, including NGOs, microfinance institutions, and private money lenders, were even less common.

Table 3. Input retailer assessments of farmer credit provision, June 2021

	% reporting
Offering credit to farmers in June 2021 (%)	64
Among input retailers offering credit (64%; N=87)	
Any credit past due or late to repay	82
Expect to be repaid fully	71
Expected change in total credit out to farmers for the monsoon season in 2021 relative to 2020	
Decrease	79
Similar amount	20
Increase	1
Have farmers near you received MADB monsoon season loans?	
Yes	22
No	78
If no MADB loans, are farmers able to access other sources of credit/lending?	
Yes	24
No	76
If no MADB loans, main sources of other credit/loans	
NGO/MFI	13
Private money lenders	9
Friends/relatives	4

Source: Input retailers phone survey – June 2021 round. N=136

Though the number of confirmed COVID-19 cases has increased in Myanmar and more contagious virus variants have begun to spread in the country, adoption of safety practices declined sharply relative to June 2020 (Figure 4).^{1,2} Only 60 percent of the sample adopted at least one safety measure in June 2021 compared to 96 percent in June 2020. Handwashing and face coverings are still the most common mitigation efforts, though they were employed by less than half of the shops. Furthermore, distancing and avoiding direct contact were practiced by less than 10 percent of shops.

Figure 4. COVID-19 safety practices in June 2021 and June 2020, percentage reporting

Source: Input retailers phone survey, June 2021 and June 2020 survey rounds. N= 134

There was also a large shift in the primary sources of COVID-19 information compared to last year (Table 4). Only 14 percent of the sample relied on government sources in June 2021 compared to 56 percent in June 2020. Facebook—which can now only be accessed via virtual private network—was the main source of information for both COVID-19 (63 percent) and political unrest (71 percent).

¹ Frontier Myanmar. 2021. "Fighting new COVID-19 variants amid turmoil and resistance."

² The Irrawaddy. 2021. "Myanmar reports record number of new COVID-19 cases."

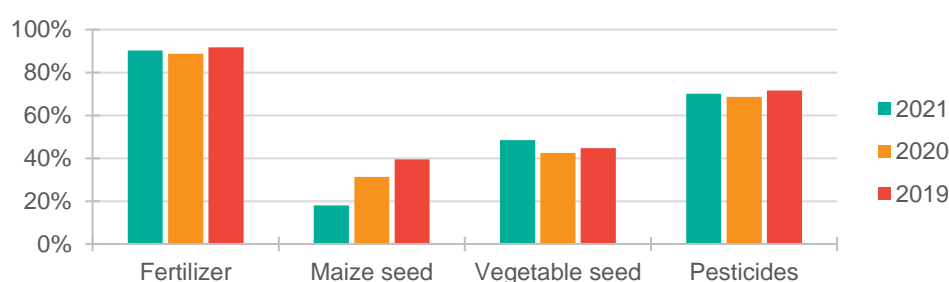
Table 4. Input retailer sources of information, percentage reporting

	COVID-19 information (%)		Political unrest information (%)
	Jun-21	Jun-20	Jun-21
Non-government sources			
Neighbors, friends, family	1	4	5
Facebook	63	24	71
Radio	0	0	1
Internet	7	2	6
Television	10	13	7
Other non-government	4	1	0
Government sources			
Facebook page (e.g., MOHS)	11	46	6
GAD	1	10	1
Extension agents	3	0	1
Observations (N)	134	134	136

Source: Input retailers phone survey June 2021 and June 2020 survey rounds

Changes in inputs sold, prices, and sales quantities

In each survey round, we asked questions about sales quantities and prices for four important types of inputs that are commonly sold by our sample of retailers: fertilizer, pesticides, maize seed, and vegetable seed. Figure 5 displays the shares of retailers selling each input type in June for each of the past three years (2019 information is recall data from the June 2020 survey). The shares of retailers selling fertilizer, vegetable seed, and pesticides have been relatively stable. There were small dips in each during the first wave of COVID-19, but they have rebounded in June 2021 to near 2019 levels. Maize seed, however, shows a steep decline over the past three years, going from 40 percent in 2019 to 31 percent in 2020 and just 18 percent this year. Maize prices have been relatively stable during the COVID-19 pandemic, with strong demand from Thailand. Thus, lower share of retailers selling maize seed this year likely reflects other challenges, including supply constraints on imported CP maize seed from Thailand—the leading maize seed source.

Figure 5. Products sold by input retailers in June 2019-21

Source: Input Retailer Phone Survey, June 2021 and June 2020.

Note: Sample restricted to retailers included in both survey rounds. N=134.

To understand how input prices have changed compared to last year, we asked retailers for the prices of their best-selling input in each category—with fertilizer split by urea and compound types—in June 2021, with recall for the same product in June 2020 (Table 5). In each input category, average prices are higher this monsoon season than last year, but fertilizer prices show alarming increases. Compound fertilizer prices increased by 29 percent on average, while urea prices show the largest increase of 52 percent on average, with all but one retailer reporting higher prices.

Table 5. percentage price changes by input categories in June 2021 relative to June 2020

	Urea fertilizer	Compound fertilizer	Maize seed	Vegetable seed	Pesticides
Percentage change in prices					
Mean	+52	+29	+22	+11	+20
Median	+51	+26	+22	+6	+18
Share with price increase	99	95	100	59	84
Observations (N)	112	117	21	58	79

Source: Input Retailer Phone Survey, June 2021.

To track quantity changes over time, we asked retailers about their sales volumes in the two weeks prior to interview for each input category with recall to the same period last year. As expected with the observed large price increases, sales volumes have declined markedly. Our sample reported a 50 percent average decline in fertilizer sales with 85 percent reporting negative year-on-year changes. Maize seed and pesticides also show large average sales declines of 39 percent and 33 percent, respectively, while vegetable seed sales show a smaller but still meaningful decline of 10 percent.

Supply chain disruptions were common for all inputs with at least 31 percent of suppliers reporting longer procurement times and at least 25 percent changing their products/varieties of inputs sold due to supply changes (Table 6). Maize seed supply changes are the most pronounced with three-quarters of retailers reporting longer procurement times and more than half changing their products sold. Considering the supply challenges, we asked retailers how maize farmers are responding to the decline of maize seed sales. Over half reported that farmers are shifting demand to lower priced varieties and, concerning, 38 percent reported that farmers are cultivating less maize area.

Table 6. Changes in procurement times, varieties, and sales volumes by input category in June 2021 relative to June 2020

	Fertilizer (%)	Maize seed (%)	Vegetable seed (%)	Pesticides (%)
Share selling in June 2021	90	18	49	70
Among retailers selling each input				
Share procuring stock in last 30 days	74	82	67	65
Share experiencing longer procurement times in the last 30 days compared to last year	33	75	33	31
Share changing varieties/types due to supply challenges	36	55	25	32
Share with lower sales volumes compared to 2020	85	83	62	77
Percentage sales changes compared to 2020				
Mean	-48	-39	-10	-33
Median	-50	-51	-25	-40

Source: Input Retailer Phone Survey, June 2021.

Looking forward

Rising input costs and lower credit availability have led to significantly lower sales of fertilizer, seed, and pesticides to farmers. This will lead to lower monsoon yields of paddy and maize. Lower farmer production will also have impacts on business for traders and processors, including rice millers and feed manufacturers. Additionally, the lack of adherence to COVID-19 preventive measures during Myanmar's third wave of the pandemic is particularly worrisome. It will be important to ensure farmers have access to combine harvesting for paddy and to good post-harvest crop management for paddy and maize, especially drying facilities, to minimize losses. Access to formal credit through MADB should also be expanded for the post-monsoon cropping season to help compensate for low monsoon season production.

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