

Monitoring the Agri-food System in Myanmar

Agricultural Input Retailers – September 2021 survey round

To understand the effects of COVID-19 and political instability on Myanmar's agricultural input sector, a phone survey of 123 input retailers throughout the country was conducted in September 2021.

Key findings

- Input prices, especially fertilizer, have soared compared to a year ago due to a combination of higher international prices, depreciation of the Myanmar Kyat, and higher freight and domestic transport costs.
- Faced with price increases of 76 percent on average for compound fertilizer and 132 percent for urea (compared to a year ago), farmers reduced their purchases by 38 percent and 42 percent, respectively.
- If the decline in fertilizer sales is extended to all of Myanmar, estimated monsoon crop production may fall by 8 percent to 12 percent, equivalent to between \$670 million and \$1 billion at 2017 prices.

Recommendations

- The post-monsoon cropping season will be an important opportunity to partially compensate for lower monsoon season production. There is no indication that international fertilizer prices will fall significantly before planting time, however. A combination of temporary fertilizer subsidies and expanded seasonal credit will likely be necessary to encourage farmers to increase crop production.

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 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 123 retailers in Shan, Kachin, Bago, Ayeyarwady, Sagaing, and Mandalay conducted in September 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.

Table 1. Input retailer sample by agro-ecological zone

	# of respondents
All	123
Hills	43
Delta	44
Dry Zone	36

Source: Agricultural input retailer phone survey–September 2021 round

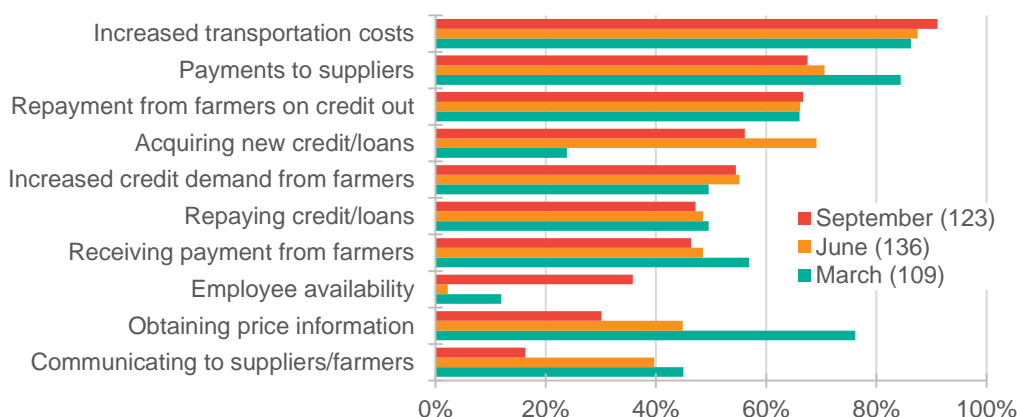
The September 2021 survey is a continuation of a panel survey that began in June 2020 during the first wave of COVID-19 in Myanmar. Each of the eight survey rounds has called the same sample of input retailers, though the sample size varies based on voluntary participation and seasonality in input sales. For the analysis in this note, we make comparisons to the two prior survey rounds in June 2021 and in March 2021 using information from all 123 respondents in the September round.¹

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. Figure 1 shows comparisons in these shocks over time (March, June, and September 2021). The share of retailers experiencing increased transportation costs rose to over 90 percent, reflecting higher fuel prices. Access to credit and the ability to make payments to suppliers improved slightly between June and September but remained a constraint for more than half of all input retailers. Increased demand for credit from farmers and difficulties recovering credit provided to them also remained a problem for half the input retailers. Communications with clients and suppliers improved steadily over the six-month period, as did access to information. Over a third of input retailers faced difficulties related to employee availability after the government imposed “holidays” to prevent the spread of the COVID-19 Delta variant. In sum, retailers continued to face multiple constraints to their businesses.

¹ Out of the 123 respondents in the September round, half were also respondents in June and March. The response patterns between retailers responding in all three rounds and retailers responding in one or two rounds are very similar.

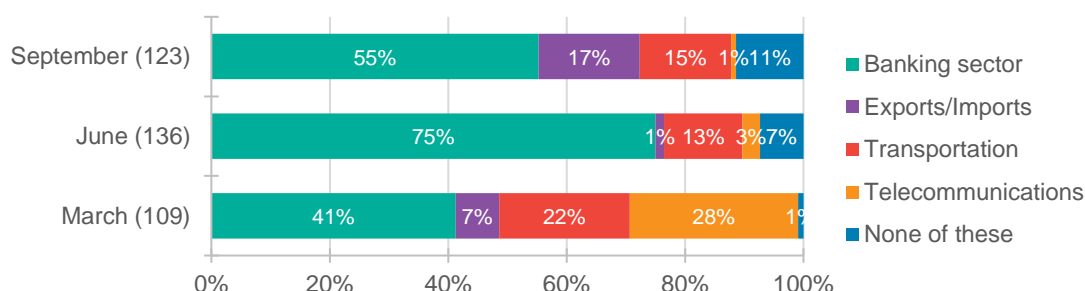
Figure 1. Disruptions experienced by input retailers by month, percentage reporting



Sources: Agricultural input retailer phone survey–March, June, and September 2021 rounds

A dysfunctional banking system was still the main obstacle in September for 55 percent of input retailers (Figure 2). There was some improvement compared to June but the share reporting was still much greater than in March. Difficulties in export/import of inputs² and increases in transportation costs were the most significant disruption for 17 percent and 15 percent of retailers, respectively. These difficulties reflect the rapid depreciation of the Myanmar Kyat³ combined with increases in international prices of fuel and fertilizer which roiled the foreign exchange market and compounded inflation in local prices.

Figure 2. Most significant disruption experienced by input retailers by month, percentage reporting



Sources: Agricultural input retailer phone survey–March, June, and September 2021 rounds

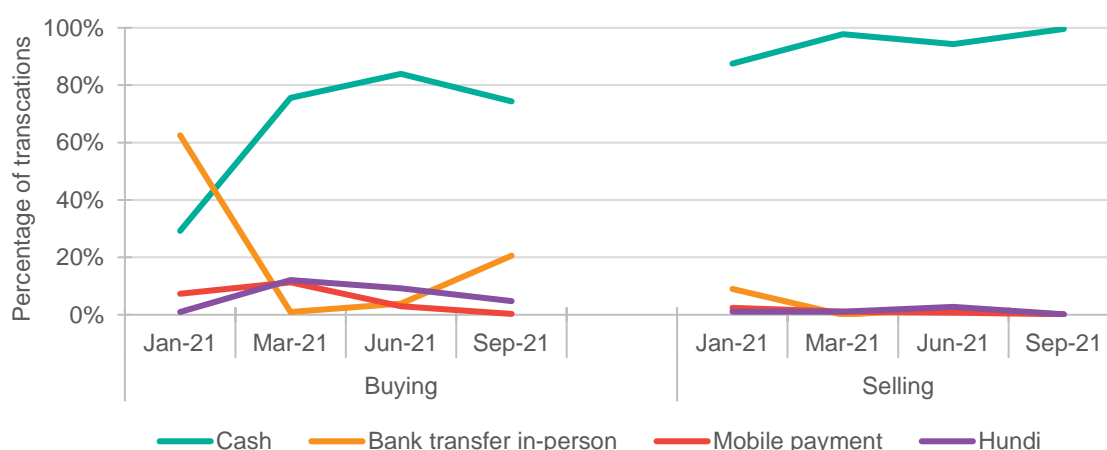
Banking system difficulties are reflected in the high proportion of payments to suppliers made in cash, even with some improvement in the share of retailers able to make in-bank transfers and reduce dependence on the Hundi system⁴ (Figure 3). Retail sales, already predominantly cash-based in previous survey rounds, were universally so by September. The use of mobile banking services by both retailers and their customers has effectively ceased.

² Myanmar imports most of its fertilizer, maize seed, and pesticides.

³ <https://www.frontiermyanmar.net/en/the-currency-crisis-and-why-we-should-brace-for-stagflation/>

⁴ An informal money exchange network in which paying a middleman allows for payment to be made by an agent in a different location.

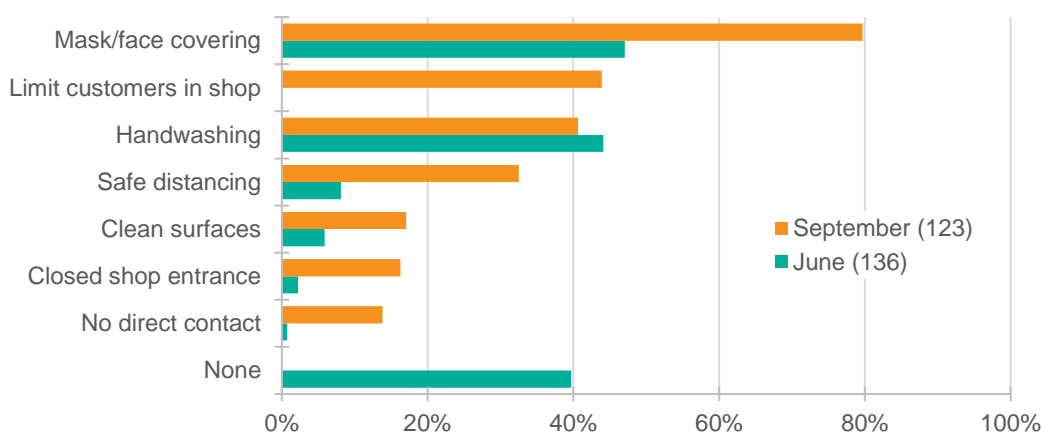
Figure 3. Transaction method used by input retailers for buying and selling, by survey round and transaction type



Sources: Agricultural input retailer phone survey–March, June, and September 2021 rounds

The surge in COVID-19 infections associated with the Delta variant saw a major response on the part of retailers to adopt health measures (Figure 4). For the first time since surveys began, all input retailers employed some type of health protection. The use of masks increased from just under half of all retailers in June to 80 percent in September. Over 40 percent of retailers limited the number of customers in their facilities while a third practiced safe distancing.

Figure 4. COVID-19 Prevention Measures, percentage adopting



Sources: Agricultural input retailer phone survey–June and September 2021 rounds

Changes in inputs sold, prices, and sales quantities

Large increases in international prices, especially fertilizer, combined with Myanmar Kyat depreciation, have resulted in extremely high increases in prices to farmers for the monsoon season. At the same time, credit availability has diminished. As a result, farmers have sharply curtailed input purchases, especially fertilizer.

Global price increases for fertilizer have averaged 69 percent over the past year due to a combination of high demand and increases in the cost of raw material ([Commodity Markets \(worldbank.org\)](https://www.worldbank.org/)). When combined with currency devaluation and higher transport costs, farmers faced increases of 76 percent for compound fertilizer and 123 percent for urea compared to a year ago (Table 2). Sales dropped by 38 percent and 42 percent for compound and urea fertilizer, respectively.⁵ Maize seed sales also dropped by 22 percent in response to a 75 percent price

⁵ Author calculations from retailer reported sales volumes for the 2021 and 2020 monsoon seasons.

increase and decline in credit. Vegetable seeds were the least affected in terms of prices, rising by 18 percent. Pesticide sales dropped by only 2 percent despite an average increase of 37 percent. This suggests that, faced with highly constrained input budgets, farmers were more concerned about losses from pests than yield foregone by reduction in fertilizer use. Input retailers were most likely to attribute price increases to political stability.

Table 2. Input sales and prices average year-on-year percentage changes and main reasons

	Urea	Compound	Maize seed	Vegetable seed	Pesticides
Share selling in monsoon season (%)					
2021	89	88	30	45	77
2020	93	93	35	44	79
Average % change in total monsoon season sales	-42	-38	-22	-7	-2
Average % change in prices, Sept 2021 to Sept 2020	123	76	75	18	37
Main reason for price changes (%)					
Political instability	80	82	63	76	69
COVID-19	6	7	11	2	12
Exports/import disruptions	9	8	17	6	12
Others	4	4	9	17	8

Source: Agricultural input retailer phone survey–September 2021 round

The year-on-year average increase in transport costs of 46 percent is an important factor contributing to input prices, especially for fertilizer (Table 3). Local (within township) transport costs increased at a much smaller rate than long-haul transporters, possibly due to difficulties faced by the latter in finding return cargo and in curfews and restrictions at multiple levels—village tracts, townships, and states/regions. Transport costs increased the most in the Delta region. Additionally, 26 percent of retailers reported transportation as more difficult to find besides being more expensive.

Table 3. Input retailer year-on-year percentage change in hired transport costs by distance and AEZ

	%
Share hiring transport in September 2021	67
Average year-on-year increase in transport costs by distance (%)	
Overall	46
Within township	20
Different township	53
Different state/region	47
Average year-on-year increase in transport costs by zone (%)	
Hills	40
Dry Zone	46
Delta	52

Source: Agricultural input retailer phone survey–September 2021 round

Input retailers drastically reduced credit made available to farmers for the 2021 monsoon season compared to the previous year. Less than half of all input retailers were willing to offer credit, down from 83 percent in 2020, and median loan size fell by half (Table 4). Only 61 percent expect to be fully repaid ahead of the next monsoon season and 9 percent fear they will never receive full

repayment. The reduction in credit offerings by input retailers is in part due to their own liquidity constraints. Even as new inventory costs rose dramatically the share of retailers able to obtain credit fell by more than half compared to a year ago (from 38 percent to just 18 percent), and the mean size of loan fell by half.

Table 4. Monsoon season credit out and credit in, 2019-2021

	2021	2020	2019
Monsoon season credit out to farmers			
Providing credit to farmers (%)	46	83	72
Conditional total value ('00,000 MMK)			
Average	334	632	639
Median	200	300	400
Average share of credit not yet repaid (%)	84		
When do you expect full repayment? (%)			
Before 2022 monsoon	61		
Next monsoon season or later	30		
Never	9		
Monsoon season credit or loans taken in			
Receiving credit/loans (%)	18	38	34
Conditional total value ('00,000 MMK)			
Average	208	749	914
Median	100	200	300
Average share of credit/loans not yet repaid (%)	85		
When do you expect to fully repay? (%)			
Before 2022 monsoon	67		
Next monsoon season or later	33		
Never	0		

Source: Agricultural input retailer phone survey–September 2021 round

Looking forward

Rising input costs and lower credit availability have led to significantly lower purchases of fertilizer and seed by farmers. If the reported decline in fertilizer sales is extended to all of Myanmar, estimates suggest a decline of monsoon crop production of between 8 percent and 12 percent, worth between \$670 million and \$ 1 billion at 2017 prices ([The outlook for Myanmar's inorganic fertilizer use and 2021 crop harvest: An ex-ante assessment | IFPRI: International Food Policy Research Institute](#)). The reduction in crop production at farm level will also have impacts on business for traders and processors, including rice millers and feed manufacturers. For the post-monsoon cropping season, access to formal credit should be expanded and temporary fertilizer subsidies considered to help compensate for low monsoon season paddy production and keep rice prices for consumers more affordable.

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