



## Monitoring the Agri-food System in Myanmar

### Rice Millers – November 2021 survey round

In November 2021, we surveyed 392 medium- and large-scale rice millers from major rice-growing regions of Myanmar to learn more about the impacts of the COVID-19 crisis and political instability. This report presents important results and analysis from those interviews.

#### Key findings

- Mill activity increased in November as paddy harvesting began. However, monthly throughput among active mills is 11 percent lower than in the same period in 2020. Looking back over the monsoon production season (April-September), reported throughput was also 13 percent lower than in 2020. Looking forward, 57 percent of millers expect lower monsoon harvest season throughput (Oct-Jan) in 2021 relative to 2020, and two-thirds attribute the expected decline to lower paddy harvest volumes in their areas.
- Challenges in the banking sector continue to be salient. Nearly half of interviewed mills report disruptions in making payments for paddy or receiving payments for rice, and 52 percent of mills consider banking disruptions as the most severe. As a result, mills are heavily reliant on cash. In-person bank transfers increased for rice sales transactions relative to September but are still far below half of their 2020 level.
- Sixty-three percent of millers reported increased transportation costs. The average price to transport a bag of rice to Yangon increased by 22 percent in November 2021 compared to November 2020 and reported diesel prices are 72 percent higher than last year.
- Emata paddy prices and milling margins continue to be remarkably stable during this tumultuous time and there are no apparent major price disruptions at the farm or mill-level for Emata rice varieties. Prices declined in November 2021 relative to September following the influx of paddy from monsoon harvests. However, prices of Pawsan rice varieties are 25 percent higher than a year ago. Further, rising transportation costs and a decline in milling throughput will likely lead to higher consumer rice prices for all varieties. Given the huge importance of rice in diets, together with income and employment declines, rice price increases will have outsized negative effects.

#### Recommendations

- Credit guarantees to enable banks or MFIs to expand working capital to the milling sector should be considered to ensure the financial viability of rice milling.
- Easing transport restrictions, stabilizing fuel prices, and continued operation of export markets would bring much needed stability to rice markets while relaxing the financial and production constraints that millers are experiencing.

## Introduction

Rice mills are the primary link in the rice value chain between farmers and consumers. Therefore, it is critical to monitor milling shocks as they will affect both farmers' incomes and urban rice prices. Since June 2020, we have monitored the impact of COVID-19 and political instability on rice millers in Myanmar and this is the tenth Research Note in the series. In this Research Note, we present evidence from interviews with 392 rice millers conducted in November 2021 in Myanmar's three major rice-growing regions—Ayeyarwady, Bago, and Yangon. We present evidence of the current situation in relation to previous survey rounds, including 1) disruptions in milling caused by the political and health crises; 2) changes in operations such as throughput, paddy and rice storage, and working capital; 3) reasons for expected throughput changes in the 2021 monsoon harvest season; and 4) prices of paddy, rice, and byproducts.

## Rice mill sample size and location

From October 27 to November 16, 392 mills were interviewed via telephone, of which 340 (87 percent) were active in the 30 days prior to interview and 52 (13 percent) were inactive (Table 1). The number of inactive mills has dropped compared to September (38 percent inactive). The increase in mill activity is largely driven by seasonality—November is in the monsoon harvest season—though harvests continue through January and 44 percent of inactive mills still reported seasonality as a reason for inactivity. The decline in COVID-19 cases was also cited as a main reason for reduced inactivity (21 percent in November compared to 78 percent in September). In this round, the share of respondents reporting their mills being under repair is unusually high—33 percent, the second most cited reason. Difficulties purchasing paddy (13 percent) and political instability (13 percent) also remained as challenges leading to closures. Even though political instability has risen overall, violent conflict in or near mill villages since February are not common in our sample (7 percent) and only a few respondents were displaced by violence.

**Table 1. Rice miller sample and reasons for inactivity by region**

	All	Ayeyarwady	Bago	Yangon
Total number of interviews	392	197	135	60
Active in Nov 2021	340	164	128	48
Not active in Nov 2021	52	33	7	12
If not active, main reasons not active (% reporting)				
Seasonality	44	49	29	42
Mill under repair	33	36	0	42
COVID-19	21	18	57	8
Difficult to buy paddy	13	9	14	25
Political unrest	13	12	14	17

Source: Miller survey–November 2021 survey round

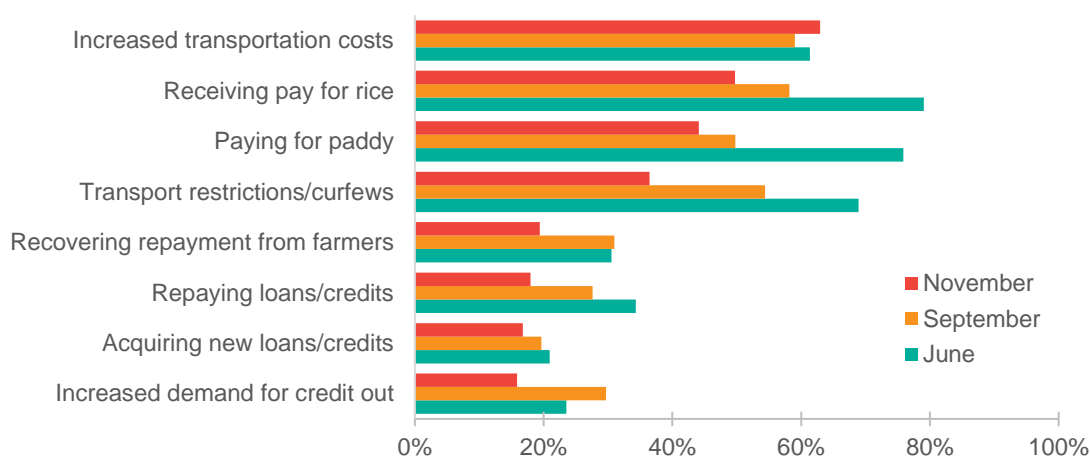
## Disruptions to rice milling

In the November 2021 survey, we continued to ask millers a series of questions on different forms of disruptions faced in the 30 days prior to interview to better evaluate the effects of COVID-19 and political disturbances over time. Disruption levels have mostly decreased since June and September (Figure 1). Yet, the level of business disruption remains high. More than half of the respondents (63 percent) report higher transportation costs and 36 percent report being affected by transportation restrictions/curfews. Other common challenges include disruptions to receiving payment for rice (50 percent) and paying for paddy (44 percent) as well as transportation restrictions (36 percent). On the other hand, difficulties with repayment on credit lent to farmers lessened slightly since

September, likely due to farmer repayment following paddy sales. However, this challenge was still reported by 19 percent of our sample.

Furthermore, all credit related disruptions increased substantially this year compared to last year. The shares of interviewed mills reporting difficulties in (i) collecting repayment on credit given out to farmers; (ii) higher demand for credit out to farmers; (iii) repaying own loans; and (iv) obtaining new loans each rose to at least 17 percent in November 2021 from less than 7 percent in November 2020.

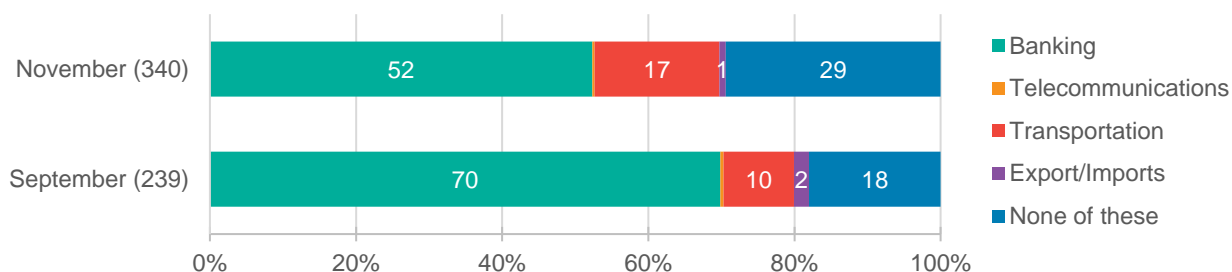
**Figure 1. Disruptions experienced by rice millers in 30 days prior to interview, percentage reporting**



Source: Miller survey—June, September, and November 2021 survey rounds.

To further evaluate these disruptions, we asked millers to identify which group of disruptions they considered to be the most significant. Disruptions to the banking system continue to be the largest challenge for rice millers (58 percent, Figure 2) though they have decreased by 18 percentage points since September. Transportation disruptions are more often cited as the main disruption in November (17 percent up from 10 percent in September). Exports and imports are not a primary concern for millers, though we note that few mills sell directly to exporters and the effects of border closures and trade disruptions are likely more indirect.

**Figure 2. Most significant business disruption experienced, percentage of rice millers reporting**



Source: Miller survey—September and November 2021 survey rounds.

## Rice milling operations changes in response to disruptions

In our surveys, we also included a series of questions to understand how rice mills have responded to these challenges. As a result of banking challenges, millers continue to be heavily reliant on cash. On average, cash transactions account for 96 percent of paddy purchases and 71 percent of rice

sales. In-person bank transfers account for 15 percent of rice sale transactions in November 2021, an increase from September 2021 (7 percent) but a large decline from November 2020 (34 percent).

Following normal seasonal changes, average monthly throughput among active mills increased in November compared to September but compared to last year, throughput in the 30 days prior to interview is down by 11 percent. Total throughput during the monsoon growing season (June through September) was similarly down by 13 percent in 2021 compared to 2020. Paddy and rice storage volumes show comparable declines to throughput, declining by 11 percent and 15 percent, respectively. Looking forward to the full monsoon harvest season, 57 percent of millers expect throughput to be lower this year than last year while 35 percent expect similar throughput. Only 8 percent of millers expect an increase.

**Table 2. Operations, employment, and transportation in November 2021 with comparisons to November 2020, mill-level averages**

	Nov 2020	Nov 2021	% Change
<b>Throughput</b>			
Last 30 days (MT)	449	400	-11
Monsoon growing season (June-Sept, MT)	1,443	1,254	-13
Expected change in monsoon harvest season (Oct-Jan)			
Higher in 2021 (% reporting)		8	
Lower in 2021 (% reporting)		57	
Same (% reporting)		35	
<b>Storage</b>			
Paddy (# of bags)	25,690	22,937	-11
Rice (# of bags)	972	830	-15
<b>Transport</b>			
Cost of transport to Yangon (MMK per 1 bag)	595	726	22
Cost of diesel (MMK per L)	880	1,512	72
<b>Employment</b>			
Permanent employees (#)	7.1	7.0	-1
Daily workers (#)	25	24	-6
Daily wage (male, MMK)	8,094	7,958	-2
<b>Working capital</b>			
Weekly capital to buy paddy ('00,000 MMK)	745	717	-4

Source: Miller survey–November 2021 survey round

Increased transportation cost is the sole disruption in November that was reported by a greater share of respondents than in June and September (Figure 1). Compared to last year, the cost to transport rice to Yangon increased by 22 percent. Fuel prices are a primary driver of the increase as reported diesel prices are 72 percent higher on average.

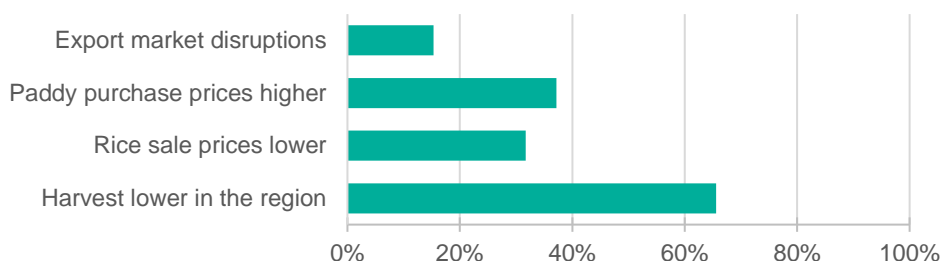
Encouragingly, employment and worker wages among active millers show only small declines in 2021 compared to 2020. Working capital also shows only modest declines. Previous Research Notes document larger declines in working capital. The improvement in November relative to early surveys in 2021 may be explained partly by an increase in activity during the monsoon harvest season and/or adaptations by mills to the current cash-dependent business environment.

Millers are much less likely to be concerned about the COVID-19 crisis in November relative to September–25 percent are at least somewhat concerned in November compared to 86 percent in September. However, adoption of safety practices is still high with 97 percent employing at least one

safety measure and about 90 percent requiring employees to wash hands regularly and wear face coverings.

To better understand the decline in expected throughput for the full 2021 monsoon harvest season, we asked the mills with lower expected throughput about the main reasons for the decline. Two-thirds of mills cite lower paddy production in the region (Figure 3). Higher paddy prices and lower milled rice prices are the second and third most common reasons given (37 and 32 percent, respectively).

**Figure 3. Perceived reasons for lower milling throughput in monsoon harvest season 2021 compared to 2020, percentage reporting among those with lower expected throughput**

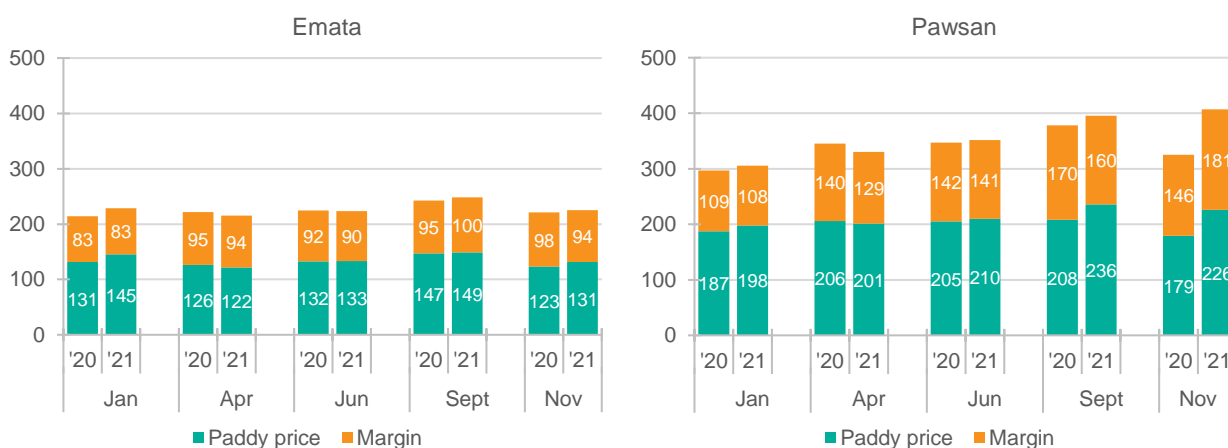


Source: Miller survey— November 2021 survey round

## Price changes over time

In each survey, we collect detailed mill-level price data for paddy, rice, and milling byproducts at the time of interview with recall data back to one year prior. The data allow for simple trend comparisons of paddy prices and milling margins (rice price minus paddy price) over time. We present results here for the two main variety groups: Emata, a main local consumption variety that also accounts for most rice exports; and Pawsan, a higher-priced variety preferred by wealthier urban consumers but with negligible export quantities (Figure 4). Emata varieties are more common in our sample (258 millers sold Emata rice in the November 2021 survey and 26 sold Pawsan)

**Figure 4. Paddy prices and milling margins in January, April, June, September and November 2021, Emata and Pawsan, MMK per pound**



Source: Miller survey—January, April, June, September, and November 2021 survey rounds. Sample sizes in November 2021 survey round: Emata=258, Pawsan=26.

Emata paddy prices and milling margins continue to be remarkably stable during this tumultuous time in Myanmar. Prices declined in November 2021 relative to September following the influx of paddy from monsoon harvests. A similar trend is observed in 2020, though paddy prices are slightly

higher than a year ago. Mill-level rice prices increased as well, though the increase is smaller as milling margins absorbed some of the paddy price change. Overall, there are no apparent major price disruptions at the farm or mill-level of Emata rice varieties.

Surprisingly, Pawsan rice prices increased in November relative to September and the year-on-year changes are more dramatic. Pawsan paddy and milled rice prices are approximately 25 percent higher than in November 2020. We interpret these results with caution as just 26 millers sold Pawsan rice in the November survey round. While we do not know the exact cause of the price increase, it is more likely to be a decline in supply than an increase in demand as urban incomes and employment are lower than in 2020. We contacted several stakeholders to better understand the underlying causes, but there was not a single or consistent reason given. Future research is needed to understand the causes and duration of this price shock. If Pawsan paddy harvests were delayed or had not reached mills at the time of survey, it may be short-lived, but if there were declines in Pawsan acreages planted then it may be a more persistent shock with longer term implications for urban consumers.

In addition to milled rice, sales of milling byproducts, namely broken rice, and rice bran, are an important source of mill revenue and profits. Byproduct marketing has recovered well since April when only 58 percent of mills sold broken rice and bran, respectively (Table 5). The share of millers selling broken rice and bran in November 2021 are close to the 2020 shares but remain 5 and 4 percentage points lower, respectively, while prices of each byproduct are 8 percent higher than November 2020.

**Table 5. Byproduct sales and prices in April, June, September, and November 2021**

	Broken rice				Rice bran			
	April	June	Sept	Nov	April	June	Sept	Nov
Share of mills selling								
2021 (%)	58	77	83	87	58	77	84	88
2020 (%)	89	84	92	92	89	84	94	92
Change (%)	-30	-7	-9	-5	-31	-7	-9	-4
Price (MMK/lb)								
2021	161	166	178	193	100	104	136	133
2020	167	166	170	178	113	116	129	123
Change (%)	-3	0	4	8	-12	-11	5	8

Source: Miller survey—April, June, September, and November 2021 survey rounds.

## Looking forward

Myanmar's rice milling sector continues to show remarkable resilience to the COVID-19 crisis and continued political unrest. Yet, prices of Pawsan at the mill-level are markedly higher than a year ago while rising transportation costs and a decline in milling throughput will likely lead to higher consumer rice prices for all varieties. Given the huge importance of rice in diets together with income and employment declines, rice price increases will have outsized negative effects. Easing transport restrictions, stabilizing fuel prices, and continued operation of export markets would bring much needed stability to rice markets while relaxing the financial and production constraints that millers are experiencing.

Banking and cash challenges along with credit disruptions reported at higher rates than last year place many millers in a difficult financial situation. There are signs of progress as mill working capital has increased as has the share of rice sales conducted in bank transfers, though each is lower than their 2020 level. Millers are thus unlikely to increase credit provision to farmers to pre-COVID-19 levels. Winter and summer lending (42 percent of the average credit provided to farmers by millers



throughout the year) is similar in importance to the monsoon season lending. Together with the continued increase of input prices, this may lead to a cycle of lower paddy production. Credit guarantees to enable banks or MFIs to expand working capital to the milling sector should be considered to ensure the financial viability of rice milling.

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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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