MYANMAR

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Monitoring the Agri-food System in Myanmar

Rice Millers – August 2023 survey round

In August 2023, we surveyed 388 active rice millers from 13 states and regions across Myanmar to learn more about the impacts of the current political and COVID-19 crises. This report presents the key results and analysis from those interviews.

Key findings

- Patterns of reported business disruptions show substantial improvements compared to a year ago, but limited changes since March 2023. Access to electricity remained the most common disruption and was reported to be the biggest challenge by more than half of the sample. Fuel cost, fuel access, and transportation costs were also common disruptions although they are far less common than in August 2022.
- Larger mills mostly use electricity and are therefore most impacted by the persistent electrical supply issues. Yet some have expanded their power sources in the past three years by investing in electricity generators powered by husks or fuel.
- Despite the challenges, milling throughput in 2023 is similar to 2022. However, paddy and rice storage volumes are significantly lower this year, while conditional average amount of credit provided to farmers increased significantly during the 2023 monsoon season.
- Paddy and rice prices continued their rapid upward trajectory that began in mid-2022 and in August were 80 percent higher than one year prior and 2.5 times the price from 2021. The local Myanmar price changes are largely driven by global rice markets and foreign exchange rates.

Looking forward

- Recent policies to keep consumer rice prices low – including efforts to control rice prices and to limit export licensing – along with erratic foreign exchange policies can lead to increased price volatility and uncertainty for farmers, traders, millers, and exporters. If domestic paddy and rice prices fall because of these interventions, millers and farmers are less likely to recover investment costs, pay off debts, and make profits for further investment in next year's productions.

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Introduction

Rice mills are the most important link between farmers and consumers in Myanmar's rice value chain. Mills buy paddy from farmers and process it into rice, and hence, any severe disruptions to rice mills will affect both rural rice-producing households and urban consumers.

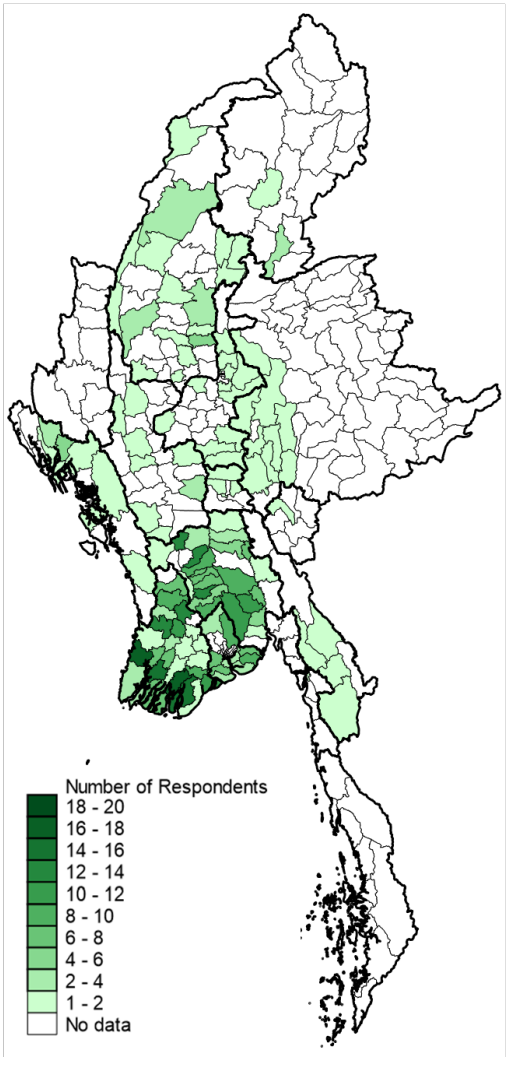
Since June 2020, we have monitored rice millers in Myanmar, and this is the 14th Research Note in the series. In this Research Note, we present evidence from interviews conducted in August 2023 with 388 active rice millers in 125 townships from 13 states and regions. We examine (i) disruptions caused by the current political crisis; (ii) changes in business operations including throughput, employment, paddy stocks, and credit offered/borrowed; and (iii) paddy, rice, and byproduct price changes relative to one year prior.

Rice mill sample

From August 17 to August 27, 503 mills were interviewed via telephone, of which 388 (77 percent) were active in the 30 days prior to the interviews and 115 (23 percent) were inactive (Table 1). [1] The sample is not representative, and limited coverage of the hills regions including less than 10 observations in Kayah, Kayin, Kachin, and northern Shan. As in previous rounds, the sample is mostly medium/large[2] mills (82 percent of the sample) but also traditional small and micro-mills locally known as *Halar Sat* and *Ngar Pone Sat* (18 percent of the sample). These smaller mills play an important role in remote rural communities providing milling services on commissions mostly for household consumption despite having much lower milling capacity.

Normal seasonality was the main reason for inactivity in August, though medium and large-scale millers also cited difficulty in purchasing paddy as a leading reason. Having little cash available and safety issues during crisis were also common, for both mill types (Table 1).

Figure 1. Rice miller sample by township



[1] The sample of active millers reached for phone interviews changes across rounds. To ensure that patterns in the data are not driven by variations in the sample, we conducted a robustness check on all results using only the common sample of mills across relevant survey rounds. Where meaningful differences were found, we present the balanced sample results to remove potential biases.

[2] Medium/large mills are characterized as having a daily throughput capacity of at least 15 MT. Smaller mills are below that threshold.

Table 1. Miller sample, active and inactive, and reasons for inactivity

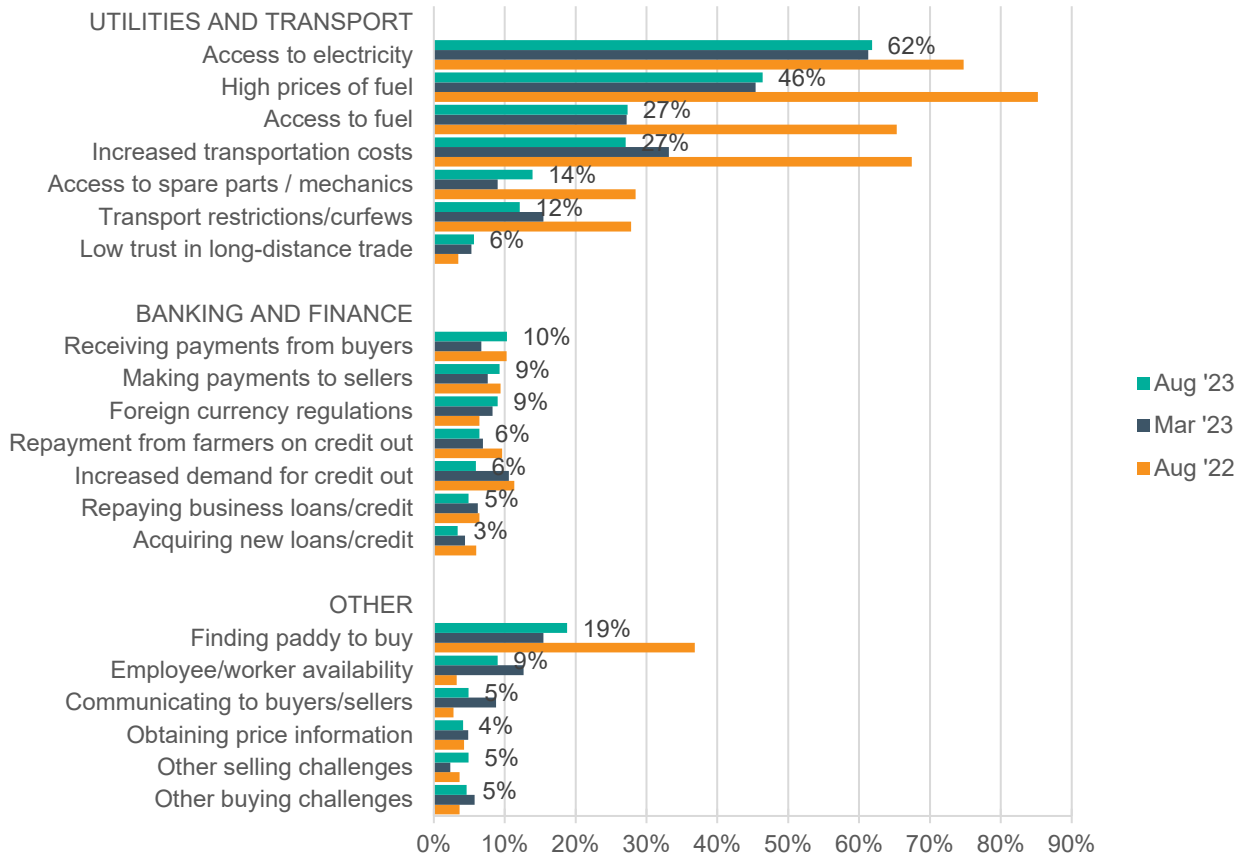
	All	Small/Micro	Medium/Large
Total number	503	87	416
Active in Aug 2023, number	388	69	319
Inactive in Aug 2023, number	115	18	97
If not active, main reasons not active, % of inactive			
Normal seasonality (%)	31	50	28
Unable to buy paddy during crisis (%)	26	6	30
Little cash/credit available to buy (%)	17	17	16
Unsafe during the political crisis (%)	14	22	12
The mill is being repaired (%)	13	0	15
Unable to sell rice during the crisis (%)	10	6	10

Source: Miller survey–August 2023 survey round.

Disruptions to rice milling

As in prior survey rounds we asked rice millers what types of disruption they have experienced in the last 30 days. Reported disruptions in August 2023 show large improvements relative to one year prior, but patterns were generally similar to those from March 2023 (Figure 2).

Figure 2. Disruptions experienced by rice millers in the 30 days prior to interview, percentage reporting

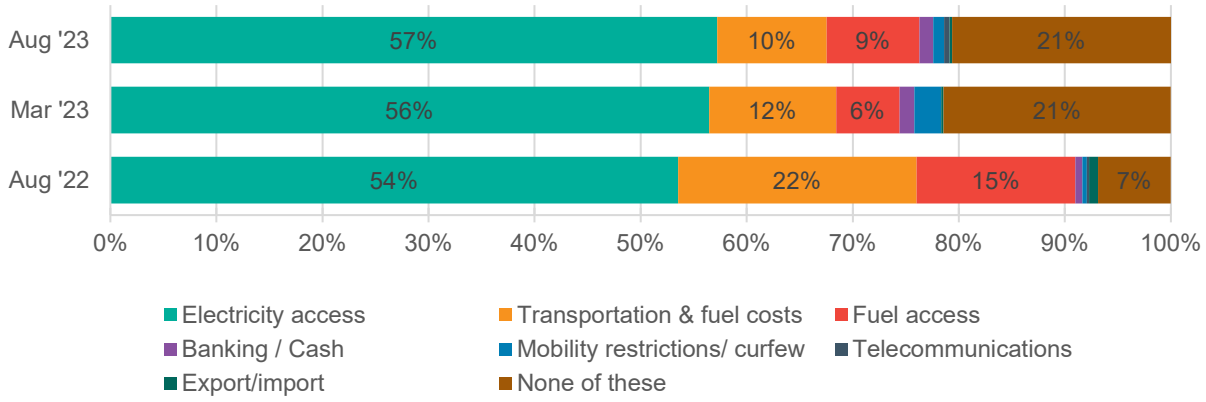


Source: Miller survey–August 2022, March 2023, and August 2023 survey rounds.

Utilities and transport disruptions remain the most prevalent category of challenges faced, with access to electricity being the most common single disruption reported by 62 percent of the sample. Fuel costs (46 percent), fuel access (27 percent), and transportation costs (27 percent) are also common disruptions, though they are much less prevalent than in August 2022. Banking and finance disruptions are less frequent (10 percent or less) and show smaller changes relative to August 2022 and March 2023. The share of millers reporting difficulties buying paddy fell by about half relative to August 2022, suggesting improvements in summer paddy production and supply in 2023 relative to 2022, though almost one in five millers still report those challenges in August 2023.

To better understand the magnitude of disruptions, we asked millers which disruption had the greatest impact on their business. Over half of the sample cite electricity access as their main disruption in August 2023, remarkably similar to the rates in March 2023 and August 2022 (Figure 3). Electricity problems are a much larger issue for modern, larger mills connected to electric grids, whereas small mills are more likely to use diesel-powered equipment and therefore more often report access to fuel and rising fuel prices as their biggest problems. As observed in the March 2023 survey, a high percentage of respondents in August 2023 report that none of these disruptions are very significant, suggesting an acceptance of the environment as the new normal.

Figure 3. Most significant business disruption experienced, percentage of rice millers reporting by survey rounds



Source: Miller survey–August 2023. March 2023, and August 2022 survey rounds

Because so many mills report significant issues with power supply – an essential input into milling operations – we asked additional questions on which power sources millers use in August 2023 with recall back to August 2020.Small/micro mills show no power diversification, in part because changing to electricity would require a qualitative jump to more modern equipment. Although electricity still dominates for larger mills, some have diversified their power sources relative to three years ago. Diesel and husk/gas power use rates have increased by 4 and 5 percentage points, respectively (Table 2). Focusing on only the mills connected to electricity grids, 14 percent also had an alternative (non-grid) power source in 2020. That share has increased to 25 percent in 2023, and more than 15 percent of all the diesel and husk/gas generators owned by millers were purchased in the last two years, a clear response to the electricity supply disruptions. However, many millers report differences in throughput or rice quality under different power sources – 37 percent report higher production under electricity grid power and 38 percent report higher quality rice, likely because they can more reliably operate all of their milling machinery when electrical grid power is available.

Table 2. Share of mills using different power sources, August 2020 and August 2023

	Small/micro			Medium/large		
	Aug '20	Aug '23	% pt	Aug '20	Aug '23	% pt
Electricity grid (%)	31	31	0	69	70	1
Diesel (%)	70	69	-1	22	26	4
Husk/gas (%)	11	11	0	26	31	5

Source: Miller survey–August 2023 survey round

Rice milling operations

A series of questions on milling operations were asked to understand how rice millers have responded to their many challenges. Total throughput in the 30 days prior to interview for medium/large mills increased by 5 percent to 186 MT, but decreased for small/micro mills (Table 3). Medium/large mills reduced storage of paddy by about 1/3rd. With rising prices, mills cannot afford to store paddy for long and thus increase throughput and reduce storage. Both mill types increased their number of hired laborers and daily wages increased to just under 10,000 kyat. However, working capital declined by about one third, suggesting lower volumes of paddy purchased relative to one year prior.

There are only small changes in the percentage of millers providing credit to farmers, but the conditional average amount of credit provided increased significantly. Perhaps miller confidence in high rice prices and somewhat stable market access up to the 2023 monsoon rains enabled millers to increase lending amounts to farmers.

Table 3. Operations, employment, and credit in August 2023 compared to August 2022

	Small / micro mills			Medium / large mills		
	Last year	This year	*% change*	Last year	This year	*% change*
Throughput						
Last 30 days (MT)	60	53	*-12*	177	186	*5*
Storage						
Paddy (# of bags)	-	-	-	12,326	8,486	*-31*
Rice (# of bags)	-	-	-	562	475	*-15*
Employees						
Daily workers (#)	3	5	*67*	13	14	*8*
Daily wage (MMK/day)	7,591	9,985	*32*	7,960	9,670	*21*
Working capital						
Weekly capital to buy paddy ('00,000 MMK)	70	45	*-36*	689	473	*-31*
Milling commission fees						
Fees for milling 108lb bag (MMK)	956	1,329	*39*	1,260	1,448	*15*
Credit lent out						
Share lending out (%)	5	6	*7*	15	13	*-13*
Conditional average amount ('00,000 MMK)	135	478	*254*	573	834	*46*
Credit borrowed in						
Share borrowing (%)	5	2	*-71*	8	8	*0*
Conditional average amount ('00,000 MMK)	181	200	*11*	2,337	2,482	*6*

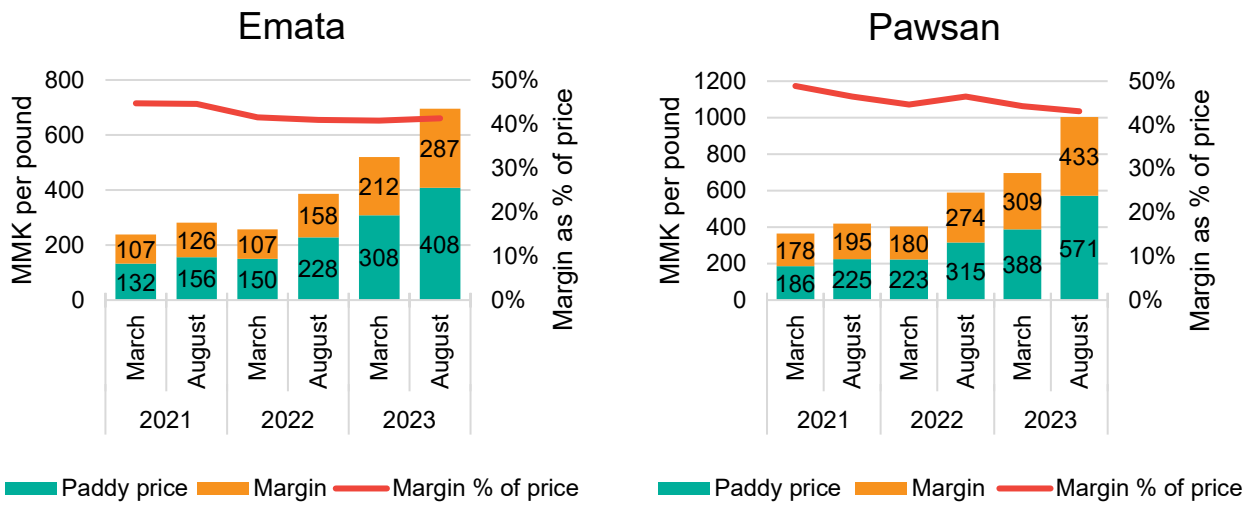
Source: Miller survey–August 2022 and 2023 survey rounds. Storage for small/micro mills omitted for small sample size.

Rice and byproduct price changes and milling margins

An important part of each survey is to collect mill-level price data for paddy, rice, and byproducts. We report findings for the two rice varieties: Emata, the predominant variety for local consumption and exports, and Pawsan, a more expensive type preferred locally by affluent urban consumers but with negligible exports (Figure 4). In our sample, Emata varieties are more common (60 percent millers sold Emata in August 2023 survey while only 17 percent sold Pawsan).

Through the monsoon growing season, paddy and rice prices continued their rapid upward trajectory that began in mid-2022. Emata rice sold at mills averaged 695 kyat per pound in August 2023, an 80 percent increase from one year prior and 2.5 times the price from two years ago. Pawsan prices show a similar pattern. The local Myanmar price changes are driven by global rice markets and foreign exchange rates. The recent ban of most rice exports by India has driven up global prices. However, Myanmar's rice price increases far outpace global markets due to devaluation of the kyat. Importantly, although nominal milling margins have risen, they have grown at slightly slower rates than paddy and rice prices, suggesting that competition in the sector is still generally strong, but also that costs of operating mills have increased and, in percentage terms, mills are absorbing slightly more of the increased prices.

Figure 4. Paddy prices and milling margins in March '21 through August '23



Source: Miller survey–March and August 2022 and March and August 2023 survey rounds.

Byproduct – predominantly broken rice and rice bran – sales are important for mill profits, particularly for larger mills, and their ability to sustain small milling margins for rice. Byproduct prices increased significantly in 2023 (Table 4) for similar reasons as rice prices. Yet, in August 2023, there appears to be a small shift in byproduct markets. Millers are more prone to sell small broken rice (less valuable version) than August 2022, but large broken rice pieces and bran show declines despite rising prices. Quantities of byproducts sold show only minor changes relative to last year.

Table 4. Byproduct sales and prices in August 2022 with recall to August 2021, medium and large-scale mills

	Small / micro mills			Medium / large mills		
	Broken rice - small	Broken rice - large	Bran	Broken rice - small	Broken rice - large	Bran
Share selling byproducts						
August 2023 (%)	48	39	54	73	77	78
August 2022 (%)	30	42	47	68	80	81
August 2021 (%)	32	44	48	74	86	87
Price (MMK/lb)						
August 2023	350	471	350	364	486	395
August 2022	176	232	187	222	287	246
August 2021	124	174	125	145	209	146

Source: Miller survey–August '21, August '22, and August '23 survey rounds.

Looking forward

Electricity supply disruptions continue to challenge rice milling operations, though mills have begun to diversify power sources to lessen the impacts of erratic power supply. Milling margins as a percentage of rice prices remain stable. However, large shifts in global rice prices and the devaluation of the kyat have led to dramatic increases in nominal rice prices in Myanmar. Recent policies to keep consumer rice prices low – including efforts to control rice prices and to limit export licensing – have the potential to disrupt domestic rice markets. Similarly uncertain foreign currency and export policies can lead to increased price volatility and uncertainty for farmers, traders, millers, and exporters. If rice prices fall as a result of these interventions, millers or farmers are less likely to recover investments costs, pay off debts, and make profits for further investment in next year's productions.

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