



Monitoring the Impact of COVID-19 in Myanmar

Rice millers – September 2020 survey round

Joseph Goeb, Phoo Pye Zone, Nang Lun Kham Synt, Ame Cho, and Yulu Tang

To understand how Myanmar's rice value chain has been affected by the COVID-19 crisis, a series of telephone surveys were done with rice millers from Ayeyarwady, Bago, and Yangon. This report presents results from the third round of interviews conducted with 440 rice millers in early to mid-September 2020. This survey round captures the early effects of the second wave of COVID-19 as it began to spread widely across Myanmar. However, it does not capture the effects of the lockdowns that started on 21 September.

Key Findings

- COVID-19 disruptions increased due to early lockdowns and transportation restrictions during the second wave of infections. The largest disruptions reported were in selling rice and buying paddy.
- The share of millers reducing the operating time of their mills increased from 34 percent in early September to 51 percent in mid-September, partly attributable to COVID-19 restrictions but also to seasonal declines in paddy availability.
- Adoption of safety practices decreased in September relative to what was reported in the August survey round despite an increase in COVID-19 cases.
- Over the course of the COVID-19 crisis, about half of the millers reported year-on-year decreases in milling, paddy purchasing, and storage of rice and paddy.
- Rice and paddy prices increased markedly between the August and the September survey rounds, while miller margins remained relatively stable.

Recommended Actions

- Government should coordinate transportation restrictions across and within townships and states/regions to facilitate paddy and rice sales. A coordinated policy allowing freer crop movements would benefit the rural poor as well as urban consumers.
- Safety practices to reduce the spread of the COVID-19 virus should be promoted for all businesses, including rice millers.

Introduction

This is the third policy note in a series presenting the results from rounds of telephone surveys with rice millers in three important rice-growing regions of Myanmar: Ayeyarwady, Bago, and Yangon. Mills are the most important link between farms and consumers in the rice value chain. Thus, any shocks to rice mills will impact both rural rice-producing households as well as urban consumers.

To understand how the COVID-19 crisis and the corresponding policy responses are affecting rice processing businesses, we are conducting a panel telephone survey with rice millers. Interviews have been conducted with the same sample of mills every 30 days starting in July 2020, continuing through the monsoon harvest period, and ending in November. This report presents results from the third survey round conducted in September that collected recall information for the 30 days prior to interview.¹

Interviews were completed in two phases, with the sample randomly divided between the two groups. The first phase was implemented September 1-4, while the second phase was implemented September 14-18. Between these two rounds, due to an increase in COVID-19 cases, the government began mandating stay-at-home orders in selected townships in Yangon and more localized transportation restrictions also increased. First, there were light restrictions under which work commuting was still permitted. These were implemented in seven townships on September 1, and expanded to 28 townships on September 10. The most stringent stay-at-home orders for the entire Yangon region took effect on September 21.

Thus, our interviews of rice millers for the third survey round were all completed before the region-wide lockdowns. Although the mid-September interviews captured some effects of the early lockdowns associated with the second wave of COVID-19, the early September interviews do not capture any effects on rice millers from the lockdown. To investigate the effects of policies to contain the second wave, we present results for the early and mid-September interview groups separately. Doing so will highlight differences from lockdowns and transportation restrictions implemented in the period between when the two rice miller survey groups were interviewed. However, in some cases, we cannot disentangle COVID-19 effects from seasonal changes that are typical in the rice milling sector in September prior to the monsoon season harvests.

The July round of the rice millers survey revealed widespread paddy buying and rice selling disruptions from COVID-19, while the August survey revealed that these disruptions had lessened, though disruptions to buying paddy were still common. The August survey also revealed that 46 percent of operating mills had lower throughput compared to the same time in 2019. In the September survey round, we continued to assess general COVID-19 effects and business responses, and we asked recall questions to understand changes in operations and key activities going back to March 2020.

We conducted interviews with 440 mills in September (Table 1). The share of mills that were temporarily closed increased from July (20 percent) to September (40 percent), largely a result of normal seasonality in milling operations. However, the share increased significantly from early September (33 percent) to mid-September (47 percent), and part of that increase is due to the COVID-19 restrictions from the second wave of infections. In mid-September, 19 percent of temporarily closed mills cited COVID-19 disruptions as the reason for their closure, compared to just 4 percent in early September. As in previous survey rounds, we collected some basic data from both

¹ The results from the first and second round of the survey are reported in:

Goeb, J., P.P. Zone, and Y. Tang. 2020. *Monitoring the Impact of COVID 19 in Myanmar: Rice millers – July 2020 survey round.* [Myanmar SSP Policy Note 26](#). Yangon: International Food Policy Research Institute.

Goeb, J., P.P. Zone, and Y. Tang. 2020. *Monitoring the Impact of COVID 19 in Myanmar: Rice millers – August 2020 survey round.* [Myanmar SSP Policy Note 34](#). Yangon: International Food Policy Research Institute

operating and closed mills. However, our analysis focuses on the 263 operating mills for which we captured detailed information. Note that doing so likely results in an underrepresentation of the impact of the COVID-19 crisis on rice mills as some of the mills that closed likely experienced large disruptions due to the pandemic that will not be fully captured in our data.

Table 1. Number of interviews conducted by survey round

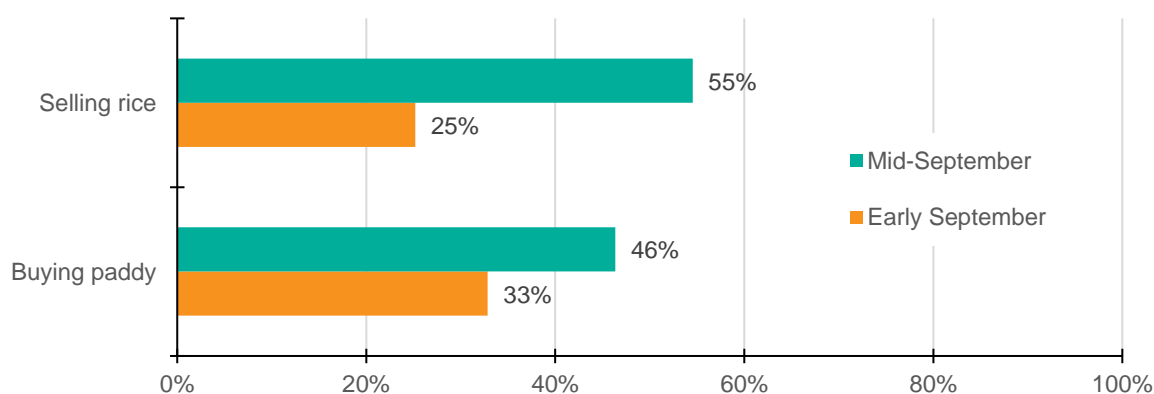
	July	August	September Early	September Mid	Total
Operating mills	324	252	140	123	263
Temporarily closed mills	79	119	70	107	177
Total interviews	403	371	210	230	440

Source: Rice millers telephone survey – July, August, and September 2020 survey rounds

COVID-19 effects on the business operations of rice millers

In the September survey round, we continued to track both the COVID-19 challenges facing rice millers as well as their responses to those challenges in the 30 days prior to interview. As in previous survey rounds, the most common disruptions to milling operations were in buying paddy and selling rice. There were large differences in these disruptions between the early and mid-September interviews which likely reflect the transportation restrictions imposed between survey phases (Figure 1). In early September, 25 percent of millers reported challenges to selling rice and 33 percent of millers reported challenges to buying paddy. However, by mid-September those shares increased markedly to 55 percent and 46 percent, respectively. These effects from the relatively modest lockdowns in early and mid-September suggest that the more severe stay-at-home orders and stricter transportation restrictions implemented later in September, which continued into October and November, have likely caused even larger disruptions. The forthcoming October and November survey rounds will continue to monitor these disruptions.

Figure 1. Disruptions to buying paddy and selling rice from COVID 19 crisis, share of respondents reporting disruption in the 30 days prior to interview



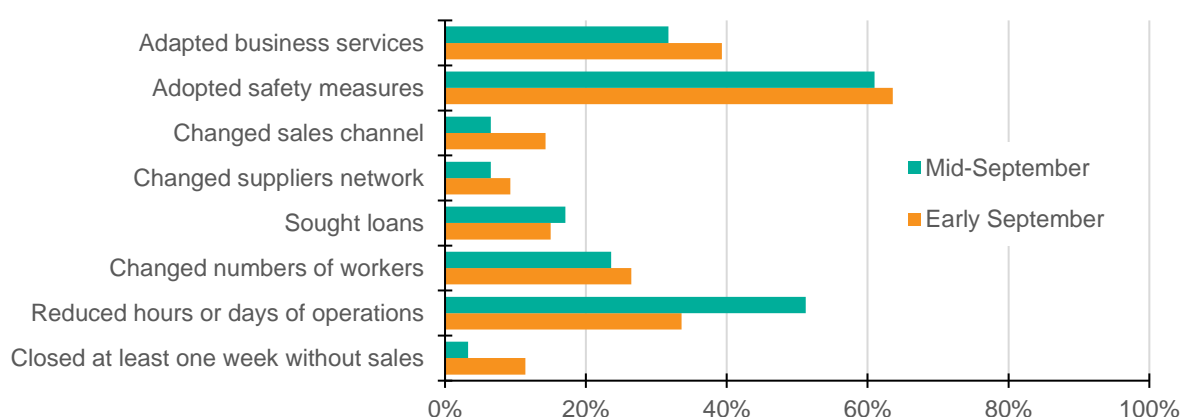
Source: Rice millers telephone survey – September 2020 survey round

In response to the COVID-19 disruptions, the most common action taken by rice millers was to use safety practices, which 62 percent of our sample did. Concerningly however, adoption declined by 9 percentage points from the August survey when 71 percent of millers employed safety practices. Further, there was only a minor increase in adoption from early to mid-September—from 61 to 64 percent of millers (Figure 2)—suggesting that millers were not quick to increase their use of safety measures despite the growing caseload in September. The specific practices adopted are similar

across rounds with approximately 60 percent of millers regularly washing their hands and 50 percent wearing masks. The largest difference in safety practices was that 8 percent of millers interviewed in mid-September employed temperature screenings compared to zero in early September—for comparison, adoption was only 1 percent in the August survey.

Most of the responses to COVID-19 shocks are similar for both the early and mid-September interview groups, but there was a major difference in the share of millers reducing the operating time of their mills. Thirty-four percent of millers reported a decline in the number of days or hours in which they were operating in the early September interviews. However, that share jumped to 51 percent in the mid-September interviews. This may be partly attributable to seasonal declines as millers await monsoon harvests, though could also reflect COVID-19 related effects.

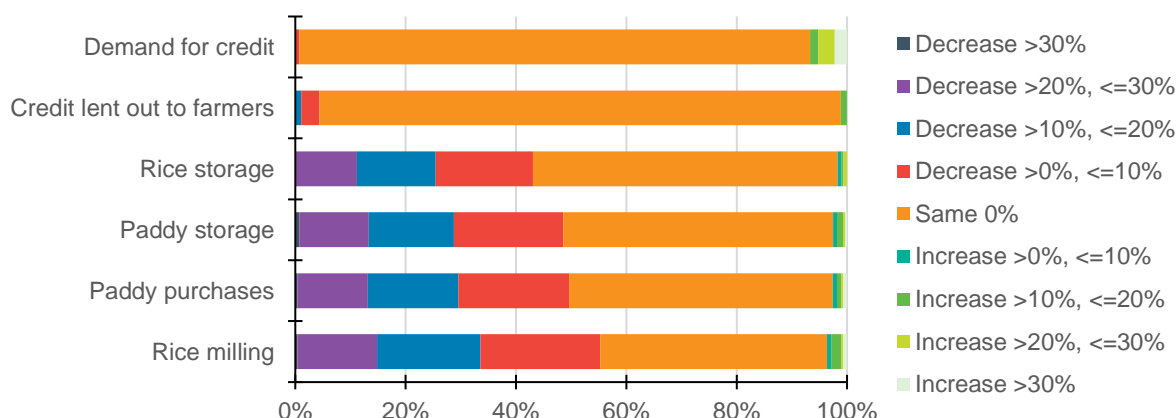
Figure 2. Rice millers' business responses to the COVID-19 crisis, share of respondents reporting response in the 30 days prior to interview



Source: Rice millers telephone survey – September 2020 survey round

In the August survey round, 46 percent of mills reported lower daily throughput compared to the same time in 2019. To get a broader sense of activity declines or increases since the start of the COVID-19 crisis, we asked mills in the September round how their milling, paddy purchases, storage, and credit offerings each month from March to August 2020 compared to the same period in 2019. There was relatively little month-to-month variation in reported year-on-year changes for each activity. Thus, to simplify the results, we pooled all of the mill-month observations and presented the percentages of all observations for each activity in Figure 3.

Figure 3. Changes in milling activities over the March to August 2020 period compared to the same time in 2019, share of mills-months observations



Source: Rice millers telephone survey – September 2020 survey round

The lower throughput reported in the August survey appears to extend back well before August; 55 percent of the miller-month level observations of rice milling going back to March were lower than the same time in 2019. A small minority of observations shows increased throughput (4 percent) and a large share shows no change (41 percent). Unsurprisingly, the pattern for paddy purchasing closely mirrors that of rice milling as 50 percent of observations were lower than the same time in 2019. The higher decline in rice milling relative to paddy purchasing likely represents a decrease in processing paddy for others on commission.

Paddy buying also declined between the early and mid-September interviews. In early September, 73 percent of active mills purchased paddy in the 30 days prior to interview, while in mid-September, just 54 percent purchased paddy in the previous 30 days. This decline is mostly attributable to a seasonal decline in paddy availability, though the majority of paddy is purchased directly from farmers and thus transport restrictions may have also contributed.

Overall, the reported decrease in paddy purchases and rice milling shown in Figure 3 implies either a year-on-year decrease in paddy production during the pre-monsoon season or a decline in paddy being processed by the medium and large-scale mills in our sample. We have included questions in forthcoming survey rounds to help unpack these year-on-year differences, but it is clear that millers perceive a decline in normal milling activities over the period from March to August 2020.

Storage patterns of both paddy and rice shown in Figure 3 also mirror each other with 49 and 43 percent of observations being lower than in 2019, respectively, and about 2 percent of each being higher. Paddy and rice prices have been similar or higher than 2019.² Thus, there may have been little incentive to increase rice storage in 2020.

In each survey round we asked questions to track millers' current storage practices. Specifically, we asked millers about the share of their total storage space that was allocated to paddy, their own rice, other's rice, for other storage purposes, and vacant. In September, there was a large increase in the share of storage that is vacant and unused compared to July and August (Table 2). The space was vacated by paddy and rice, which both showed large declines in storage allocations compared to the August and July surveys. Millers were likely anticipating a large increase in paddy supply from the monsoon harvests, while milling stored paddy and selling the rice prior to a seasonal price decline. In September, there were mostly minor differences in storage practices between the early and mid-September survey groups, though the largest difference was in paddy storage, which was 5 percentage points lower on average in the mid-September interviews.

Table 2. Average allocation of storage space, percentage by survey round

	July	August	September
Own rice	20	20	15
Other's rice	7	5	2
Paddy	59	61	44
Other purposes	2	5	10
Vacant	12	9	29

Source: Rice millers telephone survey – July, August, and September 2020 survey rounds

Rice and byproduct prices

In the September survey round we continued to track paddy purchases and rice and byproduct sales. Both paddy and rice prices increased from the August survey, though estimated miller margins were comparable (Table 3). Each of the seven most common varieties had higher average buying and selling prices in the early September interview than in the August interview, reflecting a decline in

² *Monitoring the Impact of COVID 19 in Myanmar: Rice millers – July 2020 survey round.* [Myanmar SSP Policy Note 26](#). Yangon: International Food Policy Research Institute.

supply ahead of the monsoon harvests. Comparisons between early and mid-September survey groups were more nuanced. Selling prices were stable on average, while buying prices declined slightly, leading to an increase in estimated miller margins. At the variety level, results are split between price increases and declines. Of the seven main varieties milled, three had buying price increases, and three had decreases (the seventh had no observations for comparison in mid-September). Selling prices show a similar split as four varieties show average price increases.

Table 3. Average paddy buying prices, rice selling prices, and miller margins, overall and for main varieties, MMK per pound

	August			Early September			Mid-September		
	Paddy buying price	Rice selling price	Margin	Paddy buying price	Rice selling price	Margin	Paddy buying price	Rice selling price	Margin
Overall	136	247	111	160	264	103	154	264	110
Variety									
Thee Htet Yin	113	208	95	146	234	88	150	247	97
Yadanar Toe	132	216	84	140	214	74	133	224	91
Emata	127	226	100	146	237	91	147	243	96
Yat 90	138	234	97	149	249	99	-	240	-
Sin Thuka	136	242	106	162	260	98	158	268	110
Manawthukha	137	254	117	155	265	110	136	239	103
Paw San Hmwe	176	342	166	212	349	137	214	345	131

Source: Rice millers telephone survey – August and September 2020 survey rounds

Note: Varieties selected have at least 10 observations in the early September survey round

We also asked millers to recall prices at the same time last year for their main paddy and rice varieties. On average, both prices were higher in 2020 compared to 2019. The overall average paddy buying price for the same period in 2019 was 148 MMK/lb, and the average rice price was 252 MMK/lb. While more research is needed to understand the drivers of the year-on-year price increases, the perceived transportation disruptions to both buying and selling could have increased miller costs and contributed to higher prices in 2020 for both paddy and milled rice relative to 2019.

For rice byproducts, price changes varied by type. To compare prices to pre-COVID-19 levels, we asked mills to report byproduct prices at the time of interview and at the same time in 2019. Rice husks were given away in September 2020, but this was also common in August and at the same time last year (Table 4). Rice bran prices in the September survey were higher on average both compared with August 2020 and compared with September 2019, while broken rice prices were lower compared with August 2020, but higher than a year prior. Both rice bran and broken rice prices decreased on average between the early and mid-September survey groups.

Table 4. Average byproduct prices by survey round and compared to 2019, MMK per pyi

	September 2019	August 2020	September 2020		
			All	Early	Mid
Husks	2	16	0	0	0
Rice bran	331	335	379	387	369
Broken rice	755	847	801	824	773

Source: Rice millers telephone survey – August and September 2020 survey rounds

Note: 'Pyi' is a Burmese unit of volume equivalent to about 2.5 liters.

Recommendations

The above analysis from telephone interviews conducted in September 2020 with rice millers in Yangon, Ayeyarwady, and Bago leads to two main policy recommendations as the Government of Myanmar navigates the second wave of COVID-19 infections during the monsoon harvests:

- Coordinate movement and transportation restrictions across and within states and regions as well as between townships to facilitate paddy and rice sales. As farmers continue to harvest their monsoon crops, it is essential for them to be able to easily access markets. Millers reported a large increase in disruptions to paddy purchases and rice sales in mid-September, before many of the current lockdowns were implemented. A coordinated policy to ensure unimpeded crop movements would benefit the rural poor as well as urban consumers.
- Promote safety practices for all businesses, including rice millers. Adoption of safety behaviors did not increase in mid-September despite large increases in COVID-19 cases by the time interviews were conducted. The Ministry of Health and Sports Facebook page may be an appropriate mechanism to quickly encourage safety practices to curb the spread of COVID-19.

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