



Crop production and farm incomes in two areas of the Central Dry Zone

Findings from June 2021

Using data from six phone survey rounds between June 2020 and June 2021, we found that the impacts of the recent political unrest in Myanmar further compound the disruptions caused by the COVID-19 pandemic, both on the farm as well as on the non-farm rural economy. We observed the following:

- Total cultivated acreage for the 2021 monsoon season is not expected to be significantly different from the 2020 monsoon season in our survey communities.
- Between February and May 2021 farmers experienced similar or more favorable climatic conditions than last year and similar shares experienced difficulties in accessing farm inputs as last year.
- In terms of input shortages, lack of available mechanization services was most frequently reported (7 percent of all farmers), and to a lesser extent, lack of urea was also mentioned (2 percent of all farmers).
- Substantial price increases for inputs occurred between February and May 2021 and are expected to continue or potentially escalate in the following months, especially for compound fertilizer, urea, pesticides, and machinery services. These price increases may become a key hurdle for monsoon season production.
- On crops grown between February and May 2021, the average per acre application of urea and compound fertilizer was 29 percent and 18 percent lower than last year, respectively.
- Farmers continue to face high disruptions in their engagements with output markets. Five percent of farmers tried but were unable to sell their produce between February and May 2021, and an additional 41 percent experienced difficulties in selling or received lower prices than expected.
- Thirty percent of farmers reported much lower crop incomes in Feb-May 2021 as compared to Feb-May 2020. Preliminary analysis shows that lower crop incomes are associated with difficulties in marketing crops during this period.

Introduction

This research note provides a preliminary assessment of the impacts of Myanmar's health and political crises on crop production in farming communities in Myanmar's Central Dry Zone through early June 2021. This research builds on six rounds of phone survey data collected between June 2020 and June 2021, with responses from 606 households in round 1 and 407 households in round 6. The communities surveyed lie in the catchment areas of two irrigation sites in Myanmar's Central Dry Zone.

Income from crop farming

In each phone survey round between June 2020 and January 2021, more than half of farmers reported lower farm incomes than usual (Table 1). On average, 43 percent of farmers described their farm income as much lower than usual (>20 percent lower) and 19 percent as somewhat lower than usual (1-20 percent lower). For the period from February to May 2021, we asked respondents to compare their farm income to that in the same period last year. Still, 30 percent and 12 percent of farmers considered their farm incomes to be much lower and somewhat lower than last year, respectively. Only 17 percent thought their farm incomes were higher than last year.

Table 1. Percentage of farmers reporting changes in farm income compared to usual (June 2020-January 2021) or to last year (February-May 2021)

	Jun-Jul 2020	Aug-Sep 2020	Oct-Nov 2020	Dec-Jan 2021	Feb-May 2021
Much lower (>20%)	38	42	51	40	30
Somewhat lower (1-20%)	23	16	15	21	12
About the same	33	37	29	35	41
Somewhat higher (1-20%)	2	2	3	2	4
Much higher (>20%)	3	2	1	1	13

Note: Change in farm income was not asked in the first survey round (Feb-May 2020).

Source: IFPRI/MSR telephone survey—August 2020, October 2020, December 2020, March 2021, and June 2021.

Crop production

The main crops grown between February and May 2021 were sesame, green gram, and chickpea. All farmers intended to plant monsoon rice in the months following the latest survey (June or July). More farmers were growing green gram between February and May 2021 compared to the same period in 2020, whereas fewer farmers were growing sesame.

There are no large shifts expected in the total area cultivated this monsoon season compared to last year. Between February and May 2021, the total acreage planted in our sample was 4 percent higher than last year. However, for crops yet to be planted (mainly paddy and some sesame) the total expected acreage is 3 percent lower than last year.

We distinguish between challenges related to crop production—growing conditions and access to inputs—and challenges related to crop marketing. Between February and May this year, 22 percent of farmers felt their crop production was hindered by drought, 9 percent by poor access to irrigation water, 9 percent by flooding, and 4 percent by pests or diseases. In separate qualitative follow-up calls, community leaders mentioned that growing conditions were more favorable from February to May this year compared to the same time last year, mainly due to less severe drought issues.

As shown in Table 2, throughout all survey rounds, between 15 percent and 23 percent of farmers experienced difficulties in purchasing inputs. From February to May 2020, at the onset of the pandemic, 17 percent of farmers reported difficulties. From February to May 2021, we find that 20 percent reported difficulties in purchasing inputs. Farm machinery services were most affected,

with the share of farmers reporting difficulties accessing farm machinery almost doubling from 7 percent in February-May 2020 to 13 percent in February-May 2021.

Table 2: Difficulties in purchasing farm inputs by survey period, percentage of farmers reporting

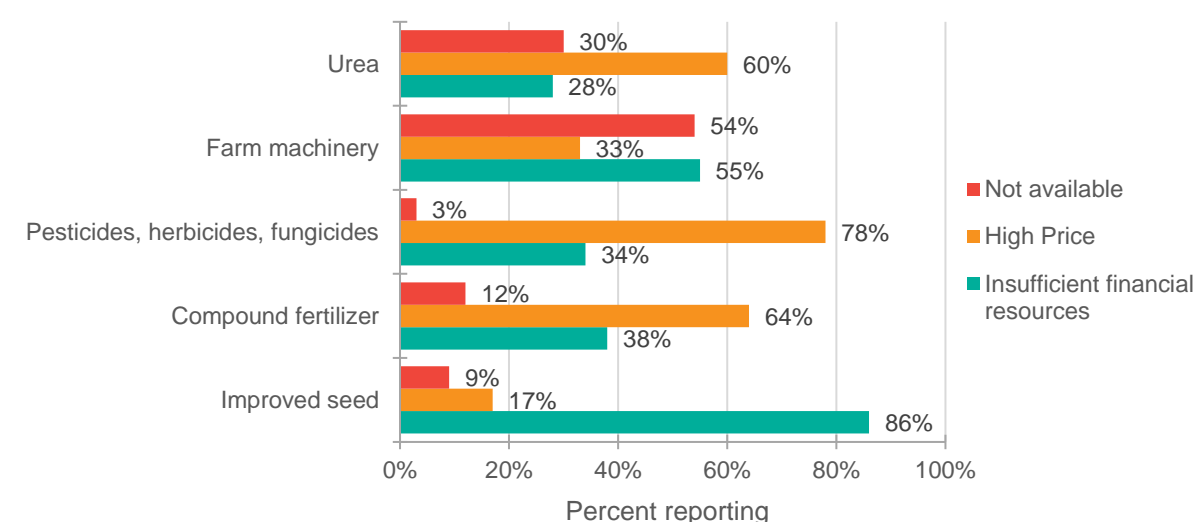
Difficulties purchasing farm inputs	Feb-May 2020	Jun-Jul 2020	Aug-Sep 2020	Oct-Nov 2020	Dec-Jan 2021	Feb-May 2021
Yes (any inputs)	17	15	23	20	18	20
Improved seed	2	2	2	2	2	3
Inorganic fertilizer—compound	7	5	13	12	8	8
Urea	-	-	-	-	-	6
Pesticides, herbicides, fungicides	9	3	11	9	6	6
Farm machinery rental services	7	10	11	10	6	13
Other	1	1	1	0	0	0

Note: Compound fertilizer and urea are reported separately in February-May 2021

Source: IFPRI/MSR telephone survey—August 2020, October 2020, December 2020, March 2021, and June 2021.

For each input that farmers expressed difficulties purchasing, we further asked whether this difficulty was related to a lack of availability, an increase in the price of the input, or insufficient financial resources to purchase the input (Figure 1). Farmers could mention more than one reason, if applicable. Lack of availability was rarely mentioned for pesticides, herbicides, or fungicides (3 percent of those experiencing difficulties), but was mentioned more frequently for compound fertilizer (12 percent), urea (30 percent), and farm machinery (54 percent). Higher prices were the most frequently reported challenge for pesticides, herbicides, and fungicides (78 percent), compound fertilizer (64 percent), and urea (60 percent). Insufficient financial resources were the most frequently reported challenge for farmers experiencing difficulties purchasing improved seeds (86 percent).

Figure 1: Reasons for difficulties purchasing inputs between February and May 2021, percentage of farmers reporting



Source: IFPRI/MSR telephone survey—June 2021.

More detailed information on crops planted between February and May 2021 reveals that farmers applied on average 14 percent less compound fertilizer per acre and 29 percent less urea per acre compared to the same period last year. Moreover, farmers expect difficulties in accessing inputs to continue or to become worse (Table 3). At the time of the latest survey round, in June 2021,

18 percent of farmers expected shortages and 69 percent expected higher prices for at least one farm input in the following two months.

Table 3. Expected difficulties acquiring farm inputs in the next two months, percentage of farmers reporting

	August 2020	October 2020	December 2021	June 2021		
				Shortage	Higher price	Combined
Any farm inputs or machinery	8	21	11	18	69	71
Improved seed	1	1	3	1	11	11
Fertilizer	3	9	6	11	45	50
Compound fertilizer	-	-	-	7	40	43
Urea	-	-	-	9	39	44
Pesticides, herbicides, fungicides	2	7	5	5	33	34
Farm machinery	6	15	6	7	39	40
Other	1	1	0	1	3	4

Source: IFPRI/MSR telephone survey–August 2020, October 2020, December 2020, March 2021, and June 2021.

Crop marketing

The most commonly sold crops from February to May 2021 were paddy (n=207) and chickpea (n=256). Prices for paddy are reported to be on average 5 percent lower compared to the same time last year, whereas prices of chickpea were on average 6 percent higher per basket. The shifts in crop choice (see earlier in the text) appear to align with the observed price changes. Green gram prices were reported to be similar or slightly higher than last year, though reported sesame prices were on average 18 percent lower in Feb-May 2021 compared to the same period in 2020.

Forty-six percent of all farmers reported difficulties in selling their crops this year (Table 4). This is lower compared to the same period last year (66 percent), which coincided with the first months of the pandemic and the first lockdowns implemented in the country. Five percent of farmers were not able to sell crops at all due to these difficulties. The most frequently mentioned difficulties were poor demand (24 percent of all farmers), low prices (21 percent), unsafe travel conditions due to political unrest (12 percent) or COVID-19 (3 percent), and movement restrictions (5 percent). The crop most seriously affected by poor demand during this period was paddy. In total, 64 percent of farmers trying to sell paddy said they experienced difficulties in doing so; 46 percent noted poor demand and 15 percent of all farmers who tried to sell paddy were unable to do so.

Table 4. Difficulties in crop marketing by survey period, percentage of farmers reporting

Difficulty selling crops (% who sold during recall period)	Feb-May 2020	Jun-Jul 2020	Aug-Sep 2020	Oct-Nov 2020	Dec-Jan 2021	Feb-May 2021
Yes (any difficulties)	66	31	-	32	40	46
Difficulties selling, but able to sell ^a	-	-	28	28	32	41
Difficulties selling and unable to sell ^a	-	-	-	4	8	5
Lower prices	39	26	17	20	13	21
Poor demand/no buyers	23	4	8	16	23	24
Markets closure	17	6	3	4	1	0
Movement restrictions	19	2	12	14	9	5
No means of transportation to markets	17	1	2	4	9	8
Unsafe to travel due to COVID-19	-	-	-	-	-	3
Unsafe to travel due to political instability	-	-	-	-	-	12
Observations	103	115	211	161	143	212

Note: ^aDisaggregated information is not available for the first three phone survey rounds; Round 3 only asked this question to farmers who were able to sell crops.

Source: IFPRI/MSR telephone survey–August 2020, October 2020, December 2020, March 2021, and June 2021.

At the time of the latest survey round, which coincided with the rapidly advancing third wave of COVID-19 infections in the country, 37 percent of farmers expressed further pessimism regarding crop marketing (Table 5). This is a similar share compared with June 2020. Yet, whereas lower prices were the most frequently anticipated difficulty at that time, the anticipated difficulties have now shifted towards safety of travel conditions—both due to the political unrest (16 percent) as well as the pandemic (8 percent). It is notable that the share of farmers who anticipated difficulties in June 2021 is much lower compared to the spike in concerns in February 2021 (74 percent of farmers), shortly after the military takeover occurred.

Table 5. Pessimism concerning future crop marketing by survey month, percentage of farmers reporting

Anticipated difficulties selling crops (%)	Jun 2020	Aug 2020	Oct 2020	Dec 2020	Feb 2021	Jun 2021
Yes (Any difficulties)	34	46	43	40	74	37
Lower prices	25	31	24	22	27	11
Poor demand/no buyers	14	22	25	24	44	12
Market closure	3	2	2	4	15	1
Movement restrictions	4	6	32	27	33	6
No transportation to markets	7	3	11	10	22	6
Unsafe to travel due to COVID-19	-	-	-	-	-	8
Unsafe to travel due to political instability	-	-	-	-	-	16
<i>Observations</i>	317	384	401	392	232	281

Source: IFPRI/MSR telephone survey—August 2020, October 2020, December 2020, March 2021, and June 2021.

Preliminary analysis shows that reporting of lower agricultural incomes strongly relates to challenges experienced in crop marketing. Farmers who reported difficulties in selling crops were more likely to report lower incomes this year compared to farmers who did not report such difficulties.

Livestock rearing and selling

In survey rounds 5 and 6, we asked questions regarding livestock production and marketing. Forty-one percent of farm households with livestock experienced difficulties in selling or raising livestock between February and May 2021 (Table 6). Similar to crop marketing challenges, farmers expressed challenges related to low selling prices (23 percent) and a lack of buyers (10 percent). However, unlike crops, for which no issues with market closures were reported during this period, closure of cattle markets was reported by 17 percent of livestock farmers. A few farmers also experienced increased prices of animal feed (3 percent), financial difficulties in purchasing feed (2 percent), and livestock diseases (1 percent).

Table 6. Difficulties in livestock related activities by survey period, percentage of households with livestock reporting

Experienced difficulties (%)	Dec-Jan 2021	Feb-May 2021
Share of households that experienced difficulties	31	41
Cattle market closed	15	17
Low selling price	-	23
No buyers	-	10
Financial difficulties purchasing feed	-	2
Increased prices of animal feed	-	3
Livestock diseases	-	1

Note: Difficulties in livestock related activities were not asked in survey rounds 1-4.

Source: IFPRI/MSR telephone survey—June 2021.

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