Monitoring the Impact of COVID-19 in Myanmar
Mechanization Service Providers – June 2020 survey round
Hiroyuki Takeshima, Myat Thida Win, and Ian Masias

Mechanization service providers in Myanmar were originally interviewed by telephone in early May 2020 in order to determine how their businesses were being affected by COVID-19 related restrictions. The results of that survey were published in Myanmar Strategy Support Program Policy Note 07. To trace the continuing impact of the COVID-19 pandemic on their economic activities, a second phone survey of mechanization service providers was done in mid-June 2020. This Policy Note reports on the results of this second survey.

Key findings

- Financial prospects among mechanization service providers (MSP) remain as bleak in June 2020 as they were in May. Several MSPs surveyed reported other service providers have had some of their machines repossessed due to foreclosure proceedings by lenders.
- Demand for mechanization service generally remains lower compared to one year ago. This is partly due to weather, but also to the reduced payment ability of customers. Compared to May 2020, more farmers are asking to be able to make late payments and for other financial assistance from MSPs.
- Nonetheless, demand has gradually increased since May, albeit unevenly. Where demand has resumed, some supply-side constraints, especially shortages of machine operators and repairers or mechanics, are becoming more serious.
- This is despite the easing of movement restrictions in some areas and some improvements in equipment availability relative to May.

Recommended actions

- Adjust loan repayment terms for machines and equipment owned by MSPs. Consider offering temporary loans, waivers, or reductions on taxes and fees for general MSP business expenses, including payments for workers.
- Avoid re-instituting movement restrictions and continue granting MSPs exemptions to COVID-19 related controls that constrain MSPs in providing farmers with services.
- Continue general support to farmers to enhance their ability to pay for mechanization services, including improving their access to farm loans.
Background

The operations of agricultural mechanization service providers (MSP) continue to be affected by market disruptions associated with the COVID-19 pandemic in Myanmar and the restrictions imposed as policy responses to control the spread of the virus. As the production season progresses and the pandemic situation and policy responses evolve, MSPs continue to be adversely impacted. Measures to support MSPs and to ensure access to their services by farmers should continue to be guided by an understanding of the situation on the ground. This policy note sheds light on how the situation has changed since the first round of the survey of MSPs in Myanmar in May through qualitative findings regarding the following questions:

- To what extent have MSP activities been restricted by COVID-19-related restrictions?
- How has farmer demand for mechanization services been affected?
- How has the supply of services been affected? What changes in prices of equipment, repair services, technical labor costs, and fuels have resulted?
- What are the key financial and other challenges MSPs face under the COVID-19 crisis? What coping mechanisms are they adopting?
- What is the expected effect of the crisis on MSP business revenues?
- What policies and interventions would enable MSPs to better meet farmer demand and remain in operation? How does the support that MSPs require vary across types of mechanization services and locations?

The second round of phone interviews with MSPs was conducted between 19 and 21 June 2020, approximately four weeks after the first survey round. A total of 321 MSPs were interviewed – 286 tractor service providers (TSP), 25 combine-harvester, 5 thresher, 2 reaper, and 3 other types of MSPs. Of these second-round respondents, 309 had participated in the first round of the survey, including 275 TSPs (Table 1).

This policy note focuses primarily on TSPs. Most other MSPs had finished their operating season by the time of the second survey round, so relatively few participated in the second round. However, most of the findings in this policy note hold true for these other MSPs. As shown in Table 1, the TSPs that participated in this study come primarily from communities within the Delta and the Dry Zone.¹

The left graph in Figure 1 shows that interviewed TSPs in the Delta, in terms of revenue, are slightly larger than those in the Dry Zone. As shown in the right graph in Figure 1, the income received from providing tractors services accounts for an important share of the total income of respondents – tractor services account for over 20 percent of income for 75 percent of TSPs and over 40 percent of income for 35 percent of TSPs. Thus, effects to income received from tractor services has significant economic implications for TSPs.

¹ The sample of MSPs is not representative at national or at state/region levels. However, we discuss heterogeneity, where appropriate, to highlight the potential importance of machine-specific or region/state-specific support measures. We highlight such heterogeneity where, given the sample sizes, differences across MSPs are statistically significant.

Table 1. Sample of tractor-service providers interviewed in survey rounds 1 and 2

| Zone  | Regions       | Round 1 (May) | Round 2 (June) | Panel (both rounds) |
|-------|---------------|---------------|----------------|---------------------|
| Dry zone | Magway       | 176           | 156            | 150                 |
|        | Mandalay     | 14            | 17             | 14                  |
|        | Saigaing     | 39            | 34             | 34                  |
| Delta | Ayeyarwady   | 63            | 50             | 48                  |
|        | Bago         | 39            | 27             | 27                  |
|        | Yangon       | 2             | 2              | 2                   |
| Total  |              | 333           | 286            | 275                 |

Source: Mechanization Service Provider Phone Surveys of May 2020 and June 2020
Figure 1. Key characteristics of interviewed tractor service providers

- **Annual revenue in 2019, by zone**
  - **Dry Zone**
    - < MMK 50 lakh: 55%
    - 50 - 100 lakh: 26%
    - > 100 lakh: 19%
  - **Delta**
    - < MMK 50 lakh: 39%
    - 50 - 100 lakh: 33%
    - > 100 lakh: 32%

- **Mechanization-service income as share of total income in 2019**
  - **Dry Zone**
    - < 20%: 25%
    - 20 - 40%: 40%
    - 40 - 60%: 27%
    - 60 - 80%: 7%
  - **Delta**
    - < 20%: 35%
    - 20 - 40%: 55%
    - 40 - 60%: 33%
    - 60 - 80%: 26%

Source: Mechanization Service Provider (MSP) Phone Survey, May/June 2020. MMK = Myanmar Kyat. In May 2020, 1.00 USD = 1,385 MMK. Lakh is a unit commonly used in Myanmar and south Asia equivalent to 100,000. 1.0 lakh MMK ≈ 70 USD in May 2020.

Progress of tractor service provision in 2020 season

Compared to those in the Dry Zone, TSPs in the Delta have provided more land preparation services in the 2020 season (as of June 22) (Figure 2). While this is partly because TSPs in the Delta are larger (in terms of revenues) than those in the Dry Zone, the differences to date may also indicate lower demand in the Dry Zone due to the late arrival of the monsoon and potential COVID-19 effects. As TSPs typically operate primarily within their localities and rarely across regions, local demand for TSPs is worth monitoring in each region as the production season continues.

Figure 2. Farm area already served by tractor service providers in 2020 season, as of 22 June, average and median, by zone

- **Dry zone (Average)**
  - Acres: 135
- **Dry zone (Median)**
  - Acres: 90
- **Delta (Average)**
  - Acres: 255
- **Delta (Median)**
  - Acres: 200

Source: Mechanization Service Provider (MSP) Phone Survey, May/June 2020.

Reported effects of COVID-19 on mechanization service providers

**Relative easing of restrictions on business since May 2020**

The restrictions on movement across different geographies, implemented as part of the efforts to contain the spread of COVID-19, overall have gradually eased in the Dry Zone, as shown by the declining share of TSPs between May and June who were restricted to only operate within the village tract (Figure 3). Meanwhile, in the Delta, TSPs’ movement appears to becoming more restricted, with 13 percent more TSPs reporting that they were restricted to the village tract in June compared to in May.

Figure 3. Tractor service providers that experienced COVID-19 related restrictions on areas of operation, by zone and by month

- **Dry Zone (May)**
  - Within the village track: 55%
  - Within the township: 41%
  - Within the state/region: 38%
- **Dry Zone (June)**
  - Within the village track: 45%
  - Within the township: 34%
  - Within the state/region: 47%
- **Delta (May)**
  - Within the village track: 34%
  - Within the township: 53%
  - Within the state/region: 36%
- **Delta (June)**
  - Within the village track: 36%
  - Within the township: 14%
  - Within the state/region: 10%

Source: Mechanization Service Provider (MSP) Phone Survey, May/June 2020.
Geographic restrictions have also had mixed effects for TSPs depending on their normal areas of operations. In some cases, the easing of geographic restrictions has been beneficial to TSPs. In May, 37 and 23 percent of TSPs in the Dry Zone and in the Delta, respectively, reported that COVID-19 related geographic restrictions limited them to areas smaller than their normal areas of operation in 2019. However, by June, these shares had dropped to 8 and 6 percent, respectively (Figure 4, left chart). For other TSPs, the easing of geographic restrictions was detrimental. While 23 and 35 percent of TSPs the Dry Zone and in the Delta, respectively, reported in May that the same geographic restrictions had allowed them to operate in larger areas than their normal areas of operations in 2019, the share of TSPs reporting this dropped to 10 and 6 percent by June (Figure 4, right chart). The changes in geographic restrictions have been such that TSPs now have more limited prospects of expanding their operation areas beyond those in 2019, potentially limiting their options to cope with COVID-19 related challenges by expanding their customer base of farmers.

Figure 4. COVID-19 related restrictions on area of operations relative to tractor-SPs actual areas of operations in 2019

A fraction of TSPs, albeit a declining share, continue to be granted exemptions from these restrictions. The cause of the decline in such exemptions should be studied more closely in future rounds of the MSP survey. These exemptions are typically obtained by providing letters of recommendations or certificates to village authorities. However, they often are granted on a conditional basis – for example, TSPs granted an exception were banned from conducting any nighttime operations or all personnel were required to wear protective equipment, such as masks.

Mechanization services provision compared to the same month in 2019

A significant share of TSPs reported that the timing of land preparation was later this year than in 2019, with the share stating so increasing from May to June in both the Delta and the Dry Zone (Figure 5). An increasing share of TSPs perceive that delays to land preparation in 2020 are due to COVID-19.

Figure 5. Tractor service providers assessment of timeliness of land preparation for 2020 main cropping season compared to 2019, by zone and month

Source: Mechanization Service Provider (MSP) Phone Survey, May/June 2020.
There are some indications that the delay in service provisions may be due to farmers’ capacity to make payments, which could be related to the COVID-19 crisis (Figure 6). As compared to 2019, a greater share of TSPs – 83 percent in June compared to 62 percent in May – reported more requests from farmers to allow them to make late payments. An increasing share of TSPs, especially in the Dry Zone, are providing other financial assistance to customers also.

**Figure 6. Tractor service providers reporting receiving late payments requests from farmers and providing additional financial assistance**

Nonetheless, the overall share of TSPs reporting reduced demand compared to 2019 did not change significantly between May and June. This is likely due to delays in demand for services as a result of the late monsoon (Figure 7). Although demand appears to be returning to some areas, we continue to see that half of TSPs are experiencing a reduction in demand for their services compared to the same month in 2019. This is due to a combination of weather and COVID-19.

**Figure 7. Tractor service providers that reported lower demand for primary tillage services in 2020 relative to 2019**

To cope with lower demand, an increasing share of TSPs are extending their services to more distant areas, potentially benefiting from eased restrictions on movement. However, we found that the share of TSPs reporting in June that they were providing land preparation services to farms with poor field conditions has declined to some extent from what TSPs reported in the survey in May.

**Supply-side factors**

TSPs continue to face higher operational costs and lower equipment availability, particularly for machines and imported spare parts. However, there are indications that equipment availability has improved since May (Figure 8). These patterns are observed for both TSPs and other MSPs and across all regions and states surveyed.
Labor shortage have become a relatively more serious constraint. The share of TSPs reporting labor shortages due to COVID-19 has increased from 26 percent in May to 38 percent in June (Figure 9). While labor shortages in both the Delta and the Dry Zone have remained substantial, TSPs in the Delta face greater challenges, partly because their businesses are larger and employ more workers. The shortages are broad across different types of workers – the supply of both mechanics and machine operators continues to be reported as lower than normal. Anecdotally, this may be due to migration for other work opportunities early in the crisis as the outlook on the monsoon planting season was pessimistic. To cope with these labor challenges, an increasing share of TSPs are offering higher wages or advance payments to workers, which may help attract high-skilled migrants that have returned to Myanmar from abroad in recent months.

Financial effects on business

Approximately two-thirds of TSPs continue to experience financial challenges due to the impacts of COVID-19 and related regulations (Figure 10). Staff wages and payment for other forms of worker compensation, e.g., employers’ contribution to social security, are becoming more difficult to meet for more TSPs. To cope with these financial challenges, many TSPs reported selling assets, diverting
other income to their businesses, and obtaining loans from private individuals. Although the repayment of loans on their equipment or invoice payments is not a difficult for as many TSPs in June than it was in May, nonetheless, foreclosures on equipment are increasing – approximately 15 percent (including 29 percent in Sagaing) of TSPs reported knowing other TSPs whose machines had been foreclosed on since the beginning of the COVID-19 outbreak.

Figure 10. Tractor service providers reporting financial challenges due to COVID-19 related restrictions

Financial challenges

- Staff wages & related (May): 17
- Staff wages & related (June): 21
- Repayment of loans (May): 28
- Repayment of loans (June): 17
- Payment of invoices (May): 13
- Payment of invoices (June): 11
- Other expenses (May): 44
- Other expenses (June): 43
- No specific problem (May): 29
- No specific problem (June): 35

Source: Mechanization Service Provider (MSP) Phone Survey, May/June 2020.

A majority of TSPs continue to expect their revenues to decrease in 2020 compared to 2019 (Figure 11). The higher prices of equipment, spare parts, and repair services offset the relatively lower costs of fuel. Reduced revenues will result in reduced profits. This finding applies regardless of the type of mechanization service provided. However, in certain region, such as Sagaing, expectations on revenues in 2020 improved in June relative to May – while revenues are still expected to be lower in 2020 than in 2019, the drop in revenues is now expected to be less than was assumed in May.

Figure 11. Tractor service providers expectations of revenues in 2020 relative to 2019

Source: Mechanization Service Provider (MSP) Phone Survey, May/June 2020.

As in the first survey round, these prospects stem not only from the impacts of COVID-19, but also from weather effects that have resulted in a late planting season. Thus, it will be worthwhile to monitor how these MSPs will fare over the entire primary cropping season in 2020.

Policy Recommendations

As in the first survey round, respondents were asked for their opinions on what policies would be most beneficial for their businesses to better enable them to continue during the COVID-19 crisis (Figure 12). Among these policies, financial support through various mechanisms (particularly loan-
related) have remained the preferred option. Additionally, relative to the first survey round, more TSPs expressed needs for rent and utility payment support and further easing of restrictions on movement and business operations for machines and parts shops.

**Figure 12. Panel tractor-service providers perceptions on effective policies to reduce the adverse impact of COVID-19 on their businesses, by month**

| Policy Recommendation                                      | Percentage Share of Panel Tractor-SPs |
|------------------------------------------------------------|---------------------------------------|
| Reduce taxes/fees                                          | 24%                                   |
| Reduce financing/extend loans/debt relief                  | 34%                                   |
| All non-farm use of machines                               | 12%                                   |
| Allow movement of machines across regions                  | 19%                                   |
| Keep machine/parts shops open                              | 16%                                   |
| Reduce rent/utilities                                     | 25%                                   |
| Loan to small-enterprises by government                    | 29%                                   |
| Other                                                      | 38%                                   |

Source: Mechanization Service Provider (MSP) Phone Survey, May/June 2020.

Their opinions, as well as newly observed conditions on the ground in June, suggest the following updated short-term policy recommendations, many of which can be incorporated in the COVID-19 Economic Relief Plan (CERP) formulated by the Government of Myanmar:

- **Support adjustments on loan-repayment terms on machines and equipment owed by MSPs, as well as temporary government loans for general business expenses, including wage and other worker compensation payments.** Such measures can be incorporated in CERP Actions 2.1.1 and 2.1.6 on financial support for small and medium enterprises. Such support should be extended to both formal and informal MSPs.

- **Encourage regional governments to continue granting MSPs exemptions from many of the COVID-19 related restrictions.** The proportion of MSPs experiencing restrictions was observed to vary significantly across regions. Under CERP, the restrictions on MSPs should be applied appropriately and uniformly.

- **Review and extend waivers where necessary on taxes and customs duties, including those on agricultural machinery and equipment and imported spare parts.** Such measures can fall under CERP 2.1.3, which proposes deferred tax payments and increased tax waivers.

Since the first survey round, the Myanmar Agriculture Development Bank (MADB) has announced that, in addition to normal seasonal loans, it will provide an additional 50,000 kyat/acre for farmers to offset the COVID-19 triggered economic downturn. These loans will likely increase the purchasing of inputs and the hiring of tractor services and labor. As noted in the policy recommendations in the report on the May 2020 survey of MSPs, improving farmers’ liquidity at planting season will enhance their ability to make more prompt payments for services and will help mitigate the financial challenges that many MSPs are facing. Despite an improvement in demand between May and June, demand remains lower than in 2019, partly due to a reduced payment capacity by farmers. Monitoring the impacts of this new MADB loan program and its income effects on MSPs remains crucial.

Furthermore, it will be necessary to determine whether TSPs can meet the demand for their services, especially given lingering labor shortages, which may adversely affect the supply of mechanization services. These also include investigating more closely the causes of worker
shortages and assessing the complementary support, like skill training initiatives for mechanics or operators. Monitoring the broader market conditions that can affect medium-term farmer demand for mechanization services, including crop prices and their access to agricultural loans remains important.

References

Belton, B., P. Fang, and T. Reardon. 2018. Mechanization Outsourcing Services in Myanmar’s Dry Zone. Feed the Future Innovation Lab for Food Security Policy Research Paper 10. East Lansing, MI, USA: Michigan State University.

Takeshima, H., M.T. Win, and I. Masias. 2020. Monitoring the Impact of COVID-19 in Myanmar: Mechanization Service Providers – May 2020, IFPRI Myanmar SSP Policy Note 07. Yangon: International Food Policy Research Institute (blog)

Win, M.T., B. Belton, and X. Zhang. 2020. “Myanmar’s rapid agricultural mechanization: Demand and supply evidence.” In An Evolving Paradigm of Agricultural Mechanization Development: How Much Can Africa Learn from Asia? X Diao, H Takeshima & X Zhang, eds., forthcoming.

Zhang, X., J. Yang, and T. Reardon. 2017. “Mechanization outsourcing clusters and division of labor in Chinese agriculture.” China Economic Review, 43: 184-195.

ABOUT THE AUTHOR(S)

Hiroyuki Takeshima is a Senior Research Fellow in the Development Strategy and Governance Division (DSGD) of the International Food Policy Research Institute (IFPRI), based in Washington, DC. Myat Thida Win is a PhD Candidate in the Department of Agricultural, Food, and Resource Economics of Michigan State University, East Lansing, MI, USA. Ian Masias is a Senior Program Manager in DSGD of IFPRI, based in Yangon, Myanmar.

ACKNOWLEDGMENTS

This work was undertaken as part of the Myanmar Agricultural Policy Support Activity (MAPSA) led by the International Food Policy Research Institute (IFPRI) in partnership with Michigan State University (MSU). Funding support for this study was provided by the CGIAR Research Program on Policies, Institutions, and Markets (PIM), the United States Agency of International Development (USAID), and the Livelihoods and Food Security Fund (LIFT). This Policy Note has not gone through IFPRI’s standard peer-review procedure. The opinions expressed here belong to the authors, and do not necessarily reflect those of IFPRI, MSU, USAID, LIFT, or CGIAR.