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Monitoring the Agri-food System in Myanmar

Mechanization Service Providers – July 2021 survey round

Mechanization service providers (MSPs) in Myanmar were originally interviewed by telephone in summer 2020, fall 2020, and June 2021, covering mostly combine-harvester service providers (CHSPs) and tractor service providers (TSPs), to determine how their businesses were being affected by COVID-19 related restrictions and political instability. The results of those surveys were published in Myanmar Strategy Support Program Policy Notes 07, 12, 17, 39, 43 and 59 respectively. To trace the continuing impact of the COVID-19 pandemic as well as the current political and social conditions on their economic activities, a seventh phone survey of MSPs was conducted in late July 2021. This note reports on the results of the seventh survey as well as on some trends from earlier surveys.

Key Findings

- As of late July 2021, TSPs have completed land preparation on areas comparable to 2020.
- Perceptions of reduced availability of machines and spare parts/attachments are rapidly growing among both TSPs and CHSPs.
- Service charges for land preparation service have remained higher than in 2020.
- Financial challenges have also intensified and fears of foreclosure on machinery loans continue to grow.
- As land preparation for the monsoon season concludes, business prospects, which were already poor in June 2021, deteriorated further by July 2021 among both TSPs and CHSPs.

Recommended actions

- Continue to improve the availability of machines and spare parts/attachments by removing bottlenecks or disruptions along their supply chains and keeping machines and spare parts shops open.
- Extend measures that facilitate sufficient movement of MSPs as well as machines and spare parts while containing COVID-19 spread to support activities where farm production continues.
- Continue monitoring the effects of MSP hiring charge increases on farmers' financial status as well as the production in the current main production season.

Background

Agricultural mechanization service providers (MSPs) are crucial to enabling smallholder farmers to undertake a range of power-intensive farm and post-harvest operations in a timely manner. These operations are important for food production and farm income. MSPs are capital-intensive operations. The economic viability of these businesses is highly sensitive to capacity utilization, which generates the cash flow needed to repay equipment loans; to prices of imported capital goods, including machines, equipment, and fuels; and to availability of machine operators, among others. Hence, the operations of MSPs are sensitive to restrictions on mobility and trade.

MSP operations continue to be affected by market disruptions associated with the political and COVID-19 crises in Myanmar. Measures to support MSPs and to ensure farmers' access to MSP services should continue to be guided by an understanding of the situation on the ground. This research note sheds light on the current situation and how it has changed since May-July 2020, November-December 2020, and June 2021[1] by discussing qualitative findings regarding the following questions:

- To what extent have MSP activities been restricted by COVID-19-related restrictions and political instability?
- How has the supply of services been affected? What changes in the availability of equipment, repair services, technical labor costs, and fuels have resulted?
- What are the key financial and other challenges that MSPs face under the COVID-19 and political crises?
- What is the expected effect of the crises 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 seventh round of MSP phone interviews was conducted in late July 2021, approximately 1.5 months after the sixth survey round. Most MSP activities have focused on tractors, and the composition of MSPs interviewed remained similar to the sixth round. In the seventh survey round, a total of 388 MSPs were interviewed. All MSPs were also interviewed in at least one of the previous survey rounds, including 240 tractor service providers (TSPs) who were interviewed at least once in rounds 1-3 (summer 2020) and round 6 (June 2021) and 85 combine-harvesters service providers (CHSPs) who were interviewed in rounds 4-5 (fall 2020) and spring 2021 (Table 1).

Table 1. Summary of MSPs in survey round 7, based on responses in previous rounds

Panel samples	Other samples	Total
240 (TSPs in summer 2020, June 2021, and July 2021)	42	282
85 (CHSPs in fall 2020, spring 2021, and July 2021)	11	96
All other respondents		10
Total		388

Note: CHSP=Combine harvester service provider; TSP=Tractor service provider.
Source: Mechanization Service Provider Phone Survey–Summer 2020, Fall 2020, June 2021, and July 2021.

This research note primarily focuses on information for the panel samples of 240 TSPs and 85 CHSPs. While panel samples are sub-samples, their information can shed light on the changes

[1] Takeshima, H., M.T. Win, and I. Masias. 2020. Monitoring the Impact of COVID-19 in Myanmar: Mechanization Service Providers–May 2020 survey round, June 2020 survey round, July 2020 survey round, November 2020 survey round, December 2020 survey round, and June 2021 survey round. IFPRI Myanmar SSP Research Notes 07, 12, 17, 39, 43, and 59. Yangon: IFPRI.

between the summer or fall 2020 rounds, round 6 (June 2021), and round 7 (July 2021).[2] For basic characteristics of full samples of earlier rounds, refer to the earlier research notes.

Table 2 summarizes the regional distribution of interviewed panel MSPs. About one-third of the respondents are from the Ayeyarwady region and Magway region, respectively, while some are from Bago, Sagaing and Mandalay regions as well as other regions.

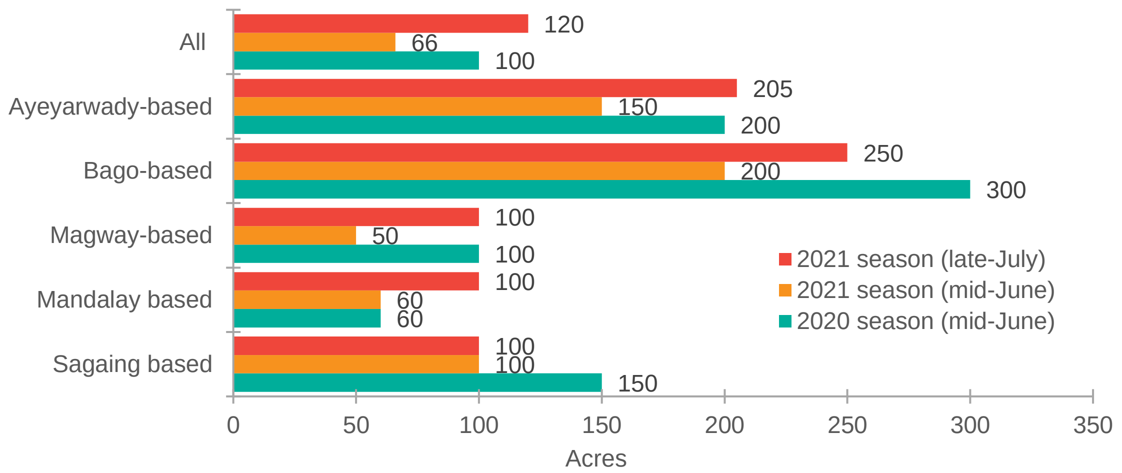
Table 2. Regional distribution of panel MSP interviews in round 7

Ayeyarwady	Bago	Magway	Mandalay	Sagaing	Others	Total
101	35	137	16	25	11	325

Source: Mechanization Service Provider Phone Survey–Summer 2020, Fall 2020, June 2021, and July 2021.

Figure 1 shows the areas prepared by TSPs in the current production season by the time they were interviewed in round 7. At the median, TSPs based on Ayeyarwady and Bago regions had provided services to 205 and 250 acres, respectively, while those based in the Magway, Mandalay, and Sagaing regions each provided services to 100 acres. About 70 to 80 percent of interviewed TSPs in Magway, Mandalay, and Sagaing regions were still operating at the time of the July survey and have likely been catching up to other regions after the survey. Sample size is small for most regions and thus figures by region are only indicative. Additionally, variations may be due to various factors including the timing of the start of the rainy season. Generally, compared to the same period in summer 2020, the areas prepared by TSPs by July 2021 are comparable across regions.

Figure 1. Area prepared by TSPs in the 2021 seasons (early June 2021), by median acres



Note: TSP=Tractor service provider.
Source: Mechanization Service Provider Phone Survey–Summer 2020, Fall 2020, June 2021, and July 2021.

Reported effects of crises on mechanization service providers

A growing share of TSPs have remained restricted to operating solely within their village tracts or townships by July 2021 (Figure 2). This may be the result of security checkpoints set up throughout the country. Some MSPs expressed concern about traveling due to searches and requests for machinery licenses, which MSPs do not normally possess. Moreover, while this round was conducted at the start of the third wave of COVID-19, there were some reports of 14-day quarantine requirements when moving from township to township. It is important to continue monitoring the situations for TSPs and CHSPs as they begin harvesting season activities in the coming months.

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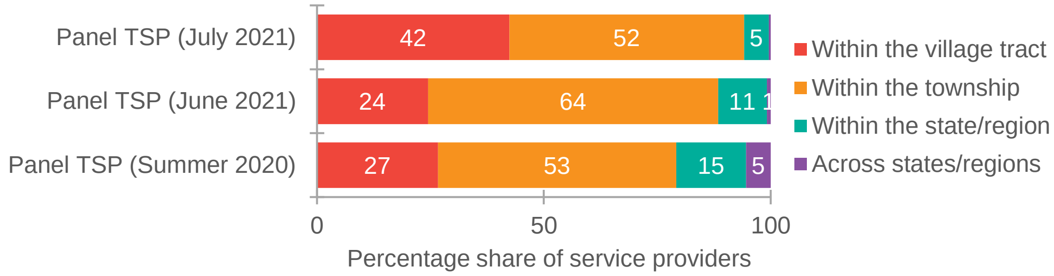
[2] The sample of MSPs is not representative at national or at state/region levels. However, we discuss heterogeneity, where appropriate, to highlight the potential importance of machine-specific or region/state-specific support measures. We highlight such heterogeneity where, given the sample sizes,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

Figure 2. TSPs that experienced restrictions on areas of operation, by season, by percentage share

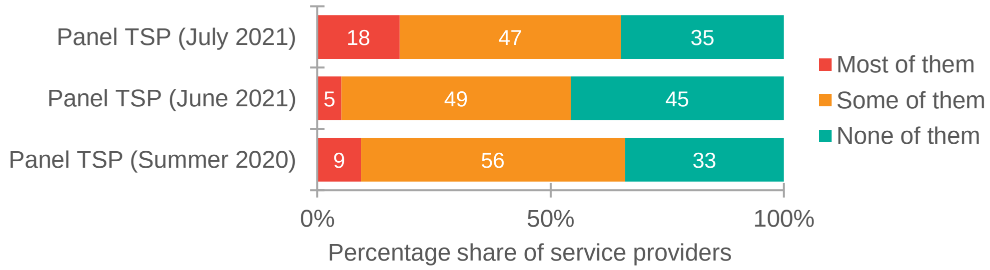


Note: TSP=Tractor service provider.
Source: Mechanization Service Provider Phone Survey–Summer 2020, Fall 2020, June 2021, and July 2021.

Mechanization services provision compared to the same month in 2019

The worsening in timeliness of service provision, which we asked respondents in each season to compare to the same season in the previous year, has sharpened in July 2021 compared to June 2021 (Figure 3). The share of TSPs reporting that most of their customers had to wait longer for their service, compared to one year earlier, has increased from 5 percent in June 2021 to 18 percent in July 2021. Overall, close to two-thirds of the TSPs continue to perceive that some of their customers had to wait longer for their services than in the previous year. It remains important to continue monitoring how the delayed land preparation affects harvests in the fall.

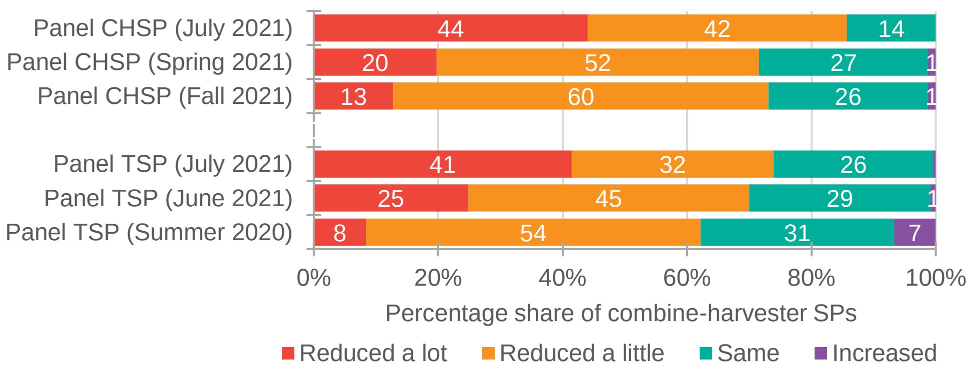
Figure 3. percentage share of MSPs reporting worsening in service provision timeliness compared to the previous year, by machine type and survey round



Note: TSP=Tractor service provider.
Source: Mechanization Service Provider Phone Survey–Summer 2020, Fall 2020, June 2021, and July 2021.

The demand for tractor services has continued to be perceived as weaker than in the previous year throughout the season, and this perception has increased by July 2021 (Figure 4) . While most CHSPs were not operating in July 2021, they also generally reported prospects of declining demand for their services in the coming harvesting season.

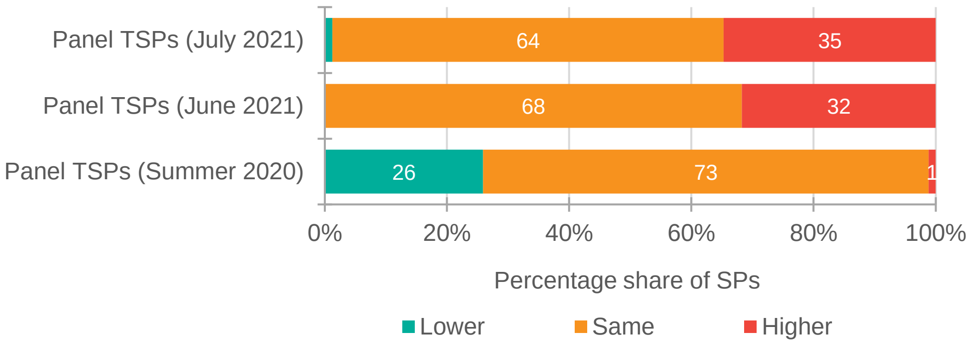
Figure 4. percentage of panel MSPs reporting lower demand for services relative to 2019



Note: CHSP=Combine harvester service provider; TSP=Tractor service provider.
Source: Mechanization Service Provider Phone Survey–Summer 2020, Fall 2020, June 2021, and July 2021

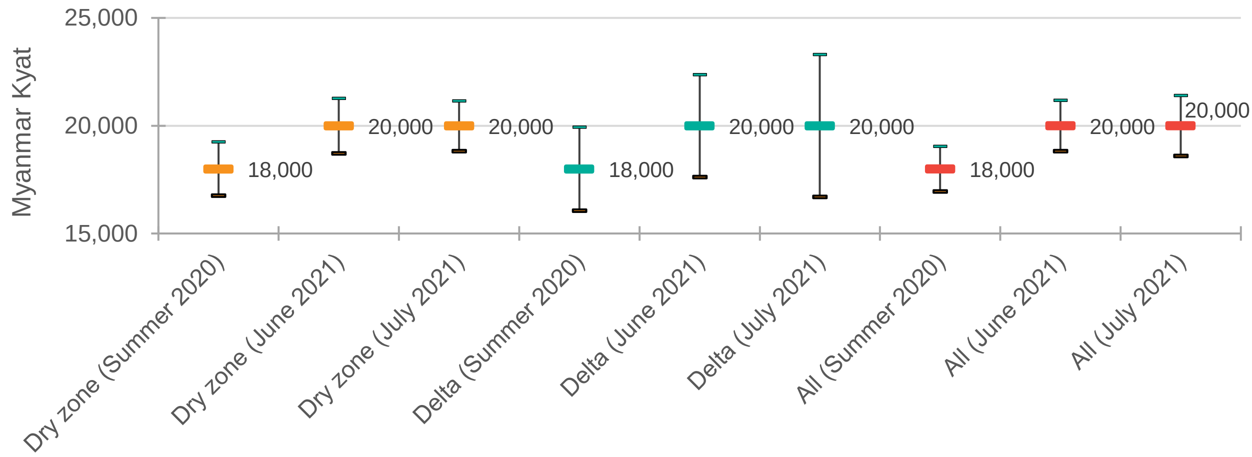
In July 2021, as in June 2021, TSP hiring charges seem to have remained higher compared to summer 2020, with about one-third of TSPs charging higher service fees than in summer 2020 (Figure 5). At the median, hiring charges (per acre) for land preparation in both June and July 2021 were 20,000 MMK, higher than the 18,000 MMK charged in summer 2020 (Figure 6), and remain noteworthy given that most TSPs perceive significantly reduced demand in June and July 2021. These charges continue to reflect the reduced ability of TSPs to offer discounts to customers, though these factors must be more carefully monitored.

Figure 5. Service charges compared to one year ago



Note: TSP=Tractor service provider.
Source: Mechanization Service Provider Phone Survey–Summer 2020, Fall 2020, June 2021, and July 2021.

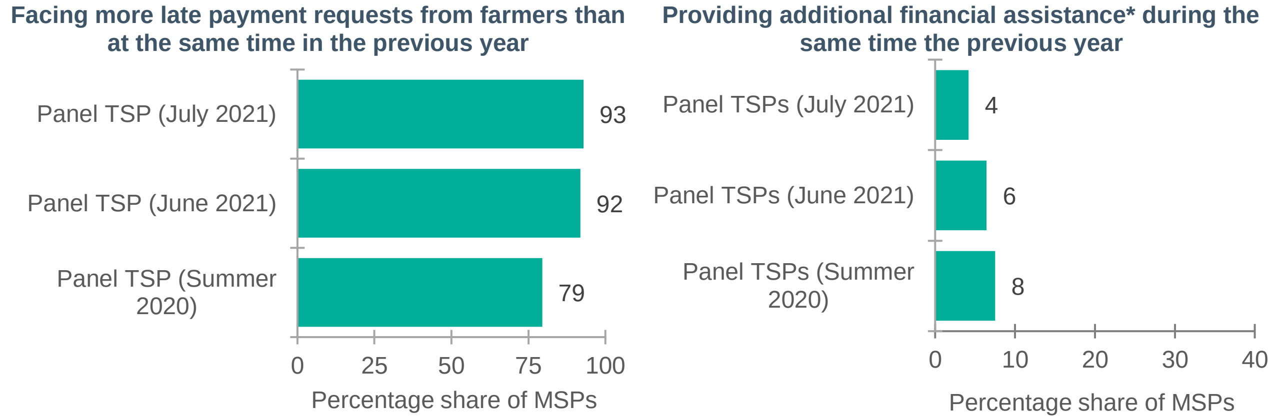
Figure 6. Average charges per acre for primary tillage, by region



Source: Mechanization Service Provider Phone Survey–Summer 2020, Fall 2020, June 2021, and July 2021.

As in previous rounds, TSPs continue to face reduced farmer capacity to make payments, which could be related to the cumulative effects of the COVID-19 crisis as well as the 2021 political crisis (Figure 7). The share of TSPs facing late payment requests remains persistently high without any clear sign of reduction. Increasingly few panel TSPs are still able to provide financial assistance to farmers. Furthermore, the ability of famers to pay for TSP services may also be exacerbated by a cash shortage in the country, as 99 percent of TSPs report only accepting cash payment for their services.

Figure 7. percentage share of MSPs receiving late payments requests from farmers and providing additional financial assistance

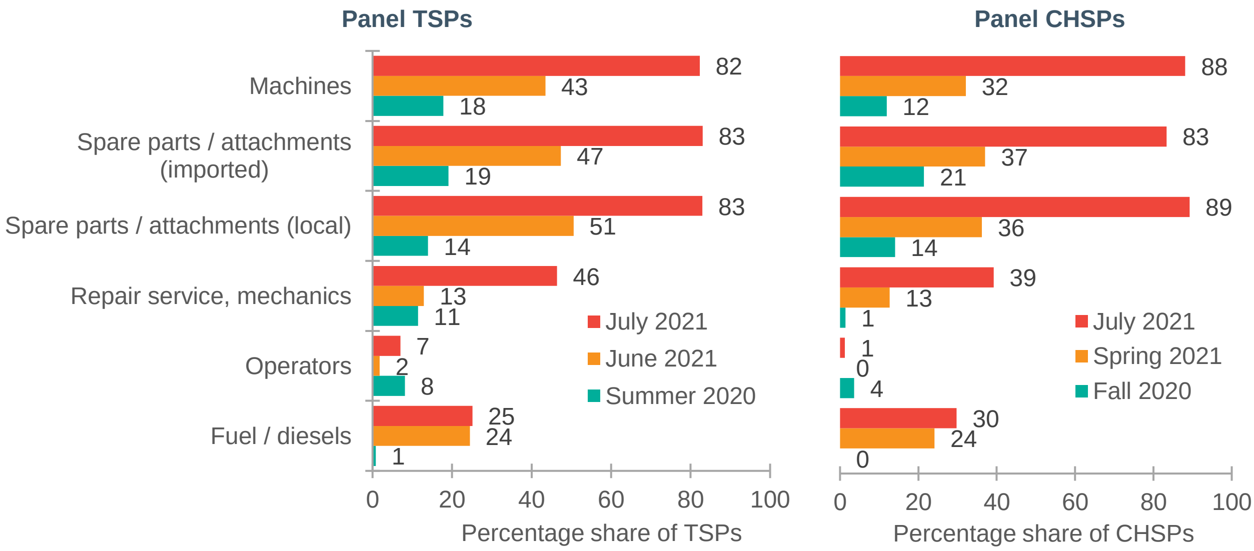


Note: *Beyond acceptance of late payments; TSP=Tractor service provider.
Source: Mechanization Service Provider Phone Survey–Summer 2020, Fall 2020, June 2021, and July 2021.

Supply-side factors

On the supply-side, a rapidly growing share of MSPs experienced reduced availability of machines, spare parts, and attachments (either imported or locally manufactured) compared to the same period in 2019, particularly in July 2021 (Figure 8). The reduced availability of these machines and equipment is serious for MSPs as they prepare for the coming harvesting season. Additionally, the reduced availability of fuel and diesel, which began in 2021, continues to harm TSPs in July 2021. Generally, reduced availability of machines and equipment as well as higher prices for fuel and diesel are common in all regions.

Figure 8. Share of TSPs and CHSPs supply-side factors compared to one year earlier, by survey round



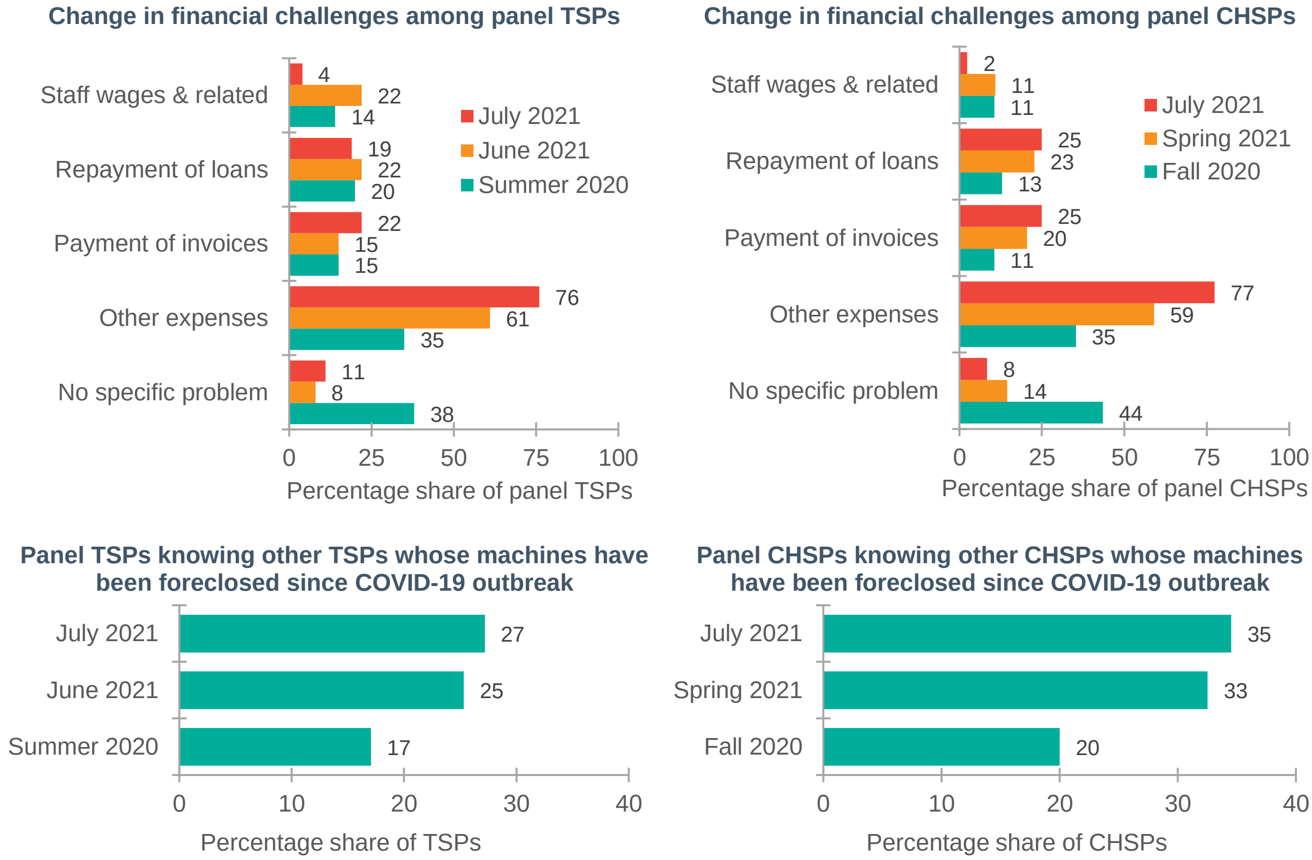
Note: CHSP=Combine harvester service provider; TSP=Tractor service provider.
Source: Mechanization Service Provider Phone Survey–Summer 2020, Fall 2020, June 2021, and July 2021.

Financial effects on business

An increasing share of TSPs and CHSPs continue to experience financial challenges due to the impacts of COVID-19 and political unrest (Figure 9, top charts). Both TSPs and CHSPs continue to be concerned about various financial requirements, including loan repayments for their equipment, and about other expenses associated with the operations of current service provision. The shares of

TSPs who report no financial challenges declined from around 40 percent in summer 2020 to around 10 percent in June 2021 and remained low in July 2021. Foreclosures on equipment remain relevant (Figure 9, bottom charts). Among panel TSPs, 17 percent reported in summer 2020 knowing other TSPs whose machine loans had been foreclosed on since the beginning of the COVID-19 outbreak, This share increased to 25 percent in June 2021 and 27 percent in July 2021. Similar increases had also been observed among CHSPs. Anecdotally, there were reports of lenders accelerating repayments of loans and threatening repossession of machines.

Figure 9. percentage share of MSPs reporting financial challenges due to restrictions

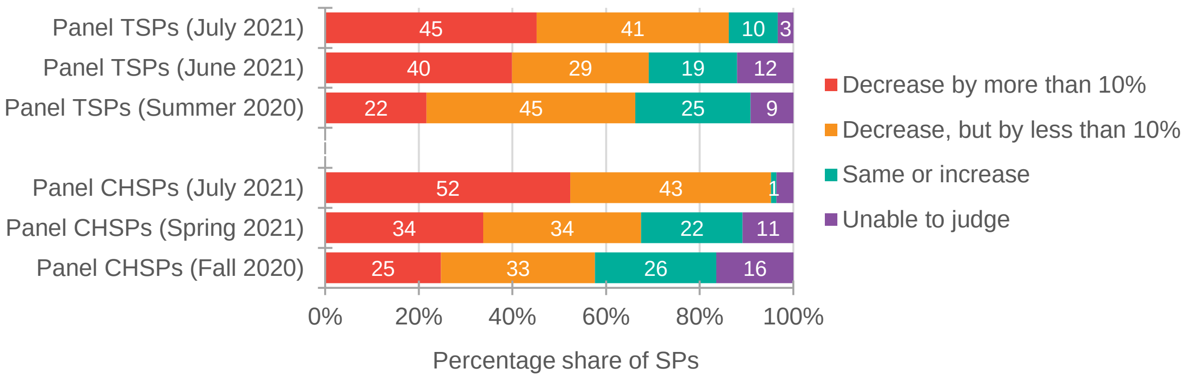


Note: CHSP=Combine harvester service provider; TSP=Tractor service provider
Source: Mechanization Service Provider Phone Survey–Summer 2020, Fall 2020, June 2021, and July 2021.

To cope with these financial challenges, many MSPs continue to report selling more assets, diverting other income to their businesses, and obtaining loans from private individuals. Since these coping activities have been prolonged while COVID-19 and political crisis persist, their ability to continue to use these means to address financial challenges may be limited. It remains important to continue monitoring the coping capacity of MSPs as well as their ability to repay loans.

Perceptions of financial prospects by MSPs, which were already pessimistic in summer and fall 2020, continued to deteriorate among both TSPs and CHSPs between June and July 2021 (Figure 10). Close to half of CHSPs and TSPs continue to expect their revenues to be more than 10 percent lower than revenues in 2019. In July 2021, 45 percent of TSPs and 52 percent of CHSPs expect their revenues to decrease by more than 10 percent in 2021, compared with 22 percent of TSPs in summer 2020 and 25 percent of CHSPs in fall 2020. With prospects remaining negative overall as the 2021 production season progresses, how MSPs can survive financially during and after the current production season must continue to be monitored closely.

Figure 10. Service providers expectations of revenues relative to pre-COVID season of 2019, by percentage share

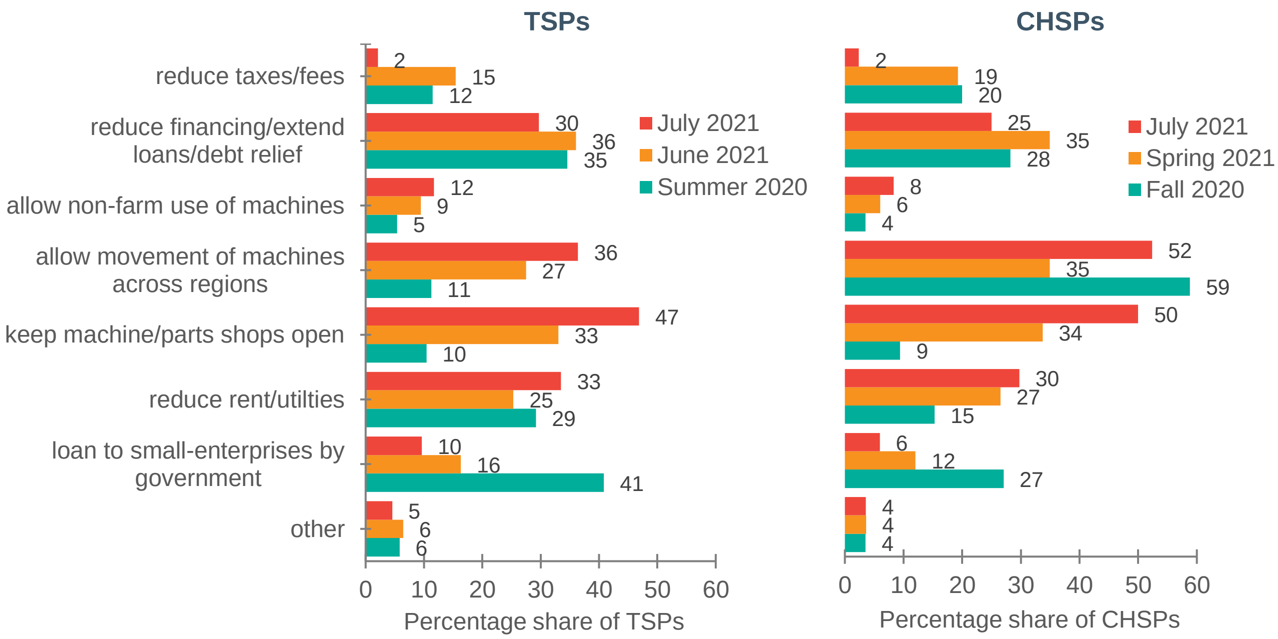


Note: CHSP=Combine harvester service provider; TSP=Tractor service provider
Source: Mechanization Service Provider Phone Survey–Summer 2020, Fall 2020, June 2021, and July 2021.

Policy recommendations

As in earlier survey rounds, 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 and political crises (Figure 11).

Figure 11. MSP perceptions on effective policies to reduce the adverse impacts of the COVID-19 and political crises on their businesses



Note: CHSP=Combine harvester service provider; TSP=Tractor service provider
Source: Mechanization Service Provider Phone Survey–Summer 2020, Fall 2020, June 2021, and July 2021.

Compared to previous rounds, including June 2021, a significantly higher share of both TSPs and CHSPs reported that policies to keep machine/parts shops open are critically important. This is consistent with the significantly reduced availability of machines and spare parts reported by MSPs in the July 2021 round. As COVID-19 restrictions were largely lifted at the time of the survey, it is unclear why machine/parts shops may not be open, though this may be associated with recent political instability. Similarly, policies to allow movement of machines or spare parts are increasingly regarded as important options. Other policies, including non-farm use of machines, remain preferred options as well. Preferences for loans, either new or relief for old ones, remain relatively low this time as in June 2021, possibly because MSPs prefer to focus on earning incomes directly through active service provisions. Additionally, if availability of machines/spare parts improves through appropriate policies, MSPs may not see the need for loan expansion at this point. Similar to taxation, the view of government loans may also be associated with the political protests.

The opinions of MSPs, as well as the newly observed conditions on the ground in July 2021, continue to suggest the following updated short-term recommendations:

- Restrictions on movement and on the availability of machines and spare parts are likely impacting the supply of mechanized services. Measures should be taken to ensure the long-term availability of these services through uncertainties. For example, providing training on better machine use, repair, and maintenance can help MSPs lengthen machine life and lessen dependence on the immediate-term availability of machine and parts in the market, including during the upcoming harvesting season.
- Keeping local machines and repair shops open can also alleviate MSPs' need to move machines beyond local areas to undertake necessary repair work before the harvesting season. Providing training and sensitization to the use of machines for non-farm use can also help MSPs enhance machine utilization rates where demand exists, and where the demand for on-farm uses is weak.
- Access to formal credit through the Myanmar Agricultural Development Bank (MADB) should be expanded to help ensure farmers' access to mechanized services. This is particularly relevant for farmers who still need land preparation services or will be needing harvesting services in the coming months. The rising fees of mechanized services and the growing inability of farmers to make payments are likely to lead to lower monsoon yields. Similarly, financial support should be provided to machine sellers or banks issuing loans to MSPs for their machines to reduce the incidence of machine repossessions when MSP loan repayment is delayed.
- While it also remains important to support adjustments on loan-repayment terms for machines and equipment owed by MSPs as well as on temporary loans for general business expenses, other policies described above are increasingly critical.

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