

Monitoring the Agri-food System in Myanmar

Mechanization service providers – June 2021 survey round

Mechanization service providers (MSPs) in Myanmar were originally interviewed by phone in the summer and fall of 2020. The phone surveys covered combine harvester SPs (CHSPs) and tractor SPs (TSPs) to determine how their businesses were affected by COVID-19 related restrictions. The results of those surveys were published in [Myanmar Strategy Support Program Policy Notes 07, 12, 17, 39, and 43](#), respectively. To trace the continuing impact of the COVID-19 pandemic and the current political and social conditions on their economic activities, a sixth phone survey of MSPs was conducted in early June 2021. This Research Note reports on the results of the sixth survey as well as on trends from earlier surveys.

Key Findings

- As of early June 2021, TSPs that began land preparation services and CHSPs that completed harvesting continue to face restrictions, particularly on the movement of their machines. The area prepared by TSPs also remains lower in the Dry Zone, although it may recover as the production season progresses.
- MSPs are increasingly experiencing a reduced availability of machines and spare parts/attachments, and rising prices for fuel/diesel. Hiring charges for land preparation are also rising.
- Financial challenges for MSPs continue and include difficulties with loan repayment and growing fears of machine foreclosures.
- As the major production season progresses, business prospects have worsened, especially for TSPs.

Recommended actions

- Access to formal credit through the Myanmar Agricultural Development Bank should be expanded to help ensure that farmers have access to mechanized services as the rising fees for mechanized services and the growing inability of farmers to make payments are likely to lead to lower monsoon yields.
- Restrictions on movement and on the availability of machines and spare parts/attachments are likely impacting the supply of mechanized services. Measures should be taken to ensure the long-term availability of these services.
- Continue monitoring the effects of MSP's hiring charge increases on farmers' financial status and on production in the current main production season.

Background

Agricultural mechanization service providers (MSPs) enable 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, and the economic viability of these businesses is highly sensitive to (1) capacity utilization, which generates the cash flow needed to repay equipment loans; (2) prices of imported capital goods, including machines, equipment, and fuel; and (3) the availability of machine operators, among others. Hence, MSP operations are sensitive to restrictions on mobility and trade.

The operations of MSPs 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 situation in June 2021 (hereafter Summer 2021) and how it has changed since May-July 2020 (hereafter Summer 2020) and November-December 2020 (hereafter Fall 2020)¹ by discussing qualitative findings regarding the following questions:

- To what extent have MSP activities been restricted by political instability and COVID-19-related restrictions?
- How has the supply of services been affected? What changes in the availability of equipment, repair services, technical labor, and fuel have resulted?
- What are the key financial and other challenges 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 sixth round of MSP phone interviews was conducted in Summer 2021, approximately six months after the fifth survey round. Most MSP activities were focused on tractors, and the composition of MSPs interviewed has changed from previous survey rounds. In the sixth survey round, a total of 429 MSPs were interviewed. All MSPs have also been interviewed in at least one of the previous rounds, including 261 tractor service providers (TSPs) who were interviewed at least once in survey rounds one to three (Summer 2020) and 99 combine harvester service providers (CHSPs) who were interviewed in survey rounds four and five (Fall 2020) (Table 1).

Table 1. Service providers from Summer 2021 with responses in Summer 2020 and Fall 2020 survey rounds

Panel samples	Panel samples	Other samples	Total
TSPs in both Summer 2020 and Summer 2021	261	49	310
CHSPs in both Fall 2020 and Spring 2021	99	16	115
All other respondents	-	-	14
Total			429

Note: TSP=Tractor service provider; CHSP=Combine harvester service provider. "Summer 2020" refers to survey rounds 1–3 in which each panel SP provided responses, "Fall 2020" refers to survey rounds 4–5, and "Summer 2021" refers to survey round 6.

Source: Mechanization service provider phone survey–Summer 2020, Fall 2020, and Summer 2021.

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](#), and [November 2020 survey round](#). IFPRI Myanmar Strategy Support Program Research Notes 07, 12, 17, and 39. Yangon: IFPRI.

This Research Note focuses primarily on information for the panel samples of 261 TSPs and 99 CHSPs. While panel samples are sub-samples, their responses can shed light on the changes between the Summer and Fall 2020 survey rounds and the Summer 2021 survey round.² For basic characteristics of the full Summer 2020 and Fall 2020 samples, refer to our earlier Research Notes.

Table 2 summarizes the regional distribution of interviewed panel MSPs. A large number of respondents are from the Ayeyarwady, Bago, and Magway regions, with a small fraction of the sample from Mandalay and Sagaing regions.

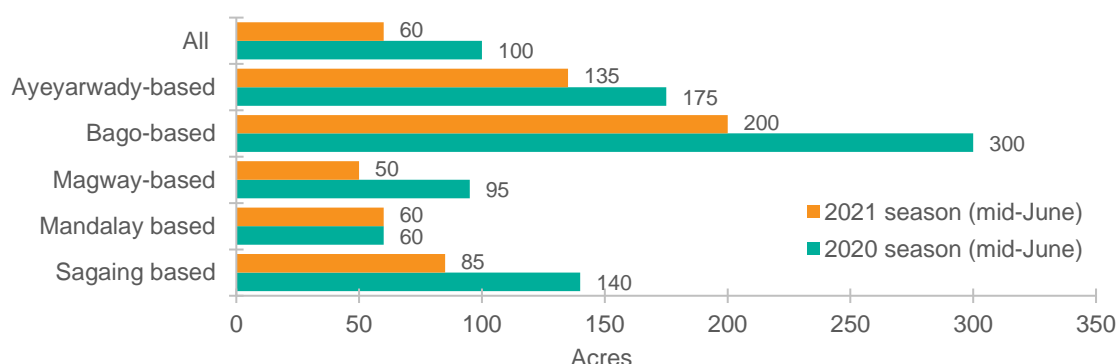
Table 2. Panel MSPs interviewed in Round 6, by region

Region	Panel MSPs
Ayeyarwady	151
Bago	50
Magway	159
Mandalay	20
Sagaing	31
Others	18
Total	429

Source: Mechanization service provider phone survey–May-July 2020, November-December 2020, and June 2021 survey rounds.

Figure 1 shows the area prepared by TSPs in the current production season by the time they were interviewed in Summer 2021. At the median, TSPs based in Ayeyarwady and Bago regions had provided services to 135 and 200 acres, respectively, while those based in Magway region had provided services to 50 acres. These variations may be due to the timing of the start of the rainy season. However, compared to Summer 2020, the areas prepared by TSPs across almost all regions are considerably less in Summer 2021. At the median of the sample, the area prepared in Summer 2021 (60 acres thus far) is only 60 percent of that prepared in Summer 2020.

Figure 1. Area prepared by TSPs, by median acres



Source: Mechanization service provider phone survey–June 2020 and June 2021 survey rounds.

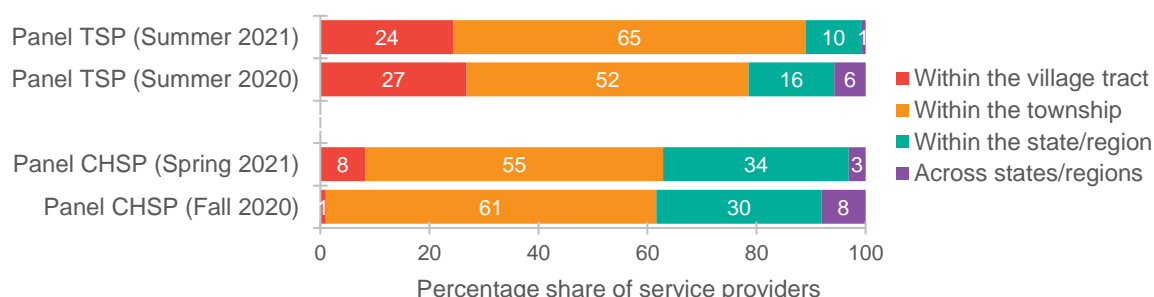
Reported effects of the COVID-19 and political crises on MSPs

As in earlier rounds, most CHSPs and TSPs remain restricted to operating solely within their village tracts or townships. These restrictions appear to be related to the recent political unrest as many of the restrictions to contain the spread of COVID-19 were no longer in place (Figure 2). Importantly, the share of all CHSPs and TSPs experiencing movement restrictions increased again between Fall 2020 and Summer 2021. These patterns were observed for CHSPs between Fall 2020 and

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.

Spring 2021 and for TSPs in Summer 2021. It is important to continue monitoring the situations for TSPs, especially as land preparation continues to expand into late-production areas.

Figure 2. Percentage share of service providers that experienced restrictions on areas of operation, by machine type and season

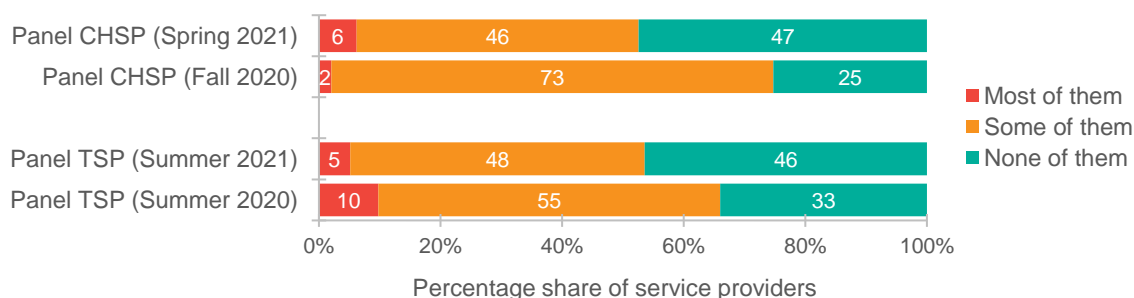


Source: Mechanization service provider phone survey–May-July 2020, November-December 2020, and June 2021 survey rounds.

Mechanization services provision compared to the same month in 2019

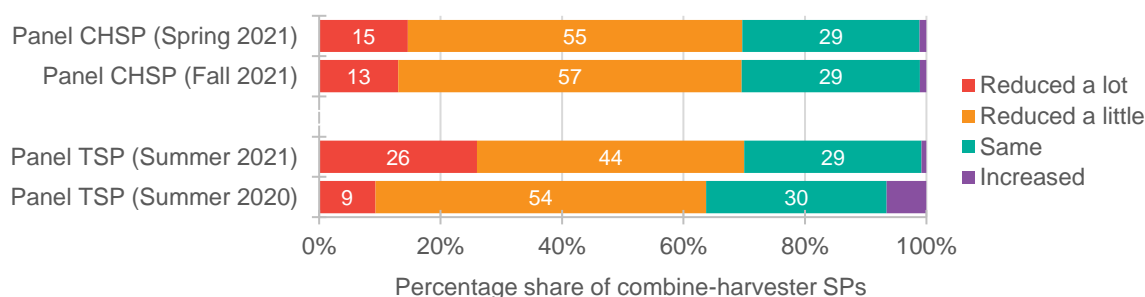
Delays in service provision have been relatively less pronounced in Summer 2021 than in Summer 2020 or Fall 2020 (Figure 3). The shares of CHSPs reporting that some of their customers had to wait longer for their service, compared to one year earlier, declined from around 70 percent in Summer 2020 or Fall 2020 to around 50 percent in Summer 2021. These patterns are similar for TSPs. However, close to half of the overall MSPs continue to perceive that some of their customers experienced delays in services compared to the previous year, and thus the situations on the ground need continuous monitoring. Furthermore, throughout the current season, respondents continued to perceive that demand for tractor and combine harvester services is weaker than in 2019 (Figure 4).

Figure 3. Percentage share of MSPs reporting that their customers had to wait longer for services, compared to the previous year



Source: Mechanization service provider phone survey–May-July 2020, November-December 2020, and June 2021 survey rounds.

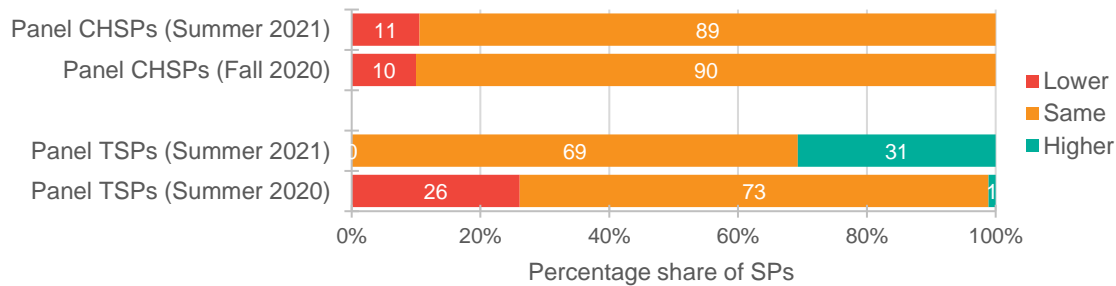
Figure 4. Percentage share of panel CHSPs reporting lower demand for harvesting services relative to pre-COVID-19



Source: Mechanization service provider phone survey–May-July 2020, November-December 2020, and June 2021 survey rounds.

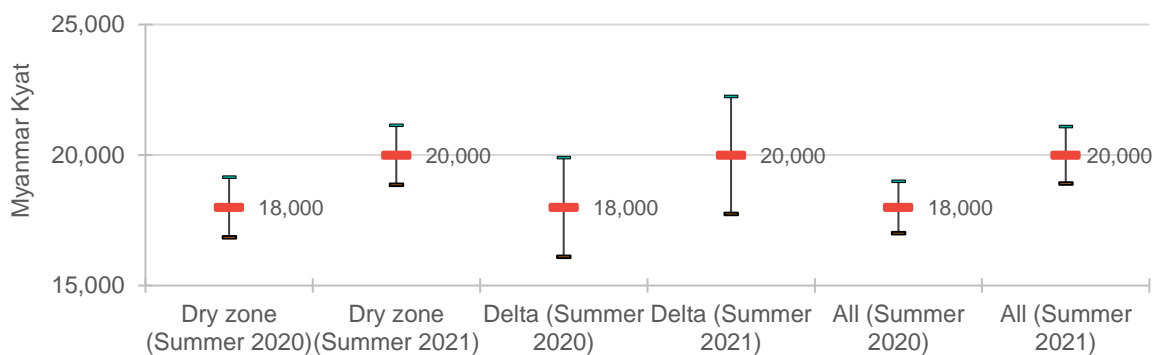
In Summer 2020 and Fall 2020, MSPs charged about the same or slightly lower service fees than during the same season in the previous year. However, in Summer 2021, TSP hiring charges increased compared to Summer 2020, with about 30 percent of TSPs reporting that they are charging higher than in Summer 2020 (Figure 5). Generally, hiring charges for land preparation increased from 18,000 to 20,000 Myanmar Kyat per acre between Summer 2020 and Summer 2021 (Figure 56), which is notable given that most TSPs perceive significantly reduced demand in Summer 2021. These increases may reflect either a recovery from service charge reductions experienced in 2020 or a reduction in Panel TSP capacity to offer discounts to customers. These factors must be more carefully monitored.

Figure 5. Service charges compared to one year ago



Source: Mechanization service provider phone survey–May-July 2020, November-December 2020, and June 2021 survey rounds.

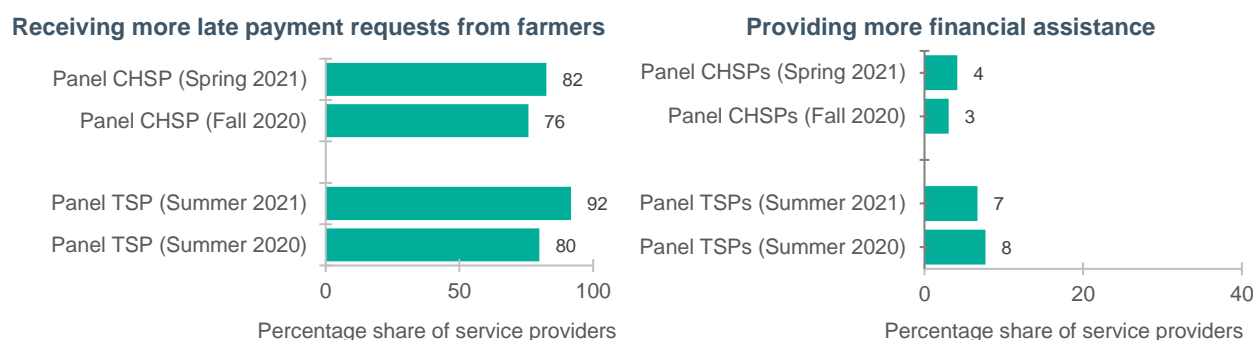
Figure 6. Average per acre charges for primary tillage, by region and year



Source: Mechanization service provider phone survey–May-July 2020, November-December 2020, and June 2021 survey rounds.

As in previous survey rounds, MSPs 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 to the indirect effects of the 2021 political crisis (Figure 7). The share of MSPs facing such requests remains high and without any clear indication of reduction. With such challenges, less than 10 percent of panel MSPs are able to provide other financial assistance to farmers. MSPs also continue to face financial difficulty, possibly due to prolonged COVID-19 related restrictions and political insecurity.

Figure 7. Percentage share of MSPs receiving more late payment requests from farmers and providing more financial assistance compared to the same time in the previous year

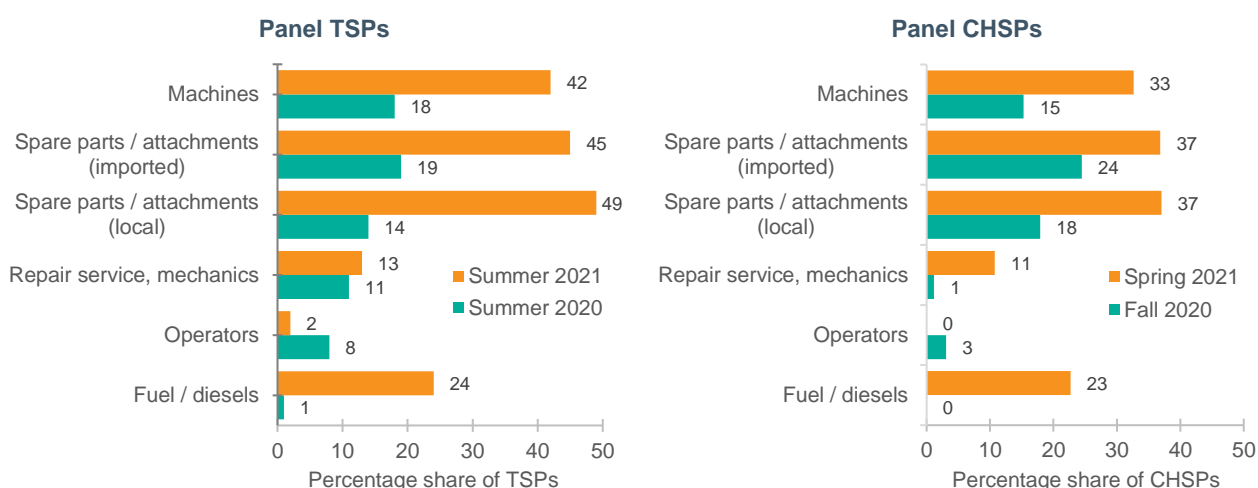


Source: Mechanization service provider phone survey–May-July 2020, November-December 2020, and June 2021 survey rounds.

Supply-side factors

On the supply side, a significant share of MSPs experienced reduced availability of machines and spare parts/attachments (both imported and locally manufactured) in Summer 2021 compared to the same periods in 2020 and 2019 (Figure 8). The reduced availability of these machines and equipment is particularly serious for TSPs as they have entered peak season. Additionally, while the availability of fuel and diesel was rarely an issue in 2020, they has become increasingly scarce for TSPs in Summer 2021. Generally, the reduced availability of machines and equipment as well as the higher price of fuel and diesel for TSPs are common in all regions surveyed.

Figure 8. Share of TSPs and CHSPs reporting reduced availability of equipment, repair services, and operators compared to one year earlier



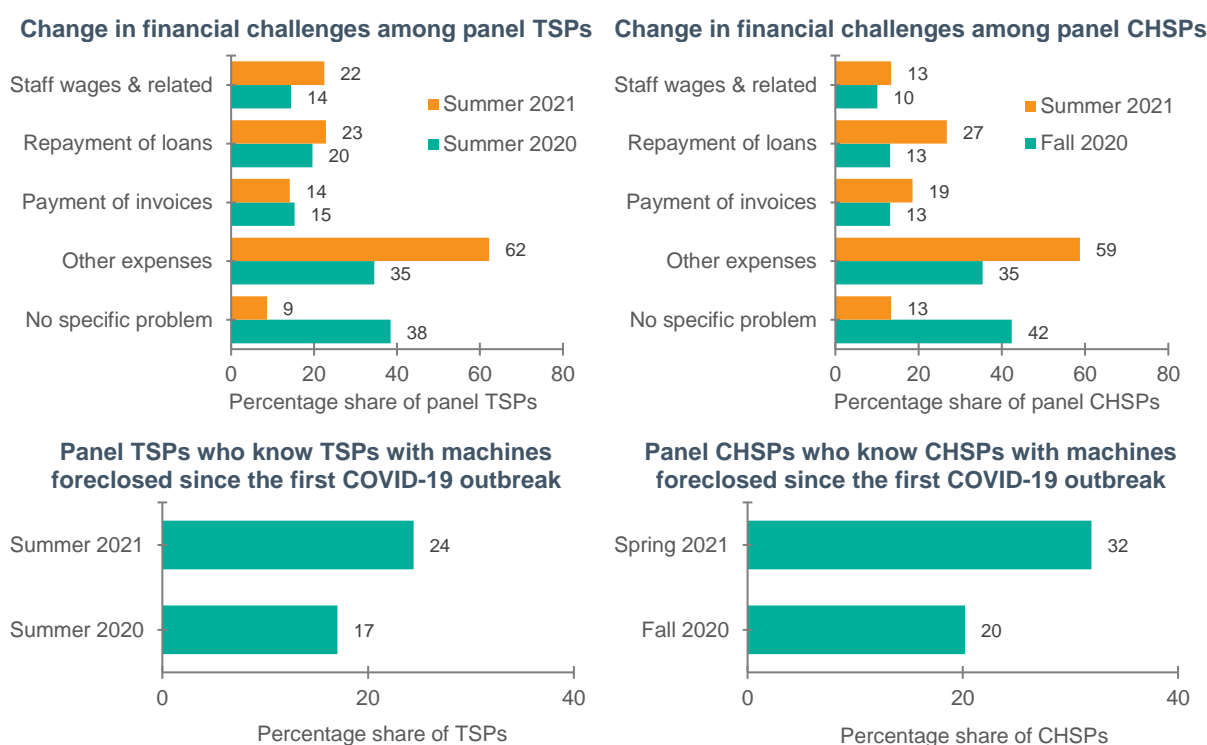
Source: Mechanization service provider phone survey–May-July 2020, November-December 2020, and June 2021 survey rounds.

Financial effects on business

Most MSPs continue to experience financial challenges due to the combined impacts of COVID-19 and political unrest. Between Summer and Fall 2020 and Summer 2021, the share of MSPs experiencing financial challenges also increased (Figure 9, top charts). Both TSPs and CHSPs continue to be particularly concerned about financial requirements such as loan repayments for their equipment as well as about various other expenses which may be associated with 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 Summer 2021. Foreclosures on equipment are also becoming more common (Figure 9, bottom charts). Among panel TSPs surveyed in Summer 2020, 17 percent reported knowing other TSPs whose machines had been foreclosed since the beginning

of the COVID-19 outbreak. This share increased to 24 percent in Summer 2021. Similar increases have also been observed among CHSPs. To cope with these financial challenges, many MSPs continue to report selling assets, diverting other income to their businesses, and obtaining loans from private individuals. Since these coping activities have been prolonged with the continued COVID-19 and political crises, it remains important to monitor coping capacities in the future.

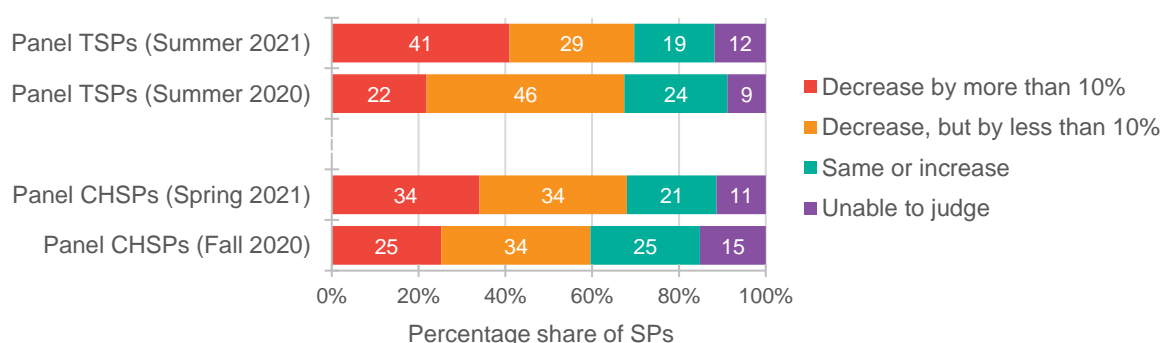
Figure 9. Percentage share of service providers reporting financial challenges due to restrictions



Source: Mechanization service provider phone survey–May-July 2020, November-December 2020, and June 2021 survey rounds.

Overall, TSP and CHSP perceptions of their financial prospects in 2020 either remained pessimistic or worsened between Summer and Fall 2020 and Summer 2021 (Figure). More than half of TSPs and CHSPs continue to expect their revenues to be lower than those of 2019. In Summer 2021, 41 percent of TSPs and 34 percent of CHSPs expressed that their revenues would 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. As prospects remain negative overall while the 2021 production season progresses, how these MSPs survive financially during and after the current season must continue to be monitored closely.

Figure 10. Service providers expectations of revenues relative to pre-COVID-19, by percentage share

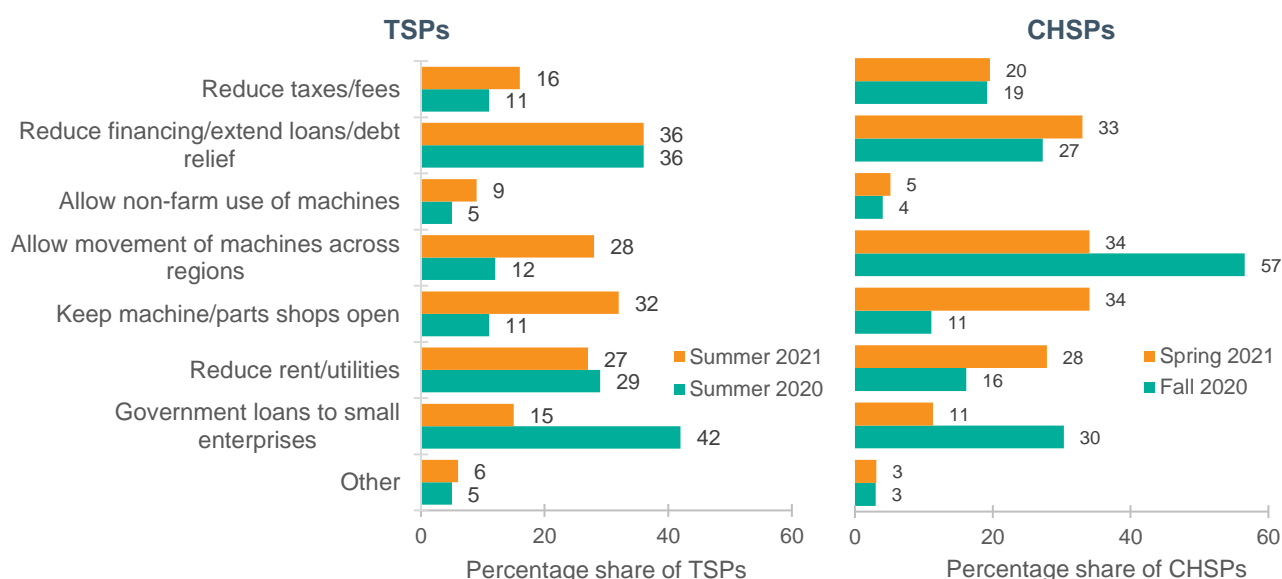


Source: Mechanization service provider phone survey–May-July 2020, November-December 2020, and June 2021 survey rounds.

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 crisis (Figure).

Figure 11. Service provider perceptions of effective policies to reduce COVID-19 impacts on businesses, by type of machine (survey rounds 4 and 5)



Source: Mechanization service provider phone survey–May-July 2020, November-December 2020, and June 2021 survey rounds.

Compared to previous rounds, a significantly higher share of MSPs reported that policies keeping machine and spare parts shops open are critically important, which is consistent with the significantly reduced availability of machines and spare parts reported by MSPs in the Summer 2021 survey round. As COVID-19 restrictions were largely lifted at the time of the most recent survey, it is unclear why machine and spare parts shops may not be open, though this may be associated with the recent political unrest. Similarly, policies to reduce taxes and fees are increasingly regarded as important options, which may be associated with the acquisitions of imported machines and spare parts. However, responses regarding taxation may also reflect the current political protests. Other policies, such as allowing movement of machines or non-farm use of machines, remain preferred options. Preference for loans, either new loans or relief for old ones, was relatively lower this time, possibly because MSPs, especially TSPs, prefer to focus on earning income directly through active service provision during the current peak season. Additionally, if the availability of machines and 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 also may be associated with the political protests.

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

- Access to formal credit through the Myanmar Agricultural Development Bank should be expanded to ensure that farmers have access to mechanized services as the rising fees of such services and the growing inability of farmers to make payments are likely to lead to lower monsoon yields.
- 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 during uncertainty. For example, providing training on better

machine use, repair, and maintenance can help MSPs to lengthen machine life and become less dependent on the machine and parts availability in the market in the short term.

- Linking TSPs with local farmers or farmer groups can help TSPs to increase machine utilization rates while regional movement remains restricted. Keeping local machines and repair shops open may also alleviate the need for MSPs to move machines beyond local areas. Providing training and sensitization to the use of machines for non-farm use can help MSPs enhance machine utilization rates where demand exists and where demand for on-farm use is weak.
- While it remains important to support adjustments to loan-repayment terms on machines and equipment owed by MSPs as well as to temporary loans for general business expenses, the policies described above are increasingly critical.

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