

# Monitoring the Impact of COVID-19 in Myanmar

## Mechanization Service Providers – July 2020 survey round

Hiroyuki Takeshima, Myat Thida Win, and Ian Masias

Mechanization service providers in Myanmar were originally interviewed by telephone in May 2020 and again in June 2020 to determine how their businesses were being affected by COVID-19 related restrictions. The results of those surveys were published in [Myanmar Strategy Support Program Policy Notes 07](#) and [12](#), respectively. To trace the continuing impact of the COVID-19 pandemic on their economic activities, a third phone survey of mechanization service providers was done in early-July 2020. This Note reports on the results of the third survey, as well as some trends since the first and the second surveys.

### Key findings

- In July, movement restrictions have eased and availability of equipment and workers have improved for tractor-service providers (TSPs).
- However, as the season progressed, TSPs now have more pessimistic financial prospects for 2020. Demand for tractor service across the country has remained lower compared to one year ago, particularly in the Dry Zone. Many TSPs reported charging a lower rate for their services than in 2019, which has contributed to reduced revenue.
- As the peak demand season has also ended, TSPs now have limited prospects to recover revenues. Consequently, more TSPs now ask for temporary financial aid.
- A growing share of TSPs, especially in the Delta, reported delayed land preparation in 2020. They increasingly attribute this to COVID-19 related disruptions to farming.

### Recommended actions

- Adjust loan repayment terms for machines and equipment owned by mechanization service providers (MSP). Consider offering temporary loans, waivers, or reductions of general MSP business expenses, including rent, utilities, and 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.
- Explore ways to maximize utilization of private-sector MSPs where the government currently provides direct 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 farmers' access to MSP services 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 and second rounds of the survey of MSPs in May and June<sup>1</sup> 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 availability 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 third round of phone interviews of MSPs was conducted in early July 2020, approximately three weeks after the second survey round. A total of 242 MSPs were interviewed – 226 tractor service providers (TSP), 12 combine-harvester, 2 thresher, 1 reaper, and 1 other type of MSP. Of these third-round respondents, 231 had participated in the first and second rounds of the survey, including 216 TSPs (Table 1).

This policy note focuses primarily on TSPs. Most other MSPs had finished their operating season by the time of the third survey round, so relatively few participated in the third round. However, most of the findings in this policy note hold true for 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.<sup>2</sup> (For basic characteristics of these TSPs, refer to the aforementioned earlier policy notes.)

**Table 1. Tractor service providers interviewed in survey rounds 1 to 3**

Zone	Regions	Round 1 (May)	Round 2 (June)	Round 3 (July)	Panel (all rounds)
Dry zone	Magway	176	156	130	125
	Mandalay	14	17	17	14
	Sagaing	39	34	30	30
Delta	Ayeyarwady	63	50	32	30
	Bago	39	27	16	16
	Yangon	2	2	1	1
<b>Total</b>		<b>333</b>	<b>286</b>	<b>226</b>	<b>216</b>

Source: Mechanization Service Provider (MSP) Phone Survey rounds, May-July 2020.

<sup>1</sup> Takeshima, H., M.T. Win, and I. Masias. 2020. [Monitoring the Impact of COVID-19 in Myanmar: Mechanization Service Providers – May 2020 survey round](#). IFPRI Myanmar SSP Policy Note 07. Yangon: International Food Policy Research Institute ([blog](#))

Takeshima, H., M.T. Win, and I. Masias. 2020. [Monitoring the impact of COVID-19 in Myanmar: Mechanization service providers – June 2020 survey round](#). IFPRI Myanmar SSP Policy Note 12. Yangon: International Food Policy Research Institute.

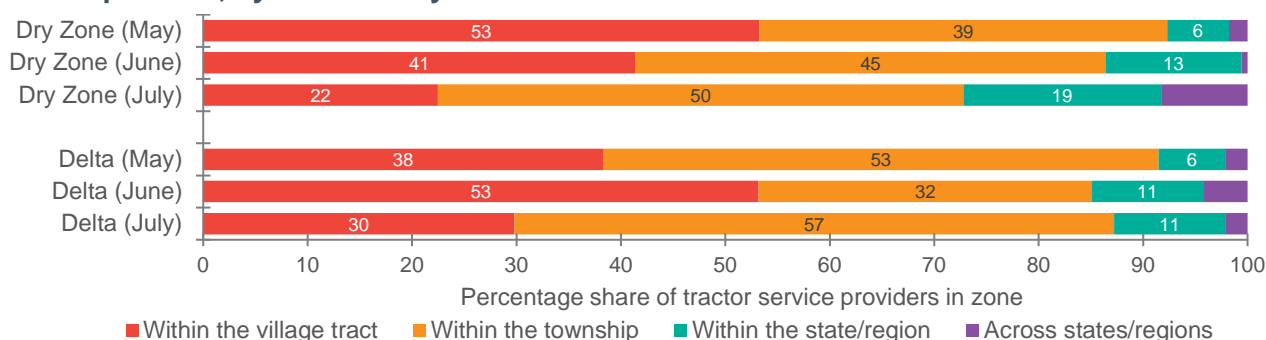
<sup>2</sup> The sample of MSPs is not representative at national or at state/region levels. However, we discuss heterogeneity, where appropriate, to highlight the potential importance of machine-specific or region/state-specific support measures. We highlight such heterogeneity where, given the sample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

## Reported effects of COVID-19 on mechanization service providers

### *Continued easing of restrictions on business since May and June 2020*

The restrictions on movement across different geographies, implemented as part of the efforts to contain the spread of COVID-19, continue to ease in both the Dry Zone and the Delta, as shown by the declining share of TSPs between May, June, and July who were restricted to operating only within the village tract (Figure 1). This has also been the case in the Delta where movement of TSPs became more restricted in June.

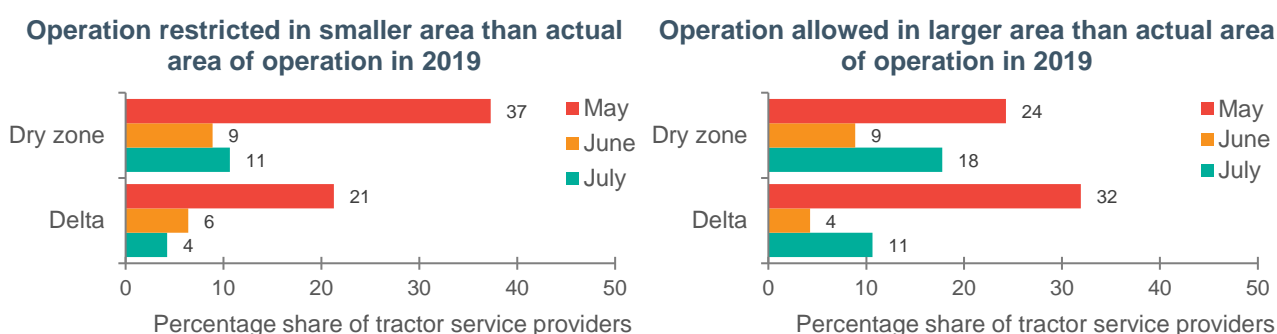
**Figure 1. Tractor service providers that experienced COVID-19 related restrictions on areas of operation, by zone and by month**



Source: Mechanization Service Provider (MSP) Phone Survey rounds, May-July 2020.

While these geographic restrictions have had mixed effects for TSPs depending on their normal areas of operations, the overall easing of constraints on where they can operate has been beneficial to TSPs. In May, 37 and 21 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. These shares dropped to 9 and 6 percent by June, respectively, and remained similarly low in July (Figure 2, left chart). In May, 24 and 32 percent of TSPs in the Dry Zone and in the Delta, respectively, reported that the same geographic restrictions allowed them to operate in larger areas than their normal areas of operations in 2019 (Figure 2, right chart). The share of TSPs reporting this dropped to 9 and 4 percent by June, but rebounded to 18 and 11 percent by July, respectively. If demand for services persists, the changes in geographic restrictions suggest that TSPs now have somewhat improved prospects of expanding their operation areas beyond those areas that they served in 2019.

**Figure 2. COVID-19 related restrictions on area of operations relative to tractor service providers actual areas of operations in 2019**

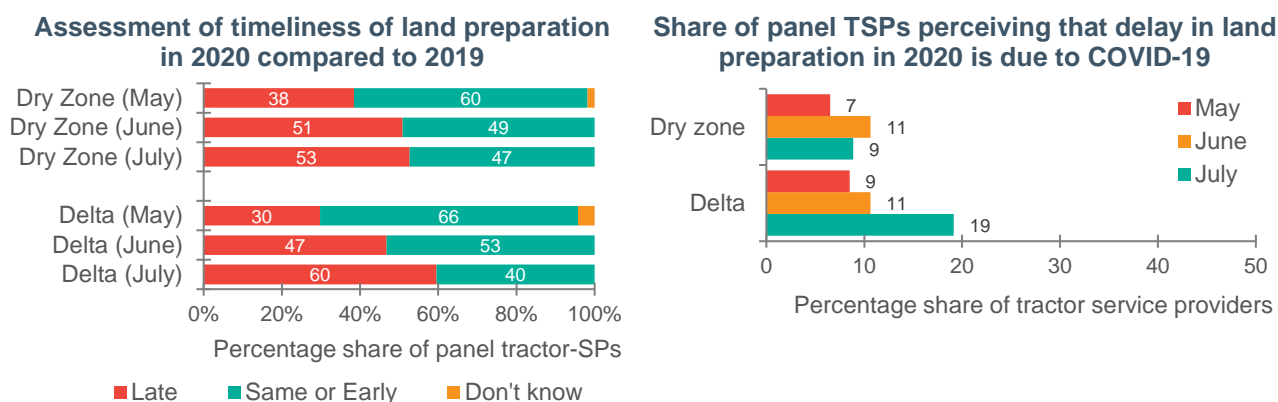


Source: Mechanization Service Provider (MSP) Phone Survey rounds, May-July 2020.

### Mechanization services provision compared to the same month in 2019

However, a significant and increasing share of TSPs in both the Dry Zone and the Delta reported that the timing of land preparation was later this year than in 2019 (Figure 3). An increasing share of TSPs, particularly those in the Delta, perceive that delays to land preparation in 2020 are due to COVID-19. The potential impacts of such production delays should continuously be monitored.

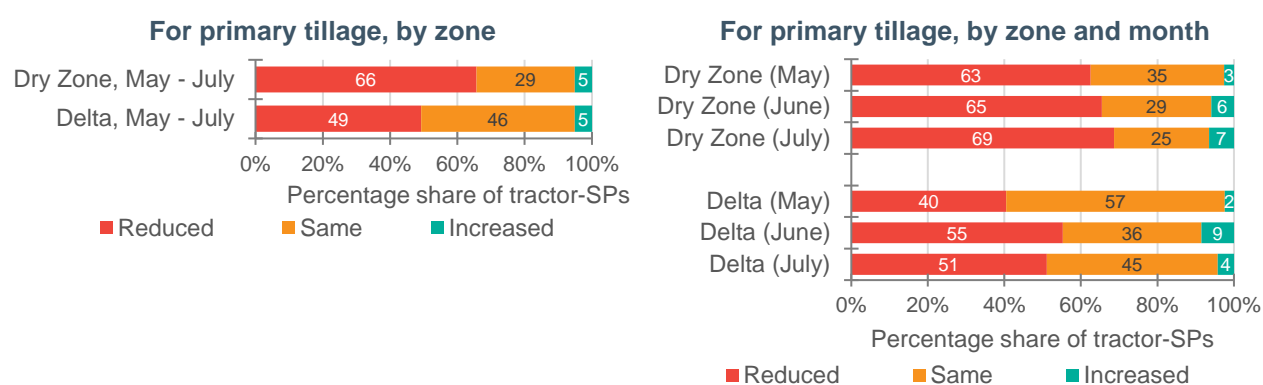
**Figure 3. Tractor service providers assessment of timeliness of land preparation for 2020 main cropping season compared to 2019, by zone and month**



Source: Mechanization Service Provider (MSP) Phone Survey rounds, May-July 2020.

A majority of TSPs who reported reduced demand compared to 2019 in May and June continue to do so in July (Figure 4). Roughly half of TSPs persistently experienced a reduction in demand for their services compared to the same month in 2019. In particular, reduced demand has been widespread in the Dry Zone. This is due to a combination of weather-related factors, particularly the late arrival of the monsoon rains, and COVID-19.

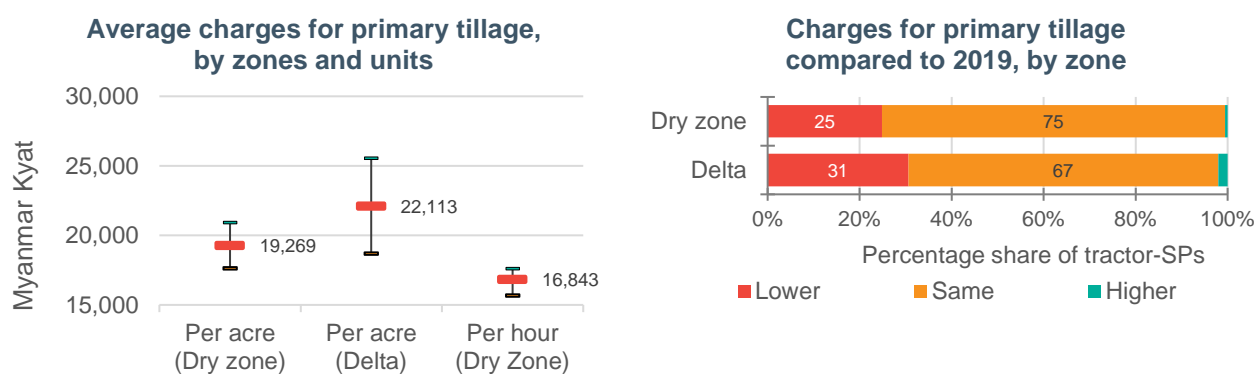
**Figure 4. Tractor service providers that reported lower demand for primary tillage services in 2020 relative to 2019**



Source: Mechanization Service Provider (MSP) Phone Survey rounds, May-July 2020.

Generally, reduced demand from May through July has resulted in lower service charges received by TSPs. Service charges in the current season have generally about 19,000 Kyat per acre in the Dry Zone, 22,000 Kyat per acre in the Delta, and 17,000 Kyat per hour in the Dry Zone (Figure 5). About 30 percent of TSPs indicated their charges in 2020 to be lower than what they charged farmers in 2019.

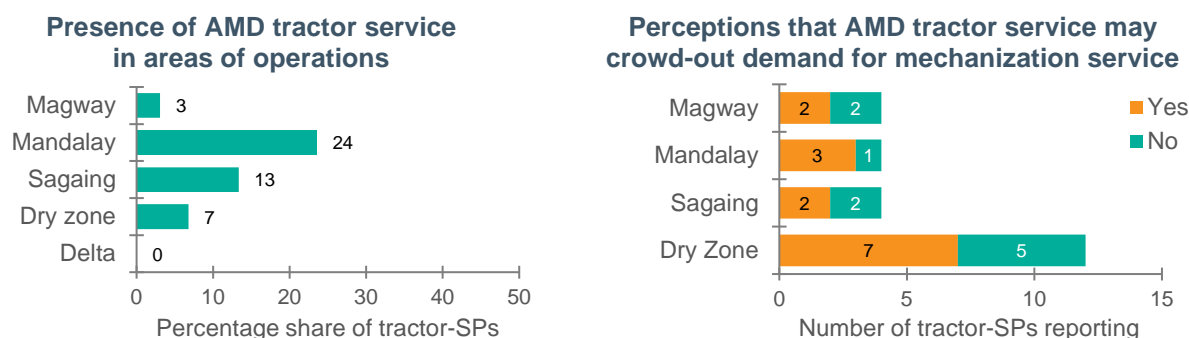
**Figure 5. Service charges in 2020 and differences from 2019**



Source: Mechanization Service Provider (MSP) Phone Survey rounds, May-July 2020.  
Note: Black lines (left) show 95% confidence intervals for charges for primary tillage.

In a number of areas, tractor services provided by the Agricultural Mechanization Department (AMD) of the Ministry of Agriculture, Livestock and Irrigation may have affected TSPs. In July, about 7 percent of interviewed TSPs in the Dry Zone (including one-quarter of TSPs in Mandalay region) reported the presence of such government-provided agricultural mechanization services in their areas of operation (Figure 6). Though the government-provided services are not common, several of the TSPs interviewed thought that AMD's services might end up competing with their own businesses for customers.

**Figure 6. Tractor service providers reporting the presence of tractor service by Agricultural Mechanization Department and perceptions of its crowding-out effects**



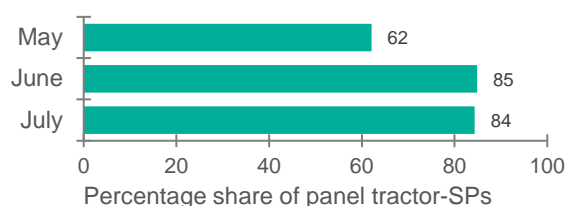
Source: Mechanization Service Provider (MSP) Phone Survey rounds, May-July 2020.

This suggests that, while access to cheaper tractor service is beneficial for farmers, to develop over the longer term the increased use of machinery for crop production in Myanmar, these services could be better provided by utilizing private sector TSPs, rather than through direct provision of such services by the government. In particular, it may be beneficial to develop mechanisms for farmers to utilized private TSPs in the next production season. This could be done, for example, by providing farmers with vouchers for mechanization service, which is already planned, and increasing the value of the vouchers where needed, conditional on them being used for private sector TSPs.

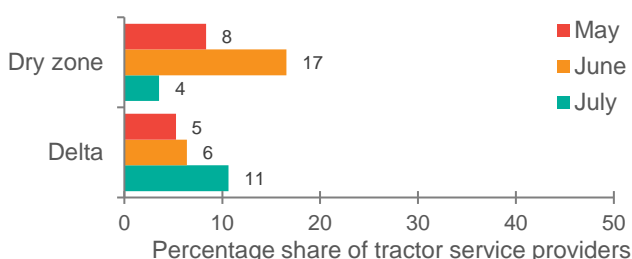
In addition to lower demand and lower charges, TSPs also continue to face reduced farmer capacity to make payments, which could be related to the COVID-19 crisis (Figure 7). A significant and growing majority of TSPs reported more requests from farmers to allow for late payments. Additionally, while the share of TSPs providing other financial assistance to customers declined in the Dry Zone since June, the share has slightly risen in the Delta. These factors further add to the challenges that TSPs face in 2020 in collecting sufficient revenues in a timely manner.

**Figure 7. Tractor service providers reporting receiving late payments requests from farmers and providing additional financial assistance**

**Facing more requests from farmers for late payments in 2020 than in previous years**



**Providing additional financial assistance, beyond accepting late payments, in 2020 than in 2019**

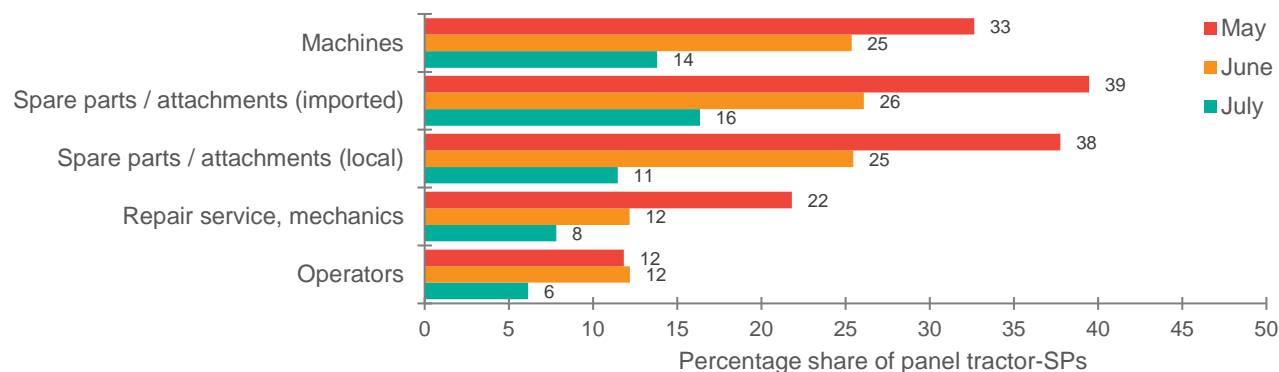


Source: Mechanization Service Provider (MSP) Phone Survey rounds, May-July 2020.

### Supply-side factors

On the supply-side, TSPs have experienced general improvements in availability of machines, spare parts, and attachments (both imported and locally manufactured), as well as in availability of repair services, mechanics, and operators (Figure 8). We observed these patterns both for TSPs and for other MSPs across all regions and states surveyed. However, these improvements might stem not only from the gradual easing of restrictions, but also from declining demand as the peak land preparation season nears completion. Therefore, these improvements may not necessarily lead to more promising financial prospects for TSPs.

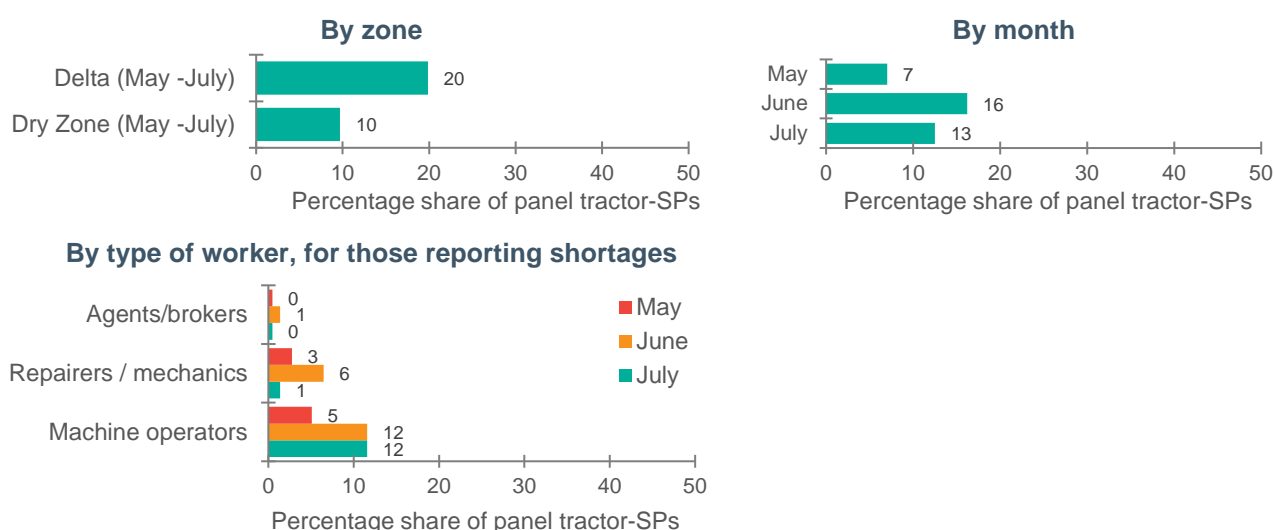
**Figure 8. Share of panel tractor-SPs reporting reduced availability of equipment, repair services, and operators compared to one-year earlier, by month surveyed**



Source: Mechanization Service Provider (MSP) Phone Survey rounds, May-July 2020.

Similarly, the shortage of skilled workers has become a relatively minor constraint. The share of TSPs reporting shortages of skilled workers due to COVID-19 increased from 7 percent in May to 16 percent in June, but declined somewhat to 13 percent in July (Figure 9). Throughout, TSPs in the Delta have faced greater challenges, partly because their businesses are larger and employ more workers. For those who reported shortages, machine operators continue to be the primary type of workers in shortage. Most of such shortages are reportedly due to restrictions on worker movements, both directly and indirectly caused by COVID-19 responses.

**Figure 9. Tractor service providers reporting worker shortages attributed to COVID-19 restrictions**

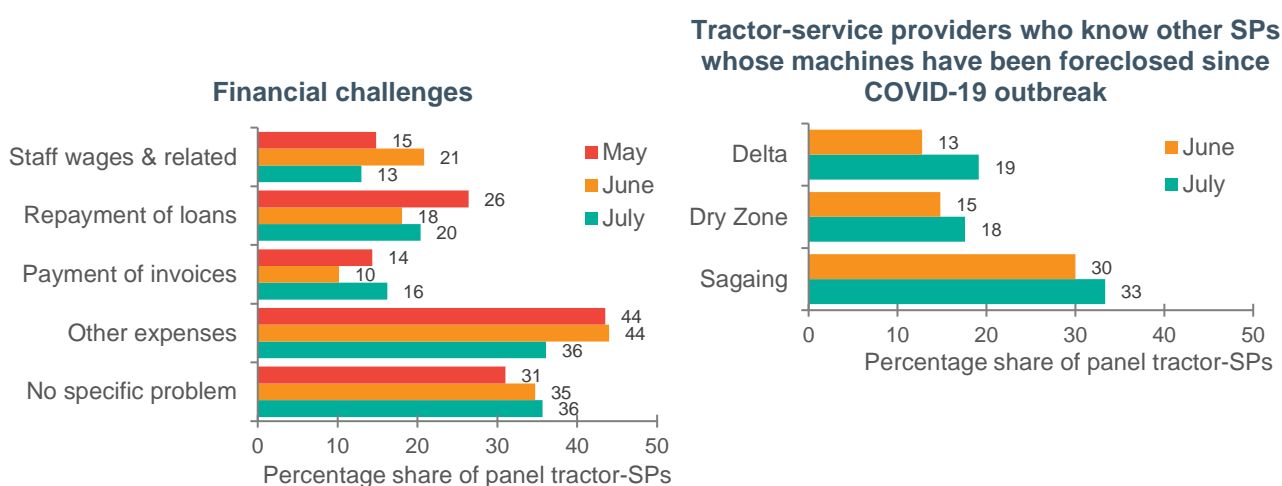


Source: Mechanization Service Provider (MSP) Phone Survey rounds, May-July 2020.

### Financial effects on business

Approximately two-thirds of TSPs, almost unchanged from June, continue to experience financial challenges due to the impacts of COVID-19 and related regulations (Figure 10). As the peak operation season comes to an end and prospects for further revenue earnings from mechanization services become scarce, more TSPs are concerned about invoice payments and loan repayments for their equipment in July than in June. Foreclosures on equipment have also continued to increase. By July, almost 20 percent of TSPs (33 percent in Sagaing) reported knowing other TSPs whose machines had been foreclosed on since the beginning of the COVID-19 outbreak. As in the June survey, to cope with these financial challenges, many TSPs reported selling more assets, diverting other income to their businesses, and obtaining loans from private individuals.

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

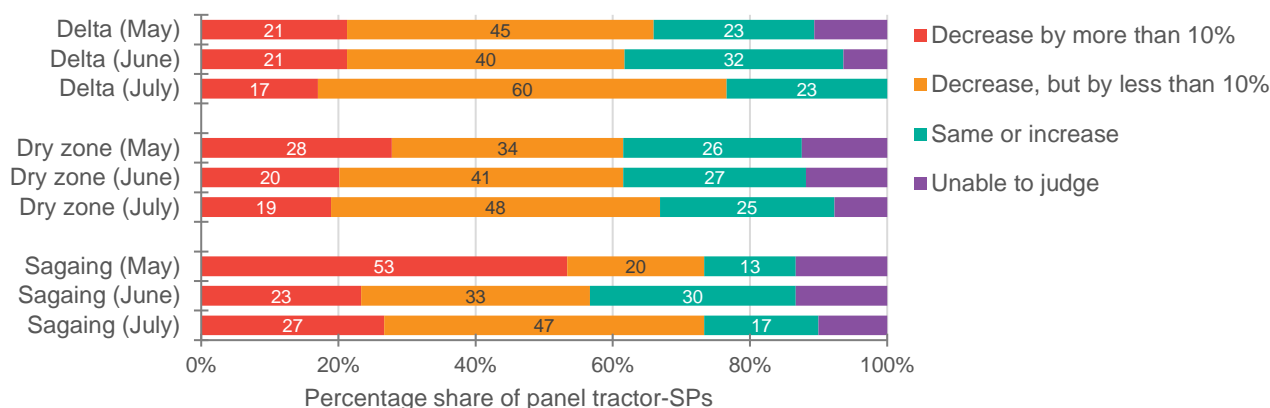


Source: Mechanization Service Provider (MSP) Phone Survey rounds, May-July 2020.

As the season progressed, TSPs perceptions of their financial prospects in 2020 have become more pessimistic. In May and June, a majority of TSPs expected their revenues to decrease in 2020 compared to 2019. The share of such TSPs further increased in July, broadly across zones, but

particularly in the Delta (Figure 11). Reduced revenues, as described above, are likely to result in depressed profits, despite relative improvements in material availability. This finding applies regardless of the type of mechanization service provided. Even in the Sagaing Region, where prospects on revenue in 2020 improved in June relative to May, has seen some reversal in July.

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

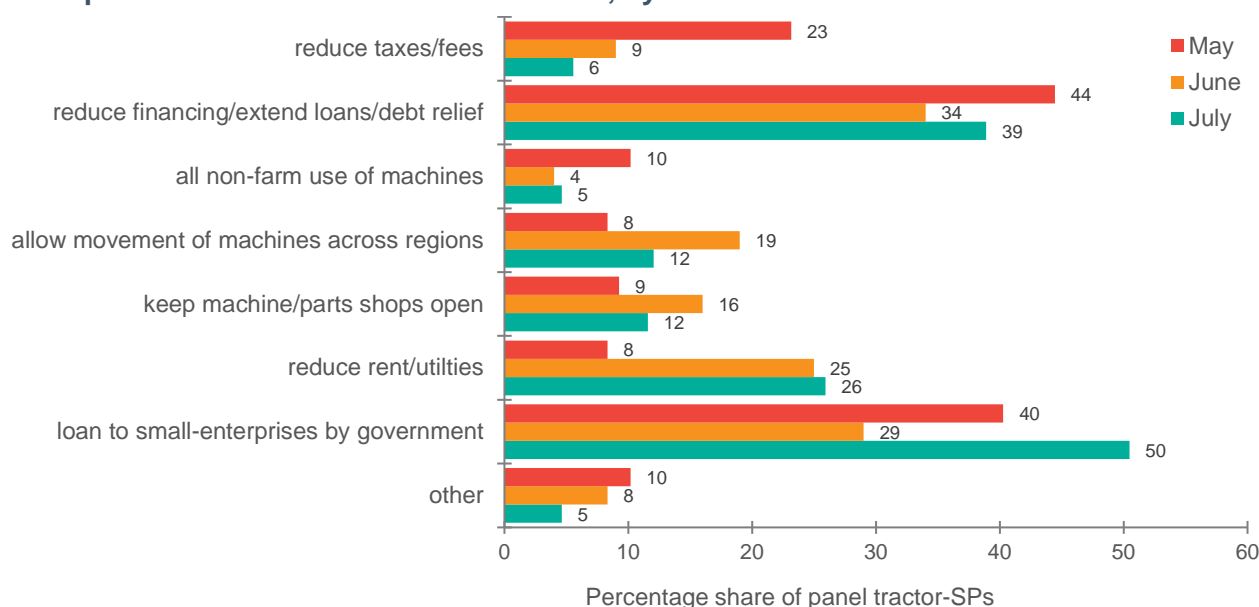


Source: Mechanization Service Provider (MSP) Phone Survey rounds, May-July 2020.

## Policy recommendations

As in the first and second 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 12). Among these policies, financial support through various mechanisms (particularly loan-related) and rent and utility payment support have become increasingly preferred options. Easing of restrictions on movement and business operations for machines and parts shops have become less important options. These preferences are consistent with the conditions described above.

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



Source: Mechanization Service Provider (MSP) Phone Survey rounds, May-July 2020.

Their opinions, as well as newly observed conditions on the ground in July, 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:

- As was suggested in the first and second round of surveys, it remains important to support adjustments on loan-repayment terms on machines and equipment owed by MSPs, as well as temporary government loans for general business expenses. 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.
- Explore options for reforming tractor service provision by the Agricultural Mechanization Department to be more private-sector oriented. Where requests for services are received, try to focus on identifying private-sector TSPs in the area that can meet such requests instead of utilizing the government's direct service provision.
- Continue minimizing TSP movement restrictions across regions. Also, continue reviewing and extending waivers, when 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.

Furthermore, it is potentially important to explore complementary support like skill training initiatives for mechanics or operators and sensitization for multifunctional use of machines. These may include temporary support for increased use of tractors for transportation, which can provide further revenue earning prospects after the peak land preparation season.

---

## 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.

### INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE

1201 Eye St, NW | Washington, DC 20005 USA  
T. +1-202-862-5600 | F. +1-202-862-5606  
ifpri@cgiar.org  
www.ifpri.org | www.ifpri.info

### IFPRI-MYANMAR

No. 99-E6 U Aung Kein Lane  
Than Lwin Road, Bahan Township  
Yangon, Myanmar  
IFPRI-Myanmar@cgiar.org  
www.myanmar.ifpri.info



**USAID**  
FROM THE AMERICAN PEOPLE



The Myanmar Strategy Support Program (Myanmar SSP) is led by the International Food Policy Research Institute (IFPRI) in partnership with Michigan State University (MSU). Funding support for Myanmar SSP is provided by the CGIAR Research Program on Policies, Institutions, and Markets; the Livelihoods and Food Security Fund (LIFT); and the United States Agency for International Development (USAID). This publication has been prepared as an output of Myanmar SSP. It has not been independently peer reviewed. Any opinions expressed here belong to the author(s) and do not necessarily reflect those of IFPRI, MSU, LIFT, USAID, or CGIAR.

© 2020, Copyright remains with the author(s). This publication is licensed for use under a Creative Commons Attribution 4.0 International License (CC BY 4.0). To view this license, visit <https://creativecommons.org/licenses/by/4.0>.

IFPRI is a CGIAR Research Center | A world free of hunger and malnutrition