



Monitoring the Impact of COVID-19 in Myanmar

Mechanization Service Providers – December 2020 survey round

Hiroyuki Takeshima, Phoo Pye Zone, Myat Thida Win, and Ian Masias

Mechanization service providers (MSP) in Myanmar were originally interviewed by telephone in May, June, July, and November 2020, covering mostly combine-harvester SPs (CHSP) and tractor SPs (TSP), 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](#), [12](#), [17](#), and [39](#), respectively. To trace the continuing impact of the COVID-19 pandemic on their economic activities, a fifth phone survey of MSPs was done in mid-December 2020, administered mostly to SPs in harvesting activities. This Note reports on the results of the fifth survey, as well as on some trends from the earlier surveys.

Key Findings

- Key findings from Round 4 largely remain relevant also in round 5.
- As of late December, CHSPs and TSPs that harvest and transport harvests continue to face restrictions, particularly on movement of their machines. The areas harvested in 2020 by CHSPs, particularly for larger ones and those in Ayeyarwady region, were reported to be less than areas harvested in 2019.
- Perceptions of movement restrictions remain common among SPs and are increasingly attributed to COVID-related controls.
- Financial challenges continue and include difficulties with loan repayment and growing fears of machine foreclosures.
- As the major harvesting season approaches its end, business prospects continue to remain dire and have somewhat worsened, especially among CHSPs.

Recommended actions

- Continue adjusting loan repayment terms for machines and equipment owned by MSPs. Consider offering temporary loans, waivers, or reductions of general MSP business expenses. Monitor the financial capabilities of MSPs to return to business next season.
- Continue measures that facilitate sufficient movement of MSPs while containing COVID-19 spread to support continued activities where farm production continues.
- For TSPs, continue facilitating greater non-farm use of machines which may mitigate revenue losses from the farming sector.

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 by the restrictions imposed as policy responses to control the spread of the virus. As the main harvesting season for 2020 has mostly ended, the pandemic has persisted and policy responses have evolved. In turn, 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 the current situation and how it has changed since the summer (first through third) MSP survey rounds in May-July and the fourth round in November¹ by discussing qualitative findings regarding the following questions:

- To what extent have MSP activities been restricted by COVID-19-related restrictions?
- 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 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 fifth round of telephone interviews of MSPs was conducted in late December 2020, approximately six weeks after the fourth survey round. Most MSPs activities have focused on harvesting, and the composition of MSPs interviewed has remained similar to the fourth survey round. In the fifth survey round, a total of 188 MSPs were interviewed—140 Combine Harvester SPs (CHSP), including 105 from Ayeyarwady region and 35 from the rest of the country, and 48 Tractor SPs (TSP). All the 188 MSPs were also interviewed in round 4, while 68 of those interviewed in round 4 did not respond or reported on different machines in round 5. Of the round 5 sample, 27 CHSPs and 41 TSPs are members of a panel sample of respondents who reported about the same machines in at least one of the summer rounds (**Error! Reference source not found.**).

Table 1. Service providers from round 5 reported in this note

Type of sample	CHSPs	TSPs (transporting harvests)	Total
Round 5 (late December) all of whom are panel sample from round 4 with some attrition	140 (Ayeyarwady: 105; Rest of Myanmar: 35)	48	188
Round 4 (early November)	196	56	256
Panel sample of summer rounds, round 4, and round 5	27	41	68

Note: Panel sample from the summer rounds are those who were interviewed in round 4 and/or 5, and sometime between Rounds 1–3, and reported on the same machine.

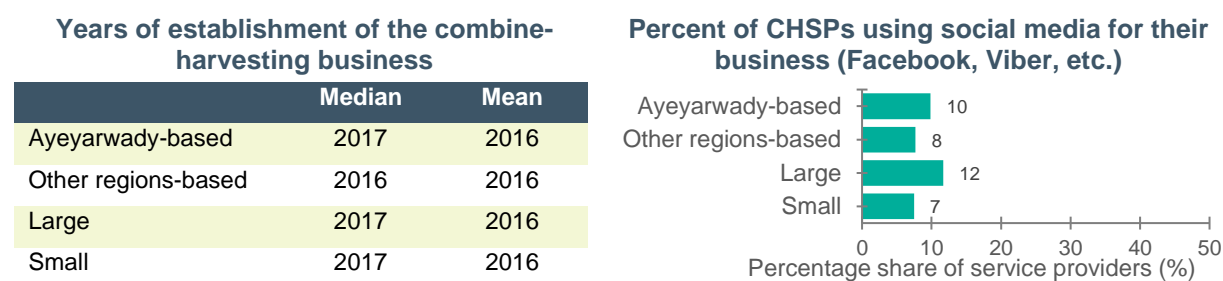
This policy note focuses primarily on the 140 CHSPs and 48 TSPs in rounds 4 and 5 and on the 68 panel samples where relevant. While panel samples are a minority of the summer samples and the round 4 and round 5 samples, their information can shed light on the changes between the

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 SSP Policy Notes 07, 12, 17, 39. Yangon: IFPRI.

summer rounds, round 4, and round 5.² (For basic characteristics of full summer-rounds samples, refer to the earlier policy notes).

Figure 1 summarizes some characteristics of the interviewed CHSPs, supplementing the information provided in the previous round. Across regions and operational sizes, most CHSPs are new, established around 2017 at median and 2016 on average, respectively. While still relatively uncommon, a small fraction of these CHSPs uses mobile applications such as Facebook and Viber for finding new customers.

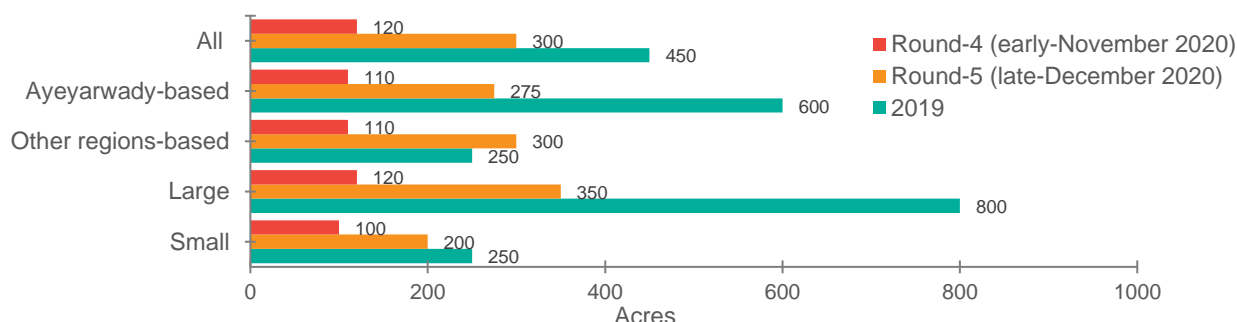
Figure 1. Characteristics of CHSPs interviewed in Round 5



Note: Large = harvesting more than 500 acres in 2019; Small = harvesting not more than 500 acres in 2019.
Source: Mechanization Service Provider (MSP) Phone Survey, November-December 2020.

Figure 2 compares the areas harvested by CHSPs interviewed in rounds 4 and 5 to those in 2019. In 2019, these CHSPs typically harvested about 450 acres. CHSPs harvesting more than 500 acres (“large” hereafter) harvested around 800 acres, while those harvesting less than or equal to 500 acres (“small” hereafter) harvested around 250 acres in 2019. In 2020, large and small CHSPs harvested about 120 acres by round 4 (early November) and 300 acres by round 5 (late December).

Figure 2. Area harvested by panel CHSPs in the 2019 and 2020 seasons (early November 2020 (round 4) and late-December 2020 (round 5)), by median acres



Source: Mechanization Service Provider (MSP) Phone Survey, November - December 2020.

While much of the main harvesting season is now expected to have ended, some areas have experienced delayed planting this year partly due to weather factors. The information regarding CHSPs in this policy note should therefore still be interpreted as provisional and may change as the harvesting season winds up.

However, the patterns suggest some variations across zones and types of CHSPs. While CHSPs outside Ayeyarwady region have harvested similar areas as they did in 2019 by late December 2020 (300 acres vs. 250 acres), CHSPs based in Ayeyarwady have experienced a relatively greater reduction in harvested areas compared to 2019. Similarly, by late December 2020, large CHSPs

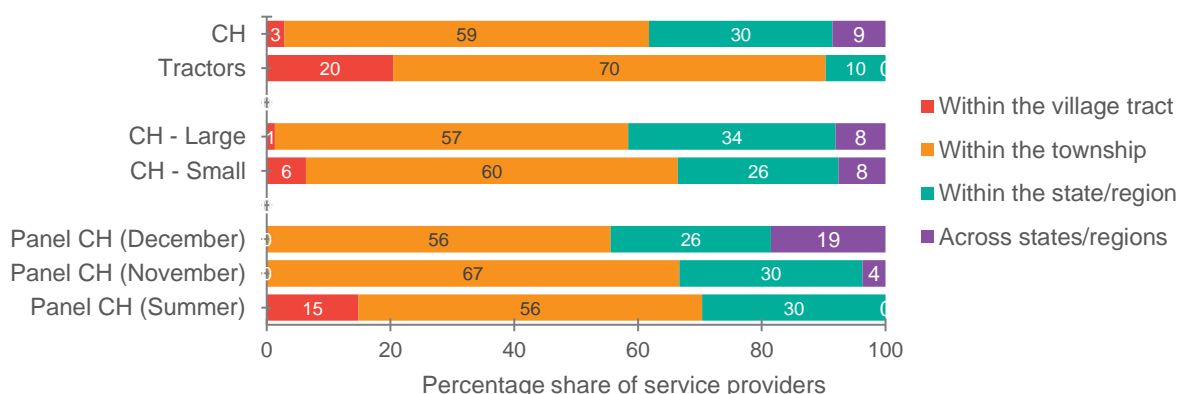
² The sample of MSPs is not representative at national or at state/region levels. However, we discuss heterogeneity, where appropriate, to highlight the potential importance of machine-specific or region/state-specific support measures. We highlight such heterogeneity where, given the sample sizes, differences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

have harvested relatively smaller areas than they did in 2019, while smaller CHSPs have harvested relatively similar acreages by late December 2020 as they did in 2019. Ayeyarwady-based CHSPs are larger and cover relatively more areas in other regions in normal years. When many CHSPs were constrained to operating solely within their region due to COVID-19 restrictions in 2020, Ayeyarwady-based CHSPs experienced greater reductions in areas covered.

Reported effects of COVID-19 on mechanization service providers

As in earlier rounds, a majority of CHSPs and TSPs remain restricted to operating solely within their village tracts or townships, partly resulting from efforts to contain the spread of COVID-19 (Figure 3). While the movement restriction is particularly rigid for TSPs, half or more of CHSPs are also restricted to operating solely within their townships in rounds 4 and 5. These restrictions hold not only for small CHSPs, but also for large CHSPs who tend to provide services to a wider geography. Among panel CHSPs, the geographical restrictions have slightly loosened since summer, though most of them are still restricted to operations within a township.

Figure 3. Service providers that experienced COVID-19 related restrictions on areas of operation, by type of machines and by season, by percentage share

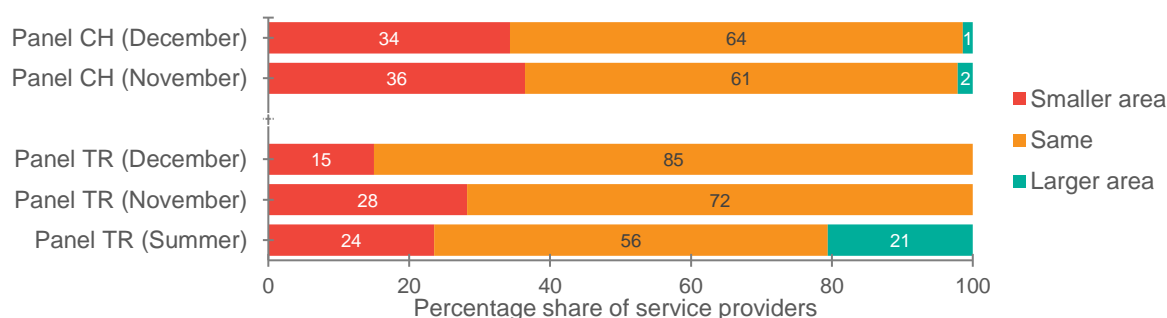


Note: CH = Combine Harvester SPs. In this and all the subsequent figures, “Summer” refers to the latest of the rounds 1–3 in which each panel SP provided responses.

Source: Mechanization Service Provider (MSP) Phone Survey, May–July, November–December 2020.

Similar to earlier rounds, these COVID-19 related geographic restrictions limited many CHSPs and TSPs to areas smaller than their normal areas of operation in 2019 (Figure 4). In both rounds 4 and 5, 36 and 34 percent of CHSPs, respectively, reported this. For TSPs, while this share declined somewhat between rounds 4 and 5, about 15 percent of panel TSPs still reported reduced geographical coverage compared to the same period in 2019.

Figure 4. COVID-19 related restrictions on area of operations relative to service providers actual areas of operations in 2019 (same season), by machine type and survey round

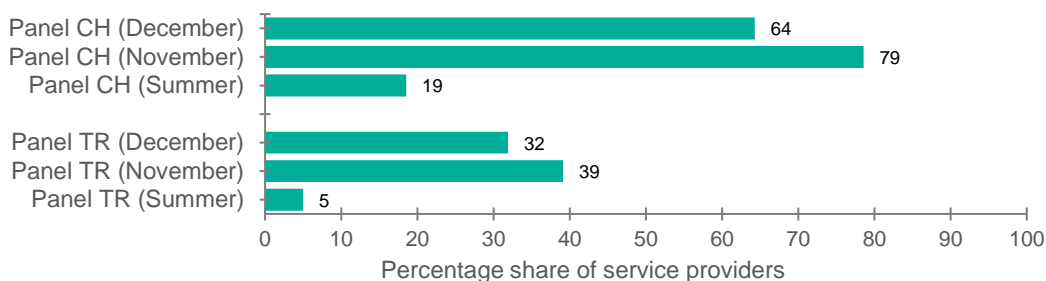


Note: CH = Combine harvester; TR = tractor.

Source: Mechanization Service Provider (MSP) Phone Survey, May–July, November–December 2020.

Significant shares of CHSPs and TSPs continue to perceive that their travel with machines is restricted due to quarantine and other COVID-19 related geographic restrictions (Figure 5). These perceptions grew among MSPs between the summer rounds and November (Round 4) and December (Round 5). Whereas 19 and 5 percent of panel CHSPs and TSPs, respectively, expressed feeling the effects of machine travel restrictions in the summer, 79 and 39 percent of them were feeling these effects during round 4. In round 5, the shares declined somewhat, though 64 and 32 percent still reported these perceptions.

Figure 5. Service providers who perceive their travel with machines are restricted, by machine type and survey round

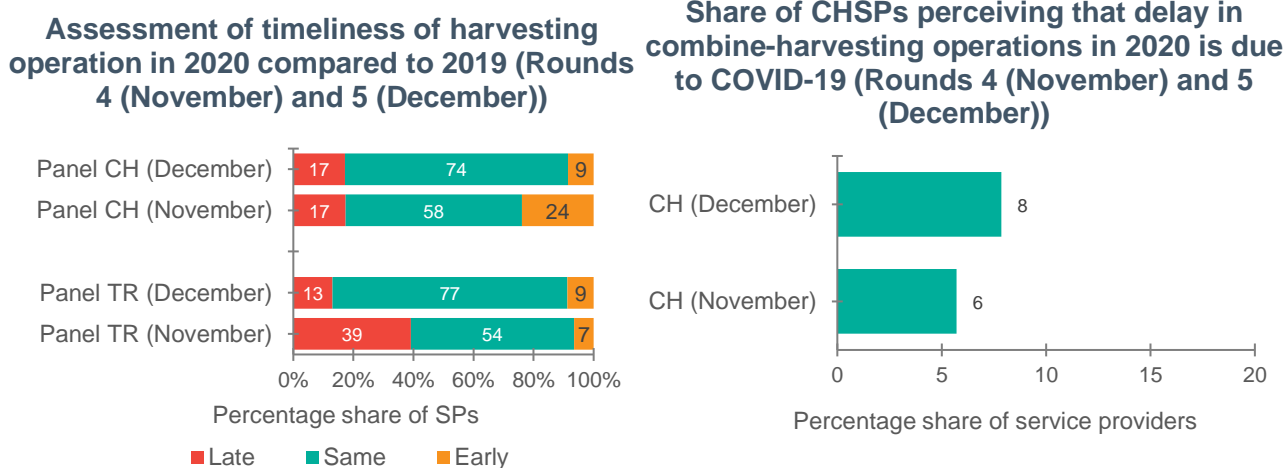


Source: Mechanization Service Provider (MSP) Phone Survey, May-July, November - December 2020.

Mechanization services provision compared to the same month in 2019

As in earlier survey rounds during the harvesting season (round 4), most CHSPs in round 5 have managed to provide harvesting services with similar timeliness compared to the same harvesting season in 2019 (Figure 6, left chart). The shares of TSPs reporting delays in their harvest transportation services, compared to 2019, have declined from 39 percent in round 4 to 13 percent in round 5. As was reported in round 4, this may largely reflect MSPs' efforts to increase their revenues as much as possible despite movement restrictions and navigate through the uncertain economic outlook under COVID-19. A fraction of CHSPs continue to perceive that delays in their harvesting season activities in 2020 are due to COVID-19 (Figure 6, right chart). These figures suggest that half of CHSPs who reported delays in combine harvesting service in round 5 (8 percent of CHSPs out of the 17 percent), attributed this to COVID-19.

Figure 6. Round 4 service providers assessment of timeliness of harvesting and transporting operations for 2020 main cropping season compared to 2019, by machine type and survey round

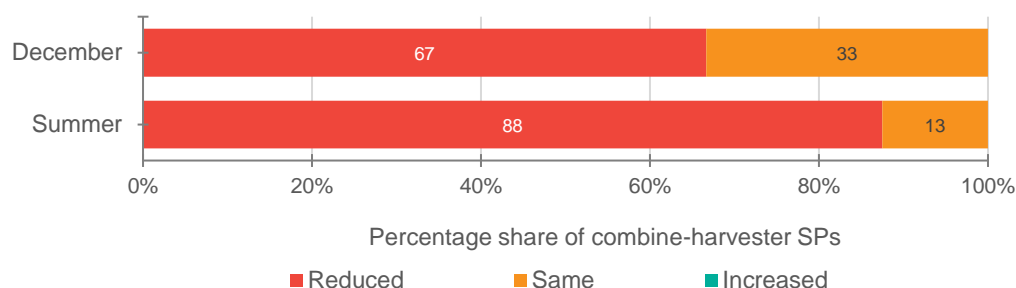


Note: CH = Combine harvester; TR = Tractor.

Source: Mechanization Service Provider (MSP) Phone Survey, November–December 2020.

The demand for CH service has continued to be perceived as weaker than in 2019 throughout the season (Figure 7). Informal probing suggests that this has been a result of a combination of reduced production as well as increased farm worker availability in certain areas, both due to COVID-19-related restrictions on worker-movement to urban areas and to poor weather in 2020. Among panel CHSPs interviewed in the summer rounds and round 5, 67 percent still felt that the demand in December 2020 was lower than that in December 2019. While this is somewhat lower than the figure in the summer (88 percent), the demand seems to have remained lower overall for both dry season harvesting and main season harvesting in 2020.

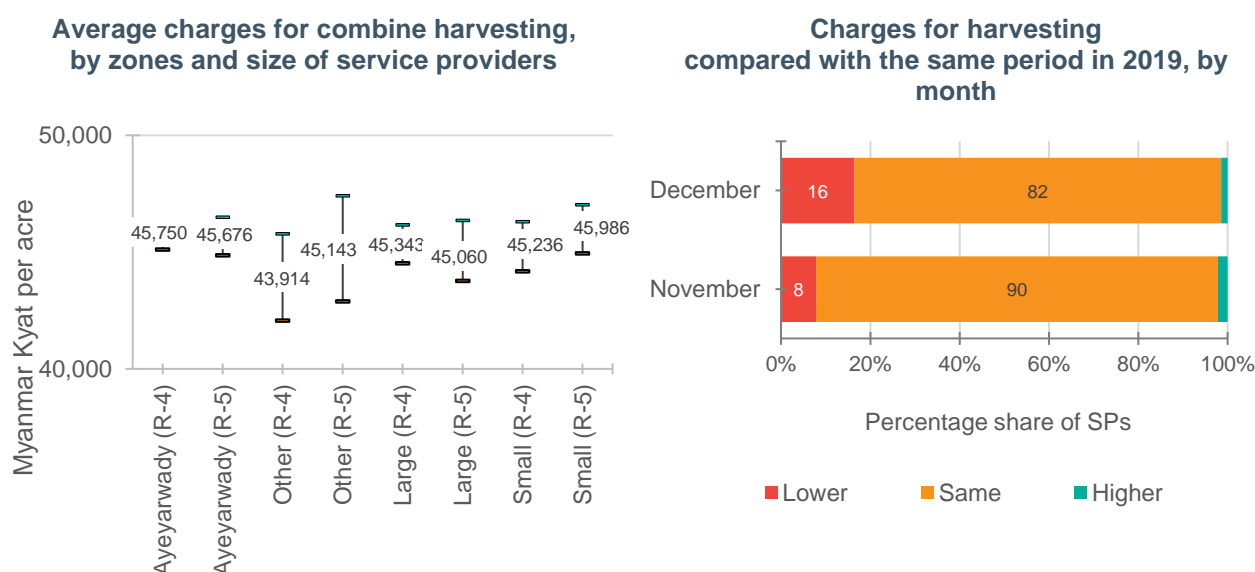
Figure 7. Panel CHSPs that reported lower demand for harvesting services in 2020 relative to 2019, by percentage share



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

Service charges for combine harvesting in round 5 are generally around 45,000 Myanmar Kyat per acre (Figure 8, left chart). Between rounds 4 and 5, the charges slightly declined in relative terms for large CHSPs as compared with small CHSPs, which might be related to greater demand reduction perceived by the large CHSPs mentioned above. The service charges received by CHSPs for harvesting are mostly at the same level as in 2019, but the share of CHSPs who described charges to be lower than in 2019 increased slightly from 8 percent in round 4 to 16 percent in round 5 (Figure 8, right chart).

Figure 8. Service charges in 2020 and comparisons with 2019

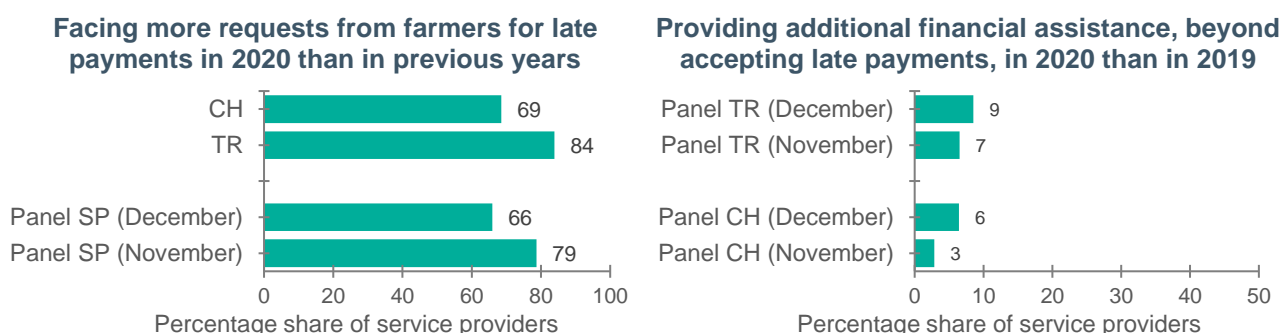


Note: CH = Combine harvester. R-4 = Round-4. R-5 = Round-5. Black lines (left) show 95 percent confidence intervals for charges for primary tillage.

Source: Mechanization Service Provider (MSP) Phone Survey, November–December 2020.

As in round 4, MSPs continue to face reduced farmer capacity to make payments, which could be related to the COVID-19 crisis (Figure 9). While the share of those facing such requests declined somewhat since round 4, about two-thirds of panel SPs still experience this challenge in round 5. With such challenges, less than 10 percent of panel MSPs are still able to provide other financial assistance to farmers. MSPs, including CHSPs, also continue to face financial difficulty themselves due to prolonged COVID-19 related restrictions.

Figure 9. Mechanization service providers reporting receiving late payments requests from farmers and providing additional financial assistance, by percentage share

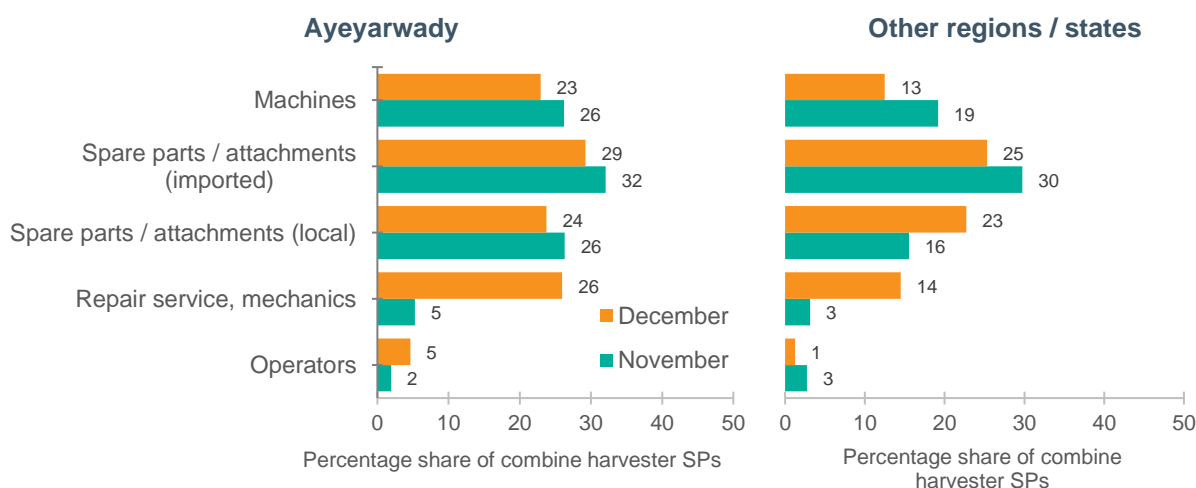


Note: CH = Combine harvester. TR = Tractor. SP = Service providers. R-4 = Round 4. R-5 = Round 5.
Source: Mechanization Service Provider (MSP) Phone Survey, November–December 2020.

Supply-side factors

On the supply-side, a significant share of CHSPs continued to experience a reduced availability of machines, spare parts, and attachments during round 4 and round 5, compared to the same period in 2019 (Figure 10). In addition, reduced availability for more labor-intensive services, such as repair services, increased in round 5. While more formal investigation is needed, this may be due to some CHSPs trying to use machines more intensively in less suitable farm fields to cover greater areas partly to make up for losses earlier in the harvesting season. Doing so may result in increased machine breakdown and more repair and maintenance work. As in round 4, reduced availability also remains more pronounced in Ayeyarwady region than in the rest of Myanmar.

Figure 10. Share of CHSPs reporting reduced availability of equipment, repair services, and operators compared to one-year earlier, by zones

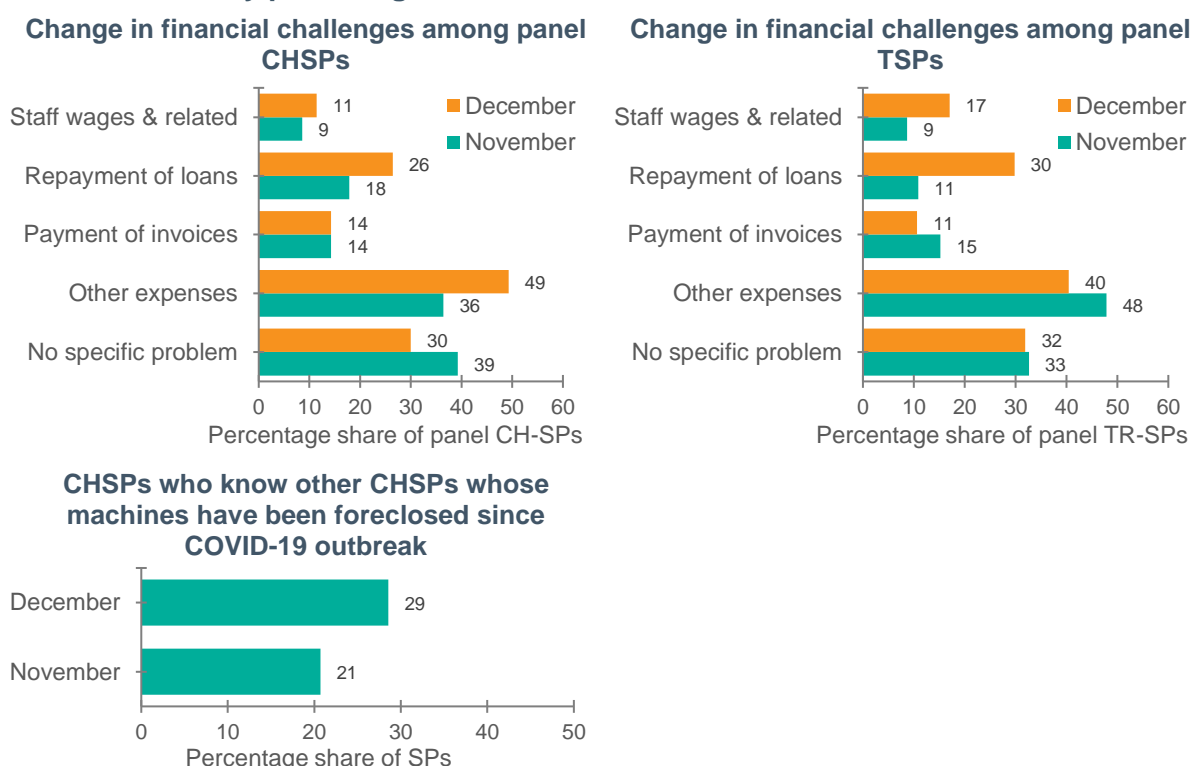


Source: Mechanization Service Provider (MSP) Phone Survey, November–December 2020.

Financial effects on business

Approximately two-thirds of CHSPs and TSPs, similar to the levels in the summer survey rounds, continue to experience financial challenges due to the impacts of COVID-19 and related regulations. For CHSPs, the share also seems to have increased between rounds 4 and 5 (Figure 11, top charts).

Figure 11. Service providers reporting financial challenges due to COVID-19 related restrictions, by percentage share



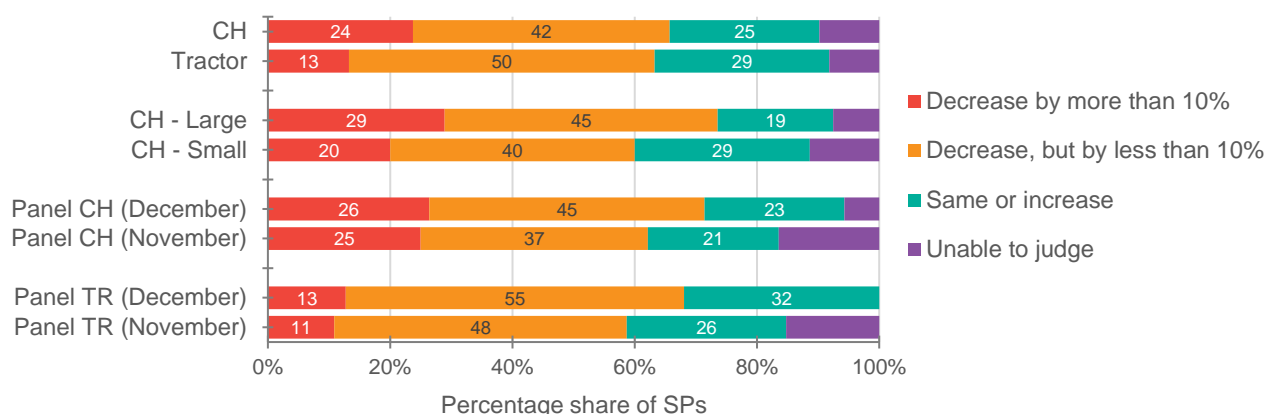
Note: CH = Combine Harvester; TR = Tractor

Source: Mechanization Service Provider (MSP) Phone Survey, November–December 2020.

Both CHSPs and TSPs continue to be particularly concerned about loan repayments for their equipment, as well as for other expenses which may be associated with the operations of current service provision. Foreclosures on equipment remain relevant and potentially raise concerns (Figure 11, bottom-left chart). Among panel CHSPs in round 4, almost 20 percent reported knowing other CHSPs whose machines had been foreclosed since the beginning of the COVID-19 outbreak, and this share increased to almost 30 percent in round 5. To cope with these financial challenges, many CHSPs continue to report selling assets, diverting other income to their businesses, and obtaining loans from private individuals. However, as these coping activities have been prolonged as COVID-19 persists, it remains important to monitor coping capacities in the future.

Overall, CHSP and TSP perceptions of their financial prospects in 2020 remained generally pessimistic between rounds 4 and 5, and somewhat worsened among CHSPs as their prospects became clearer as the harvesting season progressed (Figure 12). More than half of CHSPs and TSPs continue to expect their revenues to be lower than those of 2019. As in round 4, a particularly higher share (about 75 percent) of large CHSPs expressed such an outlook, compared with about 60 percent among small CHSPs. As prospects remain negative overall as the harvesting season comes to an end, how these MSPs can survive financially until the next production season must continue to be monitored closely.

Figure 12. Service providers expectations of revenues in 2020 relative to 2019, by percentage share



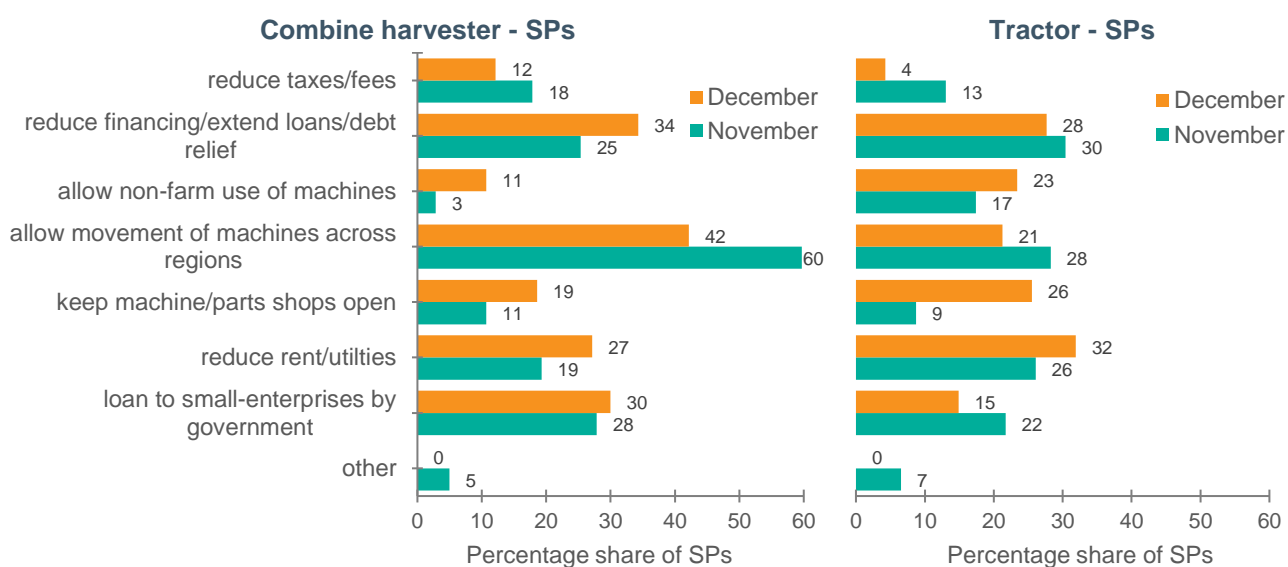
Note: CH = Combine Harvester; TR = Tractor.

Source: Mechanization Service Provider (MSP) Phone Survey, November-December 2020.

Policy recommendations

As in the 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 13). As in round 4, easing of movement restrictions continues to be an important option, especially for CHSPs who tend to serve larger geographical areas than TSPs. Financial support through various mechanisms (particularly loan-related) and rent and utility payment support also remain preferred options, and increasingly so as harvesting season comes to an end with more limited prospects of financial recovery. At the same time, higher shares of MSPs in round 5 than in round 4 also prefer keeping machine and parts shops open. This might be partly because doing so provides more options for MSPs in making financial adjustments, including trading-in for cheaper, lower capacity machines or for machines more suitable for the local township where they may be more likely to focus their service provision in the next season, among others. Among TSPs, allowing broader non-farm use of machines for transportation not only of harvests but also other goods is also relatively more preferred and can provide additional revenues from tractors.

Figure 13. Service providers perceptions on effective policies to reduce the adverse impact of COVID-19 on their businesses, by type of machine (rounds 4 and 5)



Source: Mechanization Service Provider (MSP) Phone Survey, November-December 2020.

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

- As was suggested in the summer and November survey rounds, 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, especially as the harvesting season comes to an end. As was suggested in earlier rounds, these 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.
- While the harvesting season is approaching its end, it remains important to continue minimizing CHSP and TSP movement restrictions across regions, as harvesting activities may still be on-going in certain rice-producing areas and varying demand for TSPs may exist for off-farm activities or production of other crops that may be on-going. Also, it remains important to 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 are likely to continue to fall under CERP 2.1.3, which proposes deferred tax payments and increased tax waivers.

Furthermore, as was suggested in round 4, it remains important to explore complementary support such as skill training initiatives for mechanics or operators and sensitization for multifunctional use of machines, especially TSPs. These may include temporary support for increased use of tractors for transportation of broad types of goods, which can provide further revenue earning prospects after the peak land preparation season and transportation of harvests during peak harvesting 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. **Phoo Pye Zone** is a Research Analyst in DSGD of IFPRI. **Myat Thida Win** is a PhD Candidate in the Department of Agriculture and Resource Economics at Michigan State University, based in East Lansing, MI. **Ian Masias** is a Senior Program Manager in DSGD of IFPRI, both based in Yangon, Myanmar.

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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



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