



Monitoring the Impact of COVID-19 in Myanmar

Agricultural Equipment Retailers – May 2020

Hiroyuki Takeshima, Myat Thida Win, and Ian Masias

Key findings

- COVID-19 related challenges may severely cripple the timely supply of agricultural equipment in Myanmar for the coming season, while also critically affecting the business environment for equipment retailers (ERs)
- Availability of machines and equipment has been significantly reduced due primarily to restriction on movement, rendering many ERs unable to deliver existing orders
- Financial challenges are looming for many ERs due to reduced revenue prospects, cost increase of raw materials and labor, and challenges in recovering credit from buyers
- The extent and nature of these challenges varies somewhat between the Delta and Dry Zones, and between urban and rural-based ERs

Recommended actions

- Streamline the movement of equipment across regions by granting exemptions to allow transportation of agricultural equipment
- Extend import process facilitation measures to agricultural equipment
- Guarantee loans that ERs provide to farmers who buy agricultural equipment. This also will help machine buyers overcome their own financial difficulties
- Provide financial support for ERs through reduced taxes, fees, and rents; loan extensions; and debt relief
- Maintain flexibility in these support measures, as the nature of the challenges faced by ERs can vary between tractor and non-tractor retailers, urban and rural ERs, large and small ERs, and by regions and states

Background

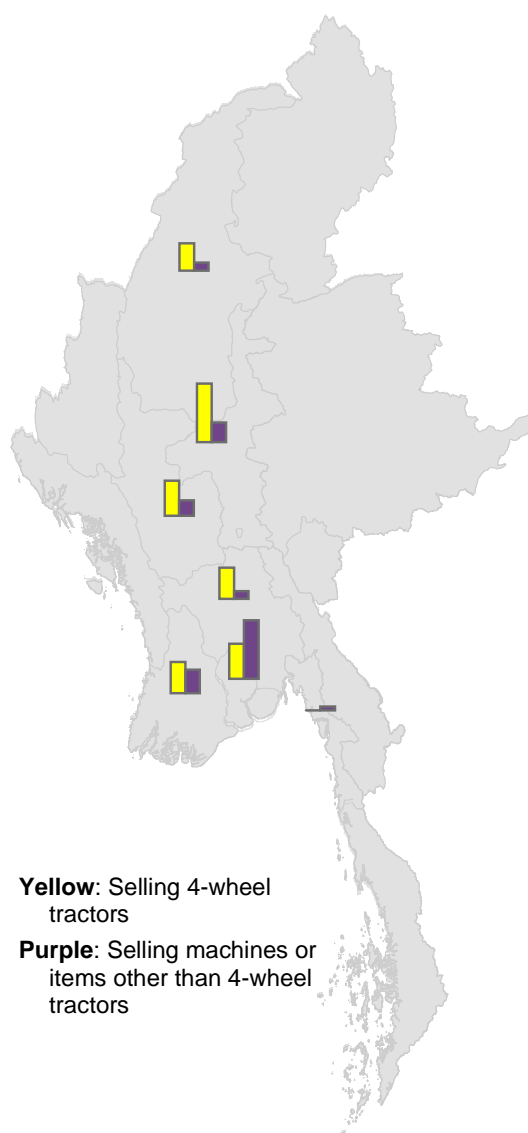
Agricultural equipment retailers (ERs) play an essential role in meeting the demand for a diverse set of machines and equipment at affordable prices that are needed for the heterogeneous agricultural production environments in Myanmar. ERs can be particularly sensitive to bottlenecks in trade flows and internal logistical disruptions that affect their inventory management. Given their close linkages with mechanization service providers, the financial and supply challenges that ERs face can have repercussions on the provision of mechanization services as well.

The COVID-19 pandemic in Myanmar and the policy responses to it have affected key aspects of the business operations of ERs. Measures to support equipment retailers and to ensure the access of buyers to their equipment and services should be guided by an understanding of the situation on the ground. This policy note uses qualitative findings from a rapid phone survey of ERs across Myanmar to shed light on the following questions:

- To what extent have the operations of ERs been restricted by COVID-19 related regulations?
- How do equipment sales in May 2020 compare to one year ago?
- How do equipment prices and availability compare to one year ago?
- What are the key financial challenges ERs are facing? How are they coping with them?
- What are current business revenue trends?
- What short-term policy recommendations would best enable ERs to meet the demand for agricultural equipment? How might these recommendations vary across businesses by types of equipment handled, location, or size?
- What issues related to the supply of agricultural equipment need to be monitored over the next few months?

Phone interviews were conducted between 27 and 29 May with a total of 93 ERs in the Delta and Dry Zones. The ERs were identified from earlier studies conducted by IFPRI and Michigan State University (Belton et al. 2019; Win et al. 2020) and using snowballing methods through which interviewed ERs suggest other ERs to be interviewed. Of the 93 ERs, 57 sell four-wheel tractors (“4wt-ER”). The other 36 ERs do not sell four-wheel tractors, but sell several types of machines, including combine harvesters, two-wheel tractors, reapers, threshers, water pumps, or spare parts (“Other ERs”). Figure 1 shows the distribution

Figure 1. Distributions of interviewed equipment retailers across regions and states



Source: Agricultural Equipment Retailer Phone Survey, May 2020.

of the samples of three main type of ERs across regions and states.¹ Most 4wt-ERs are located in the Dry Zone, while most Other ERs are located in the Delta.

Key Indicators

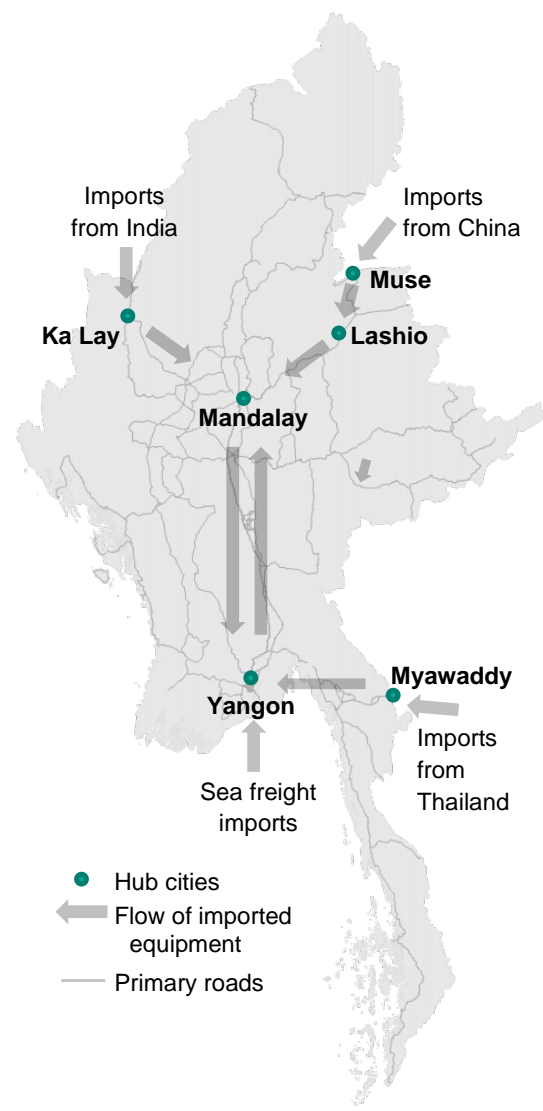
Structure of supply-chains for agricultural equipment in Myanmar

The structure of the supply chain for agricultural equipment has implications on the effects of COVID-19 related restrictions. Most ERs that directly import equipment are located in Yangon or Mandalay. Most imports of agricultural equipment are transported overland through Muse and Lashio (from China), Myawaddy (from Thailand), and Ka Lay (from India) (Figure 2). ERs in Yangon or Mandalay sell directly to customers in their respective areas, and also supply equipment to their branch offices, which are franchise ERs located in other regions, when stocks in those offices become low.

Characteristics of Interviewed ERs

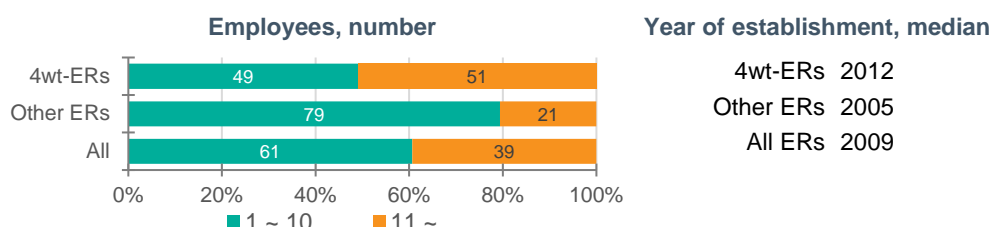
The basic characteristics of the two types of ERs are summarized in Figure 3. 4wt-ERs employ more workers (a median of 10 employees) than Other ERs and are relatively more recently established. Other ERs typically have fewer than 10 employees, but have been in business longer.

Figure 2. Movement of imported agricultural equipment in Myanmar



Source: Agricultural Equipment Retailer Phone Survey, May 2020. Primary roads from OpenStreetMap.

Figure 3. Employee numbers and median year of establishment of agricultural equipment retailers interviewed



Source: Agricultural Equipment Retailer Phone Survey, May 2020.

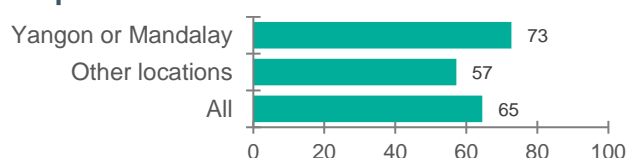
Potential Effects of COVID-19 on Agricultural Equipment Sales

Restrictions on business. A majority of ERs experienced a shutdown of their operations at some point due to COVID-19 (Figure 4). Those in more urban Yangon or Mandalay were more likely to experience a ban on their conducting business. This likely reflects variations in how strictly

¹ Note that the ER sample is not representative of states and regions nor of equipment retailers across Myanmar. We discuss some heterogeneity in ERs across these dimensions, where appropriate, to highlight the potential importance of machine or region and state-specific support measures. Such heterogeneity is highlighted when differences are statistically significant ($p < 0.10$).

restrictions were imposed in different locations – Yangon and Mandalay have had some level of official restrictions on whether businesses can open since late-March through to the time of writing this note. Nonetheless, almost all ERs are now back in operation.

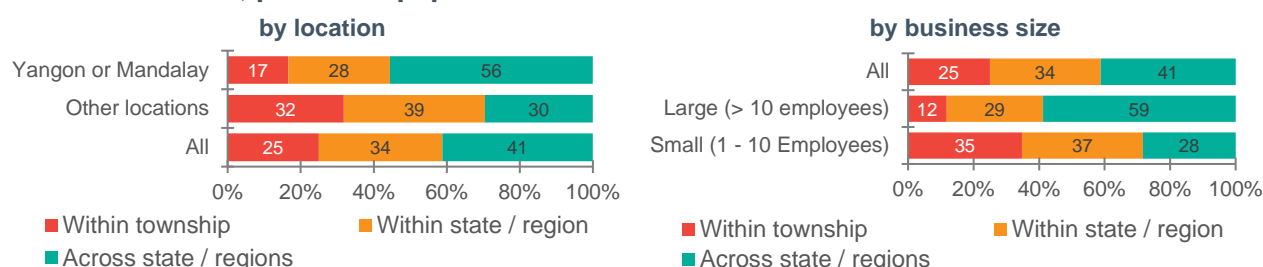
Figure 4. Agricultural equipment retailers reporting having closed their business at some point due to COVID-19 related restrictions, percent of those interviewed, by location



Source: Agricultural Equipment Retailer Phone Survey, May 2020.

However, many equipment retailers are still restricted in the movement of their equipment to only within the township in which they are located or within the state or region (Figure 5). Smaller ERs and those based outside of Yangon or Mandalay were found to be more likely to still be facing restrictions on their movements, even after the ban on their business operations was lifted. While the causes of such variations are unclear, they highlight a source of potential heterogeneity of the effects of government responses to COVID-19. In addition, ERs based in Yangon and Mandalay face disruptions in movement of equipment outside their respective regions. To ease the disruption on the supply of agricultural equipment across Myanmar, cross-regional coordination will be important.

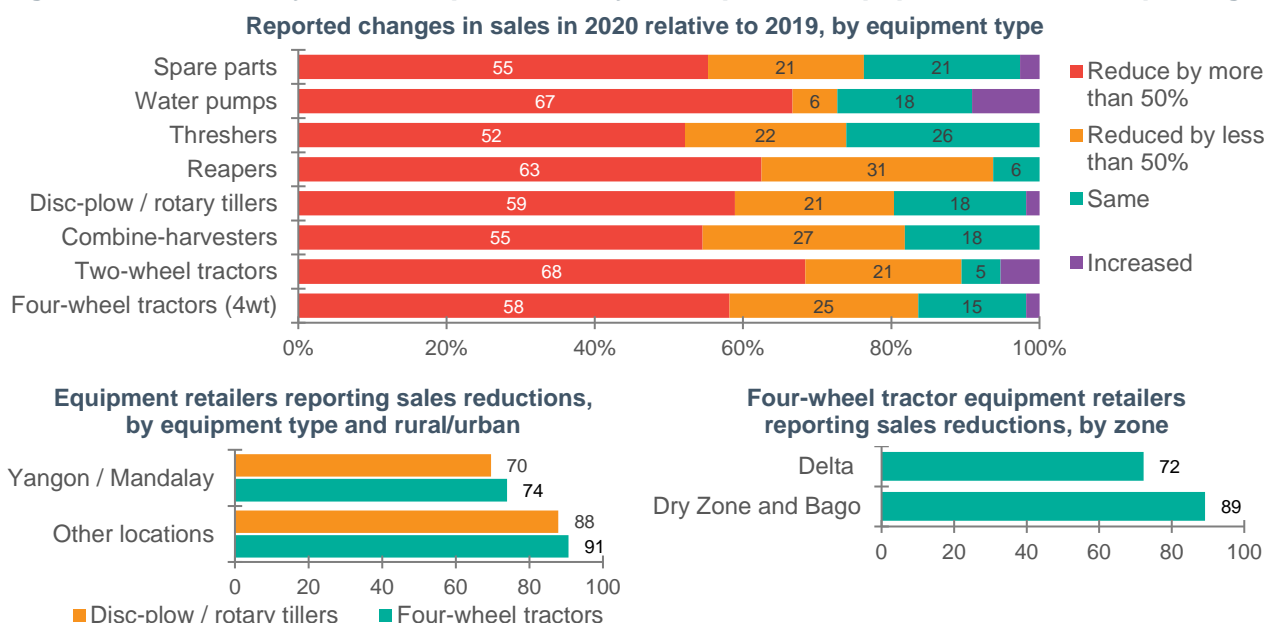
Figure 5. Extent to which movement of agricultural equipment allowed, by location and business size, percent equipment retailers interviewed



Source: Agricultural Equipment Retailer Phone Survey, May 2020.

Sales in May 2020 compared to May 2019. Sales of agricultural equipment per ER are reported to have been considerably lower in May 2020 compared to May 2019. While this is in part due to COVID-19 effects, other factors depressing sales include a delayed monsoon this year and a gradual saturation in Myanmar's agricultural equipment market with increasing numbers of equipment retailers entering the market over recent years (Belton et al. 2019). A majority of ERs indicated that sales in May 2020 were less than half of the sales that they registered in May 2019 (Figure 6), regardless of the sizes or types of ERs. For four-wheel tractors and attachments, reduction in sales are particularly widespread in the Dry Zone and in Bago region. Again, this might be partly due to non-COVID-19 factors. However, the specific effects of COVID-19 are worth monitoring. Reduction in sales of four-wheel tractors were more common for rural ERs based outside of Yangon and Mandalay. Consequently, these lower sales may be partly due to the greater restrictions on movement imposed on rural based ERs (Figure 5).

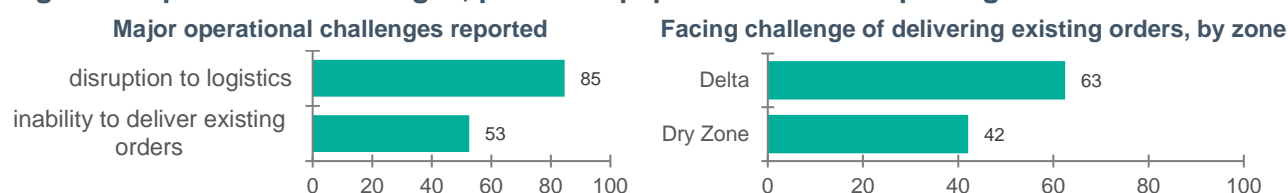
Figure 6. Sales in May 2020 compared to May 2019, percent equipment retailers reporting



Source: Agricultural Equipment Retailer Phone Survey, May 2020.

While the causes of reduced sales and the direct effects of COVID-19 on them should be more thoroughly examined in future rounds of the survey, supply-side factors appear to be one of the major drivers. In addition to disruption to logistics, half of ERs indicated an inability to deliver on existing orders as one of the major challenges they faced (Figure 7). This challenge was commonly expressed across the different types of ERs. However, those in the Delta particularly reported facing challenges in delivering on existing orders. This may be a result of demand for equipment in the Delta in May being relatively strong, unlike in the Dry Zone where demand may have been lower due to the delayed monsoon. This pattern is similar to those found from a recent survey of mechanization service providers across Myanmar (Takeshima, Win, & Masias 2020).

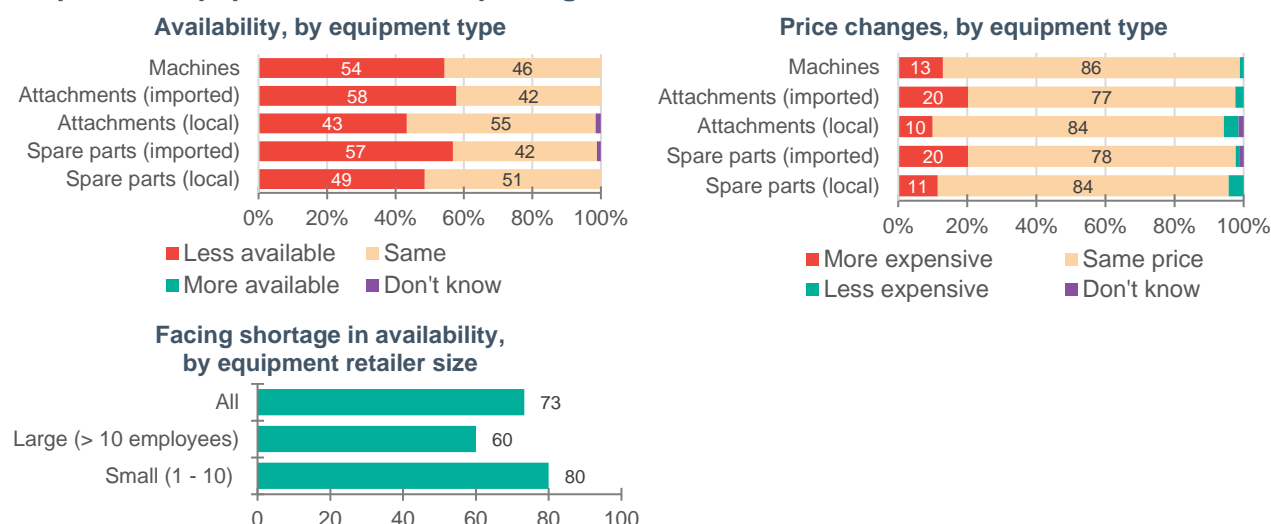
Figure 7. Operational challenges, percent equipment retailers reporting



Source: Agricultural Equipment Retailer Phone Survey, May 2020.

Supply-side factors. Approximately half of ERs reported facing lower availability of machines, attachments, and spare parts compared to May 2019 (Figure 8). Limited availability is commonly reported, regardless of the type of equipment sold or the size of equipment retailer. Though less pronounced, between 10 and 20 percent of ERs also reported higher prices in May 2020 than in May 2019. These changes in price may reflect the segmented nature of the market. More than half of the ERs interviewed reported that they obtain the equipment that they then offer for sale to farmers based on contracts. Consequently, their offering higher prices to their suppliers alone will not solve the equipment availability issues that they face. However, note that smaller ERs face relatively more severe shortages in the supply of equipment, so the effect of constrained supply in agricultural equipment is not uniform across all agricultural equipment retailers.

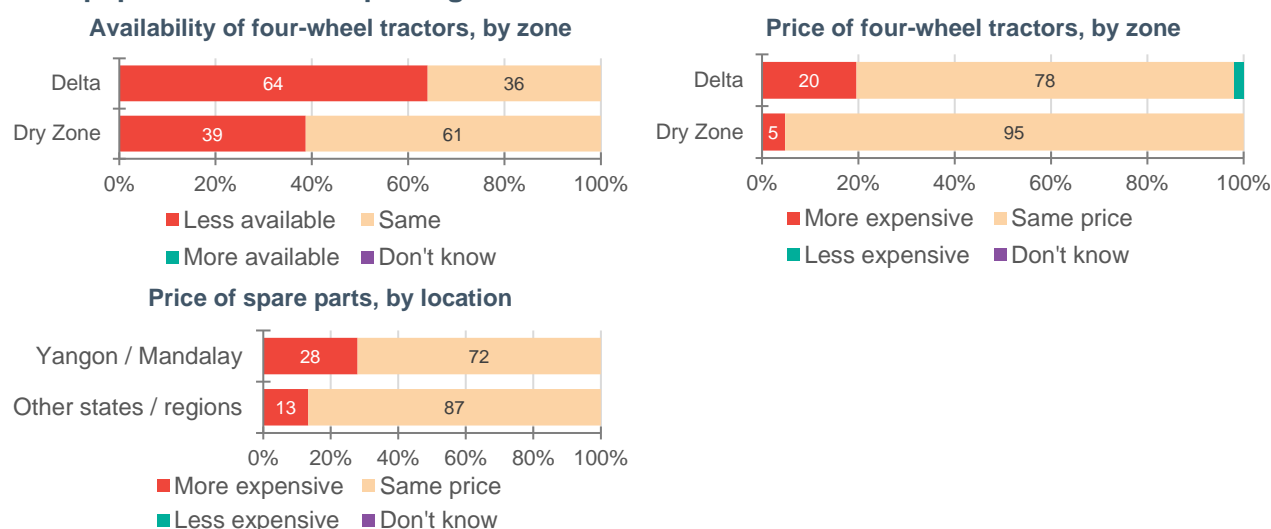
Figure 8. Changes in equipment availability and prices compared to one year earlier, percent equipment retailers reporting



Source: Agricultural Equipment Retailer Phone Survey, May 2020.

The challenges related to the availability and price of agricultural equipment are also more pronounced in certain areas (Figure 9). In particular, availability of four-wheel tractors appears to be more severe in the Delta. This issue may have been somewhat mitigated in the Dry Zone due to lower demand. However, it also suggests that the Dry Zone may face similar challenges as demand increases with the arrival of the monsoon rains. For spare parts, higher prices are observed more in urban Yangon and Mandalay.

Figure 9. Changes in equipment prices and availability by regions or locations, percent equipment retailers reporting

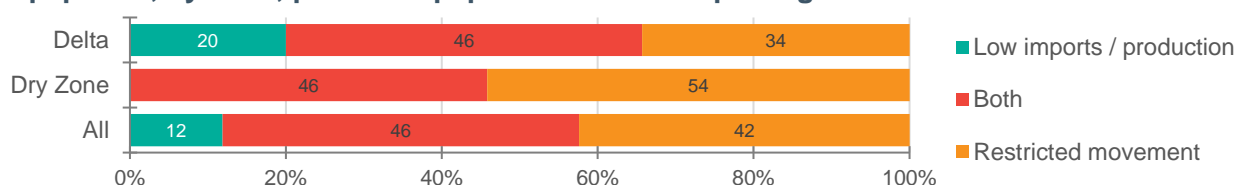


Source: Agricultural Equipment Retailer Phone Survey, May 2020.

ERs generally perceive that the lower availability and higher prices, where observed, are due to the restricted movement of equipment, low levels of importation of equipment in recent months, or reduced production of locally manufactured parts (Figure 10). Concerns about restricted movement of equipment are particularly higher in the Dry Zone, possibly because they are located further from Yangon and the overland border at Myawaddy, through which equipment from Thailand is typically imported. While the Dry Zone is somewhat closer to the overland borders at Muse/Lashio (China border) and Ka Lay (India border), domestic transportation is still subject to disruption. In contrast, concerns in the Delta primarily center on low imports and reduced local production of equipment.

This is because ERs in this area are more likely to be direct importers or are more likely to sell spare parts and smaller equipment, like water pumps, some of which may be manufactured locally.

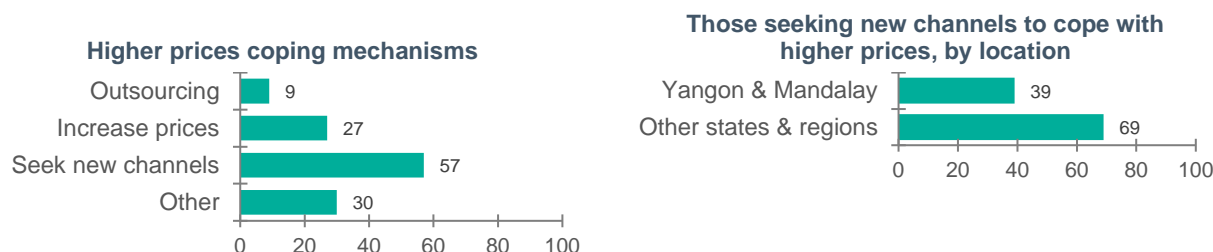
Figure 10. Perceptions on what accounts for recent higher prices and limited availability of equipment, by zone, percent equipment retailers reporting



Source: Agricultural Equipment Retailer Phone Survey, May 2020.

Coping mechanisms used by agricultural equipment retailers to deal with limited availability and higher prices of equipment. Agricultural equipment retailers who are facing limited availability or higher prices for equipment are coping with these challenges by seeking new channels of supply, increasing sales prices, or outsourcing the procurement and sales or equipment altogether (Figure 11). Seeking new channels of supply is reported to be particularly important for rural-based ERs.

Figure 11. Coping mechanisms to deal with higher prices of equipment, percent of equipment retailers reporting

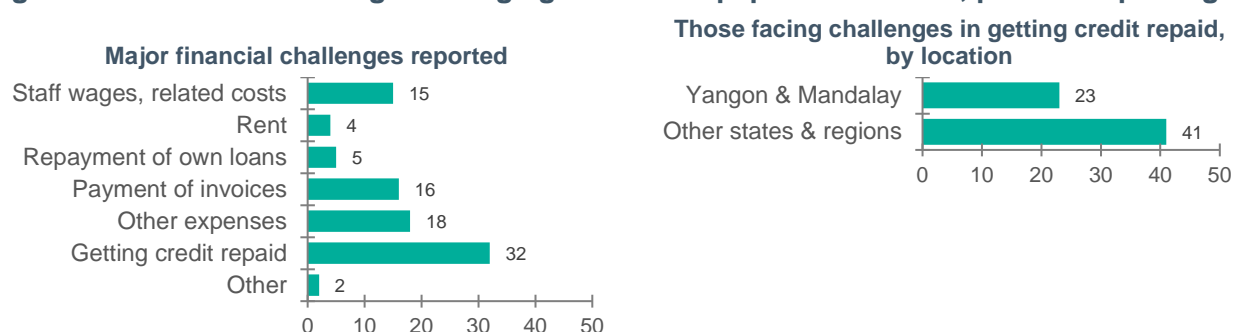


Source: Agricultural Equipment Retailer Phone Survey, May 2020.

Financial effects on business

Financial challenges. The confluence of COVID-19 and weather-related factors have affected ERs in many dimensions in 2020. One of the key financial challenges expressed by the ERs interviewed relates to recovering the credit or loans given to buyers for the acquisition of machines and other equipment (Figure 12).

Figure 12. Financial challenges facing agricultural equipment retailers, percent reporting

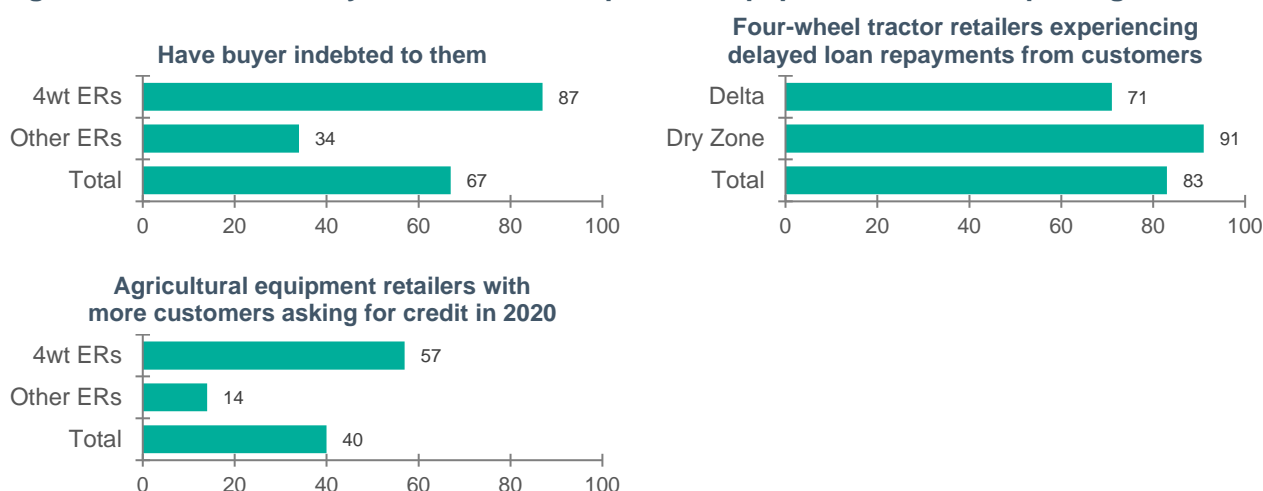


Source: Agricultural Equipment Retailer Phone Survey, May 2020.

The challenge of recovering credit was reported to be particularly severe in rural areas, rather than in areas around Yangon and Mandalay, potentially due to more dispersed borrowers. This challenge is particularly severe for retailers of four-wheel tractors, many of whom have borrowers

indebted to them. These retailers are also facing in 2020 delayed repayment from borrowers, particularly in the Dry Zone (Figure 13). At the same time, many four-wheel tractor retailers face increased demand from their potential customers for credit in 2020. Whether to provide such credit is a critical decision for the retailer, as providing credit may be an effective way to keep customers.

Figure 13. Credit recovery from borrowers, percent equipment retailers reporting



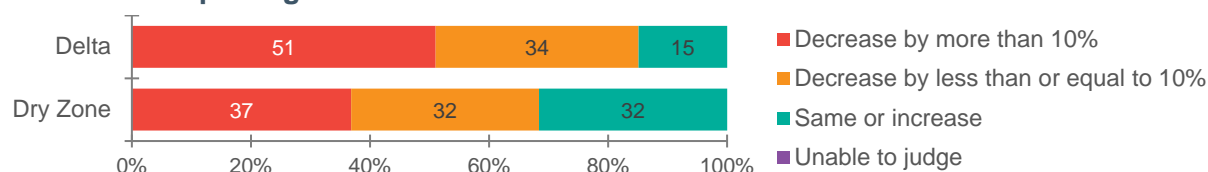
Source: Agricultural Equipment Retailer Phone Survey, May 2020. 4wt ER = four-wheel tractor equipment retailer.

In addition, higher labor costs, primarily staff wages and the costs of social security for employees, are also reported by ERs as a financial challenge (Figure 12). This may be due to restrictions on movements by workers. This challenge appears to be more common among ERs located in the Delta, potentially because agricultural equipment sales have remained relatively stronger there (see Figure 6). Consequently, demand for workers there may have remained high.

Other reported challenges include payment of invoices received by the ER or repayment of own loans. However, that these challenges are not the most urgent may simply be because other financial challenges are more threatening to their businesses at this time.

Revenue prospects. Business prospects for ERs have also been affected. A majority expect that their revenues will decrease in 2020 compared to 2019, and a significant majority of them expect this decrease to be by more than 10 percent (Figure 14). This negative outlook is held commonly across different types of ERs. Expectation, however, are particularly worse in the Delta. This may be because ERs in the Dry Zone may expect some recovery in demand once the rains start. But, in the Delta, ERs may already be feeling that the chances of an improvement in business are slim, since the peak planting season has already arrived.

Figure 14. Expectations on revenue in 2020 relative to 2019, by zone, percent equipment retailers reporting



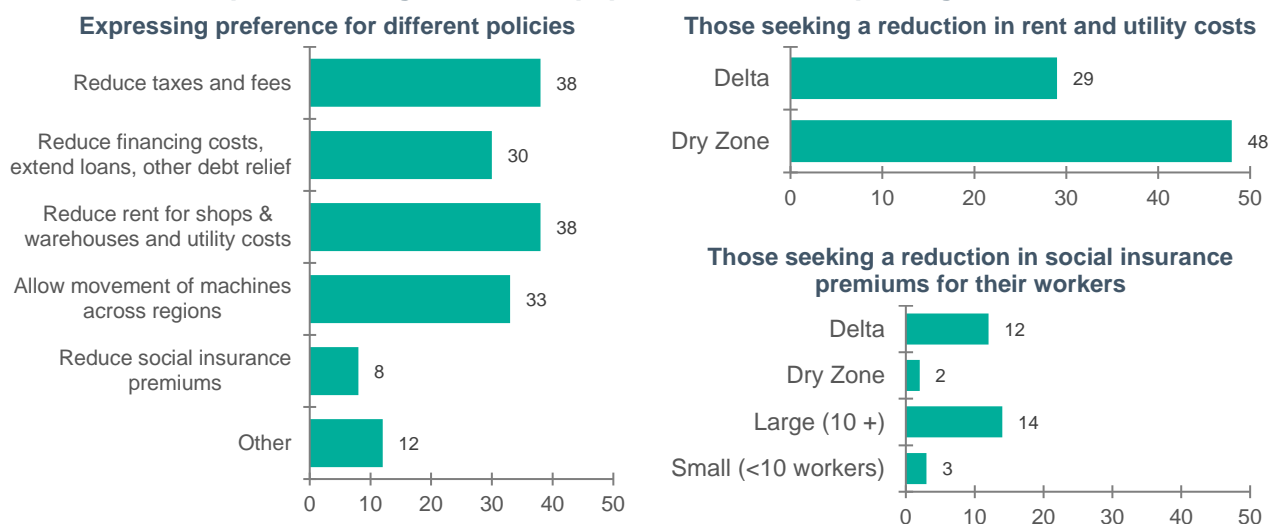
Source: Agricultural Equipment Retailer Phone Survey, May 2020.

Policy Recommendations

The survey of agricultural equipment retailers also asked respondents about their perceptions on what effective policies would be beneficial for their businesses. The preferred measures included

financial support through reduced taxes and fees, lower rent, extensions of loans, or debt relief (Figure 15). A third of respondents also stated that lifting movement restrictions for machines across regions would be helpful. In the Dry Zone, more ERs expressed the need for reduced rent for their shops or warehouses, possibly because more four-wheel tractors-retailers with warehouses may be located there. Relatively larger ERs and Delta-based ERs prefer measures to reduce labor costs, including reduced social insurance premiums.

Figure 15. Perceptions of effective policies against adverse effects of COVID-19 on their businesses, percent of agricultural equipment retailers reporting



Source: Agricultural Equipment Retailer Phone Survey, May 2020.

These perceptions on what sort of actions government might support to enable ERs to better weather the current COVID-19 related economic crisis, as well as conditions observed on the ground, suggest the following short-term policy recommendations:

- Streamline the movement of equipment across regions by granting exemptions under these restrictions to transportation of agricultural equipment. Under the COVID-19 Economic Relief Plan (CERP) of the Myanmar Government, any restrictions on the business activities of ERs should be applied appropriately and uniformly.
- Where significant reductions in imports are reported, reduce bottlenecks for imports of agricultural equipment by facilitating the importation of agricultural equipment in line with CERP Action 2.4.2 – facilitating importation processes to promote international trade.
- Guarantee loans that ERs provide to machine buyers. This will, in turn, help machine buyers overcome their own financial difficulties during this period. This recommendation reflects CERP Action 2.1.2 – offering credit guarantee schemes to ease the impact COVID-19 on private sector firms.
- Provide ERs with temporary relief on taxes, social security premium payments, and other fees. This especially is needed by larger ERs who employ more workers. Such measures fall under CERP Action 2.1.3, which proposes deferred tax payments and increased tax waivers.
- Maintain flexibility in these support measures, as the challenges faced by ERs can vary between tractor and non-tractor retailers, urban and rural ERs, large and small firms, and by regions and states.

Finally, it remains important to continue monitoring:

- How equipment availability improves in both the Delta and the Dry Zone in coming months;

- How demand for agricultural equipment changes in the Dry Zone in the next few weeks as the rains arrive; and
- How the international flow of machines and equipment continues to be affected by economic challenges and policies in China, Thailand, and other countries exporting agricultural equipment to Myanmar (Belton et al. 2019).

References

- Belton, B., P. Fang & E. Abaidoo. 2019. *Agricultural machinery supply businesses in Myanmar's dry zone: Growth and transformation*. Feed the Future Innovation Lab for Food Security Policy Research Paper 119. East Lansing, MI, USA: Michigan State University.
- Takeshima, H., M.T. Win, & I. Masias. 2020. *Monitoring the Impact of COVID-19 in Myanmar: Mechanization Service Providers – May 2020*. Myanmar SSP Policy Note 7. Washington, DC: International Food Policy Research Institute (IFPRI).
[English: <https://ebrary.ifpri.org/digital/collection/p15738coll2/id/133754>;
Burmese: <https://ebrary.ifpri.org/digital/collection/p15738coll2/id/133758>]
- Win, M.T., B. Belton, & X. Zhang. 2020. "Myanmar's rapid agricultural mechanization: Demand and supply evidence." In *An Evolving Paradigm of Agricultural Mechanization Development: How Much Can Africa Learn from Asia?* X Diao, H Takeshima & X Zhang (eds.), forthcoming.

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. **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) and 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>.