

Monitoring the impacts of COVID-19 in Myanmar

Food Vendors – June and July 2020 survey round

Bart Minten, Than Zaw Oo, Derek Headey, Isabel Lambrecht, and Sophie Goudet

Key Findings

- Prevention measures for COVID-19 have been taken in most wet markets in Myanmar. There have been widespread mandates to require vendors and consumers to wear masks. Most interviewed vendors also report that they are practicing social distancing.
- COVID-19 related changes have seemingly led to lower profits for most food vendors
 - ♦ Two-thirds of vendors reported lower profits during the survey period compared to the same period in a normal year.
 - ♦ Only 12 percent of interviewed businesses indicated that their business had not been affected by COVID-19.
- Availability of food is currently not a major issue at the national level. Food vendors reported food prices and quantities purchased to be similar to what they expect during the same period in a normal year.
- However, we see emerging issues with some products in parts of the country:
 - ♦ About half of the food vendors mentioned increasing prices for chicken and pork. They also indicated lower quantities of these products being purchased.
 - ♦ Price increases for animal-source foods and cooking oils are especially seen in the West and the North of the country, where prices are significantly higher than elsewhere.

Recommended Actions

- The interviewed vendors did not note any major disruptions to food markets in the surveyed areas. It is therefore important that vendors and their suppliers are allowed to continue trading and that the smooth functioning of the food trading sector, with little restriction on national and international food transport flows, is seen by all stakeholders as a priority during this COVID-19 pandemic.
- However, continued attention should be paid to ensure that important safety requirements in food markets are maintained.
- Further close monitoring of food markets is needed, especially given that Myanmar is in monsoon season, typically the most difficult months of the year given high food prices and increased levels of food insecurity in that period. Special attention may be required in the West and the North to monitor price increases in already vulnerable areas.

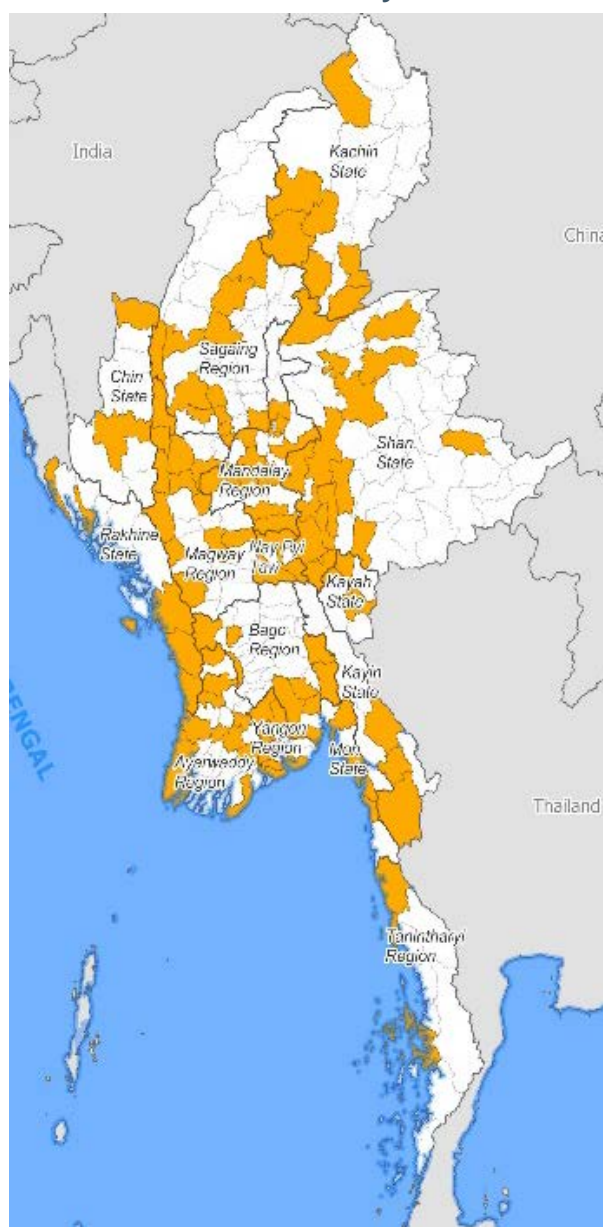
Introduction

It is feared that the COVID-19 pandemic will lead to widespread increases in global poverty and food insecurity and that these negative impacts will concentrate on the most vulnerable segments of the population (Swinnen and McDermott 2020). Although Myanmar, with one of the lowest COVID-19 infection rates in the world, has been spared the worst direct impacts of the disease, its economy remains highly vulnerable to the economic fallout of the contagion. A major contributor to increased food insecurity in Myanmar is the reduction of income among vulnerable populations (Diao et al. 2020), partly due to significant declines in remittances in the country (Diao and Wang 2020). In addition, disruptions to food marketing systems and changes in farm and consumer prices could also turn out to be major drivers of food insecurity. Changes in food markets – including supply of commodities and transport - and food and agricultural prices are an obvious concern to policy makers, given the importance of agricultural prices for the income of farmers and food prices for the purchasing power of consumers.

There are various factors that may cause marketing systems to change during this pandemic. Because of reduced demand due to the global recession, some researchers predict that commodity prices will decrease (Laborde et al. 2020). Meanwhile, others predict price increases, at least in the short run, due to hoarding and changes in purchase and storage patterns. Increased marketing costs due to complications in logistics linked to the pandemic may further widen the wedge between farm and consumer prices, potentially creating different price trends in rural compared to urban areas. It is also possible that prices of different foods move in different directions. For example, perishable products facing weaker demand could see prices collapse, but demand for more storable products, like pulses and rice, could increase during pandemics as consumers seek to increase household stocks to shore up food security. Understanding these effects is an important issue as these food prices matter enormously for the livelihoods of poorer people in Myanmar, both as consumers and producers of food. Thus, insights on agricultural and food markets can provide valuable inputs into the design of effective policies to mitigate the negative effects of the crisis.

This policy note presents results from round one of a phone survey of food vendors conducted in different rural and urban zones of the country (Figure 1). Its purpose is to provide data and insights to the government, development partners, and interested stakeholders to understand COVID-19 related shocks on Myanmar's food markets. In

Figure 1: Townships in Myanmar in which the food vendors surveyed are located



Source: Food vendor survey (23 June - 16 July 2020)

particular, the note explores the prevention measures adopted by food vendors, changes in shopping behavior, difficulties in the operation of food vendors due to the COVID-19 crisis, changes in availability and prices of foods, perceived changes in consumption, and suggested policy actions by these food vendors.

Data and descriptive statistics

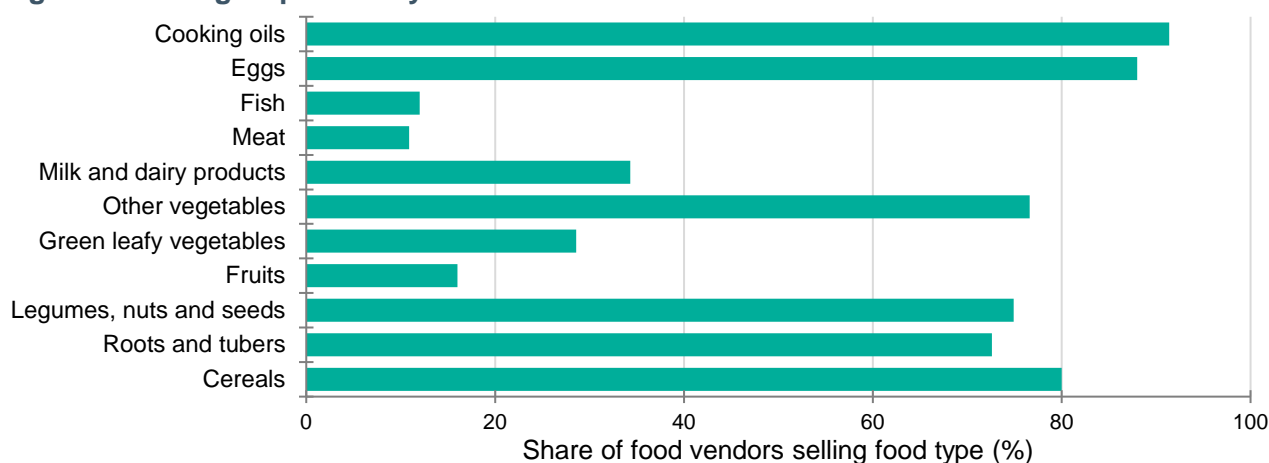
A phone survey with food vendors was conducted from 23 June to 16 July 2020. This survey was the first of three rounds with additional surveys planned for the months of August and September 2020. The national sample for this analysis consists of 175 food vendors: 47 in the Delta and the South, 64 in the Dry Zone and Central Region, 24 in the South-East, 30 in the North, and 10 in the West.¹ The areas in which the vendors surveyed are located are shown in Figure 1 – 18 percent of the food vendors are in urban areas. The food vendors surveyed were selected because they are well informed on food markets overall, deal regularly with food traders (such as suppliers and wholesalers), and are highly numerate and knowledgeable about food prices. Table 1 shows the basic characteristics of the food vendors in our sample. Most are female (65 percent), are on average 42 years of age, and are mostly general store owners.²

Table 1: Profile of food vendors surveyed

	Unit	Delta-South	Dry Zone-Central	South-East	North	West	All
Gender of respondent	% female	66.0	65.6	70.8	63.3	50.0	65.1
Age	years	42.7	42.0	38.8	42.0	45.9	42.0
General store owner	%	89.4	90.6	91.7	96.7	90.0	91.4
Observations		47	64	24	30	10	175

Source: Food vendor survey (23 June - 16 July 2020)

Figure 2: Food groups sold by food vendors



Source: Food vendor survey (23 June - 16 July 2020)

The type of products the interviewed food vendors sold is shown in Figure 2. Being predominantly general store owners, most respondents sold cereals, such as rice, noodle, and maize; roots and tubers, such as potato and sweet potato; legumes, nuts, and seeds; vegetables, such as onions, tomato, okra, and eggplant; eggs; and cooking oils. As there are no wet market vendors in our sample, findings on more perishable foods that are typically sold in these markets – such as fruits, green leafy vegetables, milk and dairy products, meat, and fish – feature less in subsequent sections

¹ We divided the sample up in five geographical zones: Delta/South (Ayeyawaddy, Yangon, Bago), South-East (Tanintharyi, Mon, Kayin, Kayah), Dry Zone/Central (Magway, Mandalay, Sagaing, Nay Pay Taw), West (Rakhine and Chin), and North (Shan and Kachin).

² Only two wet market vendors were interviewed, and no supermarkets took part in the survey.

of this report. However, respondents rarely stated they did not know the price of a food, which suggests they are indeed very knowledgeable about the situation of general food markets in their respective villages/townships. They therefore were considered good key informants for this mostly qualitative assessment.

COVID-19 prevention measures in wet markets

We asked food vendors questions about the COVID-19 prevention measures that had been taken in the wet markets in the village or township where the food vendor was operating (Table 2). The major take-aways are the following.

- Mask wearing is seemingly widely practiced – 96 and 78 percent of the food vendors stated that they are mandated to wear masks or protective gloves, respectively. Mask mandates were perceived to be relatively less widely implemented in the North of the country (83 percent).
- Additional efforts – spraying of markets, handwashing stations, and proper distancing between vendors – are done in most villages/townships – 92 and 94 percent of the food vendors reported that wet markets were disinfected with chemical spray and that new handwashing stations with soap/disinfectant were operational, respectively. 82 percent reported that they ensured proper distancing between vendors. Moreover, 51 percent of the food vendors reported that it was not allowed to consume food at the food stalls in the market.
- Other actions that might have had more direct impact on food trade have been limited. There have been few markets that imposed rules on the number of people that can enter the market (24 percent) or on the number of vendors that can operate (33 percent). Few markets excluded vendors from outside the village (14 percent) or vendors who did not have the proper licenses to sell produce (20 percent). Few markets reduced the number of days (17 percent) or hours (28 percent) of operation. We also see few restrictions on the sales of food and non-food items.

Table 2: COVID-19 prevention measures in wet markets, percentage of food vendors reporting

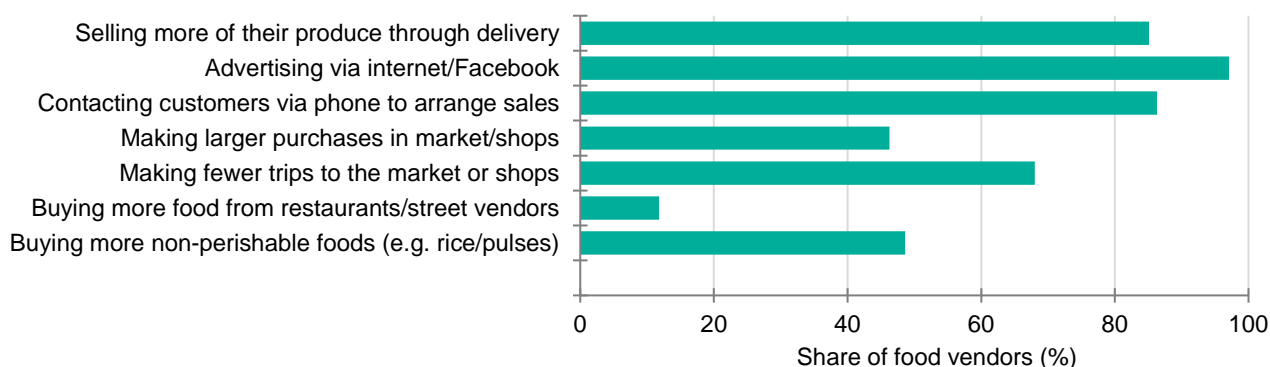
	Delta-South	Dry Zone-Central	South-East	North	West	All
New handwashing stations with soap/disinfectant are operational	95.7	100.0	100.0	76.7	90.0	94.3
Disinfecting of the market with chemical spray	95.5	93.7	95.7	80.0	90.0	91.8
Mandating that vendors wear masks	100.0	98.4	95.8	83.3	100.0	96.0
Mandating that customers wear masks	95.7	95.2	91.7	83.3	100.0	93.1
Mandating that vendors wear protective gloves	82.6	74.2	82.6	80.0	55.6	77.6
Restricting the number of vendors that can operate	28.9	36.5	31.8	37.9	11.1	32.7
Ensuring proper distancing between vendors	76.6	89.1	83.3	80.0	60.0	81.7
Restricting number of people that can enter market	27.7	27.0	17.4	27.6	0.0	24.4
Restricting the sale of non-food items	23.4	33.3	9.1	23.3	0.0	24.0
Restricting the sale of live animals	15.9	14.5	13.6	3.6	12.5	12.8
Restricting the sale of meat or fish products	23.4	17.5	17.4	10.0	0.0	16.9
Not allowing food consumption at food stalls in market	61.7	51.6	29.2	56.7	30.0	50.9
Reducing number of days of operation	17.4	20.6	8.3	23.3	10.0	17.9
Reducing number of hours of operation	30.4	27.0	12.5	44.8	20.0	28.5
Excluding vendors who do not have proper licenses to sell	21.4	26.7	13.0	16.7	0.0	20.1
Excluding vendors from outside the village to sell their products	13.3	20.0	12.5	10.3	0.0	14.4

Source: Food vendor survey (23 June - 16 July 2020)

Changes in business and consumer behavior

We further asked food vendors about changes they implemented in the conduct of their food business and/or by consumers in their food shopping behavior. During the pandemic, it seems that food vendors implemented significant adjustments in their businesses as well as consumers in their food purchasing habits (Figure 3). A first adjustment is that food vendors are delivering more products to homes (86 percent) and customers are increasingly using phones to contact food vendors to arrange purchases. Secondly, consumers make fewer trips to the market or the shop and when they do, they make larger purchases. Thirdly, we see relatively more purchases of non-perishable foods (49 percent of the food vendors mention this), likely because such products can be stored longer and thus require fewer (and riskier) trips to the market and/or food vendors.

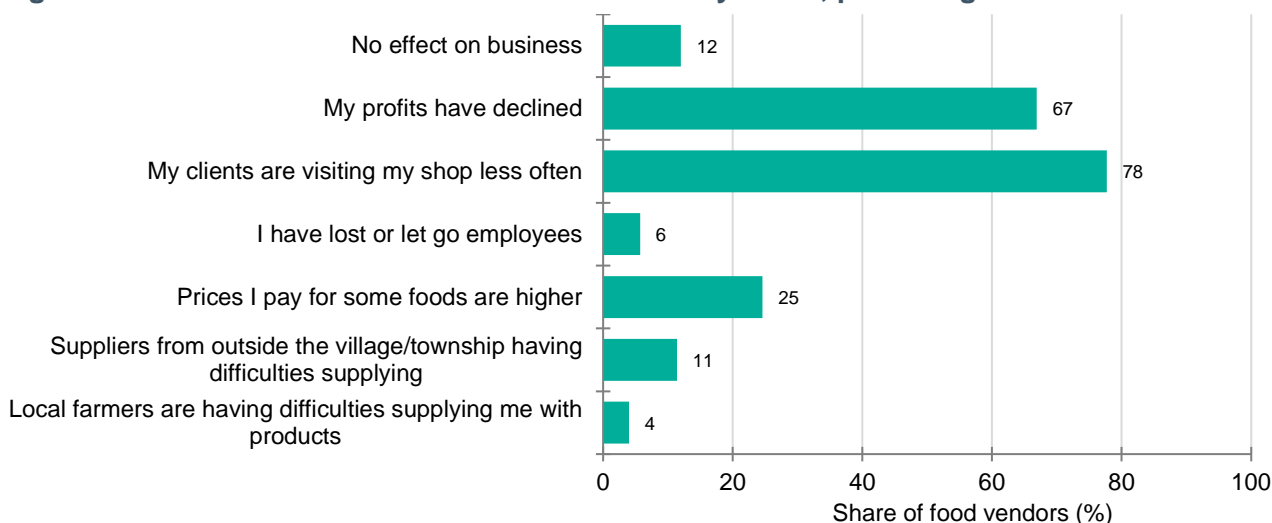
Figure 3: Reported changes by food vendors after the COVID-19 pandemic



Source: Food vendor survey (23 June - 16 July 2020)

We also asked a series of high-level questions about changes in food vendors' businesses linked to the COVID-19 pandemic (Figure 4). Food vendors indicated that clients are visiting their shops less often, seemingly leading to a decline in profits for most of them. Only 12 percent of the food vendors reported that there was no effect on their business from the COVID-19 pandemic.

Figure 4: Effects of COVID-19 on food vendors in Myanmar, percentage of vendors affected



Source: Food vendor survey (23 June - 16 July 2020)

With respect to operating their food shops, there are seemingly few issues on the supply side as only a few food vendors reported local farmers having difficulties in supplying them with products or suppliers from outside the village/township having difficulties in getting their products to the food vendors. Just 6 percent of the food vendors lost or had to let employees go. However, as these food vendors often run small family-owned shops, they might rely on few outside employees. One issue

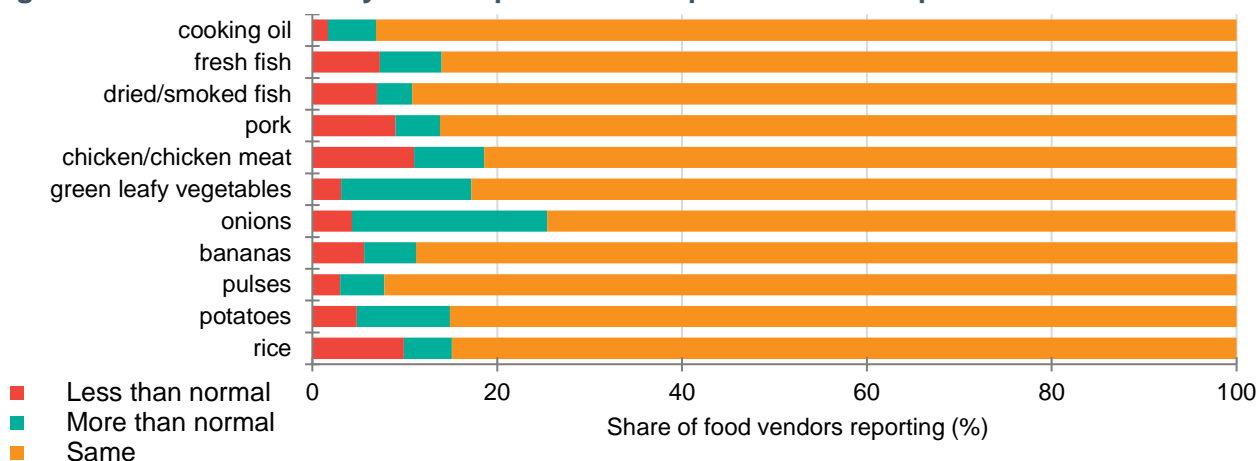
that a quarter of the food vendors raised is the higher purchase prices that they had to pay for some of their food supplies. However, it is unclear to what extent these prices are transmitted to consumers.

Changes in the availability and prices of foods

A major worry for food security is the availability and prices of products, possibly linked to more limited mobility in the country due to COVID-19 measures. We therefore asked food vendors about their perception on changes in the availability of different food products, compared to similar periods of previous years.

At the time of the survey, there were no major issues with the availability of food products. Most of the vendors (varying between 74 percent and 93 percent for the different food groups) reported that availability of food products in their village/township was the same as normal (Figure 5). However, we see variation by food group. In the case of onions, 21 percent of vendors reported greater availability now compared to the same period in a typical year. On the other hand, 11 percent of food vendors reported that chicken and chicken meat was less available now. This lower availability may be linked to the Salmonella outbreak that was observed in the beginning of the year in the country (Fang et al. 2020).

Figure 5: Recent availability of food products compared to normal periods

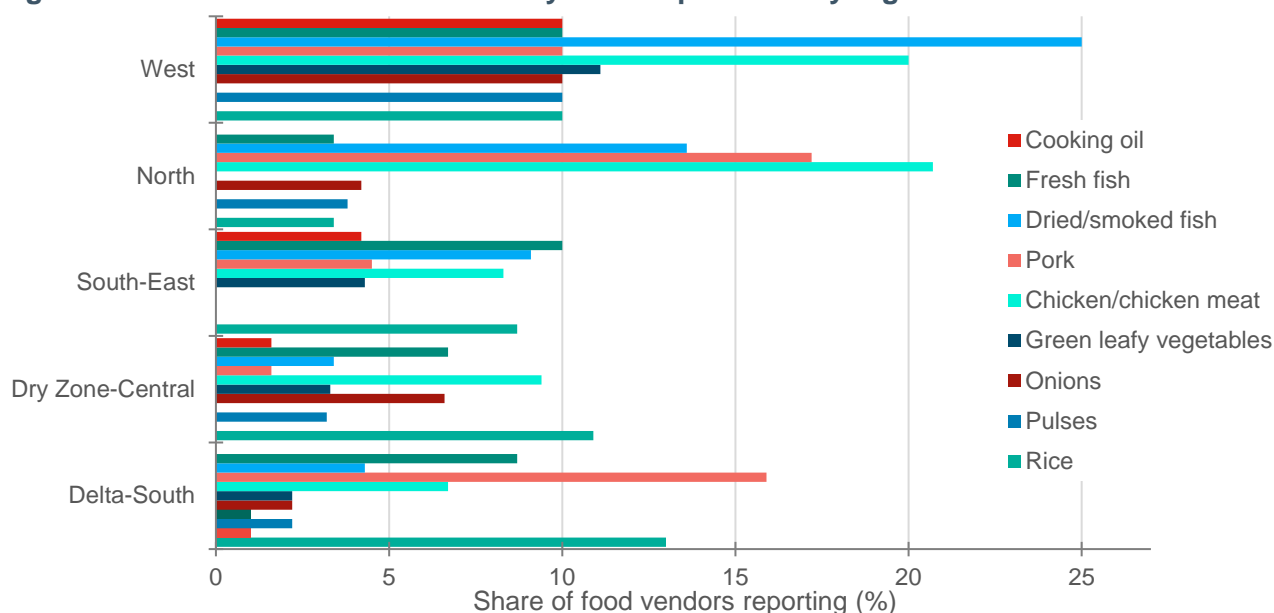


Source: Food vendor survey (23 June - 16 July 2020)

We also note some regional differences in availability (Figure 6). Most complaints about lower availability of products are situated in the North and the West of the country. In the West, 20 percent of food vendors reported lower than normal availability for bananas, 20 percent for chicken, and 25 percent for dried and smoked fish. In the North, 21 percent of vendors reported less than normal availability for chicken and 17 percent for pork.

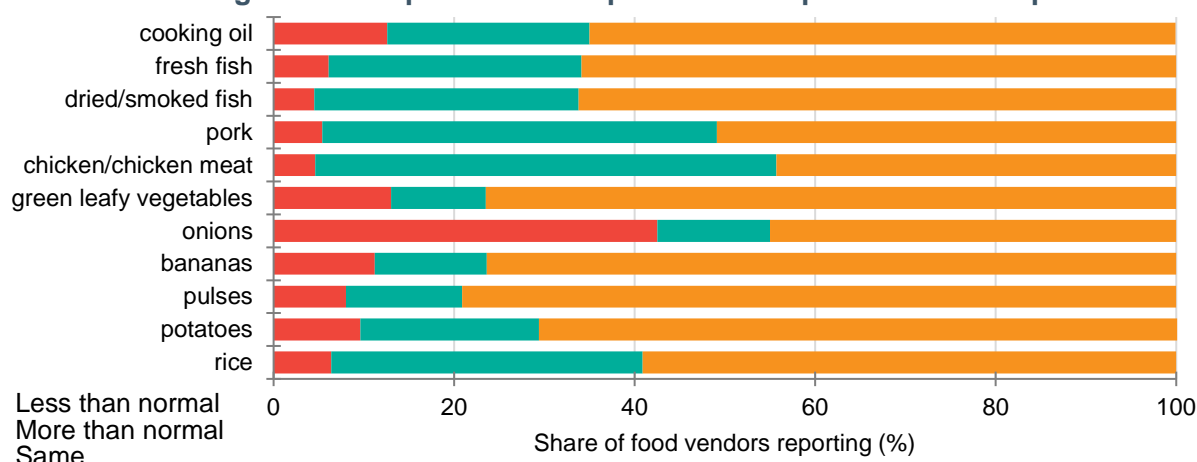
While availability may not have significantly changed, some changes in prices may indicate other signs of stress in the food marketing system. In a similar manner as our availability questions, we asked food vendors to compare changes in prices at the time of the survey to similar periods in a normal year. The results are reported in Figure 7. Overall, we see no large changes in the movement patterns of prices, as also shown in WFP's recent price monitoring reports (WFP 2020). Most food vendors reported that prices of different food groups during the survey period were the "same as usual", varying from 44 percent (chicken) to 79 percent (pulses).

Figure 6: “Less than normal” availability of food products by region



Source: Food vendor survey (23 June - 16 July 2020)

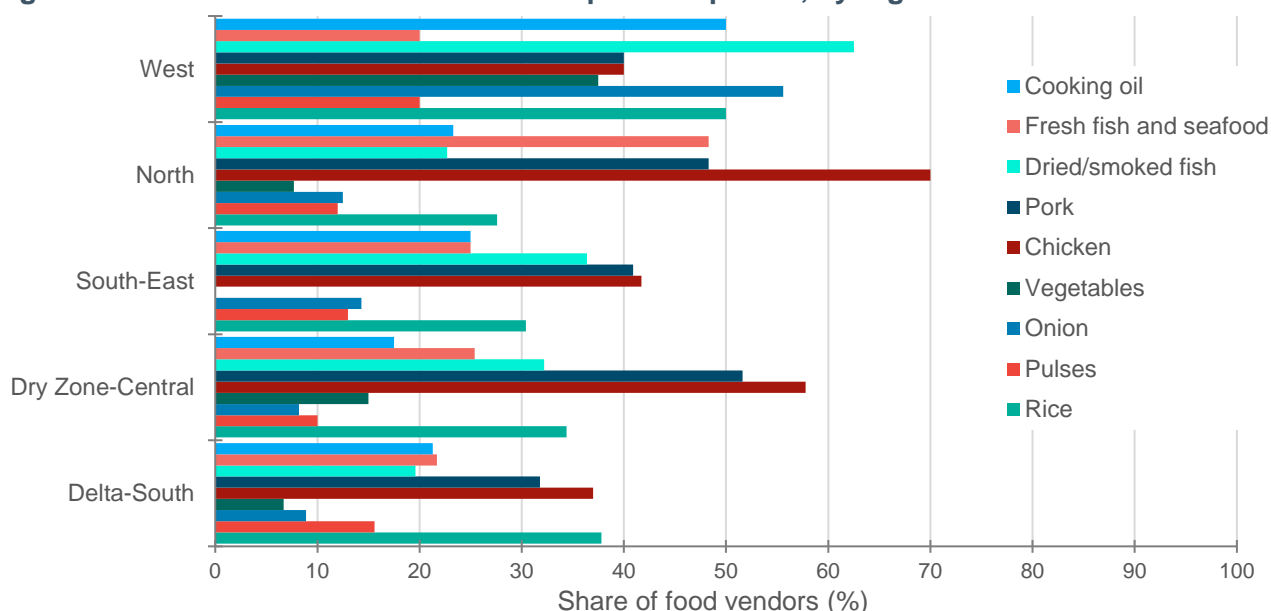
Figure 7: Recent changes in retail prices of food products compared to normal periods



Source: Food vendor survey (23 June - 16 July 2020)

However, we note several differences between products and zones. Onion was reported to have experienced significant price decreases: 42 percent of the food vendors stated that prices were lower at the time of the survey than at similar periods in a normal year, consistent with the greater availability reported (Figure 8). Other products experienced price increases, most notably chicken and pork where 51 percent and 44 percent, respectively, of the food vendors reported higher prices than normal at this time of the year, consistent with the lower availability reported. Price increases for livestock products were noted everywhere in the country, but the increase was relatively less in the Delta and the South. In the West and North of the country, we see more reports of higher prices than normal. These qualitative assessments seem to indicate that the northern and western zones recently suffered more from price increases. This is worrisome as these zones are already vulnerable zones, as seen in their high stunting levels, as seen in the 2015-16 Myanmar Demographic Health Survey.

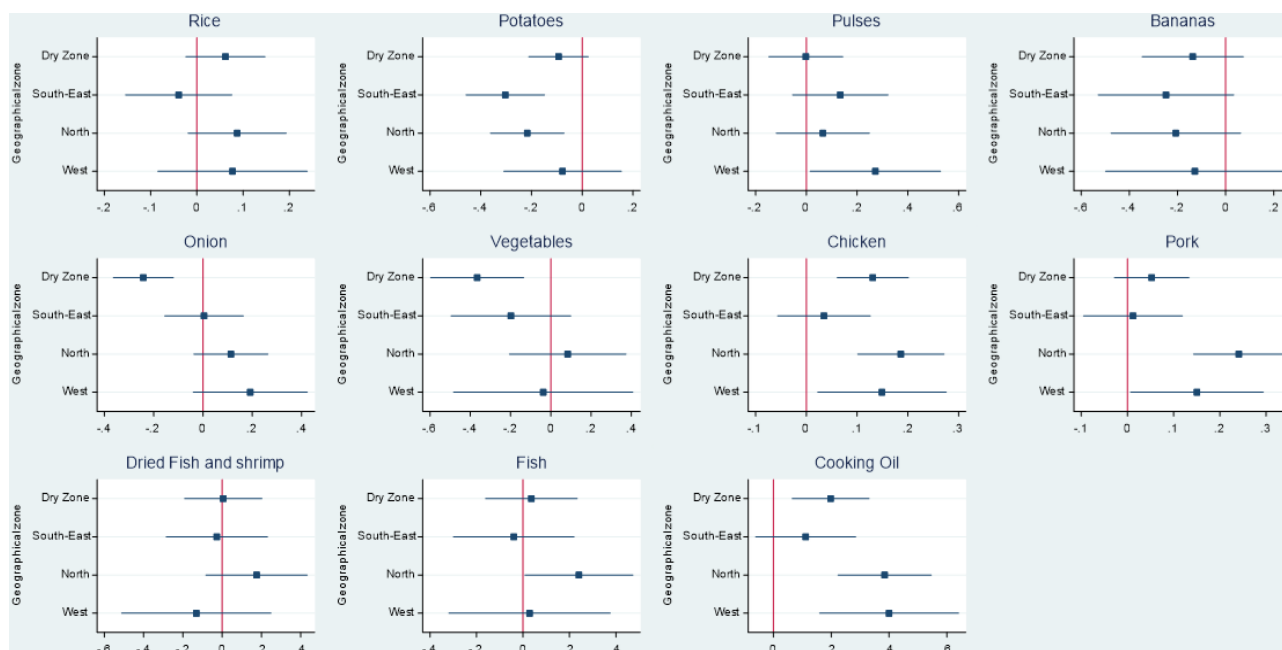
Figure 8: “More than normal” increases in prices reported, by region



Source: Food vendor survey (23 June - 16 July 2020)

We also asked food vendors about the effective prices at the time of the survey for different food products. To make a comparison of price differences between different zones in our sample, we ran a regression to compare prices of these different zones to average prices in the Delta and the South of the country (i.e. the Yangon region). Results are presented in Figure 9. The red vertical line in Figure 9 indicates the average price in the Delta and the South of the country. The blue dot indicates the average price ratio difference of that zone with the Delta/South default price and the blue lines indicate the 95 percent confidence intervals.

Figure 9: Price ratio differences of specific food products by zone, comparing to the Delta-South zone



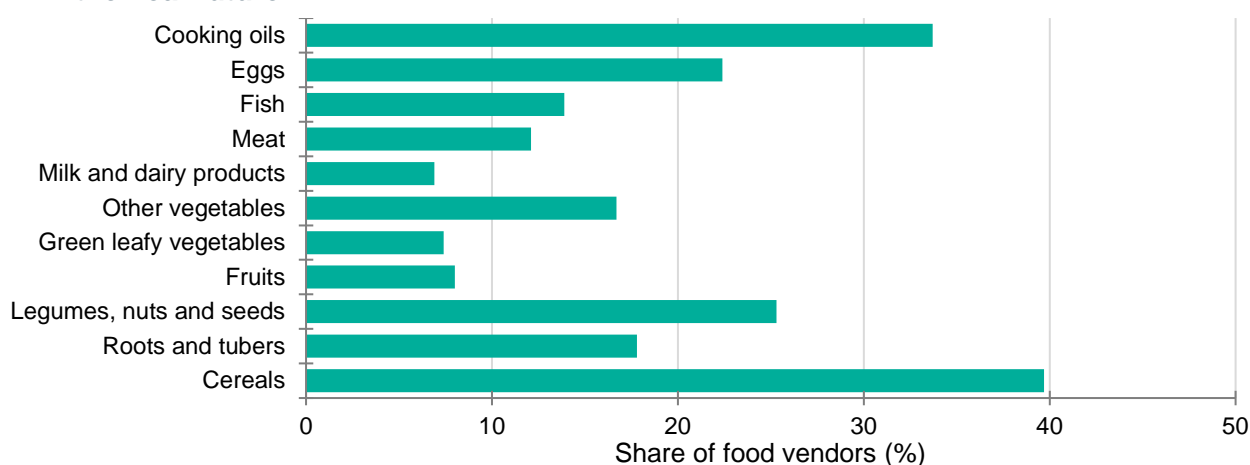
Source: Food vendor survey (23 June - 16 July 2020)

Overall, we note that prices are mostly lower in the Delta and the South of the country for rice, pulses, chicken, pork, and cooking oil, as indicated by prices for other zones being mostly to the right of the red line. However, we only see significantly higher prices (where confidence intervals do not

overlap with the red line) in the West and the North of the country in the case of chicken, pork, and cooking oil. Prices in the Delta and the South are relatively higher in the case of potatoes, bananas, and vegetables (except compared to the North). However, none of these differences are significant. It is important to note that, as we do not have comparison points of food prices for these food vendors from earlier periods, it is hard to judge if the price differences between zones is a recent phenomenon due to COVID-19 or if it is an indication of more long-term structural problems in regional food marketing systems. This would require further research.

Food vendors were also asked to share their concerns by food groups about current supply and in the near future. While we have seen that availability of food groups has not been affected in a major way, food vendors are especially concerned about the supply of those products that are important for their food business, i.e. cereals and cooking oils. 40 and 34 percent, respectively, of the food vendors were concerned about the supply of these products in the near future (Figure 10).

Figure 10: Food vendors expressing concerns about lack of supply of food products now or in the near future



Source: Food vendor survey (23 June - 16 July 2020)

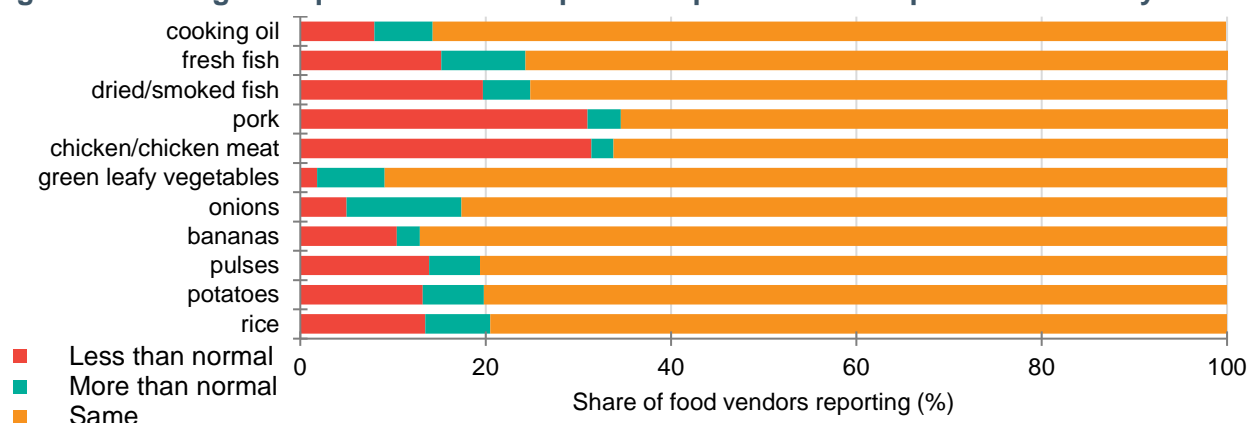
Changes in the consumption of food vendor clients

We further asked food vendors to assess how quantities bought by their consumers have changed compared to normal periods. They reported the quantities purchased are at similar levels as normal for most of the food products. The “same” category varied between 91 percent for green leafy vegetables and 66 percent for pork and chicken (Figure 11). The latter products seem to have taken the biggest hit since the start of the COVID-19 pandemic. The reduction in the consumption of animal-source foods (ASF) is also seen in a global economywide simulation analysis (Laborde et al. 2020), in a recent COVID-19-related study showing that economic contractions reduce children’s consumption of nutrient-dense foods (Headey and Ruel 2020), and in another Myanmar Agricultural Policy Support Activity phone survey in which maternal consumption of ASFs (and some non-ASFs) is associated with self-reported declines in income due to COVID-19 (Headey et al. 2020).

This result is consistent with the high income elasticities of ASFs, indicating that when incomes decline, these products will be consumed much less (proportionally more so than the decline in income), in part because ASFs are relatively expensive sources of calories, despite their high density of multiple micronutrients and high-quality protein. Availability of ASFs has been reduced and their prices have increased on top of relatively large predicted income declines in the country linked with the economic disruptions associated with COVID-19 (Diao and Mahrt 2020). A phone survey of the commercial poultry sector near Yangon also reveals severe disruptions to inputs, particularly day-old chicks, and cites this as one of the main reasons for rising prices of broilers and eggs despite

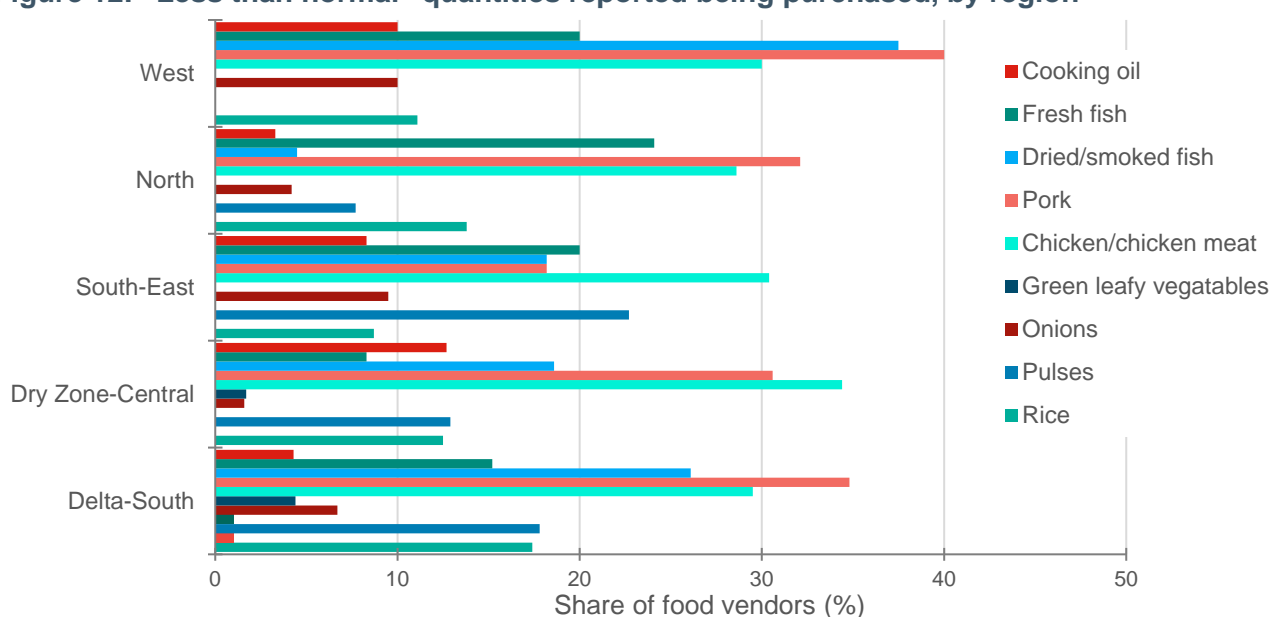
declining demand (Fang et al. 2020). While the food vendor survey primarily covers rural markets, the integration of poultry markets implies some transmission of these higher prices into rural areas, with depressing effects on demand. The reported decline of consumption of ASF is especially high in the West and North of the country (Figure 12).

Figure 11: Changes in quantities of food products purchased compared to normally



Source: Food vendor survey (23 June - 16 July 2020)

Figure 12: “Less than normal” quantities reported being purchased, by region

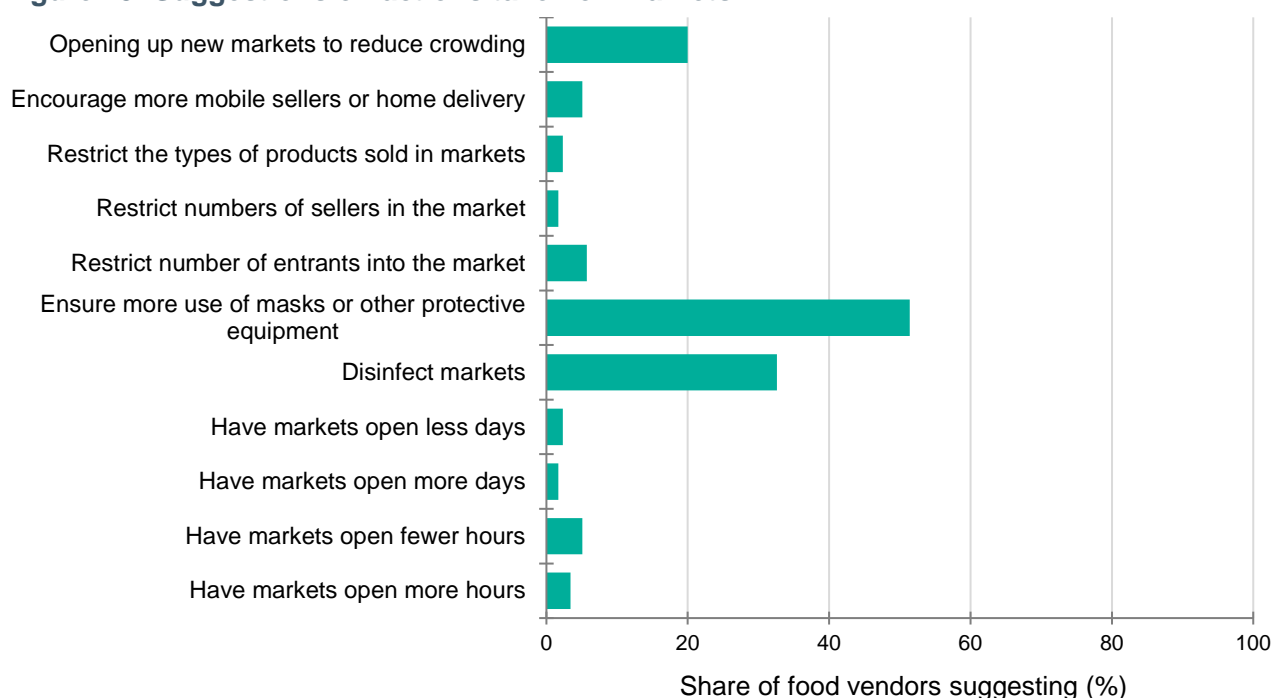


Source: Food vendor survey (23 June - 16 July 2020)

Policy actions

We further asked food vendors about their suggestions for streamlining and safeguarding the functioning of markets during the COVID-19 pandemic. The food vendors were obviously concerned about restrictions on their business practices and very few recommended measures that would impact their business, such as restricting the type of products being sold, restricting the number of sellers in the market, having markets open less frequently, or having markets open for less hours (Figure 13). Their main suggestions centered around ensuring that masks (or other protective equipment) are worn by all involved (51 percent of the food vendors) or that markets are regularly disinfected (33 percent).

Figure 13: Suggestions on actions taken on markets



Source: Food vendor survey (23 June - 16 July 2020)

Most food vendors indicated overall that few impacts have been seen on the availability, prices, and quantities purchased compared to normal years. However, close monitoring of price movements and factors contributing to those price changes is paramount. This is especially important now in the middle of the monsoon season, given that this period is normally the most difficult period of the year with higher food prices and increased levels of food insecurity (Vivero-Pol 2019). Changes in consumer prices are sometimes linked to predatory behavior among traders, motivating government intervention to curb down trading activity, as has already been witnessed during the COVID-19 pandemic in several other countries (Resnick 2020). However, early evidence on such predatory behavior is limited and the findings reported here indicate that price changes at the national level in Myanmar during this pandemic have not yet been large and that the food marketing system has held up well.

References

- Diao, X. and M. Wang. 2020. "Significant economic impacts due to COVID-19 and falling remittances in Myanmar." In J. Swinnen and J. McDermott, eds.. *COVID-19 and Global Food Security*. Washington DC: International Food Policy Research Institute. pp. 60-62.
- Diao, X., and K. Mahrt. 2020. *Assessing the Impacts of COVID-19 on Household Incomes and Poverty in Myanmar. A microsimulation approach*. Myanmar Strategy Support Program Working Paper 02. Yangon: International Food Policy Research Institute.
- Diao, X., N. Aung, W.Y. Lwin, P.P. Zone, K.M. Nyunt, and J. Thurlow. 2020. *Assessing the impacts of COVID-19 on Myanmar's economy. A Social Accounting Matrix (SAM) multiplier approach*. Myanmar Strategy Support Program Working Paper 01. Yangon: International Food Policy Research Institute.
- Fang, P., B. Belton, H.E. Win, K.Z. Win, and X. Zhang. 2020. *Monitoring the Impact of COVID-19 in Myanmar: Yangon peri-urban poultry farmers— early June 2020 survey round*. IFPRI Myanmar Strategy Support Program Policy Note 11. Yangon: International Food Policy Research Institute.
- Headey, D., Ruel, M., 2020. *Economic shocks and child wasting*. IFPRI Discussion Paper 01941. Washington, DC: International Food Policy Research Institute.

- Headey, D., S. Goudet, I. Lambrecht, T.Z. Oo, E.M. Maffioli, E. Field, and R. Toth. 2020. *Poverty and food insecurity during COVID-19: Evidence from the COVID-19 Rural and Urban Food Security Survey (RUFSS) – June and July 2020 round*. Myanmar Strategy Support Program Policy Note 27. Yangon: International Food Policy Research Institute.
- Laborde, D., W. Martin, J. Swinnen, and R. Vos. 2020. "COVID-19 risks to global food security." *Science* 369 (6503): 500-502.
- Resnick, D. 2020. "COVID-19 lockdowns threaten Africa's vital informal urban food trade." In J. Swinnen and J. McDermott, eds.. *COVID-19 and Global Food Security*. Washington DC: International Food Policy Research Institute. pp. 73-74.
- Swinnen, J. and J. McDermott, eds. 2020. *COVID-19 and Global Food Security*. Washington, DC: International Food Policy Research Institute.
- Vivero-Pol, J.L. "Profiling food insecurity and rural diets in Myanmar." October 2019, Presentation RESAKKS-Asia conference, October 2019, Yangon, downloaded from <https://www.slideshare.net/resakksasia/profiling-food-insecurity-and-rural-diets-in-myanmar>
- WFP-Myanmar (World Food Programme, Myanmar office). 2020. *COVID-19 situation report #06*. 3 June 2020. Yangon: WFP-Myanmar.

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