

Monitoring the Impact of COVID-19 in Myanmar

Yangon peri-urban poultry farmers – June 2020

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Key findings

- Demand for broilers suffered a double hit in 2020 – a January salmonella outbreak, followed immediately by COVID-19. 24 percent of poultry farms surveyed in 2019 closed their business in the past 9 months. Broiler farms were more likely to close than layer farms.
- Broiler prices skyrocketed from 2352 MMK/viss in March to 4629 MMK/viss in June.
- 64 percent of farms that closed business in last two months reported cash flow problems.
- Total job loss since March among 275 surveyed farms was 662 – 29 percent of the total labor in those farms.
- 86 percent of poultry farms expect their total revenue in 2020 to decrease compared with 2019 – 37 percent expecting a decrease of more than 20 percent.
- Demand was the main issue for poultry farms. More than half of farms reported problems in selling chickens or eggs due to lack of demand and low market prices. Supply was less of a problem. 72 percent of poultry farms reported no problems in accessing inputs.

Recommended actions

- Provide temporary income support to farms, both registered and unregistered, to help them buffer shocks. This recommendation can fall under Action 2.1.7(b) of the COVID 19 Economic Relief Plan (CERP) of the Government of Myanmar.
- Include livestock farmers as beneficiaries of government credit guarantee schemes, conditional upon maintaining or rehiring workers. This would help ease cash flow problems and maintain their workforce. This recommendation falls under CERP Action 2.1.2.
- Provide temporary tax exemptions or deferrals to livestock farmers, traders, and input suppliers to better enable them to maintain operations for a more stable livestock market. Such measures fall under CERP Action 2.1.3.
- Travel restrictions should be further removed for transportation of livestock and livestock products across all regions.

Introduction

Between 2010 and 2015, consumption in Myanmar of chicken and eggs increased by 72 percent and 40 percent, respectively.¹ Whereas consumption of most other meats fell during this period, chicken had become the most common meat consumed in Myanmar by 2015. An important reason for this growth is that chicken and eggs were the only major animal-source foods for which real retail prices decreased in recent years. In addition, chicken and egg production is of growing importance to human nutrition in Myanmar – chicken and chicken eggs, together with fresh milk, were the only animal-source foods for which consumption by low income households increased substantially between 2010 and 2015.

However, demand for chicken suffered a double hit in 2020 – first from a salmonella outbreak in January that reduced consumer demand, followed immediately by the COVID-19 pandemic. To shed light on the impact of these shocks to this critical sector, a series of phone surveys were conducted. This research note seeks to help the Ministry of Agriculture, Livestock and Irrigation of the Government of Myanmar and agricultural sector stakeholders to (1) understand the challenges that poultry farms have faced since the outbreak of COVID-19; (2) learn about adaptations and changes poultry farms are making in response to those challenges; and (3) track input procurement and marketing activities, including quantities and prices.

The first round of this poultry farmer survey was conducted between 1 and 12 June 2020. 275 poultry farmers (195 broiler and 80 layer farms) in the Yangon peri-urban area (Ayeyarwady, Bago, and Yangon regions) were surveyed. All farms surveyed had previously been surveyed by Michigan State University (MSU) and the International Food Policy Research Institute (IFPRI) in July and August 2019. The design of the survey sample is such that the results are not necessarily broadly representative of all poultry farms in the Yangon peri-urban area. This was due to a lack of information on all such farms required to generate survey weights. Nevertheless, the fairly uniform nature of production practices among poultry farms means that the survey results very likely reflect the characteristics and experiences of other poultry farms of similar size within the zone surveyed.

We asked a series of high-level questions about general business operations to compare the current situation in June 2020 to that of 2019 and a series of detailed questions about input procurement and marketing for recent production cycles. Because of the short production cycle of broilers,² we asked broiler farmers input and marketing questions for the last complete production cycle. On the other hand, for layer farmers, the reference period was the period since semi-lockdown restrictions were imposed in the Yangon peri-urban area.³ The two recall periods are quite similar, i.e., April and May.

Effects of COVID-19 on poultry farmers

24 percent of poultry farms surveyed in 2019 closed their business in the past 9 months, with 18 percent temporarily closed and 6 percent permanently closed (Table 1). Demand for chicken and eggs from both households and businesses in the Yangon area decreased substantially since the COVID-19 outbreak began. In late March and early April, the Myanmar government ordered restaurants, hotels, and tourist areas to close their businesses.⁴ According to the chairman of a

¹ Belton, B. A. Cho, E. Payongayong, K. Mahrt, and E. Abaidoo. 2020. *Commercial Poultry and Pig Farming in Yangon's Peri-Urban Zone*. Feed the Future Innovation Lab for Food Security Policy Research Paper 174. East Lansing, MI, USA: Michigan State University.

² The production cycle of broiler is around 45 days, and about 18 months for layers.

³ We define the period since April as the period after Yangon lockdown. Yangon imposed semi-lockdown restrictions in some townships in early April.

⁴ International Food Policy Research Institute. 2020. *COVID-19 Policy Response (CPR) Portal*. Washington, DC: IFPRI. Retrieved June 21, 2020 from <https://www.ifpri.org/project/covid-19-policy-response-cpr-portal>.

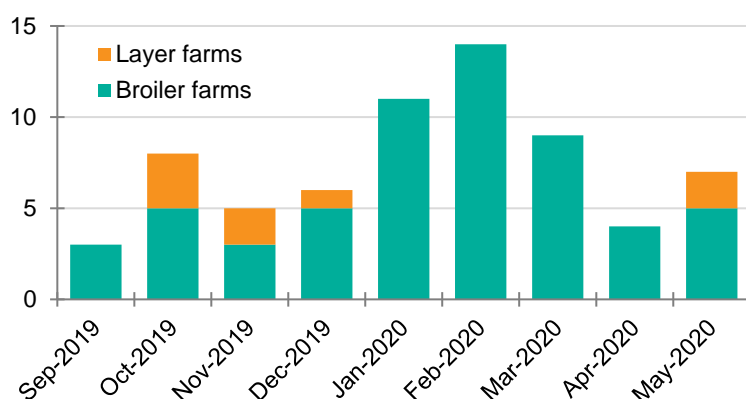
Yangon poultry association interviewed, without the outbreak of COVID-19, the broiler market was expected to recover from the January salmonella outbreak around March with the national Thingyan holiday. However, our data show many poultry farms have remained closed since March, which is very likely due to COVID-19 shocks. Thus far, layer farms have been less likely to close than broiler farms. However, although no layer farms closed between January and April 2020, some began to close in May 2020 (Figure 1). Additional layer farms may be expected to close in coming months due to their longer production cycle.

Table 1: Operational status of poultry farms, percent of farms surveyed

	Both	Broiler farms	Layer farms
Still in operation	76	70	90
Temporarily closed	18	24	4
Completely closed	6	6	6

Source: June 2020 Yangon peri-urban poultry farmer survey.

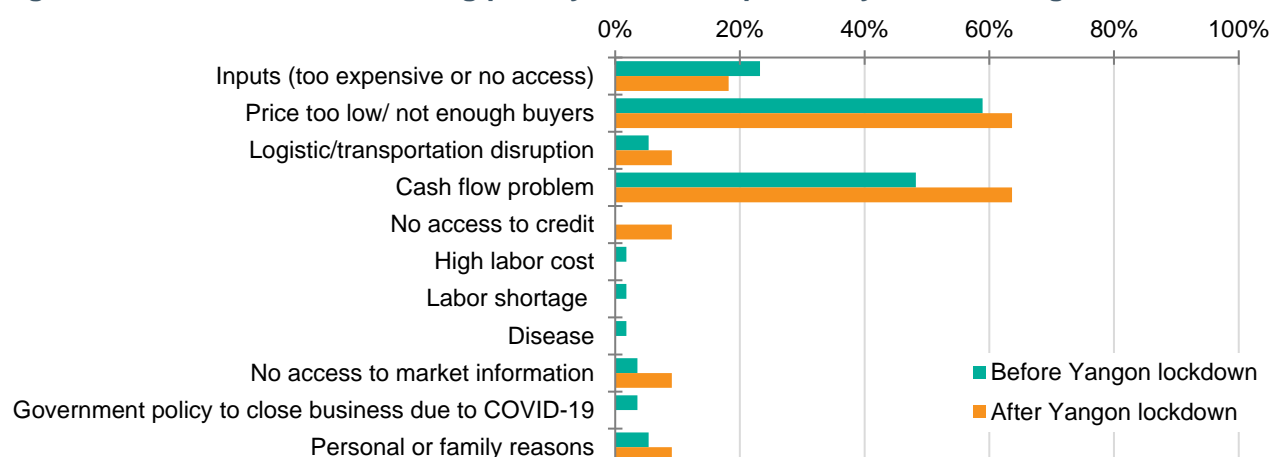
Figure 1: Broiler and layer poultry farms closed by month, September 2019 to May 2020, number



Source: June 2020 Yangon peri-urban poultry farmer survey.

The two main reasons for closing poultry farms were low market prices/not enough buyers and cash flow problems, as reported by the farms surveyed (Figure 2). Cash flow problems became more severe after the Yangon lockdown. Among farms that are still in operation, 20 percent reported that they can maintain business operations with their current cash flow for only another 3 to 5 months. Other factors, including access to inputs, labor issues, disease, or government COVID-19 restrictions, were not substantial drivers in causing farms to go out of business.

Figure 2: Main reasons for closing poultry farm, as reported by those having closed

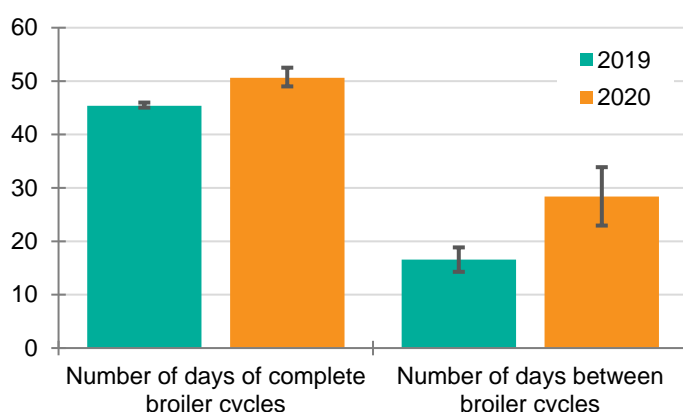


Source: June 2020 Yangon peri-urban poultry farmer survey.

Closure of broiler and layer farms substantially decreased the supply of chicken and eggs.

Operational farms are also reducing production. To cope with reduced demand, broiler farms prolonged both the length of production cycles and the intervals between cycles (Figure 3). Compared with estimates from 2019, our first-round data shows that yearly production by operational broiler farms will decrease by 22 percent if they continue at the current level of operational capacity. This decrease in production is attributed to prolonging production cycles and reducing the number of broilers produced per cycle – compared with 2019, operational farms reduced the number of broilers by 8 percent in the last complete cycle. Combining the two factors, broiler production in 2020 could decrease by 19 percent compared with 2019 (Table 2). Taking closed farms into consideration, the total reduction in broiler supply in the last completed cycle of broiler production (April/May) is estimated at between 25 and 49 percent depending on how many temporarily closed farms reopen. This reduction in supply is reflected in the recent jump in the price of broiler chickens (Figure 4). On the other hand, the reduction in egg supply has been relatively mild, estimated at between 6 and 10 percent. This decline mainly is due to some layer farms closing (Table 2).

Figure 3: Broiler farm production cycles in 2019 and 2020, length in days



Source: June 2020 Yangon peri-urban poultry farmer survey.

Note: Error bars are 95% confidence intervals.

Table 2: Changes in broiler and egg supply among surveyed farms between 2019 and 2020

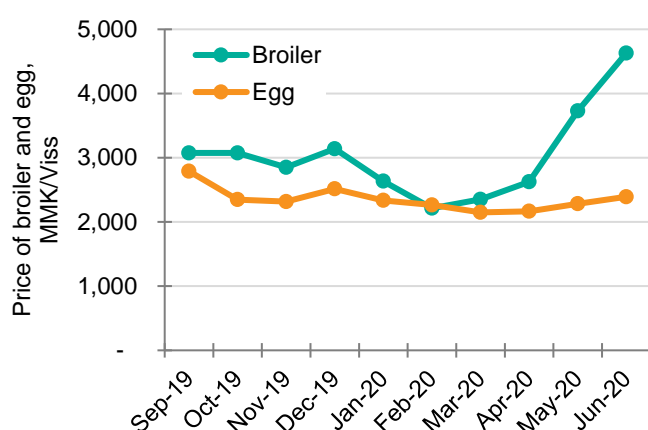
	Broiler farms	Layer farms
Poultry population in operational farms:		
2019	6,923	16,270
2020	6,375	16,297
Percent change	-8	0
Percentage supply change of broilers and eggs from...		
Operational farms	-19	0
Permanently closed farms	-6	-6
Temporarily closed farms	-24	-4

Source: June 2020 Yangon peri-urban poultry farmer survey.

Demand for broilers has increased recently. Broiler price rose from 2,352 MMK/viss in March to 4,629 MMK/viss in June, likely due to the supply shortage for broilers (Figure 4). Traders in the Yangon wholesale market reported that they had to raise their broiler procuring prices because of a supply shortage. The Myanmar government lifted restrictions on restaurants in mid-May and on hotels and tourism in late-May.⁵ This likely contributed to the recent high demand for chicken. With this increasing demand, the production of operational farms is likely to return to normal or to higher than normal levels.

⁵ International Food Policy Research Institute. (2020). *COVID-19 Policy Response (CPR) Portal*. Washington, DC: IFPRI. Retrieved June 21, 2020 from <https://www.ifpri.org/project/covid-19-policy-response-cpr-portal>.

Figure 4: Farmgate prices of broiler chickens and chicken eggs, September 2019 to June 2020



Source: Authors' compilation based on the daily broiler and egg price posted on Facebook by Myanmar Livestock Federation.
Note: 'Viss' is a traditional unit of mass in Myanmar equivalent to 1.63 kg. In early 2020, MMK 1,375 ≈ USD 1.00.

In contrast, the price of eggs increased only slightly in May and June, which implies that there is no acute supply shortage for eggs.

COVID-19 also impacted layer farms. Though layer farms were less likely to close their businesses, Table 3 shows that COVID-19 forced them to alter their business operations and expectations on costs and revenues. Around 85 percent of layer farms expect their revenue in 2020 to decrease compared with 2019 – half of these farmers expecting their revenue to decrease by more than 20 percent. In contrast, a much smaller share of broiler farmers expects their revenue to decrease by more than 20 percent. This is likely because broiler farms experiencing sharply decreased revenue would rather shut down their farms than operate them at a loss. On the other hand, layer farms have less flexibility to make that choice due to their longer production cycles.

Table 3: Expectations of changes in business operations of poultry farms in 2020 compared to 2019, percent of surveyed farms

	Business operational capacity level			Total operating costs			Total revenue		
	Both	Broiler farms	Layer farms	Both	Broiler farms	Layer farms	Both	Broiler farms	Layer farms
Increase by more than 20%	3	3	3	5	2	9	1	5	3
Increase by up to 20%	6	7	3	32	31	33	4	9	1
The same	46	48	41	53	56	46	10	51	10
Decrease by up to 20%	22	22	22	6	7	3	49	31	41
Decrease by more than 20%	24	20	32	6	4	9	37	4	44

Source: June 2020 Yangon peri-urban poultry farmer survey.

Over 35 percent of both broiler and layer farms expected their operating costs to increase in 2020 compared with 2019. With higher costs and lower revenue, it will be very challenging for some broiler and layer farms to survive. Among operational farms, the operational capacity level of layer farms decreased relatively more than for broiler farms. In addition to COVID-19, layer farms have also been affected by extremely high temperatures this year, causing low laying rates and smaller eggs being laid. This further decreases the operational capacity and revenues of layer farms.

Around 30 percent of all operational broiler and layer farms laid off some of their regular workers since Yangon's semi-lockdown, i.e. early April. The number of hired regular workers in operational poultry farms decreased by 12 percent from 9 to 8 workers per farm on average (Table 4). Taking closed farms into consideration, total job losses among the 275 surveyed farms was 662, which was

about 29 percent of the total labor in 2019 in the farms surveyed. This adverse impact on labor was likely caused by reduced business operations. Table 4 shows that the surveyed farms did not reduce the wages paid to regular workers. Some respondents explained that they hoped to keep their skilled regular workers even if the farm loses money during this period.

Table 4: Impacts of COVID-19 crisis on labor of poultry farms

	Regular workers per farm, average number		Monthly wage (Lakh MMK), average	
	Before lockdown	After lockdown	Before lockdown	After lockdown
Ayeyarwady	10	9***	1.6	1.5
Bago	8	7***	1.5	1.5
Yangon	9	8***	1.6	1.6
All	9	8***	1.6	1.6

Source: June 2020 Yangon peri-urban poultry farmer survey.

Note: Asterisks show statistical significance of difference in means test for mean indicators before and after lockdown.

*** p<0.01, ** p<0.05, * p<0.1

About two thirds of operational farms had at least one problem with selling products. Decline in demand or low market price was the most cited marketing problem (Table 5). This is consistent with the findings from the Impact of COVID-19 on Myanmar's Livestock Industry survey by the Myanmar Livestock Federation.⁶ Around half of all broiler and layer farms reported this problem. In the Yangon peri-urban area, few farms reported additional issues related to selling products, such as logistic disruptions or restrictions on access to markets.

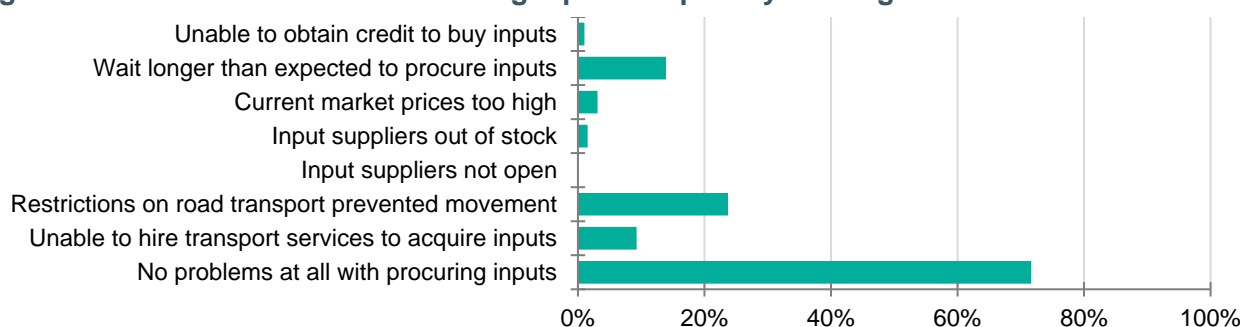
Table 5: Problems related to selling products for poultry farms

	Both	Broiler farms	Layer farms
No problems at all with sales	36	31	44
Logistic disruption	9	11	4
Decline in demand/orders or market price too low	53	56	49
Market closed	4	3	7
Had to retain products that planned to sell for longer than expected	29	34	19
Buyers could not pay on time	2	1	6

Source: June 2020 Yangon peri-urban poultry farmer survey.

Access to inputs for poultry farms remained relatively good. 72 percent of farms reported no problems in accessing inputs. 24 percent reported restrictions on road transport or movement as the main barrier to accessing inputs (Figure 5). Some of them reported that the curfew restriction affected their access to inputs. Few other problems related to accessing inputs were reported.

Figure 5: Problems related to accessing inputs for poultry farming



Source: June 2020 Yangon peri-urban poultry farmer survey.

⁶ Aung, S.M. 2020. "Burma - Impact of COVID-19 on the Livestock Industry." USDA Voluntary Report: BM2020-0012.

Policy Recommendations

Although demand for chicken and eggs is gradually returning to normal, poultry farms and the livestock sector overall need additional government support to recover from COVID-19 impacts. Given that chicken is the primary meat in the diets of Myanmar households and that both chicken and eggs are among the most important animal-source foods for low income households, the impacts of COVID-19 on poultry farms will have adverse implications for food security and nutrition in the country. Rural livelihoods will be adversely affected as well because the poultry sector employs many workers. Based on the above analysis, we derive four main policy recommendations.

- Cash flow was a major problem for farms that closed and remains a problem for some operational farms. Providing temporary income support either based on their number of employees or sales last year would help operational farms buffer COVID-19 related shocks for several months and help some closed farms resume operations. This support should extend to both registered and unregistered farms. This recommendation could fall under Action 2.1.7(b) of the COVID 19 Economic Relief Plan (CERP) of the Government of Myanmar.⁷
- Include livestock farmers as beneficiaries of government credit guarantee schemes, conditional upon maintaining or rehiring their workers. This would help livestock farmers ease their cash flow problems and to maintain their regular workforce. This measure could be implemented prior to any temporary income support measures. This recommendation falls under CERP Action 2.1.2.
- Provide temporary tax exemptions or deferrals to livestock traders, input suppliers, and farmers. This would help livestock-related businesses to maintain their operations and lead to a stronger livestock market with stable supply and more predictable prices. Such measures fall under CERP Action 2.1.3.
- Logistic disruptions seem to be a smaller problem in the Yangon peri-urban area than in other areas. However, travel restrictions should be further removed for transportation of livestock and livestock products across all regions in Myanmar.

This analysis of the June 2020 survey of poultry farmers in areas around Yangon highlights key indicators to monitor in future survey rounds. These include:

- Farms closing due to COVID-19 related shocks. Also monitor whether temporarily closed farms are reopening as the poultry market returns to earlier levels of operation.
- Changes in the number of chickens raised and in the level of operational capacity of broiler and layer farms.
- Changes in the number of regular workers hired.
- Problems related to selling products and to accessing inputs, including the supply of day-old chicks and pullets.

⁷ Government of the Republic of the Union of Myanmar. (2020). *Overcoming as One: COVID-19 Economic Relief Plan*. Government of the Republic of the Union of Myanmar, Nay Pyi Taw.

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