

The Effect of Covid-19 on Farmers

The Headline Results Series¹. Round 1 Data Collection. May 2020

Angkor Research Cambodia and Future Forum²

In 2020, the agriculture sector continues to play a significant role in the Cambodian economy accounting for 22% of the kingdom's GDP³ and employing one-third of the Cambodian workforce. It is worth noting, however, that even before the Covid-19 pandemic disrupted the globe, agricultural expansion⁴ was decelerating, with a contraction in 2019; the first in over fifteen years. This was largely attributed to a prolonged drought beginning in 2013 that saw a large number of Cambodian farmers migrating abroad to secure income in the face of uncertain yields⁵. Despite the compounding economic and health concerns under Covid-19, Cambodian Prime Minister Hun Sen has touted the sector as a key source of economic strength to weather the economic pressures of the pandemic⁶. In terms of products, rice is the most crucial crop, contributing around half of agricultural GDP⁷. In light of its significant economic importance, the impacts of Covid-19 on agricultural output, value-chains, and security will be crucial to monitor and address.

Noting the critical gap in ground-level data to make informed policy decisions in response to the pandemic, Angkor Research and Consulting, in partnership with Future Forum, are undertaking an economic impact study⁸, and subsequent policy review, on Covid-19. The purpose of which is to undertake a random sampling of Cambodian households with a view to identifying the economic impacts of Covid-19. ***The headline results series will provide policy stakeholders an opportunity to explore key findings from each round of data collection throughout the project.*** The remainder of this brief will detail the headline results pertaining to farmers in the study.

[1] Types of Farming Activity

Table 1 contains the survey populations farming activities, broken down by product category and province. In total, four products comprised the majority of farming activities, in line with expectations at the national level; paddy rice, cassava, animal raising and vegetable production. In terms of geographical breakdown in the survey, all provinces, with the exception of Phnom Penh⁹ produce paddy rice as one of the top two outputs. This is joined by cassava in Siem Reap, animal raising in Kampot and Kampong Speu, and vegetables in Svay Rieng.

Table 1. Crop(s) or farming activities of households since January 2020¹⁰

Product Category	Phnom Penh		Siem Reap		Kampot		Svay Rieng		Kampong Speu		Total	
	Fr.	%	Fr.	%	Fr.	%	Fr.	%	Fr.	%	Fr.	%
Paddy rice	0	0	44	15.4	22	7.7	26	9.1	6	2.1	98	34.4

¹ This Covid-19 Economic Impact Study for Cambodia has been funded, initiated, designed, and implemented by Angkor Research and Consulting. Analysis and write-up have been conducted in project partnership with Future Forum.

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³ [World Bank](#) (2019)

⁴ Referring to the total contribution of the agricultural sector as a factor of Cambodian GDP.

⁵ [World Bank](#) (2020)

⁶ This promotion was translated and published in [VOD](#).

⁷ [World Bank](#) (2019)

⁸ Utilizing a cluster-based sample selection methodology, the sample is clustered at the provincial, district and village level. This survey will be a longitudinal study focused on wage workers, families with micro/small enterprises and farmers in Kampot, Kampong Speu, Svay Rieng, Siem Reap, and Phnom Penh municipality. For further information on the sampling design and approach please contact Ian Ramage on ian@angkorresearch.com.

⁹ Farming is not the main economic activity in Phnom Penh, which contribute only 1.4 percent of total farming.

¹⁰Note: Fr. is Frequency; N of crops/farming activities is higher than N of households due to multiple choice selection.

Cassava	0	0	61	21.4	0	0	1	0.4	0	0	62	21.8
Animal raising	2	0.7	5	1.8	32	11.2	11	3.9	9	3.2	59	20.7
Vegetables	1	0.4	19	6.7	5	1.8	8	2.8	6	2.1	39	13.7
Fishing	1	0.4	1	0.4	2	0.7	1	0.4	5	1.8	10	3.5
Fruits	0	0	2	0.7	0	0	4	1.4	1	0.4	7	2.5
Wood cutting/collection	0	0	0	0	5	1.8	0	0	0	0	5	1.8
Others	0	0	0	0	4	1.4	0	0	1	0.4	5	1.8
Total	4	1.4	132	46.3	70	24.6	51	17.9	28	9.8	285	100

[2] Purpose of Farming

Table 2 contains the data points that cover the change of household business orientation of their farm products: consumption, sale, or a combination of both. The rate of change is modest between January and April, however where it is present there is a trend towards self-consumption only and away from some form of produce sale. In total 6 households shifted their focus to consumption only, taking place in paddy rice and vegetables.

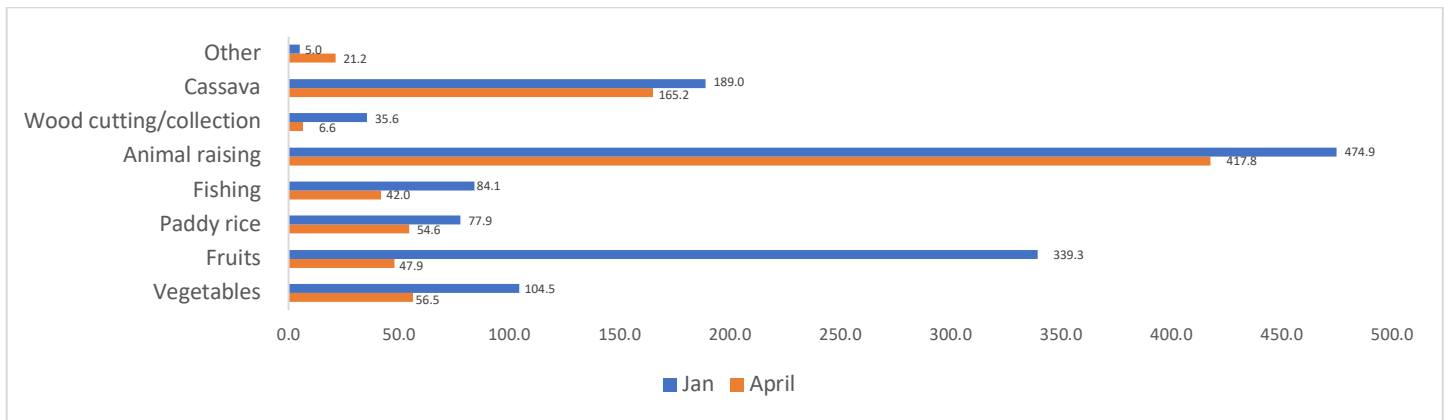
Table 2: Status of household's farming activity (by product category)

Farm types	Variables	Frequency in Jan.	Frequency in Apr.	Difference
Paddy rice (N=98)	Self-consumption only	54	58	4
	Sale only	0	0	0
	Both	44	40	-4
Cassava (N=62)	Self-consumption only	0	0	0
	Sale only	62	62	0
	Both	0	0	0
Animal raising (N=59)	Self-consumption only	2	2	0
	Sale only	38	38	0
	Both	19	19	0
Vegetables (N=39)	Self-consumption only	4	6	2
	Sale only	9	9	0
	Both	26	24	-2
Fishing (N=10)	Self-consumption only	1	0	-1
	Sale only	1	1	0
	Both	8	9	1
Fruits (N=7)	Self-consumption only	1	1	0
	Sale only	4	4	0
	Both	2	2	0
Wood cutting/collection (N=5)	Self-consumption only	0	1	1
	Sale only	3	2	-1
	Both	2	2	0
Other (N=5)	Self-consumption only	0	0	0
	Sale only	2	2	0
	Both	3	3	0
Total (N=285)	Self-consumption only	62	68	6
	Sale only	119	118	-1
	Both	104	99	-5

[3] Change of Cost of Input, by Types of Farming and Geographical Area.

Figure 1 provides an insight into the changing cost of inputs between January and April, broken down by types of farming product. It is notable that the costs of inputs for all categories, excluding other, fell over the period¹¹. Where the cost of input is aggregated and broken down by province the survey identifies that this trend holds for Kampong Speu, Kampot, and Siem Reap provinces (falling by 79 percent, 56 percent, and 7 percent respectively). By contrast, the cost of input in Svay Rieng and in Phnom Penh increased by 45 percent and 1 percent respectively.

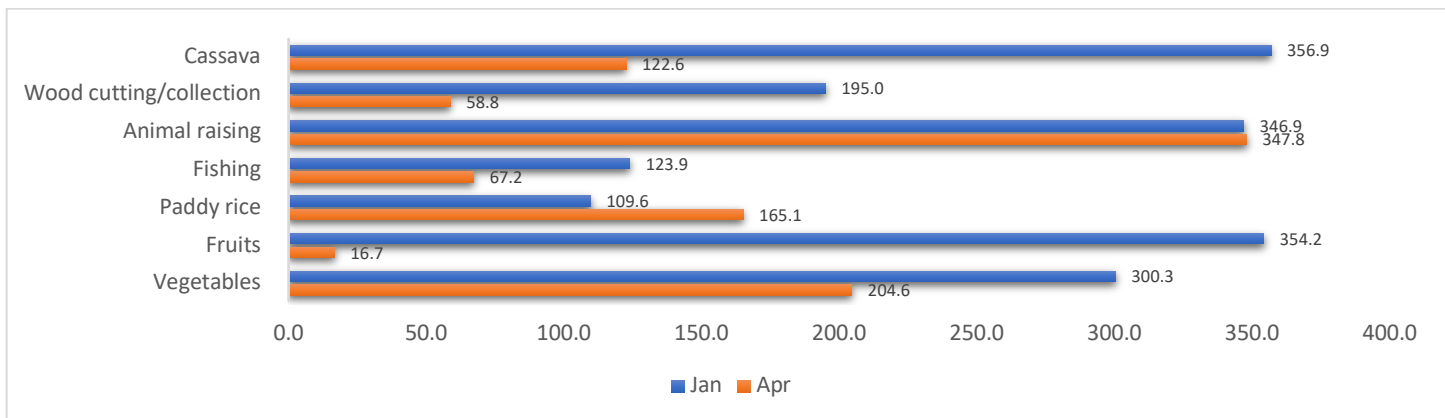
Figure 1: Cost of farming inputs by product category (USD), January and April 2020.



[4] Change of Income by Types of Farming and by Geographical Area

Figure 2 displays the change in agricultural income by product category. Each category has seen a significant reduction between January and April¹², with the exceptions of paddy rice (increased by 51 percent) and animal raising (which remained the same). When we look at the changes at an aggregate provincial level the data outlines that the means of income dropped in Kampong Speu (by 46 percent), Kampot (by 29 percent), and Siem Reap (46 percent). By comparison, the income of farming in Phnom Penh and Svay Rieng increased by 0.2 percent and 21 respectively.

Figure 2: Change in farming income by product (USD), January and April 2020



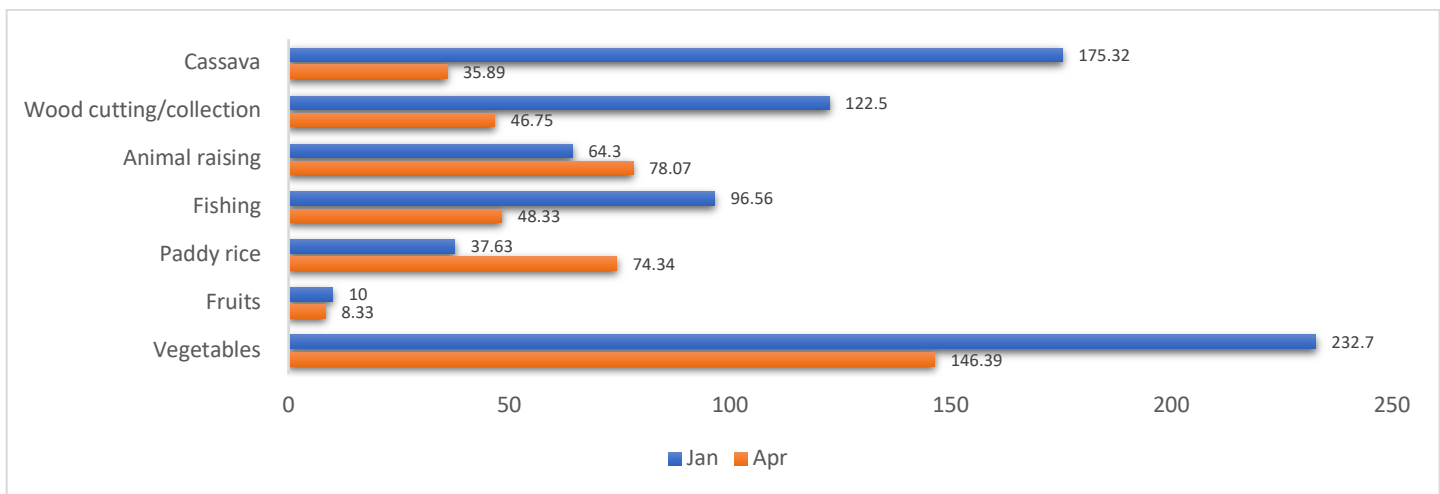
¹¹ paddy rice by 30 percent; cassava by 13 percent; animal raising by 12 percent; vegetable by 13 percent; fishing by 50 percent; fruits by 86 percent; and wood cutting/collecting by 81 percent.

¹² cassava by 66 percent; wood cutting/collecting by 70 percent; fishing by 46 percent; fruits by 95 percent; and vegetable by 32 percent.

[5] Change of Profit by Types of Farming and Geographical Area

Figure 3 contains the reported farming profit data for January and April. The average profit of each type of farming fell for the majority of products¹³. The exception's being paddy rice and animal raising, which increased by 98 percent and 21 percent respectively. Most provinces experienced the same trend of average profit contraction. In Kampong Speu, Kampot, Phnom Penh and Svay Rieng, the average profit fell by 25 percent, 33 percent, and 6 percent respectively. Siem Reap displayed the largest reduction in farming profit at 53 percent. This can be attributed, in part, to the concentration of cassava farming activities. The mean profit from Cassava in Siem Reap fell from 116.4 USD in January to 37.7 USD in April (a 67.6 percent price drop).

Figure 3: Change in Farming Profit by Types of Farming (USD), January and April 2020



[6] Summary of Findings

Overall farming incomes across the sample declined significantly by over 30%. From \$283 in January to \$195 by April. These declines were seen across a variety of farming activities and across different provinces. The first round of data collection has also identified the emergence of a trend whereby households are substituting the economic returns of their produce for self-consumption. Specifically, the sample has identified a 10 percent increase in consumption-only farming, primarily from a 5 percent decrease in farming for both consumption and income. Paddy rice, vegetables¹⁴, and wood cutting are the farming types associated with the change. If this trend continues to grow, it will have a further negative impact on farm income.

For those who have continued to sell their produce, we can see that the average income and profit generated from farming activities has fallen for all categories of farming produce; with the exception of animal raising and paddy rice. On average, total farming income was down 55 percent between January and April, whilst total profit was down 59 percent over the same period. Although the cost of farming inputs generally declined during the same period, this was matched and exceeded by a decline in profits due to lower prices for produce. There have been differential impacts from Covid 19 on different provinces and activities. Farming profits in Siem Reap fell by 53%, the highest among all five provinces. At the same time, prices for paddy rice increased significantly which benefited some farmers.

¹³ cassava 80 percent, wood cutting/collecting 65 percent, fishing 50 percent, fruits 17 percent, and vegetables 37 percent.

¹⁴ The change in vegetable produce outcome conforms to expectations given the price spike of up to 60 percent ([WFP, 2020](#))