



Covid-19 Gender Analysis at the Household and Wage Worker level Angkor Research and Consulting and Future Forum¹

Introduction

What began as a global health crisis quickly emerged as a global economic crisis, with countries struggling to keep businesses alive and incomes secure as mass lockdowns and travel restrictions affect both the micro- and macro- level of business (McKibbin and Fernando, 2020). Across the globe, major economic downturns typically affect men disproportionately to women (Alon, Doepke, Olmstead-Rumsey & Tertilt, 2020) with regards to job losses due to the high male employment rate in sectors most affected by typical shocks (manual labor services including car manufacturing and construction). With Covid-19, however, sectors employing more women than men, (service sectors such as hospitality) are being disproportionately hit (Alon, Doepke, Olmstead-Rumsey & Tertilt, 2020).

Cambodia has dealt with Covid-19 pandemic comparatively well, with only 283 confirmed cases, and zero recorded deaths,² thus far managing to avoid a major outbreak of the virus. Nonetheless, the economic fallout has been severe and far reaching,³ as the country's vulnerability as a lower-middle income country and its heavy reliance on tourism and garment exports (The World Bank, 2020) has resulted in significant impacts on Cambodian people.

Project Objective and Methodology

Recognising a critical gap in ground-level data, Angkor Research and Consulting and Future Forum have jointly undertaken an economic impact study on households as a result of Covid-19.⁴ Specifically, the project is studying the economic impacts of COVID-19 on Cambodian families with a focus on activities that are expected to be hit the hardest by the pandemic (farmers, wage workers and families with micro enterprises).

Utilising a cluster-based sample selection methodology, the sample is clustered at the provincial, district and village level. This survey is a longitudinal study focused on wage workers, families with micro/small enterprises and farmers in four provinces and Phnom Penh municipality.

Results and discussion

This paper focuses on the differential impact of Covid-19 on gender, identified through interviewing the heads of households in the survey to determine how female and male headed households have been affected. In addition to the household overview, the survey provides insights relating to wage workers, household enterprise, and food insecurity. Each of these categorisations will be explored with relation to gender differences.

¹ This paper was written by Dani Gill and Kim Laurent, and first published in October 2020.

² Figures as of 11 October 2020 (World Health Organization, 2020)

³ Though Cambodia's borders never fully closed, severe restrictions put in place (including a \$3,000 deposit for each foreigner entering the country) in addition to global advice against non-essential travel and an increase in flight costs, Cambodia's tourism sector (which accounts for 12% of GDP (ASEAN Briefing, 2020)) has been severely hit. From January-May 2020, Cambodia received only 1.17 million foreign tourists, down 58% for the same period last year when 2.88 million foreign visitors entered Cambodia; May experienced the worst decline, at 97.8% compared to the previous year (Cambodianess, 2020). As a result, a reported 45,000 workers in the tourist industry are now unemployed (ASEAN Briefing, 2020). Additionally, apparel manufacturing - accounting for approximately 80% of total exports, and 16% of total GDP (ASEAN Briefing, 2020) - has suffered significantly, with the suspension/closure of more than 237 factories and an estimated 118,475 workers (the majority of whom are women) being laid off (Cambodianess, 2020), As a result, The World Bank estimates the economy may shrink by as much as 2.9% in 2020 (The World Bank, 2020) the worst performance in 25 years (Nortajuddin, 2020).

⁴ Households interviewed = 1,087; average number of household members = 4.99; average grade reached = 5.5; Khmer = 96.6%.

Household Level

1. Respondent Overview

A total of 1,087 households were interviewed for this survey. Each of the household heads that were interviewed gave details about themselves and all household members. There is an average 4.9 people per household, and a total of 5,423 people represented in this survey. 40% of household heads were female and on average were over four years older than male heads of household.

Table 1. Household and Respondent Characteristics

	Household members		Head of HH		
	Count	Age (mean)	Count	Gender %	Age (mean)
Male	2,495	28.304	652	60.0	46.083
Female	2,928	30.462	435	40.0	50.514
Total	5,423	..	1,087	100	..

The male/female headed household breakdown per province represented in this study is: Phnom Penh (MHH=178, FHH=102), Siem Reap (MHH=140, FHH=60), Kampot (MHH=90, FHH=105), Svay Rieng (MHH=115, FHH=85), and Kampong Speu (MHH=121, FHH=83).

2. Cash Savings⁵

a) Instance of cash savings

For both male and male and female headed households, the instance of having any cash savings declined between January and April 2020 by 10.74% and 7.36% respectively. Male headed households were slightly less likely than female headed households to have any cash savings in both January (3.89% less likely) and April (7.26% less likely).

Table 2. Likelihood of having any cash savings

	Male		Female	
	Have cash savings	No cash savings	Have cash savings	No cash savings
January 2020	38.7%	61.3%	42.5%	57.5%
April 2020	27.9%	72.1%	35.2%	64.8%
Difference	-10.74%	10.74%	-7.36%	7.36%

b) Value of cash savings

The average \$USD value of cash savings also differ between male and female headed households; of those with cash savings, male headed households had, on average, a higher value than female headed households. In January 2020, the average value of cash savings in male headed household was \$1,935.08. This is \$613.28 (37.66%) more than in female headed households, who had an average of \$1,321.80 in cash savings. Similarly, data for April shows a difference of \$341.61 (26.05%) in favour of male headed households.

Though the average value of cash savings in male headed household was higher in both January and April, they also spent a greater percentage of the cash savings they did have. The average value of male headed households cash savings declined by \$453.01 (26.52%) compared with female headed households whose average cash savings value declined by significantly less, at \$181.34 (14.73%) (a difference of 11.78%).

⁵ Khmer families often have three forms of savings: meah (gold), platin (gold-plated), and cash. It is important to note that cash is often the lowest value of these three forms. Data from round 1 collection on mean and platin did not show significance and so has been omitted from this initial brief.

Table 3. Value of cash savings (mean \$USD)

	Male	Female	Difference (%)
January 2020	1,935.08	1,321.8	-37.66%
April 2020	1,482.07	1,140.46	-26.05%
Difference (%)	-26.51%	-14.73%	

These findings suggest that, despite having a lower value of cash savings, female headed households are more likely, on average, to have cash savings than male headed households. Additionally, the doubling of the likelihood for male headed households to have no cash savings between January and April suggests they may also be more likely than female headed households to fall back on cash savings during an economic shock or crises.⁶

3. Food insecurity

Cambodia achieved its 2009 Millennium Development Goal to half poverty, but many of those who escaped poverty did so only by a small margin. Approximately 4.5 million people remain near-poor and are just one economic shock away from falling back into poverty (The World Bank, 2020). As a country still heavily reliant on agriculture for income and sustenance, understanding the food security of households can provide insight on how close many of these families are to falling into (or back into) poverty.

Food insecurity has been measured using the Food Insecurity Experience Scale (FIES), an experience-based metric of food insecurity severity which indirectly measures food security through eight items related to food availability and choice.⁷ Based on their responses, households are put on a scale ranging from completely food secure to completely food insecure; this scale is broken into 4 broad categories: uncertainty regarding ability to obtain food, compromising on food quality and variety, reducing food quantity and/or skipping meals, and, no food for a day or more. These categories can be further divided into three sections – secure/mild insecurity, moderate insecurity, and severe insecurity - which have been used in this analysis.

Using one month recalled period at the household level, 869 (79.94%) of the 1,087 households surveyed reported that they were either food secure, or mildly food insecure (scoring 0 to 3). The remaining 218 (20.06%) households reported levels of moderate food insecurity (scoring 4 to 6) to severe food insecurity (scoring 7 to 8).

Table 4. Food insecurity level by gender and province

PROVINCE		Secure/mild insecurity		Moderate insecurity		Severe insecurity	
		Male	Female	Male	Female	Male	Female
Phnom Penh	Freq.	158	66	17	28	3	8
	Percent	14.54	6.07	1.56	2.58	0.28	0.74
Siem Reap	Freq.	105	34	32	25	3	1
	Percent	9.66	3.13	2.94	2.30	0.28	0.09
Kampot	Freq.	87	86	11	17	0	2
	Percent	8.00	7.91	1.01	1.56	0.00	0.18
Svay Rieng	Freq.	103	57	10	23	2	5
	Percent	9.48	5.24	0.92	2.12	0.18	0.46
Kampong Speu	Freq.	104	69	16	10	1	4
	Percent	9.57	6.35	1.47	0.92	0.09	0.37
Total	Freq.	557	312	86	103	9	20
	Percent	51.24	28.70	7.91	9.48	0.83	1.84

⁶ Differences in value may capture the switching between these forms (e.g. using cash to buy gold) - Data from additional rounds of collection will provide greater insights into the savings behaviours of Khmer families during the Covid-19 economic crisis.

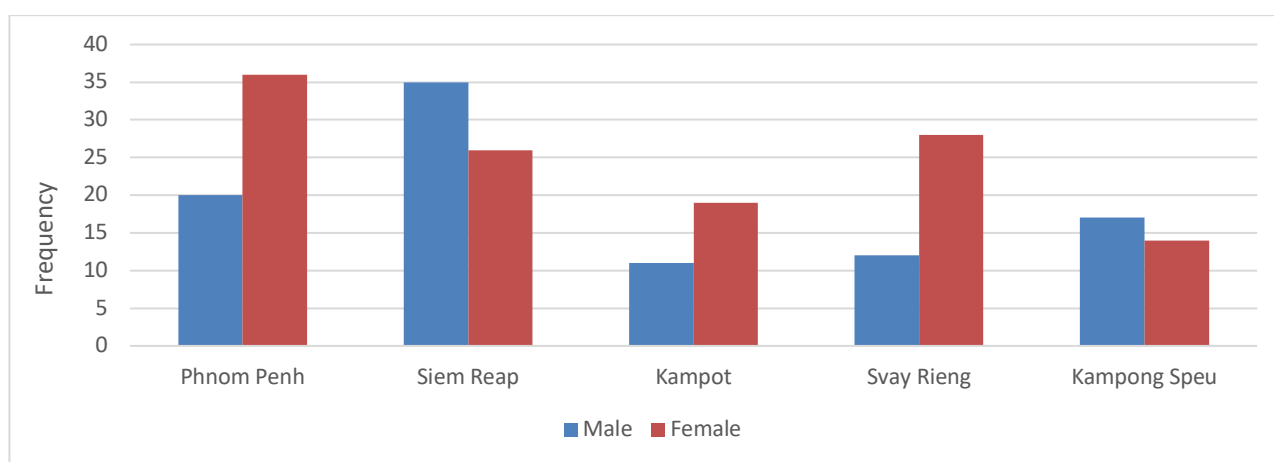
⁷ For further information on the FIES and how it is calculated, visit <http://www.fao.org/in-action/voices-of-the-hungry/fies/en/>

Table 5. Total prevalence of food insecurity in male and female headed households

	Prevalence rate (Mod + Sev ⁸)	Prevalence rate (Sev)
Male	23.45%	0.59%
Female	36.52%	1.19%

The prevalence rate of all households across all provinces experiencing moderate and severe levels of food insecurity is recorded at 29.21%, and those experiencing severe levels of food insecurity at 0.98%. When looking specifically at the gender breakdown for households experiencing moderate to severe levels of food insecurity across all provinces, the data reveals that female headed households have a higher rate of prevalence for both moderate and severe food insecurity than male headed households.

Figure 1. Combined reports of moderate and severe food insecurity level by province (raw score method)



Food insecurity was most prevalent in Siem Reap, with a total of 61 households (5.61%) falling into this category. This is largely a result of the high frequency of male headed households in Siem Reap reporting higher levels of food insecurity (35 households – 3.22%) compared with male headed households in all other provinces.

Female headed households had a higher prevalence of moderate to severe food insecurity than male headed households in Phnom Penh (36 households – 3.31%), Svay Rieng (28 households – 2.58%), and Kampot (19 households – 1.75%). Food insecurity in female headed households in Phnom Penh is the highest frequency of food insecurity recorded by any gender, in all provinces surveyed.

4. Remittances and total household income

During times of financial crises or economic downturns, remittances tend to increase as families working abroad send more money back to their home countries to support their families. With the Covid-19 crisis, however, many migrants have returned home, either due to job losses or fear of the virus. When asked if the household usually receives remittances, significant results showed that 85 male headed households (13% of all male headed households) reported that they do usually receive remittances, compared with 81 female headed households (18.6% of all female headed households).⁹

Between January and April 2020, total household income declined for both male and female headed households. Female Headed households witnessed an average decrease of \$543.95 (or 41.99% of their pre-Covid income), while male headed households saw a decline of \$772.83 (40.21% of their pre-Covid income).

⁸ Mod = moderate food insecurity. Sev = severe food insecurity.

⁹ Further insights and analysis will become available after additional rounds of data collection.

Table 6. Average total household income (\$USD)

	Male	Female
January	\$1921.75	\$1295.45
April	\$1148.92	\$751.49
Difference (\$)	\$-772.83	\$-543.95
Difference (%)	-40.21%	-41.99%

Wage Worker Level

51% of the Cambodian working population are defined as wage workers (salaried or paid job under contract (written or not)) (National Institute of Statistics Ministry of Planning, 2017). Women's share of wage employment in Cambodia per sector is approximately: agriculture (40%), Service sector (35%), industry sectors (24%) (National Institute of Statistics Ministry of Planning).

Among the 1,087 households interviewed, 1,679 household members were reported as being wage employed. The average age of a wage worker was 31 years. As four respondents could not provide information on other household members employment, calculations are presented for 1,675 wage workers.

1. Wage Worker Employment Type and Frequency

Between January and April 2020, wage workers had on average one wage employment each (37 reported to have worked two jobs in the first four months of the year). In this survey, most respondents were factory workers (37.6%), construction workers (16.3%), farmers (6.3%) or working in hospitality and food services (5.6%).

Table 7. Household head wage employment type¹⁰

	Male		Female		Total	
	Count	CF ¹¹	Count	CF	Count	CF
Factory worker	212	22.18%	417	58.00%	629	37.55%
Construction worker	242	47.49%	31	62.31%	273	53.85%
Farmer for hire	54	53.14%	52	69.54%	106	60.18%
Hospitality and food service workers	44	57.74%	49	76.36%	93	65.73%
Private company staffs	50	62.97%	23	79.55%	73	70.09%
Entertainment and sex workers	33	66.42%	31	83.87%	64	73.91%
Teacher	34	69.98%	28	87.76%	62	77.61%
Driver	54	75.63%	2	88.04%	56	80.96%
Soldier/ police	47	80.54%	2	88.32%	49	83.88%
Government staffs (i.e. ministry staff, commune & village chiefs)	30	83.68%	11	89.85%	41	86.33%
Seller	12	84.94%	17	92.21%	29	88.06%
Bank employee	19	86.92%	9	93.46%	28	89.73%
Security guard	23	89.33%	3	93.88%	26	91.28%
Migrant worker	13	90.69%	9	95.13%	22	92.60%
Blacksmith	19	92.68%	1	95.27%	20	93.79%
Other ¹²	70	100.00%	34	100.00%	104	100.00%

¹⁰ Employment type is ordered based on the highest to lowest values for "total count".

¹¹ CF = Cumulative Frequency.

¹² Includes: motor/engine repairer, cleaner, electrician, medical staff, NGO staff, beauty salon, retired, handicraft worker/artist, child caretaker, goldsmith, small repairs, tour guide, translator, tailor, traditional healer, and other.

If table 4 were to be re-ordered for both male and females separately to display highest frequency wage employment type, we would see in the cumulative frequency column see that 72% of all female wage employment occurs in across 3 sectors: factory worker (58%), farmer for hire (7.2%), and hospitality and food service workers (6.8%). Comparatively, for males, 73.5% of wage employment occurs in 7 different sectors: construction worker (25.3%), factory worker (22.2%), farmer for hire (5.6%), driver (5.6%), private company staff (5.2%), soldier/police (4.9%), and hospitality and food service workers (4.6%). This would suggest that men may have more choice in employment type, and that they may have better protection against shocks affecting specific industries. With female wage employment spread over fewer sectors, a high frequency of female wage workers is faced with increased risk of job loss. The garment sector, for example, employing over half of all female wage workers represented in this study, has been largely affected by the Covid-19 pandemic.¹³

2. Wage Worker Income

Less than half (47%) of the wage workers reported that their wage did not change between January and April 2020, while 44.5% reported that their salary decreased. Across most provinces, men earned a significantly higher wage compared to women both in January and April 2020. In January, men earned on average 15% more than women and this rate increased to 19% in April. The difference in wage earnings is particularly noticeable in Siem Reap, where women earned, on average, 45.9% less than men in January, and 46.5% less than men in April.

Table 8. Average household income in January and April 2020

Province		Male		Female		Gender Difference
		Mean	Jan – Apr Difference (%)	Mean	Jan – Apr Difference (%)	
Phnom Penh	Jan	294.05		244.14 **		-16.90%
	April	233.16 ††	20.71	179.36 **††	26.53	-23.10%
Siem Reap	Jan	175.27		94.82 **		-45.90%
	April	123.88 ††	29.32	66.29 *†	30.09	-46.50%
Kampot	Jan	284.64		247.70 *		-12.90%
	April	179.34 ††	36.99	145.31 *††	41.34	-18.90%
Svay Rieng	Jan	241.99		227.40 *		-6.10%
	April	159.42 ††	34.12	172.32 *††	24.22 ¹⁴	8.10%
Kampong Speu	Jan	256.07		234.98 *		-8.20%
	April	207.49 ††	18.97	156.18 **††	33.53	-24.70%
Total	Jan	255.21		216.73 **		-15.10%
	April	185.54 ††	27.30	148.59 **††	31.44	-19.90%

* Statistically significant difference ($p < 0.05$) between male and female

** Statistically significant difference ($p < 0.01$) between male and female

† Statistically significant difference ($p < 0.05$) between January and April

†† Statistically significant difference ($p < 0.01$) between January and April

The income received by both male and female wage workers has declined between January and April 2020 in all provinces surveyed. Female wage workers experienced a greater total decline in average monthly income, at 31.44% compared with an average decline of 27.30% for male wage workers. The greatest decline was noted in Kampot province for both male and female wage workers, losing 36.99% and 41.24% of income from wage work respectively.

Female wage workers lost more average income earned between January and April in all provinces except Svay Rieng. Initial findings suggest this may be the result of several factors:

¹³ In Cambodia, apparel manufacturing accounts for approximately 80% of total exports, and 16% of total GDP (ASEAN Briefing, 2020), but in light of Covid-19, the sector has suffered significantly, with the suspension/closure of more than 237 factories and an estimated 118,475 workers across the country (the majority of which are women) to have been laid off (Cambodianess, 2020).

¹⁴ Svay Rieng is the only province surveyed where female wage workers lost less income than male wage workers between January and April 2020.

1. Female wage workers in Svey Rieng working for private companies saw no decrease in average monthly income, while male wage workers in the same sector saw an average monthly income decrease of \$60.
2. Female factory workers (the second largest sector employing female wage workers in Svay Rieng) have been less affected in Svey Rieng than female factory workers in all other provinces (average income decline for all provinces was \$76.12, while in Svey Rieng average monthly income decline was only \$34.48). Svey Rieng is also the only province where male factory workers have witnessed a greater decrease in average monthly income than female factory workers (average decline of \$41.91 and \$34.48 respectively).
3. Females working in the construction sector actually saw an increase in average monthly income earned between January and April 2020, by \$37.33. At the same time male construction workers saw an average decrease of \$55.78.

In addition to the inequal pay between men and women, this data suggest that women have, on average, been more affected by COVID-19 in terms of wages lost, further increasing the pay inequality between genders.

3. *Overall gender differences in wage employment type in highest employing sectors*

c) Factory workers (n=629)

Out of the 629 factory workers two-thirds (66.3%) were female, aged in average of 28.7 years old (median is 27). Three quarters (76.6%) have a written employment contract. Regarding the evolution of their wage income, almost half of factory workers (49.6%) reported that their income decreased between January and April 2020.

Women and men factory workers earned a similar average income in January 2020 (\$232.5 and \$247.4, respectively). However, women were more impacted by the decrease of salary occurring between January and April 2020 as they earned significantly less (\$160.4) than men (\$183.6) in April 2020.

d) Hospitality and food service workers (n=93)

More than half (52.7%) of the hospitality and food service workers interviewed are female. A significant difference of salary between men and women is notable both in January and April. Men hospitality/ food service workers earned in average twice the salary of women. In January 2020, men's salary was averaged at \$314.43 (median is \$290) and women at \$151.53 (median is \$150). In April, these averages dropped to \$133.48 for men and \$68.98 for women.

e) Farmers (n=106)

This category includes individuals hired to work on another farm or who rent agricultural material to other farmers. Farmer workforce were earning significantly less than other main categories of wage workers with an average salary of \$77.6 (median is \$31) in January and \$58.1 (median is \$20) in April 2020. Survey results found that men were again earning an average salary two time higher than women. In January men were in average earning \$104.35 whereas women were obtaining \$49.81. In April, these average salaries decreased to \$79.48 for men and \$35.71 for women.

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