



Rapid assessment the impact of COVID-19 on Household Income, Expenditure and employment

Maldives
December 2021





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1. INTRODUCTION

The COVID-19 pandemic caused a global worsening of welfare gains and the outlook for the poor and vulnerable has progressively worsened, compounded by the war in Ukraine and rising commodity prices. The Maldives has not been immune to these challenges, in spite of being the least unequal economy with the higher per-capita GDP in South Asia. The global lockdowns caused a slowdown in international tourism, the major source of revenues for the Maldives. Apart from employment opportunities, tourism also provides foreign exchange and the cash flow for the government to invest in health, education and other social safety nets. Due to a 33.5% reduction in annual real GDP growth, simulations suggest that the poverty rate in Maldives increased from 3.9% in 2019 to 19.3% in 2020. The sharp recovery of international tourism in 2021-22 combined with price controls and safety nets has reduced the extent and duration of the shock and it is expected by the World Bank that the country will return to a poverty rate comparable with the pre-pandemic level by 2023.

In this report, we exploit three datasets to understand the challenges faced by Maldivian households through the pandemic. Chronologically, the first of these datasets is the HIES 2019, the nationally representative household survey conducted by the Maldives Bureau of Statistics in late 2019/early 2020. The survey was cut short due to COVID-19, but the survey remained representative nationally and for all but 3 atolls. The second dataset in question was a 15-20-minute phone survey conducted with a random sample of respondents drawn from the HIES 2019 sample. This survey was conducted in March/April 2021 (also regarded as round 1 later), and the third dataset was the second deployment of this phone survey, conducted in December 2021/January 2022 (also regarded as round 2 later). These 3 datasets together provide a 2-year long window into the effects of the pandemic.

Standard measurements of household welfare require a monetary aggregation of a variety of income or consumption items. Understanding the labor force participation also requires administering a complex sequence of questions to suitably box an individual into employed, unemployed or out of labor force categories. Phone surveys are shorter questionnaires designed to gather information on relatively more simple topics. We thus consider alternative questions such as coping strategies, income sources and work participation rates to understand who got affected and who might have recovered. The focus of this report is in understanding the vulnerable groups and their recovery; it does not provide a fresh estimate of welfare measures such as poverty rates or Gini indices.

KEY FINDINGS:

Maldivian households underwent a severe economic shock due to COVID-19 with work stoppages across Male' and atolls, and various sectors and types of employment. Although the economic situation had improved by early 2022, about 20% of working age adults who were economically active in 2019 had not returned by early 2022. At the same time, a third of those who did not work earlier were participating in the labor market. This led to a partial recovery for households by early 2022. Government assistance programs and pensions continued uninterrupted throughout the crisis, and there was no reduction in the percentage of households who receive such assistance or the amounts they received. In April 2021, over half of all households had to reduce consumption and/or draw down savings to cope with the shock. By early 2022, the percentage of households reporting a reduction of amounts from sources such as wage jobs, self-employment, farming and fishing had reduced. The size of the average household increased marginally from 2019 to 2022 due to arrival of family members from elsewhere. These new members were more likely to be male, and more likely to return to households in atolls than in Male'.

In the next section, we briefly consider the methodology underpinning this report. Sections 3 and 4 consider results at the household and individual level.

2. METHODOLOGY

The 2019 HIES is a nationally representative household survey that recorded comprehensive information about households and individuals, such as demographics, income, expenditures and living quality. It was conducted from September 2019 to March 2020. However, fieldwork had to be stopped in March 2020 due to the Covid outbreak in the country and three atolls could not be covered. Nonetheless, the survey remained representative at the national level, and representative for each atoll that was surveyed. HIES 2019 thus serves as a baseline to establish the representative Maldivian household's economic and demographic situation prior to the pandemic.

The phone-based surveys were designed to garner information about how COVID affected households. They were administered to a randomly selected subsample of HIES households. While the HIES interviewed multiple members of the same household, the phone surveys were administered to one member of selected households, either the household head or a knowledgeable adult. These two surveys asked questions about households' labor market activities, which allows us to see how Maldivians' patterns of work evolved during the lockdowns and through the pandemic. The surveys also recorded other useful information such as how households met their basic needs and whether they received any form of social assistance, what their health care needs were, and how the composition of their household or living circumstances had changed. In an annex to this report, we discuss the sample characteristics for each survey and demonstrate they are nationally representative as well as comparable to each other. We also compare our findings to that of the most recent World Bank Poverty Assessment for the Maldives.

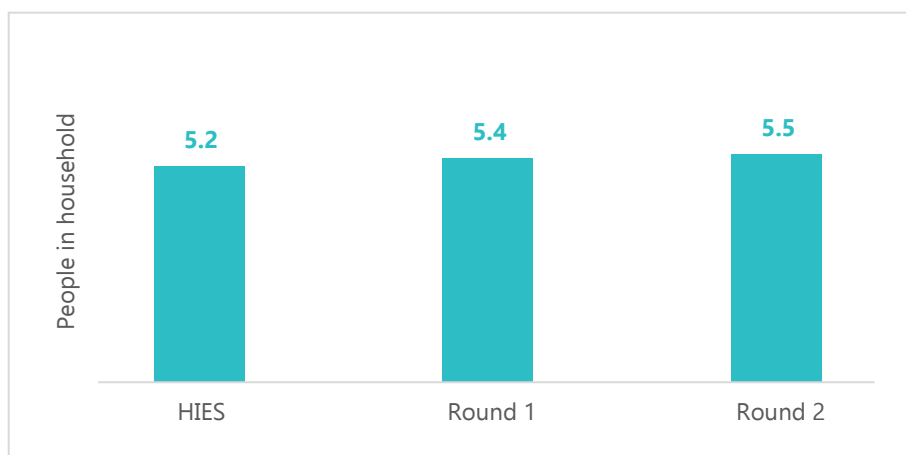
3. PROFILE OF A MALDIVIAN HOUSEHOLD THROUGH COVID-19

HIES 2019 contained an exhaustive roster of members of each sampled household. In each phone survey round, interviewers revisited the roster of individuals who were present during HIES 2019 and asked if the household had a new member whose name was not mentioned. Once a new member was confirmed to be present, the interviewer asked for further details such as age, gender, where they moved from, etc. In all three surveys, a household member was defined as someone living in the house and sharing meals with the other members at the time of the survey, and not people working and living away from the main household unit. It did not include family members that were working in resorts. However, if they returned to the household and stayed through the pandemic, they were recorded as new members in the phone surveys.

According to HIES 2019, the average size of a household was 5.2, which increased to 5.4 in round 1 and 5.5 in round 2. In round 1, about 23% of households had at least one new member; atoll-based households were more likely to have a new member (28%) than a Male'-based household (18%). However, at the same time, 24% of households had a member who moved out. These were not the same households: only 6% of households had a member who moved in and one who moved out. On net, there were still more members moving in than moving out, which accounts for the larger household sizes in round 1.

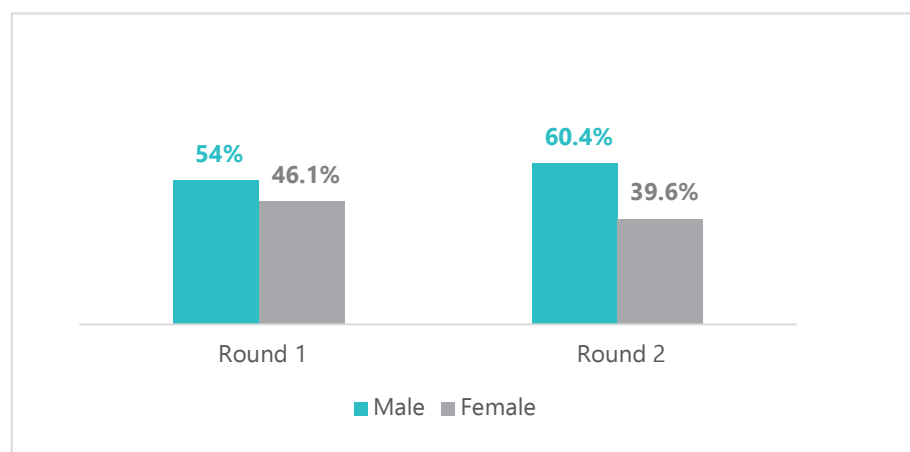
It is hard to estimate how much of this churn is due to COVID-19 because we do not have a data source that can reliably indicate what the normal rate of flow in and out of households prior to the pandemic. In any case, by round 2 these numbers had shifted. Only 15% of households had a member who was not present during round 1, while 30% of households had a member who moved out.

Figure 3.1: Average household size



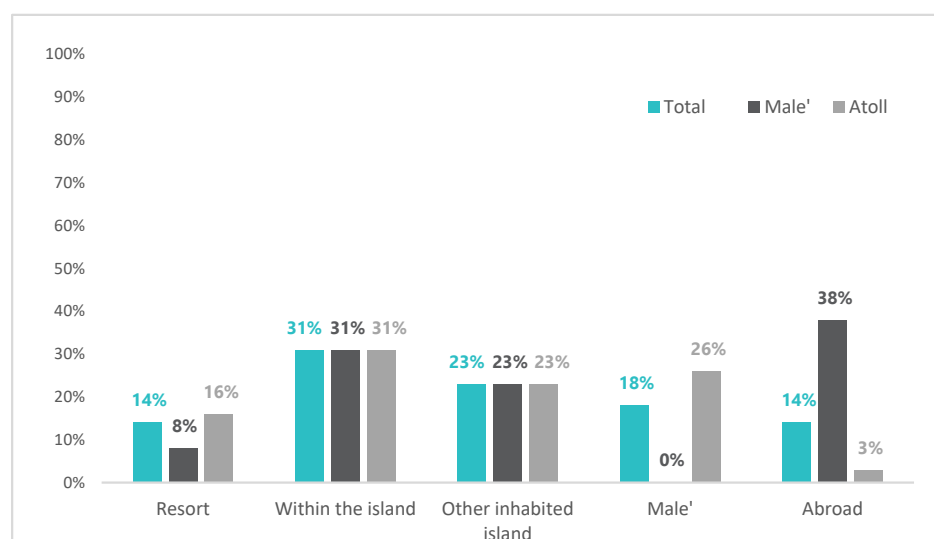
While an average Maldivian household had relatively more females than males in 2019, new members were more likely to be males. In round 2, 60.4% of the new members who moved into the household were males. The overall female-to-male ratio for households decreased from 52.3% in 2019 to 51.4% in early 2022.

Figure 3.2: Gender of new household members



Once a new member was recorded in a household, the interviewers asked where he/she moved from. Around 43% of the additional members reported that they had not moved but were a part of the household. We believe that this is due to recall bias given that the phone surveys were conducted about 2 and 2.5 years after HIES 2019. HIES 2019 involved in-person data collection and stringent quality checks and we are confident that all new members detected during the phone surveys were indeed not part of the household in 2019, including those who claimed that they were always a part of the household. Unfortunately, we could not ascertain when such members moved back into the household. We categorized individuals who were new to the household in comparison to HIES 2019 but claimed that they never moved as “Other”. These respondents were not more likely to be in Male’ or atolls. In the graph below, we examine where new members moved from, with “Other” excluded. The results with “Other” included does not change qualitatively.

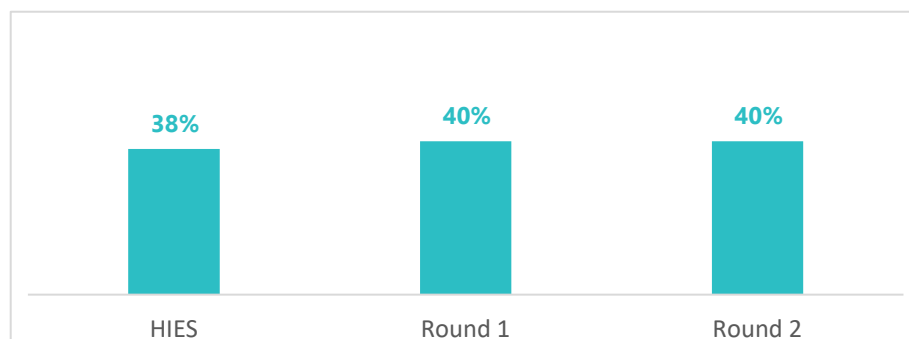
Figure 3.3: Where new members moved from



Overall, a returnee was about 50% more likely to return to an atoll than Male’. Atoll based households (16%) were twice as likely to receive a member from resorts than Male’ (8%). Given the enclave nature of the Maldivian economy, household surveys are unable to gather information from resort islands. The phone surveys indicate that resort workers are more likely to be from atolls. The recent Poverty Assessment for Maldives pointed out that compared to 2016, atolls had experienced a greater incidence of jobs and wage income and private transfers. This result indicates that the job gains were in fact higher, since these households had family members who resided in resort or other islands for work and were thus not part of the HIES 2019 roster. Most returnees came from within the same or a different island, and this category of returnees were as likely to be found in atolls as in Male’. International returnees were much more likely to return to Male’, where as a quarter of returnees to atolls came from Male’. This question was also asked in round 2 to those who had joined since round 1. The number of such individuals was low to begin with and a greater share of these members replied “other” for this question.

We noted earlier that phone surveys are not conducive to record detailed expenditure or income levels. A key component of welfare levels expressed as an expenditure or income aggregate is rent. Households in Male' were much more likely to rent and overcrowding in Male' was a key correlate of being relatively deprived. As we can see below, the proportion of households that rented remained remarkably stable, indicating that government strategies to control rent and prevent eviction worked.

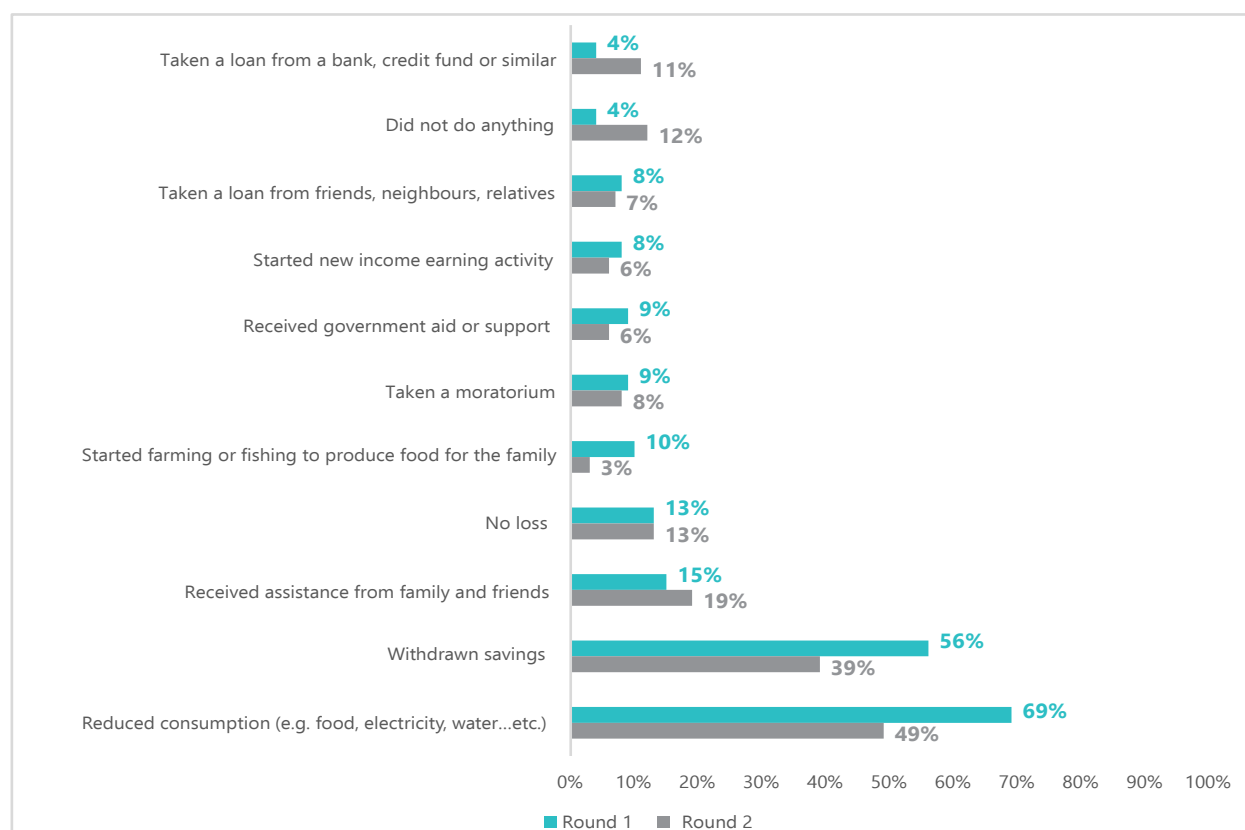
Figure 3.4: Share of households renting



The share of Maldivian households living in rented housing was around 4 in 10 at each stage of the pandemic. Almost all of these households (over 90%) were in Male'. Seventy-nine percent of households in Male' lived in rented housing, while only 7% of households in atolls did. 2 out of 3 renting households in Male' reported paying a constant rent through the pandemic, with only 17% reporting an increase in monthly rental payments in early 2022 compared to April 2021, whereas the remaining 17% reported a reduction in monthly rents.

Households were asked about the mixture of strategies they adopted to cope with the pandemic. Enumerators read out each choice and a household could respond yes or no. The figure below shows the percentage of households that responded adopting a particular strategy to cope in April 2021 and early 2022. Note that the category "Received government aid or support" refers to households opting for some type of support beyond the universal relief measures undertaken by the government, such as discounts on water and electricity usage, capping of rents, etc.

Figure 3.5 Coping strategies due to loss of income since Covid outbreak



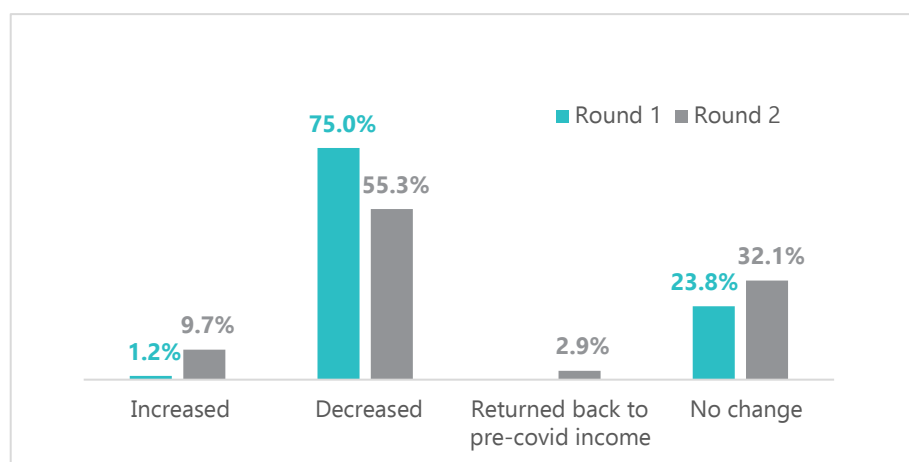
Reduction of consumption and withdrawal of savings indicate a worsening welfare situation, and we see that most households report at least one of these strategies in the first round of the phone survey. By the second round, more than a third of households still reported resorting to at least one option, although the levels were less than round 1. We also see an uptick in the percentage of households that received credit from a bank or assistance from friends in round 2, indicating a recovery in the broader ecosystem. When the first lockdowns were imposed, it was reported that several Maldivian households had started subsistence fishing or farming to cope with losses in income as well as deal with the non-availability of goods. We can see that the percentage of households who reported starting farming or fishing as a response to the pandemic fell between the two rounds, another indication that the broader ecosystem and outlook had improved. Finally, the percentage of households that reported that they did not need any coping strategy also increased between the two rounds.

An important caveat should be mentioned here. The question on coping strategies in each round was framed as which strategies were adopted since the beginning of COVID, and not since the last phone survey. This was done on purpose so that respondents anchor their timeline to a defining event. Still, we have recall errors on the part of respondents. To see this most clearly, consider the percentage of households that reported no coping strategy was adopted. While only 4% fit this category in round 1, it increased to 12% in round 2. We thus have 8% households who reported adopting some strategy in round 1 to cope since the start of the pandemic, but then reported that no coping strategy was needed through the pandemic in round 2. Similarly, several households that resorted to drawing down savings and reducing consumption to cope with the pandemic in round 1 did not report using the same strategies during round 2. Fortunately, the other option where a respondent can mention no loss from COVID-19 had the same percentage of households in each round.

In the presence of recall errors, how should we interpret the change in the incidence of households in other coping strategies? As the economic shock of the pandemic becomes more distant in time, the household's coping strategies became less salient and they may fail to recall their adoption. While we are unsure about the extent of recall errors in remembering the adoption of each strategy, the change in the incidence of each strategy indicates a better outlook and economic environment faced by the household.

We now focus on patterns regarding incomes to understand the challenges faced by a household through the 2 years of the pandemic. While total income can be computed from the HIES 2019, we do not use it in conjunction with total incomes from the phone survey rounds as the underlying methodologies are completely different. Rather, we focus on sources of income to make a comparison across each survey wave, since that is less susceptible to recall errors. In each round, respondents were asked if their total household income had changed compared to the period before immediately before the onset of COVID-19; they were also asked this change was related to COVID-19.

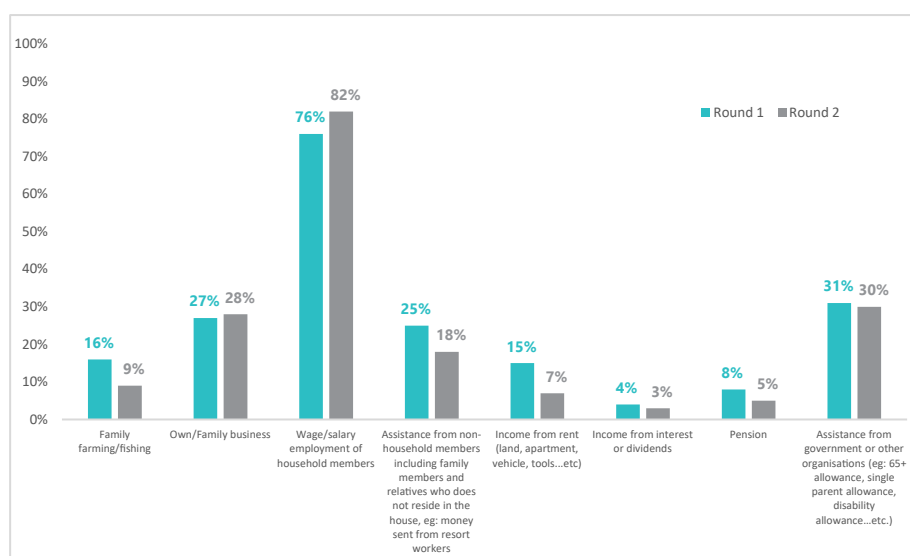
Figure 3.6: Changes in Household Income since outbreak of COVID-19



Among the interviewed households, over three-fourth of households in round 1 and over half of the households in round 2 reported a decrease in income. Of the 55% households in round 2 that reported an income reduction, 90% said that the loss was due in part or in whole to COVID. Households were more likely to report an overall increase in income in round 2. This again points to an economic recovery between mid-2021 and early-2022. We also note that the percentage of households reporting no change increased between the two rounds by 8.3%. This result illustrates the same caveat as the previous result on coping mechanisms. Given that the question was framed as whether current income had changed with respect to January-March 2020, the percentage of households reporting no change should not be increasing between the two rounds. This may be due to recall errors, or probable recategorization of a situation where an initial income loss in April 2021 was recouped by early 2022¹. While we are unsure about the true underlying reasons, the shifts in the incidence of income changes suggest an improvement in availability of household resources, which reinforces the previous result on coping strategies.

We now consider if the sources of income available to a household changed through the pandemic. It is important to note that the graph demonstrates changes in the availability of a source, and not changes in amounts.

Figure 3.7: Sources of household income



Most households reported earning some income through wages and salaries, and the incidence of such households gradually increased through the pandemic. We also observe a similar trend for family or individual businesses, although less households were and are engaged in such activities. Farming or fishing, an activity that was reported to have emerged as a subsistence activity during the early days of the pandemic saw a reduction by round 2. Through the pandemic, the stability of government assistance was remarkable.

We now consider how the current income from each source changed from prior to the pandemic, that is January-March 2020. The following graphs show whether household income from several types of income sources had increased, decreased, stayed the same, or stopped completely in each round².

¹ This is not due to differential rate of dropout from the survey, either. Looking only at households who were surveyed in both rounds, the share reporting “no change” went from 21% to 32%.

² In this and the following graphs, we omit the category “Income from interests or dividends” because too few households responded to this question.

Figure 3.8: Household income change in round 1 compared to before COVID-19

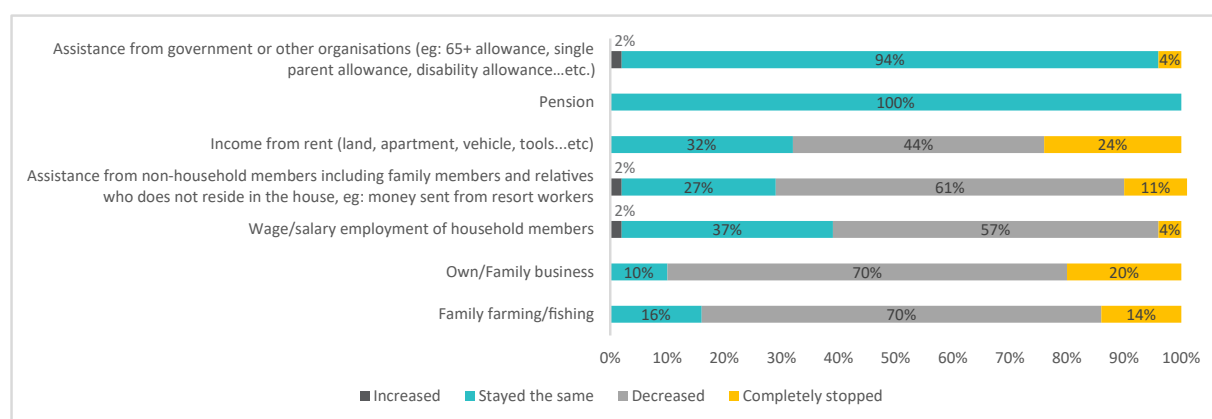
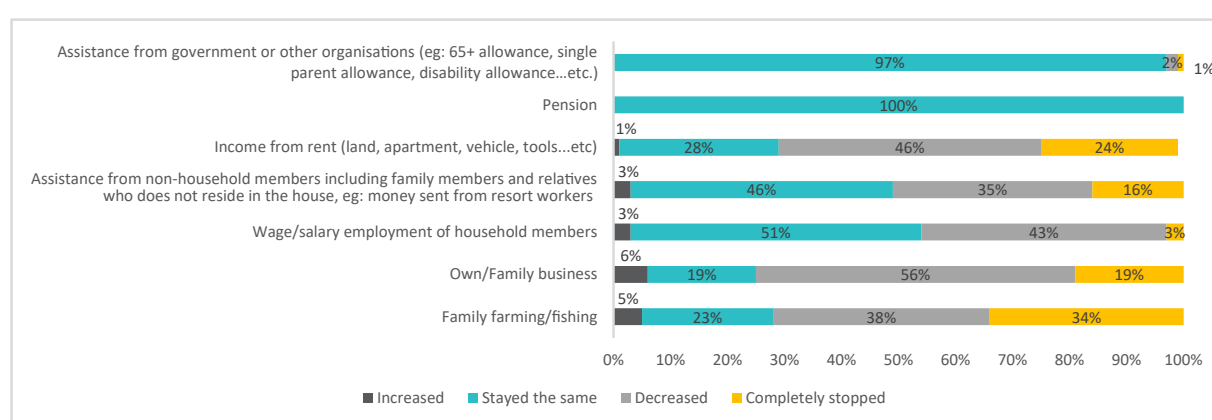


Figure 3.9: Household income change in round 2 compared to before COVID-19

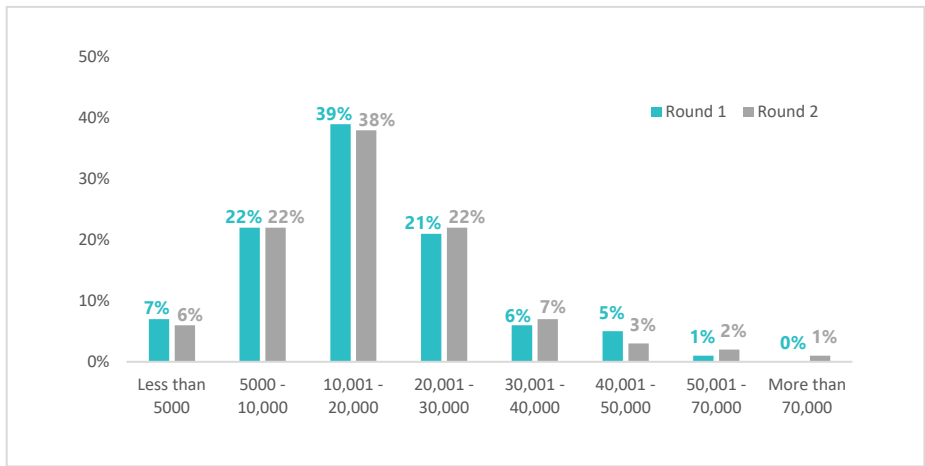


Between rounds 1 and 2, there was improvement in households' receipt of wages in salaries. The share of households who reported earning less in wages and salaries fell from 57% in round 1 to 43% in round 2. We find a concurrent increase in the percentage of households who reported "no change" in their wages, from 37% in round 1 to 51% in round 2, indicating that a significant part of the sample saw wage incomes returning to pre-pandemic levels. In round 1, over 90% of households engaged in family or individual businesses reported that earnings had reduced. By round 2, 25% of such households reported that earnings were back to normal, and some had even exceeded the pre-pandemic amounts. We note a sharp increase in the incidence of households that stopped earning any money from family farming and fishing, from 14% in round 1 to 34% in round 2. This would be a cause of concern if we take this result in isolation. But taken with other results, this suggests that as other income sources reverted to normalcy, households consolidated their labor supply and substituted away from subsistence activities.

Receipt of government assistance and pensions was stable. Over 90% of households in each round who had been receiving assistance or pensions pre-pandemic reported that they were still receiving the same amount. This is a reassuring sign that government assistance programs continued uninterrupted in this period. The amount earned from other income sources tended to fluctuate between the two rounds, usually picking up by round 2. Among the households who received assistance from family members, 61% said their income had decreased while 11% said it stopped completely in round 1. In round 2, only 35% of households reported a decrease while 16% reported a complete stop. The percentage share of those receiving assistance from family members reverted to pre-pandemic levels increased from 27% to 46%. Rent (including rent from land, apartment, vehicles, tools) as a source of income also stopped completely for over a fifth of rentiers. However, a much smaller share of households relied on this source for income to begin with.

We now consider the amount of reported income. The methodology for collecting this information was very different between HIES 2019 and the phone surveys. Therefore, it is useful to look at the numbers between rounds 1 and 2 instead of comparing them to HIES. Most respondents provided a range in which their household income fell, instead of reporting a number. This usually leads to a clustering of observations, but these are limitations imposed by the phone survey modality. As we can see, the overall income distribution shifted slightly to the right depicting an increase in income in round 2 compared to round 1. Less households report earning income in the lower bands by round 2 when compared to round 1, and the incidence of households reporting higher income levels is larger in round 2.

Figure 3.10: Total household income for past month



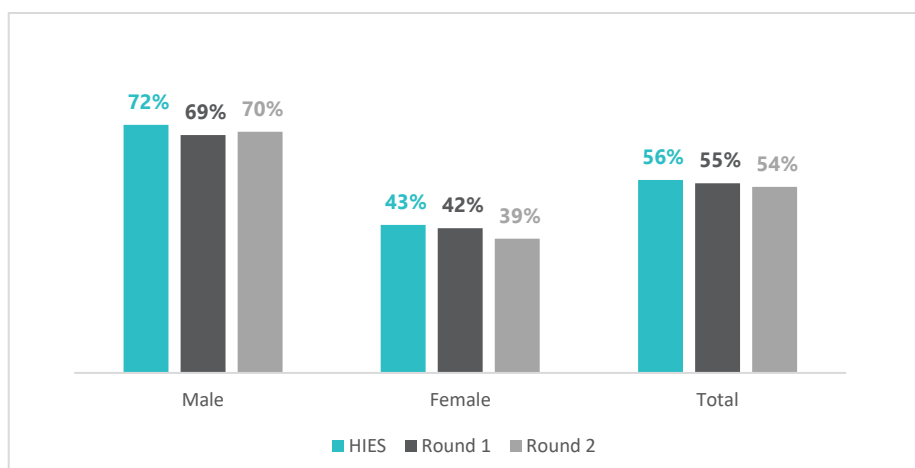
We now consider individual level information to understand work participation across the 2 years of these three surveys.

4. LABOR MARKET DISRUPTIONS

In a usual survey, labor force participation is estimated by asking a series of questions to each individual in the working age group to understand if the person is employed, unemployed and looking for a job or unemployed and not interested in working (which indicates that the individual does not participate in the labor force). Once again, the phone survey method prevents us from asking such a sequence without making the call time consuming. Although we can estimate labor force participation metrics from the HIES 2019, we cannot do the same from the phone surveys. Rather, we focused on a question that was asked to each individual in HIES 2019 as well as the phone surveys, whether the person in question worked in the 7 days immediately prior to each survey. This section investigates the responses to this question across all 3 surveys³.

Among the working age population (15 years and above), about 55% were engaged in an income earning activity in each survey round. During the 2 years, we witness a marginal drop and recovery in work participation among men, but a gradual decrease among women. The decrease in women's work participation is driven primarily by Male', which sees a reduction in participation among women from 45.2% in 2019 to 38.7% in early 2022. Work participation among men and women stayed rather stable in atolls, with about 68% and 40% for these two groups respectively.

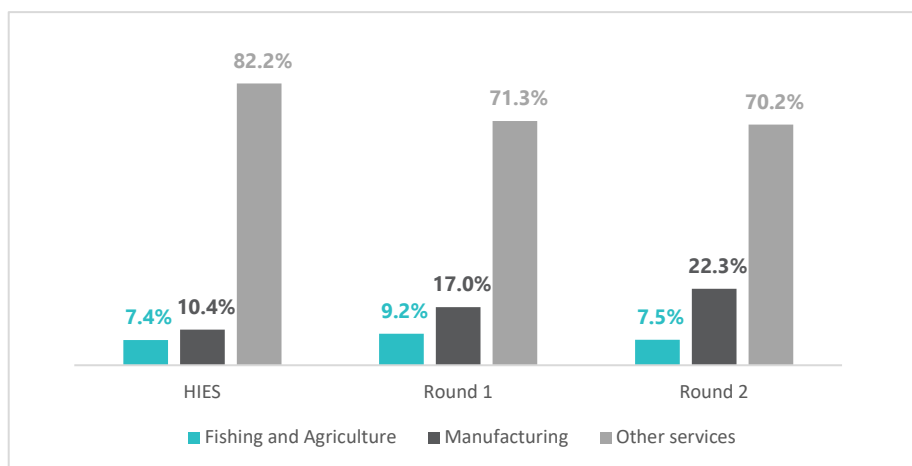
Figure 4.1: Share of adults engaged in income earning activities in the past 7 days



While the headline work participation rate for each group appears stable, it masks a considerable amount of change with respect to who was economically active. About 19-20 percent of workers in 2019 were no longer working by rounds 1 and 2. Meanwhile, 29% of age appropriate individuals who were not working during HIES 2019 entered the workforce by round 1, and this increased further to 33% by round 2. We will revisit this in detail later. We now consider the work participation by the three major sectors, fisheries and agriculture, manufacturing and services. We also consider the two main types of work: wages and salaries; and self-employment. We compare the distribution of participation across all three surveys, with HIES 2019 providing a sense of what these distributions looked like in the pre-pandemic economy.

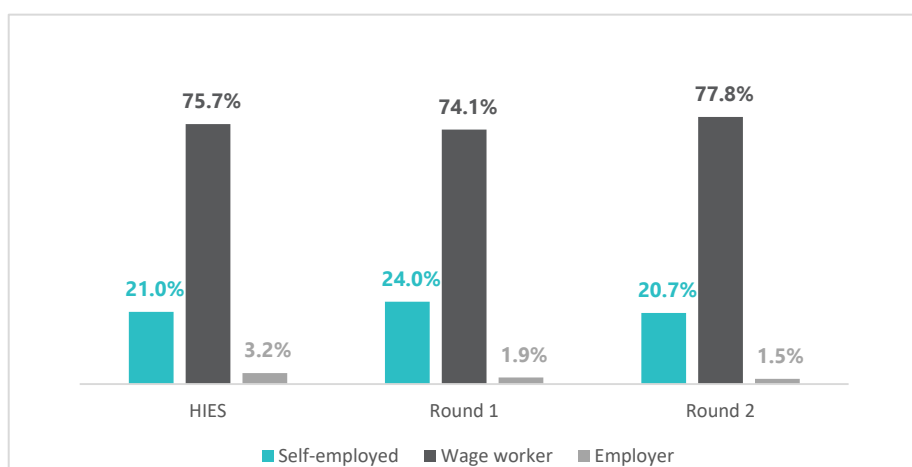
³ For the COVID round samples, we only include members who were present in every round of data collection. This means we leave out individuals who were counted as “new or additional members,” meaning they were not present during HIES but joined the household before one of the COVID rounds. The phone surveys contain retrospective information on what new members were doing as work between January and March 2020. Given the earlier caveats we had on recall bias, we exclude this set from this section and focus solely on old members, that is the set of individuals who were part of the household in all rounds.

Figure 4.2: Sector composition of the workforce



More than 4 out of every 5 economically active individuals in 2019 were in services. We see a sharp reduction in services by round 1, and a further percentage point decrease by round 2. Fishing and agriculture experienced a small increase by round 1, but returned to the pre-pandemic level by round 2. Participation almost doubled in manufacturing; indeed while the other two sectors shrank between rounds 1 and 2, manufacturing grew in size.

Figure 4.3: Share of workers by type of contract

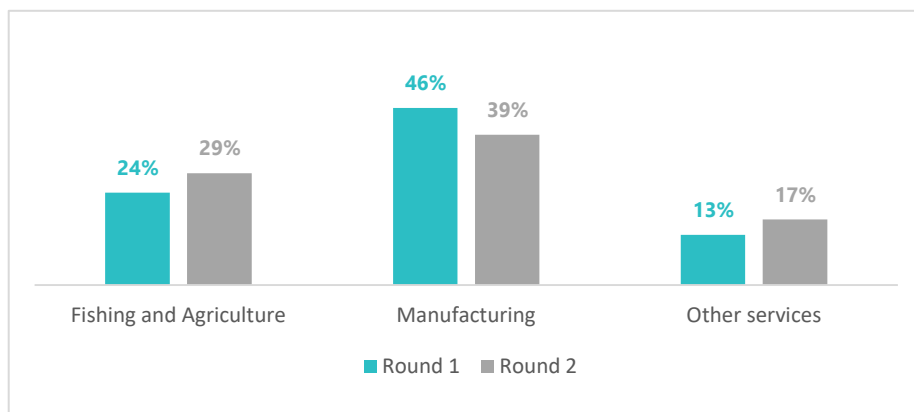


The proportion of employers, that is the set of individuals who employed at least one non-family member, halved by early 2022, although this set was small to begin with. After a slight increase in self-employed work in round 1, it returned to levels comparable to the pre-pandemic economy. The incidence of wage work fell in round 1 but rebounded higher than the pre-pandemic levels by round 2.

As per the recent poverty assessment for Maldives, wage work in services is associated with higher incomes while self-employment in fisheries and agriculture is associated with lower incomes. While the shift toward wage work by early 2022 is encouraging, the expansion of the manufacturing sector at the expense of services may be a cause for concern. To unpack these movements further, we now focus only on the individuals who were economically active in 2019; note that the results from phone survey rounds above includes individuals who became economically active after 2019. We will consider this group in detail later. The variable of interest we use is work stoppage, which compares an individual's working status in the past 7 days during each round for each individual who was active in HIES 2019.

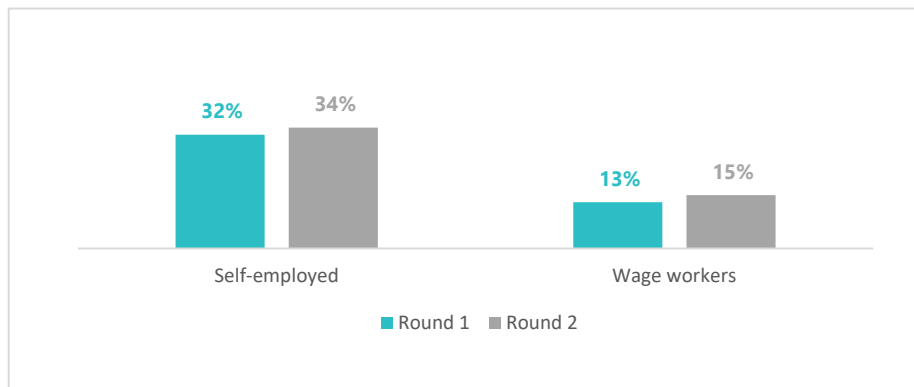
First we characterize workers based on the sector they were working in during HIES. While the manufacturing sector expanded in size through the pandemic, the highest levels of work stoppage among the economically active of 2019 were in the manufacturing sector; nearly half of manufacturing workers stopped working in round 1. Although the sector saw a recovery by round 2, the level of work stoppage was still 10 percentage points higher than the sector with the next highest work stoppage rate. About a quarter of individuals that were involved in fisheries and agriculture had stopped participating by round 1, increasing to 29% by round 2. Services by comparison witnessed the lowest rate of work stoppage both in rounds 1 and 2. Thus, services saw the largest levels of worker retention, while manufacturing saw the largest turnover.

Figure 4.4: Share of workers who stopped working, by 2019 sector



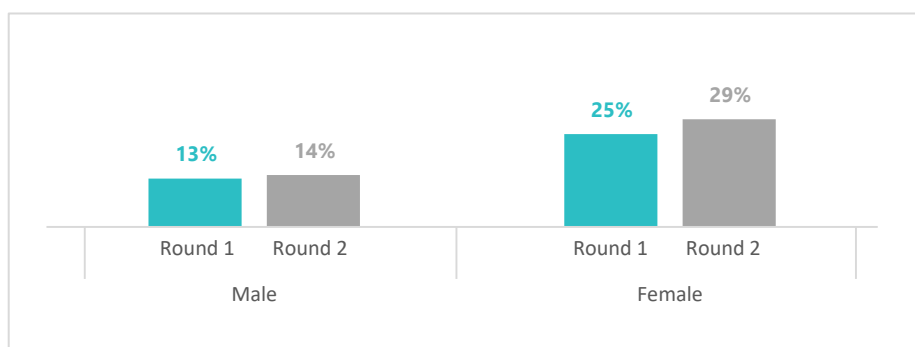
Self-employed workers had nearly 2.5 times the rate of work stoppage as wage workers in round 1, while this gap narrowed slightly by round 2. Still, a self-employed worker of 2019 was more than twice as likely than a wage worker of 2019 to stay economically inactive in early 2022. We combine employers with the self-employed given the small size of the former.

Figure 4.5: Share of workers who stopped working, by type of contract



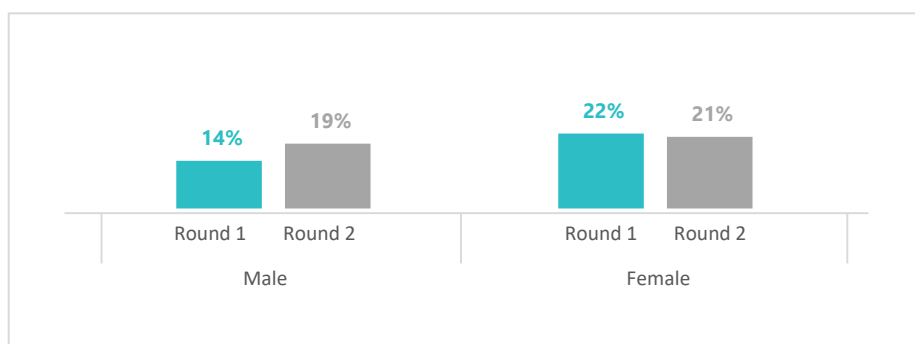
In both rounds, women had twice as high a rate of work stoppage as men. While the detailed results are not presented, women had a negligible participation in fisheries and agriculture to begin with. About 46% of women in manufacturing stopped working by round 1, and this recovered somewhat to 37% by round 2. Work stoppage rates for men in manufacturing was even higher, about 49% in round 1 and 45% in round 2. However, the gender differential for work stoppage rates was most stark in services. The graph below demonstrates the increase in overall work stoppage rate between rounds 1 and 2 for women; this increase is almost entirely driven by female participants in services. About 19% of women in services stopped working by round 1 and this increased to 26% by round 2. For men, the work stoppage rate was about 10% in each round.

Figure 4.6: Share of workers who stopped working, by gender



Surprisingly, there was less of a disparity between Male' and atoll-based workers. Atoll based individuals were 50% more likely than a person in Male to have stopped work in round 1. By round 2 this gap closed, driven by a higher rate of work stoppage among Male's workers. A large percentage of Male's workers in services were women, and the high work stoppage rate in this group is one of the drivers behind the round 2 result for Male'.

Figure 4.7: Share of workers who stopped working, by location



We now consider individuals according to their age brackets to understand who was more likely to stop working. More than 80% of working adults in 2019 were aged between 25 to 64. The highest work stoppages were reported at either end of the age brackets. Individuals aged 15-19 made up 10 percent of the working age population in 2019, and about 22% of this group were active in 2019. By round 1, 43 percent of them had stopped working increasing marginally to 45 percent by round 2. While 47% of workers over the age of 65 had also stopped working by round 2, this is expected given their advanced age and that the shock was a life-threatening pandemic. Work stoppage rates among other cohorts ranged between 12-22 percent in each round, and these were the cohorts which made up a large share of working age population and had a relatively high share of work participation to begin with.

Table 4.1: Population share, work participation rate, and work stoppage rate of each age cohort

Age group	Share of working-age population in 2019	Work participation rate, HIES 2019	Work Stoppage Round 1	Work Stoppage Round 2
15-19	9.9%	21.9%	42.8%	44.5%
20-24	9.8%	62.9%	20.4%	17.9%
25-34	27.3%	67.4%	19.3%	22.1%
35-44	21.7%	68.2%	12.2%	18.1%
45-64	23.7%	58.6%	17.2%	17.1%
65+	7.7%	15.1%	31.2%	46.7%

The previous results suggest substantial variation with respect to changes in work participation between HIES 2019 and round 1. Women, self-employed workers, youth and individuals in the manufacturing sector experienced high levels of work stoppage, and the situation got exacerbated by round 2. This contradicts the results from the previous section, which suggested that households had recovered somewhat between rounds 1 and 2.

Earlier in this section, we noted that while 20% of those who worked during HIES 2019 (about 54% of the working age population) were not active by round 2, about a third of those who were inactive (46% of working age population) were now participating. These ‘new workers’ could be redressing the income losses and we now turn to understanding the characteristics of this set of people. The table below categorizes the working age population by whether they participate in work or not, as per the phone surveys.

Table 4.2: Work participation in each round by whether one was working in 2019

Work Participation HIES 2019	Work Participation Round 1			Work Participation Round 2		
	Participating	Not Participating	Total	Participating	Not Participating	Total
Not participating	29%	71%	100%	33%	67%	100%
Participating	81%	19%	100%	80%	20%	100%

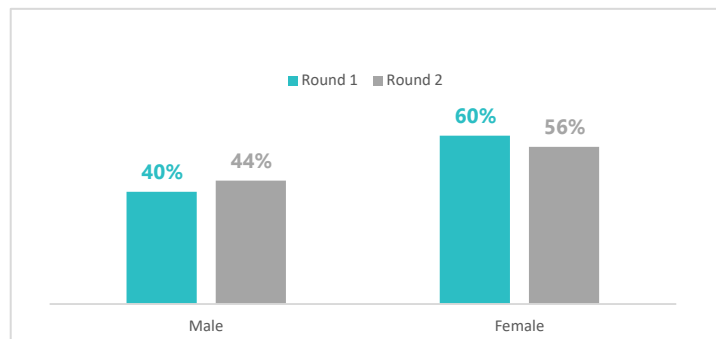
Among the non-participants from 2019, individuals aged 65 and above did not join work during the pandemic in large percentages, an obvious result. More than a third of the two youngest cohorts who were inactive in 2019 had started work by early 2022. Only about one out of every three individuals between ages 20 to 44 were inactive in 2019. The percentage of individuals of these age brackets that remained inactive witnessed a gradual reduction through 2021 into early 2022.

Table 4.3: Share of non-working population who started working in each round, by age cohort

Of the 2019 non-working adult population, how many started working in each round?		
	Round 1	Round 2
15-19	20.7%	36.2%
20-24	32.3%	33.7%
25-34	24.5%	29.9%
35-44	15.3%	17.8%
45-64	25.3%	26.3%
65+	10.0%	5.7%

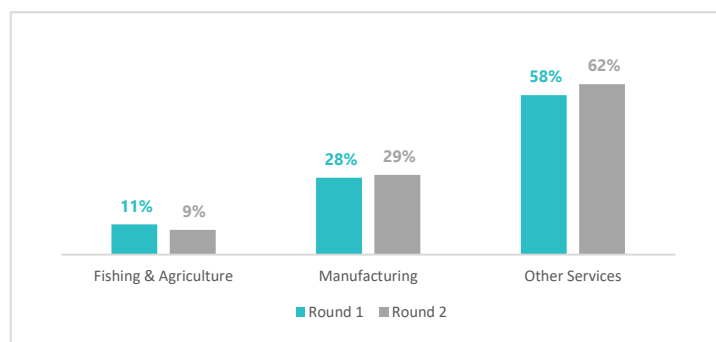
29% female workers from 2019 had not returned to work by early 2022, compared to 14% male workers. Of the inactive adults who joined work during the course of the pandemic, women were more likely to join earlier, as we can see from the results from round 1. Even by early 2022, a majority of this new group of workers were women. We had noted earlier that women in Male' were one of the key sub-groups of active workers from 2019 that had stopped working. Among all women from atolls who were inactive in 2019, more than a third had joined work by early 2022.

Figure 4.8: Gender of newly-employed workers



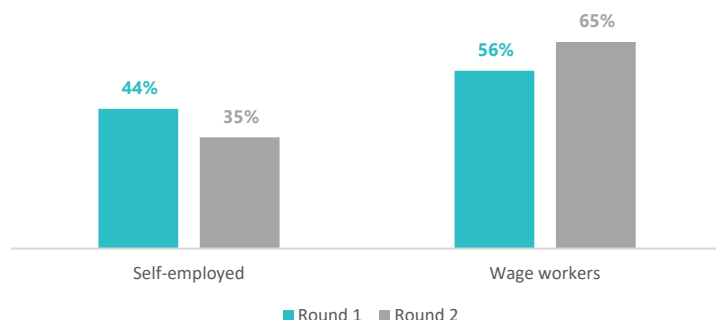
The sectors of employment that new workers are likely to join is significantly different from the sectoral distribution of work prior to the pandemic. Both fisheries and manufacturing saw a larger incidence of workers in round 1, although services remained the major sector of employment and strengthened further by round 2. Essentially, new workers were more likely to find work in manufacturing at a pace higher than the pre-pandemic economy. This may be due to the fact that this sector saw the highest work stoppage rates among the economically active from 2019.

Figure 4.9: Share of new workers in each sector



The share of self-employed among new workers was more than double of the pre-pandemic levels in round 1, although this fell significantly by round 2. Still, the incidence of self-employed workers was 50% greater than that before the pandemic in round 2.

Figure 4.10: Share of new workers by type of contract



We thus see a considerable churn among the vulnerable demographics with respect to work stoppage among the economically active from 2019 as well as the individuals who were inactive earlier but are working in early 2022. Women were more likely to experience more losses than men, but they are also more likely to join the labor force. Manufacturing saw the highest work stoppage, but it also saw significantly higher incidence of workers compared to the pre-pandemic economy. Individuals engaged in self-employed activities during 2019 were more exposed to work stoppages, but new workers were more likely to be engaged in self-employment than the pre-pandemic situation. In all these cases, round 2 witnessed a reversal toward pre-pandemic levels, although there is quite some distance to go. The report cannot answer why a significant share of workers from 2019 did not come back, even while non-participants from 2019 could find work. As the economy recovers and the labor market opens up, the demand for cheap labor may outstrip the demand for good labor. This could lead to a situation where experienced workers find it unprofitable to engage with the labor market; combined with the need for household resources, non-participants join work to address the shortfall. It is worth noting that Maldives is a well-functioning welfare state, and a deterioration in work may not lead to a sharp increase in poverty or vulnerability. There is also evidence of Maldivians having a relatively high reservation wage, which may be another reason why a chunk of workers of the pre-pandemic economy did not return.

5. CONCLUSION

Recovery of the Maldivian economy has been slow, but hopefully the worst is over. International tourism has picked up, which not only eases the revenue stream and direct jobs at the resort islands, but also ancillary jobs that a booming resort sector encourages. In this report, we find that households in administrative islands are doing significantly better in early 2022 compared to April 2021. While we do have concerns regarding recall errors, the trend in responses on coping strategies show that a lower percentage of households resort to drawing down savings or reducing consumption by 2022. Household income from different sources, especially from wages and earnings tend to return to pre-pandemic levels for a larger share of households. At the individual level, about 20% of working age adults who worked in 2019 do not work in 2022. However, a third of those who did not work do so, offsetting the losses in earned income. The surveys conducted in April 2021 and January 2022 reveal that the differences in key labor market metrics (such as the distribution of wage jobs, distribution of employment by sectors) between 2019 and round 1 had reversed between round 1 and round 2. While these metrics are not back to their pre-pandemic levels yet, this reversal indicates a progressive normalization of the general micro-economy.

6. ANNEX: SAMPLE CHARACTERISTICS

For the Round 1 COVID survey, a random subsample of 589 households was surveyed from the 4,996 households that participated in HIES 2019. In the second round, 506 households were resurveyed while the rest refused or could not be contacted. Here we check the pre-COVID household characteristics of each round-wise subsample to see if they are systematically different from the overall 2019 HIES sample.

The ratio of households based in Male' to those in other atolls was consistent across all survey rounds: about 48% in Male' to about 52% in atolls.

Table 6.1: Location of sample households

	HIES 2019 sample	Round 1 sample	Round 2 sample
Male'	47.7%	47.7%	46.5%
Atoll	52.3%	52.3%	53.5%
N	4817	589	506

In addition to geographical balance, we checked to see if the sample was balanced in terms of households' primary occupations. We wanted to make sure that the COVID surveys did not sample households who had different pre-pandemic potential economic outcomes than the entire HIES sample did on average. To do this, for each COVID subsample we checked to see what the distribution of respondents' primary occupations were in 2019 and compared it with those of the entire HIES 2019 sample. In each round, between 7-8% of workers were in fishing and agriculture, about 10% were in manufacturing, and about 82% were in services.

Table 6.2: Share of workers in each sector

	HIES 2019 sample	Round 1 sample	Round 2 sample
Fishing and Agriculture	7.4%	7.6%	7.7%
Manufacturing	10.4%	10.1%	11.1%
Other Services	82.2%	82.4%	81.2%
Total	100.0%	100.0%	100.0%
N	9622	1134	917

In each sample, about 3 in 4 workers were wage workers (i.e., worked with a contract) in 2019, while the remainder were self-employed or were employers.

Table 6.3: Share of workers by type of contract

	HIES 2019 sample	Round 1 sample	Round 2 sample
Self-employed	21.0%	20.1%	19.8%
Wage workers	75.7%	75.5%	75.1%
Employers	3.2%	4.4%	5.0%
N	9629	1135	918

The above results suggest that the random sample draw for the phone surveys were balanced on key variables of interest as of 2019, and that the attrition between the two rounds was also random. In the following table, we include more household and individual level parameters to compare our samples, and we also include the World Bank SAR COVID-19 Survey in the comparison, as the results were a part of the recent Maldives Poverty Assessment. The survey was conducted between December 2020 and February 2021 by the World Bank Poverty Global Practice for South Asia, with advice from the Maldives Bureau of Statistics. The survey was administered by phone from December 2020 to February 2021. Respondents were selected through random digit dialing of Maldivian phone numbers. 1,540 respondents were included in the survey. The median age varies by two years across the four surveys, and the distribution of ages is also similar. The proportions of the sample at each level of educational attainment were consistent. The SAR survey had a larger average household size and a larger dependency ratio. The female to male ratio was higher in the HIES surveys, and . The three main economic sectors encompassed the same shares of the working population in all three samples. The share of renters in the country is also similar, around ~40 percent. The share of wage workers was higher in HIES than SAR, but the order of magnitude is similar (~75 percent versus 65 percent)

Table 6.4: Demographic characteristics of each survey sample

Characteristics	HIES 2019	COVID Round 1	COVID Round 2	SAR
Age (adults only), average	38.7	39.2	39.7	38.6
Age (adults only), median	35	37	38	35
Age group (adults only)				
15-19	9.9%	10.1%	9.4%	5.2%
20-24	9.8%	9.3%	8.7%	14.0%
25-39	39.4%	37.1%	23.8%	39.1%
40-64	33.2%	35.6%	22.8%	34.3%
65+	7.7%	7.9%	27.6%	7.4%
Education level completed				
Primary	26.2%	26.3%	24.8%	21.4%
Secondary	43.79%	45.5%	30.3%	44.3%
Diploma/certificate	15.2%	16.1%	21.9%	28.6%*
Degree	10.3%	8.4%	15.2%	~*
Never attended	4.6%	3.7%	7.7%	5.7%
Household characteristics				
Household Size	5.2	5.9	5.9	6.4
Percent female	52.3%	52.5%	51.4%	49.7%
Dependency ratio (total number of dependents / number of working age)	0.53	0.56	.58	1.63
Renters	38.1%	38.3%	36.8%	43.4%
* The SAR survey did not distinguish tertiary degrees between diplomas and degrees the same way that HIES did. Instead, for this survey, we report the corresponding number for anyone with a post-secondary degree				

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