The COVID-19 pandemic is having far-reaching impacts on how people earn a living and meet critical needs. The Caribbean COVID-19 Food Security and Livelihoods Impact Survey was launched by CARICOM to rapidly gather data on impacts to livelihoods, food security and access to markets.

Two rounds of the survey have been carried out, implemented by the World Food Programme on behalf of the CARICOM Secretariat. This summary analyses data collected in the second round, carried out over the last two weeks of June 2020, which received 5,707 responses from 23 countries and territories in the Caribbean. It builds on findings from the first survey implemented in April 2020, which received 4,537 responses from 19 countries and territories.

The survey was distributed and collected using online methods and the survey link was shared via social media, e-mail, and text messages. While the survey contributes to a better overview of impacts, the survey’s representativeness is affected in unknown ways by people’s access to the internet and their incentives to respond.
COVID-19 and measures to contain it have resulted in widespread disruptions to livelihoods, affecting two out of five respondents, mainly due to movement restrictions, concerns about leaving the house, higher cost of livelihood inputs and reduced demand for goods and services.

The economic well-being of the vast majority of households is negatively affected. Eighty percent of respondents reported job loss or a decline in salaries, which is above the regional average (69%) while the decline in tourism activity is a commonly cited effect from the pandemic.

Nearly all respondents predict that their livelihoods will be further impacted in the future, with one out of five households expecting a severe impact.

Two out of three respondents are worried about job loss and over half respondents worry about illness. Every third respondent is concerned about their ability to purchase essential goods.

The availability of goods appears better than in the region, but nearly one out of five respondents report limited availability of fresh foods or essential medicines. Three out of four respondents observed an increase in food prices.

The pandemic has impacted market access, with nearly one out of ten respondents in Aruba experiencing constraints to market access. Of these respondents, half cited lack of financial resources as the main constraint.

The vast majority of respondents (85%) have changed their shopping behaviour since the pandemic began, mainly by choosing cheaper or less preferred brands.

While the food security situation in Aruba appears less concerning compared to the region, still one out of ten respondents reported having no food stocks, skipping meals or eating less than usual.

Findings were largely consistent between sexes and age groups. A disaggregated analysis by income level and for the age groups under 25 and over 60 could not be carried out due to insufficient responses.
Respondents are generally more likely to be female than male, and they tend to be concentrated in the 41-60 age group. Disaggregated analysis is provided by sex and for the 26-40 and 41-60 age groups due to sufficient numbers of respondents in these groups.

**Sex of respondents**

- Female: 53%
- Male: 47%

**Age and sex of respondents**

- 25 and under: 18 Female, 22 Male
- 26 - 40: 63 Female, 44 Male
- 41 - 60: 73 Female, 77 Male
- Over 60: 20 Female, 10 Male

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**Main household income sources**

Respondents were asked to indicate the main income source/s for their household. Multiple choices could be selected. The main income source, for 79% of men and 84% of women, is salaried work followed by own business/trade. Compared to the region, respondents in Aruba are more likely to rely on these two activities as a main source of income and much less on informal and casual labour or support from family and friends.
## DEMOGRAPHICS OF RESPONDENTS

### Main household income sources

**By sex**

- **Female**
  - Salaried work: 84%
  - Informal/Casual labor: 19%
  - Support from family and friends: 9%
  - Petty trade: 6%
  - Own business/trade: 3%
  - Government assistance: 1%
  - Remittances from abroad: 1%
  - Other: 5%

- **Male**
  - Salaried work: 79%
  - Informal/Casual labor: 28%
  - Support from family and friends: 5%
  - Petty trade: 4%
  - Own business/trade: 4%
  - Government assistance: 3%
  - Remittances from abroad: 3%
  - Other: 3%

### By age

- **41-60**
  - Salaried work: 83%
  - Informal/Casual labor: 26%
  - Support from family and friends: 5%
  - Petty trade: 7%
  - Own business/trade: 5%
  - Government assistance: 4%
  - Remittances from abroad: 4%
  - Other: 6%

- **26-40**
  - Salaried work: 88%
  - Informal/Casual labor: 19%
  - Support from family and friends: 7%
  - Petty trade: 6%
  - Own business/trade: 3%
  - Government assistance: 3%
  - Remittances from abroad: 3%
  - Other: 3%

### How do you feel your household’s income compares with the rest of the country?

- Well below average: 6%
- Below average: 16%
- Average: 35%
- Above average: 32%
- Well above average: 12%
COVID-19 and measures to contain it have impacted market access, but substantially less compared to the Caribbean region as a whole, with 9% of respondents reporting that they could not access stores and markets at some point 7 days prior to the survey, against 27% in the Caribbean.

The lack of financial means was the dominant reason and for limited market access and played a greater role as a constraint to market access in Aruba than for the region as a whole. Movement restrictions, market closures and concerns to leave the house due to disease outbreak or the closure of shops were much less a concern when compared to the region.

9% of households reported limited market access

“Loss of partial income, but I only spent on food and medication. I am extremely careful how I spent my money.” - female, age 55

“Loss of job. Depending on my parents financially to buy food.” - female, age 29
Availability of items in stores

Availability of goods is generally high, with a greater share of respondents reporting uninterrupted availability of fresh or basic food items and essential medicines compared to the region. Still, one-fifth of respondents reported limited access to fresh foods, while one out of six respondents had only partial access to essential medicines.

<table>
<thead>
<tr>
<th>How Available?</th>
<th>Fresh food items</th>
<th>Basic food items</th>
<th>Hygiene items</th>
<th>Essential medicines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always Available</td>
<td>Aruba</td>
<td>Region</td>
<td>Aruba</td>
<td>Region</td>
</tr>
<tr>
<td></td>
<td>81%</td>
<td>71%</td>
<td>91%</td>
<td>83%</td>
</tr>
<tr>
<td>Partially/sometimes available</td>
<td>19%</td>
<td>25%</td>
<td>8%</td>
<td>15%</td>
</tr>
<tr>
<td>Not available</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>Don't know</td>
<td>0%</td>
<td>4%</td>
<td>0%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Food prices

Respondents reported on any observed changes in food prices, and three out of four observed an increase in food prices, similar to the regional average.
Shopping behaviour

The vast majority of respondents changed their shopping behavior after the pandemic hit. Buying cheaper or less preferred brands is the most common shift. Respondents in Aruba were less likely to purchase smaller quantities than usual and more likely to engage in online ordering and delivery services compared to respondents in the region.

% of respondents that changed their shopping behavior

- **Aruba**: 85%
- **Region**: 86%

Have you changed your shopping behaviour compared to normal?

**By sex**

- **Female**: 89% / 11%
- **Male**: 81% / 19%
How respondents changed their shopping behavior

By sex

- Buying cheaper or less preferred brands:
  - Female: 55%
  - Male: 47%

- Buying larger quantities than usual:
  - Female: 37%
  - Male: 39%

- Started or increased online ordering or delivery services:
  - Female: 47%
  - Male: 34%

- Going to different stores:
  - Female: 21%
  - Male: 21%

- Buying smaller quantities than usual:
  - Female: 32%
  - Male: 34%

By age

- 26 - 40:
  - Buying cheaper or less preferred brands: 53%
  - Buying larger quantities than usual: 34%
  - Started or increased online ordering or delivery services: 32%
  - Going to different stores: 27%
  - Buying smaller quantities than usual: 20%

- 41 - 60:
  - Buying cheaper or less preferred brands: 50%
  - Buying larger quantities than usual: 34%
  - Started or increased online ordering or delivery services: 32%
  - Going to different stores: 27%
  - Buying smaller quantities than usual: 20%
The pandemic and measures to stop its spread are impacting food stocks and food consumption, but affect a smaller share of respondents compared to the Caribbean region. In Aruba, about two out of three respondents reported food stocks that would last them over one week and the same proportion experienced no difficulties eating enough. In the region, only half of respondents could confirm the same. However, about one out of ten respondents in Aruba had no food stocks at all and reported skipping meals or eating less than usual. There has also been a significant increase in the number of persons receiving food aid through the local food bank.

**Which statement best reflects your food situation over the past 7 days?**

- I went one whole day without eating  
  - Aruba: 1%  
  - Regional: 5%

- I skipped meals or ate less than usual  
  - Aruba: 10%  
  - Regional: 27%

- I ate less preferred foods  
  - Aruba: 23%  
  - Regional: 21%

- I had no difficulties eating enough (normal pattern)  
  - Aruba: 62%  
  - Regional: 44%

- I increased my food intake  
  - Aruba: 4%  
  - Regional: 2%

*By sex*

- Female: 2% 10% 22% 63% 3%
- Male: 1% 10% 24% 60% 5%

- I went one whole day without eating
- I skipped meals or ate less than usual
- I ate less preferred foods
- I had no difficulties eating enough (normal pattern)
- I increased my food intake

“Eating 1 time per day and not a good income” - Male, age 47

“No money for food, transport, energy, water & telecommunication” - Male, age 59

“Worry of not having enough money for food and bills such as electricity and water. Adapting by using less power so we can pay for food.” - Female, age 17
### IMPACT ON FOOD SECURITY

**Which statement best reflects your food situation over the past 7 days?**

- I went one whole day without eating
- I skipped meals or ate less than usual
- I ate less preferred foods
- I had no difficulties eating enough (normal pattern)
- I increased my food intake

#### By age

<table>
<thead>
<tr>
<th>Age</th>
<th>Statement</th>
<th>Aruba</th>
<th>Regional</th>
</tr>
</thead>
<tbody>
<tr>
<td>26 - 40</td>
<td>12%</td>
<td>22%</td>
<td>63%</td>
</tr>
<tr>
<td>41 - 60</td>
<td>1%</td>
<td>7%</td>
<td>23%</td>
</tr>
</tbody>
</table>

#### Does your household have any food stock?

- **No**
- **Yes. Less than 1 week**
- **Yes. More than 1 week**

<table>
<thead>
<tr>
<th>Region</th>
<th>Statement</th>
<th>Aruba</th>
<th>Regional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aruba</td>
<td>8%</td>
<td>26%</td>
<td>66%</td>
</tr>
<tr>
<td>Regional</td>
<td>13%</td>
<td>33%</td>
<td>54%</td>
</tr>
</tbody>
</table>

#### By sex

<table>
<thead>
<tr>
<th>Gender</th>
<th>Statement</th>
<th>Aruba</th>
<th>Regional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>9%</td>
<td>26%</td>
<td>65%</td>
</tr>
<tr>
<td>Male</td>
<td>8%</td>
<td>25%</td>
<td>67%</td>
</tr>
</tbody>
</table>

#### By age

<table>
<thead>
<tr>
<th>Age</th>
<th>Statement</th>
<th>Aruba</th>
<th>Regional</th>
</tr>
</thead>
<tbody>
<tr>
<td>26 - 40</td>
<td>6%</td>
<td>24%</td>
<td>70%</td>
</tr>
<tr>
<td>41 - 60</td>
<td>8%</td>
<td>26%</td>
<td>65%</td>
</tr>
</tbody>
</table>
IMPACT ON LIVELIHOODS

Disruptions to livelihoods

COVID-19 and measures to contain the virus have had a widespread impact on livelihoods and incomes. Two out of five respondents from Aruba reported a disruption to their livelihood activities in the two weeks prior to the survey. While this is a smaller proportion than in the region, respondents from Aruba were more likely to report job loss or reduced incomes (80%). Comments provided suggest that the income related impact has been particularly strongly felt in relation to tourism, a key sector of the Aruban economy.

Movement restrictions are the most common reason for livelihood disruptions, cited by 35% of respondents. Nearly one third of disruptions are attributed to concerns about leaving the house due to the pandemic. The costs of livelihood inputs and reduced demand for goods and services are also commonly cited by respondents as reasons for livelihood disruptions.

For those that reported livelihood disruptions, the main reasons were...

Multiple choices could be selected

- Movement restrictions
- Concerns leaving the house
- Livelihood inputs are too expensive
- Reduced demand for goods/services
- No market to sell products
- Transport limitations
- Increased demand for goods/services
- Livelihood inputs are unavailable
- Adult members of the household are unwell

% of respondents reporting that their ability to carry out livelihood activities was affected

<table>
<thead>
<tr>
<th>Reason</th>
<th>Aruba</th>
<th>Regional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Movement restrictions</td>
<td>42%</td>
<td>54%</td>
</tr>
<tr>
<td>Concerns leaving the house</td>
<td>41%</td>
<td>59%</td>
</tr>
<tr>
<td>Livelihood inputs are too expensive</td>
<td>40%</td>
<td>40%</td>
</tr>
<tr>
<td>Reduced demand for goods/services</td>
<td>39%</td>
<td>40%</td>
</tr>
<tr>
<td>No market to sell products</td>
<td>38%</td>
<td>40%</td>
</tr>
<tr>
<td>Transport limitations</td>
<td>37%</td>
<td>40%</td>
</tr>
<tr>
<td>Increased demand for goods/services</td>
<td>36%</td>
<td>40%</td>
</tr>
<tr>
<td>Livelihood inputs are unavailable</td>
<td>35%</td>
<td>38%</td>
</tr>
<tr>
<td>Adult members of the household are unwell</td>
<td>34%</td>
<td>38%</td>
</tr>
</tbody>
</table>

By sex

- Female: Yes 40%, No 60%
- Male: Yes 43%, No 57%

By age

- 26-40: Yes 39%, No 61%
- 41-60: Yes 41%, No 59%
### Income changes

**Has your household income changed since the COVID-19 outbreak?**

<table>
<thead>
<tr>
<th>Loss of jobs or reduced salaries</th>
<th>80%</th>
<th>69%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No change</td>
<td>13%</td>
<td>23%</td>
</tr>
<tr>
<td>Had to resort to secondary or alternative activities</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>Increased employment or revenues</td>
<td>3%</td>
<td>1%</td>
</tr>
</tbody>
</table>

**By sex**

<table>
<thead>
<tr>
<th></th>
<th>Female</th>
<th></th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss of jobs or reduced salaries</td>
<td>80%</td>
<td>3%</td>
<td>14%</td>
</tr>
<tr>
<td>Had to resort to secondary or alternative activities</td>
<td>3%</td>
<td>6%</td>
<td>12%</td>
</tr>
<tr>
<td>No change</td>
<td>1%</td>
<td>4%</td>
<td>1%</td>
</tr>
<tr>
<td>Increased employment or revenues</td>
<td>6%</td>
<td>9%</td>
<td>3%</td>
</tr>
</tbody>
</table>

**By age**

<table>
<thead>
<tr>
<th></th>
<th>26 - 40</th>
<th></th>
<th>41 - 60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss of jobs or reduced salaries</td>
<td>83%</td>
<td>2%</td>
<td>11%</td>
</tr>
<tr>
<td>Had to resort to secondary or alternative activities</td>
<td>2%</td>
<td>3%</td>
<td>9%</td>
</tr>
<tr>
<td>No change</td>
<td>11%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Increased employment or revenues</td>
<td>3%</td>
<td>9%</td>
<td>3%</td>
</tr>
</tbody>
</table>

"My family lost a large chunk of their income. My mother was forced into retirement and I have no means to go to school." - Female, age 28

"Regular income from job has been reduced and the future is uncertain" - Female, age 46

"Luckily we have savings. Workload became more, total income lower, very intense situation working and the kids." - Female, age 33

"I am a marine tech, and due to the situation there has been a reduction in work. There is an increase in work on local fishing boats, but a steep decline in work on private pleasure crafts" - Male, age 53

80% of respondents reported a loss in employment or reduction in salaries
Households engaged in farming/fishing

Agriculture comprises only 0.4% of Aruba’s GDP, while food is a major import commodity. In this survey, 21% of respondents indicated to be engaged in farming and 7% in fishing activities, predominantly for own consumption and in minor instances for sale. Comments suggest an increase in food cultivation for own consumption as respondents try to compensate for increased prices and decreased incomes.

At the regional level, metrics of wellbeing for farming households do not differ much from the average respondents but households engaged in fishing seem to have been more adversely affected by disruptions related to COVID-19 as they report above average values for loss of jobs/reduced salary, difficulties in eating enough food, worrying about food needs and expecting their livelihood to be severely affected.

A disaggregated analysis of the impact of COVID-19 on households engaged in farming or fishing in Aruba cannot be conducted given the insufficient number of responses received from these subgroups. CARICOM and the United Nations Food and Agriculture Organization (FAO) are conducting a more in-depth assessment and analysis of the impacts of COVID-19 on agricultural livelihoods, production and food systems.

More information about how the COVID-19 pandemic has impacted Caribbean small-scale fisheries and what solutions and adaptation methods are being used to ensure the continuity of livelihoods has been shared through other resources and a regional webinar.

Households engaging in farming/fishing

- Food production/ livestock raising: 79%
- Fishing/coastal activities: 93%
- Yes, for consumption: 17%
- Yes, for sale: 1%
- Yes, for both sale and consumption: 3%
Impact on Livelihoods

Future livelihood impacts

Respondents were asked to look ahead and predict the level of impact to their livelihoods as a result of disruptions from COVID-19. Almost all respondents believed that their livelihoods would be impacted to some degree, and one out of five respondents expects a severe impact.

Tourism is critical to Aruba’s economy, and because of the multiplier effects it creates, a continued loss of tourist business could have impacts even on those who do not directly work in the industry.

How do you expect your livelihood will be impacted as a result of disruptions from COVID-19?

By sex

- Female: 18% Severe impact, 32% Moderate impact, 26% Some impact, 22% Little or no impact
- Male: 20% Severe impact, 32% Moderate impact, 25% Some impact, 23% Little or no impact

By age

- 26-40: 18% Severe impact, 37% Moderate impact, 25% Some impact, 18% Little or no impact
- 41-60: 20% Severe impact, 28% Moderate impact, 26% Some impact, 24% Little or no impact
WIDER IMPACTS

Worries

Almost two out of three respondents were mainly worried about unemployment, and every second respondent about illness. Over one third of respondents worry about the inability to cover essential needs. Respondents in Aruba have very similar concerns compared to those in the region, except that respondents in Aruba are more likely to be concerned about unemployment and less about their ability to cover food needs.

What are you mainly worried or concerned about at the moment...

- Unemployment: 64% (Aruba), 53% (Regional)
- Illness: 53% (Aruba), 52% (Regional)
- Inability to cover essential needs: 37% (Aruba), 38% (Regional)
- Inability to cover food needs: 19% (Aruba), 31% (Regional)
- Having to resort to savings: 16% (Aruba), 17% (Regional)
- Social isolation: 15% (Aruba), 16% (Regional)
- Disruptions to education: 10% (Aruba), 11% (Regional)
- Child(ren)/dependent care: 7% (Aruba), 11% (Regional)
- Movement restrictions: 8% (Aruba), 9% (Regional)
- Unable to access services: 3% (Aruba), 4% (Regional)
- Violence in the household: 2% (Aruba), 1% (Regional)
- Violence in the community: 0% (Aruba), 0% (Regional)

“I personally have not been that effected, because my mothers job does not depend on tourism, whilst it is more then 80% of Aruba’s economy. So more then 80% of the jobs on Aruba have suddenly vanished, because we are so dependent on tourism, which makes us the number 1# most effected country economically in the world!” – Male, age 17

“I was unemployed before covid, now it’s even harder to find work.” - Male, age 27

“No tourism till now, usually we have about 20.000 tourists every week on the island, from next month maybe 2000 people not enough to keep the restaurants and hotels running “ - Male, age 45

“My household has not been affected up to now. But if this situation continues some more months we will all be out of jobs. We work in hotel industry.” - Female, age 47
WIDER IMPACTS

What are you mainly worried or concerned about at the moment...

By sex

<table>
<thead>
<tr>
<th>Issue</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment</td>
<td>66%</td>
<td>61%</td>
</tr>
<tr>
<td>Illness</td>
<td>37%</td>
<td>37%</td>
</tr>
<tr>
<td>Unable to cover essential needs</td>
<td>19%</td>
<td>19%</td>
</tr>
<tr>
<td>Unable to cover food needs</td>
<td>16%</td>
<td>18%</td>
</tr>
<tr>
<td>Social isolation</td>
<td>9%</td>
<td>15%</td>
</tr>
<tr>
<td>Having to resort to savings</td>
<td>8%</td>
<td>11%</td>
</tr>
<tr>
<td>Disruptions to education</td>
<td>3%</td>
<td>7%</td>
</tr>
<tr>
<td>Movement restrictions</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>Violence in the household</td>
<td>2%</td>
<td>1%</td>
</tr>
</tbody>
</table>

By age

<table>
<thead>
<tr>
<th>Issue</th>
<th>26-40</th>
<th>41-60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment</td>
<td>71%</td>
<td>63%</td>
</tr>
<tr>
<td>Illness</td>
<td>53%</td>
<td>58%</td>
</tr>
<tr>
<td>Unable to cover essential needs</td>
<td>41%</td>
<td>35%</td>
</tr>
<tr>
<td>Unable to cover food needs</td>
<td>23%</td>
<td>18%</td>
</tr>
<tr>
<td>Social isolation</td>
<td>16%</td>
<td>17%</td>
</tr>
<tr>
<td>Having to resort to savings</td>
<td>8%</td>
<td>6%</td>
</tr>
<tr>
<td>Disruptions to education</td>
<td>7%</td>
<td>14%</td>
</tr>
<tr>
<td>Movement restrictions</td>
<td>6%</td>
<td>12%</td>
</tr>
<tr>
<td>Violence in the household</td>
<td>2%</td>
<td>7%</td>
</tr>
<tr>
<td>Unable to access services</td>
<td>2%</td>
<td>2%</td>
</tr>
</tbody>
</table>
Unpaid care and work

The COVID-19 pandemic has impacted the amount of time people are spending on unpaid activities: Three out of five respondents reduced time spent for shopping, while time devoted to domestic work, childcare or subsistence activities has increased. The percentage of respondents who report increased domestic work or subsistence activities is roughly equal between men and women. Female respondents were more likely to report a reduction in time devoted to shopping.
How people are coping and adapting

The survey gave respondents space to give fuller and more nuanced insights on how they are coping and adapting to the disruptions caused by COVID-19. Text analysis was used to analyze respondents’ answers to open ended questions, categorizing responses in terms of degrees of positive and negative emotions. At the regional level, “very negative” sentiment has increased from 3% in April to 35% in June, while 81% of respondents expressed an overall negative sentiment.

In Aruba, 68% of respondents expressed an overall negative sentiment, and more than half of these respondents expressed very negative emotions. Negative sentiment appears in many comments mentioning the important role tourism plays in the economy of Aruba, with expectations for economic consequences to worsen as the crisis continues. However, respondents also express concerns that increasing tourism will result in greater transmission of the virus, which further adds to the negative sentiment.

Key themes

Word clouds represent key themes on how people are being impacted and are adapting to disruptions from COVID-19. The most frequently mentioned phrases are “work”, “income” and “family” which indicates that a large focus of respondents’ are concerns about unemployment and their ability to sustain livelihoods.
CONCLUSION

In March 2020, strict measures were put in place to reduce the spread of the coronavirus. The closure of borders, air- and seaports halted international tourism, heavily impacting the livelihoods of people in Aruba. As of June 2020, some restrictions on local movements and activities had been reduced. However, the continued lack of tourism has meant that livelihoods have not been able to recover.

The survey findings suggest that the vast majority of people in Aruba experienced a deterioration of their incomes and overall well-being, an increase in food prices and concerns about the future of their livelihoods. Unemployment and reduced salaries affect the vast majority of respondents, and represent the main worry for most respondents. The vast majority of respondents expect their livelihood to be severely affected.

While most consumer goods are widely available, limited access to fresh foods and essential medicines is concerning. While few respondents reported difficulties accessing markets, those who experienced market access constraints mainly cited lack of financial means.

With COVID-19 bringing a near halt to tourism and disrupting the economy and commercial activities, the government of Aruba has introduced policies and programmes to assist people losing incomes and to support food security. Considering the protracted nature and unforeseeable end of the crisis, it is essential to continue monitoring its impacts, particularly on the most vulnerable groups and migrants.

The government of Aruba and its partners must redouble their efforts to mitigate the socioeconomic impacts through medium- and longer-term programmes and interventions. Opportunities include the permanent expansion of social programmes, livelihood support, and training for professionals in other sectors.
## ANNEX. REGIONAL OVERVIEWS

### Income changes

<table>
<thead>
<tr>
<th>Location</th>
<th>Loss of jobs/reduced salaries</th>
<th>Hard to resort to secondary income sources</th>
<th>No change</th>
<th>Increased employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aruba</td>
<td>81%</td>
<td>4%</td>
<td>13%</td>
<td>2%</td>
</tr>
<tr>
<td>Saint Lucia</td>
<td>80%</td>
<td>4%</td>
<td>16%</td>
<td>3%</td>
</tr>
<tr>
<td>Sint Maarten</td>
<td>79%</td>
<td>8%</td>
<td>14%</td>
<td>2%</td>
</tr>
<tr>
<td>Turks and Caicos</td>
<td>78%</td>
<td>4%</td>
<td>19%</td>
<td>2%</td>
</tr>
<tr>
<td>Trinidad and Tobago</td>
<td>77%</td>
<td>8%</td>
<td>14%</td>
<td>1%</td>
</tr>
<tr>
<td>Antigua and Barbuda</td>
<td>76%</td>
<td>7%</td>
<td>16%</td>
<td>1%</td>
</tr>
<tr>
<td>Belize</td>
<td>76%</td>
<td>9%</td>
<td>16%</td>
<td>1%</td>
</tr>
<tr>
<td>Jamaica</td>
<td>74%</td>
<td>8%</td>
<td>16%</td>
<td>1%</td>
</tr>
<tr>
<td>Dominica</td>
<td>69%</td>
<td>10%</td>
<td>21%</td>
<td>2%</td>
</tr>
<tr>
<td>Saint Kitts and Nevis</td>
<td>68%</td>
<td>3%</td>
<td>26%</td>
<td>3%</td>
</tr>
<tr>
<td>Guyana</td>
<td>63%</td>
<td>11%</td>
<td>24%</td>
<td>2%</td>
</tr>
<tr>
<td>Curacao</td>
<td>63%</td>
<td>5%</td>
<td>31%</td>
<td>2%</td>
</tr>
<tr>
<td>Barbados</td>
<td>62%</td>
<td>5%</td>
<td>33%</td>
<td>1%</td>
</tr>
<tr>
<td>Grenada</td>
<td>61%</td>
<td>8%</td>
<td>27%</td>
<td>4%</td>
</tr>
<tr>
<td>Saint Vincent and the Grenadines</td>
<td>59%</td>
<td>11%</td>
<td>30%</td>
<td>4%</td>
</tr>
<tr>
<td>Cayman Islands</td>
<td>58%</td>
<td>2%</td>
<td>38%</td>
<td>2%</td>
</tr>
<tr>
<td>Bermuda</td>
<td>49%</td>
<td>4%</td>
<td>45%</td>
<td>2%</td>
</tr>
</tbody>
</table>

### Livelihood disruptions

<table>
<thead>
<tr>
<th>Location</th>
<th>Loss of jobs/reduced salaries</th>
<th>Hard to resort to secondary income sources</th>
<th>No change</th>
<th>Increased employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guyana</td>
<td>65%</td>
<td>35%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trinidad and Tobago</td>
<td>65%</td>
<td>35%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Antigua and Barbuda</td>
<td>63%</td>
<td>37%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saint Lucia</td>
<td>61%</td>
<td>39%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turks and Caicos Islands</td>
<td>61%</td>
<td>39%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belize</td>
<td>61%</td>
<td>39%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jamaica</td>
<td>60%</td>
<td>40%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cayman Islands</td>
<td>56%</td>
<td>44%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grenada</td>
<td>55%</td>
<td>45%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dominica</td>
<td>53%</td>
<td>47%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saint Kitts and Nevis</td>
<td>52%</td>
<td>48%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sint Maarten</td>
<td>50%</td>
<td>50%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saint Vincent and the Grenadines</td>
<td>45%</td>
<td>55%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curacao</td>
<td>43%</td>
<td>57%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bermuda</td>
<td>43%</td>
<td>57%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aruba</td>
<td>42%</td>
<td>58%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Legend: yes, no*
The second round of the CARICOM Caribbean COVID-19 Food Security and Livelihoods impact survey was launched via a webform, which was accessible on mobile/smartphone and PC/desktop. The data collection period was inclusive of 14 June to 1 July 2020. The survey was circulated via email, social media, SMS, media and other communication channels.

The World Food Programme (WFP) performed the data collection, monitoring and analysis. Responses were visualised live on an interactive dashboard and monitored to ensure their legitimacy based on cross referencing with prior knowledge and secondary data. Data validation methods were designed into the survey form to mitigate against intentional or unintentional outliers.

The qualitative analysis was performed in collaboration with Joseph Xu from Google’s AI unit using Natural Language Processing (NLP). NLP, a branch of AI which analyses and interprets human languages, provided: (a) a sentiment analysis to determine the number of positive versus negative responses and (b) auto-categorisation of responses. To moderate the non-representative nature of the data, the analysis team further refined the classifications presented by the algorithms.

WFP expresses warm appreciation to Flow and Digicel for distributing the survey link by SMS. Special thanks to the International Telecommunication Union for their support in facilitating the SMS distribution. Thanks to UNHCR for their support with the Spanish translation of the survey.

This report was prepared for WFP Caribbean by Kagin’s Consulting - Edward J. Taylor, Justin Kagin, Momir Blazek, Julian Fletcher-Taylor, Rebbeca Morton, Sebastian Fletcher-Taylor and Heng Zhu.
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