

# **Food Security in Times of Crisis:**

## **The Impact of COVID-19 on Household Food Security in Curaçao**



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## Abstract

Since 2014, hunger and food insecurity has been on the rise globally. The emergence of the COVID-19 pandemic posed an additional threat to food security, which makes reaching the target of Sustainable Development Goal 2: ending hunger by 2030 even more distant. This research aims to analyse the effects of the COVID-19 pandemic on household food security in Curaçao. In doing so, it addresses two gaps in the literature: the limited body of scholarly literature on food security in Curaçao and the effects of COVID-19 on food security in urban environments. By conducting surveys among local households, expert interviews with staff of local non-governmental organisations, and policy analysis, this study aimed to unravel how COVID-19 impacted food security in Curaçao and how both the government and non-governmental organisations in Curaçao are dealing with food security. The study found, first, that the pandemic impacted food access the most and food availability the least. Second, the Curaçaoan government policies do not target food security directly, but policies targeted at poverty alleviation may increase household resilience. Third, non-governmental organisations are directly involved in increasing current household food security by handing out meals or food (packages) and increasing future household food security by educating people on how to grow food. To conclude, Curaçao as a country is food secure which helps explain why there are no policies aimed at food security. However, on the household level, people suffer from food insecurity, as became evident during the pandemic. Shocks impacting food security are rising, and small island developing states such as Curaçao are vulnerable to shocks. Hence, this study recommends that the Curaçaoan government creates policies to protect poor and vulnerable households against possible future shocks Curaçao could be facing. Policies are also needed to enhance household food security to reduce the number of households dependent on food aid programmes.

**Keywords:** Household food security, resilience, COVID-19, small island developing states (SIDS), Curaçao

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## **List of acronyms**

ABCD= Asset Based Community Development

ANG= Netherlands Antillean Guilder

BP= Before Pandemic

CARICOM= Caribbean Community

CBS= Central Bureau of Statistics

CS= Current situation

GDP= Gross Domestic Product

NCD= Non-communicable Disease

NDP= National Development Plan

NGO= Non-governmental Organisation

SIDS= Small Island Developing States

SP= Since Pandemic

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# 1. Introduction

## 1.1 Problem statement and justification of the research

In 2015, the United Nations launched the 2030 Agenda for Sustainable Development, consisting of 17 goals and 169 targets. The highly ambitious Agenda is a universal call to action to end poverty, protect the planet and ensure that by 2030 all people enjoy peace and prosperity. Goal 2 of this Agenda is to “End hunger, achieve food security and improved nutrition and promote sustainable agriculture” (United Nations, 2020: 7). However, achieving this goal by 2030 is rather challenging from 2014 onwards; hunger and food insecurity have risen globally due to conflicts and climate shocks (United Nations, 2020). On top of that, the emergence of the COVID-19 pandemic posed an additional threat to food and nutrition security, making the target of ending hunger even more distant. Before the COVID-19 pandemic, 650 million people globally were already hungry, and around 2 billion people were suffering from food insecurity. In 2020, an additional 70 to 161 million people were expected to experience hunger due to the COVID-19 pandemic (United Nations, 2021). Food insecurity increases the risk for malnutrition and illness but also contributes to conflict and political instability. Increasing food security does, therefore, benefit not only individuals but also the communities and countries they live in (Melgar-Quinonez & Hackett, 2008). Future shocks to food security are inevitable; therefore, governments must prepare their countries and people for and make them more resilient to future shocks (FAO, 2021).

This research focuses on the effects of the COVID-19 pandemic on food security. The COVID-19 pandemic revealed the fragility of our food systems and how easily those can be disrupted (Béné, 2020). One of the major responses to COVID-19 of countries across the world was to prioritise their own food supply, disproportionately impacting food import-dependent countries. In addition, governments adopted a range of measures to contain and delay the spread of the virus. These include social distancing, restrictions on mobility, and temporary closure of most workplaces, generally known as a ‘lockdown’. Lockdown measures create significant economic stresses, negatively affecting household food security and resilience (Devereux et al., 2020; Ansah et al., 2019). COVID-19 affects food security both directly and indirectly by disrupting food systems and affecting household incomes and physical access to food (Ibid.). In particular, this research focuses on the effects of COVID-19 on household food security and resilience in Curaçao. Curaçao is a small island nation situated in the southern Caribbean Sea, north of the Venezuelan coast. Concerns regarding food security are valid for Curaçao since its small island nation characteristics (e.g. food import dependency) make the island vulnerable to global environmental and economic change processes (Lowitt et al., 2015). COVID-19

and accompanying restrictions have considerably impacted food security in Curaçao. Among other things, the absence of tourists increased already pressing problems such as unemployment, poverty, and hunger (NU, 2020). More and more islanders became dependent on food aid programmes: the local Food Bank stated that since COVID-19, more than 18,000 new customers have applied for food packages. The precarious situation in Curaçao during the COVID-19 pandemic was widely covered in the media (see, for example, Trouw, 2020; Comité Koninkrijksrelaties, 2020; NU, 2020).

## **1.2 Research objective and questions**

This study aims to understand how COVID-19 impacted household food security and resilience in Curaçao and how both the government and non-governmental organisations (NGOs) in Curaçao envisage ensuring food security in the face of a shock, but also how they try to make households more resilient to future shocks. With this study, I aim to address two gaps in academic knowledge. First, there is a limited body of scholarly literature available on food security in Curaçao. The search terms Curaçao AND (“food security” OR “food availability”) on Scopus and Web of Science showed no hits, suggesting that there is a considerable gap in knowledge on food security in Curaçao. This suggestion is supported by different studies on food security in small island developing states (SIDS) and the Caribbean, which state that more context-specific research into food security is needed. Context-specific research is needed because of the high diversity within and across Caribbean SIDS, which challenges standardised research and methodologies (Lincoln Lenderking et al., 2021; Lowitt et al., 2015). Second, most literature on the effects of COVID-19 on food security and resilience focuses on either rural environments or the broader macroeconomic national level and not on urban environments (Ouoba & Sawadogo, 2021). It is argued that it is necessary to consider urban environments, as, for example, populations of African cities were more affected by the pandemic than rural populations (Ibid.). This research addresses these two limitations in literature by focusing on Curaçao and the urban environment. The main question of this study is: *How has COVID-19 affected household food security in Curaçao, and how do the government and non-governmental actors aim to improve food security and household resilience?* To help answer this question, the following sub-questions will be addressed:

1. How has COVID-19 affected household food security in Curaçao?
2. How is the government of Curaçao involved in enhancing households’ resilience?
3. How do non-governmental organisations try to increase household food security in Curaçao?

### 1.3 Study area

This research was conducted in Curaçao, a small island nation of 151.066 residents (CBS Curaçao, 2022). Curaçao is located in the southern Caribbean Sea and the Dutch Caribbean region, north of the Venezuelan coast. It is a constituent country of the Kingdom of the Netherlands (see Figure 1.1). The capital of the island is Willemstad.



Figure 1.1: Location of Curaçao. Source: Voxeurop, 2009.

### 1.4 Thesis outline

This thesis is comprised of eight chapters. Chapter 1 provides an introduction to the research. This includes the problem statement, gap in academic knowledge, research objectives and questions, and a short introduction to the study area. Chapter 2 presents the theoretical framework. Here existing theories and literature on household food security, resilience, and the effects of COVID-19 on food security are discussed. This chapter concludes with the conceptual scheme, which provides a visualisation of how the different actors and concepts of this research are related. Chapter 3 presents the methodological approach of the study. This includes a reflection on the quality of the research and its limitations. Chapter 4 presents the research context, including Curaçao's most relevant socio-economic characteristics, the impact of COVID-19 on Curaçao, and its small island characteristics. Based on survey outcomes, chapter 5 analyses the impact of the COVID-19 pandemic on household food security in Curaçao. These outcomes are then compared to a study on the impact of COVID-19 on livelihoods in the Caribbean region and complemented by real-life stories derived from interviews. Chapter 6 analyses how the government of Curaçao is involved in enhancing households' resilience. Chapter 7 provides an overview of non-governmental organisations (NGOs) in Curaçao are concerned with food security and analyses how five NGOs in specific try to improve household food security. The main findings and theoretical contributions of this study are discussed in chapter 8, along with recommendations for policy and future research.

## 2. Theoretical framework

### 2.1 Household food security

In 1996, the World Food Summit adopted a definition of food security as a condition that exists “when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (FAO, 2006: 1). According to this definition, food security is based on four dimensions – availability, access, utilisation, and stability – and it is stated that food security objectives cannot be met unless these four dimensions are somewhat fulfilled (Beckford, 2012). *Availability* refers to the presence of sufficient quantities of food of appropriate quality. This can be supplied through domestic production, food imports, and food aid. *Access* refers to individuals having adequate access to resources for acquiring appropriate foods for a nutritious diet. These resources can be economic, physical, legal, political, and social. *Utilisation* refers to sufficient and safe food intake through adequate diet, clean water, sanitation, and health care. It also refers to a state of nutritional well-being where all physiological needs are met. Last, *stability* recognises that food security, or insecurity, can be transitory, cyclical, or chronic. For a population, household or individual to be food secure, they must have access to adequate food at all times and should not risk losing access to food due to unexpected shocks (e.g. an economic or climate crisis) or cyclical events (e.g. seasonal food insecurity). Thus, the concept of stability can refer to both the availability and access dimensions of food security (FAO, 2006; McKay, Haines & Dunn, 2019).

Food security can be achieved and measured at different levels. In this study, the focus is on food security at the household level. However, food security at the household level is not isolated but is affected by global, national, regional, and individual factors (Figure 2.1). Figure 2.1 shows that having enough food to feed everyone on a national level is no guarantee that everyone will be able to feed themselves. Household and individual characteristics such as income, physical access, and access to healthcare, and other basic needs impact the ability of individuals to feed themselves and their households (Evans, 2011). Therefore, three fundamental elements to achieving household food security can be distinguished: adequate food availability, adequate access to food by all people, and appropriate food utilisation (Deitchler et al., 2011). There is a hierarchical relationship between these three fundamental elements: for households to have access to food, food must be available. For a household to have appropriate food utilisation, a household must have access to food (Ibid.). Since food security is a multidimensional concept, it is difficult to properly measure and monitor, which is why there is no universal way of measuring it (Carletto et al., 2012; Pérez-Escamilla & Segall-Corrêa, 2008). Two common methods of measuring household food security can be distinguished: the

household income and expenditure surveys and the experience-based measurement scales (Pérez-Escamilla & Segall-Corrêa, 2008). The household income and expenditure method is based on interviewing respondents about the amount of money they spend on food and other necessities. These questions can be asked on different time reference periods, for example, the week(s) or month(s) preceding the survey. This method estimates calories consumed on average per household member per day and is an indirect way of measuring food security (Ibid.).

The experience-based measurement is a direct measure of food security and consists of a list of ten to 18 questions, focusing on the multidimensional nature of food insecurity. The questions are about uncertainty and worry about food, inadequate food quality, and insufficient food quantity. The theory behind this measurement is that chronic food insecurity triggers a process that is controlled at the household level and involves predictable coping strategies or adjustments that are adapted to the intensity of the food insecurity challenge (Pérez-Escamilla & Segall-Corrêa, 2008). This process looks as follows: a food-secure household may experience a negative event or shock (e.g. the loss of employment of the head of the household). This event or shock then causes a state of anxiety and worry in the household, resulting in uncertainty about how to maintain food on the table in the near future. If the situation is not likely to change, households often start using strategies to make the food last longer to secure food on the table (e.g. adding water to milk). Also, they start replacing costly food items with cheaper items (e.g. consuming more pasta or rice instead of vegetables). At this point, households sacrifice their dietary quality to sustain their caloric needs. The last step is that household members start reducing the amount of food they eat, leading to hunger. This often happens first in adults and then in children (Ibid.).

Both methods come with strengths and weaknesses and therefore complement each other. Thus, to grasp the different layers of the food insecurity problem, ideally, more than one measuring method should be used (Pérez-Escamilla & Segall-Corrêa, 2008). One such method is the dietary diversity score to measure food adequacy (food utilisation), initially developed by Krebs-Smith et al. (1987). The score is calculated based on the intake of food items from several food groups over the past 24 hours (Kennedy et al., 2013).

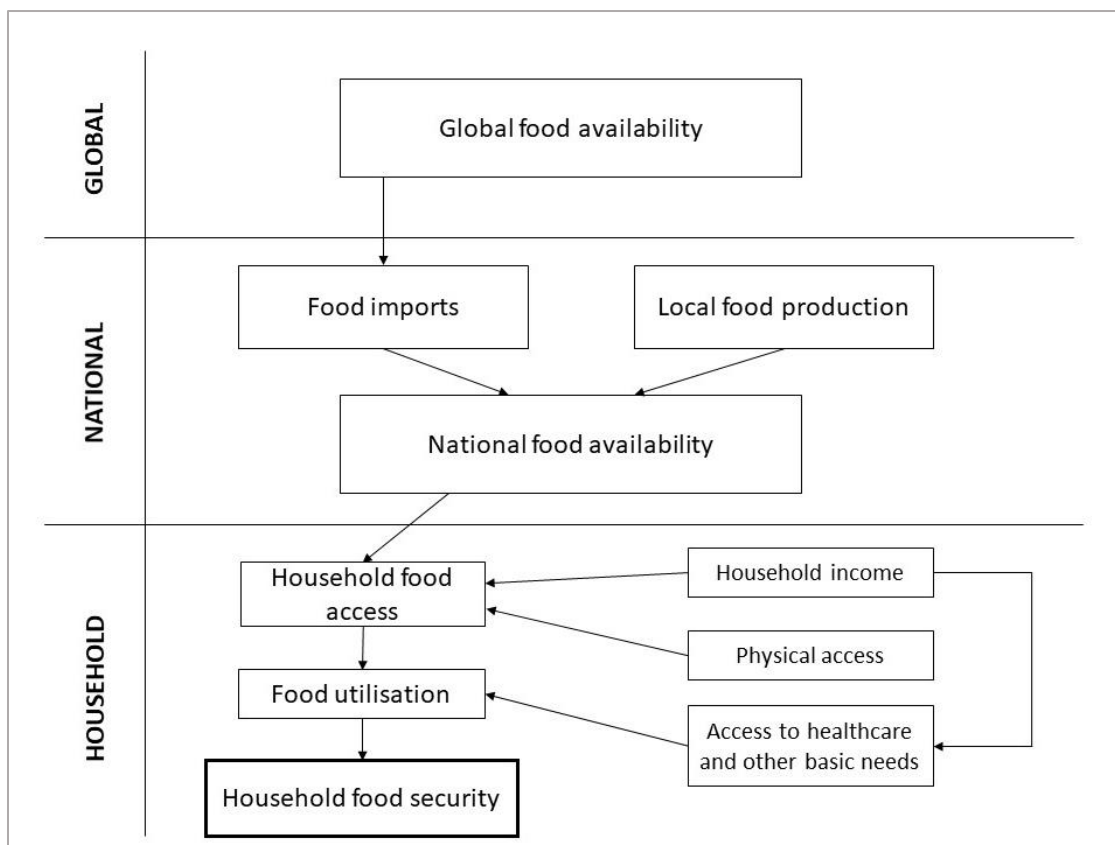


Figure 2.1: Household food security in relation to national and global food security (based Pérez-Escamilla & Segall-Corrê, 2008).

## 2.2 Household resilience

Resilience can be defined as “the capacity of socio-economic systems (e.g. households) to withstand shocks through absorption, adaptation, and transformation” (Ansah et al., 2019: 2). Shocks are events that can disrupt the normal functions of socio-economic agents and their activities. In this way, a shock can impose challenges which threaten household food security. Two types of shocks are often discussed: covariate shocks, affecting many individuals simultaneously (e.g. weather related, such as droughts or floods) and idiosyncratic shocks (e.g. sickness or death), affecting individuals or a single household in particular. The extent to which households use strategies to deal with shocks in their food systems, as well as their success in doing so, is a measure of resilience. A food system is considered resilient when it maintains its essential function (maintaining food security) even when confronted with shocks (Ibid.).

Béné et al. (2012) (cited in Ansah et al., 2019) distinguish three key attributes of resilience. These are (1) absorptive capacity, (2) adaptive capacity, and (3) transformative capacity. Absorptive capacity is “the ability to minimise exposure to shocks and stresses when possible and to recover quickly when exposed” (Ouoba & Sawadogo, 2021: 2). Indicators of the absorptive capacity include social

relationships or ties, ownership of assets, cash savings, access to informal safety nets, the availability of disaster preparedness measures, and the mitigation of the effects of a disaster. Adaptive capacity “involves making proactive and informed choices about alternative livelihood strategies based on changing conditions” (Ibid.: 3). Indicators of adaptive capacity include building links between social capital, aspirations and confidence to adapt, livelihood diversification, human capital, and exposure to information. Transformative capacity refers to “enabling conditions that promote more sustainable resilience” (Ibid.: 3). The connection between social capital, access to markets, access to services, women’s empowerment and governance are indicators of the transformative capacity (Ibid.).

These three resilience capacities are related with the decisions, choices and behaviours households undertake, either before or after a shock (Ansah et al., 2019). Jointly or autonomously, the three resilience capacities affect households in the wake of shocks through resilience building strategies. As Figure 2.2 shows, Ansah et al. (2019) distinguish tangible and intangible resilience-building strategies. Tangible resilience-building strategies are income and savings, assets, or capital (human, financial, natural, social, and physical) and production or efficiency. A household with more assets is likely to be more resilient to shocks that threaten food security because they could, for example, sell assets to maintain their current level of consumption. Also, a household with more capital can use these to lessen or eliminate the consequences of food-security-threatening shocks. For example, a household with a lot of family labour (human capital) could use some of it to do off-farm employment to supplement their income, whereas those with a lot of social capital can rely on their networks for help during difficult times. Production and efficiency are (often) not so relevant for urban households but they are for farmer households (Ibid.).

Intangible strategies include risk attitudes or perceptions, self-esteem and self-efficacy or tenacity that may increase or undermine resilience capacity (Figure 2.2). The intangible strategies influence the tangible strategies. For example, people’s ability to take risks, their self-efficacy, tenacity, and faith determine their entrepreneurial mindset or agency. Risk-averse behaviour and entrenched faith in gods is, among others, a reason why many poor farmers in traditional and rural societies often remain poor and food insecure. Further, the economic, legal, and political settings in which a household operates could influence their resilience-building strategies. This means that policy interventions and programmes targeting livelihood or welfare outcomes influence the resilience-building strategies, and thus the resilience capacity of a household (Ansah et al., 2019).

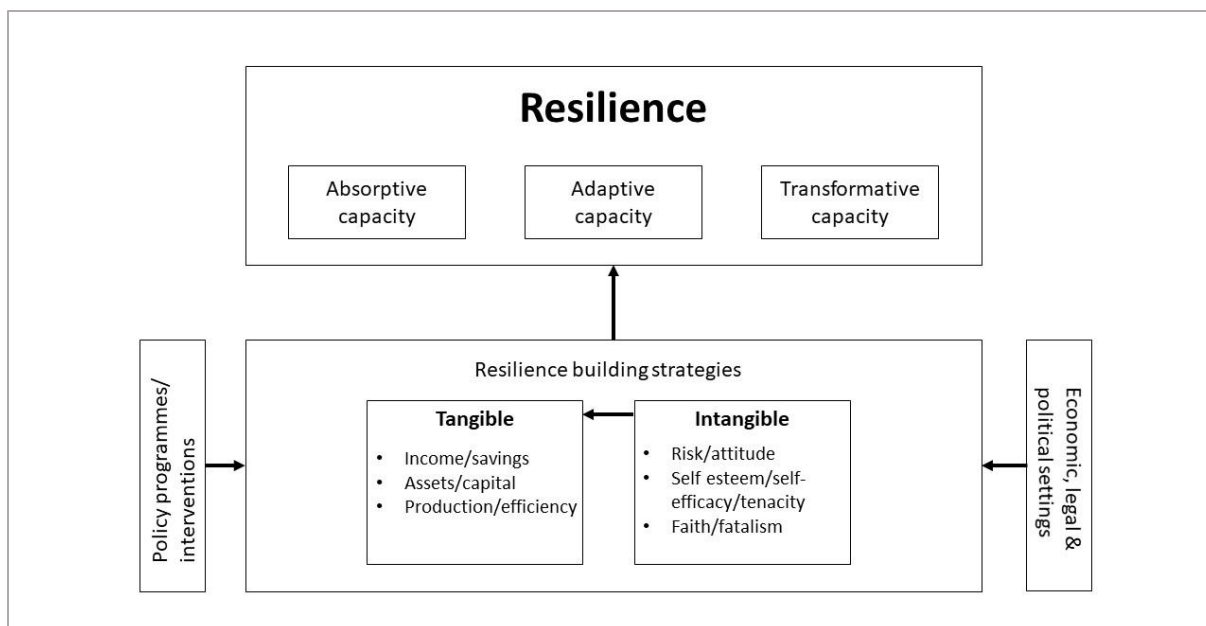


Figure 2.2: Resilience framework (based on Ansah et al., 2019).

### 2.3 Actors active in enhancing household food security and resilience

This research mainly focuses on two actor groups working on household resilience and food security: the government and NGOs. By replacing households' vulnerability to shocks with resilience, governments can play a significant role in supporting households to achieve food security. This can be done by policy interventions and programmes targeting social protection. Social protection is defined as "public actions carried out by the state or privately that can enable people to deal more effectively with risk, vulnerability to crises or change that help to tackle extreme and chronic poverty" (Evans, 2011: 8). Social protection comes in many forms, such as social safety nets that provide cash and in-kind transfers. However, the best form of social protection a government can provide is decent jobs or livelihoods. This can be done by creating employment and human capital (e.g. providing skills training and education) and facilitating re-entry into the workforce. Other examples of social protection relevant for food security are mother-and-child health and nutrition systems or school feeding programmes. Social protection can have a transformative impact on vulnerable people by providing them with a secure platform to build livelihoods and break free of dependency and anxiety. To achieve this, the people who need social protection must have access to it. This is sometimes not the case, leaving those people extra vulnerable (Ibid.).

Tefera et al. (2017) emphasise the important role of the government in enhancing household resilience and food security in their research on sustainable food security in Ethiopia. They state that the institutional environment (government policies, programmes and civil society organisations) can

enhance resilience by improving productive capacity (e.g. investment in research and extension), augmenting income (e.g. through income transfers), improving market access (e.g. building infrastructure), and improving basic services that contribute to the betterment of living standards and income. Favourable government policies increase possibilities to gain and retain secure access to production assets, particularly land and other natural resources, and improve access to health care and education to support households in generating greater income and savings, ensuring resilience (Tefera et al., 2017). Smith and Frankenberger (2018) also mention the importance of policy and governance. They state that formal social safety nets are widely recognised as a means for building resilience by providing cash, food, insurance, and other resources to help households smooth their incomes in the face of shocks. Moreover, resilience can be enhanced by promoting human capital development and income-generating activities (Smith & Frankenberger, 2018).

In addition, it is important to consider the role of NGOs regarding food security since they have (among other actors) shown themselves to be adept at complementing or supplementing the food security efforts of government agencies worldwide (Banyen & Kotin, 2015). Since NGOs are a diverse group of organisations, ranging from small informal groups to large formal agencies, it is quite hard to provide an all-encompassing definition. However, for clarity, in this research, the following definition of NGOs will be used: “self-governing, private, not-for-profit organisations that are geared to improving the quality of life for disadvantaged people.” (Vakil, 1997, cited in Lewis, 2010: 3). Roughly two different but often interrelated activities of NGOs can be distinguished: delivery of services to people in need, and policy advocacy and organising public campaigns to pursue social transformation (Lewis, 2010). NGOs can play three different roles in society: the role of implementer, catalyst, and partner. The implementer role entails mobilising resources to provide goods and services to the people who need them. The implementer role has recently become more prominent since governments and donors increasingly contract NGOs to carry out specific tasks for payment. Also, NGOs are increasingly responding to human-made emergencies or natural disasters through humanitarian assistance. The catalyst role can be defined as “the NGO’s ability to inspire, facilitate, or contribute to improved thinking and action to promote social transformation” (Ibid.: 2). This could be addressed towards individuals or groups in local communities, as well as other actors in development (such as the government, private sector, or donors). Lastly, the partner role is concerned with the growing trend for NGOs to work with government, donors, and the private sector on joint activities, for example by providing specific inputs within a broader multiagency programme or project or undertaking socially responsible business initiatives (Ibid.). In their study on the specific role and activities of NGOs in Bangladesh in improving food security, Hyder and Husain (1999) distinguish three ways of involvement.

These are: producing food, improving access to food, and involvement in cross-cutting issues such as health and nutrition, gender equity, and developing community institutions (Hyder & Husain, 1999).

Although this study focuses on the role of the government and NGOs only, it is worth emphasising that more actors are or can be involved in enhancing resilience and food security. For example, individuals generate substantial resilience through friends, families, and local institutions such as faith-based organisations and community groups (i.e. social capital, one of the tangible resilience-building strategies, see Figure 2.2). By turning to friends or family to share food, money and information, individuals can increase their ability to recover from, for example, a lost job or reduced remittances (Evans, 2011). However, for the sake of time and scope, this research only focuses on two actors.

## **2.4 The impact of COVID-19 on food security**

COVID-19 (Coronavirus disease 2019) is an infectious disease caused by the SARS-CoV-2 virus. It was discovered in December 2019 in Wuhan, China, and has quickly spread around the world (CDC, 2021). The COVID-19 pandemic and its quarantine measures resulted in the cessation of economic activities of most households in urban areas, which had important implications on their food security (Ouoba & Sawadogo, 2021). The COVID-19 pandemic most directly and severely impacts *food access*. The loss of income and assets threaten economic access to food. The poorest households spend around 70 per cent of their incomes on food and have limited access to financial markets, making their food security particularly vulnerable to income shocks (Laborde et al., 2020). Closing shops and markets due to workers' illnesses or social distancing measures affects the physical access to food (Ouoba & Sawadogo, 2021). *Food availability* and *stability* are threatened by agricultural production and supply chain disruptions. The vulnerability of food supply chains differs strongly across food systems. Global supply chains for staple foods have held up reasonably well with relatively few substantial supply disruptions, even in countries with strict social distancing requirements. Labour-intensive value chains, mostly found in poor countries, are more affected than capital-intensive, modern food value chains (Laborde et al., 2020; Swinnen & McDermott, 2021). In labour-intensive value chains, many people work closely together, increasing the risk of COVID-19 transmission (Laborde et al., 2020; O'Hara & Toussaint, 2020). Disruptions in food availability and a fear of running out of food lead people to buy more than usual to accumulate stock. A resilient food system can alleviate food insecurity by reducing panic purchasing and shifting demand. The resilience of a food system, however, depends on a governments ability to maintain the flow of capital, international trade and transportation and ensure long-term food availability in times of a shock (Ouoba & Sawadogo, 2021).

Even though most supply chains have held up reasonably well, the near-total closure of international passenger aviation severely disrupted the supply chains of specialised products that rely on air freight (Swinnen & McDermott, 2021; Laborde et al., 2020). Also, in 2020, 21 countries had announced or introduced (temporary) export restrictions, which covered almost four per cent of the caloric value of globally traded food. The key problem with food export restrictions is that they can create an upward spiral in world prices they intend to prevent (Laborde et al., 2020).

The poor are most affected by the impact of COVID-19 on food security. Because of rising food prices, falling incomes, or both, people will have less real income to pay for their food and adjust accordingly. This will lead them to buy cheaper staple foods instead of expensive products such as dairy or meat, reducing their dietary diversity and nutrient intake (Swinnen & McDermott, 2021; Laborde et al., 2020; O'Hara & Toussaint, 2020). Also, poor people often work in jobs that require physical labour. In contrast to wealthier people, they do not have the option to work from home during a lockdown (Swinnen & McDermott, 2021).

## **2.5 Conceptual scheme**

The key concepts of this research are household food security and household resilience. The operationalisation of the key concepts can be found in Appendix 1. The key actors in this research are the government and NGOs. The conceptual scheme (Figure 2.3) provides an overview of how the main concepts and actors in this research relate to each other, indicated by arrows. The + and – next to the arrows indicate whether this relation is positive or negative. Household food security has three dimensions: access, availability, and utilisation. If a household does not have access to food, this impacts food utilisation (indicated by the striped arrow from food access to utilisation). COVID-19 is negatively impacting a household's access to food, the availability of food and food utilisation. When a household is resilient, it is better capable of coping with the adverse effects of COVID-19. This ensures that their (economic) access to food will remain intact. However, COVID-19 is also negatively impacting a household's resilience. The actors, the government and NGOs, can reduce the negative impact of COVID-19, and positively contribute to food security. The government can increase household resilience with policies aimed at social protection. The government can also increase food availability in Curaçao with agricultural policies and the import and export of foods. NGOs and their initiatives contribute to food availability, utilisation, and access.

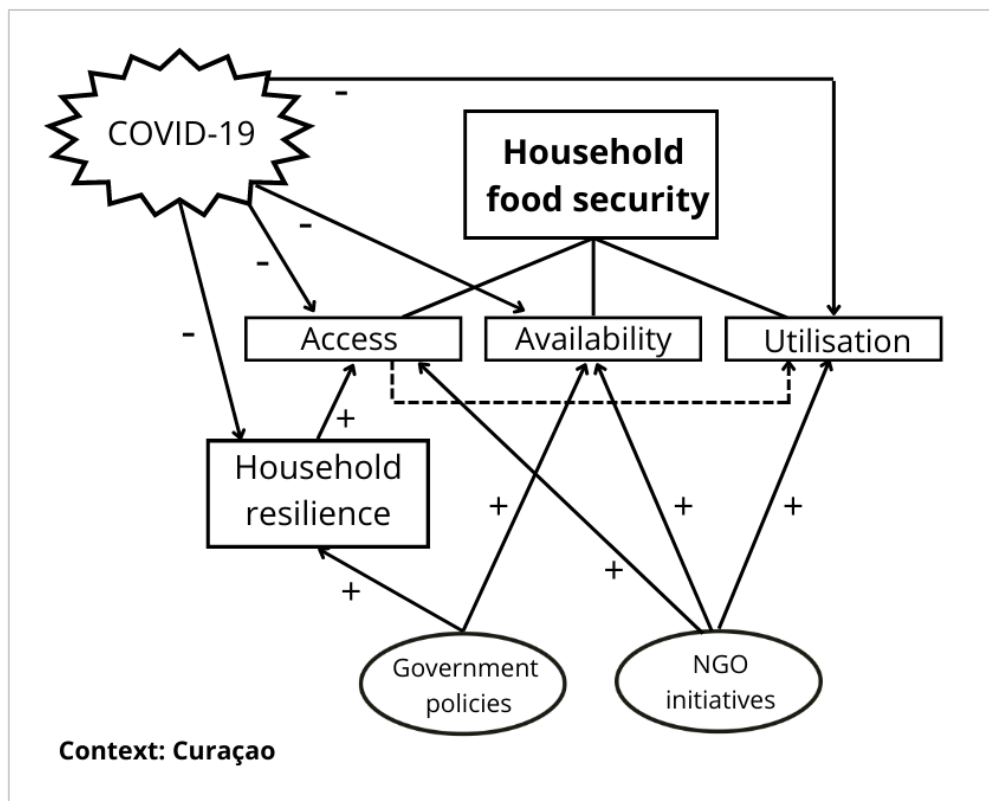


Figure 2.3: Conceptual scheme.

### **3. Methodology**

#### **3.1 Positionality and ethics**

Research is never neutral and completely objective as the positionality of the researcher influences the research and its outcomes. My positionality stems from being a white female from a European country and pursuing academic education. Doing research in Curaçao, I had to be highly aware of my positionality, particularly that I am a white, Dutch female. The autonomy of Curaçao within the Kingdom of the Netherlands is a rather sensitive topic. This became once again apparent during the negotiations between the Dutch and Curaçaoan governments regarding the terms and conditions of the COVID-19 aid packages (mainly in the form of money to support the Curaçaoan government in feeding their people). Because of my positionality, I had to adjust my research a bit during my fieldwork in Curaçao. I planned to conduct a survey among poor, urban households and hoped to reach them through the local food bank or other NGOs. However, once in the field, several people told me that it was impossible for me to get poor households to fill out my survey. One of the main reasons behind that was that I do not speak Papiamentu, the national language and that they (the poorest households) often do not speak Dutch or English.

On top of that, my origin, skin colour and gender made it even more difficult to connect with these households. I was advised to broaden my target audience to increase the likelihood of success and ensure an acceptable response rate for the survey. Therefore, I decided to target local households in general and not poor households in particular.

Regarding research ethics, I followed the GSSS Ethical Guidelines for Students Research set by the University of Amsterdam. Voluntary participation, informed consent, safety in participation, and privacy and anonymity were the main ethical principles in this research. With all research participants, I ensured informed consent. Informed consent is an interpersonal process between researcher and participant, where the prospective participant understands what the research project is about and what participation would involve. In that way, participants can make their own free and informed decision about whether and on what terms to participate (Guillemin & Gillam, 2007: 272). The interview participants in this research were first contacted via e-mail or LinkedIn. In this first contact, I thoroughly explained the nature of my research. At the beginning of the interview, I again mentioned the nature of the research and explained the implications of their participation. For survey participants, I explained the nature and implications of the research in an introductory text (see Appendix 2). Here I emphasised that participants were free to choose not to answer any questions they were

uncomfortable with and that they could stop their participation in the survey at any moment. If the participants proceeded with the survey, they automatically agreed with the terms. In the introductory text, I also mentioned my contact information, encouraging participants to contact me at any point of the research with questions, comments, and inquiries.

Regarding privacy and anonymity, I asked interview participants whether they wanted to be anonymous or if I could use their names, quotes from the interview, and, if applicable, the name of their organisations. I also asked their permission to record the interview. After verbal agreement at the beginning of the interview, I started the recording and continued the interview. For the survey, participants were anonymous, and only demographics such as age, gender, marital status, household size, and household income were asked. But also for these questions, participants were free not to answer them.

The gathered interview data was carefully protected, both during and after fieldwork. Interviews were recorded on either my phone or laptop. The recordings were safely stored on OneDrive, protected with two factor-authenticator. After transcribing the interviews, the recordings were deleted from my phone and/or laptop. The anonymised survey data will be shared with ZonMW, a research institute my local supervisor was working with. ZonMW will use the survey data in their research on the impact of COVID-19 on food security in Curaçao.

Lastly, this research was conducted during the COVID-19 pandemic. Doing research during COVID-19 came with some additional ethical considerations. Ensuring the safety of the participants and myself was the main priority. Therefore, I followed Curaçao's local guidelines regarding wearing a face-mask and keeping a safe distance, and I respected participants' preferences, e.g. whether they wanted to meet online or in person.

### **3.2 Research design**

This research is a qualitative single case study on the impact of the COVID-19 pandemic on food security in Curaçao and how both the government and NGOs are involved in enhancing food security and household resilience. The case study design was best suited for this research because of the complexity and multi-dimensional nature of food security. The case study design provides the opportunity to generate an in-depth and multi-faceted understanding of the impact of the COVID-19 pandemic on food security. I opted for an exploratory research design because of the knowledge gap in the academic literature on food security in Curaçao.

### **3.3 Unit of analysis and units of response**

In this research, the unit of analysis is household food security affected by COVID-19. The units of response are 68 local households and eight key informants of local non-governmental organisations, experts on agriculture in Curaçao, and a representative of the Ministry of Social Development, Labour and Welfare.

### **3.4 Research methods**

In this research, I used both primary and secondary data. The data collection methods that I used to collect primary data were surveys and interviews. The survey was an unsupervised, self-completion questionnaire with both open-ended and closed-ended questions. The survey was created in Qualtrics, an online survey tool, and was distributed online. The survey could be accessed via a hyperlink and was entered by 139 local households. The goal of the survey was to research the impact of the COVID-19 pandemic on household food security and consisted of four parts. Part one was about respondent demographics. Part two focused on the household's current food security situation based on the three dimensions of household food security. Part three focused on the households' situation with regard to food security before the COVID-19 pandemic. In parts two and three, there is overlap in questions to measure the impact of the pandemic. Part four consists of questions about a healthy diet. I conducted eight semi-structured interviews; five were conducted among employees of local NGOs and three with (former)employees from governmental institutions. The interviews aimed to better understand the situation in Curaçao when the pandemic hit and to find out how both the government and NGOs reacted to the pandemic regarding household resilience and food security. An overview of the questionnaire and interview guides can be found in Appendices 2 and 3. The secondary data included policy documents and newspaper articles. In addition, because there is a lack of data available on food security in Curaçao, I used articles and research on food security in other Caribbean islands or small island states. This secondary data was used to form Chapter 4, the contextual chapter, and Chapter 6.

### **3.5 Sampling methods**

In this research, I used purposive sampling approaches. For the survey, I used 'snowball sampling'. My local contacts acted as my starting point, and they introduced me to organisations, institutions, or individuals that could help me distribute my survey. I distributed the survey via varying channels to get my sample as representative as possible. First, I posted a short introductory text and the survey link on a popular Facebook group called '*Durf te vragen Curaçao*' (Dare to Ask Curaçao). Facebook is a commonly used means of communication in Curaçao; not only individuals but also many businesses

and even formal institutions use Facebook. Second, one of my local contacts introduced me to a church. This church included a piece about my research and the survey link in their weekly newsletter. Because Curaçao is a Catholic island, and people from all walks of life attend church, it was an excellent way to address a broad and varied audience. Third, another local contact introduced me to the University of Curaçao. The University of Curaçao sent out an e-mail to their students and staff with the question to fill out my survey. I emphasised that students who still lived at home had to complete the survey with their parents. Fourth, one of my local contacts worked for a local newspaper called '*het Antilliaans Dagblad*'. *Het Antilliaans Dagblad* was willing to publish an article about my research and survey in the newspaper. In addition, they also posted the link to the article plus the link to the survey on their Facebook page. Lastly, one of my local contacts had connections with an organisation called '*Unidat di Bario*', an umbrella organisation that works with all neighbourhood organisations in Curaçao. Some neighbourhood organisations are very active and closely connected to their community residents. The director of *Unidat di Bario* shared the link to the survey in several WhatsApp group chats.

For the interviews, I reached out directly to the relevant people working for the government of Curaçao and those working at the NGOs. The government of Curaçao was quite hard to get in touch with. After a few weeks of emailing back and forth, I found the Ministry of Social Development, Labour and Welfare willing to answer my questions, but, in writing only. In addition, I interviewed someone who was involved in an agricultural project that was financed by the former Ministry of Health, Environment and Nature and the representative of the Netherlands in Aruba, Bonaire and Curaçao. NGOs were a bit easier to contact. I spoke with six persons from five different NGOs, all involved in agriculture, food aid, or both.

### **3.6 Data analysis**

I used several data processing methods and programmes in this study. The interviews and policy documents were coded in Atlas.ti. The coding process of the secondary literature was based on deductive reasoning; the codes were based on the policy reconstruction method by Runhaar et al. (2006) (Chapter 6). The coding of the interviews was based on both deductive and inductive reasoning. The first set of codes was based on literature and knowledge already gained in the field. However, during the coding process, I noticed that some topics were mentioned by multiple respondents but did not necessarily fit the codes I already had. When this occurred, I added extra codes. These extra codes were used as vignettes in Section 5.3. While vignettes are mainly used as a data collection method (providing respondents with hypothetical scenarios and asking their opinion about them), Miller et al.

(1997) used vignettes to analyse qualitative data. In their research, the term vignette described the researcher's account of the relevant or core elements and recurrent themes in an interview report of the original interview. Using vignettes based on inductive reasoning, I ensured that interesting, real-life experiences did not get lost.

The survey was created in Qualtrics, an online survey tool, and analysed in Qualtrics and SPSS. Analysing the survey data was also based on both deductive and inductive reasoning. In the first round of analysis, I simply organised and described the collected data based on the dimensions and indicators of food security as explained in Section 2.1 (deductive reasoning). In the second round of analysis, I checked for striking results that did not necessarily match the literature or my expectations (inductive reasoning). The survey analysis can be found in Section 5.1.

### **3.7 The quality of research**

I assess the research quality by looking at the reliability and validity of the research. *External reliability* refers to the degree to which a study can be replicated (Bryman, 2012: 390). According to Bryman (2012), this is a difficult criterion to meet in qualitative research since it is impossible to 'freeze' a social setting and the circumstances of the initial study. Translating this to my research on the impact of COVID-19 on food security in Curaçao, it is impossible to replicate the research completely. This is because the impact of the pandemic will increasingly fade into respondents' memories as the years go by. The outcome will be different even when the same questions are asked to the same people. Researching the impact of a particular event in history is very time-specific. However, when data collection methods are described thoroughly and clearly, as done in Section 3.5 and associated appendices, it should be possible for other researchers to use the same methods and questions (adjusted to the specific event) in future research.

*Internal reliability* refers to whether more than one observer or research team member agrees about what they see and hear (Bryman, 2012: 390). This was not applicable in this study since I carried out this research by myself. However, other students in my cohort also went to Curaçao, and some parts of our research share common ground. There is, for example, one student who researched multi-dimensional poverty reduction in Curaçao. Poverty reduction and household resilience are interrelated; therefore, our findings could confirm and perhaps even complement each other, but of course, they could also contradict. Another student of this cohort also researched food security in Curaçao, so our findings could also confirm, complement, or contradict each other.

*Internal validity* refers to the degree to which researchers' observations match the theoretical ideas they develop (Bryman, 2012: 390). It is argued that internal validity is one of the strengths of qualitative research. Since I used interviews, surveys and policy analysis, the theoretical ideas I will develop will mainly be based on my own observations (i.e. the interviews and surveys) and, to a lesser extent, on secondary observations (i.e. the policy analysis). Therefore, I believe the internal validity of this research will be relatively high.

*External validity* refers to the degree to which findings can be generalised across social settings (Bryman, 2012: 390). In this research, external validity is relatively low because of the small sample size and because the sample is not a representative sample of the population of Curaçao (see Section 5.1).

### **3.8 Research limitations**

The chosen data collection methods used in research may lead to limitations in the research outcomes. One of the data collection methods I used was an unsupervised, self-completion questionnaire with both open-ended and closed-ended questions. An unsupervised self-completion questionnaire comes with both pros and cons. One of the advantages is the absence of the so-called 'interviewer effect'. It can be argued that the absence of an interviewer during a questionnaire can increase data quality because respondents are more likely to give socially desirable answers in the presence of an interviewer. Because of the sensitivity of the topic and the culture of shame in Curaçao, it is plausible to assume that people would have made themselves or their situation look better than they are. However, this type of questionnaire also comes with some cons and therefore causes some limitations to the collected data and results of this study.

First, during an unsupervised, self-completion questionnaire, no one is present to help respondents if they have difficulty answering a question. This may lead to misinterpretation of the questions and answers that do not match the question. Second, in the case of an open-ended question, there is no opportunity to probe respondents to elaborate on their answers. In this way, valuable information can be missed out. Third, the researcher does not know who exactly answers the questionnaire. Of course, I added some demographic questions at the beginning of the survey, but since the survey was filled out online, you cannot know if the person who filled out the survey is who they claim to be. However, the biggest limitation with this type of questionnaire is that it might not be appropriate for some kinds of respondents. Population groups who are, for example, illiterate, do not have access to the internet

or do not know how to use a computer or a smartphone had little or no chance of being included in this research. This may lead to a distortion in the sample's representativeness and limits the generalisation of survey data. Thus, it is important to note that the survey data can only serve as an indication for households with at least one literate household member and internet access, a computer or smartphone and that the results cannot be generalised to the population of Curaçao as a whole.

The translation of the survey causes another limitation to the survey results. I offered the survey in Dutch, English, and Papiamentu. This way, I hoped to reach people from all walks of life. Translating my survey positively impacted my research because it allowed more people to take part in the survey. However, translation can lead to misinterpretation and missing out on specific information. I could not check the translation from Dutch to Papiamentu, so I could not know if the questions were clear and understandable. The survey responses in Papiamentu also had to be translated back to Dutch, and in this process, information can be missed. This, however, was a trade-off that I had to make.

Also, the survey was largely memory-based since questions were asked about the household's situation before the pandemic and in the present. Relying upon the memory of respondents can lead to measurement error. This error can already occur when people are asked to recall what they ate the day before (Pérez-Escamilla & Segall-Corrêa, 2008). In this survey, people were asked to recall their situation more than two years ago. This gives a high chance of measurement error since respondents most likely cannot precisely remember what their situation looked like two years ago.

Lastly, regarding the semi-structured interviews, I encountered the problem of a sampling bias. To conduct an interview, I was dependent on the willingness and time of others. I reached out to many people, institutions, and organisations, and only a few responded. This makes that not every organisation or institution working on food security in Curaçao has been interviewed and covered in this study.

## 4. Research context

This research took place in Curaçao, a small island state of 444 km<sup>2</sup>. The characteristics of small island states have an impact on food security. First, this chapter provides the empirical context, including an overview of Curaçao's most relevant socio-economic characteristics and how COVID-19 impacted the island. Next, the empirical context is complemented by addressing food security in small island states. The small island characteristics of Curaçao are an important part of the context wherein this research took place.

### 4.1 Empirical context

In 2010, Curaçao became an independent nation within the Kingdom of the Netherlands. Because of its autonomy within the Kingdom, Curaçao is responsible for its own social welfare, health, education, police, justice, and finance policies. However, foreign and defence policy is the responsibility of the Kingdom as a whole (Heintze et al., 2019). After the dissolution in 2010, Curaçao and Sint Maarten formed a currency union, and their currency is Netherlands Antillean Guilder (ANG).<sup>1</sup>

The current prime minister of Curaçao is Gilmar Pisas. His cabinet 'Pisas II' exists of the *Movemento Futuro Kòrsou* (MFK) and the *Partido Nashonal di Pueblo* (PNP) and is in charge from 2021 to 2025. The government apparatus of Curaçao exists of nine ministries <sup>2</sup>. Each ministry exists of a policy organisation, supporting staff, and, when needed, one or more executive departments (GoC, 2022).

#### 4.1.1 Socio-economic characteristics

The economy of Curaçao used to have three main pillars: the service sector, tourism, and oil refinery. In 2017, the service sector in Curaçao accounted for 71 per cent of the Gross Domestic Product (GDP) and the oil refinery for eight to ten per cent (UNDP, 2018). However, the crisis in Venezuela and the sanctions of the United States against Venezuela brought the refinery to a standstill in 2019. In that same year, the Curaçaoan airline Insel Air was declared bankrupt. In this period, the unemployment rate in Curaçao increased (Heintze et al., 2019). The most recent unemployment numbers are from 2020, in this year, the unemployment rate was 19.1 per cent, and youth unemployment was 42.2 per cent (CBS Curaçao, 2020).

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<sup>1</sup> The ANG has had a fixed exchange rate of ANG 1.79 to the US Dollar since 1971 (UNDP, 2018).

<sup>2</sup> Ministry of General Affairs; Ministry of Administration, Planning and Services; Ministry of Economic Development; Ministry of Finances; Ministry of Health, Environment and Nature; Ministry of Justice; Ministry of Education, Science, Culture and Sports; Ministry of Social Development, Labour, and Welfare; Ministry of Traffic, Transport and Spatial Planning.

Besides high unemployment rates are poverty and inequality also prevalent in Curaçao. In 2017, income inequality stood at 0.425 as measured by the Gini coefficient and in 2016, 29.9 per cent of Curaçaoan households lived below the subjective poverty line (UNDP, 2018; Maduro-Jeandor, 2019). According to the definition from the Central Bureau of Statistics Curaçao (CBS Curaçao), households below the subjective poverty line feel that their income is insufficient to provide basic needs such as housing, food, water, electricity, and clothing and that they, therefore, cannot fully participate in the society. The poorest households in Curaçao are those with only one adult with one or more underaged children, single men, or women and three adults with at least one child. In addition, female-headed households are more often below the poverty line than male-headed households (Maduro-Jeandor, 2019). However, it is argued that the number of people living below the poverty line is much higher in reality. This is because of the high number of non-documented people living in Curaçao, especially migrants. Most of the non-documented migrants in Curaçao are Venezuelan, with numbers varying from 4,000-6,000 (according to the government of Curaçao), to 5,000-15,000 (according to Amnesty International) to 'around 26,000' according to the UNHCR and International Organisation for Migration (Heintze et al., 2019; Caribisch Netwerk, 2020). Non-documented migrants in Curaçao try to stay 'under the radar' from the government and other official institutions. This means that they are highly dependent on solid informal networks. They often survive as traders or seasonal workers in the construction or tourism industries with low wages and dangerous working conditions. They also do not have access to social care and health insurance (Heintze et al., 2019).

#### *4.1.2 COVID-19 in Curaçao*

On 15 March 2020, measures to contain and delay the spread of COVID-19 were implemented in Curaçao. This resulted in widespread disruptions to livelihoods on the island. 2020, the first year of Covid on Curaçao, has exposed and, in many cases, exacerbated the vulnerabilities of the Curaçaoan economy (GoC, 2022). Not only economic and financial but also vulnerabilities regarding health, education, safety and infrastructure became more visible than ever. The pandemic had a major impact on health care and employment, and, the quality of education came under pressure. The pandemic created a sharp economic decline which resulted in a decrease of 18 per cent in government tax revenues while at the same time government spending (e.g. financial aid) increased. Private consumption declined sharply due to the decreased purchasing power because of the worsened labour market situation and wage reductions. To meet its obligations, the Curaçaoan government had no choice but to use liquidity support from the Netherlands in the form of loans. In 2021, the second Covid year, the effects of the pandemic were less drastic than in 2020. This was partly due to measures to

contain the spread of the virus and the high vaccination coverage. In the second half of 2021, tourism was gradually recovering. As a result, the economic growth in 2021 is expected to have been around two per cent instead of the projected zero per cent. For the third Covid year, 2022, another slight economic growth and decreased need for liquidity support from the Netherlands are forecasted. The latter is desirable to stem rising debt-to-GDP ratios (Ibid.).

In their ‘coalition programme’, the current government of Curaçao states that “the financial and economic impact of the pandemic has been somewhat mitigated by financial support provided by the government to vulnerable groups in society who were financially unable to support themselves due to the economic crisis” (GoC, 2022: 5). The two most important types of financial support provided by the government were the ‘NOW-regulation’ for entrepreneurs and the ‘resilience benefit’ (*karchi sosial*) for those hit hardest by the pandemic (this will further be elaborated in Section 6.1). Despite the financial support from the government, the pandemic still impacted the economic situation and food security of Curaçao’s residents. The Curaçaoan Food Bank even stated that due to the outbreak of COVID-19, Curaçao found itself in an economic crisis and that it would push 50,000 people below the poverty line (Voedselbank Curaçao, 2020). Also, 18,000 new customers have applied for food packages at the local food bank since the start of the pandemic. During the first year of COVID, the Food Bank distributed food packages to around 4,000 to 6,000 households per week (Voedselbank Curaçao, n.d.). More information on the impact of COVID-19 on the population of Curaçao can be found in Section 5.3.

#### **4.2 Food security in small island states**

Small island developing states (SIDS) are a diverse group of nations, but most of them share characteristics such as small size, limited land availability, susceptibility to natural disasters, and deep integration into global markets. These characteristics make SIDS particularly vulnerable to global environmental and economic changes (Lowitt et al., 2015). Concerns regarding food security are valid for small island states such as Curaçao. The following paragraphs examine the factors affecting food security in small island developing states by looking at the four dimensions of food security (FAO, 2006).

*Food availability* in SIDS is affected by a variety of factors. First, SIDS are vulnerable to the effects of climate change and its consequences (e.g. sea-level rise or tropical storms) which can make it difficult to grow food, especially in the future. Second, small island states have particular economic characteristics that make them more exposed to external shocks than larger countries. For example,

they often rely on limited economic activities such as tourism or fisheries (FAO, 2016; Barlagne et al., 2015). Third, the historical shift from subsistence agriculture to agro-exportation has reduced food availability in SIDS: traditionally small island states depended on subsistence agriculture for survival, but the colonisation process induced a shift in food production oriented towards developing cash crops for export at the expense of other traditional agricultural sectors targeting local markets. Cash crops such as sugar cane, banana, and forest products are mainly exported to foreign markets. However, exports depend on preferential access to major developed country markets. Access to developed country markets, however, is gradually eroding. This is partly due to the drop in competitiveness of cash crops, cheaper imports from larger countries, and the increased costs of maintaining soil fertility (Barlagne et al., 2015). All this combined has led many island states to experience a decrease in GDP from agriculture (FAO, 2016; Barlagne et al., 2015). Cheaper imports also compete with local production, forcing small-scale producers out of agriculture and undermining island states' capacity to sustain their own food needs.

Consequently, SIDS rely heavily on imports for most of their food supplies which is leading to a nutritional transition from their traditional diets towards more western diets. Lastly, SIDS often lack large food reserves. They often do not have storage silos, and supermarkets and food distributors only have about a few weeks' supply of food on their shelves and warehouses (FAO, 2016). Overall, food systems in SIDS are becoming more vulnerable since they rely more than before on imported products and are less self-sufficient (FAO, 2016, Barlagne et al., 2015). This increased vulnerability is particularly true for the Caribbean islands, even though the natural environment offers an extraordinarily rich diversity of flora and fauna that should normally form the basis for balanced diets (Barlagne et al., 2015).

*Food access* in SIDS is heavily constrained by poverty and unemployment (FAO 2016). Most SIDS have high levels of poverty. Youth unemployment rates in most SIDS are higher than the world average. This is mainly due to the limited availability of jobs for young people in the agricultural and rural sectors. As a result, many young people migrate to urban centres, either within the country or abroad. However, in most Caribbean countries, 30 to 77 per cent of the poor are employed, referred to as the 'working poor'. These people often work part-time or in seasonal jobs, and their wages are too low to enable them to escape poverty. The high food price crises from 2006 to 2009, as well as the subsequent economic recession, exacerbated food access issues in SIDS: income-earning opportunities declined, food prices rose, and costs of living expenses increased, resulting in increased food insecurity (Ibid.).

*Food utilisation* in SIDS is characterised by nutritionally poor food choices. Small island states are experiencing a nutrition transition towards less nutritious food, contributing to an increasing prevalence of chronic, non-communicable diseases (NCDs) (FAO, 2016). Much of the imported food available is high-calorie, high-fat and high-sweetener food. Poor households are more likely to consume higher levels of these foods because they are more affordable than healthier foods such as lean meats, fish, fresh vegetables, and fruit. These unhealthy diets based on fats and sugars contribute to overweight and obesity and the potential for developing chronic NCDs, including diabetes (Ibid.).

Efforts to increase the *stability* of food supply and access in Caribbean SIDS are constantly undermined because of their vulnerability to natural disasters. Natural disasters such as landslides, earthquakes, droughts, floods, and storms or hurricanes result in economic damages and disrupt the flow of goods and services (Ibid.).

All the characteristics of small island developing states constraining food security apply to Curaçao. Curaçao is highly dependent on imported goods. In 2016, the country's net exports (exports – imports) were -1,799.5 million ANG. The main commodities imported in 2016 included machinery and transport equipment (640 million ANG) and food, and live animals (431 million ANG). The value of food imports over total merchandise exports equalled 185.8 per cent. This is significantly higher than the average for the Caribbean, which stood at 77.5 per cent (UNDP, 2018). Only three per cent of the total availability of fruits and vegetables in Curaçao is locally produced; the rest is imported (Hendriksen, 2020). The deep integration and even dependency on global markets make Curaçao's small and open economy susceptible to shocks and stressors, such as the COVID-19 pandemic.

## **5. Effects of COVID-19 on household food security**

This chapter addresses the first sub-question: how has COVID-19 affected household food security in Curaçao? To answer this question, this chapter is structured into four parts. In the first part (Section 5.1), survey results are analysed to see how the pandemic impacted the three dimensions of household. Part two (Section 5.2) compares the analysed survey results to the results from a research by the Caribbean Community (CARICOM) on the effects of COVID-19 on the livelihoods and food security of people in the Caribbean region. In part three (Section 5.3) the findings of Sections 5.1 and 5.2 are compared to real-life experiences of people in Curaçao during the pandemic. The real-life experiences are derived from interviews. Part four is the conclusion.

### **5.1 Survey results**

As mentioned in Section 3.5 (research methods), the survey was conducted among local households. Of the 139 responses, 68 questionnaires were completed and therefore usable. Table 5.1 gives an overview of the respondent demographics. The respondents of this survey are predominantly female, well-educated, and high-income. This, however, is not representative of Curaçao's population. For example, the Curaçaoan population consists of 45 per cent males and 55 per cent females (CBS Curaçao, 2022). In contrast, among respondents, only 19 per cent are male, and 81 per cent are female.

Also, 43 per cent of survey respondents stated having a bachelor's degree as their highest level of education, whereas in 2020, only 13 per cent of the Curaçaoan population had a bachelor's degree (CBS Curaçao, 2020b). Because of the disparities between the respondents and the Curaçaoan population and the overrepresentation of high-income households, the survey results cannot be generalised to the population of Curaçao as a whole.

To measure the impact of the COVID-19 pandemic on a household's food security, the survey asked about three dimensions of food security; availability, access, and utilisation. The survey questions were based on the operationalisation of the concept and dimensions of food security (see Appendix 1). In the following subsections, the survey results are analysed per dimension.

Table 5.1: Respondent demographics. Source: Own survey, March 2022.

Variables	Frequency (n=68)	Percentage (100%)	Cumulative (%)
<b>Age</b>			
<18	2	2.9	2.9
18 - 30	28	41.2	44.1
31 - 45	17	25	69.1
46 - 65	21	30.9	100
>66	0	0	100
<b>Gender</b>			
Male	13	19.1	19.1
Female	55	80.9	100
<b>Household size</b>			
1 person	7	10.3	10.3
2 persons	21	30.9	41.2
3 persons	16	23.5	64.7
4 persons	16	23.5	88.2
>5 persons	8	11.8	100
<b>Children under the age of 18 in the household</b>			
0 children	38	55.9	55.9
1 child	19	27.9	83.8
2 children	7	10.3	94.1
3 children	2	2.9	97.1
4 children	4	1.5	98.5
>5 children	1	1.5	100
<b>Household income in ANG per month*</b>			
Onderstand*	2	3.0	3.0
500-1000	6	9.1	12.1
1000-2000	5	7.6	19.7
2000-3000	6	9.1	28.8
3000-5000	14	21.2	50.0
5000-7000	8	12.1	62.2
>7000	16	24.2	86.4
Prefer not to say	9	13.6	100
Missing	2		
<b>Highest level of education</b>			
No education/not finished any school	1	1.5	1.5
Primary education	1	1.5	3.0
Secondary education	16	23.9	26.9
SBO 2/3/4*	10	14.9	41.8
Bachelor's degree	29	43.3	85.1
Master's degree	10	14.9	100
Missing	1		

\*ANG 1 = EUR 0,51 (March, 2022), SBO= Secondary Vocational Education (comparable to MBO in the Netherlands), Onderstand = social welfare (around 300-500 NAF)

### 5.1.1 Impact on food availability

The impact of COVID-19 on food availability is measured by changes in the household's primary food source, availability in stores and food stocks at home. The situation before the pandemic is compared to the current situation <sup>3</sup>.

Respondents were asked to state their household's main food sources. In this question, respondents were allowed to tick more than one answer, with a maximum of three. Figure 5.1 shows that there is not much difference in the households' main food sources due to the pandemic. It is remarkable that before the pandemic, more households depended on food aid programmes and gifts from family and friends than in the current situation. Concerning food aid, it might be the case that since the start of the pandemic, particular food programmes shifted their focus to a different target group, making these particular households ineligible. However, this is just an assumption, and no data supports this. Purchasing remained the main food source for most households.

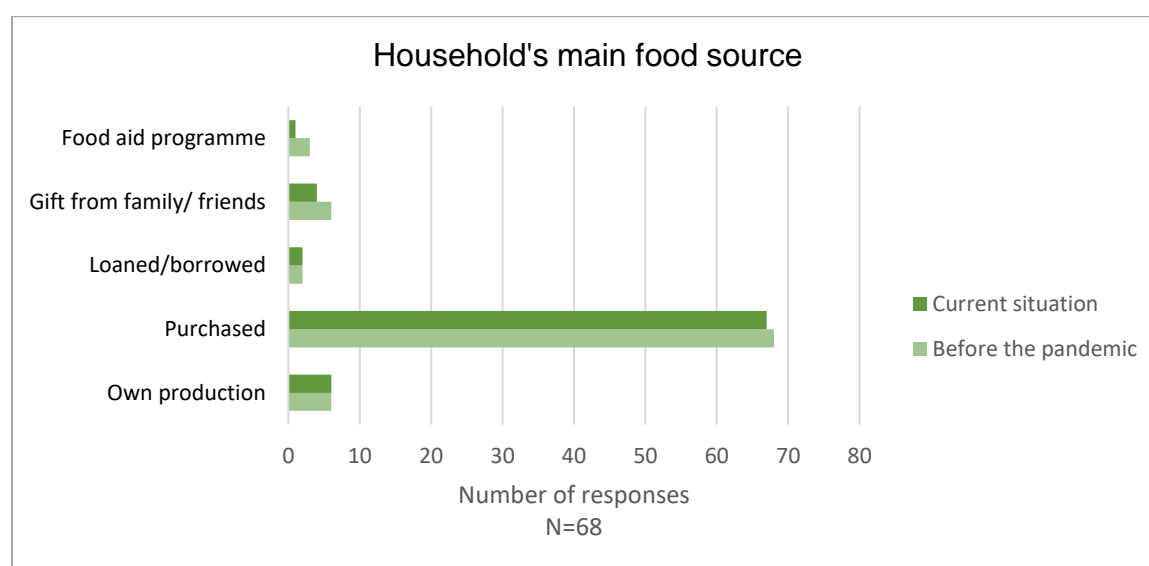


Figure 5.1: Household's primary food sources. Source: Own survey, March 2022.

<sup>3</sup> The current situation refers to the moment the survey was conducted, which is March 2022.

Concerning the impact of the COVID-19 pandemic on food availability in stores and markets, respondents were asked to state the availability of four food groups before the pandemic and the current availability. The four groups are staple foods, fresh foods, proteins, and dairy <sup>4</sup>. The given responses can be seen in the first four rows of Table 5.2. To analyse differences in availability, first, the qualitative response options had to be changed into a numeric code, ranging from one to four (response options and accompanying codes are shown in the left column of Table 5.2). Next, the mean availability per food group was calculated for the situation before and after the pandemic. Lastly, the percentual difference between the mean before the pandemic and the current situation was calculated. A paired t-test was done in SPSS to confirm that the difference in means is statistically significant. A paired t-test is used when one is interested in the difference between two variables for the same subject, and these two variables are separated by time. Even though I expected food availability to decrease, I used a two-tailed test because I wanted to test the possibility of the relationship in both directions. A significance level of 0.05 was used, and for the relationship to be significant, the two-sided P-value needs to be lower than 0.05. As the two-sided P values in Table 5.2 show, all outcomes are significant. In the SPSS analysis, the response option 'I don't know' cannot be included and is therefore considered missing. However, in real life, it is valuable information if someone says they do not know. It might mean that they do not have (economic) access to supermarkets or that they do not have to be financially conscious and therefore did not notice price increases.

According to the respondents, all food groups were sufficiently available, both before the pandemic and in the current situation. The availability of fresh foods and dairy products in stores and markets was impacted the most (with a decrease in the availability of 7.8 per cent and 5.3 per cent, respectively). This can be explained by the fact that fruits, vegetables, milk, and yoghurt are not produced on the island but are imported from, for example, the Netherlands, the United States or Venezuela. Global supply chains for staple foods appeared to have held up reasonably well during the COVID-19 pandemic, which may explain the small impact on the availability of staple foods in Curaçaoan supermarkets (Laborde et al., 2020; Swinnen & McDermott, 2021). Proteins (meats, eggs, and fish) were impacted the least. This can be explained by the fact that eggs and fish are produced in Curaçao and are therefore not prone to shocks in food imports. Meat, however, is not produced on the island. Overall, the impact of the COVID-19 pandemic on food availability in stores and markets is negligible. This can be explained by the fact that Curaçao imports its food from several different

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<sup>4</sup> Staple foods include rice, pasta, maize flour, and cassava. Fresh foods include fruits and vegetables. Proteins include meat, eggs and fish and dairy includes milk and yoghurt.

countries. If it is not possible to import food from, for example, the Netherlands, it is imported from another country. It must be noted that this small impact on food availability says nothing about the availability of particular brands or sorts of food.

The last indicator of food availability is stockpiled food reserves at the household level. Respondents were asked whether they had any food in stock in their household, currently and before the pandemic. Before the pandemic, seven per cent of the respondents stated that they often did not have any food in stock, whereas in the current situation, 17.6 per cent of the respondents reported not having any food in stock (Table 5.3). One might conclude that because of the pandemic, some households are unable to buy the same amounts of food as they used to buy before the pandemic.

*Table 5.2: Number of respondents perceiving degrees of availability of food groups in stores before the pandemic (BP) and the current situation (CS).*

	Staple foods		Fresh foods		Proteins		Dairy	
	BP	CS	BP	CS	BP	CS	BP	CS
Never available (1)	1	1	1	1	1	1	1	1
Sometimes available (2)	2	0	3	6	1	1	2	3
Often available (3)	8	21	17	29	8	15	8	19
Always available (4)	54	44	45	30	55	49	54	42
Missing								
I don't know	3	2	2	1	2	1	3	2
System	0	0	0	1	1	1	0	1
Valid N=	65	66	66	66	65	66	65	65
Mean	3.77	3.64	3.61	3.33	3.80	3.70	3.77	3.57
Mean difference	-0.138		-0.277		-0.109		-0.203	
Two-Sided P ( $<0.05$ = significant)	0.049		$<0.001$		0.018		0.006	
<b>Mean difference (%)</b>	<b>-3.45</b>		<b>-7.76</b>		<b>-2.63</b>		<b>-5.31</b>	

Source: Own survey, March 2022.

*Table 5.3: Number of respondents having food in stock before the pandemic and in the current situation.*

<b>Food in stock</b>	<b>Before the pandemic (n=68)</b>	<b>Current situation (n=68)</b>
Yes	63	56
No	5	12
<b>% No food in stock</b>	<b>7</b>	<b>17.6</b>

*Source: Own survey, March 2022.*

### *5.1.2 Impact on food access*

The impact of the COVID-19 pandemic on economic access <sup>5</sup> to food is measured by changes in food prices, income losses, and shopping behaviour.

Ninety-seven per cent of the respondents noticed an increase in food prices compared to before the pandemic. To the question of why food prices increased, the most given answers are the increase in import and transportation costs, scarcity of food products and difficulties regarding imports. The increase in import and transportation costs is partly due to the higher container shipment cost. For countries highly dependent on food imports, fluctuations in transportation costs have more impact on food prices than in less import-dependent countries. The scarcity of products can partly be explained by the difficulties regarding imports. As a result of the pandemic, many countries closed their borders and prioritized their own food supply, negatively impacting countries dependent on food imports, like Curaçao (Laborde et al., 2020; Swinnen & McDermott, 2021). The closing of borders leads to a scarcity of certain food products, and scarcity also leads to price increases. It is plausible that Curaçao's food prices are not solely due to the pandemic since more global crises are happening now. Rising oil prices are also reported as one of the reasons behind the rising food prices.

Regarding the food items that increased the most in the respondents' perception, fruits and vegetables were mentioned most (24 times). Next was meat (18 times), dairy (8 times), rice (6 times) and cooking oil (5 times). These answers align with the analysis made in Section 5.1.1 since the availability of fresh foods (fruits and vegetables) and dairy decreased the most. Meat, rice and cooking oil are not produced on the island, so they must be imported, which may explain the rising prices. Twenty-six of the 68 respondents (about 38 per cent) stated that their household lost income because

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<sup>5</sup> Food access can be measured both by economic access and physical access. In this research only economic access is mentioned since I do not have any data on perceptions about physical access.

of the pandemic. Of these 26 respondents, 13 stated that their household's income loss was due to a household member losing their job. Five people stated that it was because they or another person in their household was forced to work fewer hours because of the pandemic. Other responses were from entrepreneurs or freelancers who stated that they received fewer jobs or contracts because of the pandemic. Fifteen respondents (22 per cent of total respondents) stated that they could not compensate for their income losses (Figure 5.2). Other households that were able to compensate for their losses used their savings, received help (in the form of money, vouchers, or discount) from the government, or borrowed money from friends and family. No respondent took a loan from a financial institution.

About 57 per cent (39 of the 68) of respondents reported having changed their shopping behaviour since the start of the pandemic. The most-reported changes in shopping behaviour are buying cheaper or less preferred foods and buying smaller quantities than usual (Figure 5.3). Ten respondents mentioned having changed their shopping behaviour by buying larger quantities than usual. This might refer to panic buying and stockpiling out of fear of another lockdown. The most indicated reasons behind changed shopping behaviour are to save money and being forced to cut back due to rising food prices and lost revenue.

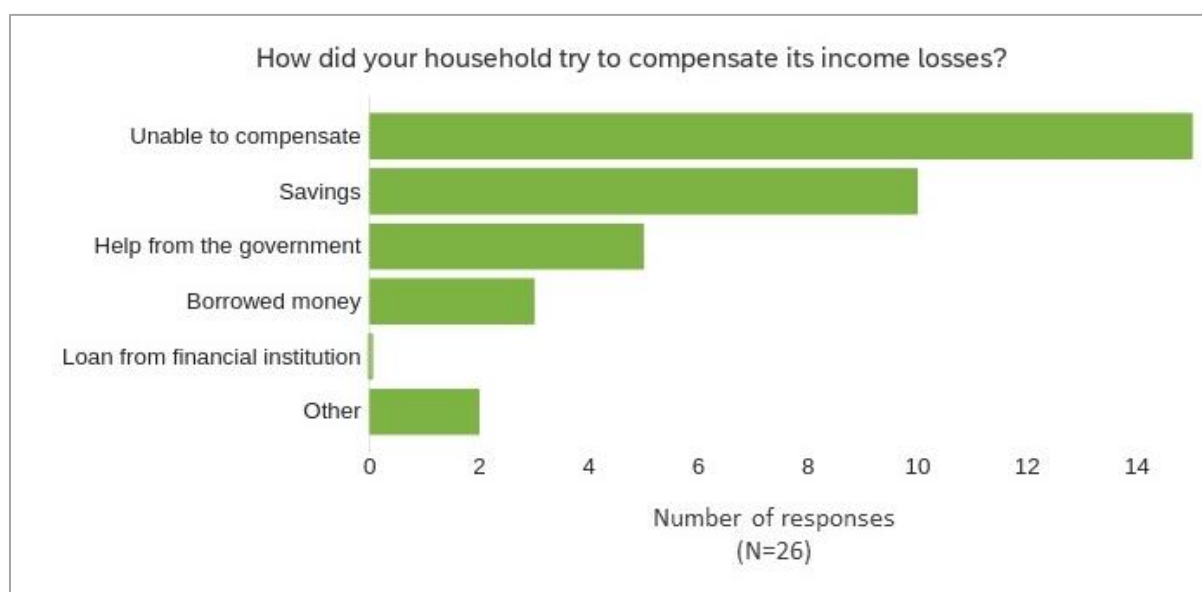


Figure 5.2: Strategies to compensate for income losses caused by the pandemic. Multiple answers were possible (max. 3). Source: Own survey, March 2022.

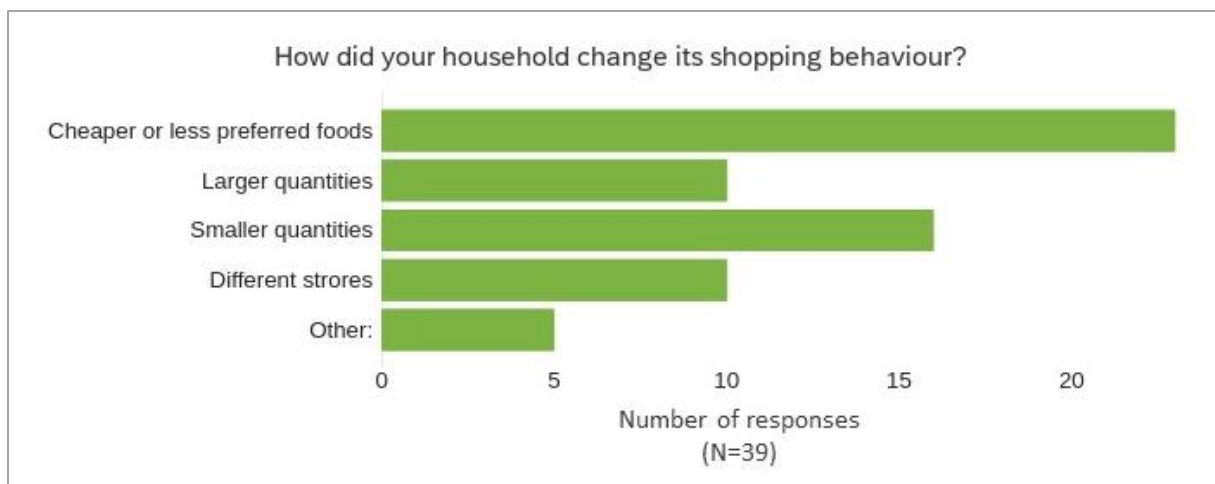


Figure 5.3: Different ways in which the 39 households changed their shopping behaviour. Multiple answers were possible (max. 3). Source: Own survey, March 2022.

### 5.1.3 Impact on food utilisation

Impact on food utilisation is measured by changes in the number of meals per day and eating behaviour.

A food-secure family does not have to worry about eating healthy every day, whereas a food-insecure family may have to skip meals, is unable to purchase balanced meals, or have to be concerned that their food will run out before they can afford to buy more. Among the respondents in this study, no one reported eating less than one meal per day, both before the pandemic and in the current situation. Most respondents eat three or more meals a day (55 before the pandemic and 50 in the current situation). However, some respondents currently eat fewer meals than before the pandemic (Table 5.4). This outcome corresponds with the fact that 24 respondents (35 per cent) had changed their eating behaviour because of the pandemic. Surprisingly, the most given response to how respondents changed their eating behaviour is that they started eating healthier since the start of the pandemic (Figure 5.4). This, of course, is a positive consequence of the pandemic. However, with the high prices for fruits and vegetables, this is not feasible for every household. Therefore, it is not surprising that many people have started eating fewer meals, less nutritious food, and sometimes even eating unhealthier (more take-out and fast food).

Table 5.4: Number of meals per day.

	BP	CS
< 1 meal	0	0
1 meal	2	2
2 meals	11	15
3 meals	44	46
> 4 meals	11	4
N=	68	67

Source: Own survey, March 2022.

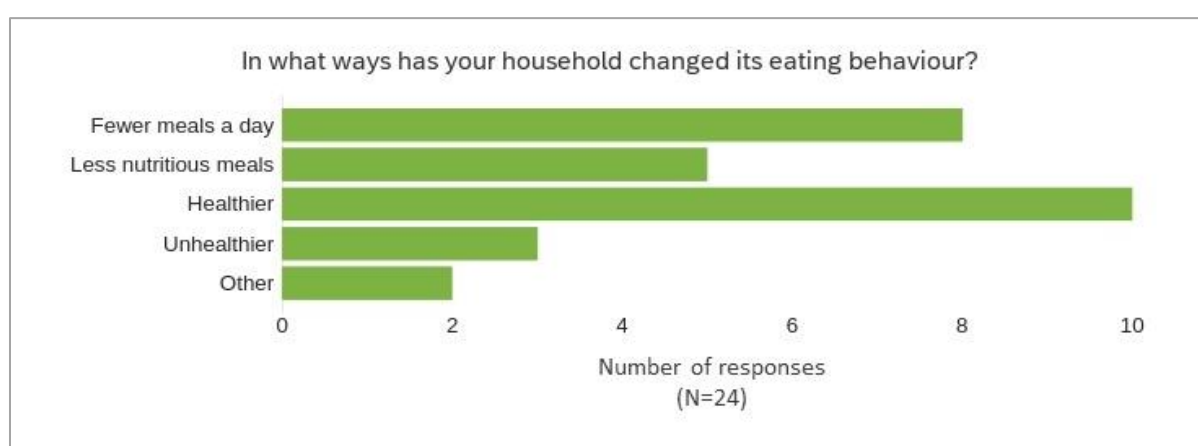


Figure 5.4: Different ways in which the 24 households changed their eating behaviour because of the pandemic. Multiple answers were possible (max. 3). Source: Own survey, March 2022.

Lastly, respondents were asked to state their food-related behaviour both before and since the pandemic through six statements (Table 5.5). These statements are based on the Food Insecurity Experience Scale, which is an experience-based measurement of food security. As explained in Section 2.1, the theory behind experience-based measurement is that chronic food insecurity results in a process managed at the household level that involves predictable coping mechanisms or adaptations specific to the degree of severity of the food insecurity challenge (Pérez-Escamilla & Segall-Corrêa, 2008). As Table 5.6 shows, all statements have a mean between one (never) and two (rarely). This means that overall, most statements never or rarely occurred before and since the pandemic. The most significant increase is seen in 'Before/since the pandemic, there have been times where I or another household member were unable to eat healthy and nutritious food'. Based on the experience-based measurement theory, this is the first step in the process of a household becoming food insecure (Ibid.). The smallest increase is seen in the statement 'Before/since the pandemic, there have been times where I or another household member went without eating for a whole day'. This is the last step

in the coping mechanism of households and indicates a high level of food insecurity. Among survey respondents, most households reported that this had never happened to them, both before and since the pandemic. However, some households reported this happened monthly or weekly. Also, worries about having enough food for the household have increased since the pandemic. Here I also did a paired t-test in SPSS to check whether the outcomes were significant, and as the P values show, all outcomes are significant.

*Table 5.5: How often the statements occurred in the respondent's household, both before the pandemic (BP) and since the pandemic (SP).*

	Unable to eat healthy and nutritious food		Only ate a few kinds of foods		Forced to skip a meal		Hungry but did not eat		Went without eating for a whole day		Worried that household would not have enough food	
	BP	SP	BP	SP	BP	SP	BP	SP	BP	SP	BP	SP
Never (1)	50	38	49	37	56	51	59	56	60	59	55	49
Rarely (monthly or less) (2)	11	15	10	17	9	10	6	2	5	2	9	7
Sometimes (weekly) (3)	5	8	5	11	2	4	2	9	2	7	3	7
Often (daily) (4)	1	7	3	3	0	2	0	1	0	0	0	4
Missing	1	0	1	0	1	1	1	0	1	0	1	1
Valid N=	67	68	67	68	67	67	67	68	67	68	67	67
Mean	1.36	1.73	1.43	1.70	1.20	1.35	1.15	1.33	1.13	1.22	1.23	1.45
Mean difference	0.373		0.269		0.152		0.179		0.090		0.227	
Two-sided P value (<0.05 = significant)	<0.001		0.005		0.024		0.013		0.083		0.008	

Source: Own survey, March 2022.

#### *5.1.4 Conclusions on the survey results*

As can be concluded from the survey results, the impact of COVID-19 on food availability seems small. Almost no changes were reported in the household's main food sources before and after the pandemic. Food availability in stores and markets remained relatively high, which is surprising since Curaçao is a food import-dependent country. Compared to before the pandemic, more households reported having no food in stock. The impact of COVID-19 on food access seems a bit bigger. Households' economic access to food has been affected by rising food prices (reported by 97 per cent of respondents) and reduced incomes because of the pandemic (reported by 38 per cent of respondents). It is, therefore, not surprising that more than half of the respondents (57 per cent) had to change their shopping behaviour. Lastly, 35 per cent of respondents had to change their eating behaviour because the pandemic impacted food utilisation. Surprisingly, the most reported change in eating behaviour was that households started eating healthier because of the pandemic. However, since fruits and vegetables increased most in price, this is not feasible for every household, resulting in many households also reporting to have started eating fewer meals, less nutritious food, and sometimes even unhealthier. Overall, the impact of COVID-19 on the food security of respondents' households seems not that big. However, because of the disparities between the survey respondents and the Curaçaoan population, the survey results cannot be generalised to the population of Curaçao as a whole.

#### **5.2 Comparing survey results with the CARICOM survey**

The CARICOM (Caribbean Community), together with the World Food Programme, launched a survey to measure the impact of COVID-19 on food security and the livelihoods of people in the Caribbean. The survey had three rounds (in April 2020, June 2020, and February 2021) to measure the impact over time. It is assumed that the poorest and most vulnerable are underrepresented in the survey results because the CARICOM surveys were conducted online, just like my survey (CARICOM, 2021). Therefore, it is not surprising that the respondent demographics of the CARICOM surveys are somewhat comparable to the survey respondents of this study: most respondents in the CARICOM are female (around 70 per cent), and the average age is between 40 and 43. The share of households with a perceived income of below and the well-below average is considerably higher compared to my survey respondents. What is interesting about the CARICOM survey is that it measured the impact of the pandemic over time and therefore showed how the impact evolved. Also, survey results are analysed by (perceived) income level, age, occupation, and household composition. This shows that the impacts

of the pandemic reflect disparities in household income, with low-income households being hit the hardest (Ibid.).

Regarding food availability, the CARICOM only asked about fresh and staple foods. The outcomes correspond to my survey outcomes: the availability of fresh foods was impacted more than staple foods. What is interesting is that the CARICOM survey measures the impact over time. The survey shows that the availability has improved consistently: during the first round of the survey (April 2020), the availability of food products was much lower than during the last round (February 2021). During the last round, 17 per cent of the respondents reported not having any food in stock, 39 per cent reported having less than a week's worth of food supplies in their household, and 44 per cent more than one week's worth of food supplies, which is comparable to my survey results (Ibid.).

Among one-third of the CARICOM respondents, access to markets remained difficult. The main reason is the lack of financial means, which has increased significantly since April 2020, when restrictions and concerns about leaving the house were the most reported reason for having no access to markets. It is not surprising that at the beginning of the pandemic, most respondents stated to change their shopping behaviour towards buying larger quantities than usual, whereas, in the last round, this changed towards buying cheaper foods or smaller quantities. Among my survey respondents, buying cheaper or less preferred foods and smaller quantities were also the most reported change in shopping behaviour. The lack of financial means can be explained by the impact of the pandemic on incomes. This impact continues to be widespread, with 63 per cent of respondents reporting that their household has experienced a job loss or reduced salaries since the COVID-19 outbreak. Among most income levels, the share of households experiencing job loss or reduced incomes has decreased over time. This share had only increased among households with an income well-below average (Ibid.). Among my survey respondents, only 38 per cent reported having lost income because of the pandemic.

The impact on food prices seems to have increased over time since, in the first round, 59 per cent of CARICOM respondents reported an increase in food prices and 71 per cent in the third round (Ibid.). Interestingly, this percentage is relatively lower than in my survey results, where 97 per cent of respondents noticed an increase in food prices since the pandemic. This could mean that the increase in food prices in Curaçao was higher compared to the Caribbean region.

Regarding eating behaviour, 16 per cent of respondents reported having experienced a time when they went a whole day without eating in the 30 days preceding the survey. Twenty-nine per cent of respondents experienced a time when they were hungry but did not eat and worries about not having enough to eat were reported by 45 per cent of respondents. Forty-one per cent of respondents reported having experienced a time when they were unable to eat a healthy and nutritious diet, and 50 per cent reported a time when they ate only a few kinds of food. However, these situations were not uniformly experienced across respondents: of those respondents who described their household income as below average, 53 per cent experienced a time when they were hungry but did not eat in the previous 30 days, which is well above the survey average of 29 per cent. Likewise, 69 per cent of these respondents faced a time when they ate less than they thought they should, compared to 41 per cent of all respondents (Ibid.). Overall, these situations were experienced more among CARICOM respondents than among my survey respondents

#### *5.2.1 Conclusions on the CARICOM survey results*

The CARICOM analysis described the overall picture of the COVID-19 pandemic on food security and the livelihoods of people in the Caribbean as deeply troubling. They state that food insecurity is a major concern since some are struggling to meet their food needs, and a worrying number of respondents are reducing the amount they eat (CARICOM, 2021). Whereas some of the CARICOM survey outcomes are comparable to the outcomes of my survey, the outcomes of my survey paint a slightly less troubling picture. Two possible explanations can be distinguished. First, the last CARICOM results are from February 2021, so the situation might have improved considerably since then. Second, the CARICOM survey represents a higher share of below-average income households, and these households have been, and are still, facing the most struggles.

### **5.3 Real-life experiences**

As mentioned in Section 5.1, the survey respondents are not representative of the Curaçaoan population. Based on the survey outcomes, it seems as if household food security is not so much of a problem in Curaçao and that the impact of COVID-19 was relatively small. However, this is not the case and especially not for the poorest people living in Curaçao. During my interviews, stories came to light that I feel are necessary to share to create a more complete and realistic picture of household food security in Curaçao before and since the pandemic. In the following sub-sections, these stories will be

told through vignettes. I distinguished two recurring themes in my interviews: the impact of COVID-19 on the daily life in Curaçao and the culture of shame.

### *5.3.1 The impact of the pandemic on daily life*

The following vignettes provide a more in-depth insight into the daily life of people in Curaçao during the pandemic. As the vignettes show, COVID-19 affected the entire population. Everyone had to shift gears and adapt, and a lot of people (temporarily) lost their jobs. The impact on poor households was the most severe. Some of these households were already dependent on food aid, and when this got disrupted or stalled, they simply had nothing to eat. The pandemic revealed the actual poverty and hunger in Curaçao, which was a lot worse than most people thought.

“[When the pandemic hit] a lot of people just became super poor all at once. And that's because about eighty per cent of our economy runs on tourism, and that tourism was, of course, at a complete standstill, so the majority of the workers in the tourism sector were just literally sent home because they did not have appropriate employment conditions. So, they all had zero-hour or short contracts, which means that this kind of situation is very advantageous for hotel employers because they can send everyone home legally without having to pay too much. So that is an unsustainable aspect of our society that has always been there but has now been exposed by Covid. (...) The support from the government started a bit slow, and as a result, a lot of people became impoverished very quickly, and a lot of food packages had to be distributed to alleviate the worst of the hunger.” (Male, 30 years, 2022).

“Well, to be honest. We had a rough estimate of what the situation was actually like on the island, so what kind of impact it [COVID-19] would have. But we never thought it would be a majority of the island. You knew about the poverty, but it was a bigger group than we thought. And yes, it was in all kinds of sectors. Nobody could go to work; people lost their jobs. People who could earn a little bit at a time could not do so.” (Red Cross Curaçao, 2022).

“My mother works for a foundation in Fuik, in the eastern part of the island. (...) This has grown into a foundation where 150 children a day pass by, who then receive a warm meal and after-school care. But my mother had serious stress during the pandemic because, for many children, this was the only meal they got each day. So if the foundation has to close for six weeks, how are those children going to eat? What kind of situation will they be in if they can't spend their afternoons elsewhere? This is a bigger group than you think. You often read on 'Dare to Ask' [Facebook page] that teachers also ask about this: 'how can I do this [feeding the children] secretly? Because my school doesn't think it's right to provide them food, but I can't stand to see children unable to stay awake because they are so hungry'. So yes, I think the problem is bigger than we will ever dare to think.” (Female, 30 years, 2022).

“When the pandemic was there, if we bought groceries for ourselves, we also bought groceries for my aunt, who is retired and can hardly make ends meet. We did the same for my sister, who was unemployed and supposed to start working on April 1<sup>st</sup> but the pandemic started in March (...). My cleaning lady also had no income and was uneducated. So we bought groceries for five households and then I would also get extra things just to have in the house because I knew someone would come to the door. I knew that, you know, the neighbour is being very tough, but if I push two cans of sausages and spaghetti sauce on him now and then, he can eat for a couple of days. And you know, 'if words get around', then people come to your door, and that's why we made food parcels for the whole neighbourhood. So we made the parcels, we put them together, but we didn't distribute them ourselves. I didn't want to become the door to knock on for help, we were just trying to help out as much as we could when we could afford it.” (Female, 30 years, 2022).

### *5.3.2 Culture of shame*

Another topic mentioned during many interviews is that Curaçaoan people have a lot of pride and are ashamed of being poor. This culture of shame can be designated as one of the reasons why the situation (regarding poverty and hunger) appeared to be much worse than everyone thought. As the following quotes show, the culture of shame is so intense that people rather suffer from hunger than admit they are poor.

“Our people, they have pride. They walk around very well cared for. They look fantastic, big cars. But at home, they only have a warm meal maybe twice or thrice a week. So it was worse than we thought. And we also noted that everywhere and presented it to everyone that poverty on Curaçao is very high.” (Red Cross Curaçao, 2022).

“I think the problem [poverty and people living in hunger] is very big, but it's very difficult to express in figures. We lived in Haiti for eight years, and you see how poor everyone is there. Everybody is begging in the streets; everybody wants to touch your car while you are standing at the traffic light. But here [in Curaçao], people are ashamed of being poor. And especially in front of white people, for makamba's as they call us here. So it's very difficult to find out how big the poverty is. But yes, if I may give it a percentage, I think about 25 to 30 per cent of the population is suffering from hunger. Then I am talking about the severe cases. I think 25 to 30 per cent.” (Male, 60 years, 2022).

“The last figures published, about six months ago, stated that there were about 80,000 people who were not sure of a meal every day. The Food Bank published that, at the time. And I think that is on the low side, to be honest. It's very difficult to get real answers to that because people are ashamed of it too. So whatever it is that you can infer from conversations, I would always do it times 1.5 because there are plenty of people who would never admit to having had no food that day and don't know how they will eat the next day. And besides, imagine, children don't know any better, and

they think it's normal, and they are also hungry, and you won't interview them easily.” (Female, 30 years, 2022).

“There is a lot of pride, but there is a lot of hidden suffering. People don't necessarily want to share all their troubles to qualify for food aid because they would rather not eat at all. Better no food than having to register or whatever.” (Female, 30 years, 2022).

“We provided food for 60 children at an after-school program so that the children ate a good meal. That is the basis of learning. That you don't go to school hungry. And there are other foundations that also give children a sandwich at lunchtime, those children at the bottom of society. But then you get a division in a class: some children get sandwiches, and others don't. I noticed this when I was tutoring. There were still a lot of sandwiches left, but the children were ashamed that they got bread and others didn't. Because if you get bread, you are poor. There is a lot of shame here, a culture of shame.” (Female, 60 years, 2022).

In summary, these quotes reveal that the COVID-19 pandemic did impact household food security in Curaçao, poor households in particular. The culture of shame is making it very difficult to measure the exact impact of the pandemic. The culture of shame is so intense, that even children would rather go hungry than grab a sandwich because then other children find out they come from a poor family.

## **5.4 Conclusions**

Based on my survey results, COVID-19 seems to have impacted food access and utilisation the most. This is mostly because food prices increased and incomes decreased, resulting in less purchasing power for households. Food availability was impacted the least, which is surprising since Curaçao is an island state and highly dependent on food imports. Overall, the impact of COVID-19 on household food security seems to be not that big for the respondents' households based on the survey results. However, since the survey respondents are not representative of Curaçao's population, these results cannot be generalised to Curaçao as a whole. To provide a more complete picture of the impact of the COVID-19 pandemic on household food security in Curaçao, I complemented this data with the survey results from the CARICOM study and real-life stories that came to light during the interviews. Even though some of my own survey results align with the CARICOM survey results, the CARICOM study concluded that the impact of COVID-19 on food security and livelihoods in the Caribbean region was a bit bigger than appeared based on my surveys. However, the CARICOM survey was conducted among the Caribbean region as a whole, and the data is from one year or longer ago. Real-life stories from the interviews show how the COVID-19 pandemic impacted the life of the Curaçaoan population. For some poor, Curaçaoan households, it was already a struggle to gain some earnings and provide nutritious food, and COVID-19 made it even harder for these households to make ends meet.

## 6. Involvement of the Curaçaoan government in enhancing household resilience

This chapter addresses the second sub-question, namely: how is the government of Curaçao involved in enhancing households' resilience? This question will be answered based on an interview with the Ministry of Social Development, Labour and Welfare and an analysis of three documents, namely the urgency programme aimed at poverty alleviation, the governance programme of the current government and the National Development Plan (NDP). Section 6.1 describes how the government was involved with resilience during the pandemic according to a representative of the Ministry of Social Development, Labour and Welfare, Sections 6.2 to 6.4 analyse how resilience is covered in government documents, and 6.5 is the conclusion.

The document analysis uses the policy reconstruction method by Runhaar et al. (2006). The policy reconstruction method looks for causal, normative, and final relations in policy documents. Causal relations are the causes and effects of the problem, as seen by the authors of the document (i.e. how do policymakers see the problem?) Normative relations are the norms and principles underlying a policy and how they relate to the envisaged situation, i.e. what does this policy want to achieve, and how do policymakers want to see the situation? The final relations are between the objectives and means, i.e. the policy instrument and ways in which the target population will be reached (Runhaar et al., 2006). It is worth mentioning that most of the Curaçaoan policies are not publicly available. The few that are publicly available and relevant with regard to resilience, are analysed in this chapter.

### 6.1 Involvement during the pandemic

In a written interview, a representative of the Ministry of Social Development, Labour and Welfare stated that Curaçao does not have any policies or programmes targeted at (household) food security. They have policies, programmes and safety nets aimed at marginalised citizens with no income who cannot meet their basic needs. Regarding safety nets in Curaçao, the '*bijstandsuitkering*' (social security benefit) is the most important. During the COVID-19 pandemic, the government of Curaçao extended its social safety net and created a package of support measures called '*Fondi di Sosten*'. This package existed of a 'resilience benefit', 'job loss benefit', and the 'NOW-regulation'. The resilience benefit entailed granting a food voucher of 300 ANG for a one-person household, and 450 ANG per month for a couple with or without children or a single parent with children. This resilience benefit was aimed at unemployed persons who had no source of income due to the pandemic or lockdown or

when the lockdown prevented them from seeking employment. The job loss benefit concerned the provision of 60 per cent of the last earned income (up to a maximum of 1000 ANG) per month to persons who lost their jobs after 15 March 2020 because of the COVID-19 pandemic and therefore did not have enough income to meet their basic needs. Households that already received a social resilience benefit were entitled to a food voucher of 150 ANG per month for a single-person household, 300 ANG for a couple without children or single parent with children, and 450 ANG per month for a couple with children. In total, 11,500 people were eligible for the resilience benefit and 1500 for the job loss benefit. But between March 2020 and October 2021, only 8798 people applied for the benefits.

The NOW regulation was an emergency measure that entrepreneurs who experienced great difficulties due to the pandemic and accompanying measures could apply for. The goal of this ‘bridging capital’ was so that employers would be able to pay their employees and thus avoid forced layoffs (GoC, 2022).

In addition to financial aid, the government also helped the food bank distribute food packages and took over the food aid programme of Red Cross Curaçao. The government of Curaçao stopped the support measures and food aid to their residents as of December 2021. The Curaçaoan government stated that this was due to the reduced impact of the COVID-19 pandemic on the country’s population and financial situation (GoC, 2022).

## **6.2 Policy analysis**

As described in Section 2.3, a government can enhance household resilience through social protection and improving basic services that contribute to improving living standards and income (Evans, 2011; Tefera et al., 2017; Smith & Frankenberger, 2018). Examples of how a government can do this are by creating social safety nets (by providing cash or in-kind transfers), providing decent jobs and livelihoods (by creating employment, human capital, and facilitation of re-entry into the workforce), mother-and-child health and nutrition systems and improving access to healthcare and health insurance (Ibid.). The following documents are all plans prepared by the Curaçaoan government on how to improve life in Curaçao. Some plans are long-term and others more short-term. The documents are assessed based on the ways mentioned above in which a government can increase resilience.

### ***6.2.1 National Development Plan 2015-2030***

In 2015, the government of Curaçao published ‘Building on Strengths: National development Plan Curaçao 2015-2030’ (GoC, 2015). The National Development Plan (NDP) is aligned with the Sustainable

Development Goals (SDGs) and provides Curaçao's long-term vision of change. The NDP has five focus areas (education, economy, sustainability, national identity and good governance) that match four SDGs. The policy's overall goal is to work together to build a thriving nation. Only the areas of education and economy are analysed below since they are the most connected to resilience building.

### *Causal relations*

The problem the NDP addresses is the economic stagnation of Curaçao. Skilled labour is needed for the island to break out of this stagnation and therefore the education system needs to reform to better match the labour market. This requires the cooperation of many stakeholders, a supportive government institution, and stable political leadership. Until 2015, many plans have been commissioned, but implementation has been patchy.

The education system of Curaçao knows several problems. First, the proportion of children attending early childhood programmes is 22 per cent lower than in the Caribbean region. Second, the Curaçaoan education system is partly based on the Dutch curriculum, which means it is not based on the local context or local needs. Also, Dutch as a language of instruction is a barrier for most students at all levels of education. The third problem is that the education system is not responsive to the needs of the island in general and employers in particular. Too many employers cannot find skilled candidates while youth unemployment is nearly 40 per cent. This shows that the education system is not performing optimally. Youth unemployment has been a persistent issue for Curaçao for a long time.

Economic growth has been identified as the key issue that Curaçao is facing. The NDP provides an extensive overview of the problems regarding economic growth in Curaçao, but here I will only focus on the problem related to resilience: unemployment. The level of unemployment is high compared to neighbouring islands, particularly youth unemployment. This is caused by significant structural barriers, namely high wages, a lack of labour flexibility, and the mismatch between required skills and positions. Currently, labour force legislation has proved to be inflexible and burdensome. It is, for example, difficult to dismiss a worker without a lengthy and costly government process, which results in employers providing more short-term contracts rather than full-time positions. So, there is a need for less rigidity in current labour force legislation and policies. Economic growth is the basis for all other projects and goals to be realised, so economic growth should happen short-term for other goals to be implemented.

### *Normative relations*

The overall aspiration for Curaçao is that “by 2025, Curaçao is a country based on good governance, with high quality of life, sustainable socio-economic development and education that is motivating to all citizens to develop themselves and contribute to the development of their country.” (GoC, 2015: 25).

The long-term vision for education is one where Curaçao is the model and hub for the Caribbean region. From early childhood through graduation, Curaçao will offer an educational system with various educational choices. Teachers and the curriculum should form global citizens and help students achieve the highest level in their educational stream. The education system should work more closely with local institutions and the labour market. Every citizen must have equal access to quality education, where they are offered the best opportunities to develop their full potential. Improvement of education should contribute to the development of the society and enable people to take ownership of their lives and live together in harmony with each other.

The long-term vision for the economy of Curaçao is based on “*strengthening a diverse economy which will be known for the quality of its exports, its service ethos, and where each economic pillar is contributing to the prosperity of the nation, through employment, reputation, foreign exchange and wealth*” (GoC, 2015: 14). The goals of increasing employment, in particular, are to substantially reduce the proportion of youth not in employment, education, or training by 2020, protect labour rights, and promote safe and secure working environments. The goal is for the economic growth to be inclusive and equitable, meaning that those Curaçaoans who cannot work and directly benefit from economic growth receive benefits and protection from increased wealth. The prediction is that the execution of the NDP would result in GDP growth of between two to five per cent and an increase in employment of over ten per cent.

### *Final relations*

The NDP is the outline for the long-term direction of change for Curaçao, with recommendations for short-term progress (one to four years). Some stakeholders suggested legislating the implementation of the NDP because the implementation of plans has been a weakness of both the political and administrative institutions of Curaçao for several years. It was chosen, however, not to do this. The NDP is a long-term strategy with a duration of 15 years. In these years circumstances will change, and new challenges will emerge. This might require shifts in strategies along the way. Implementation of

the programme requires collaboration between national politics, the government, and external stakeholders. Because the programme's implementation is not legislated, execution depends on the ruling government administration. The NDP thus provides no specific means but only short-term recommendations and a long-term direction.

#### *6.2.2 Urgency programme*

The urgency programme (2017) was created on behalf of the former Government of Curaçao, Cabinet Rhuggenaath. The programme's goal is poverty alleviation, mainly focusing on children and youth (GoC, 2017). In addition, the programme wants to tackle feelings of unsafety, poor living conditions in neighbourhoods, and shortcomings in the care for various target groups. The urgency programme researches how to alleviate poverty on the neighbourhood level effectively. The urgency program is aligned with and cooperates with the regular poverty policy and neighbourhood strategies. The regular poverty policy, however, is not publicly available. The programme focuses on multiple policy levels, namely economy, education, employment, and health. The urgency programme started in September 2017 and lasted one year. The end-evaluation of the programme was done in November 2018.

#### *Causal relations*

The problem the urgency programme addresses is poverty on the neighbourhood level. In 2017, more than 25 per cent of the Curaçaoan households had to live on an income below the poverty line. In the Caribbean region, female-headed households are more likely to experience poverty than male-headed households. Education and training positively affect household well-being, so households with well-educated household heads are less likely to experience poverty. Living in poverty makes people often experience inadequate social participation or even exclusion, which may lead to a limited social network, a lack of access to public services, low participation in politics, sports, and culture, and an unhealthy lifestyle. The 'psychology of scarcity' argues that accumulating financial worries leads to tunnel vision and diminishes people's mental capabilities. Psychologically strained people often cannot focus on long-term goals and tasks, which makes it difficult for them to plan for the future effectively. So, it is not the lack of skills or laziness that perpetuates their disadvantaged position, but the lack of adequate income and living conditions. Next to the high demand for government support, a high percentage of households living below the poverty line negatively impact society as a whole. Income inequality affects crime rates and impedes opportunities for social mobility in society. Societies with high income inequality do not only experience higher crime levels but also have more health problems. In the fight against poverty, it is important to focus on children as a specific target group. This is

because children are most vulnerable to poverty and income inequality. Children growing up in poverty during their pre-school and early school years often have to deal with unhealthy food, less learning resources, an unstable home situation, lower school attendance, an unhealthy environment, domestic violence, and less access to friends, services, or jobs. On average, these children achieve a lower level of education.

#### *Normative relations*

The urgency programme has set nine intended outcomes: 1) Creating an inclusive society where poverty and social exclusion are reduced and where people, regardless of their background and socio-economic situation, feel involved and have real opportunities to develop. 2) Provide high-quality preschool and after-school education accessible to all people, regardless of their socio-economic situation. 3) Improve residents' literacy, mathematical and ICT skills (both children and adults). 4) Increased employment opportunities by developing neighbourhood economies, stimulating entrepreneurship, and making financing opportunities accessible for small- and medium enterprises. 5) The neighbourhood residents have a healthier lifestyle with access to preventive and affordable health care at the neighbourhood level. 6) Increased awareness among residents regarding energy and water consumption and a reduction of utility costs and renewable energy. 7) Residents should feel more involved in the neighbourhood, and the feeling of safety has improved. 8) Public transport to and within the neighbourhood has improved. And 9) government services are better accessible to residents.

#### *Final relations*

This programme focuses on four neighbourhoods: Barber, Buena Vista, Montana, and Otrobanda. These four neighbourhoods all represent an above-average number of households below the poverty line, high unemployment levels, many elderly people, many households with children, and one-person households. Based on these four neighbourhoods, the programme wants to develop a model that can be used in all neighbourhoods across the island. The development of a Curaçaoan model for poverty alleviation is based on three methods: the gamechanger theory, the Asset Based Community Development method (ABCD), and the transition theory. According to the gamechanger theory, eight elements can help improve people's livelihood in neighbourhoods, and a combination of those elements can create a major transformation within a neighbourhood. In Curaçao, the focus is on the following elements: education and training; the economy and employment; health and environment; family, community and safety; and good governance. According to the ABCD method, neighbourhood

development is most likely to happen and sustain if the residents themselves support it. Residents should be the initiators and owners of the interventions. The transition theory offers practical tools to bring about sustainable changes. Here there is a focus on self-organisation and self-sufficiency in the neighbourhood and cooperation and trust between residents to achieve this.

### *6.2.3 Governance programme 2022-2025*

In March 2022, the current government of Curaçao, Pisas II, published its governance programme: Towards recovery and a better quality of life for the people (GoC, 2022). The current government wants to increase the well-being of the people of Curaçao by restoring, stabilising, and strengthening the country's social, financial, and economic foundation (GoC, 2022: 3). Because a governance program is very broad and focuses on the development of all aspects of the country, this analysis only includes the parts of the programme related to increasing resilience and, therefore, household food security. The ministries that (mostly) contribute to resilience building are the Ministry of General Affairs, the Ministry of Economic Development, the Ministry of Health, Environment and Nature, the Ministry of Education, Science, Culture and Sports, and the Ministry of Social Development, Labour and Welfare.

#### *Causal relations*

Curaçao has been dealing with years of economic stagnation and even shrinkage, which translated into a non-balanced budget from 2017 to 2019. Necessary structural reforms to combat this have not been implemented due to a lack of political-administrative decisiveness and leadership. COVID-19 exposed and, in many ways, aggravated the vulnerabilities in the Curaçaoan economy and again led to economic stagnation and shrinkage. The COVID-19 pandemic has had a significant impact on healthcare, employment, and the quality of education. The outbreak of the pandemic and accompanying severe economic contraction had a negative impact on tax revenues while government expenditures increased, for example, in the form of financial aid. That is why the Curaçaoan government was forced to turn to the Netherlands for money loans to meet its obligations. Without deliberate interventions and structural reforms, the Curaçaoan government expects the negative spiral of the pandemic to continue. The governance programme aims to address this problem.

#### *Normative relations*

Overall, the governance programme focuses on five strategic pillars. Three contribute to increasing household resilience: high quality of life, a high living standard, facilitation, and safety nets. High

quality of life entails that every resident of Curaçao has a high level of access to and assurance of employment, medical care, education and training (in life skills), housing, transport, and social care for youth and the elderly. In addition, residents must feel safe and secure. A high living standard means that everyone has sufficient (financial) resources to ensure a healthy and safe life. Lastly, facilitating safety nets provides the nation with optimal spiritual, mental, physical and social-emotional development opportunities. Also, citizens, organisations, and companies should be provided with opportunities to develop themselves and contribute to the country's development. This can be done by offering support to those who need it the most. Each ministry also described how they would like to see Curaçao focused on their specific areas of expertise.

The Risk and Disaster Management domain of the Ministry of General Affairs wants to increase the resilience of Curaçao regarding future risks.

The Ministry of Economic Development is committed to structural reforms that will strengthen and recover Curaçao's economic structure and potential. The ministry focuses is on improving the country's competitive position, increasing resilience to shocks and creating conditions to stimulate economic activities in spearhead sectors further. The ministry believes that increasing the economic activities will create new jobs, innovation and increased productivity, and eventually sustainable economic recovery.

The Ministry of Health, Environment and Nature works with a holistic view policy that focuses on care prevention, healthy living, healthy nutrition, and optimised production. Among others, the ministry wants to increase food security through local agricultural production and create a health care system that meets the needs of citizens and ensures the accessibility, affordability, and quality of health services.

The Ministry of Education, Science, Culture and Sports is committed to guaranteeing facilities so that all residents of Curaçao have equal opportunities to develop their full potential and become full-fledged individuals who can constructively participate and contribute to the economic and social development of the community. Among other things, the ministry wants to create accessible, innovative, and high-quality education aimed at developing the full potential of the educational participants and increasing cultural awareness and participation so that all residents have the opportunity to fully participate in society.

Lastly, the Ministry of Social Development, Labour and Welfare wants to strengthen the social resilience of Curaçao so that the country will be able to bounce back after shocking and traumatic events and cope with them independently. The ministry wants to achieve this by, among other things, enhancing people's chance of succeeding in the labour market by better preparing them, and sustainably enhancing the quality of life of Curaçao's citizens.

#### *Final relations*

All ministries prepared several focus areas and accompanying projects and activities to meet their goals. For each plan, the year in which they intend to start implementing these projects and activities has been indicated. Every ministry has one or more executive offices responsible for the implementation. Besides the projects and activities, no specific policy instruments or means were mentioned on how the ministries want to achieve their goals.

The Ministry of General Affairs wants to increase Curaçao's resilience regarding risk and disasters by recognising risks early on and mitigating the consequences of crises and disasters as best as possible. All the projects and activities are pretty vague and focus on increasing resilience on country level, not on the household level. The Ministry wants to update the risk profile of Curaçao and enlarge and broaden Curaçao's strengths through cooperation in the preparation and response to crises and disasters both within the Kingdom and regionally and internationally. Further it aims to broadly introduce risk and crisis management systems to improve and enhance the quality of the crisis and disaster management organisation. Since the risk profile of Curaçao needs to be updated, there is no mention of what risks or disasters the country is/could be facing, and therefore no specific plans per type of disaster.

Related to increasing household resilience, the Ministry of Economic Development has mentioned one concrete project: improvement of the functioning of the labour market. It wants to achieve this by cooperating with the Ministry of Education, Science, Culture and Sports to ensure that the training offered meets the demand in the labour market.

Concerning increasing food security, the Ministry of Health, Environment and Nature wants to increase local agricultural production. They want to achieve this by "creating facilities to increase the production of agricultural produce for family consumption with a view to future cooperation with the Ministry of Economic Development in case of any surplus" (GoC, 2022: 38). More concrete projects

and activities are that they want to modernise the agricultural, livestock, and fishery sector by, among others, founding a training institute for agricultural, livestock, and fishery skills, upgrading the fishing port and facilities, and constructing a slaughtering facility. Regarding the creation of a health care system that meets the needs of citizens and ensures the accessibility, affordability, and quality of health services, the Ministry intends to optimise first-line care during the evenings, nights, and weekends, improve communication between patients and aid providers and digitalise and reform the health-care system.

The Ministry of Education, Science, Culture and Sports wants to sustainably strengthen the quality of education. To achieve this, it created ten focus areas and twenty-five accompanying projects or activities, suggesting that the current education system on the island needs rigorous reforming. Among the most important projects/activities regarding resilience strengthening are establishing policy regarding retraining for adults who lost their job, promoting reading through subsidies to the local library, implementing national education and language policies, increasing the expertise of educational staff, and monitoring the implementation of compulsory education and education legislation. Together with more projects and activities, this is how the Ministry intends to strengthen the quality of education in Curaçao.

Lastly, the Ministry of Social Development, Labour and Welfare wants to enhance people's chance of succeeding in the labour market by better preparing them. The ministry wants to achieve this by increasing labour participation, drafting, and implementing labour market policies and updating labour legislation. The other goal is to sustainably enhance the quality of life of Curaçao's citizens. Projects or activities related to resilience building include realising adequate services for youth welfare and people in need. This includes providing care (e.g. in the form of food or general hygiene) to citizens in case of emergency, creating an emergency fund to provide a social safety net for the most vulnerable in the community, and reforming the social funds and services.

### **6.3 Conclusions**

Based on the document analysis, it seems that, on paper, the Curaçaoan government is very much involved in increasing household resilience. All documents analysed focuses on at least two indicators that contribute to resilience. However, the question is whether these plans have been or will be implemented in practice, since the biggest problem Curaçao is facing is implementation (as mentioned in the NDP). One goal mentioned in the NDP is to protecting labour rights and promoting safe and

secure working environments. In 2020, when COVID-19 hit Curaçao, this was not fixed yet. As mentioned in Section 5.3, many people lost their jobs because they had short-term contracts. In enhancing resilience, it is imperative to make labour force legislation more flexible.

## **7. NGOs in Curaçao and how they try to enhance household food security**

This chapter addresses the third and last sub-question: how do non-governmental organisations try to increase household food security in Curaçao? This question will mostly be answered by zooming in on the work of five local NGOs. This chapter consists of three sections: Section 7.1 describes the types of NGOs that are working on food security in Curaçao. In Section 7.2, I go in-depth on the activities of the five NGOs I interviewed. The activities and roles of the NGOs will be analysed based on the distinctions made by Lewis (2010). Section 7.3 is the conclusion.

### **7.1 NGOs in Curaçao**

As mentioned in Section 2.3, NGOs can play an important role in enhancing food security as they often complement or supplement the food security efforts of government agencies (Banyen & Kotin, 2015). Since a lot of government documents are not publicly available in Curaçao, it is hard to say how much effort is coming from government agencies regarding increasing food security. During interviews, respondents indicated that a lot of people feel that the government is not doing enough on this topic, which is why they feel the work of NGOs is very important for Curaçao.

One of Curaçao's most prominent NGOs regarding food security is probably the Food Bank. The Food Bank is not focusing on a particular neighbourhood but provides food aid to households in need all over the island. During the pandemic, the local Food Bank became indispensable. In the first year of COVID-19, they distributed food packages to around 4,000 to 6,000 households per week (Voedselbank Curaçao, n.d.). However, Curaçao also knows a lot of smaller-scale NGOs that focus on poverty alleviation in a particular neighbourhood or target group. These NGOs often also have a food component. One example is Fundashon Wow'i Kariño, an NGO that focuses on youth development in Fuik, a neighbourhood with a high prevalence of poverty. Fundashon Wow'i Kariño focuses on both children's social and medical development and therefore provides youth with a meal plan consisting of healthy food. Another example is Shimaruku, an NGO that focuses on helping youth in Seru Fortuna, also a neighbourhood with a high prevalence of poverty. Shimaruku provides breakfast and warm meals for youth and focuses on infants whose mothers cannot breastfeed, children aged one to four, school-aged children, school drop-outs up to 18 years and pregnant women and young mothers. Some of these smaller-scale NGOs extended their food aid component during the pandemic (see Siloam, for example, as discussed in Section 7.2.2). Other important non-governmental actors in Curaçao are churches. Churches also help their members in times of need and sometimes also provide food aid.

In addition, Curaçao also knows NGOs that focus on agriculture and increasing self-sufficiency, which will change the food system and therefore increase food security in the long run (see, for example, Section 7.2.4 and 7.2.5). The pandemic created awareness among a lot of Curaçaoan people that something needs to change. Even though food availability was not affected that much by the pandemic (Section 5.1.1), the fact that so many households became dependent on food aid during the pandemic indicates a problem in the current system.

## **7.2 Initiatives of interviewed NGOs**

In this section, I will go in-depth on the work of the NGOs that I interviewed during my fieldwork: Red Cross Curaçao, Siloam Curaçao, The Daily Meal Programme, Samyama and Yu di Tera. Some of these NGOs were already active in increasing food security before the pandemic, others were founded because of the pandemic, and others changed their focus because of the pandemic. As will become clear, not every NGO contributes to food security in the same way, and they all fulfil different roles.

### *7.2.1 Red Cross Curaçao*

Red Cross Curaçao is a subsidiary of the Dutch Red Cross. The Red Cross is a humanitarian organisation and has been active in Curaçao for over 90 years. The mission of the Red Cross is to strengthen the resilience of vulnerable people and alleviate suffering. They do this without any judgement based on nationality, race, religion, class or political opinion. Their work is based on seven principles: humanity, impartiality, neutrality, independence, voluntarism, unity and generality. Red Cross Curaçao consists of 150 volunteers and three paid employees. The board consists of eleven people.

When the pandemic hit and Curaçao went into a hard lockdown, the Red Cross decided they needed to help their people. They had a few meetings with the government's crisis team to predict the impact of the pandemic in Curaçao and decided they needed to provide food aid. In collaboration with the Dutch Red Cross and the Dutch Ministry of Internal Affairs (*Binnenlandse Zaken*), Red Cross Curaçao received approval and funds to start its operation. The operation consisted of a food and hygiene programme, since hygiene was essential in combatting the virus, and was called 'the response programme'. The response programme was not only targeted at Curaçao but also at Aruba and Sint-Maarten. The budget for the three islands was EUR 16 million. The goal of the response programme was to mitigate the humanitarian impact of the COVID-19 pandemic on the islands.

The programme consisted of three different modalities: the food and hygiene packages, an e-voucher, and ready-to-eat meals, delivered daily. In Curaçao, 9,000 households were part of this programme. In phase one (May to August 2020), the Red Cross delivered food packages to 2600 households (for a five-person household), 505 daily ready-to-eat meals and 6000 households received e-vouchers. With local partner organisations (among others, the Food Bank), it was decided which households were eligible for what type of aid, this was based on income, fixed expenses, and household size.

Instead of putting together a basic food package, the Red Cross looked at what people on Curaçao eat. According to them, it made no sense to put products in a food package that people do not know what it is or do not like because they will not eat it. The packages were therefore adapted to local needs. However, providing the parcels with fresh fruit and vegetables was impossible because the process of putting together a parcel until it leaves the doorstep takes several days. Due to the tropical heat, fruit and vegetables rot quickly. The e-voucher was topped up monthly with a certain amount of money people could spend in the supermarket. Because of the culture of shame, Red Cross Curaçao ensured that the voucher could be used at every supermarket and cash register. This way, there was no separate queue for people needing help. With this voucher, people could only buy food and certain hygiene products. Some criticised this because people could not buy cat food or things that their children needed for school. Some people still tried to buy other things with the e-vouchers (e.g. make-up or shoes). People had to hand in their receipts afterwards, and if the organisation caught someone buying other things, they received a warning. The response programme was a huge logistical job.

In phase two, additional criteria were added for eligibility, based on health characteristics such as handicap or pregnancy because it is of no help to provide an e-voucher to someone bedridden. The response programme lasted for one and a half years and cost around EUR 45 million. After one and a half years, Red Cross Curaçao stopped its programme and handed it over to the Curaçaoan government. The Red Cross stopped because its core business is providing acute humanitarian assistance and the help started to become permanent.

Red Cross Curaçao delivered services to needy people, and they took the role of both partner and implementer. They were partners because they were funded by the Dutch government and worked with other local NGOs to distribute their food packages. Implementer because they mobilised resources to provide goods and services to needy people. They contributed to increasing household food security by increasing food availability through food aid.

### *7.2.2 Siloam Curaçao*

Siloam is a Christian family replacement home for children in Curaçao. Robert and his wife have run the foundation for six years. Besides being a shelter for children, they also support people in need in Curaçao. When Robert and his wife took over Siloam, the foundation worked with two supermarkets from which they received food that could not be sold, for example, when a can was dented or one rotten potato in a bag of potatoes. Then their drivers (volunteers) would go to the supermarket, pick the food up and park the truck in a neighbourhood, and then people could take whatever they wanted. But Robert and his wife changed this because they experienced that it was not the poorest people who would come to the truck but people who did not really need it. These people often sold the food. So instead, Robert and his wife actively looked for low-income families who needed support and now they bring it to their homes. Currently, they collect food from all big supermarkets in Curaçao. They sort the food, create packages, and then distribute it to 200 households weekly. The target groups are people who have no income or only receive a small amount of welfare assistance and chronically ill people.

Siloam also provides warm meals for people who cannot provide a warm meal for themselves. When the pandemic hit, the number of people unable to provide themselves with warm meals increased rapidly. Luckily, Siloam had just been donated a new kitchen. So, when the pandemic hit, they prepared and distributed around 150 warm meals per day. When Red Cross Curaçao stopped their response program and the government took over, Siloam was asked by the government to provide warm meals on behalf of the government. At that moment, Siloam provided around 525 warm meals per day for a couple of months. On December 31, 2021, the government stopped their COVID-19 emergency aid, including their food aid and social welfare assistance, and therefore Siloam was forced to stop its extensive warm meal distribution. From January 2022, they continued their regular warm meal distribution of around 150 meals per day. However, this meant that many people who still needed assistance and warm meals did not receive them anymore.

The goal of Siloam is to help chronically and terminally ill children and people in need from a Christian point of view. They provide help in various ways because they also receive a lot of donations in the form of furniture, clothing, and other items. Their focus is on Bandabou, the Western part of the island where a lot of poor people live. Robert and his wife find it very important not just to provide food but to provide healthy, varied meals consisting of fresh vegetables, meat, pasta, rice, or potatoes.

With their work and activities, Siloam contributes to increasing household food security in two ways: by providing warm meals to people in need, they increase food availability, and because of their focus on a healthy and varied meal, they also contribute to increasing food utilisation. With their food aid, they deliver services to people in need while fulfilling the role of implementer; Siloam mobilises resources to provide goods and services to those who need them.

### *7.2.3 The Daily Meal Programme*

The Daily Meal Programme started its activities when the pandemic hit Curaçao, around two years ago. The initiator of the Daily Meal Programme was DeliNova, a wholesaler on Curaçao that supplies food to restaurants and hotels on the island. The island went into lockdown when the pandemic hit, and flights, cruise ships and tourists could no longer enter. Restaurants and hotels had to close, and DeliNova found itself with freezers full of products, some of which had a limited shelf life. Instead of wasting all this food, they decided to do something good with it. This is where Antoinette came into the picture, now president of the Daily Meal Programme. During the first three months, Antoinette and her team prepared meals with the stock of DeliNova in the closed kitchens of hotels and restaurants. The meals were distributed among people who lost their jobs, had no money and were unable to prepare a meal for themselves. In those first three months, they distributed around 18,000 meals. After three months, the island and, thus, restaurants opened again. The poverty, however, stayed which is why Antoinette and her team decided to continue their activities. They contacted a community centre in Wishi Marchena, equipped with a big kitchen and started to run their operation from there. After one year of preparing meals, they officially founded the foundation called the Daily Meal Programme.

At the time of the interview (February 2022), the Daily Meal Programme consisted of multiple volunteers who prepared around 200 to 250 warm meals per week. The target group were the people that were hit the hardest by the pandemic: people living in the neighbourhood of Wishi Marchena, but also in elderly homes, disabled persons, after-school care, and undocumented migrants. The Daily Meal Programme aims to provide healthy food to people who need it the most and stimulate self-sufficiency at the household level. In this way, the programme wants to promote involvement, quality of life and health at the neighbourhood level.

To achieve this goal, they have set up three phases: phase one was the food aid to people in need because of the pandemic, as described above. In this phase, neighbourhood residents could pick up a

warm meal three times a week at the community centre in Wishi Marchena. Phase two is focused on the self-sufficiency of the people of Curaçao. In this phase, they aim to offer people without cooking facilities the opportunity to prepare meals together in community centres. Many poor people in Curaçao cannot afford cooking facilities, such as a gas tank, which makes it impossible to cook at home. In the community centres, the Daily Meal Programme provides kitchen equipment and takes care of the costs of water, electricity, gas, and management of the building. The residents should take the initiative themselves, but the Daily Meal Programme provides guidance and teaches the community how to cook with healthy ingredients. In phase three, they want to teach people how to grow fruit and vegetables at participating community centres. The climate of Curaçao is well suited for growing (certain) types of fruits and vegetables, but the ground is dry and rocky, making cultivation difficult. That is why the Daily Meal Programme plans to create small gardens in large waste bins. Also, water is costly and scarce, so they want to teach people how to collect rainwater. The Daily Meal Programme is entirely dependent on donations.

To conclude, the Daily Meal Programme provided acute food aid during the pandemic, but in the long run, they also want to create awareness among Curaçaoan residents that they can produce their own food and teach them how to grow and cook healthy food. When looking at the activities of the Daily Meal Programme, they deliver services to people in need in which they fulfil the role of implementers. In addition, they also want to pursue social transformation by educating the people of Curaçao, and here they fulfil the role of catalyst. They facilitate and contribute to improved thinking and action to promote healthy diets and self-sufficiency. With their activities, the Daily Meal Programme contributes to increasing household food security by increasing food availability (by handing out meals and teaching people how to grow food) and by increasing food utilisation (by educating people on how to eat healthy and nutritious food and provide them with the tools to cook healthy meals).

#### *7.2.4 The Samyama permaculture transition*

Samyama is a social enterprise engaged in the transition to sustainable energy and a low-carbon society. The owner of Samyama, Benjamin, believes that permaculture is the best way to achieve this. Permaculture is an approach to land management where people work in harmony with nature instead of against nature. In Curaçao, Benjamin implements permaculture in the form of agroforestry in food forests. Agroforestry combines trees and agriculture on the same land and can contribute to a wide range of economic, sociocultural, and environmental benefits (FAO, 2015). The goal of the food forests is to contribute to self-sufficiency in Curaçao, regreening of the island, and contributing to healthy

ecosystems in Curaçao. Instead of only reducing the carbon footprint, Benjamin wants to extract carbon from the atmosphere with his food forests. With Samyama, Benjamin advises individuals and companies on how they can create a food forest themselves. This can be small-scale, in someone's backyard, or on a larger scale, for example in a company garden. Individuals are often more interested in the food production component whereas companies are more interested in the sustainability component. Samyama also created two neighbourhood forests in Curaçao.

With the neighbourhood forests, Benjamin wants to contribute to social cohesion and self-sufficiency and educate people on how to grow food sustainably. In the first lockdown (in 2020), the first food forest was created in Scharloo, a neighbourhood in Curaçao. In the second lockdown (in 2021), the second food forest was created in the neighbourhood of Brievengat. Both neighbourhoods can be qualified as poor. Working in the food forest in Scharloo was entirely voluntarily. Neighbourhood residents were not that interested in working in a forest on their weekend voluntary, so the participation of residents was not that high. In the food forest in Brievengat, Benjamin gave the people a small allowance after a day of working in the forest: around 25 ANG for adults, and 15, 10 or 5 ANG for children, based on age and the work they did. This attracted many people from the neighbourhood: some days, 25 residents were working in the forest. A Dutch foundation funds the neighbourhood food forests.

The harvests of the food forests are still relatively low because it takes some time for all the trees and crops to grow and produce food; only herbs are already growing. For now, the greatest benefits are that the forests contribute to social cohesion, create extra vegetation on the island, and people learn how to grow food in a sustainable manner. The COVID-19 pandemic and lockdowns created awareness among Curaçaoan residents about how import-dependent they are, and the food forests are one way to become more self-sufficient. In the (near) future, the goal is that the food forests will produce local fruits and vegetables, which can be picked and used by the neighbourhood residents. Samyama is planning to create two more neighbourhood food forests in the near future.

Currently, Samyama is not directly contributing to food security. They are, however, educating people on how to grow food and how to do it sustainably. In the future, when the food forests are productive, they will directly contribute to food availability on the neighbourhood level and food utilisation by providing healthy food. Their activities are mainly aimed at pursuing social change. Samyama fulfils the role of implementer because they provide local people with knowledge and tools to work in the forests and the role of a catalyst by facilitating and contributing to a different way of thinking about

sustainability and self-sufficiency, directed at both neighbourhood residents and individuals and companies.

#### 7.2.5 Yu Di Tera

Yu Di Tera is a social enterprise involved in professionalising green initiatives in Curaçao.<sup>6</sup> Cindy, the owner of Yu Di Tera, helps all kinds of initiatives that have to do with sustainability by giving advice and providing seeds. Yu Di Tera was founded amidst the pandemic in December 2020. However, even before she founded this company, Cindy was already involved in helping green initiatives. During the first lockdown, a neighbourhood organisation called *Fundashon Ser'i Otrobanda* came up with the idea to start growing vegetables for residents who had lost their jobs due to the lockdown measures. Cindy supported this idea and started working on a piece of land across her house. It is not easy to grow vegetables on the dry and stony soil of Curaçao, but the advantage of the tropical island is that everything grows quickly. After a few weeks, Cindy was able to put together the first food packages for local residents from the harvest. The garden provided fruit and vegetables for about 50 families during the lockdown. In the meantime, two more community gardens have been realised. Part of the harvest goes into food packages and will be handed out to people in the neighbourhood who cannot afford to buy fruits and vegetables, and the rest will be sold. Neighbourhood residents get a discount, and others will pay the regular price. In this way, together with some donations and funding from other organisations, they hope the project will be able to support itself. The goal of the community gardens is for them to become a social enterprise so that neighbourhood residents who work in the gardens can generate income from it, and that residents can buy healthy and affordable products within walking distance (van Ditzhuijzen, 2021).

The outbreak of the pandemic and the precarious situations some households found themselves in was one of the triggers for Cindy to start Yu di Tera. However, according to Cindy, food security in Curaçao was already at risk before the pandemic. The dependency on food imports and future water shortage and water management issues are some of the problems that Curaçao is facing regarding future food security. Together with the pickiness of people in Curaçao when it comes to food, both among tourists and locals, and the large quantities of meat consumed, these problems will only grow in the future. With Yu Di Tera, Cindy wants to change these patterns. She does this, among other things, by teaching children and adults how to grow food, and by creating awareness of what a healthy diet

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<sup>6</sup> Based on the definition used in this study, I consider this social enterprise as an NGO, although the owner did not confirm whether it was indeed a not-for-profit organisation.

and lifestyle look like. During her classes, she also focuses on sustainability aspects such as collecting rainwater and using less plastic. The Daily Meal Programme also hired Cindy to give some lessons on how to grow food in an urban setting. Both in her community garden and during her lessons, she focuses on what types of food can be cultivated in Curaçao. She wants Curaçaoan people to eat more food that can be cultivated on the island and, in this way, contribute to becoming less dependent on imports.

The types of activities that Cindy undertakes with Yu Di Tera are giving advice, education and awareness raising. She is pursuing social transformation by educating children and adults about healthy food, active lifestyles and how to grow food. With the community garden, Cindy delivered services to people in need. Yu Di Tera is contributing to increasing food security by stimulating cultivation and green initiatives in Curaçao, creating awareness, and giving education on how to eat and live healthily. The community gardens directly contribute to food security by increasing food availability in the neighbourhood and providing food to people in need. With all these activities, Cindy and Yu di Tera fulfil the roles of catalyst and implementer.

### **7.3 Conclusions**

NGOs are very important for Curaçao, as several people mentioned during interviews. This chapter provided an overview of the different types of NGOs that are concerned with food security in Curaçao and what kind of activities they undertake to enhance food security. The activities, roles, and contributions to food security of five NGOs were analysed in depth. The five NGOs are very different regarding their size, activities, roles, and target groups and are therefore quite representative of how NGOs in Curaçao are working on increasing food security (see Table 7.1). Based on the analysis, I observed two types of NGOs contributing to increasing food security: those providing food aid and thus directly increasing food security for the poorest people in the community and those focusing on education in agriculture and healthy diets that want to contribute to self-sufficiency, and thus for enhancing food availability and food security in the future. Some NGOs were created through the pandemic, and others had to carry out their pre-existing work on a larger scale because of the pandemic. The pandemic can be seen as a wake-up call that has brought self-sufficiency and self-reliance under the attention, which is a positive consequence of the pandemic.

*Table 7.1: Overview of the activities and roles of NGOs, based on Lewis (2010).*

	Type of activity		Role in society			How do they contribute to improving food security?	
	Delivery of services	In pursuit of social change	Implementer	Catalyst	Partner	Food aid	Education
Red Cross Curaçao	X		X		X	X	
SILOAM	X		X			X	
Daily Meal Programme	X	X	X	X		X	X
Samyama		X	X	X			X
Yu Di Tera	X	X	X	X			X

## 8. Conclusions

### 8.1 Synthesis of research findings

The main question of this research is: *How has COVID-19 affected household food security in Curaçao, and how do the government and non-governmental actors aim to improve food security and household resilience?* Three sub-questions were formulated to help answer this question. In the following sections, each sub-question will be answered, and in this way, I will work towards answering the main research question.

Sub-question one is: how has COVID-19 affected household food security in Curaçao? The answer to this question is based on my survey results (presented in Section 5.1), which were compared with the CARICOM survey results (5.2) and complemented by real-life experiences derived from interviews (5.3). My survey was conducted among predominantly well-educated, high-income, and female respondents. Among these respondents, the impact of COVID-19 and the accompanying lockdowns on household food security appeared not to be that big. According to the respondents, food availability remained relatively high. Availability of fresh foods was impacted the most, but still sufficiently available. The impact on food access and utilisation was a bit larger. The rising food prices and reduced incomes due to the pandemic affected households' economic access to food and forced them to eat and shop differently. The survey respondents are not representative of Curaçao's population. Hence, these results cannot be generalised to the population as a whole. The CARICOM survey results paint a slightly more troubling picture of the impact of COVID-19 on food security and the livelihoods of people in the Caribbean region. The survey revealed that food security is a major concern since some respondents struggle to meet their food needs, and a worrying number of respondents are reducing the amount they eat. The discrepancies between my survey results and the CARICOM results may be caused by the fact that the last CARICOM results are from February 2021, so the situation might have improved considerably since then and that the CARICOM survey represents a higher share of below-average income households, and these households have been, and are still, facing the most struggles. The struggles of low-income households regarding food security during and before the pandemic became apparent in the real-life stories derived from the interviews.

In summary, whereas the COVID-19 pandemic affected the daily life of the entire population of Curaçao, the impact on food security was the largest among poor households. Economic access to food is their largest constraint, caused by increased food prices and reduced incomes, both due to the pandemic. Many people suddenly became poor and completely dependent on food aid programmes.

The higher-income households, of course, noticed the increase in food prices and were forced to change their shopping and eating behaviour, but since food availability remained relatively high, many of them were still able to provide (healthy) food for their households. Therefore, their food security was not so much impacted.

The second sub-question is: how is the government of Curaçao involved in enhancing households' resilience? In answering this question, I looked at the governments' involvement during the pandemic and how policies contribute to increasing households' resilience (see Chapter 6). During the pandemic, the Curaçaoan government extended its social safety net with a package of support measures aimed at unemployed people, people who had lost their jobs and entrepreneurs. With this package, the government aimed to reduce the impact of the pandemic on the population of Curaçao. In addition, the government also provided food aid, which they took over from Red Cross Curaçao. In December 2021, the government stopped its support measures and food aid because of the reduced impact of the COVID-19 pandemic on the country's population and financial situation. In the analysed policy documents, the government of Curaçao is highly involved in alleviating poverty and improving the education system and employment opportunities, which could contribute to increasing household resilience. When households become more resilient, it will help them to better absorb the effects of a shock like COVID-19 and enable them to adapt to this new situation. While the plans are ambitious, there might be a problem regarding implementation. The implementation and achievement of long-term plans such as the National Development Plan (NDP) are not legally defined, making their implementation entirely dependent on the ruling government. Also, Curaçao is currently not financially in good shape (partly caused by the pandemic), so the government may be unable to carry out all its ambitious plans.

In summary, the government of Curaçao has a lot of plans that could contribute to increasing household resilience, but implementation appears to be defective. Curaçao has a social safety net but still knows a lot of poverty, which became apparent during the pandemic. To make the population of Curaçao more resilient to future shocks, structural reforms are needed: among other things, poverty must be alleviated, the education system needs improvement, and employment opportunities should be increased.

The last sub-question is: how do non-governmental organisations try to increase household food security in Curaçao? Curaçao knows quite a lot of NGOs which are in some way involved with increasing food security. Many NGOs that focus on poverty alleviation targeting a particular neighbourhood or group have a food aid component in their programme (see Chapter 7). Other NGOs focus more on

increasing food production and self-sufficiency by promoting agriculture. Based on the in-depth analysis of five NGOs, two types can be distinguished: those that provide food aid and therefore directly contribute to increasing food security for the poorest in society and those that focus on education in agriculture and healthy diets. The latter group contributes to food availability and self-sufficiency and considers increasing food security in the future. The pandemic showed how important self-sufficiency and agriculture are and provoked extra attention to these issues. Already before the pandemic, NGOs appeared to be very important for household food security: some households depended entirely on food aid. During the pandemic, this number rapidly increased, and NGOs became indispensable in making ends meet for many households.

In conclusion, of the three dimensions of household food security, food access is most impacted by the COVID-19 pandemic, and food availability the least. The impact of the pandemic was the largest among poor households in Curaçao. Some of these poor households have become entirely dependent on food aid during the pandemic. Middle and higher-income households largely remained able to provide their households with healthy food despite increased food prices. The policies of the Curaçaoan government do not directly target household food security, but its policies targeted at poverty alleviation may increase household resilience. NGOs in Curaçao are directly involved in increasing household food security through food aid (e.g. handing out warm meals or food packages), and by educating people on how to grow food.

## **8.2 Theoretical reflections**

According to the literature described in Chapter 2, the COVID-19 pandemic was expected to impact food access most directly and severely. This is because the pandemic caused a loss of income and assets, threatening households' economic capacity to buy food (Ouoba & Sawadogo, 2021). Food availability would be threatened by supply chain disruptions, partly because lockdown measures would affect labour-intensive supply chains but also because countries started to prioritise their own food supply and introduced export restrictions. This would disproportionately impact import-dependent countries and raise food prices (Devereux et al., 2020). Poor households would have been hit the hardest by the pandemic due to falling incomes and rising food prices, leading to decreased purchasing power. Poor people often work in jobs requiring physical labour, which was hard or sometimes even impossible to continue during lockdowns and other social-distancing measures (Swinnen & McDermott, 2021; Laborde et al., 2020; O'Hara & Toussaint, 2020). Middle and high-income households are generally more resilient to shocks since they have more assets, savings, and human capital to fall back on. Also, they often can continue their work from home. Poor households are,

therefore, dependent on the social safety nets provided by the government or NGOs programmes (Evans, 2011; Banyen & Kotin, 2015).

The expectations described in the literature appeared to be precisely the case in Curaçao: as concluded in Chapter 5, food access and utilisation were hit the hardest. This is because of the rising food prices in Curaçao, together with the loss of income. As the survey results showed, the impact of the pandemic on middle to high-income households' food security was not that large; they were still able to provide food for their households. The real-life stories showed that the pandemic hit poor households' food security the hardest. These households were often already struggling to provide food for their families. Because of the pandemic, many poor people lost their jobs because tourism stalled, and restaurants and hotels had to close. These jobs often did not apply the proper labour legislation, meaning the labourers were left with no income when fired. Together with the increased food prices, it became impossible for poor households to feed their families. They became dependent on safety nets from the government for a source of income. However, these proved to be insufficient, and many people became dependent on NGOs and their food aid programmes to alleviate the worst hunger.

Surprisingly, the survey results showed that the pandemic did not so much impact food availability in Curaçao. This finding differs from the literature since food availability was expected to disproportionately impact food import-dependent countries (Devereux et al., 2020). Although food availability in all food groups slightly decreased (fresh foods and dairy in particular), the overall availability still appeared to be sufficient according to the survey respondents. The availability of staple food was impacted the least, in line with the literature (Laborde et al., 2020; Swinnen & McDermott, 2021). The small impact on food availability seems to indicate that the food system in Curaçao is quite resilient, which is surprising considering its small island characteristics and high dependence on food imports.

To conclude, most of the research findings align with the literature as described in Chapter 2. The most surprising finding, which was not in line with the literature, was the small impact of the COVID-19 pandemic on food availability in Curaçao.

### **8.3 Suggestions for further research**

More research is needed on the experiences of poor households during shocks since their food security was most impacted by the COVID-19 pandemic and accompanying restrictions. Considering that Curaçao will most likely have to deal with shocks affecting food security on the island in the future, more research is needed on how to better protect the poor from the effects of a shock. One topic that became apparent during this research that deserves more attention in further research is the culture of shame. The culture of shame appeared so intense in Curaçao that people rather go hungry than admit or show that they are poor. However, because of the limited time and resources I had for this research, it was not feasible for me to explore this more in-depth.

### **8.4 Policy recommendations**

As was concluded from the policy analysis in Chapter 6, the government of Curaçao does have a lot of plans that could contribute to increasing household resilience but limited to no attention is paid to handling shocks, especially on the household level. Also, based on the few publicly available policy documents, it seems as if there is no policy focused on enhancing food security in Curaçao. This could partly be explained by the fact that Curaçao as a country is not food insecure, but since many households on the island appeared to be food insecure, more attention should be paid to this. I recommend the government of Curaçao create two policies: one focusing on possible future shocks Curaçao could be facing, and how, in each situation, poor and vulnerable households can be protected from them. The other should focus on enhancing household food security to reduce the number of households dependent on food aid programmes to feed their families. Lastly, I advise the government of Curaçao to make policy documents publicly available for greater transparency about the plans and their implementation. In this way, support can be created from citizens and civil society and implementation problems be reduced.

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## 10. Appendices

### Appendix 1: Operationalisation of key concepts

Key concepts	Dimensions	Variables	Indicators/questions	Type of data
Food security	Availability	<ul style="list-style-type: none"> <li>Food source</li> <li>Stockpiled food reserves (household level)</li> <li>Availability in stores</li> </ul>	<p><b>Q1:</b> What was your households main food source prior to the pandemic?</p> <p><b>Q2:</b> What is currently your household's main food source?</p> <p><b>Q3:</b> Do you have any food stock in your household at the moment?</p> <p><b>Q4:</b> Prior to the pandemic, did your household often have food in stock?</p> <p><b>Q5:</b> What was the availability in stores and markets of the following items prior to the pandemic?</p> <p><b>Q6:</b> What is the current availability in stores and markets of the following items?</p>	Data about household food security was derived from surveys among local households (Chapter 5)
	Access	<ul style="list-style-type: none"> <li>Food expenditures</li> <li>Food prices</li> <li>Type of income</li> </ul>	<p><b>Q1:</b> What percentage of the total household expenditures was spent on food prior to the pandemic and what percentage now?</p> <p><b>Q2:</b> Have you noticed an increase in food prices since the start of the pandemic?</p> <p><b>Q3:</b> What food items increased most in price?</p> <p><b>Q4:</b> Did your household lose income because of the pandemic?</p> <p><b>Q5:</b> Does your household have access to markets or other food retail outlets and has this changed since the start of the pandemic?</p>	
	Utilisation	<ul style="list-style-type: none"> <li>Dietary diversity</li> <li>Number of meals</li> </ul>	<p><b>Q1:</b> Since the pandemic, was there a time when you or any household member were unable to eat healthy and nutritious foods or only ate a few kinds of foods?</p> <p><b>Q2:</b> Since the pandemic, was there a time when you or any household member had to skip a meal/were hungry but did not eat/ went without eating for a whole day?</p> <p><b>Q3:</b> How many meals do you eat per day and has this changed since the pandemic?</p> <p><b>Q4:</b> Have you changed your eating behaviour because of the pandemic?</p>	

<b>Household resilience</b>	Resilience capacity	<ul style="list-style-type: none"> <li>• Absorption</li> <li>• Adaptation</li> <li>• Transformation</li> </ul>	<p><b>Q1:</b> How did the government react to the pandemic (the shock) with regard to providing food security?</p> <p><b>Q2:</b> How did the government help (vulnerable) households absorb the shock of the pandemic?</p> <p><b>Q3:</b> How did the government help households to adapt to the shock of the pandemic?</p> <ul style="list-style-type: none"> <li>- How did they ensure that vulnerable households were exposed to the right information about COVID-19?</li> <li>- How did the government ensure that (vulnerable) households remained access to basic services? (healthcare/education/water/hygienic requirements/electricity)</li> </ul> <p><b>Q4:</b> What policies are in place with regard to increasing household resilience?</p>	<p>Information about the resilience capacity was mostly derived from key informant interviews with experts, scholars, and employees of local NGOs.</p>
	Resilience building strategies	<ul style="list-style-type: none"> <li>• Income/savings</li> <li>• Assets/capital</li> <li>• Social Safety nets</li> <li>• Access to public services</li> <li>• Production/efficiency</li> <li>• Self-esteem/ self-efficacy/ tenacity</li> </ul>	<p><b>Q1:</b> What interventions/programmes does the government have in place to increase household resilience? (interventions/programmes targeting livelihood/welfare outcomes, improving access to healthcare and education, helping households generate more income and savings)</p> <p><b>Q2:</b> What programmes or safety nets are in place to handle shocks such as COVID-19?</p>	<p>Information about resilience building strategies were derived from a policy analysis (Chapter 6)</p>

# The impact of the COVID-19 pandemic on food security

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## Start of Block: Demografie van de respondent

### Q0

This survey is about the impact of the COVID-19 pandemic on food security in Curaçao. Locally, but also worldwide we see crises arising around food security, such as COVID-19 but also fluctuating prices and climate change. Food security is defined as a household having access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life. Food security is based on four dimensions, which are food availability, access to food, utilisation and stability.

This survey is part of a research project from a student of the University of Amsterdam and is supported by ZonMw. The goal of this research is to contribute to a sustainable and resilient food chain for Curaçao, so that crises such as COVID-19 will hopefully have a less significant impact on the community in the future. To reach this goal, your input is crucial and therefore I would like to thank you in advance for your time and effort.

This survey is divided into 4 parts: part 1 consists of a few general questions about you as a respondent. With this information we are able to make a more informed analysis of which groups are affected by the pandemic in which specific way. Part 2 of the survey consists of questions about your household's current situation with regard to food security. Part 3 is about your household's situation with regard to food security prior to the COVID-19 pandemic. During this survey, you will notice that some questions of part 2 and 3 are the same. In this way I can make a comparison between the situation before the pandemic and the situation during the pandemic, i.e. the current situation. Part 4, the last part, consists of some questions about healthy food.

It is important to know that your participation in this interview is completely voluntary: you can decide to stop participating in this survey at any time. I guarantee that I will treat your answers as confidentially and anonymously as possible. This survey will only serve to develop better and more sustainable education, science, and policy.

For questions or comments about this survey, please send an e-mail to Fleur van Werkhoven at [fleur.van.werkhoven@student.uva.nl](mailto:fleur.van.werkhoven@student.uva.nl)

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**Q65 Part 1: General questions**

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Q1 What is your gender?

- ☐ Male
  - ☐ Female
  - ☐ Other
- 

Q2 What is your age?

- ☐ Under 18 years old
  - ☐ 18 - 30 years
  - ☐ 31 - 45 years
  - ☐ 46 - 65 years
  - ☐ 66 years or above
-

Q3 How many people currently live in your household?

- ☐ 1 person
  - ☐ 2 persons
  - ☐ 3 persons
  - ☐ 4 persons
  - ☐ 5 or more
- 

Q4 How many children under the age of 18 live in your household (including yourself)?

- ☐ 0
  - ☐ 1 child
  - ☐ 2 children
  - ☐ 3 children
  - ☐ 4 children
  - ☐ 5 or more children
- 

Q5 What is your marital status?

- ☐ Living together
  - ☐ Married
  - ☐ Widowed
  - ☐ Never married
-

Q6 Which of the following categories best describes your current employment situation?

- ☐ I have a job
- ☐ I don't have a job, but I am looking for a job
- ☐ I don't have a job and I am NOT looking for a job
- ☐ Retired

*Skip To: Q10 If Welke van de volgende categorieën omschrijft het best uw huidige arbeidssituatie? != Ik heb een baan*

---

Q7 Which sector do you work in?

- ☐ Tourism (tour operator, resort or hotel, etc.)
  - ☐ Retail (supermarket, store, etc.)
  - ☐ Healthcare
  - ☐ Services (financial, education, hairdresser, restaurant, etc.)
  - ☐ Construction
  - ☐ Transportation
  - ☐ Agriculture and/or fishery
  - ☐ Other: \_\_\_\_\_
-

Q8 In what type of employment do you work?

- ☐ Employee, permanent contract
- ☐ Employee, temporary contract/zero-hours contract
- ☐ Employer
- ☐ Self-employed
- ☐ Other: \_\_\_\_\_

---

*Display This Question:*

*If Loop 1: In wat voor soort dienstverband werkt u? = Werkgever*

Q9 How many employees do you have?

- ☐ 1-10
- ☐ 10-50
- ☐ 50 or more employees

Q10 What is the highest level of education that you have achieved?

- ☐ No education/primary school not completed
  - ☐ Primary school
  - ☐ Secondary school (VSBO/HAVO/VWO)
  - ☐ SBO (MBO) 1/2/3/4
  - ☐ University/University of Applied Science Bachelors degree
  - ☐ University/University of Applied Science Masters degree
  - ☐ PhD
- 

Q11 What is your household's income in NAF per month?

- ☐ Welfare payment (onderstand)
  - ☐ 500-1000 NAF per month
  - ☐ 1000-2000 per month
  - ☐ 2000-3000 per month
  - ☐ 3000-5000 per month
  - ☐ 5000-7000 per month
  - ☐ More than 7000 per month
  - ☐ Prefer not to say
-

Q12 What is country of birth?

- ☐ Curaçao
  - ☐ Venezuela
  - ☐ Colombia
  - ☐ Dominican Republic
  - ☐ Haiti
  - ☐ The Netherlands
  - ☐ Other Dutch Caribbean country
  - ☐ Other Caribbean country
  - ☐ Other Latin American country
  - ☐ Other: \_\_\_\_\_
- 

Q13 What neighbourhood do you live in?

\_\_\_\_\_

End of Block: Demografie van de respondent

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Start of Block: Deel 2: huidige situatie

**Q61 Part 2: current situation**

These questions are about your household's current situation

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Q13 What is **currently** your household's main food source? (multiple options possible, choose max. 3)

- ☐ Own production
- ☐ Purchased
- ☐ Borrowed
- ☐ Exchange for labour
- ☐ Gift from friends, family, or neighbours
- ☐ Food aid program (for example food bank, or other local organizations)

---

*Display This Question:*

*If Hoe komt uw huishouden aan voedsel? = Voedselhulp programma's (zoals voedselbank etc.)*

Q14 What kind of food aid program? (name of the program or foundation)

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Q15 What is **currently** the average availability in stores and markets of the following items:

	Never available	Sometimes available	Often available	Always available	I don't know
Staple foods (rice, pasta, maize flour, cassava, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fresh foods (fruit and vegetables)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proteins (meat, eggs, fish, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dairy (milk, yogurt, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q16 Does your household have any food in stock **at this moment**?

- ☐ Yes
- ☐ No

Q17 Is there a particular period or season that there is less food available on Curaçao?

- ☐ Yes
- ☐ No

*Skip To: Q19 If Is er een bepaalde periode of seizoen waarin er minder voedsel beschikbaar is op Curaçao? = Nee*

Q18 When is this period and why is there less food available in this period?

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Q19 What percentage of your household's disposable income is **currently** spend on food?

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Q20 Have you noticed an increase in food prices compared to before the pandemic?

☐ Yes

☐ No

*Skip To: Q23 If Zijn naar uw idee de voedselprijzen gestegen sinds de uitbraak van de Corona pandemie? = Nee*

Q21 Why do you think the food prices increased since the COVID-19 pandemic?

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Q22 In your opinion, what food items increased most in price?

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Q23 Did your household lose income because of/during the pandemic?

☐ Yes

☐ No

*Skip To: Q27 If Heeft uw huishouden inkomsten verloren door of tijdens de pandemie? = Nee*

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Q24 Why did your household lose income?

☐ Me or another person in my household lost his/her job

☐ Me or another person in my household was forced to work less hours

☐ Me or another person in my household got sick

☐ Other: \_\_\_\_\_

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Q25 How did your household try to compensate these income losses? (multiple answers possible, max. 3)

- ☐ We were not able to compensate these income losses
- ☐ We used our savings
- ☐ We received help (in the form of money, vouchers or discount) from the government
- ☐ We borrowed money from friends/family/neighbours
- ☐ We took a loan from a financial institution (for example, the bank)
- ☐ Other: \_\_\_\_\_

---

*Display This Question:*

*If Hoe heeft uw huishouden deze verloren inkomsten geprobeerd op te vangen? (meerdere antwoorden mog... = Hulp (in de vorm van geld, vouchers, kortingen) ontvangen vanuit de overheid*

Q26 What type of help did you receive from the government?

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Q27 Do you or your household **currently** have access to supermarkets or other food retail outlets?

- ☐ Yes
  - ☐ No
-

Display This Question:

If Heeft uw huishouden momenteel toegang tot supermarkten, markten of andere voedsel verkooppunten?  
= Nee

Q28 If not, why not?

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Display This Question:

If Heeft uw huishouden momenteel toegang tot supermarkten, markten of andere voedsel verkooppunten?  
= Ja

Q29 If yes, what food retail outlet do you or your **household** currently use most?

- ☐ Supermarket
- ☐ Local market
- ☐ Informal market/street vendors
- ☐ Other: \_\_\_\_\_

Q30 Have you changed your shopping behaviour (with regard to food items) compared to before the pandemic?

- ☐ Yes
- ☐ No

Skip To: Q33 If Sinds de uitbraak van de COVID-19 pandemie, heeft u uw koopgedrag met betrekking tot voedsel aang... = Nee

---

Q31 If yes, in what way? (multiple answers possible)

- ☐ Buying cheaper or less preferred foods
  - ☐ Buying larger quantities than usual
  - ☐ Buying smaller quantities than usual
  - ☐ Going to different stores
  - ☐ Other: \_\_\_\_\_
- 

Q32 Why have you changed your shopping behaviour?

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Q33 Does your household **currently** have access to the following utilities or services?

	Yes or no	
	Yes	No

Aqualectra

☐☐

Healthcare

☐☐

Sanitation

☐☐

---

Q34 How many meals do you **currently** eat per day?

☐ Less than 1

☐ 1

☐ 2

☐ 3

☐ 4 or more

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Q35 Have you changed your eating behaviour because of the pandemic?

☐ Yes

☐ No

*Skip To: Q38 If Heeft u uw eetgedrag aangepast door de COVID-19 pandemie? = Nee*

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Q36 If yes, in what way have you changed your eating behaviour? (multiple options possible, max. 3)

- ☐ I started eating fewer meals a day
- ☐ I started eating less nutritious meals (often eating the same type of meals with few nutrients)
- ☐ I started eating less healthy (more take-out and fast-food)
- ☐ I started eating healthier
- ☐ Other: \_\_\_\_\_
- 

Q37 Why have you changed your eating behaviour?

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Q38 **Since the pandemic**, how often did the following situations occur in your household?

	Often (daily)	Sometimes (weekly)	Rarely (monthly or less)	Never

Since the pandemic,  
there have been  
times where I or  
another household  
member were  
unable to eat  
healthy and  
nutritious food.



Since the pandemic,  
there have been  
times where I or  
another household  
member only ate a  
few kinds of foods.



Since the pandemic,  
there have been  
times where I or  
another household  
member were  
forced to skip a  
meal.



Since the pandemic,  
there have been  
times where I or  
another household  
member were  
hungry but did not  
eat.



Since the pandemic,  
there have been  
times where I or  
another household  
member went  
without eating for a  
whole day.



Since the pandemic, there have been times where I worried that my household would not have enough food.

☐ ☐ ☐ ☐

Q39 To what extent do you agree with the following statements:

	Totally disagree	Disagree	Neutral	Agree	Totally agree
The government has made sufficient efforts to distribute information to <u>all</u> households on how to deal with the Coronavirus (e.g. information about washing hands, keeping a safe distance, testing, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
During the pandemic, there were sufficient <u>government-initiated</u> (emergency) programs, funds, or benefits to support households affected by the pandemic (e.g. if someone lost their job).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The government did enough to support households affected by the pandemic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The government did enough to ensure household food	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

security during  
the pandemic.

End of Block: Deel 2: huidige situatie

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Start of Block: Deel 3: Situatie voor de COVID-19 pandemie

**Q39 Part 3: Situation prior to the pandemic**

The following questions are about your household's situation BEFORE THE COVID-19 PANDEMIC

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Q40 **Prior to the pandemic**, what was your household's main food source? (multiple options possible, choose max. 3)

- ☐ Own production
  - ☐ Purchased
  - ☐ Borrowed
  - ☐ Exchange for labour
  - ☐ Gift from friends, family, or neighbours
  - ☐ Food aid program (for example the food bank, or other local organization)
- 

*Display This Question:*

*If Voor de pandemie, hoe kwam uw huishouden voornamelijk aan voedsel? (meerdere antwoorden mogelijk,... = Voedselhulp programma's (zoals voedselbank, etc.)*

Q41 What kind of food aid program? (name of the program or foundation)

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Q42 **Prior to the pandemic**, what was the average availability in stores and markets of the following items:

	Never available	Sometimes available	Often available	Always available	I don't know
Staple foods (rice, pasta, maize flour, cassava, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fresh foods (fruit and vegetables)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proteins (meat, eggs, fish, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dairy (milk, yogurt, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q43 **Prior to the pandemic**, did your household often have any food in stock?

- ☐ Yes
- ☐ No

Q44 **Prior to the pandemic**, what percentage of your household's disposable income was spent on food?

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Q45 **Prior to the pandemic**, did you or your household have access to supermarkets or other food retail outlets?

☐ Yes

☐ No

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*Display This Question:*

*If Voor de pandemie, had uw huishouden toegang tot supermarkten, markten of andere voedselverkooppun... = Nee*

Q46 If not, why not?

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*Display This Question:*

*If Voor de pandemie, had uw huishouden toegang tot supermarkten, markten of andere voedselverkooppun... = Ja*

Q47 If yes, what food retail outlet did your household use most **prior to the pandemic?** (multiple options possible, max. 3)

☐

Supermarket

☐

Local market

☐

Informal market/street vendors

☐

Other: \_\_\_\_\_

Q48 **Prior to the pandemic,** did your household have access to the following utilities or services:

	Yes or no	
	Yes	No
Aqualectra	<input type="radio"/>	<input type="radio"/>
Healthcare	<input type="radio"/>	<input type="radio"/>
Sanitation	<input type="radio"/>	<input type="radio"/>

Q49 **Prior to the pandemic,** how many meals did you eat per day? (on average)

- ☐ Less than 1
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4 or more

Q50 How often did the following situations occur in your household **prior to the COVID-19 pandemic?**

	Often (daily)	Sometimes (weekly)	Rarely (monthly or less)	Never
Prior to the COVID-19 pandemic, there have been times where I or another household member were unable to eat healthy and nutritious food.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Prior to the COVID-19 pandemic, there have been times where I or another household member only ate a few kinds of foods.

☐☐☐☐

Prior to the COVID-19 pandemic, there have been times where I or another household member were forced to skip a meal.

☐☐☐☐

Prior to the COVID-19 pandemic, there have been times where I or another household member were hungry but did not eat.

☐☐☐☐

Prior to the COVID-19 pandemic, there have been times where I or another household member went without eating for a whole day.

☐☐☐☐

Prior to the COVID-19 pandemic, there have been times where I worried that my household would not have enough food.

☐☐☐☐

End of Block: Deel 3: Situatie voor de COVID-19 pandemie

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Start of Block: Deel 4: Gezond dieet

#### Q63 Part 4: Healthy food

The following questions are about healthy food and are about your household's **current** situation

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Q51 How often does your household eat fast-food or take-out? (e.g. McDondals, Truki'Pan, KFC, etc.)

- ☐ Less than 1 time a week
  - ☐ 1-2 times a week
  - ☐ 3-5 times a week
  - ☐ 6-7 times a week
  - ☐ More than 7 times a week
- 

Q52 How often do people in your circle (friends, family, neighbours, colleagues) eat fast-food or take-out?

- ☐ Less than 1 time a week
  - ☐ 1-2 times a week
  - ☐ 3-5 times a week
  - ☐ 6-7 times a week
  - ☐ More than 7 times a week
- 

Q53 According to you, what does a healthy meal consists of?

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Q54 How important is eating healthy food to you? Please rate on a scale from 1 to 10, where 1 is totally not important and 10 is very important.

1 2 3 4 5 6 7 8 9 10

Rate	
------	--

Q55 What are the three biggest barriers to achieving a healthy diet for your household?

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Q56 Does your household ever eat products from nature, such as fruits (apeldam, kashu, inju) or medicines (aloe, flaira, moringa)?

☐ Yes

☐ No


*Skip To: Q58 If Eet uw huishouden wel eens producten uit de natuur, zoals fruit (apeldam, kashu, inju) of medicij... = Nee*

Q57 How often does your household eat products from nature?

- ☐ Less than 1 time a week
  - ☐ 1-2 times a week
  - ☐ 3-5 times a week
  - ☐ 6-7 times a week
  - ☐ More than 7 times a week
- 

Q58 How important is eating products from nature to you? Please rate on a scale of 1 to 10, where 1 is not important at all and 10 is very important.

1 2 3 4 5 6 7 8 9 10

Rate	
------	--

---

Q59 Do people in your circle (friends, family, neighbours, colleagues) use products from nature?

- ☐ Yes
- ☐ No
- ☐ I don't know

*Skip To: End of Survey If Gebruiken mensen uit uw omgeving (vrienden, familie, kennissen, buren) wel eens producten uit de... != Ja*

---

Q60 How often do people in your circle (friends, family, neighbours, colleagues) use products from nature?

- ☐ Less than 1 time a week
- ☐ 1-2 times a week
- ☐ 3-5 times a week
- ☐ 6-7 times a week
- ☐ More than 7 times a week

End of Block: Deel 4: Gezond dieet

### Appendix 3: Interview guide

All interviews contained the following questions, but also included some questions targeted at the person or organisation in specific.

Checklist:

- Can I record this interview?
- Can I use quotes from this interview in my thesis?
- Do you want to be anonymous, or can I use your name?
- Can I use the name of your organisation?

1. Can you shortly introduce yourself and your organisation?

- a) How is the organisation established?
- b) How would you define the goal of the organisation?
- c) What kind of activities does your organisation carry out?
- d) What is your role within the organisation?
- e) What is the target group of your organisation?
- f) How do these people get to your organisation?

2. Can you try to describe the situation in Curaçao when the pandemic broke out in March 2020? Especially with regard to food?

- a) What problems came to light because of the pandemic?
- b) Which households were hit the hardest?
- c) How were these households affected?
- d) In what ways did the pandemic affect the three dimensions of food security (access, availability, utilization)?

3. How did the government respond to the outbreak of the pandemic?

- a) How did the government help vulnerable households to minimise the impact of the pandemic?
- b) Were there any emergency assistance programmes, funds or benefits that people could fall back on to make up for their lost incomes?
- c) How did the government ensure that households affected by the pandemic continued to have access to basic services such as health care, education, water, electricity and others?
- d) How did the government ensure that vulnerable household (e.g. those without TV, radio or smart phones) were provided with the right information regarding how to cope with the pandemic?
- e) Were there other ways in which the government tried to help vulnerable households during this period?

4. How did your organisation react to the pandemic?

- a) Were you able to continue your work?
- b) Did you change your activities or goals because of the pandemic?
- c) Did new or different household become dependent on your organisation?

5. What do you see as the greatest challenges to achieving your organisation's goals?

6. What are the biggest challenges for realising food security for households in Curaçao?
- a) How can your organisation contribute to that?
  - b) Who or what organisations/institutions should play a role in this?
  - c) What should the government of Curaçao do to address the problem of food security?