



Food and Agriculture  
Organization of the  
United Nations

# State of Food Insecurity in the CARICOM Caribbean



**Meeting the 2015 hunger targets:  
Taking stock of uneven progress**

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The State of Food Insecurity in the CARICOM Caribbean<sup>2</sup> 2015 is being published in an important year. 2015 is when the food security performance of countries across the world is being evaluated against the commitments made at the 1996 World Food Summit (WFS) and 2000 Millennium Development Summit.

The 1996 World Food Summit, attended by 185 countries plus the European Community, pledged to achieve a measurable goal - "to eradicate hunger in all countries, with an immediate view to reducing the number of undernourished people to half their present level no later than 2015". Four years later, the Millennium Summit, held in New York in September 2000 adopted a Millennium Declaration with eight Millennium Development Goals (MDG) under which MDG 1 committed to a hunger target to halve, between 1990 and 2015, the *proportion* of people who suffer from *hunger*<sup>3</sup>.

While the State of Food Insecurity in the CARICOM Caribbean 2015 presents the performance of CARICOM countries in the context of these ambitious goals, it is well recognized that food and nutrition security is about much more than the supply of dietary energy. This report therefore presents the overview of food and nutrition security from the standpoint of what FAO classifies as the four pillars of food security – *food availability, food accessibility, food utilization and stability as it affects food and nutrition security*. Further, a more institutional and longer view is taken in the report with the consideration of factors such as governance and rights that are important to promoting the sustained achievement of food and nutrition security.

Despite their generally classified high and upper-middle income status (with the exception of Haiti and Guyana), the food and nutrition security report card for the CARICOM countries is mixed. In terms of undernourishment, it can be concluded that the CARICOM countries consume more calories per day than required, with the exception of Haiti. Food availability is increasingly derived from imports and this is considered a problem from at least three standpoints:

food import dependence, loss of foreign exchange and increased consumption of processed foods.

Given the income classification of the majority of CARICOM countries, one would conclude that accessibility should not be a problem. However, high levels of income inequality and unemployment result in a high proportion (greater than 20%) of the population living below the national poverty line in ten of the countries.

Food utilization is of course affected by capacity to purchase, food choices and food preparation. High priced quality food (fresh fruits and vegetables) is out of reach of the poor and unemployed. As a result, food choices of these groups often favour inferior products (imported processed canned meats and fried foods) that contribute to the high levels of obesity and non-communicable diseases observed in the region.

From a stability standpoint, CARICOM's food and nutrition security can be described as precarious, given the Caribbean region's risk due to the high occurrence of tropical storms, floods, droughts and earthquakes. The spectre of climate change and its impacts undoubtedly adds to this risk.

CARICOM countries have approved a Regional Food and Nutrition Policy and Action Plan and in almost all the countries there now exists a national food and nutrition security policy and action plan. The lessons of successful policy implementation for food security from countries across the globe are being promoted by FAO in the countries of the CARICOM region. In three countries, a Zero Hunger Challenge Initiative action plan has been launched and one country has established a Parliamentary Front against Hunger. The particular conditions that characterize small, vulnerable states are not generally considered to favour a stable and sustainable food and nutrition security situation. Thus, achieving and maintaining high levels of food and nutrition security will remain a challenge. Good governance and partnerships, at the national, regional and global levels will be essential for success. FAO has been and will continue to be a partner to CARICOM in meeting the challenge.

**J.R. Deep Ford**

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<sup>2</sup> References to the Caribbean refer to CARICOM member countries unless otherwise stated: Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago, Suriname.

<sup>3</sup> FAO defines hunger as being synonymous with undernourishment and it is measured by food deprivation as reflected in the level of intake of dietary energy.



# Acknowledgements

Selected Economic Indicators of CARICOM Countries

CARICOM States	Pop. ('000) (2014-16) <sup>1</sup>	Area (km <sup>2</sup> ) (2014) <sup>2</sup>	GDP (current prices) (US\$ M) (2013) <sup>3</sup>	Average annual real GDP growth (%) (2012-14) <sup>3</sup> (2006=100)	Average per capita GDP (US\$) (current prices) (2010-14) <sup>3</sup>	Average annual per capita GDP growth (current prices) (%) (2000-2013) <sup>3</sup>	HDI rank (2014) <sup>4</sup>	Trade openness (exports+ imports)/ GDP (%) (2012) <sup>5</sup>
<b>Larger island States</b>								
Haiti	10 533	27 750	8 451	4.9	735	5.1	168**	66
Jamaica	2 806	10 830	14 196	0.6	4 950	3.1	96	80.8
Trinidad and Tobago	1 346	5 130	27 257	1.7	14 915	10.4	64	98.9
<b>Smaller island States</b>								
Antigua and Barbuda	92	440	1 201	2.1	12 723	2.4	61	107.1
The Bahamas	386	13 900	8 420	2.6	21 415	1.0	51	102.3
Barbados	286	430	4 281	0.5	15 411	2.3	59	96.8
Dominica	73	750	512	1.4	6 865	3.5	93	92.4
Grenada	107	340	836	0.2	7 220	3.5	79	71.0
St Kitts and Nevis	55	260	744	1.4	13 128	2.8	73	75.5
St. Lucia	185	610	1 342	1.0	6 868	3.7	97	112.0
St. Vincent and the Grenadines	109	390	709	1.2	6 245	4.4	91	82.5
<b>Mainland States</b>								
Belize	344	22 810	1 624	3.4	4 345	2.6	84	136.3
Guyana	806	196 850	2 982	4.9	3 255	7.3	121*	142.7
Suriname	546	156 000	5 038	4.5	8 602	10.3	100	118.2
<b>Total</b>	<b>17 674</b>	<b>436 490</b>	<b>67 841</b>	<b>2.2</b>	<b>7 044<sup>6</sup></b>			<b>(Aver) 103.4</b>

Source: <sup>1,2,4</sup> Available at: [www.worldbank.com](http://www.worldbank.com); <sup>3</sup> Available at: [www.imf.org](http://www.imf.org); <sup>4</sup>The Human Development Index (HDI), ranks countries 1 to 187, where 1 is the highest rank. In this column, countries with an (\*\*) are ranked low human development, those with an (\*) are "Medium Human Development Index"; the other countries in this column are ranked "High Human Development Index". Available at: [www.undp.org](http://www.undp.org); <sup>5</sup>IMF (2013); <sup>6</sup>Median Income.

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# Acronyms

<b>APP</b>	Agriculture Policy Programme
<b>APOA</b>	Agriculture Plan of Action
<b>CARICOM</b>	Caribbean Community
<b>CARIFORUM</b>	Caribbean Forum (CARICOM Countries and Dominican Republic)
<b>CELAC</b>	Community of Latin American and Caribbean States
<b>COHSOD</b>	Council for Health and Social Development
<b>COTED</b>	Council for Trade and Economic Development
<b>CSME</b>	CARICOM Single Market Economy
<b>CPA</b>	Country Poverty Assessment
<b>FNSP/AP</b>	(National) Food and Nutrition Security Policy/Action Plan
<b>FAO</b>	Food and Agriculture Organization of the United Nations
<b>GDP</b>	Gross Domestic Product
<b>GNI</b>	Gross National Income
<b>OECS</b>	Organization of Eastern Caribbean States
<b>RFNSP/AP</b>	Regional Food and Nutrition Security Policy/Action Plan
<b>SDGs</b>	Sustainable Development Goals
<b>SPFS</b>	Special Programme for Food Security
<b>WFS</b>	World Food Summit
<b>ZHCI</b>	Zero Hunger Challenge Initiative

# Key Findings

- CARICOM countries have made progress in reducing undernourishment and towards meeting the global hunger targets.** The number of undernourished persons in the Caribbean<sup>1</sup> declined from 8.1 million in 1990-92, to 7.5 million in 2014-16. For the same period, the proportion of undernourished persons declined from 27 percent to 19.8 percent. Three Caribbean Community countries – Barbados, Guyana and St Vincent and the Grenadines – have met both global hunger targets, that of the World Food Summit (WFS) set in 1996 and the United Nations Millennium Development Goals (MDGs) in 2000. Dominica, Bahamas, Belize, Jamaica and Trinidad and Tobago all have undernourishment levels less than 10 percent of their population. The remaining countries have undernourishment levels between 10 and 20 percent, with the exception of Haiti that has extremely high levels of undernourishment at 50 percent of the population.
- Haiti is a special case in CARICOM and its large population and high levels of underdevelopment skews average results when presented as part of CARICOM regional indicators.** Haiti accounts for 60 percent of CARICOM's population of 17.5 million, and approximately 90 percent of undernourished persons in the region. It is estimated that 53.4 percent of the Haitian population (5.7 million persons) are undernourished and 58.5 percent of Haitians (6.0 million persons), are absolutely poor (i.e. cannot meet their own basic food and non-food needs). In Haiti, more than 75 percent of persons in extreme poverty live in rural areas where 38 percent could not satisfy their nutritional needs. Another 1 million persons are vulnerable and could be pushed below the poverty line by a natural disaster or economic shock. Income inequality is high and has not improved over the past decade. Despite these challenges, Haiti has made some progress over the past decade.
- Food energy availability in all CARICOM countries, except Haiti, exceeds the recommended population food energy guidelines.** In some countries such as Barbados and Dominica, calories consumed per capita exceed 3000. In all the other countries, with the exception of Haiti, calories consumed per capita are above 2400. In Haiti, the estimated average is about 2000. The excessive consumption of calories is particularly related to processed foods. Changes in diets in the region have contributed to CARICOM islands being ranked among the highest in the world in terms of obesity. Overweight and obesity are challenges that affect higher proportions of the population in CARICOM countries than undernourishment. Among persons in the above 15 year age group, female obesity rates in the region are several times that of their male counterparts. For example, in Haiti, obese females outnumber obese males 16:1, and in Jamaica and St Lucia the ratios are 6:1 and 4:1, respectively.
- Food imports, as opposed to national food production, are by far the largest source of food for CARICOM populations.** CARICOM countries currently import in excess of US\$ 4 billion in food annually, an increase of 50 percent since 2000. Food imports are projected to increase to US \$8-10 billion by 2020 if current efforts are not successful in addressing this problem. Almost all CARICOM countries import more than 60 percent of the food they consume, with half of them importing more than 80 percent of the food they consume. Only three countries (Belize, Guyana, and Haiti) produce more than 50 percent of their consumption. Processed foods, grains (wheat and corn), and livestock products (meat and dairy) are among the top five food import categories, accounting for over US\$ 1 billion or approximately 25 percent of annual food imports regionally. In several essential food groups, national production per capita has declined, most notably in the fruits and vegetables category.
- Food access is a key food and nutrition security problem in the Caribbean.** It is linked to poverty, which has been increasing in several countries in the region. Seven of the CARICOM countries have more than 30 percent of their population falling below the national poverty levels. In the case of Haiti this number is estimated at 59 percent and as a result, about 40 percent of the region's population is considered poor. Further, almost all of the countries are characterized by high levels of income inequality. It is estimated that the consumption expenditure of the highest 10 percent of income earners averages 16.4 times more than that of the lowest 10 percent of income earners.
- Food utilization has been characterized by poor food choices.** A nutrition transition has taken place in the CARICOM region which has contributed to increased prevalence of chronic, non-communicable diseases (NCDs). Many of the food items that are being consumed reflect a shift away from domestic root crops, tubers, fruit and vegetables in favour of food that is low in nutrients, energy-dense and high in fats, oils, sweeteners and sodium. This nutrition transition drives the epidemiological transition, which is characterized less by infectious diseases and more by nutrition-related, chronic, non-communicable diseases (NCDs), i.e. diabetes (and its complications such as amputations and blindness), hypertension, stroke, heart-disease and some forms of cancer. Obesity is also a main risk-factor for NCDs and is linked to unhealthy diets and sedentary lifestyles.
- Instability and vulnerability caused by natural and economic shocks constantly undermine efforts to advance food and nutrition security in the region.** CARICOM countries are vulnerable to natural disasters, which cause extensive damage to property and loss of lives, undermine national efforts to enhance food security and to reduce poverty. Over the period 1990-2014, 182 major natural disasters occurred in the region, affecting 11.5 million persons, causing 241,550 deaths (over 200,000 of these deaths occurred in Haiti as a result of the 2010 earthquake) and US\$ 16.6 billion in damage to immovable assets and stock. Increased losses are related to the interruption to the flow of goods and services owing to the disruption of agriculture and food production systems. Building resilience is increasingly articulated as a major development goal. The food price crises of 2007 and 2008 and the ensuing global economic crisis resulted in increased numbers of persons falling into a state of food insecurity, due to reduced levels of remittances and quality food being priced beyond the reach of the poor.
- Global mandates, international and regional cooperation agreements and partnerships have a role to play in reducing food security in the region.** In response to the 1996 World Food Summit calls to reduce global food insecurity, the Italian Government funded a major project across Caribbean and Pacific Small Island Developing States (SIDS) to increase food and nutrition security. The Hunger targets of the Millennium Development Goals (MDG) of 2000 and the Voluntary Guidelines for promoting the Right to Food (Rome, 2004) have also served to bring the attention of public policy makers to the need for addressing the issue of food security in the Caribbean. More recently, the UN Zero Hunger Initiative (Rio, 2012) has inspired the launch of several national Zero Hunger Initiatives throughout CARICOM countries.
- Improved governance and public policy are critical to achieving improved food and nutrition security.** Improved governance enables effective integration, coordination and broad participation for improved decision-making and implementation of actions to increase food and nutrition security. Public policies are essential for the sustainable management of food systems and for ensuring adequate focus on social protection aspects of the food security challenge. Improved governance leading to the design and implementation of public purchasing policies, school feeding programmes, and early childhood nutrition programmes have demonstrated considerable food security gains in many countries.
- Inclusive and pro-poor economic growth is needed to address poverty and high levels of unemployment in CARICOM countries.** In CARICOM countries, stagnant growth over the past two decades, together with high levels of unemployment, have led to decreased food security and increased poverty for many households, especially in rural areas. Unemployment is particularly high among youth, being in excess of 25 percent in ten of the fourteen CARICOM countries. As revitalization of the CARICOM economies is pursued, it is important that attention is paid to ensuring that pro-poor growth is achieved, recognizing that some of the highest rates of poverty and food insecurity in the region have occurred during periods of relatively high economic growth.

<sup>1</sup> The data reported here are for CARICOM countries, the Dominican Republic and Cuba.





The assessment of the achievements of the World Food Summit and Millennium Development Goals (MDGs) is set for 2015. Until recently, Caribbean countries, although signatories to the hunger goals of the WFS (1996), the MDGs (2000), and the Hunger-Free Latin America and the Caribbean Initiative (2005), have only rarely made public reference to hunger in their respective countries. Instead, hunger was subsumed under the concepts of food security and poverty, with the former addressed in the National Food and Nutrition Security Policies and the latter analyzed in Country Poverty Analysis (CPA) commissioned by most countries in the region, and carried out by the Caribbean Development Bank.

The explicit recognition of hunger received significant attention in the Caribbean in 2012-13, after the launching of the Global Zero Hunger Challenge by the Secretary General of the United Nations at the Rio+20 conference on Sustainable Development held in 2012. During the past two years, three Caribbean countries<sup>1</sup> have launched the Zero Hunger Challenge Initiatives with the assistance of FAO. Hunger was again explicitly recognized as a public policy goal when the *“Plan for Food Security and Nutrition and Eradication of Hunger 2025”*, of the Community of Latin American and Caribbean States (CELAC)<sup>2</sup>, was adopted during the third CELAC Presidential Summit in January 2015. Caribbean governments have also committed to the Sustainable Development Goals (SDGs) of the post-2015 development agenda. The SDGs will set the framework for the development agenda over the next 15 years, and build on the successes of the MDGs, taking into account lessons learned, in order to continue on track towards a more sustainable, prosperous and equitable world. There are 17 proposed SDGs, among which are: *“ending poverty”* (Goal 1), and *“ending hunger, achieving food security and improving nutrition, and promoting sustainable agriculture”* (Goal 2), by 2030 (UN, 2015).

### 1.1 UNDERNOURISHMENT IN THE CARICOM CARIBBEAN

Undernourishment<sup>3</sup> is an estimate of food deprivation, quantifying the number of people who consume less than the average estimated daily energy requirement to lead a healthy life. This concept underlies the MDG indicator of hunger, i.e. people at risk of undernutrition. CARICOM countries have made progress in reducing undernourishment and towards meeting the global hunger targets. The number of undernourished persons in the Caribbean<sup>4</sup> declined from 8.1 million in 1990-92 to 7.5 million in 2014-16, a decrease of around 7.4 percent (Table 1). Haiti, with a larger population than the other Caribbean countries, is disproportionately represented. The number of undernourished people in Haiti is over five million which is 53 percent of the country’s population, 80 percent of the Caribbean region’s undernourished and approximately 90% of the CARICOM countries’ undernourished, compared to a range of 5 to 11 percent of the population of other CARICOM countries.

<sup>1</sup> These countries are Antigua and Barbuda, Grenada and St. Vincent and the Grenadines

<sup>2</sup> The CELAC Plan can be accessed at <http://www.plataformacelac.org/en>.

<sup>3</sup> The FAO undernourishment indicator focuses on food deprivation and looks at the minimum level of dietary energy consumption.

<sup>4</sup> CARICOM Countries together with Dominican Republic and Cuba



**Table 1. Number (millions) and prevalence (%) of undernourished people in the Caribbean**

	Millions					Prevalence (%)				
	1990-92	2000-02	2005-07	2009-11	2011-16 <sup>2</sup>	1990-92	2000-02	2005-07	2009-11	2011-16
<b>Caribbean<sup>1</sup></b>	<b>8.1</b>	<b>8.2</b>	<b>8.3</b>	<b>7.6</b>	<b>7.5</b>	<b>27</b>	<b>24.4</b>	<b>23.5</b>	<b>20.8</b>	<b>19.8</b>
Antigua and Barbuda	<0.1	<0.1	<0.1	<0.1	<0.1	15.9	42	28.1	23.2	13.9
Bahamas	<0.1	<0.1	<0.1	<0.1	<0.1	9.5	6	8	7.5	5.6
Barbados	ns	<0.1	<0.1	ns	ns	<5.0	5.2	6.7	<5.0	<5.0
Dominica	ns	ns	ns	ns	ns	<5	<5	<5	<5	<5
Grenada	<0.1	<0.1	<0.1	<0.1	<0.1	17.5	31	26.6	23.1	18.7
Haiti	4.4	4.8	5.4	5	5.7	61.1	55.2	57.1	50.6	53.4
Jamaica	0.2	0.2	0.2	0.2	0.2	10.4	7.3	7	8.2	8.1
St. Kitts and Nevis	<0.1	<0.1	<0.1	<0.1	<0.1	14.2	18.3	21.9	17.8	10.2
St. Lucia	<0.1	<0.1	<0.1	<0.1	<0.1	12.8	11.8	11.3	12.8	12.2
St. Vincent and the Grenadines	<0.1	<0.1	<0.1	<0.1	<0.1	20.7	16.8	9.2	6.8	6.2
Trinidad and Tobago	0.2	0.2	0.2	0.1	0.1	12.6	11.9	11.7	10.2	7.4
Belize	<0.1	<0.1	ns	<0.1	<0.1	9.7	5.8	<5.0	5.7	6.2
Guyana	0.2	<0.1	<0.1	<0.1	<0.1	22.8	9.7	10.4	11.9	10.6
Suriname	<0.1	<0.1	<0.1	<0.1	<0.1	15.5	13.9	11.5	8.7	8

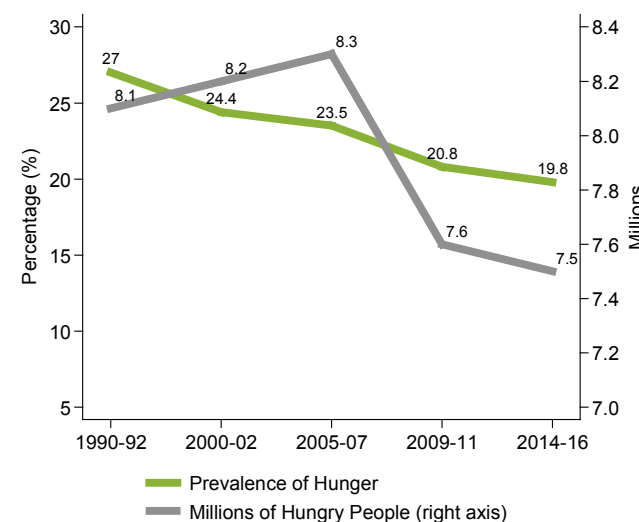
Source: *The State of Food Insecurity (SOFI) in the World, 2015* (FAO, 2015). Data for Antigua and Barbuda, The Bahamas, Grenada, St. Kitts and Nevis, and St. Lucia are from the SOFI 2013.

Notes: 1. Caribbean data includes, in addition to the countries listed in the table: Dominican Republic with 1.3 million of undernourished and Cuba.  
2. Data in the column 2011-16 refer to the most recent available. Data for Antigua and Barbuda, The Bahamas, Grenada, St. Kitts and Nevis, and St. Lucia is for the period 2011-2013 made available in the SOFI 2013. Data for the rest of the countries is for the period 2014-2016 made available in the SOFI 2015  
"nda" refers to "no data available", "ns" to "not statistically significant"

### 1.1.1 Trends in undernourishment at regional and country levels

The percentage of undernourished in the Caribbean population has been trending downwards since the early-1990s, with the number of undernourished declining most strongly after 2005 (see Figure 1). The number of undernourished people in the Caribbean was 8.1 million in 1990-92 and is currently estimated to be 7.5 million, a reduction of 7.4 percent. The proportion of undernourished people in the Caribbean declined from a high of 27 percent in 1990-92 to almost 20 percent in 2014-16, a reduction of seven percent (Figure 1 and Table 1).

**Figure 1. Number (millions) and prevalence (%) of undernourished people in the Caribbean**

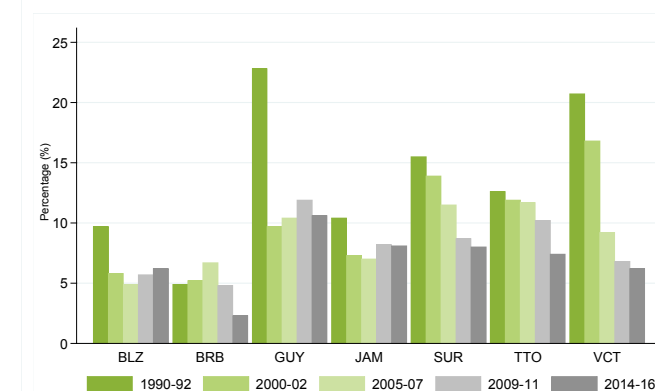


Source: *The State of Food Insecurity (SOFI) in the World, 2015* (FAO, 2015).  
Note: Millennium Summit and World Food Summit hunger targets for the Caribbean are 13.5 percent and 4.1 million, respectively by 2015.

Figure 1 shows a reduction in both the proportion of undernourished people (the MDG target) and the number of undernourished people (the WFS target). A difference in the trend is apparent between 1990-2005 and 2005 to 2015. Between 1990-2005 there was a reduction in the proportion of undernourishment but an increase in the number of undernourished people. Between 2005-2016, both the number and proportion of undernourished persons declined (by around 7.4% and 7% respectively) thereby reflecting an improvement in both the MDG and WFS hunger targets.

Figure 2 shows that at the country level, there are distinctions in the trends. Undernourished in Jamaica has remained constant at about 200,000 persons. However, there has been a 22 percent decrease in the percentage of undernourished in the population, from the base-period of 1990. However, it is of note that recent trends show a slight increase from the 2005 level of 7 percent undernourished. Belize also had a relatively low prevalence of undernourished in the base year with an overall decrease of 36 percent, but recent trends show a slight increase from the lowest level of 2005. Trinidad and Tobago and Suriname have shown steady progress in reducing undernourishment, with a decrease of 41 percent in Trinidad Tobago and 48 percent in Suriname over the period 1990-2016. In Guyana and St. Vincent and the Grenadines, the prevalence of undernourishment has decreased sharply from 1990, with a 54 percent and 70 percent decrease respectively.

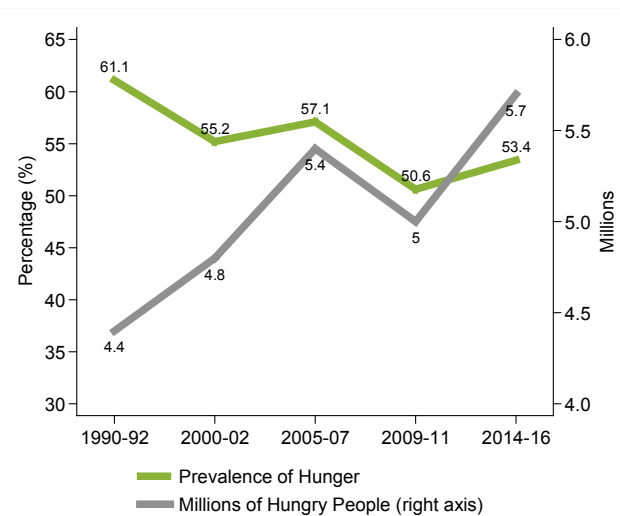
**Figure 2. Prevalence of hunger (% of population) in selected CARICOM countries, 1990-2016**



Source: *The State of Food Insecurity in the World, 2015* (FAO, 2015)

In the case of Haiti, the number of undernourished persons was estimated to be 4.4 million in 1990-1992. This number is expected to increase to 5.7 million between 2014-2016, a 28 percent increase (Table 1). However, the proportion in terms of percentage has decreased from 61.1 percent in 1990-1992 to 53.4 percent in 2014-2016 (Figure 3).

**Figure 3. Prevalence of hunger (% of population) and Number of hungry in Haiti, 1990-2016**



Source: *The State of Food Insecurity in the World, 2015* (FAO, 2015).

### 1.1.2 Overarching factors towards achieving the World Food Summit (WFS) and Millennium Development Goals (MDG) targets

As a region, CARICOM has not been able to meet the WFS goal and has made little progress towards meeting the Millennium target (see table 2). Yet, individual countries such as Barbados, Guyana and St Vincent and the Grenadines have met both targets, while Suriname has met the MDG target. Trinidad and Tobago and Belize have made some progress, but not enough to meet any of the targets. Haiti has made insufficient progress towards both the WFS and MDG targets compared to the base year. The undernourishment data for seven CARICOM countries are available only up to 2013, and therefore only allows a partial evaluation of these countries' progress towards the MDG hunger goal.

Based on Country Poverty Assessments for CARICOM countries, some of the contextual factors<sup>5</sup> which also impact on food and nutrition security are:

<sup>5</sup> There is no direct relationship between these factors and the success and/or failure to meet the hunger targets. Country-specific analysis is required. Further, it appears that it is a combination of factors, rather than single ones that provides the explanatory power for the variations in meeting the targets.

(i) **Economic growth:** it is considered that it is not growth *per se*, but sustained and pro-poor economic growth that is important. For example, Trinidad & Tobago, which has not yet achieved the WFS and MDG targets, recorded a 4.4 percent average real GDP growth over the period 2000-2015 with a variance of 26 (caused by several years of negative and low growth with some high growth years), while Guyana had an average real growth over the same period of 3.1 percent with a variance of 7.8.

(i) **Base-year levels of hunger and poverty:** poverty rates in CARICOM countries were fairly high in 1990 at 33 percent with a decrease to 22 percent in 2011. Currently, the vulnerable population is about 10-15 percent – i.e. those at risk of being poor should an unanticipated event occur, such as the death of the main income-earner, natural disaster, etc. Moreover, young children and adolescents of 0-14 years of age are disproportionately represented in these estimates, accounting for 25-40 percent of the poor.

(i) **Social programmes:** by definition, social programmes target the poor and vulnerable. Most CARICOM countries have a suite of social protection programmes, such as social safety nets, public and social assistance and school-feeding programmes.

## 1.2 THE DIMENSIONS OF FOOD AND NUTRITION SECURITY

### 1.2.1 Food availability<sup>6</sup>

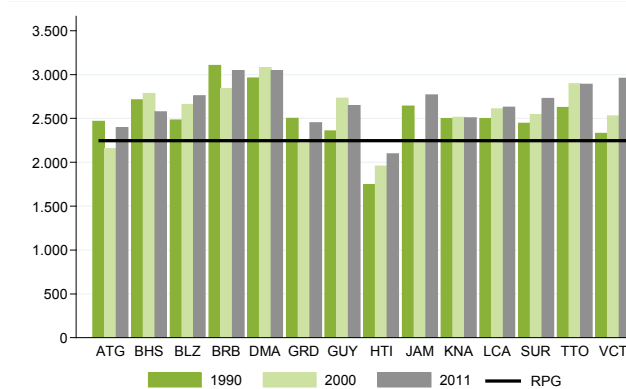
Food availability data for CARICOM countries indicate that, with the exception of Haiti, the countries exceed the recommended population food energy guidelines or Recommended Population Food Goals (RPFGs) for their entire population (see figure 4). Only Haiti receives some form of food aid. Moreover, with the exceptions of Antigua and Barbuda and Haiti, the total food energy of CARICOM countries has surpassed RPFGs since the 1990s.

<sup>6</sup> The FAO food balance sheet provides estimates of food availability and serves as a proxy for food consumed, which is calculated from annual domestic food production and net food imports, adjusted for stocks, non-food uses (feed, seeds), and losses incurred during post-harvest, storage, transportation and processing)

The latest published data indicate that total CARICOM food energy availability is about 19 percent above RPFG.

The availability of protein, fats/oils and sugars/sweeteners is 35 percent, 29 percent, and 168 percent above RPFGs, respectively. In the case of Haiti, total food energy availability is about 20 percent less than RPFG.

**Figure 4. Food energy availability (kcal/person/day): CARICOM (selected years)**



Source: Computed from FAOSTAT (May, 2015). RPFG=Recommended Population Food Goal.

These excesses of food energy availability over RPFG may appear counter-intuitive in light of the lack of success of CARICOM countries in meeting the MDG and WFS hunger goals. However, there are several reasons why food may be available and yet people go hungry:

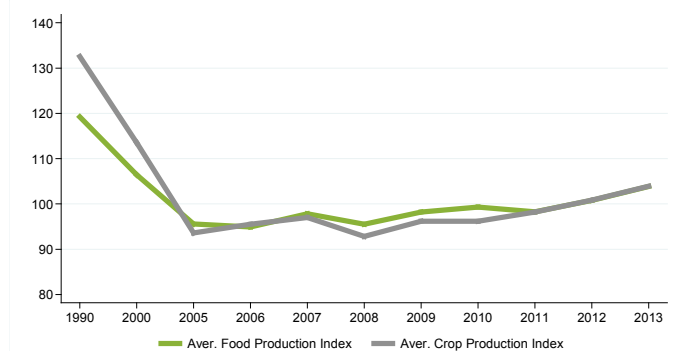
- Firstly, food availability should not be equated with food consumption. Food availability does not account for losses at the household level (during storage, preparation and cooking, as plate-waste or quantities fed to domestic animals and pets, or thrown away).
- Secondly, poverty and income inequality constrain food accessibility for some groups of the population. Households facing poverty and food insecurity often have lower food expenditures even though they spend a larger proportion of their incomes on food, compared to higher-income households (Drewnowski and Specter, 2004).

In CARICOM countries, food imports, as opposed to national food production, are by far the largest source of food. In at least seven countries, 80 percent or more of available food is from imports. There are no large food storage silos in these countries and anecdotal evidence suggests that supermarkets and food distributors may have

about four weeks' supply of food on their shelves and in warehouses. CARICOM countries, with the exception of Guyana and Belize, are net food importers.

However, potential exists to increase agricultural production. Most countries have relatively large rural populations that derive their livelihoods from small scale farming systems. Further, several countries are self-sufficient in some agricultural products. For example, Jamaica, Guyana, Suriname, Belize, Haiti and some of the Eastern Caribbean countries are self-sufficient in roots and tubers, while Guyana and Suriname are net exporters of rice. In terms of fisheries, the CARICOM countries nearly doubled their capture fisheries production over the period 1990-2013, from 95 thousand tonnes to 182 thousand tonnes.

**Figure 5. Average food and crop production indices, CARICOM countries**



Source: World Bank (2015)

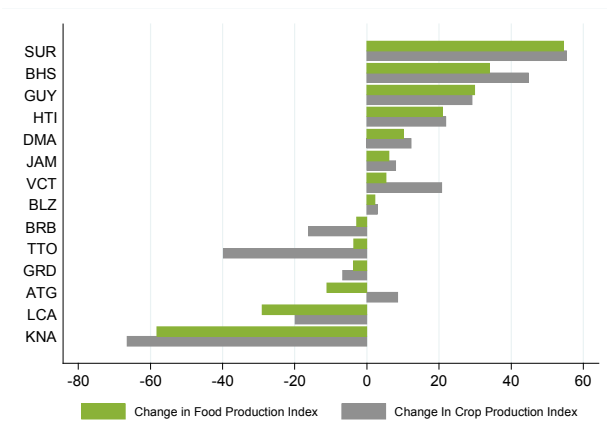
Regional crop and food production has remained stable at just below the base-year level from the years 2005 to 2012 (See figure 5). However, there have been wide fluctuations in country crop production indices (see figure 6). These fluctuations have been caused by:

- natural disasters (frequent droughts, floods and tropical storms); and
- Policy-related factors highlighted as key constraints under the Jagdeo Initiative,<sup>7</sup> such as inadequate infrastructure, water supply, extension services, investments, markets and others.

<sup>7</sup> The Jagdeo Initiative identified nine key binding constraints to Caribbean agriculture: (i) Limited financing and inadequate investment; (ii) Deficient and uncoordinated Risk Management Measures including praedial larceny; (iii) Inefficient land, water-distribution and management systems; (iv) Inadequate research and development; (v) Outdated and inefficient agricultural health and food safety systems; (vi) Inadequate transportation systems particularly for agricultural products; (vii) Fragmented and disorganized private sector; (viii) Lack of skills and quality human resources in agriculture; and (ix) Market infrastructure including market information and market linkages (Source:www.caricom.org)



**Figure 6. Changes in food & crop production indices between the base-year and 2013 (%)**



Source: Computed with data from World Bank (2015).

The food and crop production and productivity (cereal yield (kg/ha) indices (see figures 5, 6 and 7), covering the 2000-2013 period show that:

- i) Six of the 14 CARICOM countries had negative trends in food production indices compared to production in the base year (see figure 6).
- i) The countries with significant upward trends in food production included Suriname, the Bahamas, Guyana and Haiti. The other countries with positive (but marginal) food production trends included Jamaica, St Vincent and the Grenadines and Belize (see figure 6).
- ii) There are indications that agricultural productivity has been increasing since the 1990s. Figure 7 shows that regional cereal yield, primarily rice, and value-added per agricultural worker have increased by 112 percent and 22 percent respectively in 2013, compared to the 1990 base year.

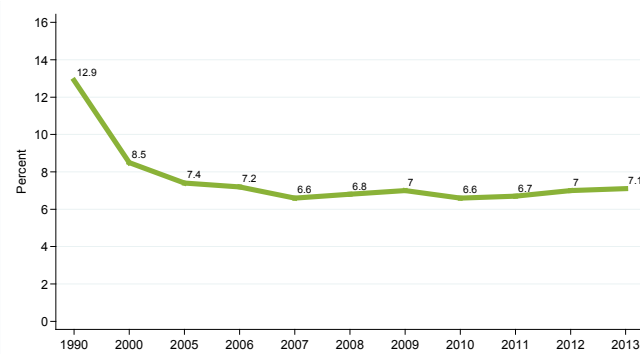
**Figure 7. Indices of cereal yield (kg/ha) and agricultural value-added per worker (1990=100) in the CARICOM.**



Source: Computed with data from World Bank (2015).

CARICOM countries have undergone significant sectoral changes since 1990, with a decline in the relative contribution of the primary sector to GDP and an increase in the contributions of the secondary and especially the tertiary sectors<sup>8</sup>. Agriculture's contribution to real GDP across the region was 12.9 percent in 1990 but has declined steadily to 7.1 percent (Figure 8). In six countries (Guyana, Dominica, Belize, St Vincent and the Grenadines, Suriname and Haiti), the contribution of agriculture to GDP is above the regional average, while in three countries it is between 4-6 percent, and, in the remaining five countries, it is 2 percent or less (see figure 9<sup>9</sup>).

**Figure 8. CARICOM regional average real contribution of agriculture to gross domestic product (2000 prices)**

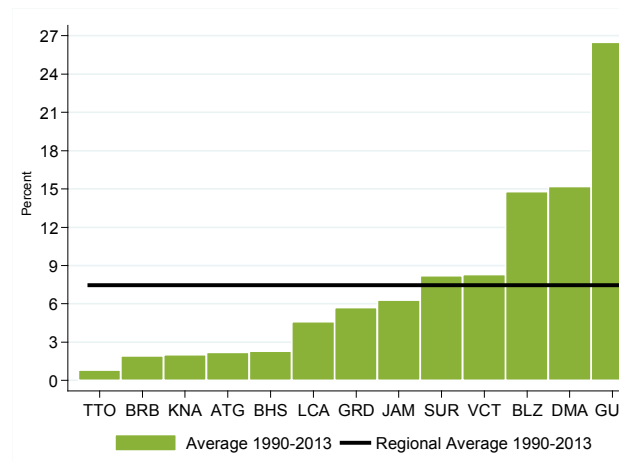


Source: World Bank (2015).

<sup>8</sup> The Primary Sector includes Agriculture (crops, livestock), Forestry, and Fishing); the Secondary Sector includes Manufacturing, Mining, Electricity and Water Supply, and Construction; and the Tertiary Sector includes Wholesale and Retail Trade; Hotels and Restaurants; Transport and Communication; Financial Intermediation; Real Estate, Renting and Business Services; Community, Social and Personal Services; and General Government Services.

<sup>9</sup> Haiti is not presented in this figure.

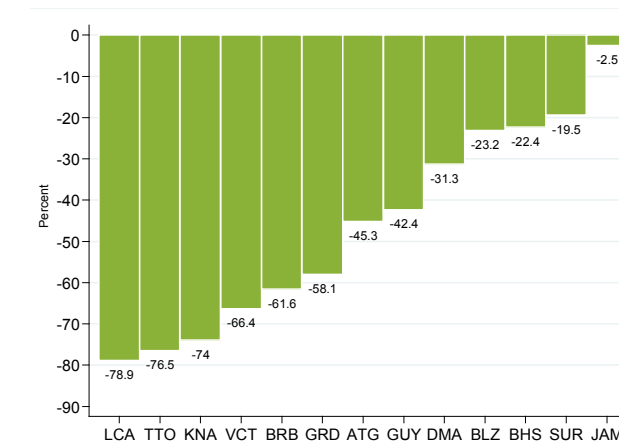
**Figure 9. Average real contribution of agriculture to gross domestic product (%) (1990-2013), Selected CARICOM Countries**



Source: Computed with data from World Bank (2015).

The decrease in agriculture's contribution to real GDP between 1990-2013 varies by country, ranging from a low annual decrease of -0.2 percent in Jamaica, to a stronger decrease of -7.2 percent in St Lucia. These annual rates mask the overall dramatic reduction in agriculture's contribution to real GDP between 1990 and 2013, which ranges from a low decrease of -2.5 percent in Jamaica to a stronger decrease of -78.9 percent for Saint Lucia over the period (see Figure 10).

**Figure 10. Change in relative contribution of agriculture to real gross domestic product of selected CARICOM countries, 1990 - 2013 (%)**



Source: Computed with data from World Bank (2015).

The relative decrease of agriculture's contribution to GDP in CARICOM countries has been accompanied by a structural shift with the expansion of the tertiary sector. For example, in Antigua and Barbuda, Grenada and the

Bahamas, the tertiary sector, currently contributes over 80 percent of GDP (source: www.eccb-centralbank.org). This is largely from tourism but also due to the expansion of services such as governmental, financial intermediation, hotels and restaurants. This trend is especially visible in the Organization of Eastern Caribbean States (OECS), where agricultural and livestock sector contribution to GDP between 2000 and 2014 has decreased by 9.1 percent (see figure 11) and has been driven by multiple factors including the loss of preferential access to traditional markets for sugar and bananas, the destruction of Grenada's nutmeg industry from hurricane Ivan in 2004, and negative impacts of the Black Sigatoga and Moko diseases on bananas and plantains.

**Figure 11. Percentage change in absolute contribution of agricultural sector and specific subsectors to real gross domestic product between 2000 and 2014 in the OECS (2006=100)**



Source: Computed from data from Eastern Caribbean Central Bank (2015). See [online]: www.eccb-centralbank.org.

It is important to note here that Food and Nutrition Security can also be enhanced by a focus on pro-poor growth, including in existing sectors of agriculture and tourism. Information from the Caribbean Network of Farmers (CAFAN)<sup>10</sup> suggests that small family farms (see Box 1), supply in excess of 60 percent of CARICOM's national food production. With the regional food import bill in excess of US\$ 4 billion, the opportunity exists to facilitate family farms to play a significant role in for a food import replacement strategy.

<sup>10</sup> The Caribbean Network of Farmers represents over 30 farmers' organization with a combined membership of over 500,000 farmers in CARICOM countries. About 95percent of CAFAN farmers cultivate farms of 5 ha or less.

Tourism is another sector which can make significant contributions to GDP and employment (Table 2). Policymakers, in considering the future development of tourism, should establish and sustain linkages between the tourism and agricultural sectors, such as organizing farmers to supply the food demand of cruise ships and hotels, as well as developing agro-tourism.

**BOX 1. FAMILY FARMING/SMALL SCALE FARMING AND FOOD AND NUTRITION SECURITY IN THE CARIBBEAN**

The United Nations declared 2014 the International Year of Family Farming (IYFF), with the slogan—*Feeding the World, Caring for the Earth*. Family farming is mainly refers to small-scale farming in the Caribbean. It is usually understood to mean own account agricultural production with the head of the household and family members providing the labour in the production process. But the benefits of family farming go beyond food production, to provide on-farm employment, either for wages or under reciprocal arrangements. Family farms are central to rural livelihoods, community social cohesion, cultural identity and ecological values.

The vast majority of family farms in the Caribbean are smallholdings (FAO, 2012). Among the small scale farmers who operate on less than ten hectares of land, 89.5 percent operate on less than two hectares of land (< 5 acres) and they account for 55 percent of the land cultivated. About seven percent of the small farmers have holdings of between two and less than five hectares and represent 17 percent of the land cultivated. 3.4 percent of holdings are between five hectares and less than 10 hectares, and represent 27 percent of the land cultivated (FAO, 2012). Finally, in every country there is a category called landless farmers (mainly in livestock production), who utilize the 'commons' to support their livelihoods. Small-scale farming in the region is highly fragmented with considerable variation in practice. This may be more pronounced in the larger countries.

Small-scale family farms produce a significant quantity and range of food crops. Livestock family farming is not well recognized in many countries despite being significant producers of poultry and goat meat, eggs, pork and mutton. Urban and peri-urban farming is a part of food production in family farming that is gaining particular importance. Family farming is the main source of livelihood of small farmers, although incomes generated from small-scale family farming are generally low, with most farm

households earning less than 25 percent of household expenditure from farming activities (FAO, 2012). Consequently, the larger proportion of small scale family farm household incomes is derived from a range of non-farm activities.

Family farms can be credited for the self-sufficiency in roots and tubers in most CARICOM countries, and of rice in Guyana and Suriname. These are important contributions of small-scale family farming to food and nutrition security, given that roots/tubers and rice are two staples in the Caribbean. In addition, small-scale family farms supply fruits (tree crops and vines), and fresh vegetables to the domestic market. These food items are invaluable to human nutrition, especially in light of the burden of nutrition-related diseases facing the region. Roots and tubers are rich in 'good' carbohydrates (better glycaemic indices compared to imported refined carbohydrates), and are high in fibre and lower in calories. Public-health nutritionists recommend that diets should contain regular quantities of fruits and vegetables.

Some estimates suggest that small scale family farms supply in excess of 60 percent of the Caribbean's food production (CAFAN, 2015). However, small-scale family farming is exposed to all of the nine key binding constraints underscored in the Jagdeo Initiative. Moreover, family farmers are particularly vulnerable to natural disasters. National governments, with assistance from regional and international agencies, have been assisting these farms in modernizing and building sustainability and resilience (FAO, 2014), with the aim of strengthening this subsector's contribution to the region's food and nutrition security. FAO launched the regional initiative on family farming and rural territorial development in 2014. This regional initiative, so far, targets only Haiti, with the perspective of expanding the scope in terms of CARICOM countries in the coming years.

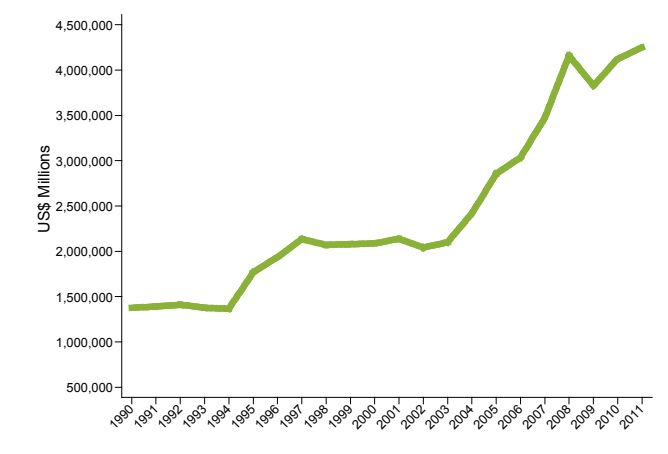
**Table 2. Contribution of tourism to gross domestic product and employment, CARICOM countries**

Country	Total contribution of tourism to GDP(%)	Total contribution of tourism to employment (%)
Antigua & Barbuda	64.0	57.7
The Bahamas	48.0	54.5
Barbados	36.5	35.7
Belize	37.2	32.9
Dominica	31.9	29.0
Grenada	20.8	18.7
Guyana	7.5	8.0
Haiti	4.2	3.6
Jamaica	26.1	23.4
St. Kitts and Nevis	23.4	21.3
St. Lucia	39.6	42.1
St. Vincent and the Grenadines	21.3	19.3
Suriname	2.1	2.0
Trinidad & Tobago	8.2	4.4

Source: Caribbean Tourism Organization (2014); World Travel and Tourism Council (2013).

CARICOM countries currently import in excess of US\$ 4 billion annually in food (Box 2). Food imports were fairly stable over the 1990-1994 period (averaging about US\$ 1.4 billion annually). However, since 1995 the value of food imports has been increasing - by 6 percent annually between 1995-2004, then more steeply by 13 percent annually between 2004-2011 (see Figure 12).

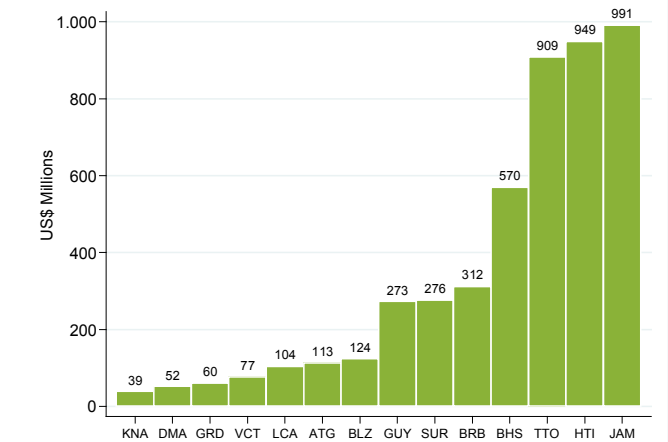
**Figure 12. Food imports into CARICOM countries, 1990-2011 (US\$ million)**



Source: FAOSTAT, 2015.

Jamaica, Trinidad and Tobago and Haiti, which together account for 83 percent of the region's population, are joined by the Bahamas and Barbados as the top food importers. Guyana and Suriname follow next; despite having substantial levels of agricultural production (see Figure 13).

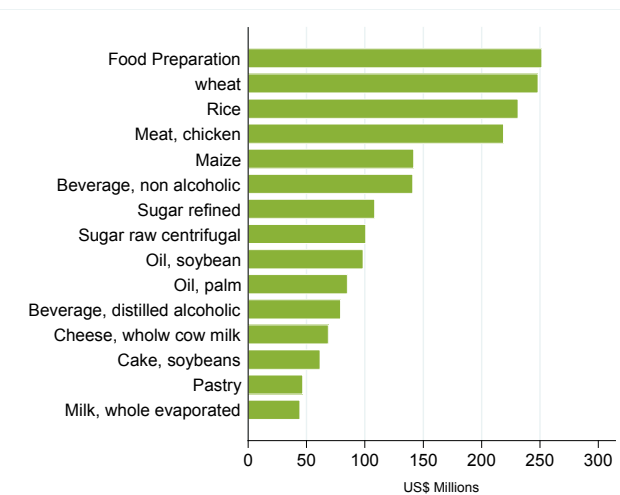
**Figure 13. CARICOM imports of agricultural products (US \$ million), 2011 data**



Source: FAOSTAT, 2015.

The top five food imports are: i) processed foods, ii) wheat, iii) rice, iv) meat (beef, chicken, mutton, pork) and v) maize. Together these account for over US\$ 1 billion or 25 percent of the annual food import bill (see figure 14).

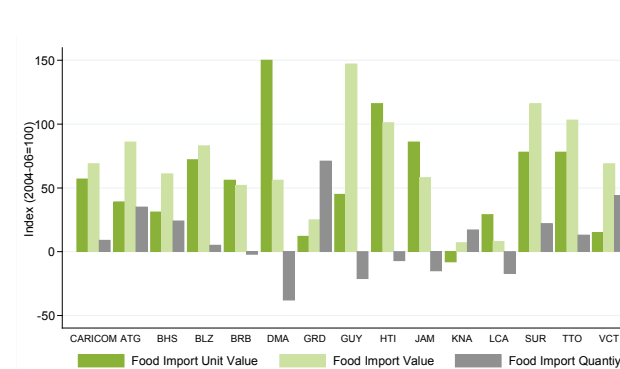
**Figure 14. Imports of top 15 agricultural products into the CARICOM (US \$ million), 2011 data**



Source: FAOSTAT, 2015.

CARICOM's average food import quantity index increased by 9 percent in 2012 relative to the 2004-06 base-year, whereas food import unit value (i.e. average food import prices), and the value of food imports, increased by 57 percent and 69 percent respectively, for the same period (see Figure 15). These statistics reflect an increasing dependence of CARICOM countries on food imports.

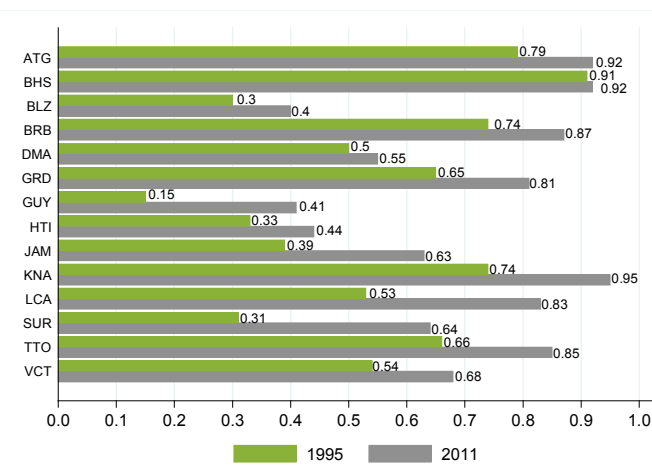
**Figure 15. Average percentage change (2000-2012) in CARICOM food import indices of unit value, import value and import quantity**



Source: FAOSTAT, 2015.

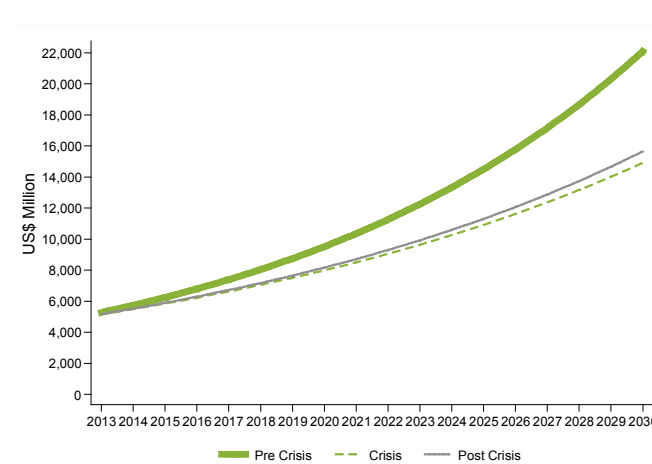
In 1995 the average regional food import dependence ratio was 0.54, increasing to 0.71 by 2011, with half of the countries in CARICOM importing more than 80 percent of the food they consume (Figure 16). Failure to effectively address this high and increasing food import bill will lead to further escalations in the cost of meeting the food needs of the region (Figure 17).

**Figure 16. Selected CARICOM countries Food Import Dependence Ratio (Total Food Imports/Total Food Consumption)**



Source: FAOSTAT, 2015.

**Figure 17. Projection of CARICOM food import bill (US \$ Million)**



Source: FAOSTAT, 2015.

Consumption path scenarios: Pre-crisis 2001 to 2005; crisis 2006 to 2010; post-crisis 2010 to 2014.

**Box 2. FOOD IMPORT BILL, FOOD AND FEED SYSTEMS, AND FOOD AND NUTRITION SECURITY IN THE CARIBBEAN**

The Caribbean food import bill is currently in excess of US\$ 4.5 billion, annually, an increase of 50 percent since 2000, and is projected to increase to US\$ 10 billion by 2020 if trends continue (see figures 12 and 17). This reflects an increase in the value, general price level and quantity of food imports (see figure 15). Econometric analysis of Caribbean food import demand reported own-price elasticities of between -0.251 and -0.902, which means that Caribbean food import demand is price unresponsive (Walters and Jones, 2012). That is, an increase in price of imported food will not result in an equivalent decrease in the quantity of imported food demanded. This is particularly the case for oils, staples and other food products (excluding dairy, animal products, and fruit and vegetables). Walters and Jones (2012) also reported that there is a statistically significant inverse relationship between per capita value of agricultural production and Caribbean food import demand.

These findings and, the observation that the agricultural sector's relative (and for some countries, absolute), contribution to GDP is declining, raise urgent concerns about the region's dependence on imported food. The top 16 imported food items into the region account for about US\$ 2 billion or 46 percent of total food imports annually. These can be categorized into four groups:

- (i) Food items high in calories, sugars and sodium** (e.g. processed foods), beverages (alcoholic and non-alcoholic), sugar (raw and refined), pastry, and malt: accounting for US\$ 756 million/annually (18 percent of total food imports).
- (ii) Food items high in fats/oils** (meats, soya oil/palm oil, and dairy products): accounting for US\$ 516 million (12 percent of total food imports).
- (iii) Staple food items** (rice and wheat): accounting for US\$ 480 million annually (11 percent of total food imports).

- (iv) Feed-stock** (maize and soya): accounting for US\$ 204 million annually (5 percent of total food imports)

There are several urgent reasons for CARICOM countries to address the high food import bill and the composition of the food imports:

- **Food import dependence and agriculture development:** the regions' food-import dependence has been increasing (see figures 16 and 17). CARICOM countries all have functioning agriculture systems, with 47 percent of the population residing in the rural areas, and small scale family farms contributing in excess of 60 percent of the region's national food production, but facing all nine key binding constraints identified under the Jagdeo Initiative. Natural disasters, when they occur, reverse years of progress in this subsector and contribute to poverty and food insecurity. Therefore, strengthening the agriculture sector, and in particular the small scale family farms, is a key factor in tackling the high food import bill.
- **Health and nutrition:** a large proportion of imported foods are energy-dense, high in fats, sweeteners and refined carbohydrates. The scientific evidence has linked these foods to the increasing prevalence of obesity and chronic nutrition-related diseases (James and Rigby, (2007), which are currently the main public health problems in the region.
- **Potential for import replacement.** Feed-stock (maize and soya beans/cakes), is imported for the livestock industry, mainly poultry, which is considered the main source of protein food security. Domestic production of cassava, rice and other root crops can replace much of the imported feed-stock, wheat and corn for human and animal feeds. Similarly, small ruminant production in the countries can replace some of the imported meat.



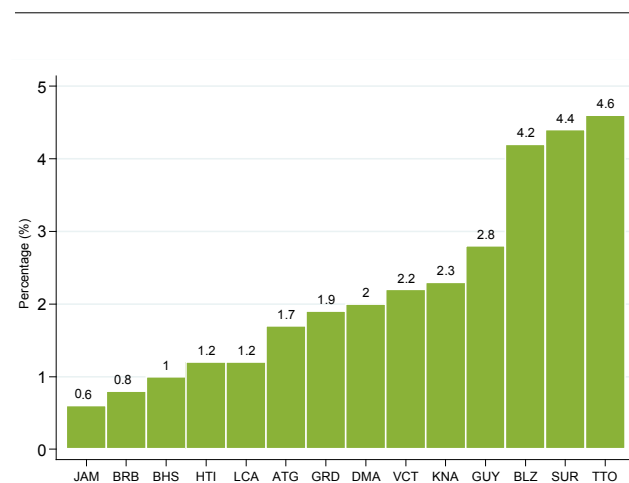
### 1.2.2 Food access

Food access is a key food and nutrition security challenge in the Caribbean. It is linked to poverty, which has been increasing in several countries in the region. Food access depends on disposable household income, food prices, the food distribution network and other factors. Macroeconomic factors (economic growth, the general food-price index, and the general health of the economy), and exogenous factors (adverse changes in the world economy and natural disasters), also exert major impacts on household access to food.

#### a. Effect of economic growth on food access

CARICOM countries experienced high growth spurts from the 1980s into the mid-1990s, fuelled mainly by the expansion of tourism, commodity production, and public investment (IMF, 2013). During this period, several countries recorded growth rates in excess of six percent annually, and managed to transition to High Income status, as defined by the World Bank. However, growth in CARICOM countries has stagnated in the last two decades, except for Guyana, Belize, Suriname and Trinidad and Tobago who are commodity exporters. Figure 18 shows the average rate of real GDP growth in CARICOM countries over the period 2000-2014. Only three countries recorded between three and five percent average growth rates.

**Figure 18. Average real GDP growth (2000-2014) in selected CARICOM countries (2006=100) (Percentage)**



Source: IMF, 2015.

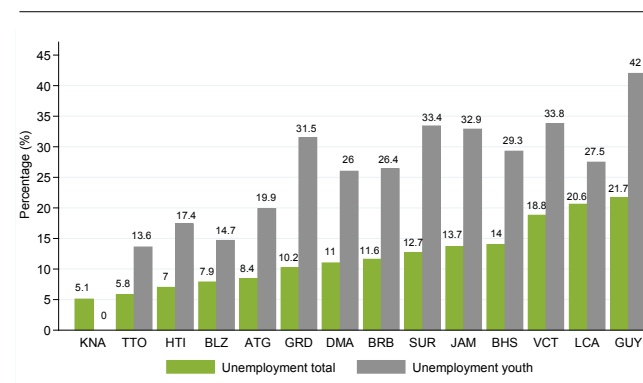
Economic growth allows governments to expand public expenditure on public infrastructure, social programmes such as school feeding, food supplements for pregnant and lactating mothers, minimum wages, and public assistance, all of which make food more accessible. In

addition, economic growth does have the potential to increase household incomes by increasing employment. However, economic growth is not a sufficient condition for improving welfare. As observed elsewhere (FAO, IFAD and WFP, 2015), while economic growth has brought strong and persistent hunger reduction in many countries, in the longer term, as economies grow and countries become richer, increases in GDP growth may bring relatively fewer people out of hunger. The experience in the Caribbean also shows that some of the highest rates of poverty in the region have occurred in periods of relatively high economic growth (Table 3).

#### b. Effect of poverty and Unemployment on Food Access

Poverty and unemployment constrain access to food. Figure 19 shows that the average unemployment rate in CARICOM is 12 percent, with higher rates (18-22 percent), observed in Jamaica, The Bahamas, St. Vincent and the Grenadines, St. Lucia and Guyana. Further, the average youth unemployment in the region is 25 percent (CDB, 2015) - two times higher than the world average, and nine countries show youth unemployment rates higher than the regional average.

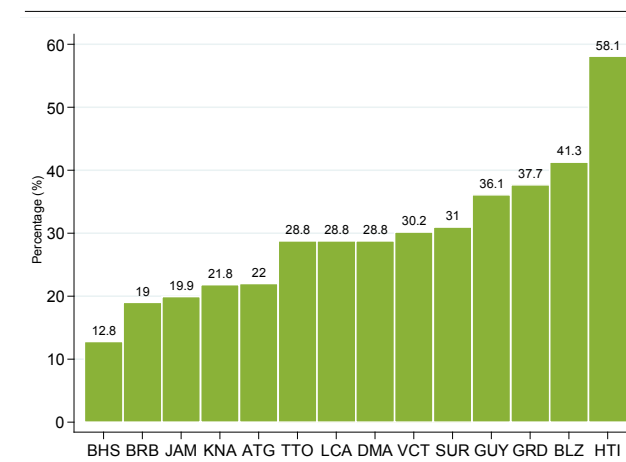
**Figure 19. Unemployment in selected CARICOM countries**



Source: World Bank (last available of country).

Six countries reported poverty rates between 20-29 percent of the population, and another six reported rates in excess of 30 percent (see figure 20). However, indigent poverty (i.e. persons who cannot meet their basic food needs) is on the decline, and is particularly low in Trinidad and Tobago and some of the Eastern Caribbean Countries.

**Figure 20. Population below the poverty line (%) in selected Caribbean countries**



Source: Country Poverty Assessments.

The Country Poverty Assessments (CPAs) <sup>11</sup> reported that:

- (i) In all countries, 30-77 percent of the poor were actually employed, a phenomenon that the CPAs referred to as “the working poor”. These are persons whose wages are too low to pull them out of poverty. They typically work part-time or suffer regular periodic layoffs from work and have low take-home pay.
- (ii) Children, 0-14 age group, are disproportionately represented among the poor. They account for 30-40 percent of that group.
- (iii) In excess of 50 percent of the age group 15-19 year olds in the labour force are from the two lowest income quintiles. They tend to place a higher premium on work than on education or vocational training because of poverty.
- (iv) Considering (ii) and (iii) above, there is a high probability that persons from these groups will populate the next wave of the vulnerable population.
- (v) While most of the poor had a primary education, in excess of 45 percent had no educational certification, relegating them to low-paying jobs characterized by seasonality and frequent layoffs, and to underemployment.

<sup>11</sup> The review is based on the CPAs listed in Table 3. The objective of the CPA is to provide information on the underlying causes and consequences of poverty in a country and examine how public policies, expenditures, and institutions affect poor people.

(vi) In the latest CPAs, it was observed that there has been “out-migration” of the poor from the urban and capital city centres to the surrounding parishes in search of better, lower-cost housing.

(vii) There is also a proportion of the population that are not currently food insecure nor below the poverty line. However, because they lack the assets<sup>12</sup> that could sustain them above the poverty line or a given food security threshold, they are at risk of falling below these thresholds should an unanticipated event occur, such as a natural disaster, economic shock or death of the main income earner.

<sup>12</sup> In Sustainable Livelihoods Analyses, these assets include: human capital, private physical capital, social capital, public capital and financial capital.

**Table 3. Poverty, vulnerability and periodic growth rates –in selected CARICOM countries**

Country (1)	Year of poverty survey(2)	Indigent poverty <sup>1</sup> line (%) (3)	Absolute poverty <sup>2</sup> line (%) (4)	Periodic average real GDP growth (2006=100) (6)
Antigua/ Barbuda	1995	n. a.	12.0	2003-07: 7.2%
	2007/08	3.7	22.0	
The Bahamas	1999	n. a.	8.0	2000-03: 3.2%
	2002	n. a.	9.3	2004-13: 1%
	2013	n. a.	12.8	
Barbados	1996	1	14.0	1993-2010: 1.6%
	2010	n. a.	19.0	
Belize	2002	10.8	33.5	2000-08: 5.5%
	2008	15.8	41.3	
Dominica	2002	15	39.0	2000-2010: 1.8%
	2010	3.1	28.8	
Grenada	1998	12.9	32.1	2000-2008: 3.6%
	2007/08	2.4	37.7	
Guyana	1999	19.1	36.3	1990-99: 5.7%
	2006	18.6	36.1	
Haiti	2014	23.8	58.5	2005-14: 2.1%
Jamaica	2005	n. a.	14.8	2003-12: 0.6%
	2010	n. a.	17.8	
	2012	n. a.	19.9	
St. Kitts	2000	11.0	30.5	2000-07: 3.8%
	2007	1.4	23.7	
Nevis	2000	0	17.0	2000-07: 3.8%
	2007	32	15.9	
St. Lucia	2006	1.6	28.8	2003-06: 5%
St. Vincent and the Grenadines	2000	10.8	33.5	2000-07: 4%
	2007	2.9	30.2	
Suriname	2002	n. a.	31.0	2001-03: 4.3%
Trinidad and Tobago	1992	11	21.0	2000-06: 8.8%
	2006	1.2	28.8	

Source: Data from the Country Poverty Assessments

1Indigent Poverty=Persons who cannot meet their food needs.

2Absolute Poverty=Persons who cannot meet their food and non-food needs.

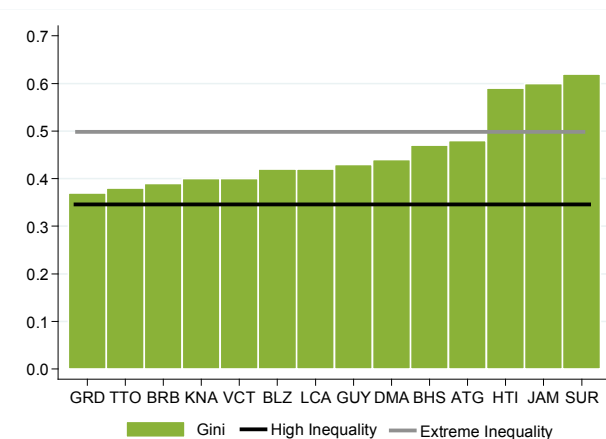
n. a.: Data not available

### c. Effect of Income Inequality on Food Access

Income Inequality is also linked to household and individual access to food. Figure 21 presents Gini<sup>13</sup> coefficients for CARICOM countries. Using the methodology of Luebker (2010), which relates different values of Gini coefficients to the typical income shares of different income groups, it is observed that Haiti, Jamaica and Suriname are considered to be countries with Extreme Income Inequality. The other countries have High Income Inequality, with the Bahamas and Antigua and Barbuda very close to Extreme Income Inequality.

13 The Gini coefficient summarizes the extent of income inequality in a single number, which can take on values between zero (perfect equality i.e. everybody has the same income) and one (perfect inequality i.e. all income goes to a single person)

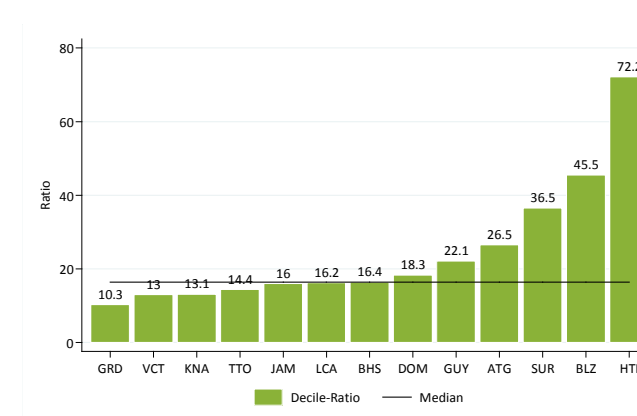
**Figure 21. Gini coefficients, in selected CARICOM countries (most recent data, 2015)**



Source: Country Poverty Assessments (most recent data, 2015)

Figure 22 shows the consumption-expenditure decile-ratios<sup>14</sup> for 13 CARICOM countries. The regional consumption expenditure of the top 10 percent of income earners is on average 16.4 times more than that of the bottom 10 percent of income earners. Six countries have higher ratios than the regional average, ranging from a low of 18.3 (Dominica), to a high of 72.2 (Haiti). At the same time, three countries have ratios similar to the regional average. Finally, four countries (Grenada, St Vincent and the Grenadines, St Kitts and Nevis, and Trinidad and Tobago), have lower decile ratios than the regional average, implying least income disparities compared to the other countries.

**Figure 22. Decile-Ratio (Consumption expenditure of highest 10% income earners/consumption expenditure of lowest 10% income earners)**



Source: Country Poverty Assessments (most recent data)

14 Another indicator of inequality is the consumption-expenditure decile-ratio: the consumption expenditure of the highest 10 percent of income earners divided by the consumption expenditure of the lowest 10 percent of income earners.

**Box 3. HAITI FOOD AND NUTRITION INSECURITY, POVERTY & VULNERABILITY**

Haiti is usually characterized as the poorest country in the Caribbean. Yet, despite many challenges, the country has made progress over the past decade (World Bank, 2014):

- Extreme poverty has declined from 31 percent to 24 percent between 2000 and 2012
- Moderate consumption poverty has improved over the past decade
- Gains have been made in access to education
- Modest positive economic growth occurred between 2005-2009, was halted by the 2010 earthquake, but resumed in 2011
- The election in 2006 marked the onset of a return to macroeconomic and political stability.

Yet, poverty is still one of the enduring challenges in Haiti. A recent World Bank study (World Bank, 2014) reported that:

- There were 58.5 percent of Haitians (6.3 million persons) who were poor, and 23.8 percent (2.5 million persons) who suffered extreme poverty
- In excess of 80 percent of persons in extreme poverty lived in rural areas, and 38 percent of these could not satisfy their nutritional needs
- Another one million persons were vulnerable and could be pushed below the poverty line by a shock
- Income inequality was high and has not improved over the past decade.

Sweeping reforms in 2006 aimed at improving food security, reducing poverty, building resilience against natural disasters and fostering economic growth appeared promising. However, the earthquake that devastated the country in January 2010 reversed all gains made and deteriorated human conditions in the country further.

The impact of the earthquake prompted the government and its international partners to develop plans that focus on both

reconstruction and long-term economic development. Haiti's Strategic Development Plan is one such plan which focuses on rebuilding the country's economic, social and institutional structures, and aims to transform Haiti into an emerging economy by 2030.

Food security policies and related institutional arrangements are embedded in the Strategic Development Plan. The National Plan for Food Security, developed for the first time in 1996 and revised in 2010 by the National Coordination Agency for Food Security (CNSA), reflects the longer-term vision referred to before. Its objectives are to eradicate hunger by 2025 and to guarantee the right to food by establishing measures that address the multiple dimensions of food security.

Some important national programs include:

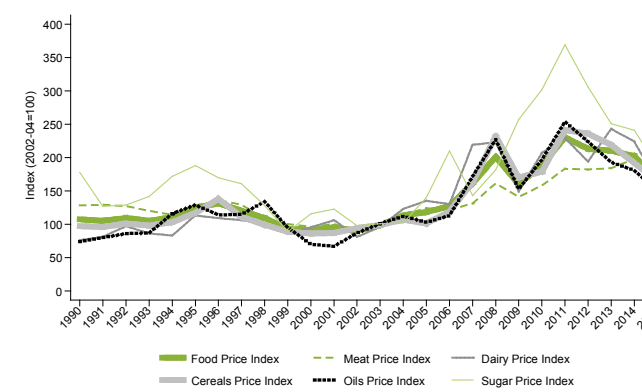
- The National Programme for the Fight against Hunger and Malnutrition, *Aba Grangou*, focuses on increasing food access and utilization. It was created in 2012.
- The National Social Assistance Programme provides extremely poor households with cash transfers and other subsidies. For example, *Ti Manman Cheri*, a conditional cash transfer programme aimed at enhancing children's school attendance. Other social protection measures, such as the *Solidarity Cart*, mobile and fixed canteens and emergency vouchers, are designed to facilitate food access during emergency situations through in-kind and cash transfers.

The above suite of programmes along with several other large projects being implemented by various NGOs and International Organizations in the country have the potential to improve food and nutrition security and reduce poverty in Haiti. Yet, without a better coordination among the different actors, greater ownership by the government of Haiti, and increasing institutional capacity, the achievement of results will be undermined.

**d. Impacts from the World Economy**

From 2006-09, international commodity prices for major food groups skyrocketed. In 2008, the international food-price index increased by 157 percent, reflecting the high increases in its component prices—meat, cereals, oils and sugar (see figure 23).

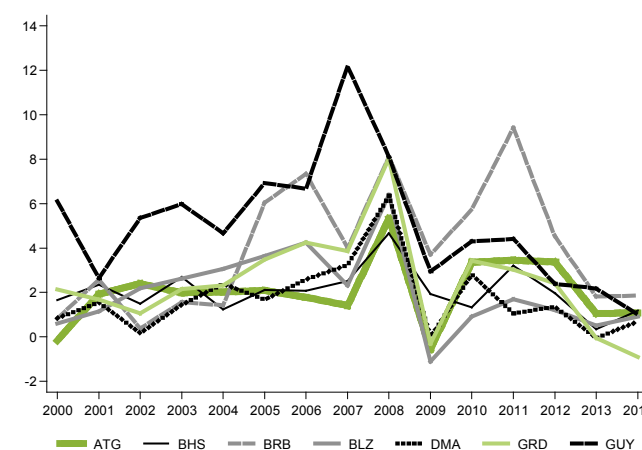
**Figure 23. FAO international food price indices (2002-04=100)**



Source: FAOSTAT, 2015 available at: www.fao.org

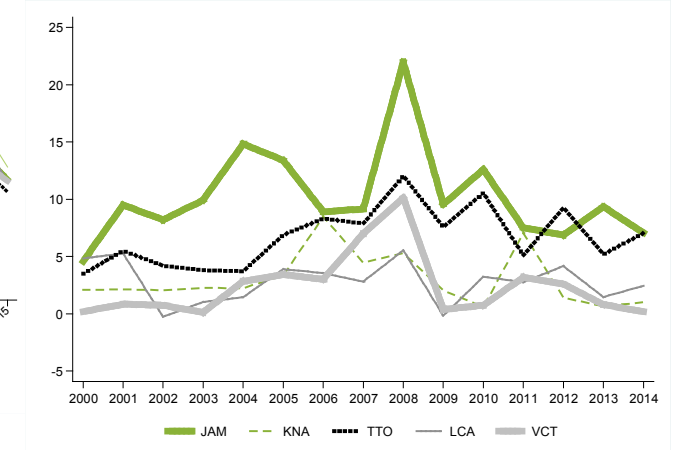
These high prices were reflected in the spikes in national inflation rates throughout region in 2008 (see figures 24a and 24b). The soaring world market commodity prices imposed severe hardships on household access to food. As a result, several CARICOM countries used a combination of trade, consumer and producer-oriented policies to respond to these high food prices (FAO, 2009). International commodity prices have since reduced but continue to fluctuate, and have not returned to the 2002-04 base-year levels.

**Figure 24a. Annual percentage change in inflation (2000-2014): selected CARICOM countries**



Source: IMF, 2015

**Figure 24b. Annual percentage change in inflation (2000-2014) for selected countries**



Source: IMF, 2015.

Table 4 shows the effect of these high prices in four countries. In Antigua and Barbuda, the volume of imports of the three main food staples (wheat flour, poultry meat and rice) increased over the period 2000-11. However, the increase in the value of imports was even greater: the value of imports of wheat flour increased by 121 percent, of poultry meat by 107 percent and of rice by 219 percent, compared to increases in quantity of 55 percent, 23 percent and 121 percent, respectively. The similar trend is noted in the imports of the other three countries in Table 5.



**Table 5. Price and quantity changes for selected food imports over the period 2000-2011 (selected countries)**

Country	(Tonne) (% change)	(US\$ value) (% change)
<b>Antigua &amp; Barbuda</b>		
Wheat flour imports	(+)55	(+)121
Poultry meat imports	(+)23	(+)107
Rice imports	(+)121	(+)219
<b>The Bahamas</b>		
Wheat flour imports	(+)19.0	(+)127.3
Poultry meat imports	(+)9.8	(+)104.0
Rice imports	(+)14.7	(+)81.0
<b>Grenada</b>		
What flour imports	(+)19.6	(+)153
Poultry meat imports	(+)28	(+)91.4
Rice imports	(-)46.3	(-)9.3
<b>St. Vincent and the Grenadines</b>		
Wheat flour imports	(-)18	(+)98
Poultry meat imports	(+)64	(+)274
Rice imports	(-)20	(+)71

Source: FAOSTAT, 2015.

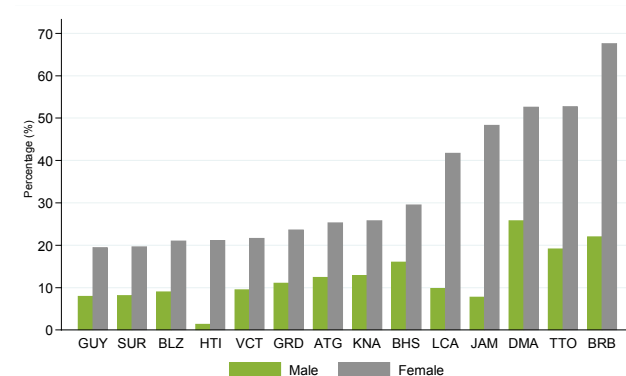
### 1.2.3 Food utilization

Food utilization in the region has been characterized by nutritionally poor food choices. A nutrition transition has taken place in the CARICOM region which has contributed to an increased prevalence of chronic, non-communicable diseases (NCDs). Much of the imported food available in CARICOM countries is calorie-dense, high-fat, high-sweetener food. Poor households are more likely to choose higher levels of these types of foods. Expenditure among poor households, globally, is generally on low-

quality diets, disproportionately in favour of foods that are generally low cost, calorie-dense (especially refined carbohydrates), and high in fats and sweeteners (Drewnowski and Specter, 2004; World Health Organization, 2010). Such diets are more affordable than healthier ones, based on lean meats, fish, fresh vegetables, and fruit.

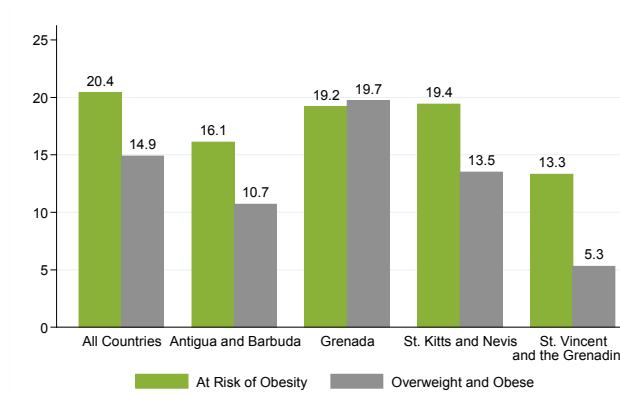
The excess of fats and sugars is particularly worrying given their role as high energy sources and the pervasiveness of overweight and obesity in the Caribbean. One of the main risk factors for NCDs is obesity, linked to unhealthy diets and lifestyles. Unhealthy diets then lead to overweight and obesity and potential for developing chronic non-communicable diseases including diabetes (Hospedales *et al.*, 2013). Figures 25 and 26 show obesity prevalence rates for two age groups in the CARICOM. Among persons in the above-15 years age group, female obesity rates in the region are about four times higher than those of their male counterparts. In Haiti, obese females outnumber obese males 16:1, and in Jamaica and St Lucia the ratios are 6:1 and 4:1, respectively. Barbados has the highest rate of female obesity (67.7 percent). In four CARICOM countries (see figure 26) among children 0-5 years of age, 14.9 percent were overweight and obese, and 20.4 percent were at risk of being overweight. Among this age-group, overweight and obesity rates ranged from a low of 5.3 percent in St Vincent and the Grenadines to 20 percent in Grenada (CFNI/PAHO, 2012)

**Figure 25. Obesity prevalence (%) among males and females (above 15 years old), selected CARICOM countries (2010)**



Source: WHO, 2010.

**Figure 26. Proportion of overweight and obese children (0-4 years old): selected CARICOM countries**



Source: The CFNI/PAHO, 2012.

Table 5 shows the incidence of NCDs in the Caribbean in the 1980s and 2000s. The effects of the NCDs epidemic is well documented in the United States of America (Hospedales *et al.*, 2011), and includes data specific to some Caribbean countries. These effects include:

- Lower extremity amputations related to diabetes in Barbados are among the highest recorded in the world (Hennis, et al. 2004);
- Compared with North America, diabetes mortality is 600 percent higher in Trinidad and Tobago (PAHO, 2009), cardiovascular disease mortality is up to 84 percent higher (Hennis, et al. 2004), and cervical cancer rates are 3-12 times higher (Ferlay, et al. 2011);
- Over the past half century, hypertension, diabetes, and cardiovascular disease have grown exponentially in United States of America (Stuart, 1968; Miller, et al. 1966; Hagley, 1990; Holder and Lewis, 1997; Theodore-Ghandi (1997; Abdulkadri. et al. 2009);
- The economic impact of hypertension and diabetes has been estimated at 5 to 8 percent of gross domestic product (Abdulkadri. et al. 2009);
- While NCDs occur more frequently among the poor because of greater exposure to unhealthy diets, they have less access to preventive and curative services; the cost of the illness or premature death of breadwinners then pushes their families further into poverty (WHO, 2005).

**Table 5. Main diseases in the Caribbean, 1980s and 2000s (percentage)**

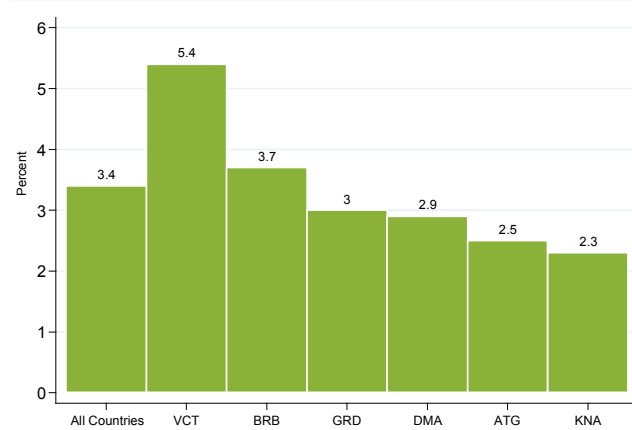
	1980s	%	2000s	%
1. Heart disease*	20		1. Heart disease*	18
2. Cancer*	12		2. Cancer*	16
3. Stroke*	11		3. Stroke*	10
4. Injuries	8		4. Diabetes	12
5. Hypertension	6		5. Hypertension*	9
6. Acute respiratory infections	5		6. Injury	7
7. Diabetes	4		7. HIV and AIDS	6
<b>*Food/Nutrition-related</b>	<b>53</b>		<b>*Food/Nutrition-related</b>	<b>65</b>

Source: CFNI/PAHO, 2014

Unlike other regions, the prevalence of undernutrition in most CARICOM countries is relatively low. The underweight prevalence rates for selected CARICOM countries are reported in Figure 27<sup>15</sup>. 3.4 percent of children (0 – 5 years) were underweight in 2012, including 1.45 percent who were severely underweight (CFNI/PAHO, 2012). Among males, 3.8 percent were underweight compared with only 2.9 percent of females same year (CFNI/PAHO, 2012). The study concluded that, while the percentage of underweight children has declined from 4.5 percent a decade ago to 3.4 percent in 2012, there is now a problem of overweight and obesity. The incidence of overweight and obesity among children has doubled in a decade, from 7.4 percent in 2000 to 14.9 percent in 2012 (CFNI/PAHO, 2012).

<sup>15</sup> Based on a CFNI/PAHO (2012) study from ten Caribbean countries for 9603 children aged 0-5 years, whose clinical records were available

**Figure 27. Prevalence of underweight children (0-5 years): selected Caribbean countries**



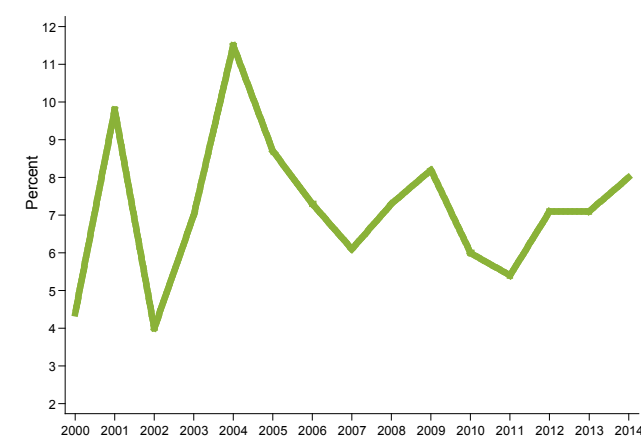
Source: CFNI/PAHO, 2012.

### 1.2.4 Stability of food supply

#### a. Domestic Price Volatility

Instability and vulnerability constantly undermine efforts to advance food and nutrition security in the region. The domestic food price volatility index measures the variability in the relative price of food in a country. The index shows that the lowest levels of domestic price volatility occurred in 2000 and 2002. The highest volatility in domestic food prices occurred in 2001, 2004, and to a lesser extent in 2005 and 2009. In 2014, the domestic food price volatility index was double the level recorded in 2000 (see figure 28).

**Figure 28. Domestic Food Price Volatility—Caribbean Region**

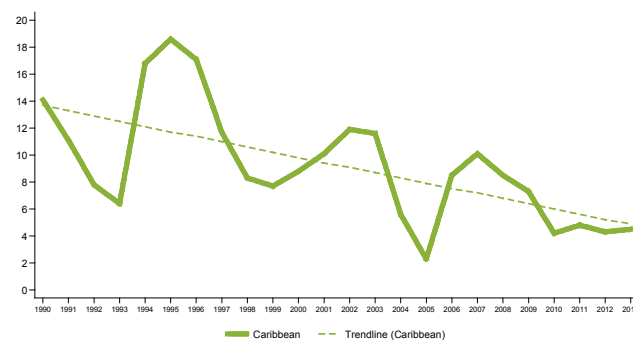


Source: FAOSTAT, 2015.

#### b. Variability in food production per capita

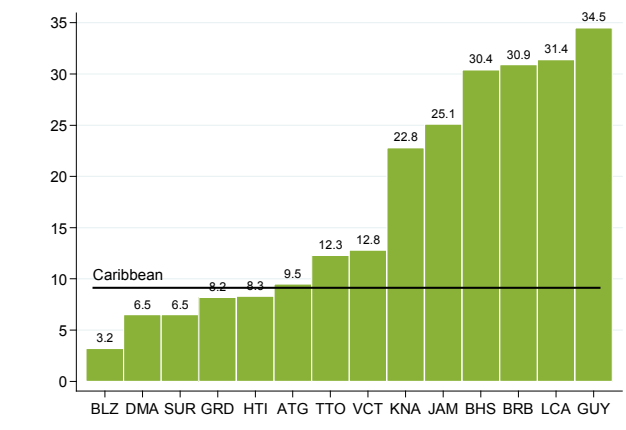
Across the region, variation in food production per capita has been declining steadily since the mid-1990s (see Figure 29). This is an indication that regional food production is showing some signs of stability instead of the wide periodic fluctuations seen over the period 1990-96 and, to a lesser extent, in 2004-05 (see figure 29). The variability in food production per capita of five countries is below the regional average, while a number of other countries show variability above the regional mean (see Figure 30). This is more noticeable for St Kitts and Nevis, Jamaica, the Bahamas, Barbados, St Lucia and Guyana.

**Figure 29. Per capita food production variability in the CARICOM**



Source: FAOSTAT, 2015.

**Figure 30. Mean per capita food production variability (1990-2013)**

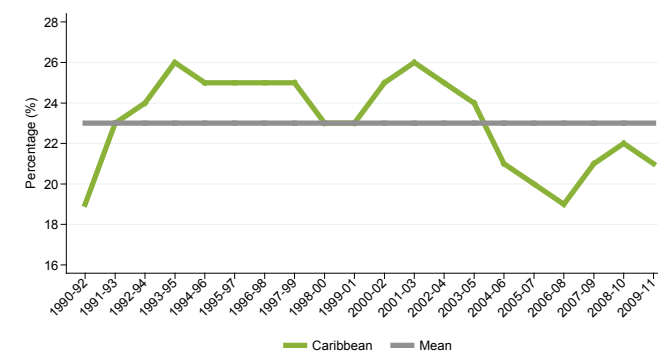


Source: FAOSTAT, 2015.

#### c. Value of food imports as a percentage of total merchandise exports

This indicator of stability captures the adequacy of foreign exchange reserves to pay for food imports, which has implications for the food security of countries that import a significant proportion of food. Given the high dependence on food importation in the Caribbean, the stability of the food supply is highly dependent on the ability of the countries to pay for imported food. In this regard, the value of food imports as a percentage of total merchandise exports, is useful indicator of stability which captures the adequacy of foreign exchange reserves to pay for food imports. In the Caribbean, on average, 23 percent of the value of total merchandise exports are spent on food imports (see Figure 31). In the case of Belize, Guyana and Suriname value of this indicator (proportions of value of food imports to total merchandise imports) is consistently below the regional average. For the other countries, the proportions of value of food imports to total merchandise exports is consistently higher than the regional average. This is especially the case for Antigua and Barbuda, the Bahamas, Dominica, Grenada, Haiti and St Lucia (FAOSTAT, 2015). This suggests a higher dependency by these countries on the foreign exchange earnings for purchase of imported food.

**Figure 31. Value of food imports as a percentage of total merchandise exports**



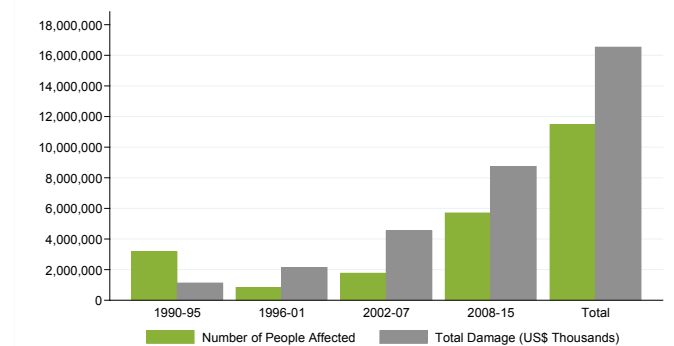
Source: FAOSTAT, 2015.

#### d. Natural disasters

CARICOM countries are vulnerable to natural disasters, which have adversely impacted not only economic sectors (agriculture, tourism, manufacturing, industry and commerce), but also social sectors (housing stock and settlements, health, education and infrastructure), and

food and nutrition security. Over the period 1990-2014, 182 major natural disasters occurred in the Caribbean. These included landslides (1 percent), earthquakes (3 percent), droughts (7 percent), floods (30 percent), and storms/hurricanes (59 percent) (EM-DAT database, 2015). Over this period, 11.5 million persons were affected, 241,550 deaths<sup>16</sup> were recorded, and the region sustained US\$ 16.6 billion in damages (on immovable assets and stocks), and loss including disruption to the flow of goods and services due to the disaster (see Figure 32). These estimates include the impact of the 2010 earthquake in Haiti, which accounted for 96 percent of the deaths, 32 percent of persons affected and 49 percent of total damage reported for the region. Damage and loss due to natural disasters has been increasing over the past 15 years (see Table 6).

**Figure 32. Impact of major natural disasters in CARICOM countries (1990-2013)**



Source: EM-DAT Database, 2015.

<sup>16</sup> Over 200,000 of these deaths occurred in Haiti as a result of the earthquake that damaged the island in 2010 (World Bank, 2012).

**Table 6. Value of damage and loss from natural disasters in CARICOM countries (US\$ '000)**

CARIBBEAN	1995-2000	2001-2013
Antigua and Barbuda	450 000	12 600
The Bahamas	700 400	1 935 000
Barbados	---	5 200
Belize	282 460	274 544
Dominica	195 000	20 000
Grenada	5 500	889 000
Guyana	29 000	648 800
Haiti	230 100	8 356 520
Jamaica	51 000	1 538 757
St. Kitts and Nevis	828 816	
St. Lucia	---	41 000
St. Vincent and the Grenadines	---	41 000
Trinidad and Tobago	25 127	1 000
<b>Total</b>	<b>2 797 403</b>	<b>13 763 421</b>

Source: EM-DAT, 2015

**Box 4. CLIMATE CHANGE AND CLIMATE-SMART AGRICULTURE: Adversary and defender of food and nutrition security**

One of the challenges to regional food security lies in ensuring stability – for example, by mitigating the impact of natural disasters, one of the regional sources of food insecurity. The Inter-Governmental Panel on Climate Change (IPCC) has predicted that even if carbon emissions are contained with current commitments by governments, global warming will lead to sea-level rise and more frequent and intense storm systems. Although the Caribbean carbon footprint is small compared to that of other regions, there are compelling reasons for *how* and *why* CARICOM countries should take action on climate change (World Bank, 2012):

- **Act now**—because postponing climate-smart choices will be more costly in the future.
- **Act together**—that is, Caribbean Governments, in addition to mobilizing the partnerships of their own stakeholders (including political leadership, private sector, civil society organizations and NGOs) must cooperate and exercise the political will to advance climate-smart choices in the development process.
- **Act differently**—the imperative to adapt to climate change requires that agricultural practices, housing solutions, public buildings and offices, sea defenses, transportation networks and other infrastructure be resilient to the debilitating effects of more frequent, more intense severe weather systems.

FAO's Climate-Smart-Agriculture (CSA) approach is one way of building resilience to the effects of climate change in food production systems. The approach seeks to develop the technical, policy and investment conditions to achieve sustainable agricultural development for food security under climate change.

Over the past fifteen years, approaches to food and nutrition security in the Caribbean have with FAO's assistance increasingly focused on formulating and implementing policies and related activities to address the key challenges to food availability, food access, food consumption/utilization and stability. However, many farming livelihoods continue to be at risk of food insecurity because of: (i) limited livelihood assets; (ii) lack of external risk management supported by policies, laws and regulations; and (iii) high exposure to external shocks. As a result of these factors, many farmers lack the resilience to sustain their livelihoods above a low food security threshold, in the event of a natural or economic shock.

Strong, integrated and innovative policies are urgently required if the Caribbean is to break the cycle of continued food insecurity and vulnerability of farming livelihoods in the region. The focus and refinements of the CSA approach to advance the food and nutrition security agenda have good merit, and its implementation should be promoted in the Caribbean



## CHAPTER 2: Global, Regional and National Food and Nutrition Security Policies in the CARICOM Caribbean

### 2.1 BACKGROUND

The present chapter examines specific public policies, actions and frameworks that aim to address the key food and nutrition problems in the CARICOM Caribbean. It examines firstly, global mandates, regional partnerships and regional collaboration; and secondly, changes in concept about what constitutes the key challenges to food and nutrition security and the impact of these changed concepts on policymaking.

As discussed in chapter one, there has been a transition from a focus on availability through domestic production and imports to a focus on household access to food, and the ability to make appropriate food choices that would enhance the nutritional and health status of the individual. Initially, accessibility to food was recognized only insofar as attempts were made to maintain social safety nets and minimum wages, and to address unemployment. The consumption/utilization dimension of food (i.e. the nutritional/health impact of food) was poorly addressed.

The early 2000s marked a definitive period for the evolution of approaches to food security. At that time, the formulation began of the Caribbean Special Programme for Food Security, Phase 1 (SPFS-Phase 1). FAO, with strong support from regional agencies and other stakeholders<sup>17</sup>, played a major role in ensuring that the WFS definition of food security was reflected in the finalized SPFS-Phase 1. Particular attention was given, not only to food availability, but also to access, utilization and stability. The SPFS-Phase 1 that was launched in 2003 was therefore the landmark programme that changed the historical approaches to food and nutrition security in the region. By the time the implementation of SPFS-Phase 1 was completed in 2007, FAO and its partners had aggressively promoted a new paradigm of food and nutrition security in all CARICOM countries through:

- Training of middle- and upper-level policymakers (including Permanent Secretaries from various Government Ministries), and members of NGOs and private sector organizations in food and nutrition security, poverty and vulnerability analysis, both at the regional and national levels.

- Dialogue at Conferences and Meetings, including at high-level forums such as the CARICOM Agriculture and Health Ministers' Meetings, Caribbean Week of Agriculture, the CARICOM Council on Health and Social Development (COHSOD), and Council on Trade and Development (COTED).

These efforts have been successful such that every CARICOM country's agricultural policies, programmes and actions currently reflect food security considerations and, significantly, policy measures reflect all four dimensions of food security: availability, accessibility, utilization and stability. Each CARICOM country has a ministry dedicated to agriculture (crops, livestock, forestry and fishing) with responsibility for overall sectoral policy.

The absolute necessity of a multi-sectoral approach is reflected in the best practice approach to addressing the NCD challenge which is typically considered to be a health issue that is the responsibility of the Ministry of Health. However, NCDs are more broadly linked to overweight and obesity, sedentary lifestyles, food availability, food prices, poverty and, ultimately, to food choices and unhealthy diets. In this regard, the intersection with the mandates of the Ministries of Agriculture and Trade, as the primary sources of national food availability and supply, are clear. Sedentary lifestyles are reinforced by the absence of safe places to exercise such as walkways, street pavements and parks. This requires the involvement of the Ministry of Urban Development/Public Works and Transport. Food habits, including consumption of high calorie, high sodium foods are formed during childhood, and so the Information and Education Ministries are key partners. By similar logic, the Ministries of Finance, Labour, and Social Services (to address poverty, low income, wages, employment), become part of the solution of a seemingly health-specific problem. All CARICOM countries are encouraged to approach food and nutrition security in a similar fashion, as a multi-sectoral issue. This is a positive development for enhancing food security.

The following section reviews existing programmes, policies and actions that impact food security, within the framework of this new approach. The overwhelming influence of global mandates and regional cooperation and partnerships are also reviewed as key elements which shape and determine the food security agenda in CARICOM countries.

<sup>17</sup> Including: The Caribbean Food and Nutrition Institute (CFNI), The Inter-American Institute for Cooperation on Agriculture (IICA), The Caribbean Agriculture Research and Development Institute (CARDI), Caribbean Agribusiness Association (CABA) and its local chapters, and middle and upper-level national policymakers from all CARICOM countries.





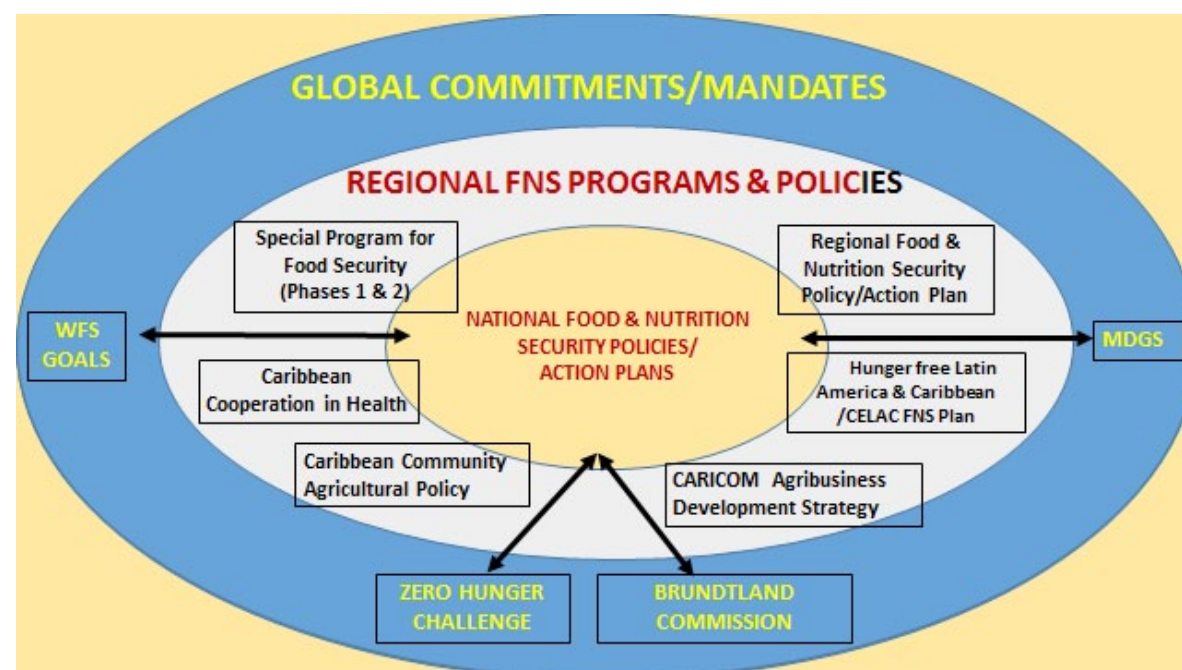
## 2.2 GLOBAL MANDATES

Figure 33 offers a conceptualization of selected global mandates, and regional frameworks, programmes and policies that have catalyzed and/or supported national food and nutrition security agendas in Caribbean countries.

The World Food Summit (1996) was instrumental in highlighting food security as encompassing elements of food availability, access, utilization and stability. The Millennium Development Goals (MDG) on the other hand, galvanized attention to poverty as a global priority and achieved consensus in the international community on the development agenda. Prior to this, against the focus on pursuit of economic growth based on unsustainable natural resources extraction, the Brundtland Commission<sup>18</sup> (1987), drew attention to the need for sustainable

development. This defined economic growth as needing to be accompanied by environmental protection, and social well-being of people (equity). More recently, at the Rio+20 Conference in Brazil in 2012, the UN Secretary General launched the global UN Zero Hunger Challenge Initiative (ZHCI) drawing attention to an estimated 1 billion people living with hunger. The UN ZHCI has five elements, namely: a) Zero stunted children less than two years old; b) 100 percent access to food for all, all year round; c) All food systems are sustainable; d) 100% increase in smallholder productivity and income; e) Zero loss or waste of food

**Figure 33.** Global mandates and regional and national programmes on Caribbean food and nutrition security



<sup>18</sup> The Brundtland commission is formally known as the World Commission on Environment and Development (WCED), with mission to unite countries to pursue sustainable development.

## 2.3 REGIONAL POLICIES AND PROGRAMMES

### a. CARICOM Regional Food and Nutrition Security Policy and Action Plan

In 2010, Member States of the CARICOM adopted a Regional Food and Nutrition Security Policy (RFNSP), with a rights-based<sup>19</sup> approach to food. The RFNSP established four goals:

- **Food availability:** Promote the sustainable production, processing, preparation, commercialization and consumption of safe, affordable, nutritious, high quality Caribbean food commodities/products.
- **Food access:** Ensure the regular access by Caribbean households, especially the poor and vulnerable, to sufficient quantities of safe, affordable, quality food at all times, particularly in response to diverse socioeconomic crises and natural disasters.
- **Food utilization/nutritional adequacy:** Improve the nutritional status of the Caribbean population, particularly with respect to non-communicable diseases, overweight and obesity.
- **Stability of food supply:** Improve the resilience of the national communities and households to natural and socioeconomic crises.

The Regional Food and Nutrition Security Action Plan (RFNS/AP) operationalizes the RFNSP; the first plan covers a fifteen-year period from 2012 to 2026 (CARICOM Secretariat, 2011). The RFNS/AP is designed to contribute to improved standards of living, greater social security protection and sustained economic development covering a number of strategic actions under the four food and nutrition security dimensions of the Policy (CARICOM Secretariat, 2011). The implementation of the RFNS/AP is directly linked to National Food and Nutrition Security Policies and Action Plans that have been prepared with FAO's assistance for several CARICOM countries.

### b. Caribbean Community Agricultural Policy

In October 2011, CARICOM adopted its Caribbean Community Agricultural Policy (CAP), which sought to build on earlier commitments and initiatives, most notably:

- The revised Treaty of Chaguaramas<sup>20</sup> (2001)
- The Jagdeo Initiative<sup>21</sup> (2004)
- The CARICOM Single Market and Economy (CSME) Single Development Vision (2009)
- The Liliendaal Declaration on Agriculture and Food Security, and on Climate Change and Development (2009).

These initiatives set out policy priorities and areas of intervention, and proposals for practical engagement and action. CAP renews the focus on regional agricultural policy in the light of the central importance of agriculture within the promotion of a Caribbean Single Market and Economy (CSME). CAP also recognizes the new—and increasingly challenging—global policy framework characterized by rising input costs, and higher more volatile food prices; due to the impact of the global financial crisis and economic downturn, more competitive global markets, and climate change and environmental challenges.

CAP reiterates the five pillars for policy intervention set out in the Treaty of Chaguaramas:

- (i) Food and nutrition security
- (ii) Production-trade (value) chains
- (iii) Sustainable development and natural resources
- (iv) Rural modernization and youth programmes
- (v) Modern knowledge and information systems

Specific objectives are set out under each pillar, with action plans to provide the basis for fast-track implementation.

### c. CARICOM Agribusiness Development Strategy

The CARICOM Agribusiness Development Strategy presented to the Council for Trade and Economic Development (COTED) of the CARICOM in 2012 attempts

<sup>20</sup> The Treaty of Chaguaramas established the Caribbean Community and Common Market, known as CARICOM. It was initially signed on July 4, 1973 in Chaguaramas, Trinidad and Tobago.

<sup>21</sup> The Jagdeo Initiative is a determined approach to fast-track the Regional Agriculture Development Process by identifying a set of pressing and binding constraints and developing a corresponding set of interventions to address these constraints

to capture the political and technical capabilities needed to transform the entire food sector to ensure its viability and sustainability. The Strategy recognizes the need for key investments to be made by public and private sectors in infrastructure, in the areas of development of technical knowledge, information management, and marketing systems, in addition to systems for financing both production and trade.

The Strategy has several objectives:

- Identification of enterprises for competitive import replacement
- Identification of enterprises to increase export earnings and foreign exchange
- Identification of products (particularly indigenous species) for value-added and the tourism market
- Identification of enterprises to enhance food security and employment

The Strategy has identified several priority areas:

- Use of the value chain approach
- Coordination by use of commodity business models
- Market-led approach
- Critical constraint – transportation

The Strategy is action-oriented and has identified key activities for implementation:

- (i) Upgrading and strengthening identified value chains to ensure competitiveness
- (ii) Integration of viable small- and medium-enterprises into these value chains; and beneficial participation of the poor (as consumers, farmers, agro-processors, and employers) in the process.
- (iii) Developing/strengthening regional support institutions/services to deal with issues such as food safety and food product and process standards, marketing, finance, and transport.
- (iv) Supporting public-private partnerships.
- (v) Strengthening the information base (general information and market intelligence)
- (vi) Improving beneficial linkages between agriculture and tourism.

## 2.4 NATIONAL POLICIES, STRATEGIES AND ACTION PLANS

FAO, over the years, has provided important support to national policy development and implementation in the region. The following are some specific initiatives that the FAO has supported at the national level.

### a. Hunger Eradication initiatives

The Hunger-Free Latin America and the Caribbean Initiative (HFLACI) was launched in 2005 by FAO. It embodies the engagement by countries in Latin America and the Caribbean, and organizations in the creation of the necessary conditions to eradicate hunger by 2025. The Initiative is intended to support the development of legal frameworks that would promote and protect the Right to Food, institutions that would coordinate and monitor the negotiations to increase food security; and policies that would lead to practical actions to eradicate hunger. There have since been several new high-level initiatives on hunger launched, including:

- The Global Zero Hunger Challenge, launched by the United Nations Secretary General at (Rio+20) in Brazil in 2012,
- The Hugo Chávez Frías" Action Plan for the Eradication of Hunger and Poverty, adopted in 2013
- The CELAC Plan for Food and Nutrition Security and the Eradication of Hunger 2025, adopted in January 2015 by 33 countries of the Community of Latin American and Caribbean States (CELAC) (CELAC, 2014; FAO, 2014).

CARICOM countries have been addressing the issue of hunger through commitments to meeting the WFS (1996) and MDGs (2000) hunger targets. More recently, in early 2012, Antigua and Barbuda launched the Zero Hunger Challenge Initiative Plan of Action 2013-2014, embracing the 5 elements of the UN Zero Hunger Challenge, with the support of FAO and other international agencies. Since then, three other CARICOM countries have embarked on the Initiative: Grenada, St Vincent and the Grenadines (both in implementation stage), and St Lucia.

### b. National Food and Nutrition Security Policies and Action Plans

Most CARICOM countries have National Food and Nutrition Security Policies and Action Plans (NFNSP/AP). The current national FNSP policy framework incorporates the essential thematic areas under the four dimensions of

food and nutrition security: food availability, access, utilization and stability. It aligns with and expands on earlier nutrition-oriented programmes developed by the Caribbean Food and Nutrition Institute that considers areas specific to improved nutrition, focusing heavily on women, micronutrients, and infectious diseases. This restructuring effectively aligns policies with the Regional Food and Nutrition Food Security Policy/Action Plan, with the aim both of benefiting from its technical and financial resource mobilization, and of addressing the problems of chronic non-communicable diseases and other food and nutrition challenges in a more systematic and coordinated way. Countries have been implementing initiatives listed in their NFNSP, including:

- Promoting country specific food-based dietary guidelines.
- Promoting exclusive breast-feeding for the first six months.
- Promoting "Healthy Eating for Healthy Living" based on encouraging regular physical exercise, and diets based on foods from the six food groups<sup>22</sup> in proportions stipulated in the recommended daily allowance.
- Implementing school-feeding programmes that focus on healthy eating at schools and in homes.
- Celebrating the World Food Day on October 16 and annual Nutrition Day on 1<sup>st</sup> June.
- Establishing weekly/monthly farmers' markets in urban environs to encourage consumption of fruit and vegetables and creating markets for small farmers.
- Encouraging backyard gardens to increase healthy food production at household level, mainly vegetables and condiments.
- Promoting healthy lifestyles among school children.
- Creating awareness among citizens of the link between food, nutrition and health status.

### c. The Caribbean Special Programme for Food Security (Phases 1 and 2)

The preparation of the Caribbean Special Programme for Food Security (SPFS) in late 2001 and early 2002 was a defining period for the evolution of food security and incorporation of the WFS definition of food security into the deliberations. Under the leadership of FAO and the CARICOM Secretariat, and with strong support from regional agencies and other stakeholders,<sup>23</sup> SPFS-Phase 1 comprised one vertical and one horizontal component. The vertical component consisted of the training of farmers and extension workers and the implementation of pilot irrigation and water-harvesting projects in selected Caribbean countries. The horizontal component was regional in coverage and included food security assessments<sup>24</sup>, food security policy integration (including regional and national-level training in food security), community nutrition enhancement, trade facilitation and marketing support.

A second phase of SPFS started in November 2008 and ended in October 2011, with FAO as implementing agency. The main objective of SPFS-Phase 2 was to support the transition of smallholder agricultural systems into more competitive, commercialized agricultural value chains and to improve the food security situation of smallholders, farmers and intermediaries. The beneficiaries of the project included farmers and farmer groups producing non-traditional commodities, traders and exporters on the local, regional and international markets, agrifood processors, buyers, retailers, professional and inter-professional associations, marketing organizations and, more broadly, food insecure and poor households.

The project had four pillars that addressed institutional and value-chain issues. The institutional pillar sought to improve the policy environment contributing to better trade and market opportunities. The focus on value-chains aimed at food security through commercialization of agriculture, by upgrading selected non-traditional commodity value chains, building capacity among producers' organizations, fostering partnerships and strategic alliances and establishing institutional frameworks for agribusiness and enterprise development.

<sup>23</sup> Including: The Caribbean Food and Nutrition Institute, The InterAmerican Institute for Cooperation on Agriculture, The Caribbean Agriculture Research and Development Institute, Caribbean Agribusiness Association and its local chapters, middle and upper-level national policymakers, among others.

<sup>24</sup> These assessments, the first to be done in the Caribbean, covered Belize, Jamaica, St Lucia, Guyana, Suriname and an Overview of Food and Nutrition Security for CARIFORUM countries.

<sup>22</sup> Staples (cereals, root crops and tubers), legumes, foods from animals, fruits, vegetables, and fats/oils.

The value chain component of the project strengthened five pilot commodity value chains to take advantage of national, regional and international market opportunities. The chosen value chains were onion in Barbados, hot pepper in Belize, pineapple in Dominica, ackee in Jamaica and salad fruit (pineapple, melon, papaya) in St Lucia.

## 2.5 GOVERNANCE FOR FOOD AND NUTRITION SECURITY

### a. The Right to Food

The Right to Food has been recognized as a Human Right since the Universal Declaration of Human Rights in 1948, in numerous binding and nonbinding legal instruments, notably Article 11 of the International Covenant on Economic, Social and Cultural Rights (ICESCR) (FAO, 2006). In 2004, guidance on its implementation was adopted, after two years of negotiations under the umbrella of FAO as the *“Voluntary Guidelines in Support of the Progressive Realization of the Right to Adequate Food in the Context of National Food Security”*.

The Voluntary Guidelines provide practical guidance to States in their implementation of a rights-based approach to national food security. Such approach takes into account the poor and vulnerable often excluded from the processes that determine policies to promote food security. In addition, Governments are held accountable by active—rather than passive—participants in the process of human development.

The RFNSP/AP for the CARICOM incorporates a Right to Food approach. The Action Plan expands on the Right to Food principles:

- It adopts the guiding Human Rights principles and adds transparency, accountability and fair treatment for all as good governance measures.
- It promotes the empowerment of rights-holders and the responsibilities of duty-bearers within a Human Rights framework.
- It adopts gender targeting to promote gender equality.
- It reaffirms the focus on policy actions (i.e. reducing income inequality, increasing

employment targeted at the most vulnerable population under the food access component), and promotes institutional development for good governance.

- It includes the application of Human Rights principles when implementing policy for monitoring food and nutrition security at the regional and national levels. Evidence shows that the regional policy and action plan provides an effective guide for the formulation of the Right to Food content of subsequent national FSN policies.

A review of the National Food and Nutrition Security Policies in selected CARICOM countries suggests that most policy designs are Right to Food-sensitive. All of the policies contained the inputs from national stakeholders, including policy makers from the various government ministries, private sector and non-governmental organizations. This provided a sense of national ownership and broad-based inclusiveness to policy formulation.

### b. Governance of Food and Nutrition Security

Governance has been proposed as the fifth pillar of food and nutrition security. Good governance is a mechanism that facilitates debate, convergence of views, improves commitment, management, and coordination of action to improve food security (FAO, 2014). It is linked to the Right to Food and the legislative, institutional and regulatory accountability aspects of governments' responsibilities in ensuring the food and nutrition security of the population.

However, achieving food security depends not only on public policies but also on the effective participation of private and civil society organizations in the framework of food-system governance. Further, regional organizations hold a key place in the food security governance structure as they perform essential functions to facilitate the smooth linkages between global and local levels. These organizations are critical for ensuring that policies at national, regional and global level are coherent and adhere to the Right to Food. Regional organizations are well placed to help translate Human Rights standards and principles into practical policy guidance and other actions in support of the application at national and subnational levels. They nurture global debate with salient issues and lessons learnt at local level and can be extremely helpful in contextualizing and disseminating outputs from global to local level.

There are a number of additional factors that motivate attention to governance for food and nutrition security, including:

- Management of production and food price rise and volatility
- A need to maintain the integrity of natural resources in light of intensification of agricultural production
- Evidence that components of food and nutrition security are being compromised (e.g. unhealthy food choices leading to obesity and chronic diseases)
- Need for accurate information and evidence to monitor changes that may affect food and nutrition security
- Regularize and ensure coherent implementation of global mandates, policies and actions at the national level.

As indicated before, over the past two decades, CARICOM countries have subscribed to several mandates to coordinate national food and nutrition security at the global and regional levels:

- The World food Summit (1996) and the Millennium Development Goals (2000), all CARICOM countries
- The Global United Nations Zero Hunger Challenge Initiative launched in 2012, all CARICOM countries
- The Hugo Chávez Frías' Action Plan for the Eradication of Hunger and Poverty, adopted in 2013. CARICOM Member Countries include: Antigua and Barbuda, Bahamas, Belize, Dominica, Granada, Guyana, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines and Suriname
- The CELAC Plan for Food and Nutrition Security and the Eradication of Hunger 2025, all CARICOM countries, except Montserrat
- The SIDS Accelerated Modalities Of Action (SAMOA) Pathway adopted at the third International Conference on Small Island Developing States in November 2014.
- The United Nations Sustainable Development Goals 2016-2030, all CARICOM countries

- The CARICOM Regional Food and Nutrition Security Policy (2010) and Action Plan (2011), All CARICOM Countries
- The Community Agricultural Policy (2011), all CARICOM Countries
- CARICOM Agribusiness Development Strategy (2012), all CARICOM countries

Work on governance as it relates to food and nutrition security is ongoing, and there is recognition among policymakers that tackling this issue, together with a wide range of stakeholders is key. Countries such as Antigua and Barbuda, and Grenada have initiated multi-stakeholder spaces of coordination that regroup actors from the various groups, sectors and government agencies related to the implementation of national food and nutrition security policies and action plans, and Zero Hunger Challenge Initiative action plans. Other countries such as St. Lucia have established clusters for specific programmes (as is the case for the school feeding programme) derived from its policies and action plans.

St. Vincent and the Grenadines has recently launched its Parliamentary Front against Hunger and undernourishment. This is a bi-partisan approach which aims at strengthening political commitment towards inclusive governance for the purpose of developing, drafting, and implementing regulatory frameworks that facilitate the full implementation and sustainability of the National Zero Hunger Challenge Initiative Action Plan.

In most countries, national policies and action plans for Food and Nutrition Security, and Zero Hunger Challenge Initiative action plans have been endorsed at the level of Cabinet. At the same time, specific units (inter-ministerial committees, Food and Nutrition Security Councils, National Authorities and/or National Coordination for Food and Nutrition Security) have been mandated for the coordination of the implementation of these policies and action plans.





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Caribbean governments committed to meeting the WFS (1996) and MDGs (2000) hunger targets which required halving the number of persons (WFS target) or halving the proportion of people (MDGs target) by 2015, who were hungry in 1990. As a region, CARICOM countries, with exception of Haiti, started with relatively low levels of undernourishment. Still, only three CARICOM countries have achieved these targets. Low average economic growth and high poverty levels, especially among lower income groups could partially explain these results. For many countries, even when they were recording high growth rates, high poverty rates still occurred. This suggests the need to focus on the structure of growth and the factors influencing it.

CARICOM countries, with the exception of Haiti, have enough food energy to meet the recommended population goals (RPGs). Additionally, availability of all macronutrients (carbohydrates, proteins, fats/oils) are above RPGs. While this is an achieved from the standpoint of food availability in the region, it is nonetheless accompanied by several serious challenges when food and nutrition security is considered in broadest sense of its four pillars:

- i. It is achieved at the expense of a high food import bill. The CARICOM food import bill is in excess of US\$ 4 billion annually, an increase of 50 % since 2000, with a projected increase to US \$ 8-10 billion by 2020, if nothing is done to address this problem. Much of this food consists of processed products, refined carbohydrates which are calorie-dense, high fats, sweeteners and sodium.
- ii. The types of foods that are prevalently available (calorie-dense, high in fats, sweeteners and sodium) and their relative prices, along with households' food choices and preferences, lead to unhealthy diets which take expression in overweight and obesity and, ultimately, in the prevalence of chronic non-communicable diseases which are currently the main public health problem in the Caribbean. These diseases impose heavy burdens to government and individual budgets.
- iii. Food access is compromised by relatively high levels of poverty and highly skewed distribution of incomes in favour of upper-income groups. Persons in low-income groups generally maintain an existence just around the poverty line due to lower-paying jobs,

high unemployment/under-employment, and lack of academic certification. The children in poor households are disproportionately represented among the poor, contributing to the cycle of poverty. Additionally, a significant proportion of the 15-19 year olds in the labour force are from the two lowest income quintiles and place a higher premium on work rather than on education or vocational training. There is a high probability that these two groups will populate the next wave of persons who are under the poverty and food security thresholds.

- iv. CARICOM countries are categorized as Small Island Developing States (SIDS) with features that make them particularly vulnerable to external shocks. This is particularly true for natural disasters, which, when they occur, can reverse many years of development gains, reallocate scarce resources away from planned social and economic development programmes and instead towards replacing public infrastructure and rehabilitating livelihoods. This increases the possibility of segments of the population falling into a state of food insecurity.
- v. Haiti is a special case for food and nutrition security, given the country's high levels of food insecurity, unemployment and poverty. International assistance agencies (including NGOs) continue to assist Haiti's development process. CARICOM and other regional institutions can play a more proactive and significant role to support the country's overall development agenda.

CARICOM countries currently have programmes, policies and actions directed at enhancing their food and nutrition security. Moreover, they have made significant adjustments over the past 15 years in their approaches, paying attention to both supply, demand, nutrition and governance issues. Several programmes focus on finding solutions to the structural factors that lead to hunger and food insecurity. These programs are supported by global mandates (along with resources) regional programmes and technical assistance that add value to national efforts.

National governments have the ultimate responsibility for advancing their food and nutrition security and poverty alleviation agendas. FAO stands ready to be a full partner in this process.





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