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# Current status of agriculture in the Caribbean and implications for agriculture policy and strategy

A close-up photograph of a person's hand holding a small, green plant seedling with several leaves. The background is a blurred field of crops, likely corn, under a bright sky.

# **Current status of agriculture in the Caribbean and implications for agriculture policy and strategy**

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# 1. Introduction

The Caribbean region has achieved key development milestones in the post independence era including relatively high human development indices and middle-income status. Nonetheless, the region continues to face significant socio-economic and climate challenges. These include low and variable economic growth; unsustainable debt and weak fiscal management; high unemployment; high incidence of non-communicable diseases; vulnerability to the effects of climate change and natural hazards; environmental degradation; crime and increasing threats to citizen security; and persistent and extreme poverty and food insecurity – most with distinctive gender imbalances.

The development of the agriculture sector should be a key priority to address these challenges. However, the region faces major challenges to improve the competitiveness and sustainability of the agriculture sector (including fisheries and aquaculture) and its poverty-reducing capacity. An important factor is the historical difficult structural adjustment of the region's agricultural sector after the end of the preferred EU market access for sugar and bananas.

Growth in agricultural productivity has been slow and the sector suffers from high trade costs and a low capacity to comply with modern food safety and quality standards. As a consequence, it has been unable to adequately respond to rapidly growing demand for high-standard agri-food products from the tourism, processing, and retailing sectors – in- and outside the region. Instead, the growing demand by these sectors in the region is mainly fulfilled by imports. The region's agricultural sector is also constrained by large and increasing pressures on natural resources and a high vulnerability to climate change.

There is, however, significant potential for strengthening market linkages and much scope for farmers, fishers, and agri-food businesses to catch up with current best practices and technologies. If the region succeeds in fulfilling this potential without further compromising its natural capital and related ecosystem services, agriculture can be an important source for economic growth and a key contributor to poverty reduction, particularly for households that are profiting less from the growth in other sectors. In addition, inclusive and sustainable agricultural development can contribute in overcoming major socio-economic and environmental challenges in the region, including food and nutrition insecurity, obesity, youth unemployment, gender inequality, unsustainable use of natural resources, and climate change.

This summary identifies key trends in agriculture in the Caribbean and the related opportunities for investments in support of growth, poverty reduction, and sustainability. It presents, to the extent to which available data and information allow, a sectorial review of agriculture in the region and identifies opportunities, prospects and investment priorities.

This paper draws heavily on the joint Caribbean Development Bank (CDB) – FAO reports<sup>1</sup> “Study on the State of Agriculture in the Caribbean” summarizing the key insights, conclusions and implications of these reports.

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<sup>1</sup> <http://www.fao.org/3/ca4726en/ca4726en.pdf>

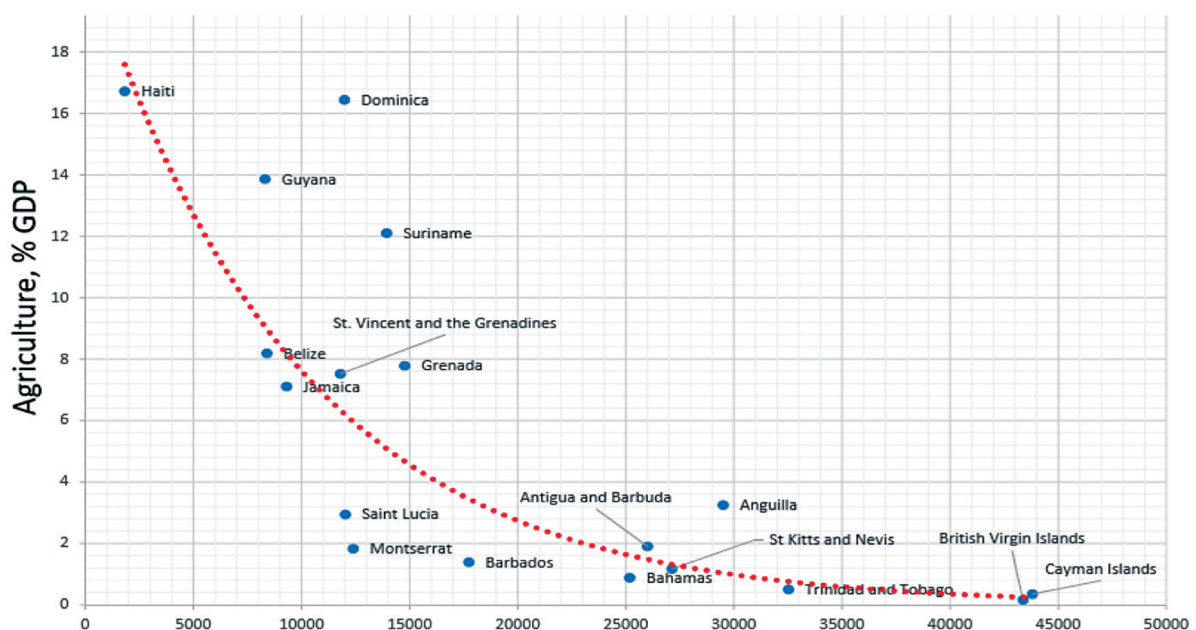
The analysis in these report focuses on the 19 CDB borrowing member countries (BMCs). For the analysis, these BMCs are classified in three sub-groups: 13 Small Island States (SIS) with a population of less than 400 000 people (Anguilla, Antigua and Barbuda, Bahamas, Barbados, British Virgin Islands, Cayman Islands, Montserrat, St. Kitts and Nevis, Dominica, Grenada, St. Lucia, St. Vincent and the Grenadines, Turks and Caicos Islands); three Larger Island States (LIS) with population ranging from 1 400 000 to 10 800 000 people (Haiti, Jamaica, and Trinidad and Tobago); three Continental States (CS) with population size between 350 000 and 800 000 people (Belize, Guyana, Suriname). Most illustrations in this summary also use this classification.

## 2. The role of agriculture in the region

Historically, agriculture has played a central role in the Caribbean economies. Large plantations of especially sugar and bananas produced agricultural commodities for exports representing an important sector for the economy. Today Caribbean agriculture is more diversified. Reforms of the EU agricultural policies had a dramatic effect on export demand for sugar and bananas, and stimulated a restructuring of farming systems and a shift of exports from raw materials (agricultural products) to processed food products.

Agriculture also makes up a smaller share of the economy. It is a well know aspect of structural transformation of an economy that as an economy develops, the share of its agricultural sector declines. For the Caribbean this is illustrated by Figure 1. In several countries (especially among the Islands, such as the Cayman Islands) agriculture represents less than 1 percent of GDP. However in countries such as Haiti, Dominica, Guyana, and Grenada agriculture is still an important sector in the economy. It contributes between 7 percent and 17 percent of GDP, but has a significantly larger share of employment (typically between 10 percent and 25 percent, and almost 50 percent in Haiti).

**Figure 1:** GDP per capita and share of agriculture in GDP in the BMC



Source : GDP per capita, USD

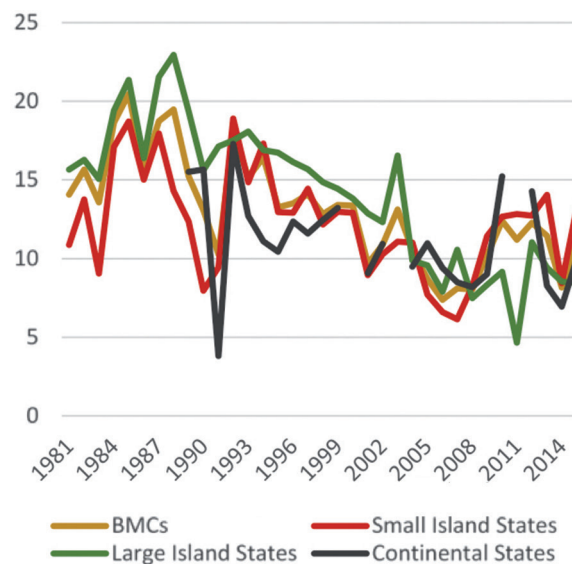
# 3. Growth, employment and poverty

Economic growth is the most powerful instrument for reducing poverty and undernutrition, and for improving the quality of life in developing countries. However, average GDP growth in the Caribbean was lower than in any other developing region during the last 35 years.

The situation was exacerbated by the 2007–2008 global food crisis, when the price of major food products increased significantly. The BMCs most dependent on imports were particularly affected by the crisis.

With their GDP relying heavily on the financial sector, the 2008–2009 global financial crisis hit the Small Island States hard. Not only did the crisis lead to a downturn in tourism earnings, but it also had a negative impact on remittances, especially in Jamaica and Haiti, which have many migrants. In terms of unemployment, the average BMC rate is around 11 percent. Though unemployment levels had decreased from the very high levels in the 1980s, they rose again after the 2008–2009 economic crisis (see figure 2).

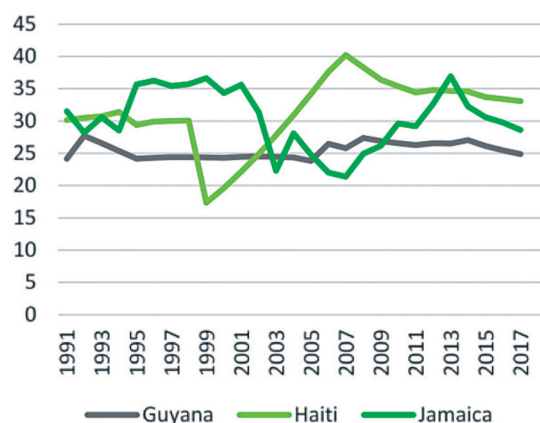
**Figure 2:** Unemployment rate, (percentage of total labor force).



**Source:** World Bank, ILO

The unemployment rate of young and female workers is (much) higher than the overall average. The average rate of youth unemployment in the region is around 28 percent (see figure 3). Female unemployment is also systematically higher than male unemployment across the focus countries.

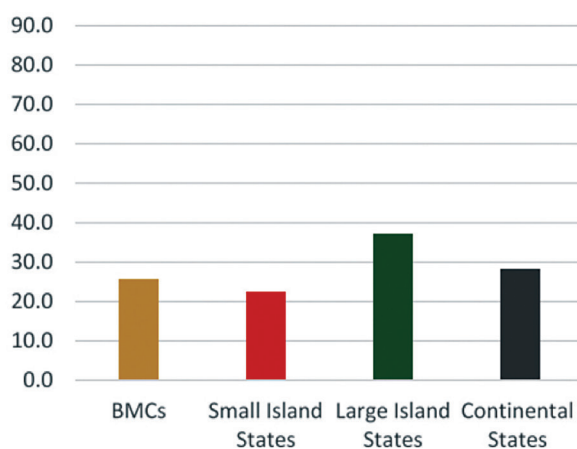
**Figure 3:** Youth unemployment (percentage of total labor force aged between 15-24)



**Source:** World Bank, ILO

The slow economic growth is reflected in high levels of poverty (see Figure 4). The average level of poverty across BMCs is around 26 percent. In Haiti no less than 77 percent of people live below the poverty line. Poverty is also very high in other focus countries, Grenada and Guyana, at about 36 percent and somewhat less in Jamaica, at 18 percent. It is obvious that reducing poverty is a major challenge for the future.

**Figure 4:** Proportion of population below the poverty line (last available year)



**Source:** CARICOM



Poverty is higher for rural households and for women and indigenous people. The degree of urbanization is relatively stable over the past years, with the exception of Haiti. In the other countries, urbanization has increased only slightly over the past 25 years. The share of the population living in urban areas is around 50 percent in the Caribbean, as it has been since 1990.

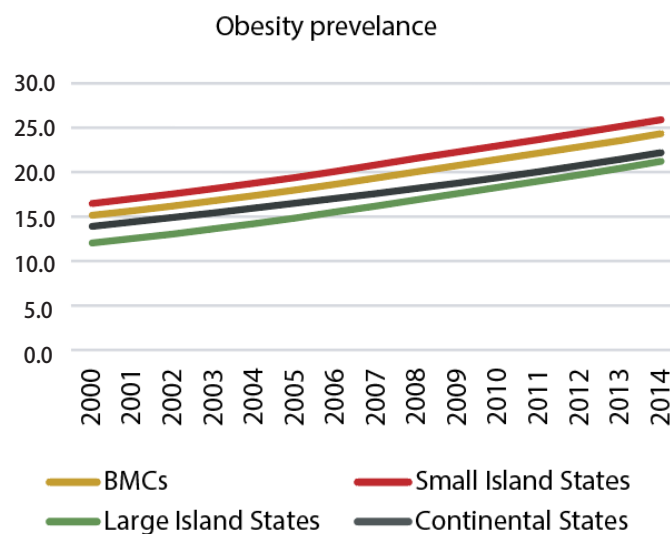
There is much untapped potential of agriculture for development and poverty reduction in the region. Agriculture can be an important source for economic growth and a key contributor to poverty reduction, particularly for households that are profiting less from the growth in tourism, financial services, and natural resource extraction. Indeed, research suggests that agricultural growth is the most efficient way to reduce poverty in rural areas.

# 4. Food insecurity and malnutrition

Undernourishment is widespread in the Caribbean. While Haiti (with undernourishment levels as high as 77 percent) is pulling up the average level, also in 10 other countries undernourishment levels were above 20 percent of the population. Moreover, undernourishment has decreased only slowly over the past 20 years.

What is a cause of even greater concern is that, while undernutrition indicators have declined only slowly over the past 20 years, other forms of malnutrition and its consequences (obesity) are on the rise. Obesity has increased significantly since 2000, in all Caribbean countries (see Figure 5). This suggests that the region is increasingly vulnerable by “the double burden of malnutrition”, the combination of undernutrition and of poor diets leading to obesity.

**Figure 5:** Prevalence of obesity in the adult population (18 years and older)



**Source:** FAOSTAT

In all countries, except Haiti, food availability exceeds the established food energy requirement guidelines. Food access is a greater problem for food and nutrition security. Lack of access to food is strongly related to poverty. Not surprisingly, food access is low in countries such as Haiti where a large share of the population lies under the poverty line.

Caribbean countries spend more than half of the value of total exports on food imports and this share is increasing over time. The share is relatively low for Continental States (such as Guyana) which are net exporters of cereals, but has increased to high levels for the Small Island States and Haiti. Grenada and Haiti depend heavily on their foreign exchange revenues to import food.

A high proportion of the imported food in the Caribbean is calorie-dense, high-fat and high-sweetener food. These products are more affordable than healthier alternatives. As a consequence, poorer households have a higher probability to make such nutrition choices and therefore a higher probability to become obese.

# 5. Gender inequality

Although the region performs relatively well compared to other developing regions in the world in international comparisons, gender inequality is still a major concern. Women in the region have less economic opportunities, earn lower incomes, are more likely to be unemployed, and have lower political representation than men.

Women account for 22 percent to 30 percent of the registered farmers in the region. However, also in agriculture women experience lower opportunities due to limited access to finance, land, networks, information, and decision-making in organizations such as farmer organizations, governmental bodies, and companies.

There are many complex gender issues in domestic and family life in the Caribbean, not only in relation to the use of time, accumulation of savings, distribution of food, access to and control over money and other resources, but also in relation to violence perpetrated on those who are most vulnerable. Gender-based violence is widely perceived as a persistent and pervasive issue, which threatens resilience and severely damages the human capital base of BMCs.

# 6. Structural transformation of agriculture

Caribbean countries underwent a significant structural transformation of their overall economy, with agriculture becoming a less important part of GDP and employment. However, the structural transformation process of the overall economy away from agriculture did not coincide with a significant change towards a highly productive agriculture sector. Agricultural yields as well as output value per worker are low throughout the Caribbean in regional and global comparisons. **Figure 6** illustrates the yield evolution of some of the main crops in the Caribbean and compares it to that of the same crops in other regions in the world.

In the past, Caribbean countries largely produced similar agricultural commodities such as sugar and bananas – particularly for export. As a result of changing market opportunities and an altered trade environment, many agricultural production activities are no longer profitable, while others strongly gained in profitability. More recently, they developed more heterogeneous production systems that reflect their regional and international competitive advantages and a shift towards more high-value products.

However, there is much scope for further growth. Productivity is still fairly low and many farmers still have to catch up with current best practices in the sector. The productivity of agriculture is constrained by a broad set of factors, including inadequate access to improved varieties and other technologies, low access to credit, high labor costs, insufficient monitoring and response to pests and diseases, and inadequate skills and entrepreneurship among farmers.

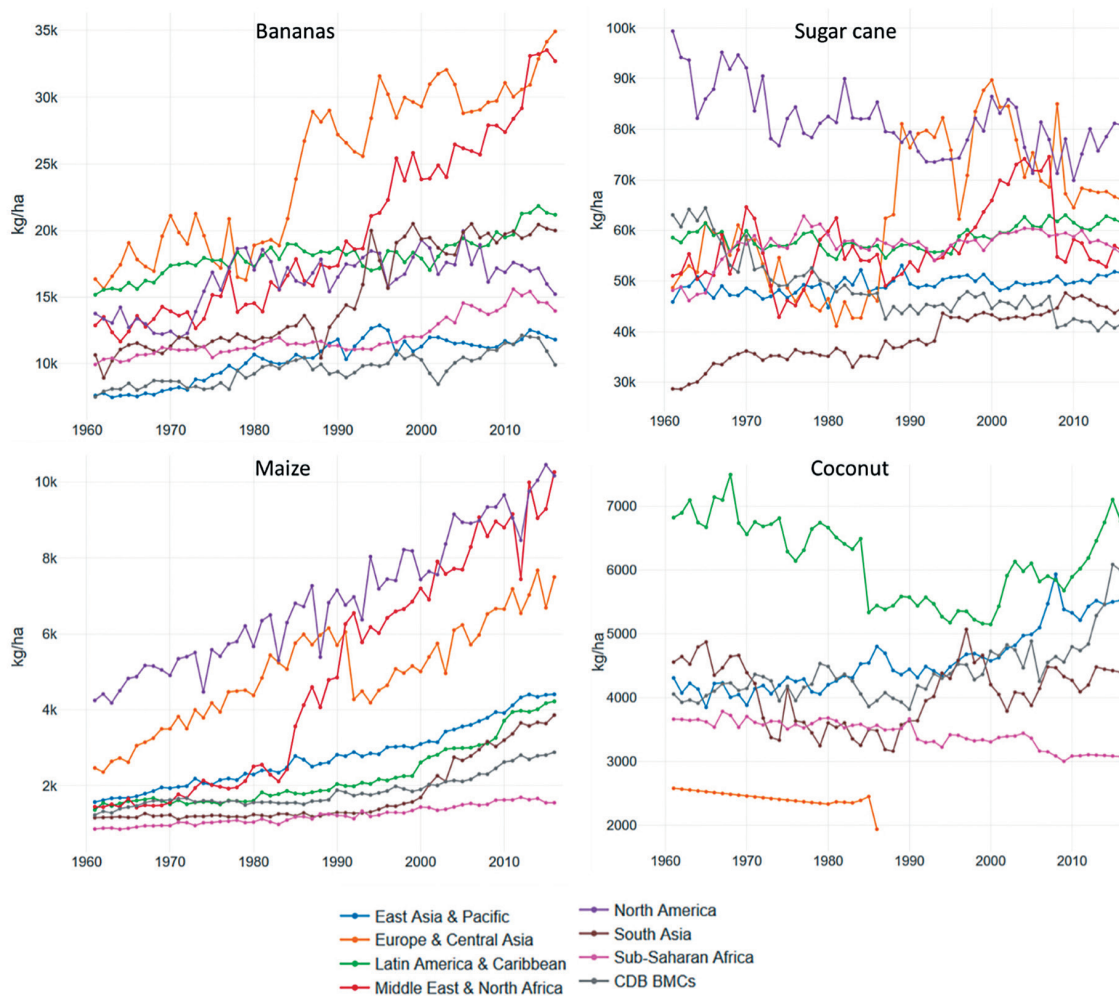
The productivity of the livestock sector is constrained by several additional factors, including low availability (and high prices) of quality feed, due to the limitations in large-scale feed production and limited availability of grazing lands. Theft, low quality feed concentrate and low quality breeding stock, are other factors that specifically limit the productivity of the livestock sector.

Farm sizes remain small in the majority of the countries in the region. Small farmers with limited financial resources for investments and restricted access to credit, require improved technologies and extension services that adapt to small farm sizes and low volumes of on-farm investments.

Some countries (Continental states and Large Island States (Haiti)) experienced a significant expansion in cropland. With low agricultural productivity, agricultural land expansion at the expense of natural vegetation, can come at the cost of soil fertility, biodiversity, and ecosystem services loss, while providing comparably few benefits in terms of production increases.

It is a challenge to make increased productivity and competitiveness of the agricultural and livestock sector go hand in hand with environmental sustainability.

**Figure 6:** Yield evolution of main crops in the Caribbean compared to different world regions

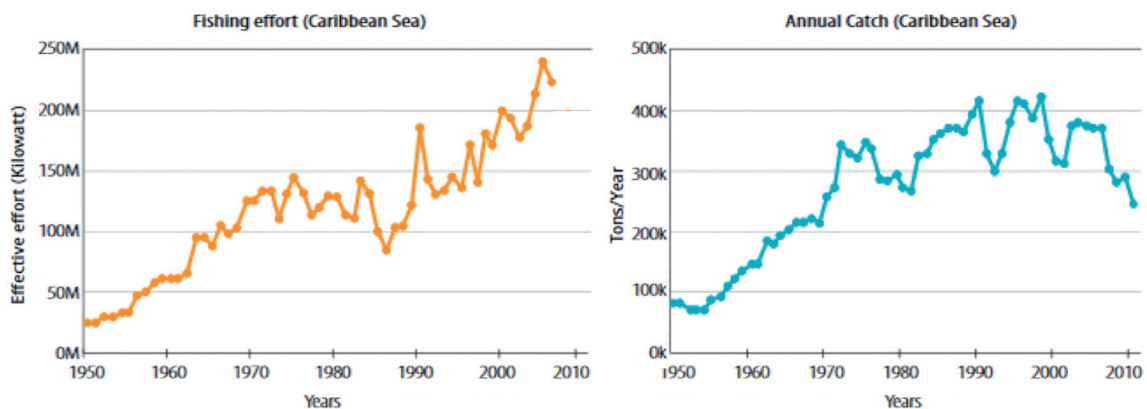


Source: FAO

# 7. Fisheries and aquaculture

The sustainability of the fisheries sector is under threat as a result of overfishing and natural resource degradation. While fishing in the Caribbean Sea almost doubled since the 1990s, the annual catch has declined by more than 25 percent (see Figure 7). About 50 percent of the catch are overexploited species.

**Figure 7:** Fishing effort and annual catch in the Caribbean Sea



**Source:** TWAP, 2015

The fisheries sector also struggles with problems of informal labour use, seasonality, remoteness, and hazardous nature of work, as well as value chain complexity.

Overfishing is closely interlinked with resource degradation. Overfishing may lead to the overgrowth of coral reefs with sponges and algae, and therefore to further degradation of the resource base. Related threats include coastal development, pollution, introduction of invasive species, and the impacts of climate change.

Natural resource degradation of the aquatic ecosystem and coastal resources may become an increasing challenge and economic constraint for doing business in tourism and fisheries.

## 8. Trade and value chains

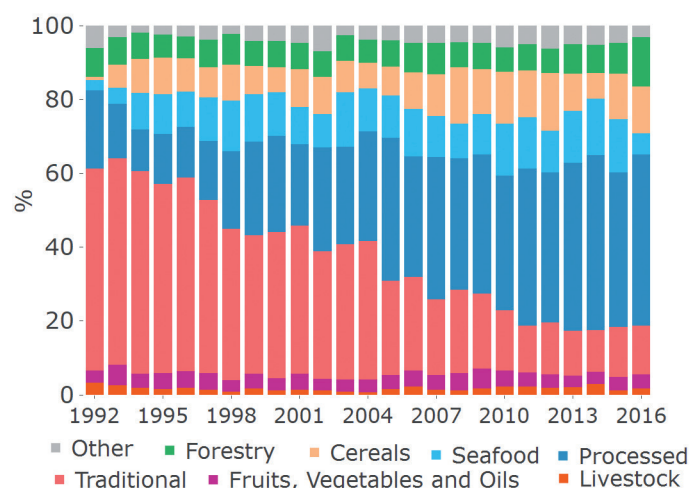
Since all the countries in the region (1) are either islands or have direct access to the sea and (2) are relatively small and constrained by natural and geographic conditions, trade and international value chains are important for them – both for agricultural production (and potential exports) and food consumption (and potential imports).

The islands are mostly net importers of agri-food products. Only the Continental States export more agri-food products than they import. Exports from the Continental States have increased strongly since 2000. On the Islands, food imports have increased more than exports.

Although the region is close to the markets of the USA and Canada, integration in these international trading systems is constrained by low liner shipping connectivity and inefficiencies in port operations.

Historically, agricultural supply chains and trade in the region were heavily targeted towards export to the EU. Reforms of EU trade policies caused a dramatic decline in export demand for sugar and bananas from the region, resulting in a more diversified trade structure. “Traditional exports” which include sugar, bananas and basic agricultural commodities have declined from 60 percent of agri-food exports in the early 1990s to less than 20 percent now. The main growth area has been exports of processed foods, including beverages, which increased from 10-15 percent to around 50 percent of agri-food exports now. This transformation has been strongest in the island economies and less so in the continental states. This shift in export composition from traditional commodities to processed foods is illustrated by Figure 8.

**Figure 8:** Composition of agri-food exports from BMCs



**Source:** FAO and UN-COMTRADE



At the same time, global agri-food trade is transformed through tightening of produce and process standards. The Caribbean agri-food systems are confronted with these changed environment and more stringent standards through (a) tourism, (b) foreign investments in value chains; and (c) trade. This creates challenges for farmers and local food chains to address these new standards regarding quality, safety, volumes, and timeliness.

# 9. Tourism and modern retail-linkages

Tourism and modern retail-linkages also create opportunities for local farmers to supply to high-value markets due to the growth in high-value food demanded by the growing tourism sector and to the downstream investments in modern retail, processing and wholesale markets.

A particular, and potentially very important, element of food value chains in the region is their (potential) link with tourism. The growth of tourism in the Caribbean became an important structural change over the past decades. The importance of this sector in the Caribbean is, as everything in the region, heterogeneous, but the average effects are large. On average, it contributes 8 percent to GDP as direct contribution and about 25 percent of GDP including indirect contributions. The Small Island States are the most dependent on tourism. There, the total impact can be as high as 40 percent. But also in larger countries such as Jamaica, the total share is as high as 30 percent. This creates major challenges and opportunities for local agri-food chains.

Today, linkages between local agricultural production and tourism are limited. This is due to a lack of irrigation, few cold storage facilities, low productivity, and information asymmetry regarding the standards required by hotel and restaurant chains, cruise ships, and the yachting sector.

Investments in infrastructure -irrigation cold chains, food safety systems, port operations- are key to enable farmers to comply with the standards required by international companies. This is fundamental to complement the high-value food demand by tourism, processing, retail, and international trade.

# 10. Climate change and natural hazards

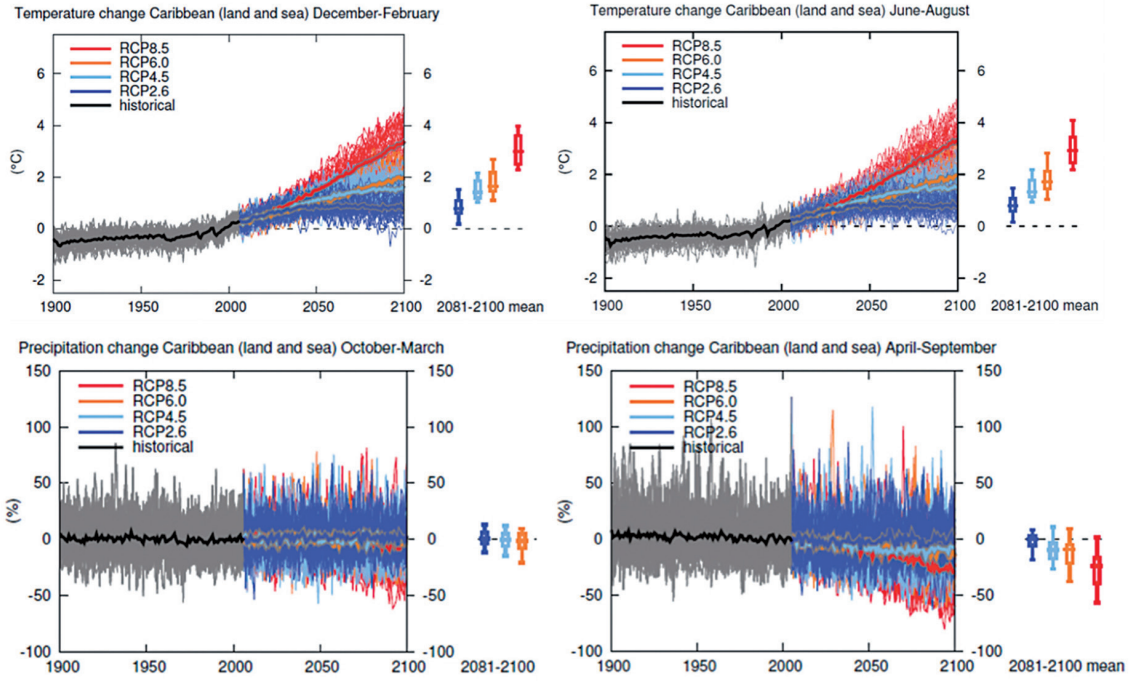
Climate change and natural hazards pose key threats to agricultural development in the Caribbean. The main challenges from climate change include droughts, temperature increase, lower precipitation, sea level rise and saltwater intrusion, increased intensity of cyclones, as well as shifting agricultural seasonality. Figure 9 illustrates the forecasts in temperature and precipitation for the Caribbean by the International Panel on Climate Change (IPCC).

While such concerns are globally relevant, climate change and natural hazards are likely to affect agricultural development and overall economic growth more dramatically in the Caribbean than in many other countries because of their exposure and vulnerability profile:

- The region is part of the Atlantic hurricane alley that makes them more likely to be affected by frequent and intense cyclones.
- It is characterized by low-lying coastal areas and long coastlines, which implies high exposure to a set of particular climate change impacts – such as sea level rise and rising water temperatures.
- It is characterized by a comparably large share of their economy being based on the coastal ecosystem or located in proximity to the coastline. This implies a high vulnerability to coastal climate change impacts.

Climate change adaptation and resilience should therefore be a key priority for a sustainable future and sector development in the medium and long term. Key adaptation actions include the development of water-efficient irrigation systems, the strengthening of agricultural extension and agro-meteorological information systems, the scaling of improved land management practices, and exploring smallholder adequate precision agriculture.

**Figure 9:** Time series and forecasts of relative change concerning 1986–2005 in precipitation and temperature averaged over land grid points in the Caribbean



Source: IPCC, 5th AR

# 11. Institutions and regional governance

Most Caribbean countries rank low in international comparisons concerning the “ease of doing business” indicator developed by the World Bank. The main business development constraints are related to getting credit, registering properties, and obtaining permits.

Agricultural and food policies typically included import tariffs and export duties as well as tax exemptions, grants and loan programs. Agricultural support programs have placed emphasis on providing tangible products, such as irrigation, chemical fertilizers and transferring modern agricultural technologies. However, policy-makers also started realizing that without good governance, the achievements brought about by these efforts will be limited.

As small open economies, international agreements and institutions have played a very important role in economic and agricultural development.

After independence, the Caribbean economies were still strongly influenced by institutional arrangements from the colonial period. Later, preferential access to EU markets drove agricultural development strategies and production. The Uruguay Round and the establishment of the WTO ended the preferential access of Caribbean agricultural exports to European Union markets.

The establishment and deepening of regional Caribbean integration, coordination and collaboration was an important feature of the post independence period, and its nations joined organizations such as the Caribbean Community (CARICOM) and the Organization of Eastern Caribbean States (OECS). Most countries in the region are relatively small and thus have limited capacity to govern major emerging issues, such as those related to trade, climate change, resource management, food safety, etc.

Moreover, many of these governance issues have a regional and an international component, demanding a regional/international response. There are many regional initiatives, such as (a) the Common Agricultural Policy, (b) the CARICOM Regional Food and Nutrition Security Policy and Action Plan, (c) the Caribbean Agricultural Health and Food Safety Agency, (d) Caribbean initiatives to regionally integrate climate resilience and climate change adaptation policies, (e) the CARICOM Youth Development Action Plan (CYDAP), etc.. However, there is still scope to further strengthen intra-regional governance.

# 12. Opportunities and investment priorities

Improving the general policy and regulatory environment to stimulate investments in agriculture and agribusiness is important to boost agricultural and economic growth.

Improving the environment in which farmers and agribusiness operate will also enable them to meet local demand of products currently imported or products consumed by the growing tourism industry.

This includes general policies, such as stimulating Foreign Direct Investment (FDI), improving the investment climate, ensuring macro-economic stability, and general infrastructural investments (e.g., port facilities and national food safety systems) but also specific value chain investments, such as specific extension and certification services, capacity building of farmer associations, and stimulating specific infrastructural investments (e.g., cold storage and transport and irrigation for certain sectors) necessary to meet private standards.

**Poverty reduction and food security** enhancement are strongly related. Food security concerns access to food rather than the availability of food. Poverty reduction is therefore essential to enhance food security. It is therefore crucial to stimulate income growth of the poorest through a combination of economic growth and targeted social policies.

As poverty is highest in the countries with the largest agricultural sector and since it concentrates in rural areas, stimulating agricultural development is not only important for economic growth but also directly for food security as it will enhance access to food for the poorest and most food insecure.

**Preventing other forms of malnutrition and the further rise of obesity** can be addressed through:

- Enhanced synergies between agriculture and food security. Agricultural policies directly affect the income and food access of food insecure households, while the type of crops being (implicitly) promoted has a direct impact on what people eat and on their nutritional status. Synergies can be achieved by making agricultural policies and programs more nutrition-sensitive.
- Stimulate behavioral change across the production-to-consumption continuum through provision of nutrition education and behavioral change communication.
- Support nutrition-sensitive value chain (NSVC) interventions to enhance the supply and demand of nutritious food.

Food safety regulations and quality standards are crucial for a variety of development purposes, including public health and value chain integration. It is therefore crucial to:

- Strengthen domestic policies and legislative environment (i.e. food safety and hygiene, food labelling laws and regulations, and compliance and enforcement mechanisms).

Stimulate further intra-regional cooperation on food safety is important to address food safety concerns. The Caribbean Agricultural Health and Food Safety Agency (CAHFSA), established in 2010, is a good basis, but the incidence of food-borne diseases is high and keeps growing, indicating the need for more and better actions.

**Gender equality and youth empowerment** in agriculture can be promoted more actively through

- strengthening legal and regulatory instruments that govern rights to productive resources for youth and women, including the right and access to land titles and capital;
  - supporting the development of targeted financing mechanisms to reduce specific entry barriers of youth and women; and
  - promoting governance structures that improve equitable access to decision-making.
- There is much scope of mainstreaming gender analysis in the design phase of agricultural programmes and policies.

### **Investment in the transformation of the agri-food sector.**

There is a lot of potential for re-allocating resources to crops that generate more value, including many horticultural crops. The area share devoted to these crops has increased, but many farmers have not yet made the shift. Many producers are also far from the efficiency frontier and have not been able to catch up with the current best-practices in the sector in order to improve productivity or to meet quality requirements. There is much to be gained by enabling and stimulating farmers to shift their production to more remunerative products and state-of-the-art technologies and practices, through extension programmes and other enabling policies.

Key investment recommendations for improving the competitiveness of the Caribbean agri-food sector include:

- Developing national long-term investment strategies for selected agri-food sub-sectors. These development strategies provide national governments, industry associations and other stakeholders a road-map with the investments required to boost their scarce resources and improve the performance of high-potential sub-sectors.
- Investing in scientific research. A strong domestic research capability is essential to identify and adapt promising technologies to local conditions. It is also paramount for sectorial planning and development and a needed basis for responsible investment.

- Creating incentives and an attractive enabling environment for the development of rural business services, especially those that are suitable for smallholders. Incentives such as tax breaks, technical assistance, or business planning could help develop valuable services to farmers such as the provision of modern farm inputs, technical advisory services, small-scale commercial laboratories for food testing, irrigation, packaging, small-scale cold rooms, and processing technologies.
- Supporting clusters of smallholders based on a product of common interest or common infrastructure. Clustering of smallholders has proven successful in achieving economies of scale to enable growers to purchase cheaper production inputs and increase their bargaining power when selling produce.
- Strengthening capacity for early detection and quarantine services to prevent the entry, establishment, and spread of pests and diseases in plants and livestock. This involves strengthening public health measures by enhancing quarantine facilities, regular disease surveillance, capacity building of veterinary officers and microbiological surveillance of animal produce.
- Establishing national livestock identification, traceability and animal health certification. This is essential for the management of disease outbreaks and food safety incidents, reducing praedial larceny, reducing illegal animal processing, tracking animal movement, and controlling the use of veterinary drugs and pesticides.

Improved competitiveness of the agri-food sector should go hand in hand with **environmental sustainability and enhanced climate change resilience**.

Integrated land use strategies that actively consider the various environmental and resilience benefits of natural vegetation are essential in order to ensure that cropland expansion does not lead to land degradation, loss of carbon stocks, and loss of biodiversity.

Many Caribbean countries and regional institutions still require further assistance and support to (a) increase their knowledge and capacity to assess climate change risk and (b) to design and implement appropriate climate-resilient policies and programmes. Key areas for investment are:

- Integrated water resource management.
- Investments in coastal areas to reduce the pressure on coastal ecosystems and reduce coastal degradation.
- Development and diffusion of climate smart agriculture, including the development of crop varieties better adapted to the expected effects of climate change.
- Climate Smart Mapping and Planning of Sustainable Value Chains and climate proofing of value chain related infrastructures, technologies and practices.



In the fisheries sector and for the marine ecosystem in general, there is much scope for improving intra-regional governance (including legal regulation and enforcement). Many countries in the region do not have formally adopted fisheries management plans in place. Often, the laws and regulations that are in place are outdated and do not allow for effective enforcement. Regional fisheries bodies have just recently begun collaborating to close this governance gap.

Natural resource conservation and sustainable tourism development can be combined to create synergies, as underlined by the “blue economy” approach - aimed at the achievement of economic growth, social inclusion, and livelihoods development in harmony with environmental sustainability of oceans and coastal resources. This approach includes:

- integrated (participatory) marine spatial planning;
- valuation of the economic and social benefits of the fisheries and aquaculture sector;
- representative governance mechanisms;
- promotion of public-private partnerships.

### **Investment opportunities to strengthen trade and value chain linkages.**

Value chain development policies and programmes can enable local agriculture to fulfill local, regional, and international demand for high-value agri-food produce. Most importantly, this involves enabling farmers, fishermen, and agribusinesses through general policies, such as stimulating Foreign Direct Investment (FDI), improving the investment climate, and general public investments (e.g., port facilities and national food safety systems). It can also involve value chain-specific investments, such as specific extension and certification services, capacity building of farmer associations, and stimulating specific infrastructural investments (e.g., cold storage and transport and irrigation for certain sectors) necessary to meet private standards.

Key investment recommendations for strengthening trade and value chain linkages include:

- Invest in air and maritime transport infrastructure. Many BMCs have low shipping connectivity and inefficient port operations, and therefore forgo beneficial trade opportunities, especially for perishable products. Investments in ports, freight logistics, and transport and communication networks are essential to lower the high trade costs experienced.
- Stimulate intra-regional cooperation on trade and value chains. The analysis shows that many countries have a comparative advantage in the same agricultural commodities. The creation of a solid competitive/cooperative network of local enterprises and favorable institutional conditions may foster economies of scale and can attract (FDI).
- Support the development of national food safety strategies that consider international perceptions of food risks, international standards, and any international commitments in the food protection area.

- Address pertinent risks and opportunities associated with food safety by supporting a limited set of catalytic and demonstrative initiatives that will raise the food safety awareness and application of better practices to selected food system participants:
  - o Design and Support Implementation of Assured Quality Produce Schemes.
  - o Strengthen implementation of Good Handling Practices (GHP) in selected industries.
  - o Strengthen the implementation of Good Manufacturing Practices (GMP) and HACCP in selected food industries.
  - o Establish and Strengthen Food Inspection Operations.
- Finance “Integrated value chain development” programmes that offer the potential to directly assist farmers in specific high-potential value chains. Different modalities are possible, but all require close collaboration with major companies in the respective value chains; e.g., suppliers to the tourism sector, hotel and restaurant chains, exporters, and processors.
- Stimulate public-private dialogue. Intensive and continuous dialogue between public and private actors is necessary for a variety of policy and institutional improvements, such as for example effective value chain development strategies.

There are several new markets that present opportunities, including:

- The tourism industry: only a fraction of their food demand is supplied locally. Proximity and flexibility is especially important for perishable products, such fruits, vegetables, and animal products.
  - The growing yachting sector: full-service, modern marinas have been built in several BMCs.
  - Domestic cassava value chains for bakeries, breweries and poultry feed.
- Meat for the domestic and regional retail and services sectors in land abundant BMCs, such as Belize, Guyana and Suriname.



