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Intra-Regional Agricultural Trade in the Eastern and Southern Caribbean: An Operational Model for Agri-Food Corridors

Prepared by Amy Chambers and Nicolas Rigal, Trade and Logistics Consultants | September 29, 2023

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Executive Summary

Although the Caribbean region is home to the longest-standing regional integration initiative in the developing world, intra-regional trade has been slow to develop. As of 2017, intra-regional trade accounted for only 16.6 percent of food imports within the region. Similarly, approximately half of food exports are destined for the United States, and only 15 percent derive from neighboring countries within the Caribbean Community and Common Market (CARICOM).[1] As a result, the annual food import bill for the region totaled USD 4 billion in 2018 and had grown to USD 6 billion by 2022 due to increases in food and fuel prices as a result of the COVID-19 pandemic and the war in Ukraine.[2] These costs inhibit economic growth and contribute to ongoing poverty and food insecurity within the region.[3] The foreign exchange burden caused by reliance on imports also creates volatility and puts pressure on these economies to divert resources for foreign exchange reserves that could otherwise fund national development.

Intra-regional agricultural trade in the Caribbean is hampered by low production, high logistics and transportation costs, and regulatory barriers that impede market access. Low volumes of production and lack of country specialization inhibit economies of scale for agricultural commodities. Weak port infrastructure and cumbersome trade facilitation measures generate long delays that increase overall shipping costs. In addition, the transport distance relative to the small market size of many Caribbean countries makes them undesirable destinations for many shipping companies, which prefer to focus on major regional and global routes. These factors are exacerbated by policy and institutional barriers to trade in the form of sanitary and phytosanitary standards and technical requirements that limit market access. Based on the stakeholder interviews and the comprehensive literature review undertaken during this study, it is evident that regional action to address these challenges has been limited, and the requirement for unanimous approval by all 15 member states drastically slows the pace of progress on regional initiatives.

To address these challenges, the CARICOM Secretariat requested the support of the United States Agency for International Development (USAID) Mission for the Eastern and Southern Caribbean (USAID/ESC) to develop an operational model for intra-regional agricultural trade in the Eastern and Southern Caribbean (ESC). This operational model is intended to provide a practical guide for action to remove barriers and enable intra-regional agricultural trade based on feedback from a wide range of relevant private sector and public sector stakeholders operating in Trinidad and Tobago, Barbados, Guyana, and Suriname, the region's largest trading partners, with a focus on perishables (specifically fruits and vegetables), nonperishables (specifically grains), and agricultural inputs (specifically fertilizer). The resulting operational model is designed to promote regional and/or subregional cooperation in the establishment of agri-food corridors between participating member states with the political and private-sector will to overcome coordination challenges that have long plagued the region.

The operational model and recommendations herein reflect the opinions and insights of key stakeholders from government, private sector, civil society, regional institutions, and development partners in each of the four

[1] See Intra-ACP APP Caribbean Action, "Moving beyond 'selling': The importance of fresh produce marketing infrastructure," APP Policy Brief No. 1 (June 2016).

[2] See Relief Web, "Invest in agriculture, remove trade barriers, improve transportation – takeaways from Caricom AGRI Investment Forum opening" (May 21, 2022), available at https://reliefweb.int/report/world/invest-agriculture-remove-trade-barriers-improve-transportation-takeaways-caricom-agri-investment-forum-opening. See also CARICOM Today, "Caribbean Ministers of Agriculture Emphasise Specific Cooperation Needs of Their Countries" (July 24, 2023), available at https://today.caricom.org/2023/07/19/caribbean-ministers-of-agriculture-emphasis-specific-cooperation-needs-of-their-countries/.

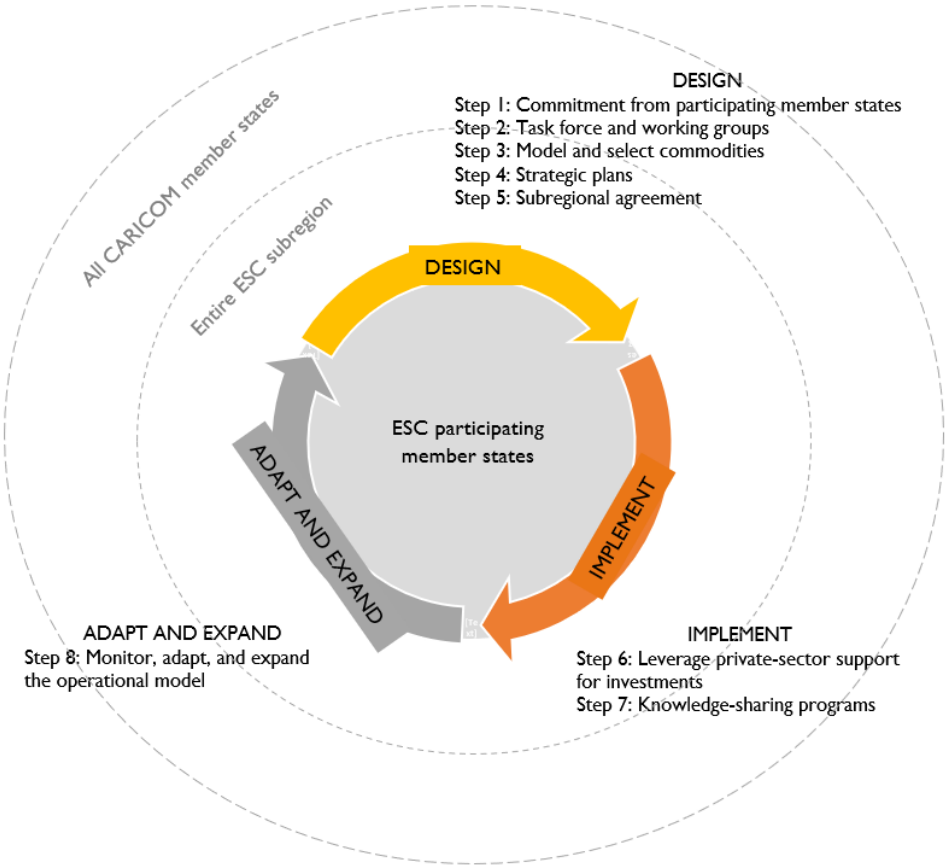
[3] See Intra-ACP APP Caribbean Action, "Moving 'Local' Food within the Region Part Two: Breaking Down Non-Tariff Barriers," APP Thematic Feature No. 11 (December 2016).

aforementioned focus countries gleaned through 74 interviews in May and June 2023. The resulting recommendations thus reflect political and economic realities on the ground as well as the aspirations of those constituents most essential to their implementation.

The operational model is designed in three phases:

1) DESIGN: The operational model should be characterized by clear, voluntary consent to undertake specific investments and reforms to achieve reciprocal benefits through enhanced trade in select agricultural commodities between a subset of members states.
2) IMPLEMENT: Implementation activities will promote intra-regional knowledge-sharing and cooperation while being tailored to the unique stage of development of each participating member state and will leverage private sector investment to ensure buy-in and the sustainability of the agri-food corridors.
3) ADAPT AND EXPAND: While the model focuses on a subset of countries and commodities, it is anticipated that the success of the agri-food corridors will serve as a proof of concept that can be expanded over time and serve as the foundation for widespread intra-regional agricultural trade.

Operational Model for Intra-Regional Agricultural Trade in the ESC:



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Acronyms

ACS	Association of Caribbean States
AEO	Authorized Economic Operator
APP	Agriculture Policy Programme
ASYCUDA	Automated System for Customs Data
BBD	Barbadian Dollar
CAHFSA	Caribbean Agriculture Health Food Safety Association
CARDI	Caribbean Agricultural Research & Development Institute
CARICOM	Caribbean Community and Common Market
CARIFTA	Caribbean Free Trade Association
CCJ	Caribbean Court of Justice
CDB	Caribbean Development Bank
CDF	CARICOM Development Fund
CEDA	Caribbean Export Development Agency
COMESA	Common Market for Eastern and Southern Africa
COTED	CARICOM Organ of the Council for Trade and Economic Development
CPSO	CARICOM Private Sector Organization
CROSQ	Caribbean Standards and Quality Organization
CSAV	Compañía Sud Americana de Vapores S.A.
CSME	Caribbean Single Market and Economy
EAC	East African Community
EDF	European Development Fund
EMMA	Electronic Management Manifest ASYCUDA
ESC	Eastern and Southern Caribbean
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FCL	Full-Container-Load
GA-FDD	Government Analyst – Food and Drug Department of Guyana

GAIA	Grantley Adams International Airport
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GMC	Guyana Marketing Corporation
GoG	Government of Guyana
GoTT	Government of Trinidad and Tobago
GNI	Gross National Income
GNSC	Guyana National Shipping Corporation
GYD	Guyanaese Dollar
HAACP	Hazard Analysis Critical Control Point
IDB	Inter-American Development Bank
IESC	Improving Economies for Stronger Communities
IICA	Inter-American Institute for Cooperation in Agriculture
IPPC	International Plant Protection Convention
ISO	International Organization for Standardization
LCL	Less-Than-Container-Load
MSC	Mediterranean Shipping Company
MSMEs	Micro-, small-, and medium-sized enterprises
NAMDEVCO	National Agricultural Marketing and Development Corporation of Trinidad & Tobago
NTB	Non-Tariff Barrier
NTM	Non-Tariff Measure
OECS	Organization of Eastern Caribbean States
OIE	World Organisation for Animal Health
PPP	Public-private partnership
PRA	Pest Risk Analysis
PTCCB	Pesticides And Toxic Chemicals Control Board of Guyana
RATIN	Regional Agricultural Trade Intelligence Network
RTC	Revised Treaty of Chaguaramas

SADC	Southern African Development Community
SOPs	Standard Operating Procedures
SPS	Sanitary and Phytosanitary
TBT	Technical Barriers to Trade
TFA	Trade Facilitation Agreement
TTD	Trinidad & Tobago Dollar
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United Nations Industrial Development Organization
US	United States
USD	United States Dollar
USDA	United States Department of Agriculture
USAID	United States Agency for International Development
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

Introduction

The Caribbean region is home to the longest-standing regional integration initiative in the developing world. Despite a robust policy framework set forth in the Revised Treaty of Chaguaramas (RTC), member states of the Caribbean Community and Common Market (CARICOM) have thus far failed to develop strong intra-regional trade ties. Inhibiting factors include political disincentives that inhibit regulatory cooperation, inefficient trade processes and procedures, and infrastructure, transport, and logistical constraints to the efficient movement of goods.

Agricultural trade is particularly sensitive to these constraints. For example, lack of cold storage and long delays in processing result in high post-harvest losses, particularly for perishable goods such as fruits and vegetables. These losses impact not just income for producers but also overall food supply and commodity prices. Long delays in shipping or at the border can also prevent the timely delivery of agricultural inputs such as fertilizer, thus disrupting the planting season and leading to lower yields. These constraints have a disproportionate impact on small and medium-sized businesses that have smaller profit margins and are more sensitive to unpredictable or rising trade costs.[4]

Limited intra-regional agricultural trade has contributed to significant food import costs for CARICOM member states. As of 2017, intra-regional trade accounted for only 16.6 percent of food imports within the region. Similarly, approximately half of food exports are destined for the United States, and only 15 percent derive from neighboring countries within CARICOM.[5] The annual food import bill for the region totaled USD 4 billion in 2018 and had grown to USD 6 billion by 2022 due to increases in food and fuel prices as a result of the COVID-19 pandemic and the war in Ukraine.[6] These costs inhibit economic growth and contribute to ongoing poverty and food insecurity within the region.[7] The foreign exchange burden caused by reliance on imports also creates volatility and puts pressure on these economies to divert resources for foreign exchange reserves that could otherwise fund national development.

In light of these challenges, CARICOM member countries have adopted "25% by 2025," a joint commitment to achieve a 25 percent reduction in the regional food import bill by 2025. The initiative has the support of heads of state and ministers of

Strategic Focus Areas of "25% by 2025"

- SPS and Trade Related Policies
- Increased Production and Productivity
- Market Driven Production and Intelligence
- Cross Border Production and Investments
- Climate Smart Agriculture
- Regional Food and Nutrition Security Status
- Coordination and Governance Mechanism
- Digitalization of the Sector
- De-risking and Financial Literacy of the Regional Agriculture Sector

[4] See International Trade Centre (ITC), Trinidad and Tobago: Company Perspectives – An ITC Series on Non-Tariff Measures (2013).

[5] See Intra-ACP APP Caribbean Action, "Moving beyond 'selling': The importance of fresh produce marketing infrastructure," APP Policy Brief No. 1 (June 2016).

[6] See Relief Web, "Invest in agriculture, remove trade barriers, improve transportation – takeaways from Caricom AGRI Investment Forum opening" (May 21, 2022), available at https://reliefweb.int/report/world/invest-agriculture-remove-trade-barriers-improve-transportation-takeaways-caricom-agri-investment-forum-opening. See also CARICOM Today, "Caribbean Ministers of Agriculture Emphasise Specific Cooperation Needs of Their Countries" (July 24, 2023), available at https://today.caricom.org/2023/07/19/caribbean-ministers-of-agriculture-emphasis-specific-cooperation-needs-of-their-countries/.

[7] See Intra-ACP APP Caribbean Action, "Moving 'Local' Food within the Region Part Two: Breaking Down Non-Tariff Barriers," APP Thematic Feature No. 11 (December 2016).

agriculture and trade from throughout the CARICOM region[8] and will be implemented in collaboration with the CARICOM Private Sector Organization (CPSO).[9] It targets nine strategic focus areas to increase intra-regional agricultural trade (see box).

Past efforts to overcome these challenges have repeatedly run up against political objections, bureaucratic delays, and trade-inhibiting policies and procedures to protect domestic industry. Given the number of countries with distinct identities and domestic agendas, taking collective action at scale has proved slow and ineffective. Achieving these goals will require developing new operational models to tackle long-standing procedural and regulatory barriers to regional agricultural trade as well as transport and logistical constraints to the movement of agricultural products.

About this Study

In support of CARICOM's twin goals of strengthening regional logistics and supply chains and addressing worsening food security in the region, the United States Agency for International Development (USAID) Mission for the Eastern and Southern Caribbean (USAID/ESC) engaged Improving Economies for Stronger Communities (IESC) through the USAID-funded Farmer-to-Farmer Leader with Associate award to design an operational model for the enhancement of intra-regional agricultural trade in the Eastern and Southern Caribbean (ESC).

To develop the operational model, the team analyzed key bottlenecks to intra-regional trade in perishables (specifically fruits and vegetables), nonperishables (specifically grains), and agricultural inputs (specifically fertilizer) between Trinidad and Tobago, Barbados, Guyana, and Suriname.[10] Following a lengthy literature review,[11] the team conducted 74 interviews across the four focus countries from May 8 – June 11, 2023 with a wide range of stakeholders from the government, private sector, civil society, regional institutions, and development partners. A full list of stakeholders can be found in Annex 4.

Operational Model for Increasing Intra-Regional Agricultural Trade

The report that follows proposes an operational model for intra-regional agricultural trade in the ESC based on the establishment of specific agri-food corridors between a subset of member states in the region. The model is designed to enable committed, specific cooperation between nations that elect to participate, not as a prescriptive requirement for the entire ESC or CARICOM region. As key players in the ESC, participation of the four focus countries (Trinidad and Tobago, Barbados, Guyana, and Suriname) will be an essential element of the proposed agri-food corridors. However, smaller economies of the OECS may also wish to join the initiative.

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[8] See, e.g., CARICOM, "Invest in Agriculture, Remove Trade Barriers, Improve Transportation – Takeaways from CARICOM Agri Investment Forum Opening" (May 21, 2022), available at https://caricom.org/invest-in-agriculture-remove-trade-barriers-improve-transportation-takeaways-from-caricom-agri-investment-forum-opening/; Jamaica Observer, "Caricom SG wants improved intra-regional trade by 2025" (March 2, 2022), available at https://www.jamaicaobserver.com/business/caricom-sg-wants-improved-intra-regional-trade-by-2025/; and Ford-Craigg, Sheena, Trade & Investment In CARICOM Countries Is Crucial (July 10, 2021), available at https://gisbarbados.gov.bb/blog/trade-investment-in-caricom-countries-is-cruicial/.

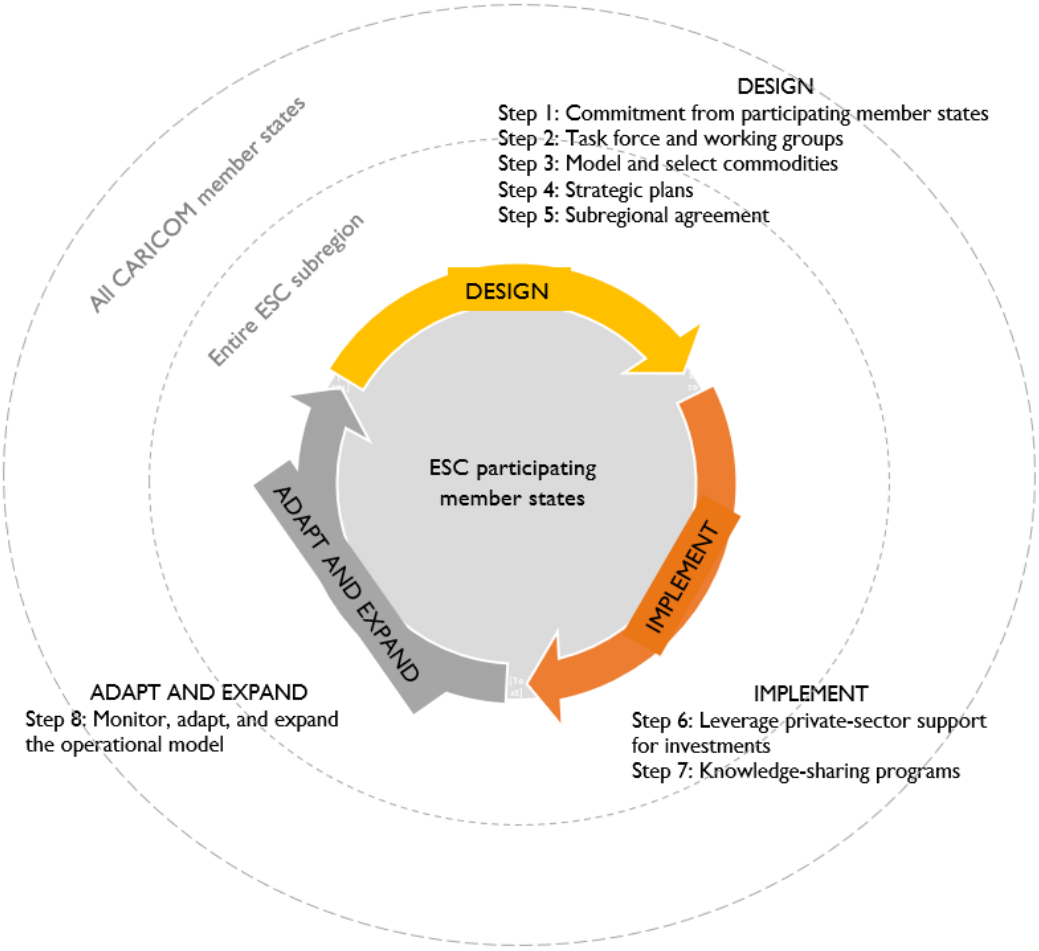
[9] See CARICOM Private Sector Organization (CPSO), "Twenty-Five by 2025" – Reducing CARICOM's Agri-Food Imports: Opportunities for CPSO Participation (February 2020), available at http://thecpso.org/wp-content/uploads/2021/05/CPSO-Twenty-five-by-2025-HOG-Submission18-19-02-2020.pdf.

[10] While this study focused narrowly on horticulture, grains, and fertilizer, other agricultural commodities may present opportunities for intra-regional agricultural trade. In particular, the 25% by 2025 report issued by CARICOM indicates significant market opportunity for poultry. See CARICOM 25% by 2025 report (2022).

[11] The study built on and updated findings from the extensive 2016 Intra-ACP Agriculture Policy Programme (APP) study, Development of Business Facilitation Mechanisms in CARICOM, among other regional studies. See Intra-ACP Agriculture Policy Programme (APP), Development of Business Facilitation Mechanisms in CARICOM (2016) (Intra-ACP APP (2016)).

What follows is a practical step-by-step guide to implementation of agri-food corridors at the subregional level in three stages: Design, Implement, Adapt and Expand.

Operational Model for Intra-Regional Agricultural Trade in the ESC:



It is anticipated that the success of the agri-food corridors will serve as a proof of concept that can be expanded to incorporate additional commodities and to include additional ESC member states that elect to opt in, with the goal of eventually incorporating all CARICOM member states and serving as the foundation for widespread intra-regional agricultural trade.

The operational model is designed to function holistically, as the benefits of investments in each area are highly contingent on successful implementation of investments in other areas. Accordingly, member states with the political will to fully engage in all components of the operational model should participate. The model acknowledges and highlights distinct challenges in each of the four focus countries that may shape tailored approaches to implementation at the domestic level.

In addition, while the operational model focuses specifically on the transport and logistics, trade facilitation, and intra-governmental aspects of trade, it recommends that participating member states also coordinate to select specific agricultural commodities for the agri-food corridors, including agreements on country specialization, investments in

agricultural production and value-chain upgrading, and regional promotion of goods traded via the agri-food corridors. Without these complementary investments, intra-regional agricultural trade will be unlikely to achieve the scale in supply and demand necessary to ensure the long-term success of the operational model.

Annex 1 provides in-depth findings regarding key constraints in the areas pertinent to the operation model. Annex 2 describes key areas for cooperation in agricultural sector development that will be essential complementary investments to ensure the success of the agri-food corridors. Annex 3 provides an overview of intra-regional agricultural trade in fruits and vegetables, grains, and fertilizer, Annex 4 provides the list of stakeholders consulted, and Annex 5 provides a summary of the validation workshop.

Phase 1: Design

Step 1: Seek Commitment from Participating Member States.

Regional-level action has not succeeded in engendering robust intra-regional trade in the CARICOM region. By contrast, weak enforcement mechanisms and a slow consultative process have become vehicles for frustration for member states seeking greater integration and trade ties, while serving as a strategic mechanism for delay and narrowly disguised protectionism for others.[12]

While the adoption of policy decisions related to the promotion of regional trade and economic development by the Council for Trade and Economic Development (COTED) must be made by qualified majority of member states (or unanimous consent in the case of issues of critical well-being),[13] nothing within the RTC prohibits voluntary cooperation on a sub-regional level. This type of proactive, voluntary action by motivated member states is what the CARICOM Secretariat has called "enhanced cooperation" and the CPSO termed a "plurilateral approach."[14] Both organizations have cited subregional cooperation as the only realistic means for concrete progress on intra-regional trade initiatives.[15]

As such, the fundamental starting point for any operational model for intra-regional agricultural trade will be to obtain clear, unambiguous buy-in from the member states willing to participate in the agri-food corridors. As described in the Introduction, these member states are expected to include, at a minimum, Trinidad and Tobago, Barbados, Guyana, and Suriname but may also include smaller nations in the ESC such as members of the OECS. In particular, as the ESC's largest economy and regional hub for maritime transport, the cooperation and support of Trinidad and Tobago, as well as its willingness to open its economy to intra-regional agricultural goods, will be essential to the success of the agri-food corridors.

The initial agreement should take the form of a memorandum of understanding (MOU) outlining the objectives of establishing agri-food corridors between participating member states and agreement regarding the structure and

[12] See CARICOM Private Sector Organization (CPSO), "25% by 2025": Reducing CARICOM's Agri-Food Imports: Opportunities for CPSO Participation (February 2020) (noting that extensive delays occur in any proposed regional policy reform as countries leverage time given at each stage (working group, COTED submission, member state consultations, and approval) to postpone the process).

[13] See RTC, Article 29.

[14] Id. See also CARICOM Commission on the Economy, "Caribbean 9.58" – Speeding up the Caribbean (October 2020) (CARICOM (2020)), available at https://issuu.com/guyanaconsulate6/docs/att_ii_to_item_7.3_-_cce_report_-32_is_-_24-25_feb.

[15] See CARICOM (2020), in which the authors pointedly acknowledge the political economy factors that have blocked prior attempts to promote economic growth within the region, arguing instead for recommendations "that are not critically dependent on difficult public consensus or hard stats for all."

timeline for the design process, including a clear role for private sector participation. It should include a commitment to identify and implement necessary domestic-level policy reforms and infrastructure investments, as well as a commitment to establish reciprocal benefits for all participating member states.

Step 2: Establish A Task Force and Working Groups at the Regional and National Levels.

After adoption of the MOU, a coordination mechanism, such as a task force or committee, should be established between the participating governments with the support and leadership of the CARICOM Secretariat to design and implement the agri-food corridors. This high-level body will oversee the work of technical working groups at the regional and domestic levels. The task force should include representatives of key ministries in each participating member state as well as private sector representatives such as the CPSO.

Regional-level working groups should be established dedicated to specific aspects of the operational model, including logistics, transportation, port and airport capacity, trade facilitation, and standards and non-tariff barriers. These groups should include ministry officials, regional private sector associations, and participants from the logistics, transport, agricultural trade, and farming communities in each country as appropriate to the subject matter of the working group. CARICOM regional institutions should also participate, including CAHFSA and CROSQ.

Effective dialogue mechanisms at the domestic level will also be essential to obtaining and maintaining political support for the policy reforms and economic transformation required to establish successful agri-food corridors. Participating member states should establish national-level task forces or working groups to evaluate necessary domestic reforms and lead public dialogue regarding the design of the agri-food corridors to educate and engender domestic support for the agri-food corridors and to develop a coalition of private-sector partners to support implementation. The structure at the national level could mimic the regional structure (i.e., an overarching task force plus subsidiary subject-matter-focused working groups) or take whatever form the government sees fit.

The support and buy-in of the business community (including agro-processing, transporters, traders, and farmers) will be crucial to effective implementation of the agri-food corridors. Private sector associations play an important role in fostering business in the region via trade missions, lobbying, advocating, and networking. Previous studies suggested that lack of support from regional citizens and the corporate sector undermined integration efforts.[16] As such, it is essential to include a wide range of private sector voices at the regional and national levels to ensure private sector buy-in and address private sector concerns. In particular, efforts should be made to ensure that the voices of MSMEs and the farming community are included at the regional level.

Step 3: Select Commodities to Include in the Agri-Food Corridors.

The heart of the agri-food corridor project will be mutual agreement to expand production and trade between participating member states with respect to specific, designated agricultural commodities. This approach enables country specialization, which is essential to achieving economies of scale. This approach also allows for reciprocity in negotiated benefits for participating member states.

At the community level, the benefits of intra-regional trade are dispersed and unevenly distributed. Mechanisms to reduce these disparities have not been effective at offsetting losses for less developed nations vis-à-vis their wealthier,

[16] See Simms (2007).

more industrialized neighbors. In addition, the extended multilateral process of CARICOM-level consultation and weak regional enforcement institutions have enabled some countries to perpetuate their advantage despite the intent under the RTC to establish mutually beneficial trade policy and provide support for disadvantaged countries, regions, or sectors.[17]

As a voluntary subregional compact with respect to specific agricultural commodities, the agri-food corridors can be structured to include negotiated reciprocal benefits for each participating nation as a precondition to investment. The approach of negotiating clear benefits for each country in advance was suggested by numerous stakeholders across the four focus countries, who repeatedly identified the need for reciprocity in any working model of intra-regional cooperation on trade. Benefits could be shared in any number of ways, including:

- Across commodities (whereby the imports of one country's products are offset by its reciprocal import of other products from regional partners);
- Within an industry (whereby the agro-processing industry in one country relies on the primary production of another, and vice versa);
- Extra-regional vs. intra-regional trade benefits (such as when the regional bloc's increased negotiating power vis-à-vis extra-regional trading partners is used to negotiate external trade benefits that offset economic losses some members may suffer from increased intra-regional trade); or
- Investment in regional public goods (e.g., using the costs and benefits of investment in shared transport or telecommunications networks to offset a trade imbalance).

Participating member states should conduct a joint study of the potential benefits to each participating member state of intra-regional trade in different commodities and under different trade scenarios. Based on these findings, participating member states can model potential agri-food corridors and select specific commodities for country specialization and agricultural development.

In addition to negotiating reciprocal benefits as part of the design of the agri-food corridors, less-developed member economies will likely need to invest heavily in the development of domestic industries to be able to compete in the regional agricultural economy over the long term. Participating member states should consult the CDF to request priority focus on National Cohesion Programmes tailored to the objectives of the agri-food corridors, including working with the CDF to obtain funding for the required investments.

As a result of these discussions, participating member states should sign an interim agreement clearly delineating the selected commodities and anticipated benefits before moving forward with additional design work. This agreement will provide the parameters for more detailed investment plans and ensure clear commitment to carrying out the investments and regulatory reforms required to open trade routes for the selected commodities.

Step 4: Design Agri-Food Corridors, Including Strategic Plans for Investments in Key Areas.

As discussed in the Introduction, numerous studies have revealed a consistent set of key issues impeding intra-regional trade in the Caribbean: logistics, port/airport capacity, transportation, trade facilitation, and non-tariff measures. A detailed discussion of these findings can be found in Annex 1. By working on a subset of commodities, the agri-food

[17] See RTC, Chapter 5 (Trade Policy) and Chapter 7 (Disadvantaged Countries, Regions, or Sectors).

corridors will enable participating member states to pilot specific solutions and serve as an example to other member states of what can work.

Technical working groups at the regional level will design strategic plans to address each of these challenges as they relate to the agri-food corridors. To ensure the design is tailored to the unique needs of each participating member state, the technical working groups will liaise with national-level working groups in each country in accordance with the structure established during Step 2.

Working Group #1: Logistics Hubs

To achieve the economies of scale necessary to create sustainable agri-food corridors in the ESC, participating member states should establish logistics hubs that can serve as aggregation points for agricultural goods, focusing initially on the specific commodities selected in Step 3. During the design stage, a working group dedicated to designing logistics hubs in each country should take stock of existing facilities for washing, processing, packaging, crating, storage, and loading agricultural goods for export that are or can be used for the selected commodities and develop a strategic plan to address any infrastructure or service gaps.

A number of facilities exist in each of the four focus countries that currently provide a subset of these services and could be integrated to create a full-service logistics hub. For example, the Moruga Agro-Processing Facility in Trinidad and Tobago provides space for agro-processing businesses to scale to industrial operations, whereas the Piarco Packinghouse provides washing, packing, and temporary storage for fresh produce from farms certified by the National Agricultural Marketing and Development Corporation (NAMDEVCO). Stakeholders in Barbados referenced approximately 20 existing or planned packing houses in the country as well as an industrial park that is currently under development. Guyana has one packing and storage facility in Georgetown that is certified by Trinidad and Tobago, Barbados, Antigua, and St. Lucia, and the Government of Guyana (GoG) plans to open 11 new regional processing and packaging facilities across the country by 2025.

Logistics hubs should be conveniently located for access to the port and airport, along efficient transport corridors linked to farms, processing facilities, and warehouses. Plans will differ by country based on the anticipated commodities, production zones, and processing requirements. For example, larger countries such as Guyana and Suriname should establish multiple logistics hubs distributed throughout the country in places convenient to primary production zones, port, and airports. At present, high costs and post-harvest losses attributable to interior transport pose a significant challenge to agricultural trade, as products must travel long distances to port. Investments in upgrading road infrastructure and inland river ferry service should be designed to facilitate access to the new logistics hubs and transportation from hub to the port and airport.

All logistics hubs should have sufficient dry and cold storage and work with a network of storage facilities from farm to port to ensure the integrity of the cold chain and reduce post-harvest losses. At present, stakeholders in Guyana estimated that up to half of the product is lost between farm and port due to lack of a processing facility or cold storage along the value chain. Public and private storage facilities that exist in each country could be better leveraged to support agricultural trade.

The technical working group should design a feasible plan to establish a logistics hub or network of hubs for the agri-food corridors in each country by building out existing facilities or investing in new infrastructure. For example, logistics hubs could be structured as public-private partnerships (PPPs) between member state governments and the private sector, including leveraging existing privately-owned facilities.

Working Group #2: Maritime Port and Airport Capacity

A second working group should evaluate existing maritime port and airport infrastructure based on the specific volumes and types of goods envisioned under the plan for product specialization for each country. For some countries, a focus on airport transport capacity may be a higher priority; for others, maritime transport capacity.

Where existing infrastructure or equipment is lacking, governments should work with the private sector and development partners to develop a strategic plan for port upgrades. The strategic plan should take into consideration draft depth, cargo handling equipment, and storage capacity, as well as physical space and potential for growth. For example, the maritime port and airport in Trinidad and Tobago both have ample space to expand operations, whereas space constraints at the port in Georgetown will require more creative use of the existing land. These upgrades should include, in particular, prioritizing investment in state-of-the-art chilled and dry storage at ports and airports to reduce losses for perishable goods.

While the evaluation of existing and needed port capacity will focus on the needs of the commodities under development for the agri-food corridors, upgrades should be designed with an eye to expanding service to additional commodities or sectors in the future.

Working Group #3: Intra-Regional Transportation Services

The transportation working group will design designated product routes based on the origin and destination markets of the products selected for the agri-food corridors. The working group should evaluate needs in terms of type(s) of vessels or aircraft, onboard equipment (e.g., chilled storage), and optimal schedules aligned with fluctuating volumes (i.e., at harvest for produce or in advance of the planting season for inputs such as fertilizer). A forthcoming CDB study is expected to provide in-depth analysis of existing services, ships, port capacity, and potential routes for expansion, which can be used to inform the needs of the commodities selected for the agri-food corridors.

The new intra-regional transport service lines should be designed to coordinate with import distribution routes to take advantage of empty containers and cargo holds to the extent schedules, vessel types, and equipment align. Vessel and route selection should also consider how transportation during product harvest periods can be aligned with the availability of cargo space and port berths during the tourist season. For example, seasonal export volumes of Guyanese rice increase from March to June and September to January during the tourism off-season and thus can run with greater frequency without competing with cruise ships for port berths. Products harvested during the November to April tourism season should use different wharves to avoid disruptions in unloading cargo (e.g., the dedicated CARICOM wharves in Trinidad and Tobago that cater to smaller inter-island vessels) or combined passenger-cargo transport methods, such as mixed-use ferries and passenger aircraft that travel more frequently at this time.

The types of vessels needed for the new intra-regional transport services will depend on the products being transported and the size of the destination market. While perishable goods should be shipped in “reefer” (refrigerated) containers on shipping liners or by airfreight, non-perishable bulk goods such as grains and fertilizer can be transported by via container or in breakbulk quantities in smaller vessels, such as schooners, cargo ferries, or mixed passenger/cargo ferries. For airfreight, numerous stakeholders pointed to the need for different aircraft with more efficient fuel consumption for multiple take-offs and landings. For example, larger aircraft such as Boeing 767s or Airbus 330/200s could accommodate more passengers and provide expanded cargo capacity.

Once desired routes and transportation methods have been identified, a business model for each of the proposed transport services should be developed based on a cost-benefit analysis to ensure the routes and services provided will be financially viable. Government officials should work with the private sector, including shipping lines, smaller vessel owners, and airlines, to develop these proposals and get commitments from potential service providers for trial periods

to test these services, including the provision of public subsidies as needed. In particular, vessel and equipment planning should take into account the need for LCL service. Even with product specialization and aggregation, most shipments within the region will not achieve the volume to fill an entire 20' shipping container, and destination markets may not need full container loads to meet domestic demand. Less-than-Container-Load (LCL) service is thus vital to enabling intra-regional trade, particularly for perishables, which must be shipped in smaller volumes more frequently. For example, fish and shrimp could be imported in large quantities from Suriname to Barbados, but the small size of the Barbados population makes full container shipments of fresh seafood undesirable. The unwillingness of suppliers to ship LCL quantities has also prevented regional sourcing of bananas and yoghurt by supermarket chains. A recent successful pilot of LCL service by Tropical Shipping in St. Lucia can serve as a model for the new intra-regional transportation services. It may also be beneficial to explore the use of smaller 10' containers for dry and reefer LCL cargo instead of 20' or 40' containers.

Design Considerations for Intra-Regional Transportation Services

Although the exact routes will depend on the commodities selected for the agri-food corridors and the countries participating in the project, the following high-priority trade routes were suggested by stakeholders:

- Develop a service line between Guyana and Barbados to support the new food terminal in Bridgetown.
- Revive pre-existing transport routes from Guyana and Suriname to the rest of CARICOM to handle anticipated increases in production.
- Make better use of existing capacity, such as on the weekly Laparkan roundtrip flight from Miami via Trinidad, Guyana, and Suriname.
- Leverage opportunities for growth through known plans for service expansion, such as the anticipated introduction of two new airlines (Badgas Caro and Fly Always) in Suriname.

Options and Parameters:

- Explore new types of airfreight planes with more efficient fuel consumption for the multiple take-offs and landings required to service the region profitably.
- Work with airlines to explore the possibility of employing larger airplanes such as A330s or 777s that accommodate more passengers and cargo.
- Ensure any legal obstacles to public-private partnerships in transportation services are removed or taken into account in selecting service providers.
- Consider special incentives for small businesses and new market entrants to provide economic opportunity and increase competition in the industry.
- Evaluate lessons learned from airfreight and maritime transport services that have since been discontinued (e.g., LIAT) to identify critical success factors for the new service lines.

Working Group #4: Trade Facilitation

The effectiveness of infrastructure upgrades and transportation investments will depend on completion of necessary trade facilitation reforms to reduce the time and cost of compliance with customs and other border agencies. In all countries, failure to connect relevant government agencies to the ASYCUDA system and lack of interoperable paperwork requires traders to fill out the same information repeatedly, which not only contributes to clearance delays but also makes it more difficult to share information for the purpose of integrated risk assessment. Lack of effective risk

management and trusted trader programs slows customs processing, and expedited clearance procedures for perishable goods remain at the discretion of customs officials.

In addition, private sector interviewees and customs staff across all four focus countries pointed to human resource shortages affecting services at the port, including scanning (Guyana and Barbados) and implementation of pre-clearance (Barbados). In Suriname, what should be the work of 230 customs officers must be completed by only 160 officers due to staffing deficiencies. Staff have also faced delays in the payment of wages and overtime arrears dating back to 2019. In particular, stakeholders noted significant challenges with respect to overtime charges due to outdated legal frameworks that do not align with the reality of the 24-hour-per-day/7-days-per-week operations of most ports in the region.

Although each country is at a separate stage of implementation of its TFA commitments, the following reforms are needed:

- ***Single Window:*** Implementation of a single window system, including the roll-out of ASYCUDA to all border agencies.
- ***Interoperable Paperwork:*** Financial and technical assistance for the adoption of the Electronic Management Manifest ASYCUDA (EMMA), which allows traders to submit advance cargo information using standardized data and facilitates integrated risk assessment and intelligence sharing between member states.
- ***Risk Management:*** Continue roll-out of risk management systems and Trusted Trader or AEO programs, with a focus on commodities traded in the agri-food corridors. Develop integrated risk management across all border agencies.
- ***Perishable Goods:*** Adopt standard operating procedures (SOPs) for perishable goods and pre-clearance to enable formal expedited processing of perishable goods.
- ***Human Resources:*** Update and modernize the legal framework for Customs employees to clearly and transparently delineate fixed overtime charges for various services.

Many of these reforms are already underway in the four focus countries, often with the support of UNCTAD or other development partners and in alignment with commitments under the WTO Trade Facilitation Agreement (TFA). For example, in Guyana, the Inter-American Development Bank (IDB) is currently supporting roll-out of the single window, and customs authorities in Trinidad and Tobago, Barbados, and Guyana are all aiming to introduce trusted trader or Authorized Economic Operator (AEO) programs in the coming years.

The regional-level working group should liaise with national-level platforms to establish realistic timeframes and strategic plans for these reforms, each tailored to the current stage of development and capacity strengthening needs of customs and other border agencies. These discussions should also explore mechanisms to leverage private-sector financing in the implementation of these reforms. For example, the single window in Guyana will be operated by a private sector provider under government contract.

Working Group #5: Non-Tariff Measures

Non-tariff measures (NTMs) have long served as a barrier to increased intra-regional trade. In particular, during recent interviews, CARICOM countries repeatedly singled out Trinidad and Tobago for applying stringent standards and technical requirements to prohibit the importation of products from regional countries. For example, Trinidad and Tobago has rejected coconut water bottles manufactured in Guyana and Guyana-made flour. An effective mechanism to address and resolve these issues will be essential to the success of the agri-food corridors.

A working group should be created involving organizations at the national and regional levels, including government and private sector representatives from each country participating in the agri-food corridors as well as CAHFSA and CROSQ (see box). This working group will be tasked with taking stock of existing non-tariff measures that pose challenges to intra-regional agricultural trade for the selected commodities and identifying mutually acceptable solutions to resolve these issues.

Proposed NTM Working Group Members

- CAHFSA
- CROSQ
- Customs Authorities
- National Ministry of Agriculture representatives, including NPPOs
- National Manufacturers Associations
- Farmer Associations
- CARICOM Private Sector Organization (CPSO)

In particular, stakeholders across all of the target countries acknowledged the need for a common set of regional standards accepted in all member states to facilitate intra-regional agricultural trade. CAHFSA and CROSQ have the mandate to issue regional standards, but progress in this area has been slow. To facilitate trade for the proposed agri-food corridors, the working group should seek consensus on common standards to be applied between participating member states for the specific commodities selected. These standards should be designed with an eye towards meeting regional consumer demand for quality goods while ensuring that regional micro-, small-, and medium-sized enterprises (MSMEs) have the capacity to meet those standards and participate in the regional market. As such, regional standards could be aligned with international standards or could be less stringent yet sufficient to meet consumer expectations. Companies could be certified as compliant with either the regional regime or the international regime to receive a quick pass for faster trading.[18]

Alternatively, countries participating in the agri-food corridors could adopt a policy of mutual recognition of each country's respective standards, similar to the approach taken by NAFTA.[19] However, given the challenges to date with regional cooperation and acceptance of member states' products, adopting a set of uniform standards applicable to each of the commodities selected for the agri-food corridors is recommended. Once national standards have been aligned with the regional standards, a policy of mutual recognition of aligned national standards would ensure that producers and exporters only need to comply with one standard (i.e., the regional standard or aligned national standard) to have products accepted in all participating member states.

Step 5: Finalize and Sign Subregional Agreement on Agri-Food Corridors.

At the end of the design phase, participating member states should sign a formal agreement to establish the agri-food corridors that clearly articulates the vision, anticipated reciprocal benefits, and mutual commitment of each nation to implement the required investments and regulatory reforms as set forth in the strategic plans. The agreement should provide concrete timelines and formally establish any institutional structures for regional cooperation, dispute resolution, and monitoring during the implementation phase.

To the extent possible, the agreement should incorporate any commitments from the CARICOM secretariat, CDF, or external development partners to fund implementation. This may include individual bilateral agreements or a pool of funding from international partners. Regional and external funding should be clearly aligned with the objectives and

[18] See Intra-ACP APP (2016), Vol. 1, Chapter 4.

[19] See Simms, Rachel, and Simms, Errol, The Building Blocks of Successful Regional Integration: Lessons for the CSME from other regional integration schemes (2007).

strategic plans for the agri-food corridors, as designed by the task force and working groups, and contingent on concrete action and meeting interim milestones under the design.

Phase 2: Implement

Step 6: Leverage Private-Sector Support to Implement Strategic Plans

The focus of the implementation phase should be on carrying out phased investments in each participating member state according to the strategic plans adopted during the design period. Through all stages of implementation, the private sector should continue to be heavily involved in the process, whether through direct financing, infrastructure management, or consultation on policy and institutional reforms. This approach ensures private sector buy-in, the adoption of policies and systems that meet commercial needs, and the long-term sustainability of the investments.

Infrastructure and Transportation Upgrades

The primary mechanism for implementation of logistics, port, and transportation upgrades will depend on the financing structure elected for that particular investment. These activities may include the following:

- Implementing a competitive bidding process to award a concession to manage a port, wharf, or airport.
- Negotiating a public-private partnership to operate a single window system.
- Adopting subsidies and incentives to promote investment in intra-regional transportation services or LCL services.
- Obtaining financing for logistics hubs and port upgrades through the Caribbean Development Bank (CDB), CARICOM Development Fund (CDF), or external partners.

In some cases, such as where the government has already initiated infrastructure investments or requested bids for concessions, these activities will merely build on the ongoing reform initiatives to ensure they meet the needs of the agri-food corridors. In other cases, the private sector may be incentivized to carry out the needed investments once regulatory reforms and agricultural production increases create a business case for new services. For example, multiple stakeholders noted that existing shipping companies have the resources to deploy new vessels on additional routes but do not do so because of the lack of sufficient volumes to make these services profitable. If production volumes increase and trade barriers are removed, the private sector has the funding and capacity to increase services throughout the region. For example, airfreight has a wide profit margin for the airlines as compared to passenger traffic and is seen as an avenue for growth if demand increases.

As discussed in Annex 2, complementary investments in improving agricultural production, processing, and marketing of regional agricultural products will also be essential to the success of the agri-food corridors. Development partner projects such as the IESC-led Caribbean Agricultural Productivity Improvement Activity (CAPA) can support improvements in market-led production and linkages from farm to port.

As these upgrades are implemented, progress should be monitored regularly though public-private dialogue and/or designated public-private working groups to ensure any challenges that arise in operations are quickly addressed.[20]

Trade Facilitation

Trade facilitation reforms will require enacting new laws and regulations and supporting their implementation across government institutions. Reforms may address novel areas of law or require novel forms of inter-ministerial collaboration. For example, EMMA has not yet been implemented in Guyana because of the lack of supporting laws and a national framework for information sharing.

Each participating member state should establish a national-level platform for inter-ministerial cooperation on trade facilitation, including implementation of the single window system, streamlining documentation between border agencies, introducing risk management programs, and expediting clearance for perishable goods. In some countries, these reforms can be effected through existing dialogue mechanisms. For example, Barbados has an inter-ministerial task force, and other agencies (such as the Ministry of Agriculture and PTCCB in Guyana) hold regular bilateral discussions that could be expanded to include all border agencies. Private sector input on proposed reforms should be solicited through public-private consultation, such as the Trinidad and Tobago Joint Customs Consultative Committee, through which Customs meets monthly with private sector representatives to discuss challenges.

To achieve consistency and greater uniformity in customs-related procedures among member states, technical assistance could be structured and funded at the regional level, such as housing a team of UNCTAD consultants at the CARICOM secretariat to support member states with implementation of the ASYCUDA Single Window system across all participating member states. In addition, "Regional examples can serve as good models for effective regulatory approaches, such as perishable goods protocols, and participating member states can seek training and knowledge-sharing from regional neighbors that have implemented these programs, such as Jamaica's pre-clearance program for tropical yams and the pre-clearance program for select vegetables implemented in the Dominican Republic with the support of the USDA-funded Exporting Quality project.[21]"

Member state governments should work with external technical advisors to understand the budgetary ramifications of these reforms and ensure adequate funding for new IT systems and scanning equipment. Governments explore models to leverage private-sector financing, such as the use of a public-private partnership or concession to implement the single window. For example, the single window in Guyana will be operated by a private sector provider under government contract. All reforms should be accompanied by thorough training programs to educate and incentivize customs employees to adopt these new systems. For example, government officials in Suriname, where private sector stakeholders noted a reluctance by customs officers to use the ASYCUDA system, may learn from training programs implemented in Barbados and Guyana, where reforms have proceeded more smoothly.

Standards and NTBs

Participating member states should develop national-level technical working groups to align national standards with the regional standards adopted for the selected commodities during the design phase. These working groups will be tasked with adopting legislation to domesticate the regional standards and adopting a policy of mutual recognition of other member states' standards that align with the regional standards. Some countries, such as Guyana, already have an inter-

[20] See Step 8 below regarding mechanisms for monitoring implementation.

[21] See IESC, Our Work, Exporta Calidad (Exporting Quality), available at https://iesc.org/program/exporting-quality/.

ministerial task force to address non-tariff measures that could take on this role, whereas other countries may need to establish a new working group with this mandate.

To ensure trade-restrictive NTMs and non-tariff barriers (NTBs) do not undermine the effectiveness of the proposed agri-food corridors, a mechanism should be put in place to enable participating countries to monitor, report, and resolve these regulatory barriers in a transparent manner. For example, the online Mechanism for Reporting, Monitoring & Eliminating Non-Tariff Barriers adopted by the East African Community (EAC), Common Market for Eastern and Southern Africa (COMESA), and SADC regional economic communities has successfully resolved 775 of 860 complaints, all of which can be viewed and tracked on its website.[22] The mechanism was initially established by the EAC in 2009 but has been joined by COMESA and SADC over time. Similarly, a monitoring mechanism for the member states participating in the agri-food corridors could be expanded to the broader ESC subregion and eventually all of CARICOM.

Such a mechanism is not a substitute for an authority with the power to adjudicate disputes regarding non-tariff measures that continue to frustrate the shared objective of reciprocal benefits under the agri-food corridor project. Article 188 of the RTC provides that member states may voluntarily settle disputes through "good offices, mediation, consultations, conciliation, arbitration and adjudication." As such, participating member states could also consider creating a body with the power to enforce and exact penalties for failure to eliminate NTBs and trade-restrictive NTMs related to the effective implementation of the agri-food corridors.

Step 7: Employ Bilateral and Multilateral Knowledge-Sharing Programs.

To ensure regular collaboration and cross-pollination of ideas between similarly situated officials in each country, platforms for bilateral and multilateral knowledge-sharing should be established, such as regular meetings of customs staff from throughout the region to trade knowledge on risk management or between NPPO staff to discuss protocols for fruits and vegetables, grains, or other products. For example, Barbados reportedly has a good relationship with Guyana with respect to veterinary services cooperation, and state-owned agricultural development agencies such as the Guyana Marketing Corporation (GMC) in Guyana and the National Agricultural Marketing and Development Corporation (NAMDEVCO) in Trinidad and Tobago currently collaborate bilaterally and through regular meetings of the IICA. Existing regional dialogue forums, such as the Caribbean Coordinating Group of Pesticides, the Regional Plant Health Directors Forum, and the COTED Customs Committee can also serve as regional forums for knowledge sharing among participating member states.

In addition, regular programs to second government officials between countries would build relationships and encourage the adoption of uniform regulatory approaches. For example, Barbados has an officer permanently based in the Guyana office of investment to promote bilateral trade. A similar program of temporary duty placements for customs officials in neighboring countries could promote knowledge sharing and training on the use of common border protocols and risk management systems.

[22] See https://www.tradebarriers.org/about.

Phase 3: Adapt and Expand

Step 8: Monitor, Adapt, and Expand the Results.

From the outset of implementation, mechanisms should be put in place to track progress towards regional and domestic goals for the establishment of the agri-food corridors. To ensure impartiality, the monitoring unit could be housed in the CARICOM Secretariat, with a neutral third-party, or comprised of public and private representatives from all participating member states. This unit will evaluate progress based on trade data, regular reporting from member state governments, and private sector surveys. To increase transparency and accountability, participating member states should consider developing a regional index or other monitoring framework for tracking adherence to commitments and progress in achieving regional integration objectives similar to the Asia-Pacific Regional Cooperation and Integration Index.[23]

Monitoring data should be publicly available and used to inform regular domestic and regional consultations with private sector organizations to discuss and address challenges in implementation of the agri-food corridors, such as the effectiveness of logistics hubs, efficiency of transportation services, or regulatory bottlenecks that continue to impede trade. The findings will thus serve as a catalyst to adapt strategic plans, refocus investment priorities, or pinpoint opportunities to expand trade to new commodities or markets.

Evidence of the success of the agri-food corridors will enable the expansion of intra-regional agricultural trade to additional commodities and new member states, thus triggering a new design phase that builds on the lessons learned from the initial pilot. Over time, enhanced intra-regional cooperation and trade ties may enable CARICOM-wide reforms to proceed more smoothly, such as the adoption of regional standards, uniform customs documentation via EMMA, or the establishment of regional Food and Drug Agency, as proposed by CPSO.

Conclusion

This report has endeavored to set forth an operational model for the establishment of agri-food corridors in the ESC that can break through the long-standing constraints to intra-regional agricultural trade. The stakes are high. Failure to address these issues limits economic growth, food security, and poverty reduction in the region. Absent genuine cooperation in promoting intra-regional trade, combined with concrete investments in logistics, transport, port capacity, and domestic trade-related reforms, ESC member states risk losing agribusiness investments to regional neighbors with better regulation and less political interference. For example, one agribusiness interviewed for this study plans to move operations to Jamaica to take advantage of the better business enabling environment, cheaper logistics, and higher quality of agricultural products, whereas another was exploring opportunities to expand business operations in the Dominican Republic.

[23] The Asia-Pacific Regional Cooperation and Integration Index shines a light on the progress of individual countries in achieving six key indicators of regional integration: (1) trade and investment, (2) money and finance, (3) regional value chain, (4) infrastructure and connectivity, (5) movement of people, and (6) institutional and social integration. See https://www.adb.org/news/strong-asian-intraregional-trade-and-investment-improve-economic-resilience. For additional detail on the index, see also ADB, Asian Economic Integration Report 2017: The Era of Financial Interconnectedness: How Can Asia Strengthen Financial Resilience, available at https://www.adb.org/sites/default/files/publication/375196/aeir-2017.pdf.

As noted throughout this document, the private sector can serve as a key partner in tackling these issues. The private sector has substantial plans for expanding trade and investment in the region and has actively lobbied to put measures in place to support their objectives. Leveraging private-sector support through PPPs and other investment structures will enable regional governments to implement needed upgrades in transportation, logistics, and trade facilitation to make the agri-food corridor model a success in the ESC and, eventually, throughout CARICOM.

Annex 1: Key Findings from Local Stakeholder Interviews

Logistics and Transportation

Agricultural production in the CARICOM region is largely informal, with many small-scale farmers and traders working with small volumes of goods. Lack of economies of scale leads to higher shipping costs and limited transport routes by sea and air, as the existing volumes do not justify dedicated shipping routes. In addition, shipping schedules are not aligned to harvest periods, leading to insufficient transport capacity when needed. Agricultural trade also competes with the cruise industry for port space, and many ports lack sufficient cold storage for perishables, such as fresh fruits and vegetables.

High logistics and transport costs within the region make it more cost-effective to import from or export to distant countries than neighboring countries in CARICOM. For example, trade between Barbados and Trinidad and Tobago can be more costly than shipping to the US, despite the distance and import duties. Similarly, some agribusinesses prefer to import inputs such as packaging materials from China despite the distance because similar products within the region cost more or do not meet quality standards. Exporters in Suriname ship fresh produce to Europe instead of CARICOM because of the lower cost, ease of doing business, and higher demand as compared to the relatively small CARICOM market.

Sample Transport Costs

Grains:

- Guyana – Suriname: USD 2500/20' container
- Guyana – Barbados: USD 3100/20' container
- Guyana – Rio de Janeiro: USD 1200/20' container (following a Brazilian tax break in 2019)

Perishables:

- Suriname – Aruba: USD 5000/40' reefer container (rate from Maersk; transit time about 20 days)

To establish sustainable agri-food corridors in the ESC, participating member states will need to achieve economies of scale in shipments and invest in the infrastructure needed to get agricultural products to market. The following sections outline key parameters for the development of logistics hubs, transportation routes, and port infrastructure to support the efficient movement of commodities selected for the agri-food corridors.

Logistics Hubs

To achieve levels of trade sufficient to sustain regional agri-food corridors, increasing production alone is not enough. Agricultural goods must also be effectively consolidated and packaged for export. To this end, CARICOM member states should establish logistics hubs that can serve as aggregation points for agricultural goods, focusing initially on the specific commodities selected for the agri-food corridors. Logistics hubs provide a variety of services, including washing, processing (where warranted), packaging, crating, and loading products into containers for shipment. These facilities can

also facilitate product traceability systems and have ties to plant protection services and Customs[24] to smooth the export process.

Logistics hubs could be structured as public-private partnerships (PPPs) between member state governments and the private sector, including leveraging existing privately-owned facilities. A number of facilities exist in each of the four focus countries that currently provide a subset of these services and could be integrated to create a full-service logistics hub. For example, the Moruga Agro-Processing Facility in Trinidad and Tobago provides space for agro-processing businesses to scale to industrial operations, whereas the Piarco Packinghouse provides washing, packing, and temporary storage for fresh produce from farms certified by the National Agricultural Marketing and Development Corporation (NAMDEVCO). Stakeholders in Barbados referenced approximately 20 existing or planned packing houses in the country as well as an industrial park that is currently under development. Guyana has one packing and storage facility in Georgetown that is certified by Trinidad and Tobago, Barbados, Antigua, and St. Lucia, and the Government of Guyana (GoG) plans to open 11 new regional processing and packaging facilities across the country by 2025. Although there are no existing logistics facilities in Suriname, plans are underway to build a frozen food facility in Saramaca with funding from the Netherlands and a post-harvest facility in Paramaribo with support from the FAO. In addition, food terminals, such as the planned facilities between Trinidad and Tobago-St. Vincent (in Trinidad and Tobago) and Guyana-Barbados (in Barbados), will serve as a one-stop facility for processing and packaging fresh produce for bilateral agricultural trade and can readily serve as logistics hubs for specific commodities once operational.

The logistics hubs should have sufficient dry and cold storage and work with a network of storage facilities from farm to port to ensure the integrity of the cold chain and reduce post-harvest losses. Compared to the US, which has 100 percent cold chain integrity, Caribbean producers and exporters currently cannot guarantee the product from supplier to consumer. For example, stakeholders in Guyana estimated that up to half of the product is lost between farm and port due to lack of a processing facility or cold storage along the value chain. Nonetheless, public and private storage facilities exist in each country and could be better leveraged to support agricultural trade. For purposes of the agri-food corridors, adequate storage facilities both at the logistics hub and at points from farm to port should be identified or built to ensure the quality and competitiveness of regional agricultural products.

The logistics hubs should also be conveniently located for access to the port and airport, along efficient transport corridors linked to farms, processing facilities, and warehouses. At present, high costs and post-harvest losses attributable to interior transport pose a significant challenge to agricultural trade, particularly in Guyana and Suriname where products must travel long distances to port. In smaller island nations such as Barbados and Trinidad and Tobago, existing facilities are already optimally located near the port and airport. For example, the Piarco Packinghouse in Trinidad and Tobago is convenient for both air and maritime exporting, as it is strategically located close to the airport and major seaports. Larger countries such as Guyana and Suriname should establish multiple logistics hubs distributed throughout the country in places convenient to primary production zones, port, and airports. The 11 facilities currently under development in Guyana will include one facility in each province. Investments in upgrading road infrastructure and inland river ferry service should be designed to facilitate access to the new logistics hubs and transportation from hub to the port and airport.

[24] Throughout this report, the term “Customs” is used to denote the government department or division responsible for implementation of trade policy, trade revenue collection, and border security including the Customs and Excise Department in Barbados, the Guyana Revenue Authority in Guyana, the Tax and Customs Administration in Suriname, and the Customs and Excise Division in Trinidad and Tobago.

Critically, logistics hubs serve as centers for aggregation, enabling products from different traders to be consolidated before being reloaded onto shipping liners, smaller vessels, or aircraft for transport to regional markets. Most shipping companies in the region offer only Full-Container-Load (FCL) services. In the absence of aggregation, exporters must pay for a full container or opt for airfreight shipment, both of which elevate transportation costs considerably. Aggregation services are particularly vital to enable small and medium-sized firms to participate in regional trade by bundling their shipments with other firms to achieve economies of scale and lower overall costs.

Existing aggregation services are primarily provided by port operators and airlines. In Guyana, rice is consolidated into containers by John Fernandes, which operates both the port terminal where consolidation occurs and the transportation services that carry the rice via river from farms in the interior. Some airlines, such as Amerijet and Laparken, also offer consolidation services to enable traders to access the lower airfreight rates applicable to higher volumes.[25] These service providers could be integrated into the operations of the logistics hubs such as through maintaining an office and staff at the facility to consolidate cargo directly into containers for export.

Even with product specialization and aggregation, most shipments within the region will not achieve the volume to fill an entire 20' shipping container, and destination markets may not need full container loads to meet domestic demand. Less-than-Container-Load (LCL) service is thus vital to enabling intra-regional trade, particularly for perishables, which must be shipped in smaller volumes more frequently.[26] For example, fish and shrimp could be imported in large quantities from Suriname to Barbados, but the small size of the Barbados population makes full container shipments of fresh seafood undesirable. The unwillingness of suppliers to ship LCL quantities has also prevented regional sourcing of bananas and yoghurt by supermarket chains.

The absence of aggregation services and weak demand for intra-regional transportation has made LCL service rare. Freight forwarders typically do not have training or expertise in catering to LCL cargo, and stakeholders suggested that embracing LCL will require a mindset shift from 100 percent containerized cargo to efficient use of LCL. Tropical Shipping recently piloted an LCL service in St. Lucia using a warehouse to consolidate dry cargo in 20' and 40' containers. Based on the success of the pilot, Tropical Shipping will now expand its LCL service in the region, and some smaller players and European-based players have also expressed interest in increasing LCL cargo. Member states participating in the agri-food corridors should work with shipping companies to introduce new LCL services to serve the logistics hubs using the St. Lucia pilot as a model. Member states governments should consider providing business incentives to shipping companies and consolidation services that cater to LCL shipment. It may also be beneficial to explore the use of smaller 10' containers for dry and reefer LCL cargo instead of 20' or 40' containers.

Intra-Regional Transport Services

Intra-regional Caribbean maritime trade relies on a hub and spoke system that focuses on key container seaports at the global, regional, and sub-regional levels.[27] Shipping liner services, which transport large, containerized goods, operate fixed regular shipping routes in the region.[28] Some of these routes consist of transshipment services that call at major

[25] Cargo charges have a minimum fee plus charges based on weight, with larger volumes charged at a lower per lb. weight.

[26] FCL and LCL have different cost structures. FCL cargo is priced per container, whereas LCL charges are based on weight per measure. While LCL rates are frequently more expensive, they are far more cost-effective for small-scale traders than paying for an entire container.

[27] Ibraham Ajagunna and Pinnock Fritz, *The Caribbean Maritime Transportation Sector: Achieving Sustainability through Efficiency,* Caribbean Paper No. 13 (Ontario, Canada: The Centre for International Governance Innovation Caribbean, 2012),

[28] Florida-based shipping liners operate fixed schedule in the Caribbean on a seven-day rotation. See Intra-ACP APP (2016), p. 106.

Caribbean ports in the Bahamas and Jamaica merely as way-stations along a global transport route.[29] Other routes supply Caribbean imports via sub-regional hubs in the Bahamas, Jamaica, Saint Lucia, and Trinidad and Tobago (see Table 3). These major routes are served by global shipping companies (such as CMA-CGA, Mediterranean Shipping Company (MSC), Maersk, Zim, Compañía Sud Americana de Vapores S.A. (CSAV), and Geest) as well as Florida-based shipping companies that specialize in US-Caribbean trade (Crowley Maritime, Seaboard Marine, Tropical Shipping, and King Ocean). Some shipping lines (e.g., Crowley and CMA-CGM) now bypass the main global transshipment ports such as Kingston to avoid delays and instead use secondary sub-regional ports in Barbados and St. Thomas.

Regional hubs then service smaller ports via shipping liners, Caribbean feeder services (e.g., CFS and X-Press feeders), or schooner services (also known as tramp services), which cater to bulk and breakbulk cargo using boxes, crates, or pallets. These smaller vessels operate on demand, making them less reliable than shipping liners but competitive in terms of overall cost.[30] These vessels have lower total operating costs because of reduced maintenance, insurance, and harbor fees. Schooner pricing is based per unit, not weight, thus over-stuffing of units tends to result in substantial product losses.

Table 1: Classification of CARICOM Ports

Ports	Global Hub	Sub-Regional Hub	Service
Antigua and Barbuda, Port of St. John			*
Bahamas, Freeport	*		
Bahamas, Port of Nassau		*	
Barbados, Port of Bridgetown			*
Belize, Port of Belize			*
Dominica, Port of Roseau			*
Grenada, Port of St. George's			*
Guyana, Port of Georgetown			*
Jamaica, Port of Kingston	*		
Jamaica, Kingston Wharves Ltd.		*	
Montserrat, Port of Plymouth			*
Saint Lucia, Port of Castries			*
Saint Lucia, Port of Vieux Fort		*	

[29] Due to berthing delays, some shipping companies have begun diverting to smaller regional ports for transshipment stops, including those in Barbados and St. Thomas (Crowley) and St. Martin (CMA-CGM). See Intra-ACP APP (2016), p.107.

[30] Schooner/tramp services have no fixed schedules, but prior studies have found that most operate weekly.

Ports	Global Hub	Sub-Regional Hub	Service
St. Kitts and Nevis, Port of Basseterre			*
St. Vincent and the Grenadines, Port of Campden Park			*
St. Vincent and the Grenadines, Port of Kingstown			*
Suriname, Port of Paramaribo			*
Trinidad and Tobago, Port of Port of Spain (includes CARICOM Wharves)		*	

Source: Aiagunna and Pinnock (2012).

Of the sub-regional port hubs, Port of Spain serves the Eastern and South Caribbean states (including Barbados and the OECS) and the South American coast (Guyana and Suriname). Other sub-regional hubs include Jamaica (serving the Central Caribbean region) and the Bahamas (Northeastern Caribbean region). These routes are not exclusive, and the catchment areas for each hub overlap. For example, smaller ports in Guyana, Suriname, and Barbados are served by multiple feeder routes emanating from the US, Jamaica, and Trinidad and Tobago.[31]

Table 2: Known Maritime Shipping Routes for Intra-Regional Service in the ESC

Shipping Company	Route	Timeframe/ Frequency
ZIM	Jamaica-Dominican Republic-Barbados-Trinidad & Tobago-Guyana-Jamaica	9 days; 1 vessel/week
King Ocean	Trinidad & Tobago-Guyana-Suriname-Trinidad & Tobago	4 days; 1 vessel/week
Tropical Shipping	Barbados-Guyana-Suriname-Trinidad & Tobago-Barbados	7 days; 1 vessel/week
CGM-CMA	Jamaica-Dominican Republic-Trinidad & Tobago-Guyana-Suriname-Jamaica	1 vessel/week
	Trinidad & Tobago-Guyana	1 vessel/week
	Guyana-Suriname	1 vessel/week
	Trinidad & Tobago-Grenada-Dominica	1 vessel/week
Caribbean Feeder Services	Trinidad & Tobago or Jamaica to Antigua, Barbados, Guyana, and Suriname	Weekly

Source: Stakeholder interviews.

[31] The EU also runs shipping loops that stop in Barbados, while the EU and a few other smaller ports run rotations through Suriname and Guyana. See Intra-ACP APP (2016), p.137.

Overall service within the region has decreased over time as shipping lines sought to consolidate in the wake of the 2008 global financial crisis.[32] The recent expansion of the Panama Canal resulted in a further 12.5 percent decline in intra-regional connectivity due to the increased use of larger ships that prioritize fewer calls at only the largest and most convenient ports, as well as the lack of infrastructure to accommodate these larger vessels at some of the smaller ports in the region. For example, the shallow draft at the ports in Guyana and Suriname can only accommodate smaller vessels, many of which have been diverted to Europe due to the war in Ukraine. The relatively small number of shipping services along sub-regional routes creates localized monopolies that drive up shipping costs. Prior studies have found that competition is a larger factor in overall shipping costs than the distance traveled.[33]

The transport distance relative to the small market size of many Caribbean countries makes them undesirable destinations for many maritime shipping companies, which prefer to focus on more profitable regional and global routes.[34]

Table 3: Liner Services by CARICOM port

	MSC	Tropical Shipping	Crowley	CMA - CGM	CFS	King Ocean	Geest	Maersk	Zim	Seaboard Marine	CSAV
Antigua and Barbuda, Port of St. John		X								X	
Bahamas, Freeport											
Bahamas, Port of Nassau	X	X									
Barbados, Port of Bridgetown	X	X	X	X	X	X	X			X	
Belize, Port of Belize					X						
Dominica, Port of Roseau		X		X		X	X				
Grenada, Port of St. George's		X				X	X				
Guyana, Port of Georgetown	X	X		X		X			X	X	X
Jamaica, Port of Kingston											
Montserrat, Port of Plymouth											
Saint Lucia, Port of Castries											
Saint Lucia, Port of Vieux Fort		X	X	X		X	X				
St. Kitts and Nevis, Port of Basseterre											
St. Vincent and the Grenadines, Port of Campden Park											
St. Vincent and the Grenadines, Port of Kingstown		X	X				X				
Suriname, Port of Paramaribo	X		X	X		X		X	X	X	
Trinidad and Tobago, Port of Port of Spain	X	X	X	X	X	X		X		X	

Source: Intra-ACP APP (20160.

[32] By contrast, during the COVID-19 pandemic, shipping lines did not experience much of a dip in demand, whereas other industries, including agribusinesses, experienced significant drops in sales (some as much as 50 percent) that only recovered in 2022.

[33] See Intra-ACP APP (2016), p.109.

[34] Unsurprisingly, the countries whose ports serve as global and sub-regional hubs (as indicated in Table 3) also score highest on the UNCTAD Liner Shipping Connectivity Index (LSCI).

By contrast, airfreight is quite profitable for airlines, but the cost of these services puts them effectively out of reach for most traders. Approximately 15 cargo airlines service the airport in Port of Spain. Imported goods are then transferred to smaller capacity planes for distribution throughout the ESC. Caribbean Airlines, American Airlines, and Amerijet also fly to Barbados and Guyana, while the airport in Paramaribo is served by Suriname Airways, Laparkan, and Telesis. In the absence of airfreight flights, trade cargo typically must travel in smaller loads in the cargo hold of passenger airlines. The passenger service for these flights takes precedence over cargo shipments, thus cargo shipments cannot be guaranteed on any given flight until the needs for passenger baggage have been ascertained.

Since most Caribbean nations are net importers, the trade imbalance results in import containers and plane cargo holds being forced to return empty. These costs are passed on to the exporter. For example, 60 percent of import containers arriving in Georgetown depart empty. This situation is exacerbated by a rule that containers cannot stay in the country for more than 90 days. Thus, when a container is needed, the exporter may have to pay the fee to requisition it, although stakeholders suggested that this occurs only rarely. Exporters using airfreight often face additional charges related to the roundtrip cost of the flight if the airline does not have a client for the return trip.

Multiple stakeholders noted that the existing shipping companies have the resources to deploy new vessels on additional routes but do not do so because of the lack of sufficient volumes to make these services profitable. If production volumes increase and trade barriers are removed, the private sector has the funding and capacity to increase service throughout the region. For example, airfreight has a wide profit margin for the airlines as compared to passenger traffic and is seen as an avenue for growth if demand increases. The objective of the agri-food corridors is to increase production and regional demand for specific commodities to create the business case for profitable intra-regional transportation services.

To facilitate private sector investment in new transportation services, member states participating in the agri-food corridors should work with one another and the private sector to design designated product routes based on the origin and destination markets of the products selected for the agri-food corridors. A study should be conducted to determine needs in terms of type(s) of vessels or aircraft, onboard equipment (e.g., chilled storage), and optimal schedules aligned with fluctuating volumes (i.e., at harvest for produce or in advance of the planting season for inputs such as fertilizer). A forthcoming CDB study is expected to provide in-depth analysis of existing services, ships, port capacity, and potential routes for expansion, which can be used to inform the needs of the commodities selected for the agri-food corridors.

New intra-regional trade service lines should be designed to coordinate with import distribution routes to take advantage of empty containers and cargo holds to the extent schedules, vessel types, and equipment align.

Vessel and route selection should also consider how transportation during product harvest periods can be aligned with the availability of cargo space and port berths during the tourist season. Cargo shipments compete for port berthing space with the cruise ship industry. Passenger service takes precedence in docking, which leads to lower overall availability of berths between November and April. New intra-regional transport routes for agricultural trade should be designed to run with greater frequency during the tourism off-season (e.g., seasonal volumes of Guyanese rice increase from March to June and September to January) or to use different wharves to avoid disruptions in unloading cargo (e.g., the dedicated CARICOM wharves in Trinidad and Tobago that cater to smaller inter-island vessels). By contrast, combined passenger-cargo transport methods, such as mixed-use ferries and passenger aircraft will travel more frequently during the November to April tourism season.

The types of vessels needed for the new intra-regional transport services will depend on the products being transported and the size of the destination market. Given the need for refrigeration, perishable goods should be shipped in “reefer” (refrigerated) containers on shipping liners or by airfreight. The reliance of smaller markets such as the OECS on schooners to carry all goods, including both perishable and nonperishable agricultural products, currently results in high

losses.[35] Non-perishable bulk goods such as grains and fertilizer can be transported by via container or in breakbulk quantities in smaller vessels, such as schooners, cargo ferries, or mixed passenger/cargo ferries.

For airfreight, numerous stakeholders pointed to the need for different aircraft with more efficient fuel consumption for multiple take-offs and landings. For example, larger aircraft such as Boeing 767s or Airbus 330/200s could accommodate more passengers and provide expanded cargo capacity.

Once desired routes and transportation methods have been identified, a business model for each of the proposed transport services should be developed based on a cost-benefit analysis to ensure the routes will be financially viable. Government officials should work with the private sector, including shipping lines, smaller vessel owners, and airlines, to develop the proposals and get commitments from potential service providers for trial periods to test these services. Subsidies or other government incentives may be needed to encourage investment and ensure the sustainability of intra-regional transport services, particularly during the initial pilot phase when regional agricultural production levels have

Design Considerations for Intra-Regional Transportation Services

Although the exact routes will depend on the commodities selected for the agri-food corridors and the countries participating in the project, the following high-priority trade routes were suggested by stakeholders:

- Develop a service line between Guyana and Barbados to support the new food terminal in Bridgetown.
- Revive pre-existing transport routes from Guyana and Suriname to the rest of CARICOM to handle anticipated increases in production.
- Make better use of existing capacity, such as on the weekly Laparkan roundtrip flight from Miami via Trinidad, Guyana, and Suriname.
- Leverage opportunities for growth through known plans for service expansion, such as the anticipated introduction of two new airlines (Badgas Caro and Fly Always) in Suriname.

Options and Parameters:

- Explore new types of airfreight planes with more efficient fuel consumption for the multiple take-offs and landings required to service the region profitably.
- Work with airlines to explore the possibility of employing larger airplanes such as A330s or 777s that accommodate more passengers and cargo.
- Ensure any legal obstacles to public-private partnerships in transportation services are removed or taken into account in selecting service providers.
- Consider special incentives for small businesses and new market entrants to provide economic opportunity and increase competition in the industry.
- Evaluate lessons learned from airfreight and maritime transport services that have since been discontinued (e.g., LIAT) to identify critical success factors for the new service lines.

[35] Intra-ACP APP (2016), p. 120 ("As far as the inter-island schooner network is concerned, the reality that trade in a wide range of perishable products, including fruits and vegetables, meat, fish, poultry, and dairy products, appears to be dependent on it, raises the imperative of providing a dedicated inter-island refrigerated shipping service in order to maintain cold chain integrity along these service routes.").

not yet increased. Alternatively, participating member states may wish to develop intra-regional transportation services as a CARICOM-funded regional public transport system that is managed and operated by a private sector partner.

Maritime Port and Airport Capacity

To support the effective roll-out of new intra-regional transportation service lines to support the agri-food corridors, participating member states should evaluate existing maritime port and airport infrastructure based on the specific volumes and types of goods envisioned under the plan for product specialization for each country. For some countries, a focus on airport transport capacity may be a higher priority; for others, maritime transport capacity.

Inadequate maritime port infrastructure, in terms of berthing capacity, cargo handling equipment, draft, and storage, has significant bearing on the time and cost of trade. In CARICOM, where most nations are islands, maritime trade is the primary gateway for imported goods. Yet the 2016 Intra-ACP APP study identified port infrastructure as a key constraint to intra-regional trade and highlighted the need for investment in infrastructure upgrades.[36]

CARICOM ports differ in whether they are optimized for processing container traffic, breakbulk cargoes, or both. Although they handle only a fraction of the volume of the largest regional ports in Jamaica and the Bahamas, all four focus countries for this study rank in the top six in terms of the annual volume of containers processed (also known as "throughput") (see Table 4). Nonetheless, low berthing capacity can result in long delays waiting for space at the port. Schooner vessels have lower priority, which can at times result in being asked to vacate the pier before all cargo has been on- or off-loaded. Trinidad and Tobago has alleviated this constraint through the establishment of dedicated CARICOM wharves that cater to smaller inter-island vessels.

Table 4: Type and Size of Port Facilities in Barbados, Trinidad and Tobago, Guyana, and Suriname

Country, Ports	Type of Facility	Cargo Handled	Total Berths	Terminal Area (ha)	Handling Capacity (TEU per annum)
Barbados, Port of Bridgetown	Containers/ Multipurpose	Container Ro-Ro General Cargo Cruise	5	11.0	86,000
Guyana, Port of Georgetown	Breakbulk	Container Ro-Ro Bulk Breakbulk	5	21.2	53,000
Suriname, Port of Paramaribo	Breakbulk	Breakbulk Container Dry Bulk Liquid Bulk	3	18.0	105,000
Trinidad and Tobago, Port of Port of Spain	Container/ Multipurpose	Container Breakbulk Dry Bulk Liquid Bulk	8	48.1	298,000

[36] Intra-ACP APP (2016).

Country, Ports	Type of Facility	Cargo Handled	Total Berths	Terminal Area (ha)	Handling Capacity (TEU per annum)
		Ro-Ro LCL Barrels			
Trinidad and Tobago, CARICOM Wharves	General Cargo	Breakbulk Dry Bulk Ro-Ro	2	-	-

Source: Intra-ACP APP (2016) (compiled and abbreviated).

In Guyana and Suriname, the shallow water depth (or draft) at the port limits the size of vessels that can dock. At only seven meters draft, the port in Suriname is severely restricted in the type of vessels that can be accommodated. In Guyana, the eight-meter draft has resulted in 50 percent higher freight costs in Guyana than in Trinidad and Tobago. Plans to dredge the port have been hard to engineer without significant ongoing maintenance costs, and the government and private sector have been unable to decide on a reasonable, feasible, affordable plan. A new island is being built on the Demerara River for the oil and gas sector that will potentially become a commercial deep sea port in the future.

Cargo handling equipment for containers in Barbados and Trinidad and Tobago is largely viewed as sufficient and effective for the current volume of trade, although the 2016 Intra-ACP APP study noted the need for new cranes with greater height and reach in the port at Port of Spain.[37] Both Guyana and Suriname lack shore-to-ship cranes to load and offload large vessels and are thus reliant on vessels equipped with on-board cranes. In Guyana, some terminal operators are in the process of acquiring shore cranes with 100-ton capacity, hopefully to be deployed by the end of the year. CMA-CGM is also investing in port cranes and new vessels. The cargo of smaller vessels is typically transported via forklift and packed in boxes, crates, or bags, which can result in physical damage to the contents, particularly for delicate products such as fresh fruits and vegetables.

In terms of storage, the ports in Barbados, Trinidad and Tobago, and Suriname have special areas with reefer plugs to supply power for cold storage via refrigerated (reefer) containers, which is considered adequate for the safe storage of perishable goods during transit and customs processing. For dry goods, the Barbados Port Authority offers a dry warehouse off-site behind the headquarters building, and a new warehouse will be built soon within the port premises. In Guyana, private sector operators offer off-site storage for dry goods, but chilled warehouse space is not yet available due to the cost. John Fernandes operates inland yards and dry terminals, including bonded and free warehouses catering to grains and fertilizer. Pas Cargo and the Guyana National Shipping Corporation (GNSC) also operate warehouses, and both are looking to expand their storage capacity, including cold storage.

Warehousing capacity for the storage of breakbulk cargo has been found to be insufficient in most CARICOM ports. Schooner cargo, which is transported without cold facilities onboard, is typically transferred to an open shed at the port.[38] In the absence of a cold chain, processing time is essential to reduce losses to perishable goods transported by schooner. The open sheds that serve as temporary storage facilities can become full, resulting in rejection of some

[37] See Intra-ACP APP (2016), p. 144.

[38] Id. The frequency with which goods are stored in open sheds at port could not be verified.

shipments when there is no place for the vessel to off-load the cargo. Goods are stored in the open, at times overnight, which makes them vulnerable to weather, pests, and theft.

Table 5: CARICOM Port Facilities (including cold storage and warehousing for dry goods)

Country, Port	Container Storage Area	Warehouse Storage Area	Reefer Plugs
Antigua and Barbuda, Port of St. John	-	15,625m^2	-
Bahamas, Freeport	57 ha	46,468 sq. ft.	750
Bahamas, Port of Nassau	12.9 ha	25,000 sq. ft.	72
Barbados, Port of Bridgetown	4.7 ha	1.6 ha	96
Belize, Port of Belize	50,000 m^2	21,000 sq. ft.	24
Dominica, Port of Roseau	47,348m^2	16,215 m^2	96
Grenada, Port of St. George's	2.0 ha	49,207 sq. ft.	25
Guyana, Port of Georgetown	62,087 m^2	41,067 m^2	-
Jamaica, Port of Kingston	-	465,500 m^2	744
Saint Lucia, Port of Castries	1.6 ha	30, 480 m^2	46
Saint Lucia, Port of Vieux Fort	-	-	40
St. Kitts and Nevis, Port of Basseterre	6,066 m^2	93 m^2	21
St. Vincent and the Grenadines, Port of Campden Park	-	-	12
St. Vincent and the Grenadines, Port of Kingstown	-	-	-
Suriname, Port of Paramaribo	0.9 ha	-	119
Trinidad and Tobago, Port of Port of Spain	21 ha	2.2 ha	116
Trinidad and Tobago, CARICOM Wharves	-	440 m^2	-

Source: Intra-ACP APP (2016), p.146-147.

Airport capacity varies considerably across the four focus countries. The airport in Trinidad and Tobago has tremendous capacity for growth. The Government of Trinidad and Tobago (GoTT) issued an Expression of Interest in November 2022 for investors to further develop the airport, including additional storage and warehousing to supplement the existing 245,000 square foot dry storage facility. In addition, Laparkan may expand its headquarters to Trinidad and Tobago by 2026, including building more storage capacity in the south terminal focused on heavy cargo. Private companies currently operate additional cold storage facilities at the airport, including Swissport (14,651 sq ft) and Aviation Business Limited (3,500 cubic feet). By contrast, there is no cold storage at Grantley Adams International

Airport (GAIA) in Barbados, which hinders the ability of the airport to serve as a transshipment point. The Goddards Group operates a storage facility in the airport industrial area to support its airline catering services, including 2000 square feet of dry storage and cold storage capacity for space for two 40' chilled and two 40' frozen containers. In Guyana, the GoG constructed a cold storage facility at the airport in Georgetown with the capacity for one 20' and two 40' reefer containers, but electricity continues to be an issue. The Airport Authority stated that it has the potential increase storage by 150 percent and plans to build a packaging facility near the airport that can handle agricultural products and live animals.

Where existing infrastructure or equipment is lacking, governments should work with the private sector and development partners to develop a strategic plan for port upgrades. The strategic plan should take into consideration physical space and potential for growth. For example, the maritime port and airport in Trinidad and Tobago both have ample space to expand operations, whereas space constraints at the port in Georgetown will require more creative use of the existing land. While the evaluation of existing and needed port capacity will focus on the needs of the commodities under development for the agri-food corridors, upgrades should be designed with an eye to expanding service to additional commodities or sectors in the future. The Caribbean Development Bank (CDB) could assist in financing logistics hubs and port upgrades. Less-developed member states may also access funding through the CARICOM Development Fund (CDF). Private sector investment can also be leveraged through the use of a PPP or other private sector management structure. For example, the port in Kingston employs a private-sector concession to manage port operations, which could be used as a model for other maritime ports or airports in the region. Trinidad and Tobago and Barbados are both currently considering a similar approach, and the GoTT issued an RFQ last year for a terminal operator. Barbados is also exploring the use of a PPP for management of the airport.

Uniform Trade Procedures

When a vessel arrives at port, efficient clearance of goods is key to keeping costs low, preventing spoilage, and facilitating higher volumes of trade. The time, cost, and complexity of the procedures for processing shipments at the border has a direct impact on the competitiveness of traded goods. Infrastructure limitations, staffing constraints, and weak trade facilitation measures all contribute to increased costs and long delays at the border.

A survey of businesses in the region for the 2016 Intra-ACP APP study found that the time required to complete all customs-related procedures (from hiring broker to final completion of clearance) at CARICOM ports ranged from 1-2 hours (in Dominica and St. Kitts) to 5 days (Guyana). In addition, shipments spent anywhere from 24 hours to 2 weeks at port. Respondents noted that shipments from CARICOM countries often take longer to clear than those originating outside the region.[39] In recent interviews, the Guyana Customs Department reported that since the implementation of the new ASYCUDA system, the average processing time has declined to two days for products requiring validation checks and immediate processing for green channel (low-risk) declarations. By contrast, stakeholders in Trinidad and Tobago noted that long processing times persist, with one interviewee estimating that it takes roughly two weeks from the date of vessel arrival for containerized cargo to be cleared and delivered. Shipments that require physical inspection suffer even longer delays, the costs of which are passed on to the consignee. The impact of these constraints is particularly detrimental to perishables and time-sensitive products such as fertilizer.

[39] See Intra-ACP APP (2016).

The primary causes of customs-related delays include:

- Proliferation of border agencies and documentation requirements,
- Poor coordination and manual processing delays,
- Insufficient infrastructure/equipment,
- Lack of risk management systems and trusted trader programs,
- Lack of expedited processing for perishable goods, and
- Human resource capacity.

The World Trade Organization (WTO) Trade Facilitation Agreement (TFA) identifies internationally recognized trade facilitation measures in areas such as interagency cooperation, electronic processing, documentation, risk assessment, and expedited procedures for perishable goods. WTO Members notify the WTO of their commitments to implementing these measures and provide regular progress updates over time. The table below shows the current status of notification on TFA commitments by Trinidad and Tobago, Barbados, Guyana, and Suriname.[40] Many of these measures have been notified as Category C commitments, indicating reforms that will require technical and/or financial assistance to be implemented.

Table 6: Status of Select TFA Commitments for Barbados, Trinidad and Tobago, Guyana, and Suriname

	Trinidad & Tobago	Barbados	Guyana	Suriname[41]
WTO TFA Article	Status by category and implementation date			
Interagency cooperation				
8 Border agency cooperation	B 31 Dec 2023	B 31 Dec 2020	A C B→C 22 Feb 2027	C 31 Dec 2028
10.4 Single window	C 31 Dec 2023	C 31 Dec 2025	C 22 Feb 2022	C 31 Dec 2028
Electronic processing				
7.1 Pre-arrival processing	C 31 Dec 2020	A	A B C→B A/B/C→B 22 Feb 2020	C 31 Dec 2029
7.2 Electronic payment	C 31 Dec 2027	B 31 Dec 2021	A	C 31 Dec 2030
Documentation				
1.1 Publication	C 31 Dec 2027	C 31 Dec 2028	A	C 31 Dec 2028
1.2 Information available through internet	C 31 Dec 2027	C 31 Dec 2028	A	C 31 Dec 2028
10.1 Formalities and documentation requirements	A	C 31 Dec 2023	A	C 31 Dec 2028
10.3 Use of international standards	C	A	A	C

[40] All CARICOM members except for Haiti and Suriname have ratified the TFA.

[41] Suriname has not yet ratified the TFA but has established a National Trade Facilitation Committee.

	31 Dec 2023			31 Dec 2028
10.7 Common border procedures and uniform documentation requirements	**B**. 31 Dec 2023	**A**.	A **B**. 22 Feb 2020	**A**.
Risk management				
7.4 Risk management	**C**. 31 Dec 2027	**C**. 31 Dec 2024	**A**.	**C**. 31 Dec 2030
7.5 Post-clearance audit	**C**. 31 Dec 2027	**C**. 31 Dec 2027	**C**. 22 Feb 2023	**C**. 31 Dec 2030
7.7 Authorized operators	**C**. 31 Dec 2027	**C**. 31 Dec 2024	**C**. 22 Feb 2022	**C**. 31 Dec 2029
Expedited clearance				
7.8 Expedited shipments	**C**. 31 Dec 2027	**B**. 31 Dec 2020	**A**.	**C**. 31 Dec 2029
7.9 Perishable goods	**A**.	**A**.	A **C**. 22 Feb 2023	**C**. 31 Dec 2029

Source: WTO Trade Facilitation Database.

The following sections explore the current status of trade facilitation reforms in the four focus countries and outline actions participating member states can undertake to ensure the smooth operation of customs processing for the agri-food corridors.

Coordination Among Border Agencies

Importers and exporters must contend with a wide range of border agencies to clear their goods at port. These include Customs, which processes invoices, bills of lading, and import/export declarations, and the Ministry of Trade,[42] which issues import/export licenses and certificates of origin. Agricultural goods, including inputs such as fertilizer, must also be inspected by the Ministry of Agriculture's[43] plant protection division, which issues phytosanitary certificates for export, and the plant quarantine service, which inspects shipments at point of entry. These agencies often do not collaborate effectively, leading to redundancy in documentation and visits to multiple offices for separate administrative services. In Guyana and Suriname, stakeholders pointed to the plethora of regulatory agencies at the border as a key cause of processing delays.

Electronic systems can expedite processing by allowing multiple agencies to access information and documentation for any given shipment simultaneously. Most large Caribbean countries have adopted the Automated System for Customs Data (ASYCUDA), including Trinidad and Tobago, Barbados, Guyana, and Suriname. Trinidad and Tobago adopted ASYCUDA 4.2.2 in 2021 and is in the process of updating its modules. In Barbados, ASYCUDA World was implemented

[42] Throughout this report, the term "Ministry of Trade" is used to denote the national ministry responsible for regulation of trade, including the Ministry of Foreign Affairs and Foreign Trade in Barbados, the Ministry of Tourism, Industry and Commerce in Guyana, the Ministry of Economic Affairs, Entrepreneurship and Technological Innovation in Suriname, and the Ministry of Trade and Industry in Trinidad and Tobago.

[43] Throughout this report, the term "Ministry of Agriculture" is used to denote the national ministry responsible for regulation of the agricultural sector, including the Ministry of Agriculture and Food and Nutritional Security in Barbados, the Ministry of Agriculture in Guyana, the Ministry of Agriculture, Animal Husbandry and Fisheries in Suriname, and the Ministry of Agriculture, Land and Fisheries in Trinidad and Tobago.

in 2019, and stakeholders report that the process for submitting a manifest and releasing cargo now works smoothly. In Guyana, both the private sector and GoG expressed satisfaction with the significant improvements in customs processing since the implementation of ASYCUDA in 2020. While implementation of certain modules was interrupted by the COVID-19 pandemic, the availability of electronic submission of customs declarations allowed trade to continue. In Suriname, Customs continues to use a 2007 version of ASYCUDA, although a consultant from the United Nations Conference on Trade and Development (UNCTAD) is currently working with Customs to upgrade to the 2022 version. Some private sector stakeholders noted a reluctance by customs officers to use the system, which they perceive as often shut down or delayed.

TTBizLink Services

- e-Company Registration
- e-Export Permits & Licenses
- e-Certificate of Origin
- e-Maritime Serives
- e-Ports
- e-Goods Declaration
- e-Import Duty Concession
- e-Fiscal Incentives
- e-Work Permit

While customs departments have adopted ASYCUDA around much of the region, most other border agencies remain manual. For example, in Trinidad and Tobago, the Ministry of Trade and Industry implements a business portal known as TTBizLink, which offers a range of e-services to traders (see box), and all border agencies can give approvals through the ASYCUDA online portal.[44] However, in practice, some agencies, including the Pesticide Control Unit in the Ministry of Health and the Plant Quarantine division, are not yet connected to the system. The resulting clearance delays generate extra demurrage and storage charges on both inbound and outbound cargo but are particularly difficult for imported goods. In Guyana, the processing of import and export licenses, as well as certifications from the National Plant Protection Organization (NPPO), the Government Analyst – Food and Drug Department (GA-FDD), and the Pesticides And Toxic Chemicals Control Board (PTCCB), are still manual. Paper documents must be collected in person and delivered to Customs by hand. Stakeholders voiced similar concerns in Barbados, noting that failure to connect relevant government agencies to the ASYCUDA system causes import clearance delays of up to four days from arrival in port to delivery at the final destination.

Agencies also typically issue their own paperwork, which requires traders to fill out the same information repeatedly for each border agency. This siloed approach contributes to clearance delays and makes it more difficult to share information for the purpose of integrated risk assessment.

The Single Window System

A single window model for border processing addresses these challenges by allowing traders to submit required documentation for all border agencies via a single portal using standardized forms. Whether implemented through a common kiosk at the port or an electronic system, the single window system reduces the need for traders to transport documentation by hand between different physical locations. The benefits of a single window system are contingent on cooperation between border agencies behind the scenes. The use of a common electronic system, such as ASYCUDA, and common data standards, such as the internationally recognized Harmonized System of Commodity Description and Coding (HS Codes), can facilitate this cooperation. However, where internet connectivity hinders the use of electronic processing, manual documentation can also be used.

None of the four focus countries has yet to establish a single window, although Trinidad and Tobago, Barbados, and Guyana have all committed to complete these reforms within the next few years, as shown by their WTO TFA

[44] See https://www/ttbizlink.gov.tt/tntcmn.

commitments in Table 7 below. In Guyana, the ASYCUDA Single Window system is under development, including the launch of a tender to select a provider to implement it. The GoG aims to have all processes automated within the next two years for 13 regulatory agencies, including PTCCB and other agencies dealing in food and perishables. In Barbados, UNCTAD has provided technical support for the adoption of the ASYCUDA Single Window system, which is expected to be fully launched by 2025 and increase customs revenue by 10 percent.[45] In Trinidad and Tobago, plans for implementing a single window are ongoing but have faced hurdles, such as lack of staff and internet connectivity. By contrast, Suriname is currently focusing on upgrading to the 2022 version of ASYCUDA as a precursor to further trade facilitation reforms and has not begun the process for establishing a single window.

Table 7: WTP TFA Status of Single Window for Barbados, Trinidad and Tobago, Guyana, and Suriname

	Trinidad & Tobago	Barbados	Guyana	Suriname
WTO TFA Article	*Status by category and implementation date*			
10.4 Single window	C 31 Dec 2023	C 31 Dec 2025	C 22 Feb 2022	C 31 Dec 2028

Source: WTO Trade Facilitation Database.

As the owner of the ASYCUDA system, UNCTAD provides technical advisory services to governments worldwide to support its implementation, including the ASYCUDA Single Window system. CARICOM governments should work with UNCTAD and other development partners to continue implementation of the single window, as well as the roll-out of ASYCUDA to all border agencies. For example, in Guyana, the Inter-American Development Bank (IDB) is currently supporting roll-out of the single window. A single window can be fully financed and implemented by the government or can be designed as a public-private partnership or concession. For example, the single window in Guyana will be operated by a private sector provider under government contract. To achieve consistency, technical assistance could be structured and funded at the regional level, such as housing a team of UNCTAD consultants at the CARICOM secretariat to support member states with implementation of the single window across the region.

Paperwork Interoperability

The single window system also encourages the adoption of streamlined forms at the domestic and regional levels. Domestically, the use of common documentation allows data applicable to multiple border agencies to be recorded once by the trader and accessed by all relevant authorities. In addition to reducing paperwork, this approach helps identify and abolish duplicative licenses.

The adoption of common forms requires effective inter-ministerial cooperation, which can be effected through existing dialogue mechanisms. For example, Barbados has an inter-ministerial task force, and other agencies (such as the Ministry of Agriculture and PTCCB in Guyana) hold regular bilateral discussions that could be expanded to include all border agencies. Private sector input on proposed reforms should be solicited through public-private consultation, such as the Trinidad and Tobago Joint Customs Consultative Committee, through which Customs meets monthly with private sector representatives to discuss challenges.

[45] See UNCTAD, Annual Report 2021/ASYCUDA Single Window, available at https://unctad.org/annual-report-2021/asycuda.

At the regional level, the adoption of common paperwork standards in terms of syntax, terminology, and product codes can facilitate intra-regional trade by providing a common language for coordination between bilateral border agencies. CARICOM has adopted a harmonized customs data platform known as the Electronic Management Manifest ASYCUDA (EMMA), which allows traders to submit advance cargo information using standardized data and facilitates integrated risk assessment and intelligence sharing between member states. There is still considerable need for education regarding the benefits of EMMA and financial and technical assistance for its roll-out. For example, EMMA has not yet been implemented in Guyana because of the lack of supporting laws and a national framework for information sharing. In Trinidad and Tobago, Customs questioned the need for EMMA and has declined to implement it.

Domestic-level discussions regarding streamlining documentation should aim to align forms with the EMMA system, and governments should participate in bilateral and regional knowledge-sharing mechanisms to promote coordination. For example, regular programs to second border agency officials between countries would build relationships and encourage the adoption of common border protocols. Existing regional dialogue forums, such as the Caribbean Coordinating Group of Pesticides, should also be used to discuss and adopt common import/export documentation for the region.

Risk Management Systems

Applying the same inspection protocol to all shipments is slow, laborious, and costly whether using physical inspections or less intrusive methods such as container scanning. Throughout the four focus countries, the availability of scanner equipment was repeatedly cited as a chief constraint to cross-border trade. Guyana has only one X-ray machine, which is located in a congested section of the Georgetown port. Shipping companies charge GYD 8,000 (USD 38.28) per hour for trucks waiting to access the scanner, and scanning delays can result in missing the vessel. In Trinidad and Tobago, Customs continues to require scanning for 100 percent of incoming containers. Although the US donated four scanning machines to manage the workload, many have apparently broken down, causing delays in processing. The Barbados Customs Department acknowledged that the focus on illegal trade and drugs results in a policy of scanning all cargo, despite the lack of sufficient human resources at the port and airport and the availability of only one scanner. In Suriname, only one of two scanners is functioning, and the Government of Suriname lacks the funds to repair the other.

Risk-based inspection protocols reduce the need for physical inspection of every shipment, which increases the efficiency of border processing. Under the WTO Sanitary and Phytosanitary (SPS) Agreement, when SPS measures are based on recognized international standards, risk assessment is not necessary as it is incorporated into the standards. For example, the International Plant Protection Convention (IPPC) guidelines for pest risk analysis (PRA) dictate when to apply control measures. Similarly, the Hazard Analysis Critical Control Point (HACCP) system provides internationally recognized risk management for food safety. Where other standards are employed, countries should adopt a risk management system based on the estimated magnitude of the potential impact and the likelihood of the risk occurring.

Risk management systems concentrate inspection resources on high-risk shipments and random controls while expediting processing for low-risk cargo. Border agencies may apply their own criteria for assessing risk or may adopt a common system of integrated risk management. Risk management allows goods to be sorted into different processing lanes, often using a stop-light system of green, yellow, and red risk levels.

Among the four focus countries, Barbados Customs employs an advanced risk-based inspection system that directs cargo into green, blue, yellow, and red channels for customs processing, which could be used as a model for the region. Customs reported that clearance times have decreased due to the higher use of the green channel. According to its WTO TFA commitments, Guyana had implemented a risk management system before it ratified the Trade Facilitation Agreement in 2015. Customs reportedly employs a green channel that enables immediate processing for goods deemed low-risk. However, this assessment was disputed by traders, who complained that the lack of a good risk management

program results in too much time spent dealing with Customs. Suriname has not yet implemented a channel system for risk management, and numerous stakeholders mentioned concerns regarding border security protocols, including a USD 400 per container fee to confirm cargo is free of narcotics, even when physical inspection is not always conducted.

In addition, countries may offer Trusted Trader programs, under which traders can qualify for simplified procedures based on recognition of their own internal control systems, or Authorized Economic Operator (AEO) programs, which provide additional benefits such as reduced inspection and pre-clearance of goods. These systems utilize post-clearance audits for periodic verification of the trader's ongoing compliance and trustworthiness. Both types of programs are voluntary and usually come about through private sector advocacy.

Customs in Trinidad and Tobago is currently implementing a voluntary compliance program for local importers as a forerunner of an anticipated Trusted Trader Program. Authorities aim to launch the Trusted Trader Program by the end of 2023. Similarly, Barbados launched a voluntary pilot project for trusted traders in 2019 consisting of 30 operators. Although implementation will take time due to the various agencies involved, Customs hopes to have the full Trusted Trade Program operational by the end of 2023. The Guyana Revenue Authority is now in the process of finalizing a partnership with the Ministry of Finance to establish an AEO program, after which traders who meet certain requirements and receive the approval of the Comptroller will be enrolled in the program. Suriname has not yet implemented a Trusted Trader Program.

Member states should continue to roll-out these programs to ensure efficient risk-based processing protocols are in place for goods traded via the agri-food corridors.

Table 8: WTO TFA Status of Risk Management Systems for Barbados, Trinidad and Tobago, Guyana, and Suriname

	Trinidad & Tobago	Barbados	Guyana	Suriname
WTO TFA Article	*Status by category and implementation date*			
7.4 Risk management	C 31 Dec 2027	C 31 Dec 2024	A	C 31 Dec 2030
7.7 Authorized operators	C 31 Dec 2027	C 31 Dec 2024	C 22 Feb 2022	C 31 Dec 2029

Source: WTO Trade Facilitation Database.

Expedited Clearance for Perishable Goods

Lengthy delays in the clearance of goods leads to spoilage and reduced shelf life for perishable products such as fruits and vegetables. To alleviate this constraint, the WTO Trade Facilitation Agreement requires the implementation of expedited processing for perishable goods.[46] Expedited clearance entails giving priority to perishable cargo requiring examination and providing appropriate storage for perishable goods pending release either at the port or via offsite storage arranged by the trader. As a target, documentation clearance for perishables should be completed in fewer than eight hours (i.e., one working day) for both imports and exports. In terms of facilities, government should prioritize

[46] See WTO, Trade Facilitation Agreement, Section 7.9.

investment in state-of-the-art chilled and dry storage at ports and airports to mitigate waste and load/offload fresh produce as quickly as possible for onward delivery in country or aboard a vessel or aircraft.

Although three of the four focus countries (Barbados, Trinidad and Tobago, and Guyana) declared compliance with Article 7.9 upon ratification of the TFA, stakeholders stated that in practice treatment of perishable goods is informal – perishable goods are channeled into the green lane for faster processing at the discretion of customs officials. Formal standard operating procedures (SOPs) for perishable goods and pre-clearance have not yet been established by law. In Trinidad and Tobago, the ASYCUDA system allows incoming shipping manifests to be uploaded up to five hours before arrival to facilitate submission of the declaration form and payment of applicable duties, value-added tax, and user fees, which expedites the clearance process. However, Barbados Customs lacks the staffing resources to offer pre-clearance. Traders in Guyana stated that in practice there is no fast clearance process nor pre-clearance process for perishable goods. In Suriname, which has yet to establish formal channels for customs processing and lacks the technical capacity to upload documentation for pre-clearance purposes, any expedited processing for perishable goods occurs only informally.

Table 9: WTO TFA Status of Expedited Clearance for Perishable Goods for Barbados, Trinidad and Tobago, Guyana, and Suriname

	Trinidad & Tobago	Barbados	Guyana	Suriname
WTO TFA Article	*Status by category and implementation date*			
7.9 Perishable goods	A	A	A C 22 Feb 2023	C 31 Dec 2029

Source: WTO Trade Facilitation Database.

Regional examples can serve as good models for perishable goods protocols, and participating member states can seek training and knowledge-sharing from regional neighbors that have implemented these programs, such as Jamaica's pre-clearance program for tropical yams and the pre-clearance program for select vegetables implemented in the Dominican Republic with the support of the USDA-funded Exporting Quality project.[47]

Human Resource Shortages at the Border

Efficient and effective border processing relies on the availability of a sufficient number of highly trained staff capable of accurately applying trade policies and procedures. Delays due to inadequate staffing or the arbitrary or inaccurate application of the law increase unpredictability and costs for traders.

Across the four focus countries, private sector interviewees and customs staff pointed to human resource shortages affecting services at the port, including scanning (Guyana and Barbados) and implementation of pre-clearance (Barbados). In Suriname, what should be the work of 230 customs officers must be completed by only 160 officers due to staffing deficiencies. Staff have also faced delays in the payment of wages and overtime arrears dating back to 2019.

In particular, stakeholders noted significant challenges with respect to the discrepancy between the working hours of customs staff, who are civil servants, and the 24-hour-per-day/7-days-per-week operations of most ports in the region. As there is no legal provision for overtime for customs officers in Suriname, Customs must file a special request for approval to operate each time a trader requests after-hours or weekend processing. The need to continue processing

[47] See IESC, Our Work, Exporta Calidad (Exporting Quality), available at https://iesc.org/program/exporting-quality/.

shipments beyond the government workday leads to substantial overtime charges, which are passed on to the trader. In most cases, fixed rates for overtime have not been prescribed by law, leading to the perception of abuse and frequent variability in cost. For example, the private sector in Trinidad and Tobago cited overtime charges of TTD 300 (USD 44) per transaction/customs entry as a significant hindrance to trade, especially for import cargo. In Bridgetown, the port closes on the weekend unless special authorization is granted, subject to Customs approval and overtime charges. Barbados Customs charges BBD 220 (USD 109) per officer for three hours of overtime for each consignee.

Notably, overtime charges are less common at airports, which have shorter operating hours and do not face the volume of traffic experienced in maritime ports. For example, the Airport Authority in Bridgetown noted that overtime charges do not cause an issue at the airport because operations are well-regulated within specific hours. If the cargo is not cleared immediately, it is transferred to a bonded warehouse and does not require overtime service or incur additional charges. Similarly, the airport in Port of Spain operates 24 hours per day and provides faster customs processing than the maritime port. Since the ASYCUDA system is linked across air and sea ports, customs brokers have been known to file paperwork via the airport for sea freight.

The legal framework in each country should be updated and modernized to accommodate contemporary requirements for operating maritime ports on a 24/7 basis and to clearly and transparently delineate fixed overtime charges for various services.

SPS and TBT Measures

Market access for agricultural products is conditioned on meeting applicable standards designed to protect human health, ensure plant or animal safety, uphold environment protections, and facilitate market regulation. Governments issue standards regarding product quality, such as limitations on pesticide residue, as well as technical requirements, such as proper labelling. To clear customs and gain entry to the domestic market, exporters in other countries must demonstrate compliance with these standards. Producers may also seek certification of compliance with private voluntary standards that appeal to consumers in specific niche markets such as Fairtrade Standards.[48]

Where complying with applicable standards is too costly for farmers, these non-tariff measures (NTMs) become a barrier to cross-border trade. Similarly, when standards change frequently or differ significantly across target markets, farmers may find it too risky or time-consuming to attempt to export. For example, in Sub-Saharan Africa, lack of transparency and stability in food quality standards applied in each country has been shown to inhibit regional trade in staples.[49]

WTO members, including all member states in CARICOM, are constrained by the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (the SPS Agreement) and the WTO Agreement on Technical Barriers to Trade (TBT Agreement). Under these agreements, governments and regions may set their own standards or may adopt or adapt international standards that have been issued by organizations such as the World Organisation for Animal Health (OIE) (animal health), Codex Alimentarius (food safety), and International Organization for Standardization (ISO) (manufacturing). Where the standard applied is more restrictive than the international standard, the country must

[48] See Fairtrade International, Fairtrade Standards, available at https://www.fairtrade.net/standard.

[49] See K4D, Approaches to promoting intraregional trade in staple foods in sub-Saharan Africa (2017), available at https://assets.publishing.service.gov.uk/media/5bace8ce40f0b62db5ea5ba0/167_Regional_trade_in_staple_foods.pdf ("Food quality standards also differ among SSA countries and negatively affect regional trade in SSA food staples, mainly because of opacity of national trade policies (e.g. when traders are unaware of the destination country's standards and only learn of them at the port of entry).").

provide scientific justification for why the international standard would not provide the same level of protection in a less trade-restrictive manner. NTMs that are applied in a discriminatory manner for the purpose of protecting domestic industry become non-tariff barriers to trade (NTBs), which are impermissible by the WTO and the Revised Treaty of Chaguaramas (RTC).[50] Nonetheless, in CARICOM, NTBs and trade-restrictive NTMs continue to inhibit bilateral trade between member states.

The following sections explore potential avenues for harmonizing standards within the region and reducing trade disputes related to the use of NTBs and trade-restrictive NTMs.

Regional Standards

There are no mandatory regional standards for agricultural products in CARICOM. The Caribbean Agriculture Health Food Safety Association (CAHFSA) and Caribbean Standards and Quality Organization (CROSQ) have the mandate to work with member states on SPS and TBT standards, respectively. CAHFSA and CROSQ work with national-level committees in each member state to evaluate national legislation and provide technical assistance to bring domestic policy into alignment with international standards.[51] CAHFSA and CROSQ also have the mandate to issue regional SPS and TBT standards and guidelines but do not have the authority to mandate their use by member states. Thus, while CROSQ has issued some regional standards for technical requirements and CAHFSA has issued regional guidelines for phytosanitary measures, these efforts have not yet led to increased uniformity in standards applied across the region.[52] Adoption of regional standards currently requires the agreement of all 15 CARICOM member states, after which each member state must take legislative action to domesticate the regional standards before they can be applied. Notably, CAHFSA has only eight staff members to provide technical assistance across all CARICOM member states, only one of whom travels within the region.

In the absence of national or regional standards for agricultural products such as fresh fruits and vegetables, many CARICOM countries have adopted the more rigorous international standards set forth by the WTO, making it difficult for neighboring countries to comply.[53] This is more prevalent in countries with deeper ties to international markets, as the more stringent standards boost the competitiveness of domestic products.[54] Within the four focus countries, Trinidad and Tobago and Barbados have adopted international standards and pushed for the entire region to upgrade production to meet international quality standards. Farmers in Guyana and Trinidad and Tobago have struggled to meet

[50] NTBs are defined as "a series of trade measures, other than customs tariffs, which are used to protect local producers in each country, by restricting the access of imported products to local markets." See Inter-American Institute for Cooperation in Agriculture (IICA), "Caribbean Market Seeks to Strengthen Trade Links by Eliminating Non-Tariff Barriers" (October 23, 2018), available at https://www.iica.int/en/press/news/caribbean-market-seeks-strengthen-trade-links-eliminating-non-tariff-barriers.

[51] Adoption of the international standard may require the country to first become a member of the international organization that issues it. For example, membership in ISO is a prerequisite to adoption of the ISO standards. Yet only ten CARICOM countries meet the membership requirements.

[52] As of 2016, CROSQ had adopted 64 regional standards for technical measures, and CAHFSA had several regional SPS standards under development with respect to sweet potatoes, yams, hot peppers, pigeon peas, corn, beans, cassava, and cassava flour. CAHFSA was also working on harmonized regional SPS procedures for Pest Risk Analysis, inspection of poultry/duck processing plants, and SPS-related dispute resolution. See Intra-ACP APP (2016), Vol. 1, Section 2.4 and Annex 1.2 for a list of regional standards. In addition, CAHFSA has issued regional guidelines for phytosanitary measures, such as the Guideline to Facilitate Intra-Regional Trade in Banana and Plantain, which was adopted by COTED in 2022.

[53] See Intra-ACP APP (2016), Vol. 1. All CARICOM countries are members of the WTO.

[54] See Intra-ACP APP (2016), Vol. 1, p. 81.

these standards, which contributes to denied entry to regional markets and trade disputes, as described in the next section.

Stakeholders across all of the target countries acknowledged the need for a common set of regional standards accepted in all member states to facilitate intra-regional agricultural trade. These standards should be designed with an eye towards meeting regional consumer demand for quality goods while ensuring that regional micro-, small-, and medium-sized enterprises (MSMEs) have the capacity to meet those standards and participate in the regional market. As such, regional standards could be aligned with international standards or could be less stringent yet sufficient to meet consumer expectations. As proposed in the 2016 Intra-ACP APP study, companies could be certified as compliant with either the regional regime or the international regime to receive a quick pass for faster trading.[55]

Proposed NTM Working Group Members

- CAHFSA
- CROSQ
- Customs Authorities
- National Ministry of Agriculture representatives, including NPPOs
- National Manufacturers Associations
- Farmer Associations
- CARICOM Private Sector Organization (CPSO)

To facilitate the rapid adoption of common regional commodity standards for the proposed agri-food corridors, a task force or working group should be created involving organizations at the national and regional levels, including government and private sector representatives from each country participating in the agri-food corridors as well as CAHFSA and CROSQ (see box). These standards can be adopted and applied immediately by mutual agreement among the countries participating in the agri-food corridors. Meanwhile CAHFSA and CROSQ can continue the multilateral process required to have them approved as formal regional standards by the CARICOM Organ of the Council for Trade and Economic Development (COTED). Alternatively, countries participating in the agri-food corridors could adopt a policy of mutual recognition of each country's respective standards, similar to the approach taken by NAFTA.[56] However, given the challenges to date with regional cooperation and acceptance of member states' products, adopting a set of common regional standards applicable to each of the commodities selected for the agri-food corridors is recommended. Once national standards have been aligned with the regional standards, a policy of mutual recognition of aligned national standards would ensure that producers and exporters only need to comply with one standard (i.e., the regional standard or aligned national standard) to have products accepted domestically and throughout the region.

CROSQ currently receives support from the 10th European Development Fund (EDF) Programme, CDB, British Standards Institute, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), United Nations Industrial Development Organization (UNIDO), and the World Bank, which could potentially be extended to support this project. With EDF support, CROSQ recently adopted an Updated Regional Standards Development Priority Plan (2022-2027), which aims to continue CROSQ's work to develop and implement priority CARICOM regional standards. CAHFSA has also received funding from the 10th EDF Programme and the FAO. Domestically, Ministries of Agriculture could explore leveraging existing technical assistance to support the roll-out of shared standards for the agri-food corridors. For example, Suriname's Ministry of Agriculture, Animal Husbandry and Fisheries currently receives support from the IDB (for plant and animal health, food safety, and technical transfer) and Inter-American Institute for Cooperation in

[55] See Intra-ACP APP (2016), Vol. 1, Chapter 4.

[56] See Simms, Rachel, and Simms, Errol, The Building Blocks of Successful Regional Integration: Lessons for the CSME from other regional integration schemes (2007).

Agriculture (IICA). In addition, the Caribbean Export Development Agency (CEDA) could provide support to farmers and agribusinesses in the participating member states to bring production into alignment with the new regional standards.

NTBs and Trade-Restrictive NTMs

Despite the free trade principles enshrined in the Treaty of Chaguaramas, intra-regional agricultural trade continues to be hampered by non-tariff barriers (NTBs) and trade-restrictive non-tariff measures (NTMs). Article 79 of the Revised Treaty of Chaguaramas (RTC) prohibits "trade policies and practices, the object or effect of which is to distort competition, frustrate free movement of goods and services, or otherwise nullify or impair benefits to which other Member States are entitled under this Treaty."[57] COTED elaborated the legal standard to distinguish between NTMs and NTBs as whether the measure in question creates *potential* or *actual* impairment or nullification of benefits under the RTC.[58]

Within CARICOM, the use of NTBs has declined over time as countries have aligned their domestic legislation to regional trade commitments and filed NTB complaints before COTED and the Caribbean Court of Justice (CCJ). After a review of COTED reports and CCJ cases, the 2016 Intra-ACP APP study identified a total of 10 confirmed NTBs as of 2016. For example, Guyana applied improper SPS measures for raw coffee and honey, rice seeds, grapefruit, fresh soft fruit, oranges, citrus, and processed foods, whereas Trinidad and Tobago used SPS measures to protect domestic producers of duck meat, honey, ginger, yams, and sweet potatoes.[59]

Table 10: Most commonly reported NTMs and NTBs impacting intra-CARICOM agricultural trade

Non-Tariff Measures (NTMs)	Non-Tariff Barriers (NTBs)
• Certain SPS measures • Technical requirements, such as compulsory standards • Quantity control mechanisms • Price control mechanisms • Marketing boards and other legal monopolies • Anti-dumping and countervailing duties • Safeguards • Import quotas • Non-automatic licensing requirements	• SPS measures that prohibit market access (e.g., improper application of Pest Risk Analysis) • Local content laws, such as domestic purchasing requirements • Price control mechanisms

Source: Intra-Regional Agri-Food Trade Technical Brief (2018).

Although the deliberate use of NTBs has declined, legitimate NTMs also continue to restrict intra-regional agricultural trade. A 2013 survey of businesses in Trinidad and Tobago found that more than 50 percent of the trade-restricting non-tariff measures reported by respondents were enforced by countries within CARICOM, rather than external partners.[60]

[57] Article 79, Revised Treaty of Chaguaramas.

[58] See Intra-Regional Agri-Food Trade Technical Brief (2018) and Intra-ACP APP (2016), Vol. 1.

[59] Intra-ACP APP (2016), Vol. 1.

[60] See ITC (2013).

Some NTMs are disguises for protection of domestic industries from regional competition. Studies in CARICOM and other regional economic communities have found that NTBs and trade-restrictive NTMs increase alongside tariff reductions where political will for regional integration is lacking.[61] For example, relatively simple rules of origin for the Southern African Development Community (SADC) region were eventually revised to include complex, costly technical requirements and documentation on a product-by-product basis, leading to time-intensive verification procedures at the border.[62] During recent interviews, CARICOM countries repeatedly singled out Trinidad and Tobago for applying stringent standards and technical requirements to prohibit the importation of products from regional countries. For example, Trinidad and Tobago has rejected coconut water bottles manufactured in Guyana and Guyana-made flour.

Other trade-restricting NTMs and NTBs result from outdated laws and regulations that predate the country's accession to CARICOM and multilateral trade agreements such as the WTO. Under the RTC, CARICOM countries are required to bring their domestic legal framework in alignment with regional agreements, and many countries are taking active steps to accomplish this goal. In Guyana, a ministerial task force has been established to eliminate regional non-tariff barriers. Guyanese stakeholders also voiced concerns regarding the need for stronger national-level anti-dumping regulations aligned with the RTC to improve enforcement by local and regional competition bodies such as the CARICOM Competition Commission, particularly against Trinidad and Tobago. In instances where domestic and regional (or community) law conflict, community law (which constitutes international law) should take precedence over the domestic rule.[63]

Traders that find themselves subjected to a suspected NTB have few avenues to enforce community law. At present, traders can bring disputes in one of three ways: (1) report the violation to COTED, (2) bring a case before the CCJ, or (3) file a dispute before the WTO Dispute Settlement Mechanism.[64] Approximately 33 NTBs were reported to COTED between 1999 and 2016.[65] COTED may issue decisions but does not have enforcement power nor the ability to apply monetary penalties for infringement of the RTC, and member states have often been slow to comply with COTED decisions. In particular, stakeholders and the 2016 Intra-ACP APP study singled out Trinidad and Tobago's failure to revise domestic legislation found contrary to community law. Trinidad and Tobago has continued to invoke outdated legislation to prohibit the import or transshipment of honey from Guyana and duck meat from Suriname even years after adverse COTED decisions.[66] Similarly, CCJ decisions, while binding, are difficult to enforce. Article 215 of the RTC states that "[t]he Member States, Organs, Bodies of the Community, entities or persons to whom a judgment of the Court

[61] See Intra-ACP APP (2016), Vol. 1 and Luo, Lucy, African Continental Integration: Lessons from East Africa (October 6, 2022), available at https://growthlab.cid.harvard.edu/blog/african-continental-integration-lessons-east-africa.

[62] See Mbekeani, Kennedy K., "Intra-Regional Trade in Southern Africa: Structure, Performance and Challenges." Regional Integration Policy Papers No. 2 (June 2013), available at https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/June%202013%20-%20Regional%20Integration%20Policy%20Papers-%20Intra-Regional%20Trade%20in%20Southern%20Africa-%20Structure-%20Performance%20and%20Challenges.pdf.

[63] See Intra-ACP APP (2016), Vol. 1.

[64] The WTO Dispute Settlement Mechanism does not currently have an Appellate Body and thus is effectively unavailable. See Lester, Simon, "Ending the WTO Dispute Settlement Crisis: Where to from here?" (March 2, 2022), available at https://www.iisd.org/articles/united-states-must-propose-solutions-end-wto-dispute-settlement-crisis.

[65] See Intra-ACP APP (2016), Vol. 1, Annex 1.1.

[66] As of June 2023, Trinidad continues to block the transshipment of honey from Guyana to regional and international markets based on the 1935 Beekeeping and Bee Products Act, which COTED found to be contrary to the RTC in 2013. As the regional shipment hub, Trinidad's refusal to allow the product to be transferred to larger ships at the Port of Spain significantly limits the industry's ability to trade with the world. See Chabrol, Denis, "Trinidad's honey law centre of bitter quarrel in CARICOM- Guyanese private sector," Demerara Waves (June 24, 2023).

applies, shall comply with that judgment promptly." However, the mechanism for enforcement of these decisions has been left to member states, many of whom have failed to adopt clear rules applicable to CCJ judgments.[67]

The 2016 Intra-ACP APP study proposed amending the RTC to give explicit enforcement authority to COTED, including the ability to exact penalties for violations, with right to appeal the decision to the CCJ. While this approach would provide legal certainty and empower the regional bodies recognized as the authorities on interpretation of the RTC, amendment of the treaty is a long-term solution that may face significant opposition.

To ensure NTBs and trade-restrictive NTMs do not undermine the effectiveness of the proposed agri-food corridors, a mechanism should be put in place to enable participating countries to monitor, report, and resolve these regulatory barriers in a transparent manner. A similar mechanism has been adopted by the East African Community (EAC), Common Market for Eastern and Southern Africa (COMESA), and SADC regional economic communities. To date, the online Mechanism for Reporting, Monitoring & Eliminating Non-Tariff Barriers has successfully resolved 775 of the 860 complaints, all of which can be viewed and tracked on its website.[68] The mechanism was initially established by the EAC in 2009 but has been joined by COMESA and SADC over time. Similarly, a monitoring mechanism for the member states participating in the agri-food corridors could be expanded to the broader ESC subregion and eventually all of CARICOM.

Such a mechanism is not a substitute for a regional authority with the power to enforce and exact penalties for violations of the RTC. However, it provides an important intermediary step for effective dispute resolution among member states with the political will to collaboration on developing intra-regional trade.[69] It is also in alignment with the RTC, Article 188 of which provides that member states may voluntarily settle disputes through "good offices, mediation, consultations, conciliation, arbitration and adjudication."

Regional Cooperation

There are many benefits to intra-regional trade agreements. Intra-regional trade expands the land area and population subject to the same market rules, which allows industries to achieve greater economies of scale. Enhanced intra-regional trade correlates with economic growth, higher incomes, and greater food security within the region. Regional trading blocs also benefit from increased negotiating power vis-à-vis external trading partners.

However, the benefits of regional trade agreements also come with trade-offs that create political complexity at the domestic and regional levels. First, intra-regional trade agreements eliminate tariffs between member countries, which results in lost revenue at the domestic level. Import and export duties can be a significant source of government revenue,

[67] See Mohammed-Davidson, Ria, "Show Me the Money: Enforcing Original Jurisdiction Judgments of the Caribbean Court of Justice," Leiden Journal of International Law, Vol. 29, Issue 1 (March 2016), available at https://www.cambridge.org/core/journals/leiden-journal-of-international-law/article/abs/show-me-the-money-enforcing-original-jurisdiction-judgments-of-the-caribbean-court-of-justice/D588AFF545A58CFB647A83CA78BF9137. The CCJ also serves as a final court of appeal for Barbados, Belize, Dominica, Guyana, and St. Lucia, replacing the Judicial Committee of the Privy Council (JCPC), a British colonial mechanism. This appellate jurisdiction differs from the CCJ's original jurisdiction over the interpretation of the RTC.

[68] See https://www.tradebarriers.org/about.

[69] Similarly, the African NTB monitoring mechanism has been ineffective where political will to cooperate is lacking. See https://growthlab.cid.harvard.edu/blog/african-continental-integration-lessons-east-africa ("While there has been progress in eliminating NTBs, the Committee on Trade Remedies, which determines compensation for NTB-related losses, is not yet operational due to political stalemate. This again highlights the importance of political will as a prerequisite for integration.").

particularly in smaller states with a reduced tax base. By contrast, external imports may provide much-needed trade revenue, thus undermining political support for increasing intra-regional trade.

Second, by binding domestic policy to regional decision-making, member governments necessarily lose some autonomy. This issue has been particularly thorny in the Caribbean, where states have distinct identities and agendas. The West Indies Federation failed precisely because of its requirements to cede domestic power to a regional political body. Attempts to facilitate a looser economic integration through the CSME continue to face similar resistance. Reluctance by member governments has also been observed in most African regional economic communities.[70] As a result, the effectiveness of regional institutions is diminished, and the communities fail to achieve the potential benefits of intra-regional trade.

Third, it is also inevitable that some economies will naturally benefit more than others from increased intra-regional trade, particularly where the size and level of development differ widely between member countries. Given differences in income and development levels between CARICOM member states, in addition to the fact that many Caribbean countries produce the same agricultural products, smaller, less-developed economies rightfully feared that open trade would undermine the competitiveness of local farmers in their own domestic markets.[71] For example, in 2003, 72 percent of all intra-regional exports originated in Trinidad and Tobago.[72] Consequently, the countries act more as competitors than trading partners, and the incentive to reduce barriers to trade is low.

These dynamics underscore the complex political economy factors at play in any attempt to employ a intra-regional trade model that relies on country specialization and economies of scale. As with any trade liberalization regime, while the region as a whole will benefit, there will be both winners and losers at the country level. For example, a recent horticultural study found that Guyana may have the most to gain from increased intra-regional trade given its large land area and ability to grow many of the agricultural products in demand in the region.[73] In addition, the study estimated that both Guyana and Trinidad and Tobago could conceivably erase their national debts by 2044 and 2022, respectively.[74]

Governments often try to alleviate the impact of these trade-offs by taking actions that impede intra-regional trade. For example, where benefits are not distributed evenly, governments tend to erect non-tariff barriers to shelter the domestic economy. Alternatively, they may stall regional negotiations on implementing protocols to operationalize the agreement, or they may fail to integrate regional commitments into domestic laws and regulations. The CPSO has noted that extensive delays occur in any proposed regional policy reform as countries leverage time given at each stage (working group, COTED submission, member state consultations, and approval) to postpone the process.[75]

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[70] See Africa Renewal, Intra-Africa trade: Going beyond political commitments (August 2014), available at https://www.un.org/africarenewal/magazine/august-2014/intra-africa-trade-going-beyond-political-commitments ("they have shown "a distinct reluctance to empower these institutions, citing loss of sovereignty and policy space as key concerns," says Trudi Hartzenberg, executive director at the Trade Law Centre (TRALAC) for Southern Africa, an organization that trains people on trade issues. As a result of this reluctance, she says, "Regional institutions remain weak, performing mainly administrative functions.").

[71] COLEACP (2021) ("Because Caribbean countries tend to produce the same products, there is fear among smaller countries of bigger countries putting local farmers out of business in their respective domestic markets.").

[72] See Simms.

[73] See MPRA (2022).

[74] Id. ("Guyana, which experienced the largest potential gains in economic activity, could potentially pay off its national debt by 2044 and begin to build-up its national reserves. Trinidad and Tobago, which began the simulation with a lower level of national debt could do so even sooner (by 2022).").

[75] See CARICOM Private Sector Organization (CPSO), "25% by 2025": Reducing CARICOM's Agri-Food Imports: Opportunities for CPSO Participation (February 2020).

Finding solutions that can overcome the entrenched obstacles to regional cooperation is essential to any operational model for intra-regional trade. No amount of investment in logistics hubs, transport routes, trade facilitation, or agricultural production and processing will be effective at increasing intra-regional trade absent genuine intergovernmental collaboration.

The following sections explore potential mechanisms to enhance regional cooperation for purposes of the agri-food corridors proposed in this operational model. It is anticipated that these approaches could be expanded to a broader grouping of CARICOM governments in the future.

Sub-Regional Cooperation Models

Since the requirement for unanimity among CARICOM member states has often ground economic integration initiatives to a halt, a subset of ESC member states participating in the agri-food corridors could adopt a form of "enhanced cooperation" that allows them to move forward on mutually agreed objectives for greater integration between their economies.[76] As recommended by the CARICOM Secretariat in the 2020 Commission on the Economy report, enhanced cooperation would enable states with the political will to become first movers, with the option for other CARICOM member states to opt in at a later date.[77]

Similarly, the CPSO has proposed a plurilateral approach that would allow certain member states to "fast-track" policies of mutual interest that hold little hope of being adopted at the regional level and would be ineffective to implement through bilateral negotiations. CPSO provides an example of a hypothetical vegetable trade protocol set forth by CAHFSA, which could be open to all interested member states with no obligation to participate. Other members would be free to adopt the protocol after witnessing the benefits accruing to participating economies.

Many of the proposals set forth in this document would benefit from this type of approach, using an operational model for intra-regional trade in the Eastern and Southern Caribbean as a pilot project or proof of concept for the rest of the CARICOM region. For example, regional standards could be adopted initially for purposes of the agri-food corridors and later expanded to more countries in the ESC or become CARICOM regional standards applicable to all member states.

Reciprocity

As discussed above, countries within a regional bloc do not experience identical impacts from increased intra-regional trade. To overcome the potential resistance caused by this disparity, the design of the operational model could include specific negotiated benefits for each country as a precondition to investment in the agri-food corridors. This approach of negotiating clear benefits for each country in advance was suggested by numerous stakeholders across the four focus countries, who repeatedly identified the need for reciprocity in any working model of intra-regional cooperation on trade.

Countries could negotiate across commodities, such that the imports of one country's products are offset by its reciprocal import of other products from regional partners. Alternatively, countries could collaborate on intra-industry trade whereby the agro-processing industry in one country relies on the primary production of another, and vice versa. The negotiated benefits could also include recognition of the regional bloc's increased negotiating power vis-à-vis extra-

[76] See CARICOM Commission on the Economy, "Caribbean 9.58" – Speeding up the Caribbean (October 2020) (CARICOM (2020)), available at https://issuu.com/guyanaconsulate6/docs/att_ii_to_item_7.3_-_cce_report_-32_is_-_24-25_feb.

[77] Id., in which the authors pointedly acknowledge the political economy factors that have blocked prior attempts to promote economic growth within the region and focus on recommendations "that are not critically dependent on difficult public consensus or hard stats for all."

regional trading partners and identifying external trade benefits that offset economic losses some members may suffer from increased intra-regional trade. For example, a study of the SADC region noted that the greatest benefits from regional integration may derive from the influx of capital and know-how from external trading partners enabled by the regional trade agreement.[78]

Reciprocal benefits from intra-regional cooperation can also take the form of investment in regional public goods, such as shared transport or telecommunications networks, the costs and benefits of which can be used to compensate economic losses in other areas.

The need for reciprocity extends in particular to the region's most powerful economies. Larger, stronger economies often have the most to gain from regional trade agreements as they have a comparative advantage in the development of higher-value sectors such as manufacturing. Studies have found that the open cooperation of a regional hegemon can be critical to the success or failure of intra-regional trade expansion. For example, in the case of France and Germany in the development of the European Union and the United States in the General Agreement on Tariffs and Trade (GATT), regional leaders showed good faith in advancing the regional experiment by providing preferential access for regional partners to their domestic markets. Without such cooperation, political tensions rise, and economic integration stagnates or even implodes, as in the case of the original East African Community.[79] As the ESC's largest economy and regional hub for maritime transport, the cooperation and support of Trinidad and Tobago, as well as its willingness to open its economy to intra-regional agricultural goods, will be essential to the success of the agri-food corridors.

Compensation Mechanisms

In addition to the idea of negotiating reciprocal benefits as part of the design of the agri-food corridors, less-developed member economies will likely need to invest heavily in the development of domestic industries to be able to compete in the regional economy over the long term. Other regional economic communities have addressed this challenge in two ways.

First, countries have used a form of "sophisticated protectionism" during an initial catch-up phase to ensure domestic businesses and consumers can benefit from international trade and investment. Rather than cutting their economies off from foreign competition, countries such as South Korea used robust government investment and strong regulation to boost the competitiveness of domestic industries until they had the resources and know-how to compete on their own in the market.[80] CARICOM employed a similar approach at the outset by allowing protectionist measures for the least developed nations in the regional bloc, including Belize and the OECS.[81]

Second, regional economic communities have established compensation mechanisms for countries that may be negatively impacted by intra-regional trade due to unequal industrial development. However, failure to implement these mechanisms as designed can lead to regional instability. For example, failure of the East African Development Bank to

[78] See Draper, Peter, Rethinking the (European) Foundations of Sub-Saharan African Regional Economic Integration: A Political Economy Essay, OECD Development Centre Working Paper No. 293 (September 2010), available at https://www.oecd.org/dev/46013902.pdf.

[79] Id.

[80] See African Renewal (2014).

[81] See Caribbean Trade Reference Centre, Background on CARICOM, available at http://ctrc.sice.oas.org/CARICOM/bkgrd_e.asp ("The special regime for LDCs was contained in Chapter VII of the Treaty of Chaguaramas, which stipulated special arrangements in terms of tariff reductions, revenue, and internal taxation; in the consideration of special needs of LDCs in rules of origin, common external tariff and fiscal incentives; as well as in the application of temporary measures to protect domestic industries.")

issue and disburse loans to Tanzania and Uganda (vis-à-vis Kenya) in alignment with its charter undermined the delicate political balance in the original East African Community.[82] In the Caribbean, the CARICOM Development Fund (CDF) was established to compensate member states that experience a decline in regional competitiveness through participation in the CSME. The CDF issues loans and grants through Country Assistance Programmes to fund technical and financial assistance for member states, often through national development banks. The CDF is funded through member state contributions and financial support from international development partners. Since its inception, the CDF has approved 29 projects in two funding cycles (2008-2015 and 2015-2020) totalling USD 50.89 million.[83] Through its Cohesion Policy, adopted by CARICOM heads of state in 2020, CDF will develop National Cohesion Programmes based on country-specific development assessments and fund pilot projects to support disadvantaged countries, regions, and sectors. These programs could support specific investments identified as essential to implementation of the agri-food corridors.

Dialogue and Dispute Resolution

Regional cooperation begins with a shared commitment to regional trade principles and the objectives, such as development of the proposed agri-food corridors. Establishing a common vision and maintaining it through the inevitable challenges that will arise in implementation will require strong regional dialogue and dispute resolution mechanisms. A coordination mechanism, such as a task force or committee, should be established between the participating governments with the support of the CARICOM Secretariat to design and implement the agri-food corridors. When disputes arise, mechanisms such as the one proposed for the identification and resolution of NTBs should be employed between participating member states to quickly address these issues.

To increase transparency and accountability, participating member states should consider developing a regional index or other monitoring framework for tracking adherence to commitments and progress in achieving regional integration objectives. For example, the Asia-Pacific Regional Cooperation and Integration Index shines a light on the progress of individual countries in achieving six key indicators of regional integration: (1) trade and investment, (2) money and finance, (3) regional value chain, (4) infrastructure and connectivity, (5) movement of people, and (6) institutional and social integration.[84]

In addition, working groups or knowledge-sharing exchange programs should be established to ensure regular collaboration and cross-pollination of ideas between similarly situated officials in each country (e.g., regular meetings of customs staff from throughout the region to trade knowledge on risk management or between NPPO staff to discuss protocols for fruits and vegetables, grains, or other products). For example, Barbados reportedly has a good relationship with Guyana with respect to veterinary services cooperation, and Barbados has an officer permanently based in the Guyana office of investment to promote bilateral trade. In addition, state-owned agricultural development agencies such as the Guyana Marketing Corporation (GMC) in Guyana and the National Agricultural Marketing and Development Corporation (NAMDEVCO) in Trinidad and Tobago currently collaborate bilaterally and through regular meetings of the IICA. Other examples that could serve as models include the Regional Plant Health Directors Forum and the COTED Customs Committee, both of which serve as regional forums for knowledge sharing among member states.

[82] See Luo (2022).

[83] See CDF Annual Report 2020, available at https://caricomdevelopmentfund.org/.

[84] See https://www.adb.org/news/strong-asian-intraregional-trade-and-investment-improve-economic-resilience. For additional detail on the index, see also ADB, Asian Economic Integration Report 2017: The Era of Financial Interconnectedness: How Can Asia Strengthen Financial Resilience, available at https://www.adb.org/sites/default/files/publication/375196/aeir-2017.pdf.

Cross-country collaboration and dialogue should also extend to private sector associations. The support and buy-in of the business community (including agro-processing, transporters, traders, and farmers) will also be crucial to effective implementation of agro-food corridors. Private sector associations can play an important role in fostering business in the region via trade missions, lobbying, advocating, and networking. Previous studies suggested that lack of support from regional citizens and the corporate sector undermined integration efforts.[85] The CPSO was recently established to represent private sector interests in regional-level policy dialogue. The founding council includes geographic representatives from seven countries and the OECS as well as private sector representatives, primarily from large corporations, and two institutional members. National-level private sector associations provide broader representation of MSMEs, but regional meetings among counterparts do not occur with regularity. Platforms should be established to support regional dialogue, including voices that represent farmers and MSMEs.

Regional Private Sector Associations

- CARICOM Private Sector Organization (CPSO)
- Caribbean Agribusiness Association
- Caribbean Farmers Network (CaFAN)
- Caribbean Shipping Association
- Caribbean Millers Association
- Caribbean Tourism Organization
- Port Management Authority

Effective dialogue mechanisms at the domestic level will also be essential to maintaining political support for the policy reforms and economic transformation required to establish successful agri-food corridors. The dynamic of winners and losers of intra-regional trade, combined with often volatile domestic politics, can lead to highly unpredictable trade policies and the emergence of new trade barriers without warning, at times overnight. Domestic groups can be diametrically opposed and use their lobbying power to extract regulatory benefits, even if those policies are at odds with the country's regional commitments. To guard against these risks, participating member states should develop a coalition of private sector partners to support implementation and facilitate regular dialogue between all parties to educate and engender domestic support for the agri-food corridors.

National Private Sector Associations

- Shipping Associations
- Transporters Associations
- Manufacturers Associations
- Supermarket Associations
- Tourism Associations
- Chamber of Commerce
- Farmers Associations
- Customs Brokers Associations

[85] See Simms (2007).

Annex 2: Country Specialization, Value-Chain Upgrading, and Promotion of Regional Consumption

As described in the Introduction, the success of the agri-food corridors on which this operational model is based is contingent on complementary and coordinated investments in agricultural production and marketing between participating member states. While a full assessment of these issues exceeded the scope of this study, the sections below describe key parameters for these investments and suggest avenues for further research.

Country Specialization

Regional economic integration should induce greater specialization. Accessing a larger consumer market through a free trade area naturally leads to product specialization and increased production to meet consumer demand as farmers gradually shift their focus to products for which they have a comparative advantage. For example, following the signing of free trade agreements with the United States, focused production increased in Guatemala (for bananas) and Colombia (for coffee) in response to market demand.[86]

Despite the potential benefits, specialization has not occurred in CARICOM.[87] Instead, countries have erected barriers to intra-regional trade, which have inhibited investment in specialization and the processing, logistics, and transportation upgrades to support it. Concerns regarding food security, losing market share to other member states, and political pressure from farmers all contribute to this resistance.[88]

Achieving the economies of scale necessary to compete in a global agricultural marketplace will require overcoming this resistance and adopting a mutually recognized framework for agricultural production at a regional or sub-regional scale, either by CARICOM or through multilateral agreement between a subset of countries with the desire to create shared agri-food corridors. Specialization will require serious concerted action by all players, including governments, the private sector, civil society, and development partners.

To this end, an evaluation should be undertaken to determine the comparative advantages of each country in specific commodities that could form the basis for designated agri-food corridors in the ESC. As a pilot initiative, 1-2

[86] See United States Department of Agriculture (USDA), Developing Countries Specialize in Agricultural Commodities After Free Trade Agreements With the United States (March 28, 2023), available at https://www.ers.usda.gov/amber-waves/2023/march/developing-countries-specialize-in-agricultural-commodities-after-free-trade-agreements-with-the-united-states/.

[87] Notably, CARICOM is far from alone in experiencing obstacles to regional economic integration. For example, China experienced a similar erosion of trade relations between interior provinces in the late 1990s. See Carter, Colin A., and Lohmar, Bryan, "Regional Specialization of China's Agricultural Production," American Journal of Agricultural Economics, Vol. 84, No. 3 (August 2002), available at https://www.jstor.org/stable/1244849.

[88] Enhanced regional integration necessarily entails trade-offs, including reduction in domestic food self-sufficiency, economic losses to domestic producers, and potential eco-system damage from monoculture production, which should be addressed. See USDA (2023) (food security) and Klasen, Stephan, et al., "Economic and ecological trade-offs of agricultural specialization at different spatial scales," Ecological Economics, Volume 122 (February 2016) available at https://www.sciencedirect.com/science/article/pii/S0921800916000021 (ecology). See Annex II: Key Findings under Regional Cooperation for further discussion of these trade-offs and how to address them.

commodities should be selected for each country participating in the agri-food corridors.[89] Alternatively, countries can collaborate by specializing in different stages of the production and processing of the same agricultural product. Intra-industry trade drove a significant amount of East Asia's success in intra-regional trade integration, contributing to the rapid rise of the region and its competitiveness in global value chains.[90] In the medium-term, the model could be expanded to include more commodities and/or more countries in the ESC and, eventually, a whole-of-CARICOM approach to country specialization and regional agricultural development. The findings of a CARICOM regional value chain study currently being undertaken by Dr. Justin Ram are expected in August 2023 and could inform this selection process.

Value-Chain Upgrading

At present, much of agricultural production in the region is informal, incapable of meeting the requirements of intra-regional trade regulations. To expand production and processing in line with the country specialization approach described above, countries will need to invest in upgrading those value chains to ensure higher quality and quantity of production, including on-farm upgrades as well as investments to facilitate market linkages and value-added processing as appropriate. These investments should be made in a way that ensures micro-, small-, and medium-sized enterprises (MSMEs) throughout the value chain receive support to upgrade their production and processing capacity to meet regional or international standards.

Quality production

Farmers will need support to improve their inputs, equipment, and production methods to produce quality goods in increased quantities in line with the new regional standards. Production models should focus on specialization in commodities with comparative advantages yet protect farmers from the vulnerabilities caused by monocropping by incorporating other crops through integrated farming methods or planting a second crop in the off-season. Jamaica and the Dominican Republic have both upgraded their production to enable products to comply with certification standards and could be evaluated as models for production improvements in the four focus countries. Organizations such as NAMDEVDCO in Trinidad and Tobago and GMC in Guyana are well-positioned to provide training for farmers and to facilitate market linkages with agro-processors and exporters. In addition, the Caribbean Agricultural Research & Development Institute (CARDI) has programs to promote new varieties of fruits, vegetables, and grains and could be a source of support for farmer training.

Market linkages

Achieving consistent, high-quality production will also require strengthening market linkages between farmers and upstream and downstream market players. Close ties with buyers through contract farming can also serve as a vehicle for delivery of high-quality inputs and extension services. The supermarket chain Massy has effectively integrated its supply chain from farm to retail with the support of NGOs such as the Plant, Grow, Eat Project in Saint Lucia, and the Making Agriculture Profitable and Sustainable Project in Trinidad and Tobago. These projects could be replicated in new countries and for new commodities. The Caribbean Export Development Agency (CEDA) also provides support for agro-processing businesses looking to increase their capacity and competitiveness to expand into new markets nationally,

[89] As discussed below, production methods should be designed to maximize economies of scale without unduly exposing farmers to the vulnerabilities associated with monocropping, including soil degradation, susceptibility to pests, and risks of market consolidation and monopolies.

[90] See Eckardt, Sebastian, et al., "Asia's trade at a turning point" Brookings (March 20, 2023), available at https://www.brookings.edu/blog/future-development/2023/03/20/asias-trade-at-a-turning-point/.

regionally, and internationally, including technical assistance to conform to international standards and certifications. Member states should also ensure that their legal framework for investment does not discriminate against foreign investors, thus limiting the possibility of effectively leveraging intra-regional investment to develop value chain linkages and upgrading.

Market information

In small markets with high demand fluctuation, prices can be volatile, and farmers find it difficult to plan. Stakeholders in all four focus countries recognized the need for greater market information and price stability to encourage increased investment in production. Regional market information systems such as the Regional Agricultural Trade Intelligence Network (RATIN) in Eastern Africa can facilitate intra-regional trade. However, they are costly and often require ongoing subsidization from government or development partners.[91] More nimble, innovative approaches to market information services include mobile phone applications, crowdsourcing, and data-sharing partnerships among institutions that traditionally collect and analyze market information domestically.

Promotion of Regional Consumption

Increasing intra-regional trade is not just about removing regulatory barriers to the supply of bananas from Suriname or honey from Guyana; there must also be consumer demand for these products. Stakeholders revealed that in some instances, consumers actively dislike and distrust products from other CARICOM countries.

As quality improves with upgrades in production, processing, and packaging in line with new regional quality standards, a coordinated effort should be made to market these new products through trade shows, marketing campaigns, and food festivals catering to locals and tourists. These efforts can leverage the diaspora by encouraging nationals from CARICOM countries living elsewhere in the region to import products from their own country as a way to market and expand the flow of intra-regional trade.

In addition, the member states participating in the agri-food corridors should explore the potential to brand these new products under a "Caribbean" or CARICOM logo, indicating compliance with recognized regional quality standards adopted by member state governments. A recognizable brand tied to known improvements in quality will build consumer trust. Marketing campaigns, supported by local politicians, should promote buying and consuming "Made in the Caribbean" products. Similar regional branding efforts are currently underway in Africa with the support of the African Union's Pan-African Quality Infrastructure (PAQI) project and in the Mekong region under the ACMES-ROK Region Branding Project.[92]

Brands based on geographical indications (GIs), such as Prosciutto de Parma, Darjeeling tea, and Napa Valley wine, also increase consumer perception of quality. In Trinidad and Tobago, Moruga Hill rice has obtained geographical indicators from the Ministry of Legal Affairs. Other GIs could be established for products in other CARICOM countries. The

[91] See Ngombalu, Janet, and Masila, Gerald, "Enhancing intra-regional grain trade in Eastern Africa through market information systems: The case of the Regional Agricultural Trade Intelligence Network (RATIN)," Cah Agric, Vol. 23 (July-October 2014), available at https://www.cahiersagricultures.fr/articles/cagri/pdf/2014/04/cagri2014234-5p270.pdf.

[92] See FAO, Framework for Boosting Intra-African Trade in Agricultural Commodities and Services (2021), available at https://www.fao.org/3/cb3172en/cb3172en.pdf (PAQI aims to address regional standardization and quality improvement through "branding and marketing of agrifoods made in Africa, including certification, labelling and packaging that guarantee minimum safety and sustainability standards.") and Mekong Institute, "Mekong Institute Holds Preparatory Meetings with Implementing Agencies of the ACMECS-ROK Regional Branding Project..." (April 4, 2023), available at https://www.mekonginstitute.org/news-activities/news-details/2023/04/04/mi-holds-preparatory/.

Association of Caribbean States (ACS) is currently preparing a three-year project to develop regional branding and geographical indications for the Caribbean that could potentially support branding initiatives for the proposed agri-food corridors, and development partners such as UNCTAD[93] and the World Intellectual Property Organization (WIPO)[94] cooperate on geographical branding initiatives in the global South.

Government support for regional branding initiatives can also serve as a market incentive for further private sector investment. For example, the Government of Thailand introduced the "Organic Thailand" brand in 2002 to reflect products certified compliant with new national standards for organic produce. Within two years, 440 farms had invested in certification under the new brand.[95]

[93] See UNCTAD, Review of the technical cooperation activities of UNCTAD and their financing (2022), available at https://unctad.org/system/files/official-document/wpd317_add1_en.pdf.

[94] See WIPO, Technical Assistance, available at https://www.wipo.int/cooperation/en/technical_assistance/.

[95] See UNESCAP, Facilitating Agricultural Trade in Asia and the Pacific, Studies in Trade and Investment No. 74 (2011), available at https://www.unescap.org/sites/default/files/0%20-%20Full%20Report_15.pdf.

Annex 3: Overview of Intra-Regional Trade in CARICOM

The Caribbean region is home to 19 million citizens, plus an average of 32 million tourists who visit the region annually. Despite the small population, Caribbean nations import a significant amount of their food. Although Caribbean nations produce a wide range of agricultural products, including many fruits and vegetables, grains, spices, livestock, and processed goods such as fruit juices, other products, such as certain types of fruits and grains, cannot be readily produced within the region and must be imported. The total food import bill for the CARICOM region ranges from USD 4-6 billion annually. Of these imports, the percentage derived from intra-regional trade has averaged 16-17 percent over the past decade.[96]

The following subsections provide a more detailed look at the current state of trade in fruits and vegetables, grains, and fertilizer within the CARICOM region, with a particular focus on Trinidad and Tobago, Barbados, Guyana, and Suriname. The discussion draws on data available in prior studies and global datasets maintained by the Food and Agriculture Organization (FAO) of the United Nations (UN), UN Comtrade, and CEDII.

Fruits and Vegetables

The ESC produced 1.16 million tons of fruits and vegetables in 2020.[97] The most produced fruits in the ESC include coconuts, bananas, plantains, and papaya, whereas the top imported fruits are apples and grapes.[98] For vegetables, pumpkins, squash, gourds, eggplant, tomato, and sweet potato are the most produced products locally; onions and garlic are the top imports.[99]

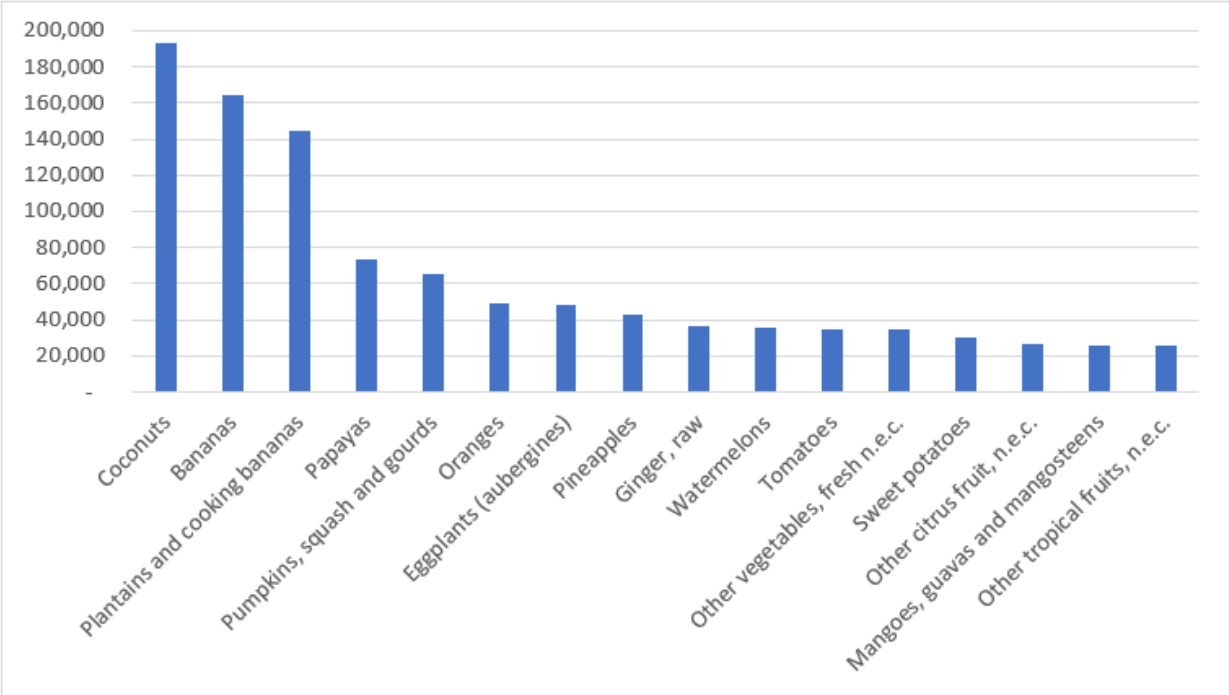
[96] See Intra-ACP APP (2016) (intra-regional imports accounted for only 16.6% of overall food imports between 2013-2015) and CPSO, "Update to Heads: 31st Regular Meeting of the CARICOM Heads of Government" (February 2020) (finding 17% of imports came from CARICOM in 2018).

[97] See FAOStat.

[98] See COLEACP (2021) , available at https://news.coleacp.org/en/new-market-study-analyses-trends-and-potential-for-acp-caribbean-horticulture/.

[99] Id.

Figure 1. 2020 Fruit and Vegetable Production in the ESC (tons)



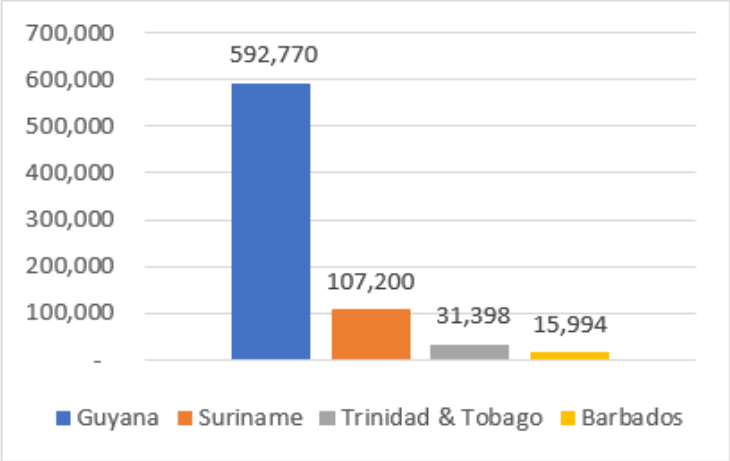
Source: FAOStat.

Regional production of fruits and vegetables in the ESC is centered in Guyana and (to a lesser extent) Suriname. In 2020, comparing the combined volume of the top ten horticultural commodities produced in each of the four focus countries, Guyana's production dwarfed those of its neighbors (see Figure 2).

Regional horticultural production is supplemented by imports. In 2020, CARICOM countries imported USD 250 million in vegetables and close to USD 200 million in fruit and fruit juices.[100] Guyana, Trinidad and Tobago, and Barbados import mostly from the United States (US), whereas Suriname maintains close ties with the Netherlands and receives daily airfreight shipments of fresh produce from Europe.

[100] See CARICOM 25% by 2025 report (2022).

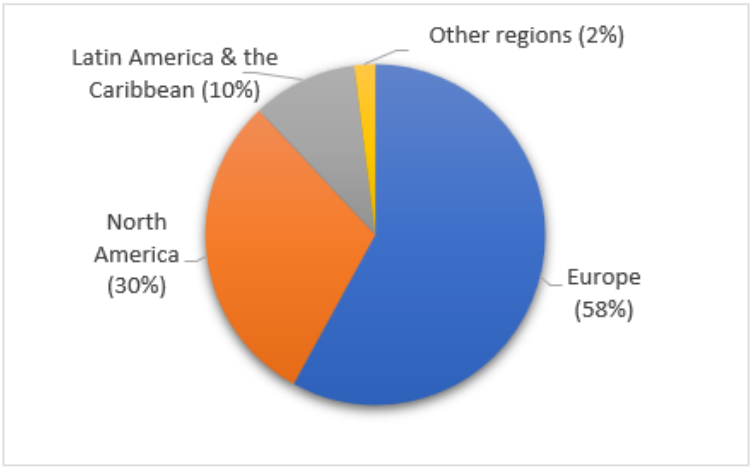
Figure 2. Combined Production (in tons) of the Top Ten Most-Produced Horticultural Commodities



Source: FAOStat.

Most horticultural exports from the Caribbean are consumed by the European Union (EU) and US. Only 10 percent of exports by value remain in the region (see Figure 3). Among CARICOM countries, Trinidad and Tobago exports the most horticultural products within the region, including nuts and juices (to Guyana), groundnut (to Jamaica), and nuts and other seeds (to Suriname).[101] However, all CARICOM countries except Guyana and Belize are net importers of food.

Figure 3. Share of Caribbean horticultural exports by destination region (2019)



Source: COLEACP (2021).

[101] Id. Belize is a close second. While Guyana produces far more produce than its neighbors, most is exported to the Dominican Republic and US (coconuts). Guyana exports just over 20 percent of its annual rice exports to the region, with the remainder destined primarily for Europe, Venezuela, and Brazil. See Observatory for Economic Complexity, available at https://oec.world/en.

The main horticultural trade routes within the region are shown below.

Table 11: Main intra-regional trade routes for horticultural products within CARICOM and the Dominican Republic (2019)

Flow	Value (million US$)
Trinidad and Tobago – Jamaica	12.68
Belize – Jamaica	10.55
Dominican Republic – Jamaica	9.56
Belize – Trinidad and Tobago	6.68
Guyana – Dominican Republic	4.67
Trinidad and Tobago – Guyana	4.53
Trinidad and Tobago – Barbados	3.73
Trinidad and Tobago – St Lucia	2.72
St Vincent and the Grenadines – Trinidad and Tobago	2.47
Belize – Barbados	2.00
Barbados – St Lucia	1.94
St Vincent and the Grenadines – Barbados	1.54
Dominican Republic – Barbados	1.27
Belize – Guyana	1.20
Trinidad and Tobago – St Vincent and the Grenadines	1.20
Guyana – Trinidad and Tobago	1.11
Jamaica – Guyana	1.06
Total	**68.92**

Source: COLEACP (2021).

The Caribbean region (including the Dominican Republic) has experienced a 28 percent increase in horticultural production in the past decade, yet still has many opportunities for increased production and trade within the region.[102] Processed products and fresh onion, garlic, and potato have been identified as having the largest opportunity for growth, while Guyana and Suriname in particular have significant untapped potential for large-scale organic production.[103] The Caribbean Agricultural Research & Development Institute (CARDI) has recently joined with the World Vegetable Center to support increased access to fruits and vegetables in the region through expanded production of improved varieties of tomatoes, sweet and chili peppers, and pumpkin in Belize.[104]

Grains

The top grains imported to CARICOM include rice, wheat, and corn. Most of these imports come from external sources, predominantly the US and (to a lesser extent) Brazil and other countries. Guyana, Trinidad and Tobago, and Barbados import mainly from the US. Suriname, with its deep historic and linguistic ties to the Netherlands, has closer ties with Europe.

[102] Id.

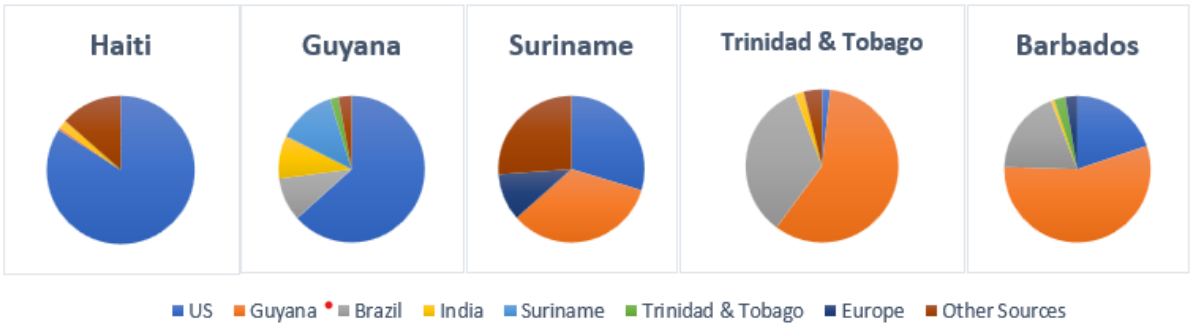
[103] Id.

[104] See https://www.cardi.org/blog/strengthening-fruit-and-vegetable-value-chains-in-the-caribbean/?highlight=vegetable.

Despite producing more than USD 270 million in rice exports each year, only USD 81.9 million is traded locally within the region. The breadbaskets of CARICOM, Suriname and Guyana, exported USD 46.1 million and USD 223 million of grains in 2021, respectively, almost all of which was rice.[105] The main destination for Suriname grains is Jamaica, which imports 66.6 percent of its overall exports and 96 percent of its intra-regional exports. European countries import close to a quarter of grain exports from Suriname. Guyana's grain export destinations are more varied. Only a quarter of Guyana's exports remain within the region, of which more than 40 percent is imported by Jamaica and nearly a third by Trinidad and Tobago. The rest is exported to Europe, Venezuela, Brazil, Colombia, and Peru.

In total, 22 percent of CARICOM rice imports in 2021 derived from regional sources (61.3% from Guyana, 37.9% from Suriname, and >1% from Trinidad and Tobago). However, this data obscures wide variation among member states. For example, almost 90 percent of Haiti's USD 246 million in rice imports in 2021 derived from the United States, whereas Trinidad and Tobago and Barbados both source more than 50 percent of their rice imports from Guyana.

Figure 4. Sources of Rice Imports in 2021 for Haiti, Guyana, Suriname, Trinidad & Tobago, and Barbados.



Source: Observatory of Economic Complexity.

Wheat and corn production for intra-regional trade is negligible (approximately 0.9% of wheat imports and 0.7% of corn imports). Guyana, Suriname, and Barbados import small amounts of wheat and/or corn from Trinidad and Tobago, which exported USD 3.9 million of grains in 2021. Trinidad and Tobago's grain exports largely remain within the region, with the exceptions of small volumes shipped to the US and Canada. In support of the 25% by 2025 initiative, CARDI has begun support for increased production and commercialization of corn and soybeans, and Guyana has committed to expand corn and soya production from 120 to 25,000 acres by 2025.[106]

Fertilizer

The CARICOM region exported roughly USD 753 million in fertilizer exports in 2021. Most of the regional production derives from Trinidad and Tobago, which was the source of 99.5 percent (USD 749 million) of all 2021 CARICOM fertilizer exports.[107] Almost all (99.9%) of the fertilizer exported by the region is nitrogen-based, although the region

[105] Data for this section comes from the Observatory for Economic Complexity, which uses data from CEPII BACI. See https://oec.world/en.

[106] See https://www.cardi.org/blog/cardi-positioned-to-support-the-commercialization-of-corn-and-soybean/?highlight=grains. See also CARICOM 25% by 2025 report (2022).

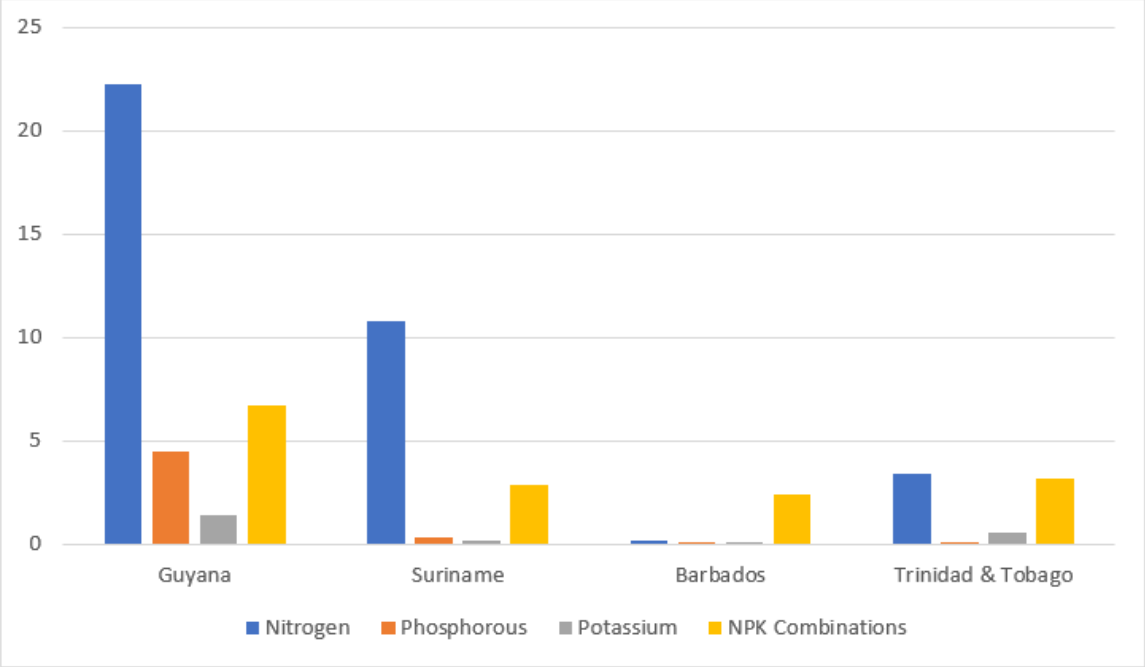
[107] All data in this section comes from UN Comtrade statistics, available at comtradeplus.un.org.

also exports small amounts of combination fertilizers[108] (USD 631,761) and negligible amounts of phosphate and potassium fertilizers. See Figure 5 for a breakdown of fertilizer imports of focus countries to demonstrate demand.

The vast majority of fertilizer produced within the region is exported to external destinations such as the US (39.86% of fertilizer exports by value), Colombia (15.42%), France (13.15%), Mexico (7.5%), and the Dominican Republic (6.86%). Less than three percent of regional production of fertilizer remains within the region. Of the USD 749 million in fertilizer exported by Trinidad and Tobago in 2021, only USD 18.87 million was supplied to CARICOM countries, including Guyana (USD 9.47 million), Suriname (USD 4.38 million), Belize (USD 3.03 million), Jamaica (USD 1.53 million), and Barbados (USD 34,714).

CARICOM countries fill their fertilizer requirements with imports from the US, EU, Dominican Republic, Venezuela, Panama, Russia, and other countries. In the ESC, imports arrive via large container ships in Trinidad and Tobago where they are re-bagged in smaller quantities and re-exported to other Caribbean countries.

Figure 5. 2021 Fertilizer Imports by Type of Fertilizer in Guyana, Suriname, Trinidad &Tobago, and Barbados (USD millions).



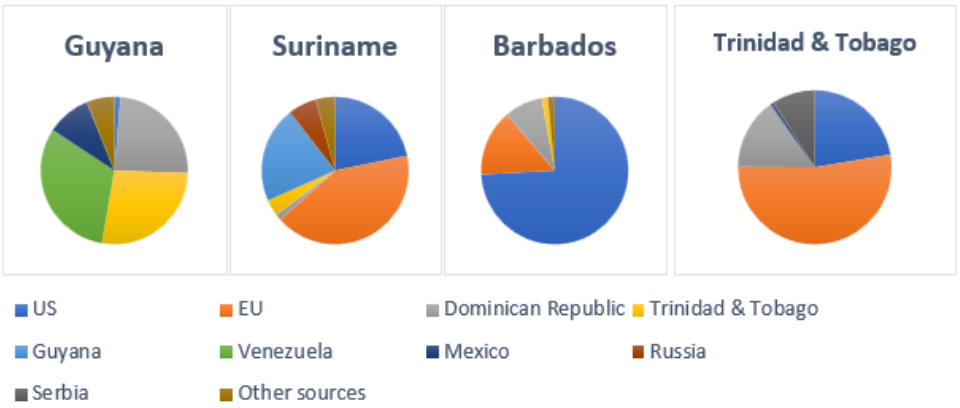
Source: UN Comtrade

Given cost increases and disruptions in the global markets for fertilizer due to the war in Ukraine, CARICOM governments have urged Trinidad and Tobago and Guyana to focus on using their oil and gas resources to increase supply of fertilizers to the region and beyond.[109]

[108] Combination fertilizer products contain two or more of the three basic fertilizer components: nitrogen (N), phosphorous (P), and potassium (K).

[109] See Baptiste, Dionne, "Agri-forum: Guyana, T&T urged to help region fight fertilizer costs," Loop Caribbean News (May 19, 2022) and Salman, Santana, "CARICOM could supply the world with fertilizer says Suriname's President," Caribbean National Weekly (July 4, 2022).

Figure 6. Sources of Fertilizer Imports in 2021 for Guyana, Suriname, Barbados, and Trinidad & Tobago.



Source: UN Comtrade.

Annex 4: List of Stakeholders Consulted

Barbados

Organization	Name	Title
Massy Distribution	Mr. Anthony Branker Ms. Lakeisha Cookie	Assistant Vice President, New Commercial Business Procurement & Logistics Manager
Marine Trading	Ms. Wendy Husbands Mr. Frank Cox	Finance Manager CCO
Barbados Port Inc.	Mr. Ian Stewart Mr. Sheldon Layne Mr Leonid Tkach	Divisional Manager Operations Manager Terminal Operations Manager Security Services
Goddard Catering Group	Ms. Ingrid Weekes	Procurement Analyst
Continental Foods	Mr. Edward Juman	Director
Barbados Agricultural Society	Mr. James Paul	Director
Ministry of Agriculture – National Plant Protection Organization	Mr. Bret Taylor	Senior Agricultural Officer
Redland Farms	Mr. Mark Steele	Manager
Grantley Adams International Airport (GAIA)	Mr. Hadley Bourne	CEO
Caribbean Export Development Agency (CEDA)	Ms. Natasha Edwin-Walcott	Senior Advisor
Ministry of Agriculture – Plant Quarantine Unit	Mr. Ian Griffith	Manager
Ministry of Agriculture	Ms. Keely Holder	Chief Agricultural Officer
Green Clean	Mr. Justin Atkinson	Manager
Customs Barbados	Mr. Ronald Yarde Mr. Arleight Durant Ms. Yvonne Mecaskie	Assistant Comptroller Assistant Comptroller Trusted Trader Program Project
Export Barbados	Ms. Paula Bourne Ms. Trudy Joseph Ms. Sharon Walton Mr. Tyron Porfreilas Ms. Sonia Johnson Mr. Pedro Hutchinson	Manager Exports Business Dev Manager Business Dev Manager Caricom Certification Officer Certification Officer Senior Research Officer
Caribbean Standards and Quality Organization (CROSQ)	Mr. Mohan Nandwani Mr. Stephen Farquharson	Finance Manager Technical Officer

		Accreditation
Barbados Agricultural Management Co.	Mr. Orlanda Atherely	CEO

Guyana

Organization	Name	Title
C&V Caribbean Shipping Ltd	Ms. Sheavonnie Foo Ms. Nazreen Ghanie	Accounts Manager Exports Manager
Guyana Revenue Authority	Ms. Xuxa Chan	Manager of ASYCUDA
Guyana Marketing Corporation	Mr. Richard Hanif	Marketing Manager
PAS Cargo Guyana Inc.	Ms. Chandrowtie Singh Ms. Keisha Bacchus Mr. Roy Ramdeo Mr. Oumdeo Ramdeo	General Manager Customs broker Sales Executive Director
Tropical Shipping Guyana	Ms. Glenis Hodge Mr. Gerald Bergasse	General Manager Regional Manager
CMA CGM	Mr. Clayton Charles	General Manager
John Fernandes Limited	Mr. Jeremy Fernandes Mr. Peter Peroune	Business Dev Manager Senior Account Exec
Total Air Cargo	Mrs. Tasha Ceres	Managing Director
Kestrel	Mr. Steve Keats	Operations Manager
Camex	Ms. Shanna Young	Manager
Georgetown International Airport Public Authority	Mr. Ramesh Ghir	Director
Massy Mega Stores	Mr. Andre Bernard	Senior Procurement Specialist
Pesticides Toxic Chemicals Control Board (PTCCB)	Ms. Trecia David	Director
National Milling Co. (NAMILCO)	Mr. Roopnarine Sukhai Mr. Fitzroy MacLeod Mr. Vishal Lalbachan	Managing Director Finance Manager Assistant MD
Ministry of Agriculture	Mr. George Jarvis	Chief Technical Officer
Amazon Caribbean Company	Mr. Jean François Guerin	General Manager
Guyana National Shipping Corporation	Mr. Indranauth Haralsingh	Managing Director
CARICOM	Mr. Shaun Baugh Ms. Dr. Pauline Yearwood Ms. Milagro Matus	Programme Manager – Agricultural and Agro-Industrial Development Deputy Programme Manager – Air and Maritime Transportation Deputy Programme Manager – Agricultural and Agro-Industrial

		Development
Mahaica Farmers Group	Mr. Luqman Hawker Mr. Royston Blackette Mr. Kelvin Gulliver	Farmer, spokesperson Farmer Farmer

Suriname

Organization	Name	Title
Association of Paddy Producers	Mr. Omraw Singh	President
Boerderij Goliath Ltd.	Mr. Kevin van der Werff	Director
Suriname Trade & Industry Association (VSB)	Ms. Sherida Mormon	Director
Association of Surinamese Manufacturers	Mr. Wilgo Bikerdijk Ms. Audrey Trustfull	Chairman Office Manager
Association of Rice Exporters	Mr. Ramadhin B	Director
VSH United Ltd	Ms. Bharti Makhanlal Mr. Kushal Rambaros	General Manager Account Executive Sales
Laparkhan Suriname Ltd	Mr. Egon Audhoe	General Manager
De Molen Ltd.	Mr. Julio Bhikharie	CEO
Elmer Juices	Mrs. Ellen Bang A Foe-Nelson Mr. Harvey Bang A Foe Mr. Wielzen Jasherel	Managing Director Manager Quality Manager
Tropical Pride Factory Ltd.	Mrs. Tania Van Velthuizen Mr. Jerry Sewberath Misser	Human Resources and Finance Director Managing Director
Choi´s	Mr. Martin Van Batuw	Operations Manager
Fernandes Bakkerij Ltd.	Mr. Rufin Bajnath	Managing Director
Agrimex	Mr. Robert Griffith	Manager
Ministry of Agriculture, Livestock and Fisheries	Ms. Maitrie Jagroep Ms. Shemiem Modiwirigo Mr. Rewish Somni	Deputy Director, Research Department Pesticides Division NPPO
Customs	Ms. Girwar Charda Ms. Patricia Herfst-Macintosh Mr. Franklin Beek Mr. Arman Kartokarijo Mr. Jerrol Virway	Acting Head Head Smaller Ports Head Excise Head Border Districts Supervisor Port Area
Luchthavenbeheer (Airports Management Limited)	Mr. Soekra Bryan	Head of Commercial Affairs Cargo
Caribbean Agriculture Health Food Safety	Ms Juliet Goldsmith	Plant Health Specialist

Association (CAHFSA)		

Trinidad & Tobago

Organization	Name	Title
Caribbean Specialty Foods Limited	Ms. Hesma Tyson	Managing Director
Customs & Excise Division	Ms. Sharon Beepat Ms. Savitari Ramjit Mr. Allan Matook Mr. Dexter Robertson Mr. Ishwar Singh	Deputy Comptroller Assistant Comptroller Assistant Comptroller Assistant Comptroller Assistant Comptroller
Port Authority of Trinidad and Tobago	Ms. Candice Baptiste	Marketing Manager
Shipping Association of Trinidad and Tobago	Ms. Sonja Voisin	President
Ministry of Agriculture, Land and Fisheries	Ms. Dr. Simone Titus Mr. Chris Ramkissoon	Chief Technical Officer Ass. Director Agricultural Planning
National Agricultural Marketing and Development Corporation	Mr. Christopher Alexander	Manager, Quality Assurance
Airport Authority of Trinidad and Tobago	Mr. Emmanuel Baah	Deputy General Manager, Business Development
Caribbean Airlines Limited	Mr. Brian Broomes	Cargo Sales Manager
CKHL Shipping & Logistics Group Limited	Mr. Trevor Chan Pak Mr. Shane Alexander	Executive Chairman Financial Controller
Trinidad and Tobago Manufacturers Association	Dr. Mahindra Ramesh Ramdeen	President
National Flour Mills Limited	Mr. Ian Mitchell Ms. Sati Jagmohan Mr. Emmet Daisy	CEO Executive Corporate Secretary Head Procurement and Raw Materials
Regional Agricultural Consultant	Mr. Jai Rampersad	Value Chain and Trade Dev Consultant
Ministry of Trade & Industry	Ms. Candice Lackhansingh Ms. Simi Suraj Mr. Kushal Beepat Ms. Aurelia Bruce	Director, Policy & Strategy Directorate Research Specialist Business Reform Specialist Senior Trade Specialist
CMA-CGM	Mr. Vitor Gomes	Regional General Manager, Caribbean Cluster - Trinidad and Tobago, Jamaica, Guyana,

		St. Lucia
Tourism Trinidad Limited	Ms. Carla Cupid Ms Deokie Ramnarine	CEO Senior Research Officer
CMA Fruits & Vegetables Limited	Mr. Anthony Chadee	Manager
Salisha Trading Limited	Mr. Peter Charles Mr. Gary Berridge	Associate Partner Associate Partner
Felicity Farmers Association	Mr. Khemraj Singh	Farmer, President
SlimDown 360	Mr. Jody White	CEO
Inter-American Institute for Cooperation on Agriculture (IICA)	Ms. Diana Francis	Representative, Trinidad and Tobago
Ramps Logistics Limited	Mr. Shaun Rampersad Mr. Gerard Rique	Chief Operating Officer Manager Innovations

Annex 5: Validation Workshop Summary

On September 18, 2023, IESC hosted a Validation Workshop in collaboration with USAID for participation by the CARICOM Secretariat, Member States and other interested parties. Amy Chambers and Nicolas Rigal presented the findings from their literature review and stakeholder interviews. Following the presentation of findings and recommendations, the participants we invited to ask questions and provide feedback. Below is an explanation of the topics that were discussed in depth.

1. The possibility of a finance function to increase farm investment.
    a. While this topic repeatedly arose in the interviews that Mr. Rigal conducted, it does not appear in this model as there was a need to limit it to trade and logistics issues. Although access to finance is limited for small and medium sized companies, there are a few public banking systems in the countries, but they take a long time to get financing. The report also points out that without complimentary investments at the farm level and in agricultural value chain investments, this model wouldn't work in the long run. This model is contingent on complimentary investments and work in the agriculture sector.
2. Regional promotion of goods in the corridors, and how to mitigate the reluctance to purchase goods from regional neighbors due to a perceived difference in the quality.
    a. Standardization and regional branding would be beneficial to ensuring there is demand. To improve intraregional trade, this is a big aspect as many stakeholders mentioned. It's not entirely about adding routes and vessels for trade, but also about preparing hubs and producers for trade. CAHFSA can help the region to improve the flow of intraregional trade by coming up with Standard Operating Procedures for certain products. CAHFSA is working with countries to ensure quality.
3. Tracking the progress of each of the working groups will be important for funding the implementation.
    a. The CDF, for example, would be keen to be informed of these activities and the potential pipeline arising to facilitate funding at the appropriate time and relevant intermediation. The design through the working groups would be funneled through the taskforce. Therefore, the taskforce would be responsible for making sure that the working groups would be on track. First, start with a high level taskforce which includes representatives from each participating member state. Then the working groups are determined from that, and then down to the national level. But this all starts at a higher multi-member state level.
4. Anticipated challenges in implementing the model.
    a. While participants initially believe this model to be feasible, they see challenges in the coordination of the activities, the financing and legal framework for trade facilitation, protectionism and national industries, and ensuring the correct digital environments are provided. The infrastructure that is needed to ensure the value chain functions smoothly, such as cold storage and ability to maintain quality, transportation would need to be built out.
    b. There are many transportation and infrastructure challenges, a number of which have been mentioned. There should be more interconnections between countries so that commodities don't need to go through the US. How to meet container loads would help with this. Regarding the hubs, aggregating goods in facilities that include cold chain, would help this process. Improve digital environment to improve the ease of doing business e.g. movement of funds and movement of information.

The consultants addressed the issue of protectionism in the model by developing national-level coalitions to support the project. Additionally, this project is designed by voluntary agreement with signed agreements between member states.

List of Workshop Participants:

- David Prendergast – Director, Sectoral Programmes, CARICOM Secretariat
- Lavern McFarlane – Senior Economist, CARICOM Development Fund
- Melvin Lindsey, Principal Agricultural Officer, Ministry of Agriculture, Montserrat
- Lench Fevfier, Senior Technical Specialist, Agriculture, OECS
- Omario Gooding, Ministry of Agriculture, Guyana
- Gavin Peters, CEO, CAHFSA
- Chris Ramkissoon, Senior Planning Officer, Ministry of Agriculture, Land and Fisheries, Trinidad and Tobago
- Milagro Matus, CARICOM
- Juliet Goldsmith, Plant Health Specialist, CAHFSA
- Daryl Best, Veterinary Officer III, Ministry of Agriculture – Veterinary & Livestock Services, St. Lucia
- Mariana Arias, European Union
- Thaddeus Constantine, Chief Agri-Enterprise Development Officer, Ministry of Agriculture, St. Lucia
- Sandra Grant, DED, CRFM, Belize
- Lenox Forte, Director | Regional Development Division, CARICOM Development Fund