

AGBU 6002: International Trade and Marketing

COURSEWORK 2009/2010:

Intra-Regional Transport for Agricultural Commodities: a regional public good

Critical areas to be addressed in

INTRA-REGIONAL TRANSPORT & ASSOCIATED INFRASTRUCTURE

in order to enhance

intra-regional agricultural production and trade in CARICOM and beyond.

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Objective: To provide data to facilitate the elaboration of the of the scope and policy framework for the growth and development of intra-regional agricultural production and trade in CARICOM. This data will be used to advise on the development of the Regional Public Goods (RPG), in this case, **intra-regional transport & associated infrastructure.**

DATA and ANALYSES to facilitate:

- (i) Identification of key issues in the design/development of intra-regional transport & associated infrastructure for agriculture
- (ii) Determination of current issues, needs, capacity and constraints in the provision of intra-regional transport & associated infrastructure.
- (iii) Describe experience in other parts of the world in intra-regional transport & associated infrastructure.
- (iv) Suggest appropriate strategies supported by (i) – (iii) in your recommendations.

Introduction

CARICOM's main purpose is to promote economic integration and development, especially in less-developed areas of the region (See Appendix A for a list of territories in CARICOM). The three mainland territories have large land masses and the 12 island states are relatively small and separated by large expanses of sea. This makes transportation by sea essential to their social and economic development. Moreso as most of the Caribbean have essentially been agriculture-based economies; sea transport has been a historical part of their development. However, in July 2004, the Jagdeo Initiative identified "inadequate transportation systems particularly for perishables" as one of the key binding constraints to the development of agriculture in the region (Private Sector Commission of Guyana 2007).

In 2006, CARICOM inaugurated the CARICOM Single Market Economy (CSME). It is intended to benefit the people of the region by providing more and better opportunities to produce and sell goods and services and to attract investment by creating one large market among the participating member states with the objectives of: full use of labour and full exploitation of the other factors of production; competitive production leading to greater variety and quantity of products and services to trade with other countries (CARICOM Secretariat 2010a). In 2007, Norman Girvan listed "the upgrading of facilities for intra-regional agricultural trade and transport" as the first in his list of regional priorities in the vision for the CSME (Girvan 2007).

To underscore the importance of transport in CARICOM, Protocol Six (Articles 136-140) of the Revised Treaty of Chaguaramas which establishes CARICOM and the CSME outlines a Transport Policy which specifies shipping and air transport as two areas which should be pursued and expands the scope of the Treaty by including road and river transportation. (CARICOM Secretariat 2006)

A responsive transportation system developed to support agriculture includes sea, air, roads, river (i.e. by river) and rail modes; plays a role in moving both the inputs and outputs from agriculture; and must have sufficient capacity to be cost effective. Unreliable transport in any form would affect production and marketing of agricultural produce and make it uncompetitive.

When transport systems are deficient, in terms of capacity or reliability, they can have an economic cost, including reduced or missed opportunities. Transport also carries an important social and environmental load, which cannot be neglected (Erskine 2009)

Intra-regional transport is an example of a regional public good (RPG). RPGs are defined as services or resources whose "benefits are shared by the countries within the region. The benefits of pure regional public goods are "non-rival" (one country's consumption does not subtract from the amount available to other countries) and "non-excludable" (no country in the region can be excluded from benefiting, except at prohibitive cost) (Ferroni 2002). Intra-regional transport is critical to the success of the CSME.

(i) Key issues in the design and development of intra-regional transport and associated infrastructure for agriculture for the Caribbean:

In CARICOM, the main intra-regional transport systems would be by air, sea, road and river.

Issues to be considered overall would be:

- Nature and quantity of the goods to be transported
- Markets
- Trade policy
- Facilities of ports and airports
- Trained and qualified/certified personnel
- Data, information and statistics collected

- Environmental and food safety measures
- Ensuring viability and cost effectiveness of operations of any system implemented
- Efficiency and adequacy of services
- Affordability, accessibility and maintenance requirements of vessels and vehicles

(ii) **Determination of current issues, needs, capacity and constraints in the provision of intra-regional transport & associated infrastructure.**

a) Current issues:

Overall cost of fuel

Affects all modes of transport and, in our region, storage measures

Agricultural productivity

Levels of agricultural production must be sufficient to sustain regular transport measures; however, current declining or low productivity of the sector may result in lower demand for intra-regional transport.

Nature of agricultural produce would affect the method of transport needed:

- bulk items e.g. rice, sugar require bulk carriers at sea (those leaving Guyana to go north to Jamaica may be empty on the return voyage)
- perishable items – fruits, vegetables, meats – refrigerated or special storage
- livestock – require special handling

Market and Consumption changes

The following changes affect the goods required and thus affect demand for and facilities provided by intra-regional transport:

- Increased demand for convenience foods e.g. seasoned cutlets
- Increased processed primary products e.g. chopped onions
- Increased demand by supermarkets for processed local primary products
- Increased incomes in countries like Trinidad and Tobago changes diets to more affluent ones, demanding more items from out of the region
- Increased tourism (possibly up to 24 million tourist may pass through the region annually (Canada 2010)) and food tourism ventures increases the demand for local items.

Environmental and Food Safety issues

Measures taken -to prevent invasive species from spreading; for biosecurity; to transport hazardous goods; for safety of people and craft; to maintain Hazard Analysis and Critical Control Point (HACCP) systems, sanitary and phytosanitary (SPS) standards - are necessary but all raise the cost of transport. The region is regularly afflicted by hurricanes (and occasionally earthquakes and volcanoes) that can adversely impact infrastructure, primary industries (tourism and agriculture) and already limited government resources.

Riverrain Transport

Transport of agricultural produce by riverrain is important, mostly, for the larger CARICOM states – Belize, Guyana and Suriname. Issues regarding bridges, river-crossings and suitable vessels for traversing rivers would need to be addressed.

Road Transport

Access roads, road maintenance, rehabilitation and expansion and availability of farm vehicles at a reasonable cost will be the main issues throughout member states.

Maritime Transport

- **The State of Shipping and Port facilities**

Prof. Compton Bourne, President of the Caribbean Development Bank, said that "shipping is very poor within the region. Our shipping arrangements are largely geared towards bringing commodities from outside the region to the region, rather than moving commodities between the various islands and countries in the Caribbean....our port facilities in the main for CARICOM trade are atrocious, often under-staffed, often not provided with the requisite phyto-sanitary inspection facilities" (Yearwood 2008). A major productivity challenge facing the Caribbean is lack of standards for labour practices and operational efficiency factors of ports (Pinnock 2009). Most shipments for intra-regional trade for agricultural products are palletized or less than a container load (LCL) cargo.

- **Informal intra-regional trade on small craft/schooner type vessels:**

Boerne (1999) from Cardiff University, in a detailed research paper on the informal trade, found that most small vessels (large ones being more than 50-foot) do a voyage in a week, sailing on average 271 miles. Each week up to 10 small vessels can dock in Port-of-Spain, Trinidad (a major transshipment point) off loading fresh produce- spices, fruits and vegetables-, then sail on to Grenada and as far as St. Maarten taking manufactured goods in that direction. Small vessels keep their operational cost low. They operate at set times and are not usually dedicated to one product. Approximately 77% employ shipping agents to deal with customs. Or hucksters would handle their own stocks, selling them in the markets in the port of call. (Wilkinson (2009) stated that the small inter-island agricultural traders who lose as much as 20% of their goods per voyage due to poor shipping conditions would benefit greatly if there is regular shipping between islands, and refrigerated storage on vessels available

Despite the great importance of this trade to food and nutrition security of many territories, it is not regulated or recognised by the formal sector. This is evidenced by the lack of data available. Note that increased transit especially of smaller boats can harbour the increase movement of goods illegally.

Air transportation

Air transport would normally be utilised for vulnerable, emergency or express cargo as it would be an extremely costly measure to do regular bulk movement of primary or secondary agricultural cargo by this means.

At this time, CARICOM's policy appears to be geared towards intra-regional transport for tourism/travel as at a Special Meeting of the CARICOM Council for Trade and Economic Development (COTED) on Tourism and Transportation "several agencies and community bodies including airport authorities, customs and immigration, and the Caribbean Aviation Safety and Security Oversight System (CASSOS), have been given the responsibility of ensuring facilitation of intra-regional travel and multi-destination tourism among CARICOM Member States (CARICOM Secretariat 2008).

b) Needs:

According to the Jagdeo Initiative there is a need to determine freight needs, upgrade ports and consolidate services in order to address the issues of intra-regional transport (Private Sector Commission of Guyana 2007).

Funding

Funding and investment would be needed for any changes to be made. Ferroni, an InterAmerican Development Bank (2001; 2002) notes that intra-regional transport, like other RPGs, can be financed through four mechanisms: public sources, private sources, payments by users and beneficiaries

(internalizing externalities), and “partnerships”. Public sources include national contributions from developing and OECD countries, and payments made by (or channelled through) international organizations and financial institutions. Private sources include contributions by foundations, NGOs, individual philanthropists, and for profit corporations. Payments by users and beneficiaries take the form of market mechanisms and international taxes and fees, to the extent that they are feasible today. Partnerships, finally, are combinations of these sources. Funding from a development bank can be either as a grant or a loan. Jessen and Rodríguez (1999) noted that annual Caribbean seaport investment needs can amount to roughly US\$ 100 million.

Data Collection

National and regional statistical offices including CARICOM Statistics collect generalised data and often publications are dated. Current targeted accessible data is not available for the level of analysis needed to make proper projections and plans. There is the need to formally collect and collate data and information as well as make the data accessible.

Ports and airports

Whether by land, sea, river or air, associated infrastructure needed would include, in order to avoid congestion, appropriate warehousing with areas for packing and handling; for consolidation/deconsolidation; for safe and appropriate storage (possibly refrigerated); and for loading of primary produce/processed or manufactured products.

Trade policy

Harmonising of policies and procedures within CARICOM to accommodate standards, SPS, tariffs and tariffication of the non-tariff barriers between member states.

Trained and certified/qualified personnel are needed for:

- customs
- port management and labour
- maintaining standards and safety systems
- collecting and collating data
- managing vessels and vehicles

c) Capacity

Increasing Agricultural production

It is felt that CARICOM can meet a substantial share of its food needs. Historically, the ad hoc and, to a large extent, unregulated trade in roots and tubers, fruits and vegetables has been responsible for the availability of local, fresh products in the region. Though the current levels of intra-regional trade is fairly low, it is expected that if dependable, regular transport is maintained such trade will increase. and thus reduce the 2006 figure of USD 3billion food import bill of the region (Carmichael, Jacque, and Francis 2009). With the increase in food prices since then, Jessop (2009) suggest that this figure might be closer to USD 5billion. The upside of preference erosion by the developed countries means that agricultural production can be geared toward intra-regional trade and sharing in the food import bill. The World Trade Organisation (WTO) regulations allow subsidies up to 10%, this would allow investment in agricultural production to increase the supply for intra-regional trade. BC shows the difference in imports between intra-regional trade and extra-regional trade from 2000-2003. It is expected that the gap continues to today.

Information and Communication

Information and the speed at which we can move same have become a major competitive advantage (Pinnock 2009). Information and Communication Technologies (ICTs) can assist in terms of making communication easier and transactions much less costly. Use of cell phones, reduction of rates for long-distance calls, ability for international roaming, texting as well as all the communication services

via the Internet – e-mail, video conferencing, VOIP (Voice over IP e.g. Skype), broadband and wireless access along with high Internet access, all facilitate easier communication to plan production and market produce.

Bilateral Trade Agreements

As market access opens up outside of the region, producers may want to increase their exports and intra-regional transport will have to be organised to accommodate the movement of these products within and out of the region. If there is an increase in FDI with franchises in the various countries there will be a demand for better intra-regional transport.

Building of small vessels

Maritime transport has been an integral part of the region's culture and thus there is indigenous knowledge of building and maintenance of small sea going vessels. There is also the more modern technical knowledge in boat-building companies like Bowen and Peakes.

Maintenance of ships and boats

There are organisations like, Chaguaramas Dry Docks, who can do extensive maintenance of vessels.

Port Capacity

In terms of port capacity, many member states can handle cruise ships as well as small vessels but not all manage containerised cargo – See Table 1.

Ports	Global Hub	Sub – Regional Hub	Service
Port of Spain, Trinidad		*	
Point Lisas, Trinidad		*	
Bridgetown, Barbados			*
Kingston Wharves, Jamaica		*	
Kingston Container Terminal, Jamaica	*		
Caucedo, Dom. Republic	*		
Rio Haina, Dom. Republic			*
Puerto Plata, Dom. Republic			*
La-Roman, Dom. Republic			*
Freeport, Bahamas	*		
George Town, Guyana			*
St. Johns, Antigua			*
Castries, St. Lucia			*
Vieux Fort, St. Lucia			*
Georgetown, Guyana			*
Havana, Cuba			*
Boca-Chica, Dom. Rep			*
Willemstad, Netherlands Antilles			*
Pointe-A-Pittra, Guadeloupe			*

Table 1 – Classification of Caribbean Ports

Source: (Pinnock 2009)

Note: Global Hubs – much containerised cargo, Sub-regional – substantial inter-Caribbean trade, Service - smaller vessels

d) Constraints/limitations

Transport costs – According to Jenssen and Rodríguez (1999) it is important to note that the largest Caribbean countries pay up to three times more than the world average in transport and insurance costs as a percentage of their imports. High port costs are incurred due to low productivity which require ships to stay longer at port (Pinnock 2009).

Due to limited berthing facilities, cargo ships have to wait until cruise vessels sail to discharge and load cargo as cruise vessels have priority berthing arrangement throughout the entire Caribbean region. For vessels discharging and loading cargos during these peak periods usually incur high costs in moving vessel off the port to give way to priority access by cruise vessels. Cargo vessels pay higher

cost to reposition the ship to the port after the departure of the cruise vessels especially if it during overtime hours (Pinnock 2009). A lack of competition (most ports are government owned and managed) results in inefficiencies in operations. Some ports are still closed in the evenings and on weekends. Also for consideration is that though the Caribbean lies at the crossroads of shipping in this hemisphere the opening up of the Panama canal for larger ships may affect the current port facilities.

Labour

There is a high level of unskilled labour and large labour force, which are not easily adaptable to change. High restrictive labour practices with very strong labour movement makes the Caribbean labour force uncompetitive in relation to other global ports (Pinnock 2009).

Funding

Is there the capacity regionally to manage the amount of funding to create and maintain the quality and level of transport needed? Unequal finances /economies of the CARICOM states would affect their ability to contribute.

Lack of regional integration

The lack of true regional integration and political will may hamper the planning and development process. Political interference (e.g., having the *Federal Maple* and the *Federal Palm* stop at countries, even when it was not economically worthwhile incurred unnecessary costs to the service (Payne 1980)) is another issue that reflects the lack of one vision.

Lack of Training in issues affecting Trade

Training and education of the many people who would be affected by HACCP and SPS standards as well as training of persons who would implement and monitor environmental and food safety standards would have to be considered.

Lack of Expertise/continuity

Getting young people involved in sea transport as it is not seen as an desirable way of life.

(iii) Describe experience in other parts of the world in intra-regional transport & associated infrastructure

There are many groups of islands throughout the world, where transport by sea is usually most important for moving people and cargo around, especially when islands do not have airports.

For this project we look at how Hawaii, Indonesia and Philippines manage their shipping as well as some examples of sea transport in the Caribbean.

Hawaii

Hawaii, as a US state made up of various islands, uses interisland shipping for moving locally grown agricultural products. One hundred percent of the farmers use water transportation for either shipping out their products or shipping in materials and supplies. Of this,

- 68.1% of the farmers shipped out their products, always or fairly often use LCL
- 81.3% of the farmers shipped in their supplies and materials always or fairly often use LCL
- 14.9% of the farmers shipped out their products only in full containers. 6.5% of the farmers shipped in their supplies only in full containers

The Hawaii experience highlights food safety and invasive species as important issues to address. They have a biosecurity and food safety programme which protects both the environment as well as from invasive species by having multiple levels of inspection and increased levels of recordkeeping. Their Agricultural LCL cargo includes not only fresh agricultural products but value added goods using locally grown agricultural products, materials, and supplies, including fertilizers and pesticides. They

have congestion issues which suggest that consolidation/deconsolidation operations should not occur at the harbour front (John M.Knox & Associates, Markrich Research, and High Technology Development Corporation's Manufacturing Extension Partnership Program 2008).

Indonesia

Indonesia is an archipelagic country comprising of over 17,000 islands with about 14 million passengers a year are travelling by inter-island shipping. It is still developing in terms of multi modal regional transport integration. There are two distinct types of inter-island shipping services: ferry, and shipping services. Ferries are generally point-to-point services offered over a relatively short distance, typically between adjacent islands, and use ro-ro vessels that carry a mix of passengers, cars, and trucks. Whereas, shipping services are offered on more complex routes, commonly use lift-on lift-off vessels, and are mostly dedicated cargo services. Ferry port infrastructure has been classified under two categories of ownership. These are public ports and special ports. Public ports are defined as those which provide transport for people and produce. These are said to belong to Indonesia's state owned enterprises. Special ports are those that belong to the central government. In total there are 725 public ports and 1,156 special ports. The public ports encompass international, national, regional and local ports. They can be commercial and non commercial. The special ports deal with mining, forestry, industry and fishing. This seems like a lot but for the geographic location and makeup of the islands, facilities and available space (Lubis et al. 2005; World Bank 2010).

Philippines

The country relies heavily on its road network to handle most of the passenger movement and about half of freight movement. Ports are important for long-distance logistical needs and inter-island routes provide regular roll-on roll-off vessel operations. Airport and rail infrastructure provide alternative means of transporting people and goods to major economic hubs around the country. There are 2,456 ports in the country and most of them are small. The government corporation Philippine Ports Authority operates the biggest public ports while the Philippine Fisheries Development Authority manages the big fishing ports/wharves. There are four other independent port authorities involved in public port operations. Apart from owning and operating public ports, the Philippine Port Authority also has the mandate to regulate private ports. There are about 400 private ports regulated by them. These ports are mostly for industrial use though some operate as commercial ports. Shipping companies are predominantly privately-owned and operated. In 2001, there are 585 registered shipping companies in 2001, compared to 223 in 1997. The shipping industry however continues to be highly concentrated with five major shipping lines accounting for 90 percent of passenger and cargo markets (World Bank 2010).

Within the Caribbean

There are several inter-island ferries which move passengers around within specific areas- The British Virgin Islands; St. Vincent and the Grenadines; as well as a US\$20 million ferry project (funded by the European Union) which plies between Guyana and Suriname on the Corentyne River.

The Bedy lines, using speed boats with a round fare of \$140.00 USD, plans to service the five islands: Barbados, Trinidad, Grenada, St. Vincent and St. Lucia. Each ferry will offer between 260 and 300 seats. The service does not provide for cargo (Alleyne 2010).

The Bahamas Ferries Freight department transports most containerized and palletized freight items. Items transported include heavy equipment, break-bulk freight, refrigerated and cooler items. Bahamas Ferries also offer a drive-on/drive-off passenger vehicle service (Bahamas Ferries 2009). During the 1990s, the *Windward* ferry operated in the southern Caribbean.

In 1961, as part of the formation of the West Indies Federation, Canada gave the region the *Federal Maple* and the *Federal Palm*, two multipurpose vessels which facilitated the movement of cargo and passengers up and down the Caribbean. See Appendix C for a more details on this service.

(iv) Suggest appropriate strategies supported by (i)– (iii) in your recommendations.

Current Regional Activity/Plans

Though in 2000, CARICOM outlined the Programme for the Implementation of Protocol VI – Transport Policy (CARICOM Secretariat 2000), Girvan notes the Revised Treaty of Chaguaramas calls for a Community Transport Policy whose goal will be the provision of adequate, safe and internationally competitive transport services for the development and consolidation of the CSME. The policy will embrace air and maritime transport both in their regional and international dimensions. It will address functional cooperation, common negotiations with third parties, tariff regimes, market access, competitive practices, taxes, air navigation charges, regional aviation authority, safety and security (Girvan 2007).

Regional actions planned include requests for technical analysis of the transportation sector supporting agricultural trade and for consensus building on the issue of what is needed and how to go about doing it. It was felt that was not a shortage of capacity for non-perishables, the issue the needs to be dealt with was that of perishable cargo. Some national interventions undertaken were:

Trinidad and Tobago – upgrading ports, assessment of transport of perishables, incentives for vehicles for farm vehicles, incentives for development of access roads, financing for maritime activity

Guyana - construct a wharf for agricultural produce, purchase a vessel for riverine areas, construction of roads

Jamaica- increase wharf capacity for larger vessels. (All ACP Agricultural Commodities Programme 2008).

Activity of the Association of Caribbean States (ACS)

- The ACS Transport Committee has set up a Scholarship Programme of the Caribbean Maritime University at the Caribbean Maritime University for 25 scholarships (ACS 2007).
- Also in preparation is an Internet-based Port and Maritime Database for the Greater Caribbean (ACS 2007). This project will facilitate better utilization of regional services so that costs can be lowered.

Vaccianna (2007) urged immediate action on an integrated CARICOM Regional Transport Policy to generate growth, jobs and sustainability; the need for regional incentives to promote the development of regionally-owned shipping as well as the free movement of skilled persons categories to include marine pilots and seafarers.

Lower cost, effective and efficient intra-regional transport will enhance the current informal agricultural trade and also facilitate creation of employment, movement of labour and capital, food and nutrition security, emergency relief, food self sufficiency and improve balance of payments, increase intra-regional trade and capacity for extra-regional trade, improve rural livelihoods, foster greater interaction between islands and in forging a Caribbean identity.

Recommendations

- There has been recognition of the importance of Intra-regional transport and many persons have articulated various solutions and aspects. The CSME can provide the framework to manage these issues. There has been a call for a CARICOM Regional Transport Policy from several persons. What is needed at this time is the political will and support to move to implementing the elements coordinating and addressing the issues to have lower cost, effective and efficient intra-regional transport in all its facets.
- Conduct studies and/or review all the work already done to determine policies, procedures and processes to make system efficient and effective. Hire consultants where necessary, utilise understudies in order to increase regional human resource capacity thereafter.
- The model suggested is loosely based on the operations during the West Indian Federation
 - Have a CARICOM ministerial council convened to oversee intra-regional transportation issues in all its modes

- Create a Regional Shipping Company to execute decisions of the ministerial council and manage the maritime trade
 - Improve cooperation among ports and carriers to improve efficiency.
 - Bulk carriers, large boats to go to Guyana, Trinidad, Barbados and Jamaica
 - Formalise the schooner trade by certifying, training and taking data on their trade (if possible)
 - Marketing agencies in all the member states to ensure availability of the small quantities – LCL trade to make the system viable
- Lessons from the *Federal Maple* and the *Federal Palm* include the fact that multipurpose transport may not be viable due to insufficient capacity and inappropriate vessels.
- Improve maritime training and technical help to ensure that local seafarers meet international certification standards. Training and certification of Caribbean port workers.
- Actively identify areas of training needed, offer scholarships specifically to fill gaps in regional expertise needed.
- Harmonise standards, undertake tariffication, remove/reduce barriers to trade (border measures, licensing, and opportunities for corruption), rationalise customs procedures among member states.
- Implement systems for coordinated collection and collation of data and make it accessible. This is needed to expedite processing, assess problems and determine solutions,
- Ensure compliance with safety and environmental laws.
- Encourage Regional organizations such as the private sector Caribbean Shipping Association (CSA), the CARICOM Secretariat and the ACS to cooperate more.

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Appendix A – CARICOM Countries

Full Members of CARICOM

Anitgua and Barbuda	Jamaica
The Bahamas	Montserrat
Barbados	Saint Kitts and Nevis
Belize	Saint Lucia
Dominica	Saint Vincent and the
Grenada	Grenadines
Guyana	Suriname
Haiti	Trinidad and Tobago

Associate Members of CARICOM

Anguilla; Bermuda; British Virgin Islands; Cayman Islands; Turks and Caicos Islands

Source: (CSME Unit of Trinidad and Tobago 2009)

Appendix B – CARICOM Intra-regional Trade for Agricultural Imports/Exports

Figure IV: Value of CARICOM's Agricultural Imports from Intra-Regional and Extra-Regional Sources: 2000 - 2003

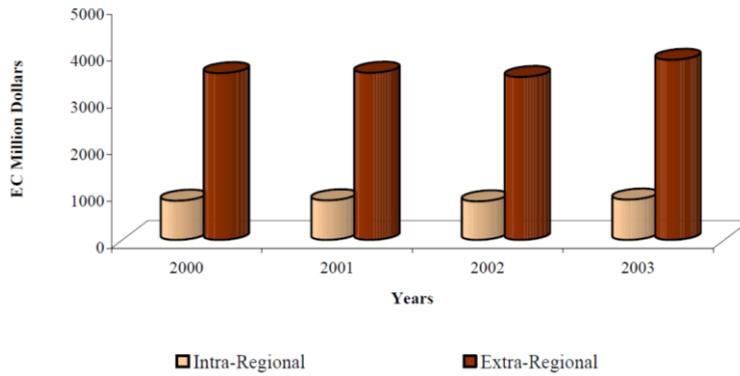
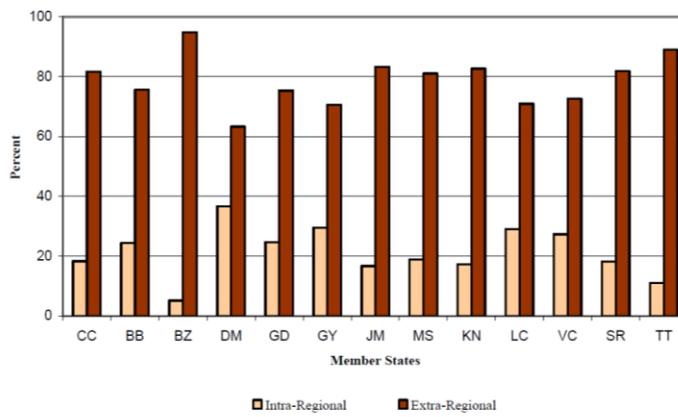
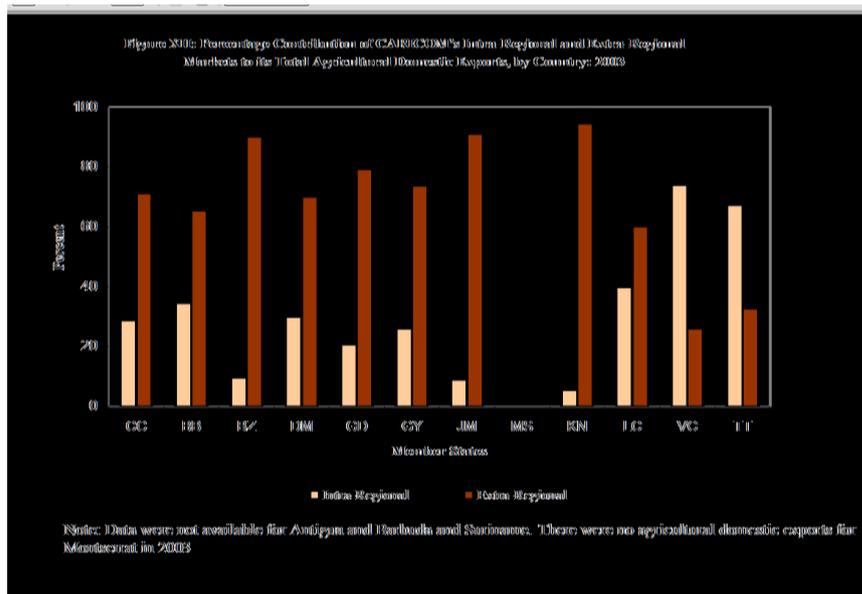


Figure VI: Percentage Contribution of CARICOM's Intra-Regional and Extra-Regional Markets to its Total Agricultural Imports, by Country: 2003



Note: Data were not available for Antigua and Barbuda in 2003



Source: (CARICOM Statistics Sub-programme 2007)

Appendix C- The Federal Maple and the Federal Palm

IN May, 1961 Canada presented the West Indies Federation with two of the region's most important gifts from the Government of Canada: two merchant (passenger and cargo) ships, named *Federal Maple* and the *Federal Palm* (the latter arrived in Sept 1961 (*Federal Maple* may call here 1961)). The *Federal Maple* was built by the yard of Canadian Vickers, at Montreal for the Canadian Government was launched on May 4, 1961. (Tonnage 3,174 gross, Cargo capacity 83,000 cub. feet including 18,000 cub. feet reefer space. Passenger accommodation for 50 cabin class and 200 dormitory class and about 1,500 tons of cargo. Two self-contained electric cranes capable of handling 3-ton loads, two 5-ton derricks, and a heavy lift derrick of 20 ton (Bascom 1979)).

The West Indies Shipping Service (WISCO) was established to operate these two multipurpose ships. Their route was to be Port of Spain (Trinidad), Grenada, St. Vincent, Barbados, St. Lucia, Dominica, Montserrat, St. John (Antigua), St. Kitts, Kingston and return voyages: Kingston, St. Kitts, St. John, Montserrat, Dominica, St. Lucia, Barbados, St. Vincent, Grenada, Port-of-Spain (CARICOM Secretariat 2009).

They were to provide intra-regional transport with the idea that they would ply the island chain continually, one going from north to south and the other, south to north, affording constant ocean transport for the newly united archipelago. This was to be critical to the development and advancement of the West Indian Federation. They ran for more than ten years, but were not economical and service was halted in the mid 1970s. With the establishment of Caribbean Free Trade Area (CARIFTA), intra-regional trade expanded and these multi-purpose (cargo, deck-passenger and cabin-passenger) vessels were unable to cope. They were described as unreliable mechanically but there is no evidence that there were adequate arrangements for maintenance. Also, it was said that there was political interference by heads of government who insisted that the ship stop at every port each time even if not economically feasible (Payne 1980).

When the two ships got increasing pressure from inexpensive airlines transportation, and passenger booking declined, while after the collapse of the Federation each island traded more with America or Europe than each other, it was evident in the early 1970's that one ship had to go, and the *Federal Palm*, in 1972, was sold. The *Federal Maple* stopped sailing the route by the mid 1970s.