FREE TRADE AND SUSTAINABLE AGRICULTURE IN THE CARIBBEAN

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ABSTRACT

This paper explores the possibilities of achieving sustainable development in the Caribbean in a free trade environment. The trade and agricultural dimensions of the changing internatinal economic framework are juxtaposed against the model of sustainable development. Particular attention is paid to international trade agreements that define the Caribbean's economic relationship with the rest of the world. The agricultural sector performance in the Caribbean in the 1980s is evaluated and lessons for achieving sustainable development through increased trade are derived.

INTRODUCTION

The decade of the 1980s has brought significant changes in the structure of the global political economy. Within the political realm these changes have been characterized by a reconsideration of the merits of multiparty democracy, evidenced most spectacularly in Eastern Europe, but also significantly in Africa, Asia, Latin America and the Caribbean. Within the economic realm, the debt crisis of the 1980s, and the associated global recession has led to the promotion of a much more integrated global economy characterized by privatization and economic concentration. These political and economic events are closely related and are in many ways a result of the model for economic growth promoted by the West over the past 4 decades *[Chenery 1960, 1979; Hirschman 1958, 1977; Kuznets 1961, 1966; Lewis 1954; Rostow 1960; Krueger 1978; World Bank 1984, 1994].* At a most basic level of economic understanding, this growth model suggests that the absence of a domestic surplus for reinvestment dictates that revenues be generated through foreign trade. The adoption of this economic growth model is creating a new global economic order characterized by expanded economic areas, the globalization of capital markets and the liberalization of international trade.

At the same time that a new economic order is coming into place, a coalition of ecologists, unconventional economists, philosophers and others are questioning the western growth model more than ever and are espousing a new model of development *[Daly and Cobb 1989; Ehrlich 1992].* This new development model includes the ecological concepts of preservation and sustainability. Prior to the Bruntland Report *[World Commission on Environment and Development, 1987]* these environmental concepts remained in the domains of environmentalists, green political activists, and to a lesser extent agriculturalists. The Bruntland Report succeeded in moving sustainability issues into the mainstream international development arena. The World Commission on Environment and Development *[1987]* spoke of interlocking crises and gave the following warning:

> *the various global 'crises' ... are not separate crises: an environmental crisis, a development crisis, an energy crisis. They are all one ... We are serving a notice - an urgent notice that the time has come to take the decisions needed to ensure the resources to sustain this and the coming generations. [p.4]*

This paper analyses the juxtaposition of these two evolving situations - on the one hand, the creation of a new global economic order

through the promotion free trade; and on the other hand, the pursuit of sustainable development. This analysis is carried out in the context of agricultural development in the Caribbean. The paper addresses three fundamental questions:

1. What is the changed international economic environment facing Caribbean agriculture?
2. What are the essential characteristics of a model of sustainable development for the Caribbean?
3. How should Caribbean trade be organized in order to promote sustainable development?

The first section of the paper describes the changing international economic framework emphasizing trade and agricultural dimensions. The second section of the paper outlines a model of sustainable development paying particular attention to a sustainable agricultural sector. The third section of the paper evaluates the performance of the Caribbean agricultural sector in the 1980s within the context of the changing economic environment. Particular attention is paid to the traditional agricultural export sector and the food supply sector in the context of trading relations that characterized in 1980s. The final section considers proposals for increased trade in the 1990s and the potential impacts on sustainable development in the Caribbean.

Changing International Economic Environment - General Dimensions

At a general level three characteristics can be emphasized. Firstly, globalization, the integration of production and consumption processes, leading to homogeneity and a loss of diversity (in its widest sense). Secondly, privatization, the diversity (in its widest sense). Secondly, privatization, the divesting of public enterprises to private entrepreneurs. Jamaica is the leader globally in this regard, with some 263 public enterprises either divested or targeted for divestment *[Stone 1992, p.12]*. Thirdly, economic concentration, which is a direct result of both globalization and privatization as multinationals corporations return to many countries that they departed in the 1970s. Referring to this trend the *Economist* magazine published an article entitled "*Welcome Back Multinationals*".

Changing International Economic Environment - Trade Dimensions

In the context of the Commonwealth Caribbean, the international trade environment is largely characterized by trading agreements among regions, with the Caribbean and North America, with the Caribbean and Europe, and within the Caribbean itself. Within the Commonwealth Caribbean the trading agreements are characterized by the Common External Tariff (CET) and the Rules of Common Market Origin (RCMO). With North America, several agreements have defined the trading relations and several more are on the horizon. Among the current are the United States Sugar Agreement (USSA) and the Caribbean Basin Initiative (CBI). Those on the horizon include the North American Free Trade Area (NAFTA), and the Enterprise of the Americas Initiative (EAI). With Europe, the main agreement currently is the Lome agreement. The December 1991 General Agreement on Trade and Tariffs *[GATT 1991]* proposal currently being debated has implications, if passed, for the Caribbean countries and will inevitably influence all other trading agreements.

The common thread that runs through these agreements is the promotion of free trade to remove the protectionist rules that have governed trade over the past two decades. The rationale is that the earlier period of the 1950s and 1960s were characterized by significant growth in both North and South economies and was a period when international trade grew at a faster rate than the world's gross product [Ostry 1991]. However, the period of the 1970s and 1980s which was characterized by relatively more protectionism coincided with the oil crisis, the debt crisis, and a significant increase in the global movement of capital. The value of annual capital flows now surpasses the value of world trade in goods and services, current estimates indicating almost by four times *[IICA 1991, p.5]*. This evidence of the economic performance under an era of relatively freer trade has led to a resurgence in the effort promoting increased

trade between countries. The agreements referred to above define the trading relationships of the Caribbean. As a result, their importance, impact and changing dimensions are briefly described below.

The Caricom Regional Trade

The Common External Tariff (CET) is a reflection of Caricom Heads of Government 1987 mandate to remove all measures restricting intra-regional trade by December 1991 *[United Nations 1991a].* It is a commitment to a regional free trade policy which will promote trade among member countries while protecting the regional economy from the deleterious effects of Third country policies. An important case is the negative effect upon regional beef and milk production brought about by the importation of cheaper EEC subsidized products *[Caricom 1991a, p.75].* The CET would remove the need for national protective mechanisms and it would be set at levels that encourage export competitiveness by regional producers so to ensure that product quality is not sacrificed. The CET structure provides for five rates for duty ranging from 5 per cent to 45 per cent. At the July 1992 meetings of the Caricom Heads of State it was agreed that the structure and level of the CET would be reviewed with a deadline for introduction by January 1, 1993. Within Caricom intra-regional trade has not performed as might be expected. In the decade of the 1980s intra-regional trade decreased while food imports increased. Decreased domestic food production and the fact that it was more beneficial for Caricom nations to export to preferential markets than to Caricom markets contributed to the decline in intra-regional trade.

A second dimension at the Caricom regional trade level is the *Rules of Common Market Origin (RCMO).* These regulations govern goods being traded within the Caricom Common Market. The distribution between goods moved within national boundaries and those moved within the common market is particularly important for agricultural products in the Caribbean. Currently, these goods must be *wholly produced* within the Common Market meaning that primary agricultural products must be grown or raised on Common Market soil *[Caricom 1991a].* This agricultural sector regulation is directed particularly at agricultural processors. The regulation seeks to protect national industries from manufacturers who may import cheap extra-regional inputs (for example, feed mix ingredients) and by marketing a product (livestock feed) undermine national production of similar inputs elsewhere in the region.

The North American Regional Trade Level

The United States Sugar Agreement (USSA), the Caribbean Basin Initiative (CBI), the North American Free Trade Area (NAFTA) and the Enterprise of the Americas Initiative (EAI) have either affected in the past or have the potential to affect trade relations in the Caribbean in the future.

Since the 1600s, sugar has been traded between the USA and the Caribbean. In 1934, the supply of sugar became regulated by the Jones-Costigan Act which established the US quota system. Under this Act an annual assessment of the sugar market was made and prices and quotas were determined for domestic and external suppliers. This system was replaced in 1948 by the Sugar Act which was directed to achieving self-sufficiency, stability in supplies and protection to USA domestic refiners. In 1974 with high sugar prices prevailing on the world market, the Sugar Act lapsed, resulting in Caribbean exporters to the USA receiving a price between the world market price and the EEC price. In the late 1970s and early 1980s the increase in sugar production above the world demand level led to an extended supply glut and plummeting world prices. In 1982 the quota system was re-introduced to protect the domestic market. Between 1983 and 1989 the US sugar quota declined by 78 per cent. In October 1991, it again declined sharply.

The Caribbean Basin Initiative (CBI) is an integrated program incorporating aid, trade and investment provisions promoting greater economic cooperation between the United States and the Caribbean Basin countries (21 islands in the Caribbean and 7 Central American countries). This agreement was passed in Congress in July 1983 and is officially called the Caribbean Basin

Economic Recovery Act. Trade expansion, a centerpiece of the agreement, is promoted through the USA eliminating duties on almost all imports from CBI countries. There are some exceptions such as in the area of textiles and apparel; and some safeguard mechanisms, such as rules of origin, which prevent injury to USA industry from increased imports of particular products from CBI countries. The original CBI (1983) agreement, now referred to as CBI I, was expected to last 12 years, concluding in 1995. In August 1990, however, CBI II legislation was passed, extending duty-free treatment in perpetuity. Analysis of this initiative's overall performance to date indicates that the gains hoped for have not generally been realized (see Section III of this article).

The North American Free Trade Area (NAFTA) is a proposed three-way agreement between the United States, Canada and Mexico. The USA concluded a free trade agreement with Canada in 1988 and proposed a US-Mexico free trade agreement in June 1990. Canada asked to join these negotiations and in July 1991 the three countries began negotiations *[Trade and Development Program, 1991]*. The goal of the agreement is to eliminate barriers to trade and reduce foreign investment restrictions between the three countries. The *Yukon to Yucatan* agreement is expected to create a market of 360 million people thereby allowing growth and development similar to that evidenced in the free market within the USA. NAFTA is conceived primarily as an economic cooperation agreement and unlike the EEC, does not include provisions embracing labour rights, social programs nor development aid for poorer regions. This agreement is expected to be signed in 1992.

The Enterprise of the Americas Initiative (EAI) is a long-term proposal by the United States to create a free trade area covering the America. The proposal recognizes bilateral agreements and trading blocs (CARICOM, MERCOSUR) already formed within this major bloc. NAFTA (USA, Canada, Mexico) would already make North America a larger trading bloc than the EEC in terms of GNP ($5.6 as opposed to $4.7 trillion) while only being marginally smaller in terms of population (360 million as opposed to 365 million). EAI would make the Americas by far the largest trading bloc. Many of the considerations under this proposal are under negotiation in the Uruguay Round of GATT and the scope of EAI will become clearer after GATT is concluded.

The European/Global Level

The two main trading frameworks of importance to the Caribbean at this level are the Lome convention in the General Agreement on Trade and Tariffs (GATT).

In 1951 under the Commonwealth Sugar Agreement, the United Kingdom agreed to purchase a quota of sugar each year at a negotiated price from the British West Indies and other former colonies. Under this agreement these countries were able to export their sugar at a price higher than the world market price. However, this pact ended in 1974 with the United Kingdom's accession to the EEC and was replaced by the sugar protocol of the Lome Convention. The Lome Convention is a trade, aid, and investment package between the 12 members of the European Economic Community (EEC) and some 69 states from Africa, the Caribbean and the Pacific (ACP). The main features of the Lome Protocol is the agreement to annually buy selected commodities at a price negotiated between the ACP countries and the EEC. The quota is subject to reduction if for any reason other than *force majeure* ACP countries fail to meet their commitment. The fourth Lome Agreement was signed in December 1989 and will remain in force for 10 years. Protocol 6 of this Agreement provides safeguards for the access of ACP banana exports after the realization of the Single European Market in 1992. The Sugar Protocol provides for Caribbean ACP states to export a total annual quota of 430,000 tonnes to the community at a negotiated guaranteed price *[United Nations 1990b, p.3]*. As seen in section three of this paper the Lome Agreements are under pressure in the GATT negotiations.

The Uruguay round of the General Agreement on Trade and Tariffs (GATT) was started in 1986 at the instigation of the United States. The current set of GATT proposals comprised the more comprehensive trade

agreement and will influence all the other agreements discussed above. As a result, it is discussed in relatively more detail here. The particular dimension of this eighth round of trade negotiations that separates it from the earlier rounds, is the inclusion of agricultural sector issues in the negotiations, specifically agricultural protectionism. The goal is to liberalize agricultural commodity trade, including the removal of both explicit and implicit barriers to trade. Four dimensions of the current GATT proposal will be cited here because of their implications for the promotion of sustainable development in the Caribbean.

Firstly, GATT calls for the removal of barriers to trade. This includes the removal of import quotas and tariffs, the removal of production subsidies (on tradeable and non-tradeable goods), and the compliance with an international quality standard regarding intermediate and final goods. Several general questions arise for Caribbean countries. How exposed and vulnerable are Caribbean producers to external competition? Will producers be able to capture the gains from any increased market opportunities or will shippers, wholesalers and retailers capture a disproportionate percentage of these gains? Will compliance to international standards undermine the achievement of national goals and the setting of national priorities?

Secondly, the GATT proposals include the establishment of a Multilateral Trade Organization (MTO). This organization would be the forum for future negotiations on multilateral trade relations. It is seen as an institution similar to the World Bank or the International Monetary Fund (IMF) but there are no stipulations in the present proposals tying it to the United Nations system. This makes the future role and participation of developing countries in global trade negotiations in the proposed structure unclear. The fear is that regulations governing trade will be settled without adequate input from South countries.

Thirdly, it is being proposed that regulations on Trade Related to Intellectual Property Rights (TRIPS) be expanded. The dominance that North countries now enjoy with regard to the generation of technology and the monopoly power that they have through the patent right holdings would be increased. In a sense, it is promotion of *rentier* income by the expansion of North companies' patent portfolios *[Economist, 1992]*. The pharmaceutical industry has been most active in this area in developing countries and the USA has already been able to extract several patent agreements through bilateral trade negotiations. The issue here for Caribbean countries is *intellectual property rights* of indigenous persons. Consider the Gumbo Limbo tree in Belize; the bark and leaves are commonly used to treat gum disease, ulcers, snake bite among other ailments. When this knowledge is learnt by pharmaceutical companies and patented, Belizeans may have to pay dearly for knowledge and medicines that emanated from them and for which they received no compensation. The question of *common domain* remains debated in this regard.

Fourthly, GATT calls for the removal of restrictions that South countries now place on foreign investors. These new regulations are referred to as the Trade Related Investment Measures (TRIMS). National governments would no longer be able to set standards in such areas as local content requirements, local equity requirements, and foreign exchange remittances. The GATT proposals consider these as trade distorting measures. For South countries these regulations have been an important means to promote social and development objectives and counter corporate behaviour that threaten these objectives *[Khor 1990, p.21]*.

Changing International Economic Environment - Agricultural Dimensions

International economic and technological changes are forcing critical changes in the agricultural sector. Some of the challenges that the agricultural sector in the Caribbean faces and will continue to face in the 1990s are related to biotechnology, food security, vulnerability of small farming, and changing consumption patterns.

Biotechology introductions in the North will affect the competitive position of the South's exports and hence the demand for these commodities. For example, several biotech-nological introductions into the sweetener market are anticipated. Monsanto Corporation is working

on a product called Sweetener 2000 which is described as being 10,000 times sweeter than sugar, has zero calories and costs less than one cent per pound to produce. The head of the research and development department is quoted as saying "*its targeted to replace sugar*" *[Freedman and Gibson, 1991].* The sugar industry in the Caribbean has already been battered in the 1980s due to the low level of exports to the United States market. The market share of sugar in the sweetener market has been reduced by the increasing use of high fructose corn syrup and chemical sweeteners such as nutrasweet. Between 1975 and 1985 corn syrup alone gained 50 per cent of the USA sweetener market *[Sasson, 1990, p.408].*

Food security policies which have protected domestic production from external competition will come more sharply into question during a period of increased free trade. The idea behind food security policies has been that a country should have some level of self reliance , producing domestically some proportion of the food consumed. The levels of use of domestic foodcrops such as cassava, plantains, rice and pigeon peas in the Caribbean have benefitted from food security policy which protected producers from imported potatoes, wheat, and peas. The livestock and fisheries sector will also be affected as *cheap* imported corn replaces domestic feed sources such as copra meal and rice bran. For the Caribbean region the effect of liberalized trade can potentially be a problem even at the level of intra-regional trade, given the differences between the economies in the region.

Small farmers and rural areas in the Caribbean are particularly vulnerable in this new era. The future of the two-tiered agricultural sector, a small-scale relatively traditional sector and a large-scale modern sector comes into question. The technology and possibly the products characterizing small farmer production systems would need to change to ensure that continued role as agricultural producers. In this regard, the loss of small farms and the demise of rural communities in the industrialized countries must particularly be noted. Clearly, the viability of rural areas is dependent upon a reorganization of the relationships between rural areas and the other sectors of the economy. The promotion of rural organizations is critical if the required transformation is to take place without the loss of family farms and rural communities. This requires an increase in the participation and integration of rural representatives into the institutional frameworks that design and implement projects, programs and policies. The farmer organization movement is making progress in this area at the regional level through such institutions as Caribbean Network for Integrated Rural Development (CNIRD). However, the influence at the national level needs to be enhanced.

Changing consumption patterns globally will lead to changes in production procedures as well as products grown. Three aspects of changing consumer behaviour internationally are important here.

Firstly, health considerations are increasing the demand for lower calorie foods and for more vegetables. The linkages of health to diet and the growing practice of preventative medicine is reducing the demand for some traditional foods (coconuts).

Secondly, the proportion of food consumed in the home and the time that families are willing to commit to food preparation is decreasing [National Food Review, 1990]. The fast food era promotes more uniformity in the products grown and less product variety *[McCullough, 1987].*

Thirdly, consumers are paying more attention to how their food is grown. The main considerations here are related to health, conservation and ethical issues. Food safety in terms of the amount of chemicals used may lead to food travelling much shorter distances than we have become accustomed. Conservation and ethical considerations overlap and are reflected by the willingness of consumers to pay a premium for food that is grown in ways that preserve resources for future generations and also respect life particularly animal life and wildlife. These consumption considerations can create new pricing structures for factors of production as well as products. Also, as Ruttan and Hayami (1990) demonstrate the changed consumption will lead to new technologies reflecting the new demands.

SUSTAINABLE AGRICULTURE AND SUSTAINABLE DEVELOPMENT

Sustainable development is generally conceived as a process that will provide for the needs of the present without jeopardizing the ability of future generations to meet their needs [World Commission on Environment and Development, 1987]. Sustainable agriculture is discussed here with primary focus on the loss of nature's capital. This has resulted from the increased utilization of natural resources (expansion of cultivated areas, deforestation, urbanization, energy consumption), and ecological imbalances associated with industrial waste, pollution and inappropriate technology systems.

If the Caribbean is conceived within a Latin American context, the resource availability at an aggregate level in the region is still considered to be relatively good despite the mistakes committed during past decades. However, given the skewed distribution of arable land across the countries of the region (Latin America); sub-regions (Caribbean) and individual countries are considered especially vulnerable. Countries of Central America and the Caribbean region are among the vulnerable largely because a very high percentage of the land suitable for farming is already in use.

In the Caribbean region, the need to treat sustainable development and sustainable agricultural development as one process is essential. Unlike the situation in the industrialized countries, the agricultural sector is central to the economy and people of the Caribbean. The agricultural sector is an important contributor to GDP in many of the countries of the region, accounting for almost 30 per cent of the region's exports and employing 35 per cent of the population. As a result, the deliberations regarding the preservation of natural resources cannot be separated from the economic livelihoods and culture of Caribbean people. Therefore, sustainable agriculture must be considered synonymous with sustainable development and must encompass a balance within and across ecological, economic and socio-political issues.

Ecological balance is addressed here through two related perspectives - use and abuse of natural resources. The use dimension focuses more on the production system that characterizes the agricultural sector. Terms such as organic, low-input, and alternative are the most popular in creating a picture of the envisaged production systems. Essentially, an integrated holistic production system is recommended. Farm practices are all directed to preservation and conservation of natural resources within the production system. This is done by addressing how land is prepared and planted (with less use of heavy machinery, minimum tillage, and more intercropping); how crops are fertilized (through more crop rotations, more composting of crop residues, and less use of synthetic petroleum-based fertilizers); how pests and weeds are managed (through less use of synthetic pesticides, more attention to choosing pest resistant varieties, and site sanitation).

The abuse of natural resources if more directly related to consumption practices. The consumption patterns of the North are the most significant destroyer of the world's resources. Ehrlich and Ehrlich (1991) in *Healing the Planet* argue convincingly that:

> *with its huge population, unprecedented affluence, and profligate use of environmentally damaging technologies, the United States is the world's most overpopulated nation in terms of its impact on Earth's fragile environment. (p.xi).*

The implications of the above statement are manyfold. Consumption patterns within the North need to be changed to preserve resources in both the North and South. The North cannot safely export its model of growth and associated consumption patterns to the South. In the search for an ecological sustainable balance, the consumption and production patterns that existed prior to the introduction of monocropping and the automobile to give two examples, need to be reviewed.

Economic balance must also be a goal. The global market economy is neither neutral nor free. The promotion of the market system without any interventions, reinforces present economic power relations and, overtime, this leads to greater market concentration and hence

increased economic insecurity of the poor *[Mackintosh, 1990]*. The growth-oriented market model, then, becomes a major cause of human and environmental vulnerability *[Third World Resurgence, 1991]*. As the conventional growth model redistributes income from the poor to the rich, the destruction of the environment by both wealthy and marginalized increases. To attain sustainable development, economic dimensions must be linked closely with ecological dimensions so that the true costs of the world's resources are reflected. To emphasize this point it would be suggested that the price of every pound of sugar or bananas should reflect the damage to the land and the seas (and their recovery). In other words, hidden costs are paid by Caribbean taxpayers and end up subsidizing corporations. These costs need be internalized and made explicit in producer and consumer prices. Therefore, for progress to be made on a sustainable economic balance, reaching and gaining the support of national economic decision makers and future, the present and the past, influence the way resources are economically valued and as a result how resources are used and what production processes are adopted.

Socio-political balance is also crucial to the foregoing of a sustainable development process. The socio-political framework influences how the pie is shared and how differences between groups are resolved. The sustainable development model should foster social stability and civility. Economic hardships resulting from the conventional model have led to riots in many parts of the Third World. The poor in the North are similarly affected and these conditions lead to explosions (Los Angeles) similar to those seen in the South. The socio-political dislocation is evidenced through disaffection from the political process (low participation rates) and through increased illegal immigration and numbers of refugees (Guatemalans into Belize). The role of leaders and their populace need to change. Both need to be more responsible and proactive. For instance, leaders need to listen more and the populace needs to view democratic participation as an ongoing task and not something done every so many years at election time *[Lappe, 1989]*.

The nature of international relationships, the power that underlies these relationships and the values espoused by those with power in the international economy needs to be challenged. Evidence of this unequal power is the General Agreement on Trade and Tariffs (GATT) proposals of 1992 and the take-it-or-suffer attitude accompanying it. Referring to the direct investment dimensions of the GATT proposals, David Mulford, US Treasury Under-Secretary, states:

> *the countries that do not make themselves attractive will not get investors' attention ... This is like a girl trying to get a boyfriend. She has to go out, have her hair done up, wear make up. [Cavanagh et al. 1992, p.4]*

Socio-political sustainability will not be achieved without drastic changes in the sexist, racist, and other oppressive perceptions of each other, both within and across countries.

These social issues influence how relationships between nations are conducted. The chances of free trade contributing to the creation of sustainable development process in the Caribbean is dependant on the nature of the relationships formed between people of the Caribbean and people in the rest of the world. Referring to the free trade agreement between the United States and the Caribbean in the 1980s the former president of the Caribbean Development Bank, William G. Demas states: *they failed to understand the Caribbean and the Caribbean people. [McAfee, 1991, p.33]*

CARIBBEAN AGRICULTURE AND FREE TRADE IN THE 1980s

The economic policy changes of the 1980s can be seen in many ways as a precursor to the 1990s. In the Caribbean, free trade and associated privatization policies were launched through the structural adjustment programs (SAP) and the Caribbean Basin Initiative (CBI) in the early years of the 1980s. In fact, the 1990s could be perceived as a rapid deepening of the process started in the 1980s. When the CBI and the SAPs were introduced, the new round of GATT had not started nor were NAFTA and EAI conceived. In the meantime, the political and economic liberalization in European Europe has

diverted the attention and aid of industrialized countries and this has reduced the bargaining position of South countries. As a result, it is anticipated that the pressures on the Caribbean to liberalize their trading relationships will increase. This makes it even more important to understand the Caribbean agricultural sector current situation and the sector's performance in relation to the free trade measures of the 1980s. This section focuses on this issue with particular attention to the commodities and processes that define agricultural trade and development in the Caribbean.

The economies of the Caribbean countries remain open economies as measured by the ratio of exports (averaging 60%) to gross domestic product. In the 1970s most of the Caribbean economies experienced positive growth rates. However, as Table 1 shows the economies of the four countries conventionally classified as more developed countries (MDCs) contracted sharply during the period 1980 to 1988.

The economic sector performance in the less developed countries (LDCs) was much more positive. This difference is accounted for by several factors but the agricultural sector contribution can be quite sharply isolated by focusing on the price movements of the agricultural commodity exports of the MDCs as opposed to the LDCs (see Table 2), bananas being the dominant exports in the latter group.

The agricultural sector has historically been critical to the welfare of the Caribbean countries and this still remains the case.

Table 3 shows that in 1988 agricultural commodities account for the largest proportion of merchandise exports in seven of the 12 countries in the Caricom region. The importance is even more pronounced when we realize that the last statement does not reflect the importance of sugar in Guyana, Trinidad and Tobago and Jamaica.

Table 3 also demonstrates the continuing importance of the agricultural sector by showing the contribution of the agricultural sector to GDP and the percentage of labour force involvement in agriculture.

Despite its importance the agricultural sector has suffered from declining production and productivity since the 1960s. In the case of sugar regional production in the 1980s has decreased by 36 per cent with the majority of this production now being directed to preferential markets. Both the supply and demand situations facing the sugar industry are unfavourable.

In terms of costs of production the relative inefficiency of the sugar industry in the Caribbean is well recognised *[McIntyre, 1977; Brown, 1987]*. This is so whether one is comparing cost of production relative to other producers or to the world price. This production inefficiency also obtains whether one is speaking of Guyana, Barbados, Jamaica or Trinidad.

On the demand side there are several discouraging trends. Firstly, cane sugar has lost market share to several competing products. Convenience characteristics has led to the use of high fructose corn sweetener (HFCS) in the USA growing at an annual rate of 19 per cent between 1981 and 1985 *[Lewis, 1987]*. Nutrition considerations have shifted demand to non-caloric sweeteners, and products reformulated to lower sugar content. Secondly, all the signs point to the USA's declining commitment to support developing country sugar producers through import quotas. In the 1980s sugar imports by the USA from CBI designated countries have also seen a sharp decline (Table 4) resulting from a reduction of the US sugar quota by 78 per cent between 1983 and 1989. In October 1991 Caribbean sugar quotas again declined sharply *[Economist Intelligence Unit, 1991]*. In March 1992 the USA withdrew from the International Sugar Organization suggesting that it should be nothing more than a study group and should not seek to create agreements with economic provisions *[World Sugar Farmer News, 1992]*. While the sugar industry remains important in the Caribbean its future is very bleak.

The banana industry is central to the social and economic stability of the Windward islands *[Caricom, 1990]*. Unlike sugar, banana production in the Caribbean region increased by 18 per cent in the 1980s. However, like sugar it too is dependent on preferential markets because the industry is characterized by increasing input costs and low productivity *[Griffith, 1990]*. Production and marketing of Caribbean bananas in inefficient when compared to that of Central

American bananas. Generally this is accounted for by the larger scale of production (more plantation bananas), the more integrated production and marketing structures (more multinational corporation involvement in production) and lower shipping costs. Panama, Costa Rica and Honduras each produce more bananas than all of the Caricom countries combined. The Central American banana supply sector is not without question, however, as there is some concern regarding *social dumping* in Central America as represented by the low wages paid by multinational corporations *[Caricom, 1990].*

The privileged situation that characterizes the marketing of Caribbean bananas is shown in Table 5(a). Caribbean banana exporters are paid almost 50 per cent more than their bananas when compared to Central America and Caribbean producers. British supermarkets pay almost 40 per cent more than their USA counterparts for bananas (see Table 5(b). The United Kingdom market remains partisan to ACP producers with a 20 per cent tariff levied on bananas from alternative sources. Given the banana market situation depicted in Table 5 and the EEC 1992 trade bloc formation, it is important to note that Germany is the major importer of Central American bananas in Europe. Further, the Latin American position in the GATT negotiations also clearly calls for the "*complete liberalization of trade in tropical commodities*" *[IICA, 1992].* ACP countries are currently making efforts to ensure that the form of protection remains a tariff as opposed to a quota. This foretells of problems for Caribbean banana producers.

Agricultural food commodities produced for the domestic market declined in the 1980s. Legume production and vegetable production decreased by 45 per cent and 24 per cent respectively during the period 1980-1986 *[Caricom, 1991b].* At the same time food imports increased by more than 50 per cent between 1980 and 1988 in several of the OECS countries *[Caricom, 1991b].* According to Winsten (1991) the import dependence for food in the Commonwealth Caribbean has increased during the past two decades, and is associated with the inability of domestic agriculture to maintain its contribution to food consumption in each nation. The demand for food is increasing faster than the production of food. As food import dependence increases, the need for foreign exchange increases, yet the availability of foreign exchange for financing the increased food imports has declined. Both Guyana and Trinidad became relatively more food insecure during the 1980s because of declines in the agricultural production sector *[Ford, 1992a, 1992b].* For the region as a whole, the dependence on sugar and bananas for foreign exchange increases the vulnerability of the food supply. Efforts at export diversification, such as under the Caribbean Basin Initiative, have not been encouraging.

The Caribbean Basin Initiative, like all of the free trade agreements being promoted, is a partial free trade agreement. In other words, where a trading nation felt it could make some adjustments in its trading position without domestic repercussions this was done. The CBI is seen as a direct precedent for the Western hemisphere proposal (EAI) introduced by the USA in 1990 *[McAfee, 1991].* As such, the results of the CBI over the past decade can be used as a portent of future free trade efforts. Hence, one can immediately examine the performance of the Caribbean economies and the agricultural sector as described above for effects of the CBI. More specifically, it is important to look at the region's trade performance because of the open nature of the Caribbean economies and the dependence on foreign exchange for food and production inputs. Table 6 shows that the US trade balance with the Caribbean Basin shifted from a $4 billion deficit in 1980 to a $2 billion surplus in 1988. US exports to the region grew 28 per cent during 1980-1988, while imports declined by almost 40 per cent.

The gains under the CBI have been concentrated in the non-agricultural sector and this trade has seen some diversification over the period under analysis. In 1983 before the launch of CBI oil products accounted for 60 per cent of the USA imports from the Caribbean. In 1990, they accounted for only 25 per cent of USA imports. Manufacturing industries, such as the textile industry changed this trading profile. For example, Jamaican apparel exports to the USA increased from US$12.9 mn in 1983 to US$237

mn in 1990 *[Economic Intelligence Unit, 1991].*

Non-traditional agricultural exports from the CBI region as a whole have fared better than traditional exports. Containerized shipments of fresh fruit and vegetables, as well as fruit juice and fruit paste exports have increased sharply. However, this increase in non-traditional exports does not apply to the small farmers in the OECS countries where exports of mangoes, papayas, avocados, pepper sauce and flowers, declined by 23 per cent between 1985 and 1988 *[McAfee, 1991].*

Several conclusions can be drawn from the CBI experience. Firstly, given the current structure of the trading relationship particular subsectors (for example, sugar) will shape the numerical results. As a result, these subsectors need special attention. Secondly, the areas with significant growth potential cannot be excluded from the agreement. In the case of the Caribbean, textiles and garments, and leather wear were excluded. Even so they were the most dynamic growth areas of Caribbean exports to the USA in the 1980s. Thirdly, a move to free trade will be positive only if the current market situation and regulations are in fact inhibiting imports. There are two sides to this, on the one hand, the incidence of tariff structure; and on the other, the ability of entrepreneurs in the exporting country to take advantage of the market opening when it occurs. In the case of the former the tariffs are small enough that their removal does not provide adequate incentives to producers. In the case of the latter the inability of Caribbean entrepreneurs vis a vis USA entrepreneurs to seize opportunities under the new free trade situation is amply displayed by the changed trade results shown in Table 6. Obviously, more than just the removal of trade barriers is required to promote agricultural development.

Free trade and privatization continue to define the policies being promoted by development agencies in the 1990s. Together with the World Bank's increased concern for the environment *[World Bank, 1992]* and the United Nations efforts as represented through the UNCED conference, sustainability issues have joined free trade as the issues of the 1990s. The next section considers Caribbean agricultural development in the 1990s in the context of these two issues.

SUSTAINABLE AGRICULTURE AND FREE TRADE IN THE 1990s

> *I sympathize, therefore, with those who would minimize, rather than with those who would maximize, economic entanglement between nations. Ideas, knowledge, art, hospitality, travel - these are the things which should of their nature be international. But let goods be homespun whenever it is reasonably and conveniently possible. (J.M. Keynes)*

The Caribbean faces a dilemma. On the one hand, the present production, consumption and trading patterns as well as the institutional and organizational structures appear dependant on continued and deepening linkages with North America and Europe. Yet, the reliability and stability of these linkages are as tenuous as ever and appear to be becoming even more so. On the other hand, even if the linkages were not characterized by uncertainty, the future of the conventional model of development seems in question from a sustainability standpoint. In other words, the conventional production and consumption patterns, and the institutional structures may not be in harmony with the achievement of a sustainable agriculture and sustainable development as defined earlier. The remainder of this article develops two scenarios characterising the search for a sustainable course of development. The first addresses free trade, sustainable agriculture and sustainable development in the confines of the conventional framework. The second proposes an alternative framework that includes fair trade, sustainable agriculture and sustainable development.

Free Trade and Sustainable Agriculture - Conventional Framework

The conventional framework is best represented by the implementation of GATT as presently proposed. For the Caribbean this would be neither economically, ecologically nor socio-politically sustainable.

The benefits from trade liberalization proposed within the conventional framework are

based on the hope that there will be an increase in trade with multiplier effects promoting development throughout the economy. However, one tenant of the conventional framework, the removal of import quotas, can have devastating effects, as the case of sugar into the USA market has demonstrated. Also, the removal of preferential access for OECS bananas could lead to stagnation in some of these countries, and stagnation and economic sustainability are anti-thesis.

The removal of tariffs barriers may not be able to be exploited by Caribbean country producers and marketing agents because of their greater relative vulnerability (compared to producers and marketing agents in other countries) resulting from their current weak organizational structures and technological capacity. This is so because multinational corporations continue to dominate commodity trade globally and while they may compete in Northern markets, which at best is oligopolistic competition, they tend to share the market in the South among themselves. This places Caribbean country firms and farms at a distinct competitive disadvantage because the corporations have ready access to human, financial and technological resources that often far exceed those of their competitors. The free market in the USA has demonstrated this potential in the replacement of family farms in the USA by corporate farming and in the increase in land degradation as the concept of stewardship of the land associated with family farming is lost. This USA experience should inform the discussions in the Caribbean as trade liberalization is contemplated.

The GATT proposals go beyond conventional trade liberalization to promote trade related investment measures (TRIMS) and trade measures related to intellectual property right (TRIPS). These are areas on which Caribbean governments formerly set their own policies. The standards, for example, governing equity, food safety and environmental management, would, under the free trade agreement, be set by a multilateral trade organization. Therefore, GATT 1992 has the potential to seriously undermine the sovereignty of Caribbean countries and the opportunities for democratic decision making which are essential for socio-political sustainability.

Liberalized trade will increase access to the domestic market by cheaper imported food sources. This can lead to the increased loss of self-reliance in food production in a climate that is growing in its uncertainty. The free trade position is that there will be greater global production and more sources from which to purchase, therefore food security should not be undermined. This view does not address the demand problems that might be faced resulting from a lack of foreign exchange or the political leverage that is provided to the food supplying country.

Free trade within the confines of the conventional model can lead to social upheavals as income distribution becomes increasingly skewed (as it has become in the United States) and economic hardships are imposed on the poor. As poverty increases short run survival needs drives the decision making process. In these situations there is usually no room for considerations of ecological sustainability. Hence, resources are used wantonly and inefficiently in the interest of satisfying immediate needs. Resource shortages increase production costs, poverty reduces demand and any chances of a dynamic equilibrium that could promote sustainable development are destroyed.

Fair Trade and Sustainable Agriculture - Alternative Framework

The dependence on the natural resource base of all major Caribbean industries such as agriculture, forestry, fishing and tourism clearly emphasizes the need to direct development in general and agricultural development in particular, on to a new sustainable route.

The small and open nature of Caribbean economies requires that trade be a critical dimension of development. Any discussion of trade in a sustainable development framework must address the concept of fair trade. The status quo assumption is that free trade is fair trade. The result of this is to ignore the number and size of the players, and the capacity, experience and influence they respectively bring to the trading game. Within mainstream

economics, industrial organization analysis in a national framework is common, however, this same scrutiny is not applied to the international arena. The reality, though, is that international commodity markets are characterized by considerable industry concentration. Three multinational corporations (MNCs) control 75 per cent of the world's banana sales, four MNCs control more than half the world's sugar sales and six MNCs control 60 per cent of world coffee sales *[Barry 1987].*

The theory of comparative advantage that underpins the arguments for free trade is no longer relevant given the mobility of capital in the world today *[Daly, 1989].* In the changed international economic environment the factor equalization theory become a wage sharing theory between workers with owners of capital being better off *[Daly, 1989].* The recognition that neither perfect nor pure competition exists in these international commodity markets and that there is a need to monitor in a systematic way the conduct and performance that characterizes these markets is an important first step in the construction of an alternative model for sustainable development. Some of the work that allows an understanding of the operations of MNCs was conducted by the United Nations Centre on Transnational Corporations (UNCTC). This arm of the UN ceased to exist earlier this year. This recent demise of the UNCTC is a step backward, away from the regulations and interventions in these markets which may be critical in the transition from the current unfair trading practices and unsustainable technology production systems.

A fair trade sustainable agriculture model requires new ethics, new products, new approaches to technology generation, new marketing systems and new consumption patterns. One example of this may be the case of trade in Balangon bananas between the Philippine and Japan [New Internationalist, 1992]. A group of Japanese citizens organized to import bananas that were grown chemical free in the Philippines. The chemical free state differentiates the product, giving it a *speciality* product classification. The impetus for the Japanese to get into the banana market was born out of both self-interest as well as ethics. The Japanese group found out that many of the chemicals used in growing the bananas in the Philippines were banned in Japan. However, they were also interested in trying to break the cycle of impoverization being introduced by Japanese and USA corporations exporting bananas from the Philippines.

In the Caribbean the market prospects for cane sugar present particular problems. While it may be possible to change the technology in the sugar industry to assist its survival, one wonders if the new sweeteners will not in fact reduce its market share so substantially that the industry has no future. The Caribbean Council of Europe lobbying for the status quo preferential measures should infuse their work with concern for the development of a transition plan into new land use activities in keeping with dimensions of the alternative model being suggested here.

Saving foreign exchange is an important as earning it. The firm is only one form of economic organization, and the community should be relied on more in the future. One alternative land use activity would be the growing of food through community supported agricultural (CSA) projects. In an effort to keep rural areas farming and economically viable, small-scale, community based food farms are becoming a popular option in Japan, Germany, United States and the United Kingdom *[Weisselberg, 1991; Groh and McFadden, 1990].* These CSAs are organizations of consumers and producers who work out contractual arrangements to further their common interests. Responsibility for the community's food, welfare and future is shared.

This model is attractive for the building of a sustainable agriculture for several reasons. The economic viability of rural communities is addressed by linking production closely to demand. The consumers and farmers decide on what is to be grown, when, how, and the terms under which produce is to be exchanged. Under this system employment opportunities would be more secure and income distribution would be more evenly spread. Food security of communities can be enhanced both from a food safety (produce is fresher and cultivation practices are known) and a local source standpoint. Social, cultural and political relationships surrounding food in particular (food

type as well as preparation) are stability of the community in general can be protected. Community health and environmental issues can also be directly addressed in the production process and its associated costs can be appreciated and incorporated into the exchange equation. Energy use in the packaging and transportation of food, whose costs are not fully internalised in economic calculations presently, would also be substantially reduced. This concept for a new agriculture that is more humane, participatory and equitable is not foreign to the Caribbean and can be incorporated in efforts already underway.

However, the possibilities of reorienting the production base in such cases as bananas must continue to be explored. According to tests conducted by The University of the West Indies, using up to 40 per cent banana flour in a flour mixture does not affect texture or taste of bread *[Latin American Bureau, 1987]*. Banana fibres can be used for twine, paper, packaging material, fibreboard. In a world that is searching for sustainable development and in the revised economic accounting that incorporates ecological costs, some of these banana options may be economically attractive.

The educational process, technology generation and transfer systems that underpin agricultural development must be reoriented for the needs of the sustainable agriculture. The gap between the circumstances and needs of the farming community in specific (and the country in general) and the general education curriculum continues to undermine the development process *[Euroconsult, 1989]*. The primary and secondary school teacher needs to be retrained so that formal education begins to have a function in sustainable agricultural development.

In the area of technology development and transfer, critical changes need to be considered. At all levels the relevance to the needs of the country must be central to the process. The relationship between biotechnology research, farming systems analysis and small scale agriculture is an important dimension which should be addressed immediately. Current trends of biotechnology research privatization and the multinational corporation presence in this arena raise questions regarding orientation of the work as well as access to its results.

The prospects for developing new high yielding crops without the chemical and capital dependence of the green revolution technology are attractive and the evidence suggests that many biotechnological products can be developed and produced with techniques and facilities that are accessible to developing countries *[Johnston and Sasson, 1986]*. In the Caribbean region in an era characterized by fewer resources and declining economic options for traditional agricultural production systems, regional research collaboration needs additional emphasis to explore these new areas.

At the same time that the frontiers of research are being contemplated the applied research and technology transfer system must be further strengthened. The effort to integrate farmers and extensionists into the technology development process is ever more critical as sustainable systems that were formerly practised may be reintroduced into the farming system.

Agriculture has suffered from a short term bias both in terms of the valuation of its resources and its perceived role in the development process. Sustainable development as a long run concept must redress this bias and recognize the centrality of a sustainable agriculture in the sustainable development process.

CONCLUSIONS

The promotion of free trade globally contributes to the growing need for a process of sustainable development. It potentially removes income earning opportunities currently in place for Caribbean countries. It also potentially redistribute income from poor to rich within and between countries. Free trade promotion thereby undermines economic, ecological and socio-political sustainability.

Following the conventional growth model and its concept of agricultural modernization would lead to the demise of family farms and rural areas. The Caribbean should benefit from global experience and view the impending trade liberalization as an opportunity to create a new sustainable model of development. This paper has argued for an alternative model of

development emphasizing fair trade, community participatory methods, and new products and production alternatives.

The transition to sustainable development requires critical changes in the educational and technology generation systems. This demands considerable amounts of resources that are scarce in the region. The time has never been more appropriate for the Caribbean region to combine their human, financial, and natural resources.

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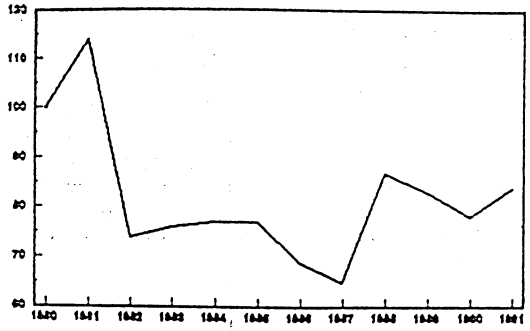
Table 1.
GNP Growth rate (%), 1970-1988
(constant prices)

Country	1973-1980	1980-1985	1985-1988
CARICOM	2.9	- 2.7	- 1.6
MDCs	2.8	- 3.1	- 2.3
Barbados	3.6	- 1.0	5.1
Guyana	1.2	- 6.9	- 1.4
Jamaica	3.8	- 1.0	2.8
Trinidad	7.8	- 4.0	- 6.1
LDCs	4.8	3.6	7.0
Antigua	2.4	5.8	6.8
Dominica	- 0.4	4.6	7.3
Grenada	4.8	4.9	6.2
St. Kitts	3.2	2.5	6.7
St. Lucia	7.0	4.0	3.8
St. Vincent	2.4	6.2	5.4
Belize	6.0	0.4	n.a.

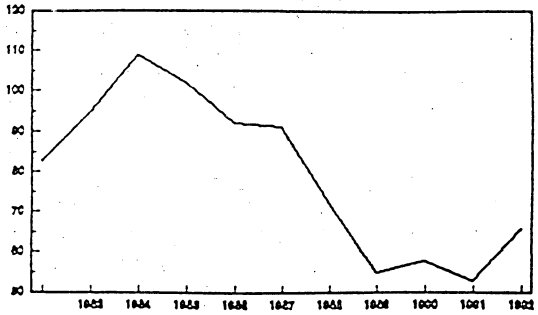
Source: Computed from World Bank Atlas data base.

Table 2. Caribbean Agricultural Exports
Commodity Price Movements

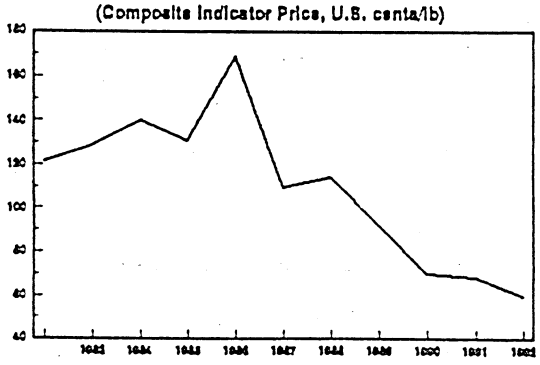
Rice Price Index 1980-1990
1980=100



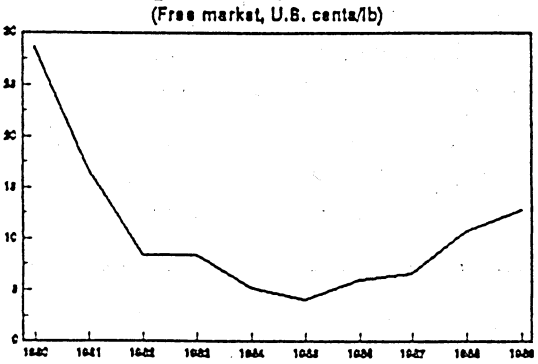
Cocoa Prices 1983-1992
(Av. of daily prices, N.Y./London,)
(U.S. cents/lb)



Coffee Prices 1983-1992
(Composite Indicator Price, U.S. cents/lb)



Sugar Prices, 1980-1989
(Free market, U.S. cents/lb)



Banana Prices 1983-1992
(Central America & Ecuador, FOB US ports)
(U.S. cents/lb)

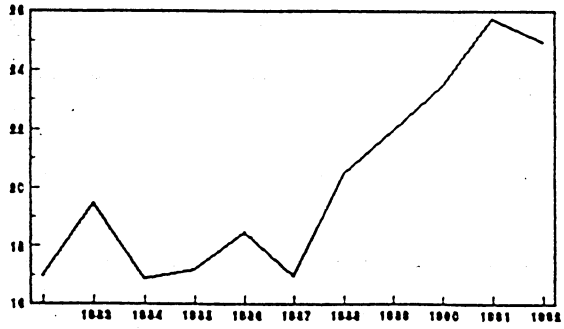


Table 3: Agricultural Sector Importance in the Caribbean

Country	Major Commodity Exports as a Proportion of Total Value of Merchandise Exports[1]		Agriculture as a % of GDP[2]		Percentage of Labour Force Involvement in Agriculture[3]
	1988		1987		1988
Antigua & Barbuda	Clothing	21%		4	9
Barbados	Sugar	30		12	7
The Bahamas	Petroleum products	71.1		6	7
Belize	Sugar	79	Citrus 14%	18	37
Dominica	Bananas	41		19	36
Grenada	Nutmeg	34	Cocoa 16%	17	29
Guyana	Bauxite	38	Sugar 37%	26	23
Jamaica	Alumina	33	Bauxite 16%	6	28
St. Kitts-Nevis	Sugar	62		12	33
St. Lucia	Bananas	60		16	30
St. Vincent & the Grenadines	Bananas	49		16	30
Trinidad & Tobago	Petroleum products	76		4	8

Source: [1]IMF Direction of Trade Statistics, 1987-1989, Washington, D.C.
[2]ECLAC, Selected Statistical Indicators of Caribbean Countries, Vol.II, 1990.
[3]Yearbook of Labor Statistics, International Labor Office, Geneva, 1989.

Table 4: U.S. Sugar Imports from the Caribbean Basin

	($000's)
1983	393,073
1986	191,088
1987	105,198
1988	133,721
1989	172,401

Source: US Department of Commerce, 1990.

Table 5(a).
Prices paid for bananas exported by selected Central American, South American, and Caricom Countries, 1970 and 1990 (US$/MT).

Country	1989	1990
Central America	242.4	256.7
Costa Rica	242.4	220.8
Guatemala	234.4	239.2
South America	238.7	245.2
Ecuador	213.2	213.4
Colombia	264.2	276.9
Caricom	378.0	429.0
Belize	322.2	308.3
Dominica	486.1	525.9
St. Lucia	500.7	553.8
Suriname	353.2	413.8

Source: FAO Trade Yearbook, 1990.

Table 5(b).
Wholesale prices for bananas in selected countries, 1989 and 1990 (US$/kilogram).

Country	1989	1990
USA	.7	.7
United Kingdom	1.0	1.2
France	1.1	1.3
Germany	.7	1.0

Source: IICA, 1992.

Table 6. Caribbean, USA Trade 1980-1988

Table 6a.

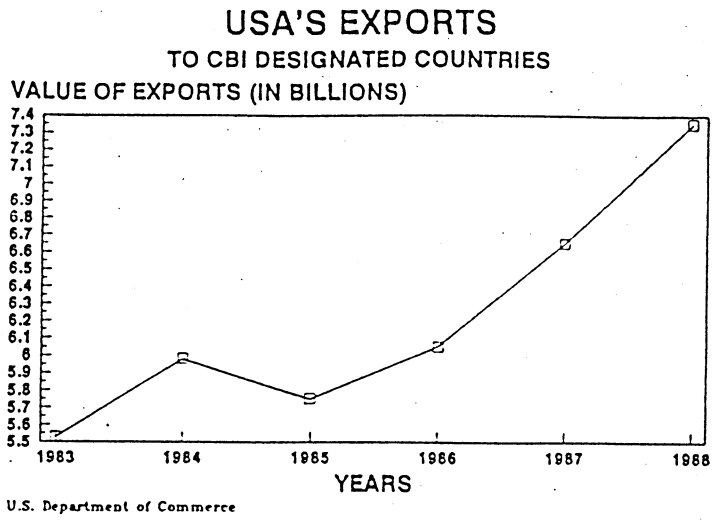


Table 6b.

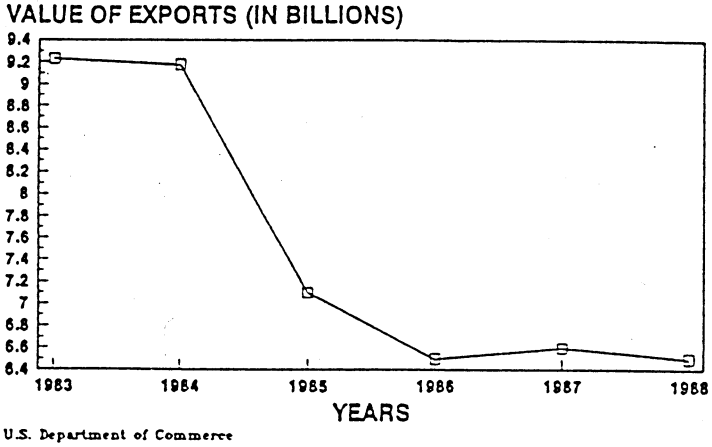


Table 6c.