

**CASE STUDY**

**THE WINDWARD ISLANDS**

**BY**  
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\* Agricultural Economics and Agribusiness Management.



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## I. “SMALL ISLANDNESS” AND AGRICULTURAL PRODUCTION AND TRADE

As small economies, the Windward Islands face difficulties in integrating into a liberalized world agricultural trading system and in receiving equitable benefits from it. These difficulties are compounded by other inherent geographic and climatic factors peculiar to small island developing States (SIDSs).

### I.1 Resource constraints and agricultural production and trade

The Windward Islands are comprised of the four independent States of Grenada, St. Vincent and the Grenadines, St. Lucia and Dominica. These countries occupy a total area of approximately 2,100 square kilometers and range in size from Grenada (344 sq. km) to Dominica (751 sq. km) (annex II, table 1). Their relatively small land base is exacerbated by steep topography that further limits the utility of available land. The 1996 agricultural census of St. Lucia estimated that roughly 20 per cent of the land base is used for agriculture. This compares with 21 per cent in Grenada, 23 per cent in St. Vincent and the Grenadines and 16 per cent in the relatively more mountainous Dominica. Generally, small farmers are located in steeper and more marginal lands with little access to water (FAO, 2000). Competing land-use demands such as for housing, industry and tourism in flat and gently sloping areas is a further constraint to agriculture.

The average farm size in the Windward Islands is quite small, with a majority of holdings less than 1 hectare in size. The 1996 agricultural census for St. Lucia showed that more than 65 per cent of total agricultural holdings were less than 2 hectares in size (annex II, table 2), and this pattern is similar for the other islands. Small farm size prevents the attainment of economies of scale in production. Land scarcity causes negative environmental practices in farming. Cultivation on steep slopes results in soil degradation, and affects the fragile coastal and marine resources important for tourism and fishing.

The total population of the Windward Islands is approximately 437,000 persons, with population densities ranging from 100 persons/sq. km in Dominica to 293-persons/sq. km in Grenada. The small population size of the individual countries provides a limited domestic market with demands for a diverse range of commodities. As a consequence, there are no possibilities for large-scale crop production for domestic consumption. The population size is also a constraint to efficiency of operations of administrative entities and to availability of a wide enough skill pool to deal with implementation of the myriad agreements under the World Trade Organization (WTO), the Free Trade Area of the Americas (FTAA), the Caribbean Community (CARICOM) and other trade agreements. Availability of adequate trade and production data for these economies is one such manifestation of the lack of institutional capacity, and has affected the analysis carried out in this case study.

#### *Dependence on a single export commodity*

In St. Lucia, St. Vincent and the Grenadines and Dominica, banana production for export has dominated the agricultural landscape. It is estimated that banana production occupies 27 per cent of all agricultural land in the Windward Islands. Of the total land used for agricultural purposes in St. Lucia in 2000, 45 per cent was taken up by banana cultivation and 42 per cent by coconut. Other production includes root vegetables and tree crops for domestic consumption and, to a lesser extent, export markets.

The four Windward Islands have been engaged in banana production for export since 1953. Bananas replaced sugar as their main export crop, with production exported to the United Kingdom under preferential arrangements. Banana production served as the vehicle for transformation of the rural sector, by enabling poor rural households to enter a productive sector and earn regular and reliable incomes. Banana production in the Windward Islands continues to be closely linked to rural development and the rural economy as it provides opportunities for employment, small business development and investment in education and housing.

## **I.2 Areas of potential opportunities**

Tourism is a very important sector in the Windward Islands, especially in St. Lucia and Grenada. The all-inclusive hotels and cruise ship arrivals represent the largest and fastest growing segments of the tourism sector. Both segments offer quality vacations at reasonable prices through the use of sophisticated marketing and integrated supply systems (Bryan, 2001). Opportunities for local producers to supply products to this sector have been constrained by product costs due to a lack of economies of scale. The prevalence of small enterprises in the agricultural sector has also resulted in a lack of individual capacity to penetrate markets and sustain and increase market share in terms of consistency of supplies.

There are ongoing efforts between governments, farmers and hoteliers to increase the supply of local produce to the tourism industry. However, the hotel and cruise ship sector have developed more cost advantageous supply relationships with suppliers in the United States. Scale of operations has served as an additional deterrent in the case of payments: while large local importers can cope with long delays (of up to 3 to 4 months) by the hotels in settling payments, small producers of vegetables, fruits and eggs are less able to do so.

Opportunities for utilization of the wider markets of the Organization of Eastern Caribbean States (OECS) and CARICOM are limited by a lack of adequate and appropriate commercial shipping options, high transport costs and small-scale transactions between individual territories (ECLAC, 2001). Nevertheless, the countries of the Windward Islands have good diversification and income potential in agro-processing. Dominica has done very well in the vegetable oil sector in terms of the manufacture of soaps and soap products; these account for 15 per cent of its total export revenue. And in all four islands, processing of fruits, hot peppers and herbs has become a very important cottage industry and medium-scale venture.

## **I.3 Price competitiveness of agricultural exports**

With a small land base, many small-sized farms, low levels of technology use and low levels of investment, producers in the Windward Islands are unable to achieve economies of scale and are high-cost producers, which negatively affects the price competitiveness of exports. Comparative studies of banana exporters have shown that the Windward Islands, are higher cost producers than most of their competitors. A study by the Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD) in 1993 showed that costs per box of fruit in the Windward Islands were 2 to 3 times higher than those of selected Latin American producers (table 1). Another study by the Inter-American Institute for Cooperation in Agriculture (IICA) (table 2) showed a similar situation. The latter study also showed that scale was directly related to costs, with smaller farms being significantly less competitive. More recent estimates place the costs of Latin American fruit at between US\$ 168 and US\$ 240 per tonne compared to as much as US\$ 520 per tonne for Windward Island fruit produced by small holdings.<sup>1</sup>

The difference in costs is explained by a number of factors. The vertical integration of the large banana producing companies in Latin America and larger scale of production allow the attainment of economies of scale that are unattainable by the Windward Islands. Cheaper labour costs, mechanization, better soils, cheaper material costs, and what some refer to as an externalization of social and environmental costs give these companies a significant competitive advantage over small Windward Island producers located on more difficult terrain, who face higher labour and material costs. Windward Island production accounts for less than 2 per cent of total world trade, and it has limited ability to influence prices compared to the dominant Latin American companies.<sup>2</sup> WIBDECO, the company charged with marketing Windward Island fruit, has no control over production costs or supply quantities; in addition to the

<sup>1</sup> Costs on some farms may be as low as US\$ 300/tonne. Recent initiatives in irrigation, drainage, germplasm and quality management, part of an overall banana revival strategy funded with assistance from the EU, are expected to improve competitiveness.

<sup>2</sup> In 2002, ASDA, the third largest supermarket chain in the United Kingdom, chose Del Monte as its global supplier of bananas, excluding all other suppliers through a low price bid. This has had the effect of driving down supermarket prices for the fruit in recent months.

negative effects of weather, farmers in the Windward Islands enter and exit the industry regularly depending on available prices.

The need for improvements in productivity and efficiency by Windward Island producers is recognized, and there are a range of ongoing projects and programmes attempting to achieve this. Even with improvements in productivity and efficiency, it is believed that the inherent circumstances of the Windward Islands will continue to place them at a price/cost disadvantage (IICA, 1998). For example, the inability to utilize machinery results in labour costs of 55–60 per cent of total production costs, with harvesting operations accounting for the greatest proportion of total labour costs as boxing and packaging requirements increase. Changes in productivity are expected to raise average productivity from 7 tonnes/acre to 12–15 tonnes/acre, resulting in a 20–30 per cent reduction in overall costs that will reduce, but not eliminate, the cost disadvantage. Preferential arrangements have enabled Windward Island bananas to enjoy prices above the world price (table 3). Despite this, high production costs mean that the operations of many smaller farms are not profitable.

Historically, the Windward Islands have not had a good record in terms of quality. However with the increased reliance on the supermarket trade and the instituting of strict quality practices, record keeping and packaging requirements, quality has improved significantly. With their long-standing market presence in the United Kingdom, there are perceived differences between Windward Island bananas and those of Latin America in terms of taste and size. The hope is that the Windward Island fruit will compete on the basis of these product differences. A structured and aggressive marketing campaign is required in order to exploit this advantage. However, it will need time for changes in productivity to increase the volume and stability of production.

**Table 1: Relative cost of production of bananas (US\$/lb)**

Country	<2ha	2-3ha	5-10ha	10-20ha	>20 ha	Average
Dominica	16.4	14.2	11.5	11.4	11.5	12.6
Grenada	15.5	12	10.1	9.6	10.9	11
St. Lucia	14.6	12.5	10.5	9.8	10.5	11.3
St. Vincent & the Grenadines	12.8	12.7	10.7	11.1	11	11.4
Costa Rica						8.3
Ecuador						6.4
Colombia						9

Source: IICA, 1998

**Table 2: Comparative costs of production of bananas**

Country/economy	FAO Farm gate	CIRAD f.o.b
Ecuador	2.95	2.95
Costa Rica	3.25	3.25
Colombia	3.64	3.64
Honduras		
Côte d'Ivoire	3.40	8.53
Martinique	12.80	
St. Vincent & the Grenadines		8.39
Dominica		9.37

Source: CIRAD, 1993

**Table 3: Banana prices (f.o.b) United Kingdom market (US\$/ton)**

Market	1998	1999	2000	2001
United Kingdom (Windward Islands)	297	310	284	260
United Kingdom (dollar area)*	191	209	233	216

\* Proxy for world price

Source: FAO, 2001

#### I.4 Remoteness: transport and marketing

Topography and the physical environment have also affected trade in agricultural products. All trade is through sea or air shipment and the steep terrain entails high costs for infrastructural development in terms of roads and airports. Since the present airports in St. Vincent and the Grenadines and Dominica cannot accommodate large commercial airlines, this limits the export of fresh, highly perishable commodities.

It is estimated that 97 per cent of the trade in goods in the Windward Islands uses maritime vessels, the majority of which are foreign owned, and whose main business is bringing imports into the region. Because of the traditional relationship with Europe and the provision of preferences under the Lomé Agreement, the majority of agricultural exports are sent to the United Kingdom. The average distance between the Caribbean and Europe is less than that of some competitors, but lack of competitive shipping options (because of low trade volumes) results in high shipping costs (ECLAC, 2001). In general transport and insurance, as a percentage of import costs, are higher for these countries than the world average. Shipping and insurance costs range from 9 per cent in St. Vincent and the Grenadines to 11 per cent in St Lucia.

#### I.5 Vulnerability to natural disasters

The geographical location of the Windward Islands makes them vulnerable to hurricanes and tropical storms between the months of June and October, to drought in the early months of the year and to a continuous threat from volcanoes and earthquakes.<sup>3</sup> A prime example of that vulnerability is Dominica, which has been affected by at least four major storms in the 1990s and eight in the last 20 years. The combined effect of Hurricanes Luis and Marilyn resulted in the total loss of the island's banana crop in 1995 after it had experienced a 25 per cent crop loss from storms in 1994. St. Lucia experienced significant devastation from tropical storm Debbie in 1994, infrastructural damage from hurricane Lenny in 1999 and crop loss from tropical storm Lilly in 2002.

Hurricanes and tropical storms are a statistical certainty in these countries. Overall, the Windward Islands have been affected by a total of 28 tropical storms/hurricanes between 1979 and 2000. The frequent tropical storms and flooding result not only in direct crop/livestock loss, but also loss of valuable social infrastructure and a decline in overall economic performance. The cost of rebuilding after disaster diverts important resources from other sectors. Between 1994 and 1995, Dominica's rate of GDP growth declined from 7.75 per cent to 2.4 per cent, largely due to hurricane damage. St. Lucia also experienced a fall in GDP growth, from 2.4 per cent to 0.5 per cent in the year following Debbie. In September 2002, tropical storm Lilli caused significant damage to banana farms in St. Lucia and St. Vincent and the Grenadines. Initial assessments of this damage are in the area of 40–50 per cent of the total crop.

<sup>3</sup> Some estimates place many of the region's islands among the 15 most disaster-prone nations in the world, and the rates for property insurance are also among the highest in the world.



The Windward Islands are also highly vulnerable to volcanic eruptions and earthquakes. While this vulnerability is not unique to SIDSs, large economies can spread the costs of natural disasters over land area and sectors of the economy unaffected by the disaster. The small land spaces and limited production possibilities of the Windward Islands, on the other hand, means that there are often few, if any, areas and economic sectors unaffected by such disasters.

Drought is also a natural hazard facing production in the Windward Islands. While annual rainfall is adequate for production, storage and distribution are limiting factors. The existence of a distinct dry period between January/February and May/June has affected production during this period. A prolonged drought in 2001 saw an overall decline in banana production of 44 per cent over the previous year's value.

In the Windward Islands, bananas is the only commodity covered by an insurance scheme, WINCROP, established in 1983, which provides coverage against wind damage. Farmers pay regular premiums to the scheme, and in the event of damage affecting more than 30 per cent of the crop, the scheme pays compensation.<sup>4</sup> However, as production declines, the viability of that scheme is threatened. For other commodities, farmers have to rely largely on their own resources and whatever government assistance is available to resume production. The banana crop insurance scheme falls within the provisions of Annex II of the WTO Agreement on Agriculture, as it is run without government subsidy. For other commodities these provisions hardly apply, as governments lack the resources to provide direct support/compensation to farmers, and the scale and value of production is insufficient to finance sustainable insurance schemes.

In summary, the unique challenge of small "islandness" makes the Windward Islands vulnerable to a host of external and internal factors, for which there is limited policy response. The extent of that vulnerability is exemplified by the present economic plight of Dominica. The effects of recurring hurricanes and storms in the late 1990s, the fall in banana prices and export revenue, and the lack of other significant production possibilities, has resulted in a serious balance-of-payments deficit and debt repayment problems that have left the country unable to meet its internal and external obligations. It has forced Dominica to seek assistance from the International Monetary Fund (IMF) and from regional countries and international donors.

Generally, the Windward Islands are aiming to achieve a more liberalized environment in which they can compete. However, developing an appropriate policy mix to achieve these aims is proving to be a challenge, as liberalization requires the reduction of tariffs and elimination of non-tariff barriers, which are the main tools used by governments for the protection of domestic production and revenue generation. The Windward Islands have pursued regional integration and liberalization at the subregional (OECS) and regional (CARICOM) levels as a means of broadening their individual narrow domestic markets. In addition, these countries are aspiring for membership of the hemispheric liberalization initiative, the North American Free Trade Area (NAFTA), and they are all members of the WTO.

The limited financial resources of individual governments and the private sector means that, in all cases, successful implementation of these policies requires bilateral and multilateral financial and technical support. The European Union (EU) has provided such support for revitalization of banana production and for agricultural diversification, while other international agencies such as the Food and Agriculture Organization of the United Nations (FAO) and the International Fund for Agricultural Development (IFAD) have provided support for food security and rural development initiatives, and the Canadian International Development Agency (CIDA) has supported trade policy development. Despite these efforts, given the peculiar disadvantages of these countries, time and additional resources are needed to achieve some level of comparable footing in multilateral liberalization.

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<sup>4</sup> The WINCROP insurance scheme is run along commercial lines and embraces all four islands. Premium rates are determined by actuarial methods and reinsurance is arranged on the international market. WINCROP provides coverage for wind damage, the major natural threat facing banana production.

## II. POLICY MEASURES IN THE AGRICULTURAL SECTOR

Agriculture is a key sector in all of the Windward Islands in terms of its contribution to overall GDP and economic growth, employment – in particular rural employment – and foreign exchange earnings. In 2000, its contribution to GDP ranged from 7.7 per cent in St. Lucia, and 9.2 per cent in Grenada to over 21 per cent in Dominica. Between 20 and 40 per cent of the labour force in these islands is involved in agriculture. However, in the past five years, agriculture has declined in terms of its contribution to the economy.

This case is best illustrated for St. Lucia, where, as shown in table 3 of annex II, agriculture accounted for 13–15 per cent of GDP during the 1980s and early part of the 1990s (Eastern Caribbean Central Bank (ECCB), 2000). As agriculture has declined, the role of the services sector has grown in importance, especially in the areas of tourism, construction, telecommunications and financial services.

In Dominica, where agriculture plays a greater role, its present economic difficulties are largely due to a 25 per cent decline in banana earnings in 2000, and to huge losses from natural disasters in the 1990s. The decline in banana production brought about by market uncertainty has led to increased cultivation of illegal crops, such as marijuana, in some islands. This has become a particular problem for law enforcement and security within the subregion and the hemisphere.

Many economist suggest that the services sector, including construction, tourism, banking, insurance and other service activities, in the Windward Island economies is not achieving the type of economic effect that resulted from high levels of agricultural production and export. As the factors of production in the agricultural sector are locally owned, profits are passed on for consumption, investment and savings in the same local economy. Between 1990 and 1994, banana revenues provided an average inflow of almost US\$ 1 million into the economy of St. Lucia and slightly less for Dominica. In addition to employment benefits, the weekly cash flow pattern of this income allowed for the development of a variety of small and medium-sized businesses in retail, construction and services in the urban, and especially, the rural sector. It led to investment in housing, transportation and education and sustained many female-headed rural households. With the decline in banana revenues since then, related economic activity has declined in the rural areas.

A significant portion of the capital invested in the service sector (i.e. finance, communications and tourism) is a result of foreign investment. Approximately 70 per cent of the hotels in the region are foreign owned, and while tourism is now the major employer in St. Lucia and Grenada, the multiplier and distribution effects are less than those from agricultural earnings.

### II. 1 Major products of interest to domestic agricultural development

Based on OECS and national commodity targets over the past decade, the following commodities are considered important to all the Windward Islands:

- Basic foods:** Poultry meat, eggs, small ruminants, pork, fruits (mangoes, citrus, avocados and minor exotics), vegetables (e.g. tomatoes, cabbage, cucumbers, sweet peppers, beans and lettuce)
- Staples:** Dasheen, yam, and sweet potato.
- Processed foods:** Coconut oil, processed fruit (e.g. jams, jellies and juices), pepper sauces and green seasonings.

The basic food items and staple crops are important mainly for food security. Food imports account for around 40 per cent of total food consumption in these islands. Statistics on the spread between consumption by the local populace and the tourism sector are not readily available. However, local importers estimate that 30–45 per cent of food sales are made to the hotel and restaurant sector (this

does not account for direct imports by the larger hotels). With declining export revenues, access of the local population to adequate food is threatened. Estimates of household poverty range from 18 per cent of households in St. Lucia to 30 per cent in Dominica. Without adequate income, households lack the means to purchase food, and they become increasingly dependent on domestic agriculture.

Basic food items and staples are also important in terms of agricultural diversification, as crop commodities such as dasheen, yams, hot peppers, mangoes and exotic fruits have regional and extraregional market potential. Development of sustainable commercial production and marketing systems for these crops is necessary to reduce dependence on bananas and improve the incomes of small and medium-sized farmers.

Poultry, herbs, hot peppers, small ruminants and sweet potatoes are among the commodities selected for a regional food security initiative. In addition to contributing to national food security, vegetables, eggs, chicken meat, fruits and cut flowers are products for which there is good demand in the developing tourism sector of these islands. The countries of the Windward Islands also have some potential for diversification and income from agro-processing.<sup>5</sup> However, this potential is limited, owing to the inability of small farmers to produce raw materials at a competitive price and to weak management of the small-scale agro-processing facilities (CARDI, 2000).

### *Agricultural policies*

In each of the Windward Islands, agricultural policy has focused on key areas of export promotion, food security and agricultural diversification. The food security and export goals have been operational for many decades, while overdependence on a single export commodity, bananas, and concerns over the future of this commodity, have prompted the diversification goal since the late 1980s. The policy goals for agriculture in the Windward Islands have been pursued through a mix of national, regional and international policies.

As the islands are small, open economies, trade measures have been key policy tools for agricultural development. Overall, these measures include preferential access for exports to developed country markets and protection for domestic agriculture. Generally, agricultural policies in the Windward Islands incorporate the following elements:

- (i) Protection for local production as a means of import substitution, foreign exchange savings and food security;
- (ii) Agricultural diversification to reduce overdependence on a single/few exports;
- (iii) Removal of barriers to trade at the subregional (OECS) and regional (CARICOM) levels to stimulate trade in the regional market; and
- (iv) Tax concessions and subsidies to local farmers to stimulate increased local production and exports.

At the individual national level, the countries have all revised and drafted national agricultural policies/strategies to address some of the SIDS-inherent constraints that affect agricultural production and trade. Key aspects of these policies include export promotion, agricultural diversification, food security, biodiversity and environmental concerns. Implementation of these policies is pursued through programmes and projects in key areas, including technology transfer (e.g. irrigation, germplasm and product quality), fiscal incentives, trade policy development, market development and entrepreneurial development.

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<sup>5</sup> Dominica has done very well in the vegetable oil sector in terms of the manufacture of soaps and detergents. In St. Lucia, income from the sale of coconuts for processing has become very important for farmers, as banana production has fallen. Processing of fruits, hot peppers and herbs has become a very important cottage industry and medium-scale venture in all four islands. This is not only important for rural incomes and employment, but also as a market source for farm production.

**(a) Specific policy measures**

**(i) Import-substitution policy**

In terms of protection for domestic production, governments chose to use quantitative restrictions as a means of protection of local agricultural production. These measures were aimed at creating a balance between: i) protection for food security and overall import substitution; and ii) revenue generation and provision of food for the populace. Protection measures include non-automatic licensing, local-content requirements and import quotas. As an example, St. Lucia used a 20 per cent local requirement for issuance of import licences for poultry. This policy achieved some success in the late 1980s and early 1990s, when a farmers' marketing cooperative carried out the processing and marketing functions. The closure of this outlet resulted in difficulties, due to weaknesses in production and processing and the use of evasive measures by importers of poultry.

While these protective measures remain in effect, they are expected to be tariffed by the end of 2005. This is because, as non-price trade measures, they are in contravention of regional and multilateral trading arrangements. Dominica has already tariffed restrictions, allowed under the CARICOM Treaty, and has plans to dismantle its negative list, while St. Lucia and St. Vincent and the Grenadines both intend to convert non-automatic licences to tariffs.

Pigs, poultry, vegetables and food crops were the major beneficiaries of quantitative restrictions. These are key commodities for domestic food security; as limited land space does not allow any significant ruminant production, pig and poultry meat is the major protein that can be locally produced. These commodities face significant competition from United States production, especially chicken, as domestic support policies in that country result in low prices for legs and wings, which are readily imported into the Windwards. Average c.i.f prices for chicken parts imported into St. Lucia range from US\$ 1.10 to US\$ 1.20/kg, while local production costs average US\$ 1.50.

**(ii) Tax and other concessions**

Individual governments grant concessions to farmers, including waivers on income tax payments for incomes below a set level and duty free concessions for farm vehicles and certain agricultural inputs. Fiscal imperatives have prevented the use of direct export subsidies as a means of promoting exports. Governments also provide technical assistance in the form of extension, research, testing and other services. The budget of the Ministry of Agriculture in St. Lucia is approximately US\$ 20 million to be used for the various areas listed, the main ones being revival of banana production and an agricultural diversification strategy.

**(iii) Product diversification programmes**

The governments of the Windward Islands have revamped their diversification policy to include low interest credit, entrepreneurial development and marketing support. St. Lucia is establishing a diversification unit within the Ministry of Agriculture, and is collaborating with NGOs and commercial institutions to improve the flow and management of credit to farmers. A major aspect of this policy is the redirecting of the St. Lucia Marketing Board from a buying and selling operation to that of providing market intelligence and other facilitation support. Other aspects of the diversification strategy include infrastructure development in the form of feeder roads and marketing facilities, input supply, setting of grades and standards, and agro-processing of targeted commodities. In St. Lucia, this strategy is at its initial implementation stage and is being funded as part of the EU/STABEX Initiative. A drawback in the implementation of these initiatives is the difficulties technicians and administrators face in sorting out the complex rules of the new trade environment and developing policies that can realistically achieve their objectives.

(iv) Trade policy

All the Windward Islands are net food importers, and the negative food trade balance has been on the increase as agricultural export production has declined while imports continue to hold steady (table 4). St. Lucia's food import bill stood at US\$ 71 million in 2000. Food imports make up 22 per cent of its total imports, with meat and cereals accounting for over 40 per cent of overall food imports. The main trading partners for food are the United States, the United Kingdom and CARICOM, especially Trinidad and Tobago and Barbados.

With the exception of phytosanitary considerations, OECS countries can trade freely with each other in agricultural goods. At the regional level, CARICOM countries have agreed a common external tariff (CET), and goods from other CARICOM States are allowed tariff-free access to the Windward Islands. The CET is applied to imports from third countries at rates of up to 35 per cent for industrial products, and 40 per cent for agricultural goods. Generally, the Windward Islands apply the 40 per cent CET on agricultural products. The schedule for implementation of the CET allowed for four phases and was to be completed by the end of 1998. Some members have complied fully, but others have not yet reached Phase IV due to fiscal problems. The Windward Islands' bound tariffs on most agricultural goods was 100 per cent under the Uruguay Round, with Grenada having exceptions for selected items.

The reduction of the CET has caused some implementation problems in Grenada, where import duties exceed WTO bound rates for 18 tariff lines, including some meats, some fresh vegetables, rice, soybean meal and oil, beer and wine which are bound between 0 and 35 per cent. In the case of St. Lucia, attempts were made to ensure that implementation of the final phases of the CET was revenue neutral, and a consumption tax was imposed ranging from 10–30 per cent on a list of goods, both imports and domestic. Imported goods also face a 3–4 per cent handling charge in all countries. As a consequence, a consumption tax regime has been applied to all imports and to local production of selected goods and services.

The findings of the WTO Trade Policy Review (2001), and a study by the Centre for Trade, Policy and Law at Carleton University (CTPL, 2002) indicate that the Governments of the Windward Islands are largely in compliance with their WTO commitments. While there are exceptions in terms of quantitative restrictions, as noted above, the Governments are fully cognizant of the need to convert quantitative restrictions to tariffs, as part of their Uruguay Round commitments, and are committed to the process. Nevertheless, limited capacity at the national level has delayed the process and outside assistance is being sought by St. Lucia and Dominica.

**(b) Policy impacts**

The efforts of domestic policies have resulted in improvement in the production of some import-substitution commodities. St. Lucia has become self-sufficient in egg production, and all the Windward Islands have made improvements in this commodity (see annex II, tables 6 and 7). Fish production has been on the increase for each of the past five years in all of the Windward Islands. Vegetable production has also shown increases, as has pig production. Chicken production continues to experience difficulties due to lack of scale in production and processing. Uncertainties about future arrangements for the protection of local producers has restricted investment, while imports of cheap, subsidized cuts — in particular, legs, wings and backs — from the United States make it difficult for local producers to compete.

In other sectors such as fruit production, past endeavours at import substitution and diversification achieved less-than-anticipated success for several reasons. These include the lack of a holistic approach, an inadequate focus on shipping and transport, the low involvement of industry partners and insufficient emphasis on commercial production and marketing. Already the Governments of the Windward Islands are attempting to remedy this in their recent policy approach to diversification.



The effect of the above measures on non-traditional exports is difficult to measure. Exports of non-traditional crops have followed a pattern of peaks and troughs over the years. The effects of drought, access to shipping, phytosanitary problems and high transport cost for air shipping of perishables have all played a role. Another factor that cannot be downplayed is the relative attractiveness of bananas in providing stable revenue and a well-established market compared to other commodities. Because of this, and even though there have been rapid changes over the past decade, farmers have perceived bananas as a less risky business.

*(c) Non-trade policy concerns*

As noted above, food security is a vital concern for all the Windward Islands due to poverty. Concerns over food sovereignty resulting from an overdependence on imports, furthers the case for pursuance of a food security strategy. The Governments of the Windward Islands, in collaboration with the FAO and CARICOM, are developing a regional Food Security Programme targeting the development of production and marketing of a group of select commodities for national and regional food security. These commodities include, hot peppers, small ruminants, poultry, sweet potatoes and herbs and spices.

Food security and agriculture are tightly linked to overall rural development in these countries. The potential of many farmers and farm workers to participate in areas such as financial services and information technology are limited by low levels of education. The largest employer in the service sector, tourism, also has limitations as an alternative source of benefits to rural communities. The events of 11 September 2001, and the resulting decline in visitor arrivals of up to 25 per cent in the ensuing months, are an indicator of the vulnerability of tourism to external shocks.

Hotels, which account for up to 75 per cent of the employment in tourism (Bryan, 2001) are located outside most of the main banana producing areas, and there is intense competition for the jobs available. Ecotourism activities provide the major employment opportunity for rural people in the tourism sector. While strategies are being developed in all the islands to enhance ecotourism, its potential development is closely tied to the cruise tourism sector, and employment opportunities are linked to site visits through tours.

In the foreseeable future, agriculture is the sector with the largest employment possibilities and multiplier potential for rural communities. In Dominica, it is estimated that there are three persons dependent on each person employed in bananas. Employment statistics for St. Lucia show that a number of rural communities experienced unemployment that was significantly higher than the national average of 17.5 per cent, and increases in rural unemployment and poverty are linked to the decline in banana exports (CDB, 1999).

Environmental concerns in small island developing countries are also linked to agricultural development, as is tourism development. As these countries are highly dependent on land and marine resources for current and future survival, the impacts of agricultural activities on the environment are key issues to be addressed. The main environmental issues in respect of agriculture in the Windward Islands include:

- Deforestation,
- Solid and liquid waste management,
- Unplanned development,
- Natural disasters, and
- Squatting.

In some islands, the legal framework with respect to the ownership and use of land affects efforts aimed at conservation and increasing sustainability. According to the 1996 census, 45.9 per cent of agricultural

lands are family owned, and since St. Lucia uses the Napoleonic Code, according to which all family members can lay claim to such lands, there is considerable fragmentation of holdings. This type of ownership in turn affects the level of investment on such lands.

*(d) Impact of liberalization on the domestic market*

Until the removal of quantitative restrictions on key commodities, including vegetables, the impact of liberalization on domestic agriculture is difficult to judge, as the only real changes in trade measures in agriculture since the inception of the WTO has been the implementation of the common external tariff.

## **II.2 Major products of export interest**

The major exports of the Windward Islands are bananas, cocoa, nutmeg and other spices, root crops, fruits and hot peppers. The overall agricultural export mix of the Windward Islands is fairly restricted. Banana is the major export crop for Dominica, St. Lucia and St Vincent and the Grenadines and less important for Grenada. Cocoa is important for St. Lucia and Grenada and nutmeg is the most important export crop for Grenada. Cocoa and nutmeg are traded on the open market. Grenada is a large producer of both commodities and receives world prices for them. Arrowroot production, although declining, is still of importance to St. Vincent and the Grenadines, while exports of dasheen, yams, hot pepper, mangoes and breadfruit vary in importance for the different islands.

*(a) Performance*

Windward Island agricultural exports were highest immediately prior to the advent of multilateral trade liberalization, but have declined significantly since then. The performance of the three major Windward Island agricultural exports — bananas, nutmeg and cocoa — is shown in annex II, tables 8–10. During the period 1985–1995, bananas represented more than 75 per cent of the value of total agricultural crops, and 66–70 per cent of agriculture’s contribution to GDP. However, in 2000, agriculture’s contribution to GDP fell to 7.7 per cent and banana production was responsible for only 45 per cent of the value of agricultural activities in the economy of St. Lucia, for example. The growth rate of banana exports and revenues has been somewhat erratic in the Windward Island. Market uncertainty, a falling pound sterling in 1992 and falling producer prices forced 35–40 per cent of farmers to abandon the industry in the late 1990s, while droughts significantly reduced production in 2001 following increases brought about by higher prices in 2000.

Over the years, the agricultural sector has managed to earn 60–80 per cent of the country’s total export revenue. Of this, 96 per cent was derived from the banana industry. In 1992, agricultural exports generated almost ECU 200 million. In 1990, the agricultural sector experienced a 33 per cent growth, the highest rate ever recorded. The performance of the sector continues to be influenced largely by the direction and level of revenues derived from the banana industry. Thus, a drop in the volume of banana exports by 33.4 metric tonnes after tropical storm Debbie in 1997 occasioned a 17 per cent contraction of the agricultural sector that year.

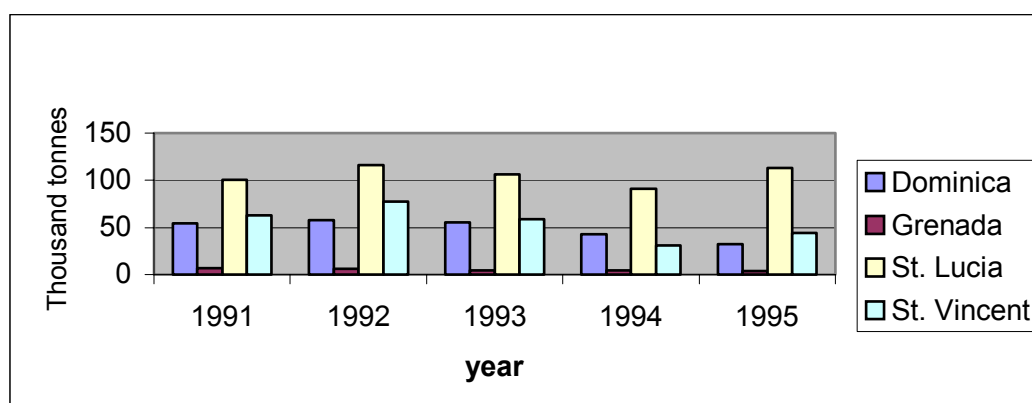
The driving force for the development of banana exports has been preferential access to the EU market under the Lomé Convention for exports from African Caribbean and Pacific (ACP) countries. While this arrangement has been applicable to a full range of agricultural products, the banana industry has benefited most from this opportunity and has dominated the agricultural landscape of the Windward Islands. In addition, the Caribbean Basin Initiative (CBI) with the United States has allowed for duty free imports of Caribbean products into that market. However, for other agricultural products, the Windward Islands have fallen short of expectations in exploiting these arrangements, due in part to the dominance of bananas and to irregular production of alternative crops.

From the 1980s to the mid-1990s, preferences and high prices in the United Kingdom market, combined with national government support in terms of tax concessions, support to farmer organizations and land distribution schemes resulted in significant export performance of Windward bananas. The price of bananas in the United Kingdom market was almost twice the world prices in the early 1990s, when exports were at their highest, and Windward Island producers benefited from a fully protected United Kingdom market. In 1993, the EU set tariff rate quotas (TRQs) for banana imports based on historical import levels; the Windward Islands were allotted a quota of 285,00 tonnes. However, problems related to weather, price and market uncertainty prevented the Islands from meeting this quota, and their present allocated quota is less than 70 per cent of this amount. The Latin American (“dollar”) fruit were allotted a tariff quota of 2.5 million tonnes, with an in-quota tariff of ECU 75/tonne and an out-of-quota tariff of ECU 850/tonne.

The Windward Islands export all their fruit to the United Kingdom market, but their advantage in this market has declined significantly over the past decade. As noted earlier, competition by large banana companies has led to periods of significant price decline. This, coupled with the fact that the Latin American bananas obtain a market premium of 20 per cent or more in the EU, has eroded the preferential margin of the ECU 75/tonne tariff for the Windward Island producers. As evident by the narrowing price gap shown in table 3, the advantage of the traditional ACP suppliers over their competitors mainly exists to the extent that non-ACP exporters pay duties on bananas that are exported above their allocated quota and that the ACP suppliers share economic rent from licensing arrangement.<sup>6</sup>

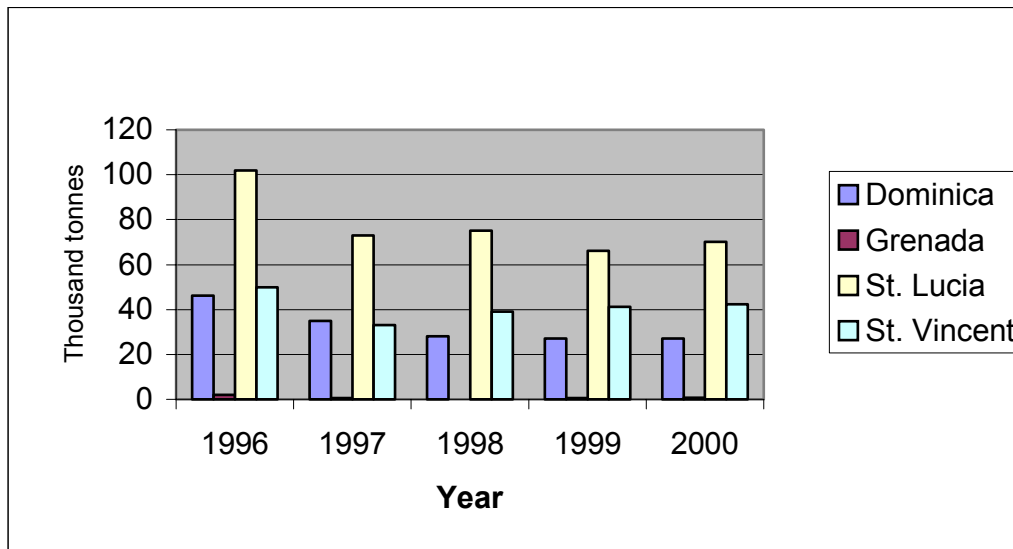
A new agreement signed in 2001, arising out of a WTO dispute settlement, provides for changes to the licensing system and an annual increase in TRQs, with the duties on out-of-quota imports declining by 25 per cent each year. Thus, while market access is guaranteed to the end of 2007, the challenge for Windward Island producers is to improve competitiveness to remain in the market until then, while lobbying for a new import regime that will compensate for some of their inherent disadvantages. Even if the ratio of Windward Island grower costs to those of Latin American producers could be reduced from approximately 200 per cent to 150 per cent (a 25 per cent reduction), there would still be a significant cost gap that would render them uncompetitive in an open market.

**Figure 1. Windward Islands’ banana exports to the United Kingdom, 1995–1996**



<sup>6</sup> Licensing arrangement in the EU market allowed for economic rent through import certificates; traditional sellers of ACP fruit were issued 30 per cent of certificates for “dollar” fruit.



**Figure 2: Windward Islands' banana exports to the United Kingdom, 1996–2000****(b) Policies for non-traditional exports**

Policies for agricultural diversification are aimed at broadening the range of agricultural exports as well as increasing food security. These policies have been largely implemented through the selection of a range of target crops, and through a series of projects at the national and subregional levels aimed at improving the production and marketing of these commodities. Under projects such as the Agricultural Research and Extension Project (AREP),<sup>7</sup> the Tropical Produce Support Project (TROPPO), and the efforts of various ministries, the Caribbean Agricultural Research and Development Institute (CARDI) and the Agricultural Diversification Unit of the OECS, production technology has been developed and validated for a number of crops including *eddo*, *tannia*, sweet potato, ginger, pineapple, mango, avocado, hot pepper, plantain and dasheen. In addition, support has been provided through market information systems, exporter training and market development, including trial shipments of select produce. Ministries of agriculture have also provided extension support.

Additional support for agricultural diversification has included initiatives at improving product quality and overall competitiveness of non-traditional exports. These include training in good agricultural practices to improve production and post-harvest handling practices, and market support through provision of market information and direct export of root crops and fruit through State-owned marketing boards.<sup>8</sup>

New market initiatives being pursued for bananas include organic banana production and “fair trade bananas” which is largely aimed at developing better price arrangement for bananas grown in ACP countries.

The success of the major diversification initiatives has been affected by disconnects in the research extension linkage and the development of commercial production and marketing systems (CARDI, 1996). Recent diversification strategies and agricultural policies in St. Lucia and Dominica are expected to provide a more integrated approach to agricultural development through the setting of reachable

<sup>7</sup> Funded by the United States Agency for International Development (USAID), AREP was a US\$ 6 million project, which ran from 1991 to 1996, to develop improved production technologies for a range of diversification commodities including mangoes, plantains, hot peppers, breadfruit, ginger, eddoes, pineapples and passion fruit. The project also involved the strengthening of linkages between research and extension in technology transfer.

<sup>8</sup> Marketing Boards in the Windward Islands have been involved in the importation of select food commodities; they use their revenue to provide a purchasing and distribution outlet for farmers' produce. These Boards have generally run at a loss and their operations are being restructured to provide more facilitating services including intelligence, development and technical assistance.

targets and by instituting relevant support structures. The impact of these efforts on the production of non-traditional crops is difficult to separate from that of other domestic policies. Despite the emphasis placed on the service sector and agricultural diversification, St. Lucia has found it difficult to replace the loss of foreign exchange earnings resulting from the decline in banana production and exports since 1995 and their contribution to national income and employment. In addition to the effects on the service sector of the decline in the world economy, the low level of economic growth over the past few years is also a reflection of declines in banana prices, exports and revenue. The latter is largely a result of the uncertainties of the new multilateral trading environment.

### **III. OPTIMAL “MODALITIES” FOR AGRICULTURAL DEVELOPMENT**

The modalities set out below are based on feedback from OECS countries in trade workshops, submissions to the WTO and interviews with government officials.

The negotiating objectives<sup>9</sup> of the Windward Islands in terms of trade liberalization are based on the benefits to be garnered from multilateral trade liberalization, and their inherent disadvantages that affect their ability to obtain these benefits. Continued preferential access for traditional banana exports for at least a longer transitional period, to allow for modernization of agriculture and additional and/or new access for non-traditional agricultural exports is therefore a key issues. Tied in with the latter is the desire to secure market openings for products associated with new opportunities in trade-related areas such as investment, intellectual property rights and competition policy. To minimize the inherent disadvantages of size and capacity, the Windward Islands are also seeking non-reciprocity in any new trade obligations that arise and to keep down the costs of reciprocity in terms of product coverage, timing, sequencing and offsetting of revenue losses. These major objectives are part of the wider CARICOM strategy developed for global and hemispheric trade liberalization.

#### **III.1 Market access**

The critical areas of market access for the Windward Islands, in terms of the AoA and the ongoing negotiations, are in the areas of tariff binding reductions, tariff peaks and escalation, tariff rate quotas (TRQs), special agricultural safeguards (SAGs) and non-trade concerns. The latter issues have implications for key exports that traditionally benefited from preferences, as well as products targeted for food security and rural development.

##### **(a) *Tariff reductions***

Lacking the fiscal resources to provide most types of domestic support, the Windward Islands have used CETs and quantitative restrictions as measures to safeguard domestic producers from declines in world prices, protect them from cheap imports and stimulate domestic production. Quantitative restrictions in the main are not allowable under the AoA, and rather than risk payment of compensation to affected exporters, the Governments have agreed to the elimination of these restrictions. Tariffs are thus the only mechanism that will be in place to safeguard domestic production. Without flexibility in the use of tariffs as a safeguard, domestic producers of vegetables, eggs, poultry, pigs and vegetable oils, in particular, will be at a significant disadvantage vis-à-vis their competitors in the United States who can benefit from various subsidies (even if reduced under current negotiations). These commodities are key elements of food security strategies in the Windward Islands. The converse is true for bananas, where erosion of tariff preferences places banana producers at a significant disadvantage.

<sup>9</sup> The negotiating objectives are based on the regional CARICOM position developed by member Governments and elucidated by the CARICOM Regional Negotiating Machinery (CRNM).

As a consequence of the above, the Windward Islands will benefit from some flexibility given to developing countries concerning the level of tariff bindings. For instance, maintaining the existing bindings (i.e. the Uruguay Round final bound rate) will be advantageous for important food security products including poultry, pigs, vegetables and food crops. The existing applied rates under the CARICOM external tariff of 25–40 per cent are too low for domestic production in the face of price decreases. An example is the 30 per cent difference in cost between imported and local chicken with the applied CET rate. This leaves local producers with a need for protection above the CET rate, particularly if real prices decline below present levels.

Due to the importance of tariff bindings to the Windward Islands, these countries will also benefit from reductions in tariff bindings for developing countries beyond 2004, which will be significantly less than those required for developed countries and not subject to greater percentage cuts for higher tariffs. In addition, with no fiscal resources to provide support (and therefore no significant benefits to be gained from reductions in agricultural support measures), modalities should allow the Windward Islands to retain tariffs as the main instrument for encouraging domestic production of key food security commodities and contributing to employment and development in rural areas.

### **(b) *Tariff preferences***

The importance of banana exports to the economies of the Windward Islands in terms of foreign exchange earnings, employment and overall economic growth (as seen in the declines in economic growth following their reduced production), and the inherent disadvantages in production that can be alleviated, but not totally addressed, by technological improvement requires some type of special and differential treatment if these countries are not to be further disadvantaged by liberalization. While the Cotonou Agreement between the ACP members and the EU provides market access until the end of 2007, and funds under the European Development Fund (EDF) to assist countries in making the transition to a new trading regime, it is likely that the inherent characteristics of SIDSs that place them, including the Windward Islands, at a disadvantage in banana exports will plague them in other economic endeavours as well.

Thus, modalities that provide secure market access and binding or targeted preferences for the Windward Islands and other SIDSs would be most appropriate. Even if Windward Island producers can improve marketing and productivity to produce at an average cost of US\$ 260/tonne – US\$ 320/tonne, the cost differential will be 20–40 per cent higher than Latin American costs, and a preferential tariff to alleviate this disadvantage would be burdensome and not likely to be politically viable in Europe. Thus tariff preferences must be tied to assistance to improve competitiveness as well as market-based options such as branding, organic production and fair trade fruit.

### **(c) *Tariff rate quotas***

Given their high dependence on banana exports, the Windward Islands would benefit if historical allocations were maintained in TRQs. In any case, Windward Island production makes up less than 2 per cent of world exports and less than 7 per cent of the EU market. As such, a quota based on historical exports would have little or no effect on the world or EU markets. For new commodities exported into developed country markets, since the level of production will also be too low to cause market distortions, the Windward Islands and other SIDSs should have equal access to TRQs.

However, recognizing that there may be new arrangements in TRQs as a result of the current negotiations, the OECS as a group has taken the position that the new AoA should explicitly recognize the need for full compensation (by developed countries) for the loss of preferences as a condition for developing countries agreeing to give up country-specific quotas, from which they have historically benefited.

Such compensation would reflect the losses incurred by the country's economy in terms of foreign exchange, employment and linkages to consumption and investment. At average production levels of 200,000 tonnes in the first half of the 1990s and 140,000 tonnes in the last half of that decade, this

represents direct annual revenue losses of US\$ 65 million to US\$ 85 million, and significantly higher losses when taking into account the multiplier effect of banana revenues in the Windward Islands. Minimizing such losses would require large and sustained investments in education, training and social and economic programmes over a suitable period of time. Already in catering for the estimated 4,000 farmers that have left the industry, the Government of St. Lucia, with assistance from the EU, has initiated a US\$ 44 million programme of diversification and social revival. Should larger producers, who provide more employment, go this way, the costs would be much higher.

**(d) Special safeguard measures**

Given their few tradeable products and the lack of a diversified export revenue base, the Windward Islands cannot afford to risk payment of compensation to exporters disadvantaged by imposition of quantitative restrictions. Along with the development of relevant administrative systems and guidelines (such as trigger mechanisms), flexible tariff rates would give coverage to a wider range of products and provide for food security needs in terms of cheap imported food.

### **III.2 Domestic support**

As mentioned earlier, while recognizing that there are provisions for domestic support of their agriculture, the Governments of the Windward Islands do not have the fiscal resources to provide such support. To the extent that domestic support measures in developed countries result in lower prices of key food imports not produced in the Windward Islands, it contributes to overall food security. However, in the case of poultry, vegetables and oils, this results in additional competition for domestic producers of such goods.

Consequently, for SIDs such as the Windward Islands, a “development/food security box” that would allow those lacking the budgetary capacity to meet any type of *de minimis* level to support domestic producers of key food security items would be most beneficial.

### **III.3 Export competition**

The situation for export subsidies is similar to that for domestic support. As net food importing countries, the Windward Islands benefit from cheap, subsidized exports from developed countries, except, as noted above, where such products are in competition with domestic products. The modalities of export competition are not likely to have any significant impact on any of the targeted commodities in the Windward Islands. For purposes of negotiations, the fact that export subsidies for sugar in the EU can harm CARICOM producers in the absence of country-specific quotas may necessitate an overall regional position.

### **III.4 Conceptual framework for special & differential treatment**

For the Windward Islands, special and differential treatment (S&DT) should be aimed primarily at maintaining some of the special treatment enjoyed in current and future regional and multilateral trade arrangements. Under the present arrangements, OECS countries like St. Lucia enjoy allowances that CARICOM makes for tariff suspensions and reductions, as well as national exceptions to the CET. Article 56 of the CARICOM Treaty allows these countries to apply quantitative restrictions on a number of products as a means of protecting infant industries. These restrictions affect a number of manufactured products, including beer and aerated beverages, curry and pasta. A number of safeguard measures are also applied under Article 29 of the CARICOM Treaty.

Special and differential treatment under the AoA may take the form of:

- a) Longer periods for compliance with specific regulations;
- b) Easier market access to major trading partners;
- c) Exemption from certain obligations and lower levels of commitments; and
- d) Recognition of the need to enhance food security through realistic options available (i.e. tariffs and safeguards).

Special and differential treatment for SIDSs may never take the form of that given to the LDCs, judging from the signals coming from negotiations within the FTAA and the direction the banana issue has taken over the past few years. While the path of S&DT in line with the LDCs can be pursued, the essence of any S&DT for SIDSs should focus on the time needed for adjustment and, more importantly, on managing vulnerability through technical assistance and flexible commitments. In this regard, technical and financial assistance to SIDSs would be critical.

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## ANNEX

## Tables

Table A1. Area and population of the Windward Islands

Country	Area (km <sup>2</sup> )	Population
Dominica	751	75 527
Grenada	345	101 100
St. Lucia	616	150 000
St. Vincent & the Grenadines	388	111 000
<b>Total</b>	<b>2 100</b>	<b>437 627</b>

Source: WTO, *OECS Trade Policy Review* (2001).

Table A2. Agricultural landholdings by size: St.Lucia

Size	No. of holdings	Area (ha)
Under 2 ha	9 172	5 476
2 to 4 ha	1 711	4 409
4 to 10 ha	700	3 794
10.1 to 20.1 ha	92	1 243
20.2 to 40.5 ha	22	638
40.5 to 80.9 ha	15	840
80.9 to 202.3 ha	16	2 125
202.3 ha and over	7	2 227

Source: Ministry of Agriculture, *Agricultural Census* (1996)

**Table A3. Relative contribution of agriculture to national income (%):  
St. Lucia, 1993–2000**

<b>Sector</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>
<b>Agriculture, livestock, forestry &amp; fishing</b>	13.67	10.82	11.16	11.10	9.06	9.06	7.21	7.69
<b>Bananas</b>	9.15	6.56	7.52	7.07	4.78	4.89	3.53	3.46
<b>Other crops</b>	3.17	3.16	2.53	2.70	2.81	2.69	2.22	2.75
<b>Livestock</b>	0.62	0.64	0.60	0.79	0.88	0.96	0.70	0.81
<b>Fishing</b>	0.81	0.62	0.72	0.88	1.01	1.09	1.41	1.51
<b>Forestry</b>	0.30	0.28	0.25	0.22	0.21	0.19	0.17	0.15

Source: Central Statistical Department

**Table A4. Food Trade: St. Lucia (in thousand US\$), 1996–1999**

<b>Item</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>
Total food imports	69 051.85	72 662.22	75 073.33	70 848.15
Meat	20 248.52	18 188.15	14 471.48	13 922.22
Cereals	8 857.407	8 565.18	10 425.93	10 045.93
Total food exports	54 007.78	35 982.59	39 895.19	91 152.00
Non-traditional food exports	3 315.3	2 502.13	2 218.90	835.19
Food trade balance	-15 044.1	-36 679.60	-35 178.10	20 303.85

Source: Central Statistical Department

**Table A5. Major trade partners: St. Lucia (thousand US\$), 1997–2000**

<b>Country/region</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>
CARICOM	71 073.33	71 795.19	76 643.70	77 204.44
Barbados	10 468.15	10 415.19	10 801.85	10 088.52
Jamaica	3 328.15	3 397.04	3 290.74	2 727.41
Trinidad and Tobago	38 951.85	43 165.56	49 988.89	51 239.63
OECS	14 793.70	12 050.37	9 407.037	9 079.63
United Kingdom	30 973.33	31 075.56	37 178.52	30 161.48
United States	128 440.00	122 610.70	140 511.10	133 150.70
<b>Total</b>	<b>332 355.60</b>	<b>335 220.70</b>	<b>354 553.30</b>	<b>355 058.10</b>

Source: Central Statistical Department

**Table A6: Poultry production in the Windward Islands, 1991–2000**

Item	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Chicken imports (tonnes)</b>										
	3 260	3 000	3 139	2 309	1 994	2 819	2 292	2 100	1 900	2 200
	3 484	1 700	3 646	3 000	3 805	4 401	4 297	4 672	4 622	4 794
	6 778	6 783	6 942	8 168	7 697	7 679	6 903	7 645	8 371	8 406
	4 492	4 980	5 304	4 851	5 393	5 166	5 296	5 557	6 123	4 600
<b>Chicken imports (US\$'000)</b>										
St. Lucia								9 427	8 343	7 627
<b>Local production (tonnes)</b>										
Dominica	230	250	270	300	300	310	315	340	340	340
Grenada	450	456	460	470	480	480	520	600	600	600
St. Lucia	600	600	600	612	624	624	660	720	645	595
St. Vincent & the Grenadines	400	410	415	420	425	425	425	425	425	425
<b>Imports to local production</b>										
Dominica	14.17	12	11.63	7.697	6.647	9.094	7.276	6.176	5.588	6.471
Grenada	7.742	3.728	7.926	6.383	7.927	9.169	8.263	7.787	7.703	7.99
St. Lucia	11.3	11.31	11.57	13.35	12.33	12.31	10.46	10.62	12.98	14.11
St. Vincent & the Grenadines	11.23	12.15	12.78	11.55	12.69	12.16	12.46	13.08	14.41	10.82
<b>Eggs (St. Lucia)</b>										
Local egg production ('000 doz)	466	592	605	791	819	743	802	826	931	918
Local egg production (US\$ '000)	863	3 262	1 121	1 758	1 266	1 376	1 784	1 570	2 067	2 210
Egg imports (US\$'000)	192.6	17.04	3.7	31.11	10.2	-	-	-	-	-
Egg imports ('000 doz)	38	9.7	7	1	18					
Ratio of imports to production	0.044	0.003	0.006	0.001	0.014					

Source: Ministry of Agriculture, *Statistical Digest* (various)

**Table A7. Production of key food security crops: St. Lucia, 1991–2000**

Item	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Local production (US\$)</b>										
Dasheen	204.1	226.3	278.9	293.3	406.3	450.4	376.7	433.3	506.7	725.2
Yams	347.4	408.5	466.3	466.7	437	723.7	660.7	634.1	550	728.1
Copra (processed for oil)	1713	1205	1828	1236	760	793	1167	676.7	772.2	878.9
Sweet Potatoes	206.3	241.9	305.2	285.6	520.4	459.3	395.6	366.7	451.5	766.3
Tomatoes	283	275.6	317	447.8	330.7	334.4	390.4	683.3	426.7	292.6
Cabbages	205.9	188.9	266.3	287	314.8	261.5	163.7	259.6	185.6	293
Cucumbers	127.8	146.7	154.4	184.8	167.4	171.1	170	208.9	217	285.9
Sweet Peppers	102.6	61.11	78.15	105.9	95.56	115.6	90.74	74.81	81.11	124.4
Pumpkins	118.5	123	145.2	174.1	150.7	167.8	149.3	155.6	208.1	318.1
Grapefruit	274.1	412.2	437.8	344.1	491.9	356.7	378.9	461.5	397.4	478.9
Lettuce	114.4	133.7	167.8	215.9	218.1	169.6	174.4	309.6	177	237
Mangoes	953.3	1146	925.9	1475	936.3	891.5	1022	684.4	921.1	743.3
Hot Peppers	94.07	108.1	71.48	163.7	243.3	245.6	188.5	193.3	324.1	308.1
<b>Total production</b>	<b>7 373</b>	<b>7 143</b>	<b>7 889</b>	<b>8 708</b>	<b>7 727</b>	<b>7 954</b>	<b>7 931</b>	<b>8 989</b>	<b>8 069</b>	<b>9 664.0</b>
<b>Rate of growth (%)</b>		-3.13	10.44	10.39	-11.3	2.938	-0.29	13.35	-10.2	19.77

Source: Ministry of Agriculture, *Statistical Digest* (various)

**Table A8: Cocoa exports from the Windward Islands, 1991–2000**

<b>Item</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>
<b>Exports (tonnes)</b>										
Dominica	0	15	25	14	10	3	2	0	0	0
Grenada	1 614	1 348	1 568	1 255	1 425	1 593	1 330	1 106	961	1 479
St. Lucia	48	37	42	31	32	30	28	15	25	25
St. Vincent & the Grenadines										
<b>Total</b>	<b>1 662</b>	<b>1 400</b>	<b>1 635</b>	<b>1 300</b>	<b>1 467</b>	<b>1 626</b>	<b>1 360</b>	<b>1 121</b>	<b>986</b>	<b>1 504</b>
<b>Rate of growth (%)</b>										
		-15.8	16.79	-20.5	12.85	10.84	-16.4	-17.6	-12	52.54
<b>Exports (US\$'000)</b>										
Dominica	6	45	77	40	26	7	7	0	0	0
Grenada	3 059	2 588	3 104	2 942	3 312	2 586	1 869	2 064	1 409	2 250
St. Lucia	127	98	110	124	115	71	68	36	54	54
St. Vincent & the Grenadines										
<b>Total</b>	<b>3 192</b>	<b>2 731</b>	<b>3 291</b>	<b>3 106</b>	<b>3 453</b>	<b>2 664</b>	<b>1 944</b>	<b>2 100</b>	<b>1 463</b>	<b>2 304</b>

Source: FAO, *Commodity Review* (2002).**Table A9: Nutmeg exports from Grenada, 1991–2000**

<b>Item</b>	<b>1991</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>
<b>Exports (tonnes)</b>	1674	1923	2411	2768	2179	2070	3011	2478	2862	2170
<b>Rate of growth</b>		14.87	25.38	14.81	-21.3	-5	45.46	-17.7	15.5	-24.2
<b>Exports (US\$'000)</b>	4517	2808	3221	3052	3988	5165	8092	10285	16791	15570

