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A STUDY OF GRENADA, WEST INDIES

by

Woodville Marshall

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INTRODUCTION

This study is part of a UNESCO research initiative concerned with the interrelations of population, environment and development factors in three distinct regions. This section of the research looks at these interrelations in the small Caribbean island of Grenada. The change of government on 13 March 1979 by a People's Revolution which put into power a People's Revolutionary Government is the focus of study.

Environmental and population factors set the parameters for development. These parameters are examined in the first two sections of the report which consider the possibilities and constraints presented by the environmental factors and look at population as a resource. In the third section the possibilities and constraints of the economic factors are examined. Finally, the report looks at the different development strategies that have been tried in Grenada and evaluates the strategy of the P.R.G. which was in power for a short four and a half years.
SECTION I: The Physical Environment

The state of Grenada is made up of one main island, Grenada, together with a number of smaller islands of the Grenadines, the most important of which are Carriacou and Petit Martinique. Altogether these islands of the state of Grenada make up an area of only 133 square miles. Grenada itself is about 21 miles long, 12 miles wide at its broadest point, and has an area of 120 square miles or 76,548 acres.

Situated at 12°N, 60°W, Grenada is the southernmost island of the volcanic arc of the Lesser Antilles, and is about 90 miles north of Trinidad. Within the Lesser Antilles, it belongs to the group of islands known as the Windward Islands. These include Dominica, St. Lucia and St. Vincent as well as Grenada which is in fact the smallest of the group. The largest, Dominica has an area of 305 square miles.

This section of the report describes the physical environment of the state of Grenada: its geology and soils; climate and weather; and its natural vegetation. It concludes with a discussion of the possibilities for development indicated by the natural environment and also indicates the constraints which this environment imposes on these possibilities.

I.1: Geology and Relief

There is little published information on the geology of Grenada apart from the rather general accounts of Harrison [1896], Earle [1924] and Hardy [1932]. Even the most recent work by Martin-Kaye [1969], does not provide a total survey and no complete geological map of the whole island exists for Grenada. The same is true of the other islands of the Windward Island group. Part of the problem has been that too much emphasis has been placed on the search for mineral wealth. The importance of basic mapping together
Figure 1: Basic Structural Elements of the Lesser Antilles (from Brookfield, 1982)
with hydro-geology does not seem to have been appreciated, especially for a fuller understanding of hydrology, soils and their erodibility, and natural resources as a whole [Brookfield, 1982].

The Caribbean region is one of the smaller plate systems postulated by the fairly new geo-physical concept of plate tectonics. Put very simply, this concept divides the earth's crust into a continuous network of rigid plates which are separated by fault-lines, ocean rifts, rises and deep trenches. The Caribbean region, like the Mediterranean, is a maritime region between two continental masses which have moved, and are still moving, relative to each other. The formation of the Lesser Antilles is believed to have begun about 149 million years ago when the Atlantic ocean floor was moving under the Caribbean plate as the Atlantic widened and its floor spread. In this frontal zone, two distinct chains of volcanic islands were formed.

The island of Grenada was formed on a sedimentary platform known as the Caribbean Ridge. The Caribbean Ridge rose above sea level during the Pliocene then, with violent volcanic activity, sank again during the Pleistocene. Most of the present island was formed during this period when ash, breccia and lava were laid down [Brierley, 1974].

The Caribbean and Atlantic plates still continue to move relative to each other at an estimated rate of two centimetres per year. Thus, although the volcanic activity of the zone has decreased, the Lesser Antilles must still be considered active. The most recent volcanic eruption was of La Soufriere, in St. Vincent in 1979. But the most recent earthquake shocks to be felt in Grenada were in 1867 and 1888, with both shocks being centred
Figure 2: Diagram showing the relation of vulcanism and earthquakes to plate-tectonic movements in the Lesser Antilles (from Brookfield, 1982)
beneath the harbour of the capital, St. George's. The harbour is the site of an old crater and two other craters are visible at Grand Etang and Lake Antoine.

These three craters are on a fault line which is the axis for movement which is presently taking place in Grenada. The area south-east of this axis has been sinking, and this subsidence has resulted in a ria coastline. On the other side of the fault line, the northern coast has been emerging as is shown by the marine terraces about Sauteurs [Brierley, 1974].

Grenada is composed mainly of pyro-clastic rocks together with basaltic and andesitic lavas. The lavas occur mainly in the centre of the island while the pyro-clastic rocks occur mainly as a belt along the outer rim of the island. Apart from the volcanic rocks, limestone occurs in a few, small isolated outcrops in the north of the island, while small areas of recent alluvia are found mainly as narrow strips along the lower courses of most of the main rivers and streams [Vernon, 1959].

The Grenadine islands consist of fine-grained volcanic ash laid down under the sea. At 600 feet, Carriacou is capped with limestone similar to that occurring in the north of Grenada. Because of the softness of the volcanic ash, the Grenadines are deeply eroded.

Like the other Windward Islands, Grenada is mountainous with an axial range which runs north and south. The southern part of this range consists of a number of ridges which rise to several peaks of over 2,000 feet. The northern part of the range is a younger, higher and narrower ridge which rises to Mt. Catherine, 2,756 feet high. From the west coast, the mountains rise steeply then descend more gently to the east. The two main areas of
lowland are in the north-east at Levera, and the south-west peninsula—where a controversial new international airport is now under construction at Point Salines.

Many permanent rivers and streams flow from the central ridge and there are 92 well-defined drainage areas with well-established water-courses [Noel & Knight, 1968]. The largest river, the Great River, flows through the St. Margaret catchment to enter the sea near Grenville. Because of the nature of the topography, run-off during storms is rather high, of short duration and is accompanied by considerable quantities of sand, silt and clay. The stream beds are steep and strewn with gravel and large boulders.

I.2. Climatic Controls and Climate

Like the other islands of the Lesser Antilles, Grenada lies within the trade wind system, and variable conditions within this system determine both weather and climate. The trade winds are generally stable except when forced to rise over high mountains. Therefore, within islands, rainfall and cloud are greatly influenced by topography. When air which is unstable and moist rises over high ground, heavy rain and cloud are produced. Usually this rain is carried some distance to the leeward, so that the heaviest rainfall is experienced on the upper leeward slopes.

The persistence, temperature and humidity of the trade winds are determined by the strength and extent of the Bermuda high pressure system. When the high pressure cells over the north Atlantic strengthen, the stability of the trade wind system increases and the likelihood of rain

---

1The section on climatic controls is based on Brookfield, 1982.
MEAN ANNUAL RAINFALL OF GRENADA

LEGEND

Symbol
Annual Rainfall (inches)

- Over 160
- 140-160
- 120-140
- 100-120
- 80-100
- 60-80
- Under 60

Figure 4
decreases. Early winters in North America cause surges of cold air to flow over the Caribbean and these may bring an end to the wet season.

The other climatic control of Eastern Caribbean weather is the situation in western Africa and the adjacent ocean. Disturbances within the monsoon travel westward across the Atlantic as 'easterly waves' which bring periods of rain and cloud. Between May and June as many as 50 to 70 of these waves may pass across the Eastern Caribbean. Sometimes vortices which develop in the easterly waves and on the margins of the Inter-tropical Convergence Zone (ITCZ) may intensify into depressions, tropical storms and hurricanes. These curve northward around the western flank of the Bermuda high pressure system producing the usual north-western track associated with hurricanes.

The general account given above is particularly important for an understanding of the climate of Grenada since very little continuous data exist on this aspect of the physical environment [Vernon, 1959; Brierley, 1974]. Most of the island experiences a sub-humid tropical climate which is characterized by a summer maximum of rainfall and generally high year-round temperatures of over 80°F [Brierley, 1974]. Altitude, or topography, affects both rainfall and temperature so that those parts of the island over 500 feet in height, mainly in the central area, experience heavier rainfall and lower temperatures than the coastal areas.

Like the other islands, Grenada experiences a dry season from January to May-June, and a wet season for the rest of the year. Average annual rainfall can vary from less than 40 inches in the coastal areas of the south and east, to over 140 inches in the mountainous interior. In an exceptionally wet year, 1938, Grand Etang at 1,790 feet recorded 296.6 inches of rainfall while in 1942, Point Salines recorded 22.4 inches [Brierley, 1974].
I.3: Soils

The only definitive work on the soils of Grenada is the Soil and Land Use Survey carried out by Vernon et al of the Regional Research Centre of the (then) Imperial College of Tropical Agriculture in 1959. This section on soils is based on this work together with the work of Brierley [1974] who used Vernon's data as a basis for the analysis of terrain characteristics within each parish on a sample basis.

Of the five factors generally recognized as important in soil formation - parent material, climate, topography, vegetation and time - the most important in the formation of Grenadian soils are climate and topography. As we have seen in the section on geology, the parent rocks throughout the island are all mineralogically very similar and also geologically young. Therefore parent rock and time can be discounted as important soil-forming factors. Differences in total annual rainfall and in the length of the dry season are the two most important climatic elements for soil formation.

The geological homogeneity noted above has resulted in a similar homogeneity of soils (See Figure 4). The dominant soil group is clay loams which make up 84.5 per cent of all soils. The other soil groups are clays which make up 11.6 per cent, sandy loams 2.9 per cent while the remaining 1 per cent consists of salinas and sands. Thus clay loams form the basic soil in which clay and sandy loams are interspersed in pockets on the coastal margins.

Three major clay loams cover 77.8 per cent of Grenada: Capitol and Belmont clay loams dominate the central part of the island with Capitol in the south and Belmont in the north, while Woburn clay loams surrounds them on all sides except for the mid-section of the east coast.
The Woburn clay loam or 'Grey-Earth', found mainly in the parishes of St. George, St. John and St. David, is a shallow, dark-brown to grey soil formed over ash and conglomerate which permit drainage. It has a neutral to basic chemical composition. The characteristics of this soil which can cause agricultural problems are its shallowness, high erodibility and low moisture capacity. In wetter areas of medium natural fertility the planting of food trees, food crops like breadfruit, plantains, mangoes and other fruit trees is recommended. In the drier areas improved pasture is strongly recommended.

From its brick-red colour, Capital Clay Loam is also known as 'Red-Earth'. It is found mainly in St. Andrew and occurs in lessening proportions in St. David, St. John and St. George parishes. With an acidic quality and of medium natural fertility, it is found mainly on steep slopes therefore strict soil conservation measures are a pre-requisite for successful farming. Cocoa, coffee, nutmegs and food trees can be grown on the steep slopes, while on the gentler slopes food crops or ground provisions and bananas can be added.

Belmont Clay Loam or 'Brown-Earth' is the main soil in the north of Grenada, principally in the parishes of St. Mark and St. Patrick. Developed on ash and conglomerate, it is well-drained and the most naturally fertile of the three major soils. But it frequently contains stones and boulders or occurs on steep slopes subject to erosion and landslides. Thus it is unsuitable for cultivation and it is recommended that it remain in natural forest and timber.

Of the second soil group, clays, the Perseverance clay is most important as it makes up 7.8 per cent of Grenadian soils. It is widely distributed and is found in all parishes, especially in St. Patrick where it makes up 17 per cent of all soils. It is usually found on the coasts but is probably the
most difficult of all the Grenadian soils to work because of its heaviness and poor drainage. With proper drainage it can be used for food crops, food trees, improved pasture and cane.

The third major soil group, the Sandy loams, make up only 2.9 per cent of all soils but they are best agriculturally because they have good drainage and high natural fertility and are easily worked. The most important Sandy loam is Plains Sandy loam which is ideal for the intensive cultivation of bananas, bluggoes, cocoa, food crops and vegetables.

In Grenada, the slope of the land is just as important as the type of soil. Only 6.3 per cent of the land in Grenada has a slope of less than 5 degrees and 14.9 per cent has a slope of less than 10 degrees. Land with these slopes are found mainly in the narrow valleys of the ria coast and along the north-east coast where, unfortunately these soils which occur are of limited agricultural use. Thus erosion is a major problem and successful farmers must practice soil conservation methods such as the construction of networks of contour and down drains, the planting of grass barriers above the contour drains, the provision of a cover crop during the wet season or keeping the land under permanent cultivation.

I:4. Natural Vegetation

The natural vegetation of Grenada is forest. Four types of forest can be distinguished: Lower Montane Rain Forest, Montane Rain Forest, Elfin Woodland and Palm Brake which are determined by the factor of increasing exposure to wind. But very little true forest remains except in the mountains on Crown Lands or in the higher parts of some larger estates. There is little forest on the lower slopes or in the valleys which have been cleared for agriculture.
Figure 6

NATURAL VEGETATION OF GRENADA

[Map showing different vegetation zones labeled with symbols and colors, including a legend for climate zones and land use categories.]
I:5. **Possibilities and Constraints**

In the context of the UNESCO project, the most important characteristic of the physical environment of Grenada is its small size. In comparison with Mezzogiorno and Romania which are 123,045 and 237,500 square kilometres respectively, Grenada is only 345 square kilometres in area. Small physical size clearly limits resource endowment both in terms of the quantity of any one resource and also in terms of the variety of resources available. These resources include: (a) the fertile or arable land available for cultivation or livestock development; (b) mineral resources like bauxite or petroleum – of which Grenada has none – and (c) water resources both for consumption and for use in agriculture, industry or energy production. In other words the possibilities available to Grenadians, in terms of the physical environment, are extremely limited.

The constraints of small size in Grenada are compounded by its topography. With less than twenty per cent of its surface area in land with slopes of 10 degrees or less, the possibilities for agriculture are also very limited. It should also be noted that these constraints of small size and topography apply to the other islands of the Lesser Antilles as well.

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SECTION II: Population Factors

II:1. Historical Overview and Growth

Although Grenadu was discovered by Columbus on his third voyage in 1498, it was left undisturbed until 1609 when the British attempted to establish a colony. This attempt was unsuccessful, as were a number of other attempts made by both the British and the French between 1609 and 1650. In 1650 the French were finally successful mainly because of their policy of genocide which practically eliminated the indigenous inhabitants, the Carib Indians. The French established sugar and indigo plantations on which cocoa, coffee, cotton and tobacco were also grown. By 1700 there were 52 indigo plantations in Grenada [Frederick: p.2], and a population of 835 of whom 525 were slaves, 257 white and 53 free coloured. Plantation agriculture seems to have flourished because by 1753 the population numbered 13,429 of which 11,991 were slaves, 1,273 white and 175 free coloured [Brierley, 1974: p.5].

In 1763 the island fell to the British, and except for a brief return to French rule between 1779 and 1783, and a 15 month rebellion led by Julian Fedon in 1795-1796, it remained British. However, remnants of French culture still remain in place names and, perhaps strongest, in the dominance of the Roman Catholic Church. A French patois, similar to that of St. Lucia, used to be commonly spoken but has gradually declined since the Second World War.

The British seemed to have exploited Grenada’s agricultural potential with the cultivation of sugar-cane, as they did in the other West Indian islands. Thus by 1771 the slave population had doubled to a total of 26,211 [Brierley, 1974: 7]. During the nineteenth century, the development of all of the West Indian islands was closely intertwined with the fate of sugar. The abolition of the slave trade in 1807 heralded Emancipation which took
place in 1834 although the slaves were not totally liberated until 1838 when
the Apprenticeship system ended. In 1834 the population of Grenada included
23,604 slaves, a decline from 1771, as well as 1,600 free blacks and 1,400
free coloureds [Brierley, 1974: 7].

Emancipation was closely followed by the Sugar Duties Act of 1846 which
removed the duty from non-West Indian sugar entering Britain, in effect
removing the protection which West Indian sugar had enjoyed on the British
market. All of the Caribbean islands were adversely affected by the Act.
Grenada, with its limited acreage of level land, was not suited to large-
scale sugar production. With the shortage of willing and easily controlled
labour after Emancipation, a system of share-cropping or métayage was adopted
and the number of peasant farmers increased. Some planters began to replace
sugar-cane by cocoa production which proved successful. Cocoa and nutmeg,
tree crops not requiring the intensive labour of the sugar-cane, were
particularly suited to peasant agriculture. As a result, Grenada has the most
substantial body of peasant proprietors of any island in the Eastern Caribbean.

The conduct of population censuses on a regular basis dates back to 1844
in the Caribbean, therefore the systematic study of population growth in any
of the islands usually begins with this date. Table 1 shows the growth of the
Grenadian population from 1844 to 1984.

During the 136 years between 1844 and 1984 the population of Grenada has
increased from 29,650 to 89,088, tripling itself during the period. The rate
of increase has been variable. Between 1844 and 1911 the annual rate of
growth was above 1% except for the intercensal period 1851–1861 when there
was actually a decline in the population and 1881–1891 when the population
increased by over 2% per annum. During the twentieth century the rate of
Table 1: Population Growth 1844-1984

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Population</th>
<th>Annual Growth Rate (%)</th>
<th>Density per Square mile</th>
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<tr>
<td>1844</td>
<td>29,650</td>
<td>-</td>
<td>222.9</td>
</tr>
<tr>
<td>1851</td>
<td>32,671</td>
<td>1.33</td>
<td>245.6</td>
</tr>
<tr>
<td>1861</td>
<td>31,900</td>
<td>-0.25</td>
<td>239.8</td>
</tr>
<tr>
<td>1871</td>
<td>37,684</td>
<td>1.68</td>
<td>283.3</td>
</tr>
<tr>
<td>1881</td>
<td>42,403</td>
<td>1.19</td>
<td>318.8</td>
</tr>
<tr>
<td>1891</td>
<td>53,209</td>
<td>2.30</td>
<td>400.0</td>
</tr>
<tr>
<td>1911</td>
<td>66,750</td>
<td>1.1</td>
<td>501.8</td>
</tr>
<tr>
<td>1921</td>
<td>66,302</td>
<td>-0.07</td>
<td>498.5</td>
</tr>
<tr>
<td>1946</td>
<td>72,387</td>
<td>0.35</td>
<td>544.0</td>
</tr>
<tr>
<td>1960</td>
<td>86,677</td>
<td>1.3</td>
<td>666.0</td>
</tr>
<tr>
<td>1970</td>
<td>93,858</td>
<td>0.8</td>
<td>705.6</td>
</tr>
<tr>
<td>1980</td>
<td>89,088</td>
<td>-0.62</td>
<td>669.8</td>
</tr>
</tbody>
</table>

Source: Census Reports

growth has been slower. Annual rates of growth over 1% were attained for only two intercensal periods, while there were two intercensal periods when the population declined. These annual rates of growth are shown graphically in Figure 7.

Fertility rates have remained high in Grenada, as in the rest of the Eastern Caribbean. Crude Birth rates in the late eighteenth and early nineteenth centuries were about 40 per thousand. These rates declined to an average of about 35 per thousand in the late nineteenth century and have
Figure 7: Annual Rate of Increase of Population in the Windward Islands
remained at about that level. On the other hand, death rates have declined dramatically between 1921-25 and 1951-55 from about 33 per thousand to about 14 per thousand. As a result the rate of natural increase has soared. The annual rate of natural increase in Grenada between 1946 and 1960 was 2.8% while that for 1960-1970 was 2.6% [Roberts, 1974]. It is unlikely that there has been any decline in the rate of natural increase between 1970 and 1980. Thus the dominant variable in population growth since Emancipation in Grenada, as in the rest of the Caribbean, has been migration.

II:2. Migration

In the Caribbean the post-Emancipation period can be divided into four phases, so far as migration is concerned. The first phase, 1835-1885, was dominated by movement between the British colonies of the Eastern Caribbean, from the smaller islands to Trinidad and British Guiana. The second phase 1885-1920 was dominated by movement to Panama and resulted in actual declines in population in most of the territories. During the third phase 1920-1940 there was little out-migration; in fact during this period of general World depression there was actually some return to migration to most of the countries. The fourth and present phase started slowly with outward movement during World War II, developed into the mass movement to the United Kingdom during the late 1950's and early 1960's, but is now dominated by movement to the United States and, to a lesser extent, to Canada.

The primary reason for the large population movements, of both indentured East Indians and newly-freed West Indians, into British Guiana and Trinidad during the nineteenth century was the need for labour in these colonies. Grenadians travelled mainly to Trinidad which, in 1851, was mainly unused land and unexplored forests. Movement was not continuous but ebbed and flowed
according to the fortunes of sugar and the accessibility of East Indian labour. Data, especially statistical data, on Grenadian movements into Trinidad, or for that matter on Caribbean migration generally are limited for a number of reasons. For the movement into Trinidad such figures as are available refer only to recorded immigration, those that were financially assisted by the governments of the receiving countries. Between 1839 and 1845, the entry of 2,239 Grenadians was recorded in Trinidad [Marshall, 1963: 151].

There seems to have been little movement of Grenadians into Trinidad between 1845 and 1851, hence the annual rate of growth of 1.33 per cent. The cause for the decline in population between 1851 and 1861 seems to have been due to deaths caused by the cholera epidemic which was regional in scope during this period [Harewood, 1966: 64]. Between 1861 and 1881 emigration seems to have continued, but at a slow rate as is shown by the rates of growth for this period (Table 1), and by the fact that in 1891 only 4,465 Grenadians were enumerated in Trinidad [Kuczynski, 1953: 11].

The unusual growth of population between 1881 and 1891 was due to immigration into Grenada. According to the 1891 Census this substantial immigration was due to the

"uninterrupted prosperity that Grenada experienced during that time ... caused by the flourishing condition of the cocoa industry and by the careful provision that has been made by the Government for the well-being of the island" [Census, 1891: 1].

Movement into Trinidad from Grenada seems to have continued at the same gradual pace until the second World War as is shown by the number of Grenadians enumerated in Trinidad:
Then, because of the increase in the demand for labour because of the opening of the U.S. bases, the number of Grenadians enumerated in Trinidad in 1946 was almost twice the number enumerated in 1931.

Conventional wisdom has it that movement from Grenada has continued up to the present, but statistics are difficult to obtain. Only 21,980 Grenadians were enumerated in Trinidad in 1970, less than the number enumerated in 1946. No data are yet available for 1980 but during 1984 Trinidad has complained that there are 150,000 illegal aliens in Trinidad mainly from the Windward Islands. Certainly, one of the first actions of the Trinidad government during the October crisis of 1983 was the patrol of its northern shores to prevent illegal landings.

Although movement to Trinidad has been of continuing importance to Grenada, Trinidad has had to compete with other destinations since 1891. The average annual loss through migration from Grenada increased from 260 persons per year in 1891-1901, to 880 per year in 1901-1911 and 1,200 per year in 1911-1921, then dropped to an average of 1,000 per year between 1921 and 1960 [Harewood, 1966: 63]. According to the 1901 Census Report the extensive emigration between 1891 and 1901 was due to the low wages prevailing in Grenada, compared to the wages obtainable in Trinidad and in South and Central America, as well as to the increasing value of land in Grenada and the difficulties of obtaining that land. Emigration in 1901-1911 was stimulated by "the extraordinary opportunities in Central and South America especially in
Panama and Brazil, (which) led to a virtual emigration rush", so that 21,700 persons left Grenada for Panama and Brazil [Harewood, 1966: 64]. Cuba and the U.S.A. joined Panama and Brazil as attractive destinations during 1911-21.

Net emigration continued at a high rate between 1921 and 1930 reaching a peak of 2,000 in 1923, probably still to Cuba and the U.S.A. But the world depression put a stop to emigration and during 1932 and 1933 there was actually a net in-flow of migrants into Grenada. But net emigration soon returned and reached a peak of over 2,400 per year in 1941 and 1942, Trinidad being the main destination.

During the inter-censal period 1946-1960, net emigration was just over 14,000. About two-thirds of this emigration took place between 1955 and 1959 mainly to the United Kingdom and Trinidad, with Trinidad probably receiving a much larger proportion [Harewood, 1966: 67]. With the Commonwealth Immigration Act of 1962 and its subsequent amendments, emigration to the United Kingdom has ceased.

Until 1962 the discriminatory bias of Canadian immigration laws was explicit, and Canadian immigration regulations were designed to attract European immigrants. Fortuitously for Grenada and the rest of the Caribbean, revisions were being made to the Canadian Immigration Act at the same time as Britain was slamming its doors on Commonwealth immigrants. Also in the late 1960's revisions to the U.S. Immigration Act also allowed West Indians to enter the United States. Except for Trinidad, and a miniscule flow to Barbados, these two countries are now the main destinations for Grenadians.
The numbers of Grenadians legally admitted to these countries are small, only 11,461 for the period 1965 to 1979 (See Table 2), but they represent an average of 819 persons per year. However, the low annual rates of growth for 1960-1970 (0.8%) and 1970-1980 (-0.62%) suggest that Grenadians are entering some countries illegally. The small absolute numbers involved also emphasize another point - because of the small size of the population, the emigration of a small number of persons makes quite an impact on the rate of growth of the population.

One of the distinguishing characteristics of the Grenadian population is the deficit of males as is shown in Table 3. This is the result of the type of emigration experienced by the islands since Emancipation. Until the movement to the United Kingdom in the 1950's, Grenada experienced mainly labour migration, particularly the recruited contract labour of young males. The result is shown in the sex ratio, the number of males per 1,000 females which fell from 896 in 1901 to a low of 770 in 1921. The increase since 1960 has been due to the fact that the movements to Canada and the U.S.A. are dominated by females.

The other impact of emigration on the population structure has been on the age distribution of the population. Note that the 0-14 age group remained steady as a proportion of the total population - at 42 to 43 per cent up to 1946. With the high rates of natural increase of 2.8 per cent and 2.6 per cent for the periods 1960-1970 and 1970-1980, the proportion of the population under fifteen years has increased to over 47 percent. In contrast, the 15-44 age-group, the group most affected by migration, has decreased as a proportion of the total population from 43 per cent in 1901 to 35 per cent in 1970. The
Table 2: Grenadians Admitted to U.S.A. and Canada

<table>
<thead>
<tr>
<th>Year</th>
<th>U.S.A.</th>
<th>Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td>1959</td>
<td>114</td>
<td>-</td>
</tr>
<tr>
<td>1960</td>
<td>102</td>
<td>-</td>
</tr>
<tr>
<td>1961</td>
<td>114</td>
<td>-</td>
</tr>
<tr>
<td>1962</td>
<td>119</td>
<td>-</td>
</tr>
<tr>
<td>1963</td>
<td>123</td>
<td>-</td>
</tr>
<tr>
<td>1964</td>
<td>132</td>
<td>-</td>
</tr>
<tr>
<td>1965</td>
<td>129</td>
<td>48</td>
</tr>
<tr>
<td>1966</td>
<td>199</td>
<td>N.A.</td>
</tr>
<tr>
<td>1967</td>
<td>361</td>
<td>139</td>
</tr>
<tr>
<td>1968</td>
<td>308</td>
<td>120</td>
</tr>
<tr>
<td>1969</td>
<td>310</td>
<td>281</td>
</tr>
<tr>
<td>1970</td>
<td>329</td>
<td>203</td>
</tr>
<tr>
<td>1971</td>
<td>361</td>
<td>187</td>
</tr>
<tr>
<td>1972</td>
<td>332</td>
<td>153</td>
</tr>
<tr>
<td>1973</td>
<td>420</td>
<td>352</td>
</tr>
<tr>
<td>1974</td>
<td>707</td>
<td>399</td>
</tr>
<tr>
<td>1975</td>
<td>568</td>
<td>340</td>
</tr>
<tr>
<td>1976</td>
<td>592</td>
<td>314</td>
</tr>
<tr>
<td>1977</td>
<td>1,240</td>
<td>197</td>
</tr>
<tr>
<td>1978</td>
<td>1,206</td>
<td>184</td>
</tr>
<tr>
<td>1979</td>
<td>946</td>
<td>136</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9,112</strong></td>
<td><strong>3,053</strong></td>
</tr>
</tbody>
</table>

Sources: Annual Immigration Statistics Reports
Table 3: Age Distribution and Sex Ratio at Census Dates

<table>
<thead>
<tr>
<th>Age-Groups</th>
<th>1901</th>
<th>1911</th>
<th>1921</th>
<th>1946</th>
<th>1960</th>
<th>1970</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>0-14 yrs.</td>
<td>43.3</td>
<td>43.1</td>
<td>42.4</td>
<td>42.2</td>
<td>47.7</td>
<td>47.1</td>
</tr>
<tr>
<td>15-44</td>
<td>42.9</td>
<td>42.5</td>
<td>41.6</td>
<td>39.3</td>
<td>34.4</td>
<td>34.7</td>
</tr>
<tr>
<td>45-64</td>
<td>10.5</td>
<td>10.8</td>
<td>12.0</td>
<td>13.1</td>
<td>12.8</td>
<td>12.4</td>
</tr>
<tr>
<td>65+</td>
<td>3.3</td>
<td>3.6</td>
<td>4.0</td>
<td>5.5</td>
<td>5.2</td>
<td>5.8</td>
</tr>
</tbody>
</table>

Sex Ratio (Males per 1,000 Females)

| Total      | 896  | 837  | 770  | 785  | 847  | 890  |

Sources: Harewood, 1966 and Abdullah, 1977

The proportion of the aged has increased. This means that the dependency ratio, or the burden of the young and the aged on the productive working age population has increased.

II:3. Population as a Resource

Like physical resources, population can also be viewed as a country's resource. In a small state like Grenada the population is limited both in quantity (the absolute size of the population) and in quality. An inherent characteristic is that the smaller the size of the population, the greater is the problem of finding adequate numbers of trained, skilled and talented people to man various institutions, whether social, political or economic in nature. This inherent characteristic is exacerbated if the small population is poorly educated. Data from the 1970 Census show that of the working population, aged 15 and over, only 9.5 per cent of the males and 9.8 per cent
of the females had secondary education in 1960. These proportions had risen to 11.9 and 16.1 per cent in 1970. But an even smaller proportion left secondary school with the certificates which indicate successful completion of secondary education: 2.3 per cent of the males and 3.0 per cent of the females.

This tendency towards a poorly educated population is compounded by the current emigration to countries whose immigration policies tend to be selective of the more highly educated and skilled. An examination of the migration pattern of Grenadian graduates of the regional University of the West Indies (U.W.I.) dramatically illustrates the problem: Over 80 per cent of the graduates are outside of Grenada (See Table 4). Cole estimates the

<table>
<thead>
<tr>
<th>Year of Graduation</th>
<th>In Grenada</th>
<th>Outside Grenada</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1953-1959</td>
<td>1</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td>1960-1964</td>
<td>8</td>
<td>23</td>
<td>31</td>
</tr>
<tr>
<td>1965-1969</td>
<td>7</td>
<td>44</td>
<td>51</td>
</tr>
<tr>
<td>1970-1972</td>
<td>13</td>
<td>40</td>
<td>53</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>29</td>
<td>120</td>
<td>149</td>
</tr>
</tbody>
</table>

Source: Cole : p.7

annual outflow of publicly provided educational capital, in the form of emigrants, at 1981 costs at over 12 million Eastern Caribbean dollars. The bulk of the flow is in the form of secondary school graduates.
The most significant problem of this loss of human resources is that the process deprives Grenada of the developmental benefits of education. This could be ameliorated if remittances can be used to finance capital formation. But indications are that remittances are used mainly for consumption. The process can also tend to encourage reliance on foreign assistance, both technical assistance and financial assistance. It could also imply a political dependence as well depending on the institutional arrangement of the assistance. Moreover, the process may operate to give the middle class of a small state like Grenada a veto power over domestic policy: with an open option to leave with human capital, they may effectively block policies which affect them adversely [Cole, p.17]. Cole formulated this statement of the problem of the brain drain in an undated draft to the Peoples Revolutionary Government of Grenada under Maurice Bishop. It expresses eloquently the problems faced by a small Caribbean state in transforming its society.

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SECTION III: Economic Factors

III:1. Historical Overview

We have seen that Grenada was not utilized economically until the latter half of the seventeenth century when the French established sugar and indigo plantations on which cocoa, coffee, cotton and tobacco were also grown. Throughout the eighteenth century the history of Grenada was the history of sugar, and its companion in the Caribbean, slavery. The combined blow of Emancipation in 1834-38 and the Sugar Duties Act of 1846 caused falling sugar prices and the search for an alternative to sugar in Grenada. Especially in the interior, cocoa planting soon began to replace sugar and between 1846 and 1855 cocoa output doubled; by 1856 forty-seven sugar estates had been abandoned and nine others were on the verge of closing down [Singham, 1968: 39].

The replacement of sugar-cane by cocoa was achieved by the planters allowing their ex-slaves to plant and tend cocoa trees on plots. Food trees were planted on these plots by the peasants for their own uses and in addition they enjoyed certain rights on the estates including rent-free residence, use of a small garden and access to non-commercial food crops. The peasants had first claim on estate employment while the estate had first claim on their labour. The introduction of nutmeg was done in the same way, and by 1880 the conversion of local export production from sugar to cocoa and nutmegs was complete [Smith, 1965: 10-11]. By the end of the nineteenth century food crops were being produced in sufficient quantities for the transaction of inter-island trade [Brierley, 1974: 11]. In this way the demise of the sugar industry in Grenada also facilitated the emergence of an independent peasantry to an extent not equalled in any of the other West Indian islands. By 1881, 3,000 of the 9,000 adult males in the Colony owned land in lots of from 1 to
50 acres. By 1911 there were 143 estates which exceeded 100 acres in size but the vast majority of the 13,391 holdings were under five acres [Singham, 1968: 40]. The change in economic production is seen in Table 5.

Table 5: Grenadian Export Groups, 1846-86

<table>
<thead>
<tr>
<th>Crop</th>
<th>1846</th>
<th>1886</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugar</td>
<td>9,196,588</td>
<td>2,038,712</td>
</tr>
<tr>
<td>Cocoa</td>
<td>74,686</td>
<td>5,864,090</td>
</tr>
<tr>
<td>Spices</td>
<td>-</td>
<td>100,000</td>
</tr>
</tbody>
</table>

Source: Brierley, 1974: Table 1.2.

In the early 1900's, the spice industry began to challenge cocoa as the major export crop. Between 1900 and 1925, cocoa exports declined by about one-fifth because of a slump in cocoa prices, while nutmeg exports increased almost fourfold. During World War II, Grenada benefited by a marked rise in the price of her exports and nutmeg ousted cocoa as the major earner of export income [Singham, 1968: 41]. As a result of the high prices of its exports, especially nutmeg and mace, the average national income per head of population of Grenada in 1942 was 120 Eastern Caribbean dollars, "nearly as high as Barbados" whereas that of St. Vincent and St. Lucia were only $70 and $65 respectively [Grenada, 1947: 2].

A further diversification of export crops occurred in the post-war period. Bananas had been introduced to Grenada since about 1920 but with the high prices of cocoa and nutmeg there had been little incentive for its rapid development. But in 1955 Hurricane Janet hit Grenada and destroyed or damaged
80 per cent of the cocoa and nutmeg trees. Cocoa seedlings require several years to produce and do not reach maximum production until they are seven or eight years old, while nutmeg trees take 20-25 years to reach peak production. Bananas were not only profitable at the time, but give a return one year after planting. Table 6 shows the rise in banana production.

<table>
<thead>
<tr>
<th>Crop</th>
<th>Domestic Exports (% of total value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cocoa</td>
<td>58.5</td>
</tr>
<tr>
<td>Nutmeg and Mace</td>
<td>34.4</td>
</tr>
<tr>
<td>Bananas</td>
<td>2.2</td>
</tr>
<tr>
<td>Other Exports</td>
<td>4.9</td>
</tr>
<tr>
<td>Total Value ('000 EC$)</td>
<td>8,479</td>
</tr>
</tbody>
</table>

Source: Brierley, 1974: Table 1.3.

Up until 1970, the three crops bananas, cocoa, and nutmegs accounted on an average for over 90 per cent of the value of domestic exports. Both nutmegs and cocoa are true crops and are therefore well suited to the soils and hilly lands of Grenada. They are complementary in terms of utilizing the labour force and they can be stored for long periods. Bananas bear more quickly and are not seasonal therefore they provide more stability of income for farmers, but they are perishable and vulnerable to high winds. Despite the advantages Grenada possesses for all these crops, yields per acre are low and the island is a high-cost producer [Singham, 1968: 42].
Also, Table 6 shows that the performance of the three agricultural crops is uncertain and erratic. Since bananas have a guaranteed and protected market in the United Kingdom, this performance reflects both the fluctuating market prices for cocoa and nutmegs as well as levels of production. In 1965 the price of nutmegs rose from 70 cents to 135 cents per pound because of the political unrest in Indonesia which produces two-thirds of the world's nutmegs. When stability returned to Indonesia, prices fell. In the mid-1960's cocoa prices were also high but in 1969 prices dropped as world production increased after several poor harvests. [Brierley, 1974: 13-14].

At the end of the 1960's Grenada's economy — in other words its agriculture — was more diversified than those of other Windward Islands. Two Assessments of the potential of the Grenadian economy were made in the 1960's: one by Carleen O'Loughlin [1968] and another by a Development Programme Commission which produced the 1964-1968 Five Year Development Plan for Grenada. It is therefore useful to conclude this section with a summary of their assessments.

Like the other Eastern Caribbean islands, Grenada is a very small over-populated island with a highly export-oriented economic structure and with a high proportion of it Gross Domestic Product (GDP) originating in agriculture. Yet the domestic food producing sector has been neglected. A high proportion of the working population is engaged in agriculture although a large number are also engaged in low-productivity tertiary occupations like small trading. There are no important economic mineral deposits. The small population constitutes a small home market therefore any large manufacturing sector would have to be developed on the basis of an export trade. But there is an absence
of a dynamic entrepreneurial group. The education system is not suited either to the needs of a large rural population nor to those of an under developed country in general. The land tenure situation has resulted in fragmentation which has adversely affected agricultural production.

These basic weaknesses were exacerbated by Hurricane Janet in 1955 to the extent that Grenada became a grant-in-aid territory in 1958 - that is the administration of the country had to be subsidized by grants from Britain. While the growth of exports has been slow and erratic, the value of imports of both capital and consumer goods has risen steadily and substantially from $8.8 million Eastern Caribbean dollars in 1955 to $32.6 million in 1969 [Brierley, 1974: 16]. Gross Domestic Product had grown from EC $24 million in 1955 to EC $30 million in 1964 [O'Loughlin, 1968: 94].

Against this litany of weaknesses, a number of strengths have to be listed. Paradoxically, the damage done by Hurricane Janet allowed the rejuvenation of export agriculture not only because of the introduction of bananas but because of the planting of new, improved material. Internal Communications are good to the extent that Grenada (in 1964) had one of the largest road net works per square mile and per inhabitant of any Caribbean country. The country is attractive and has beaches which could become the foundation of a thriving tourist industry. Water potential seems adequate both for domestic and irrigation purposes. Despite the dense population, unused lands are available for agricultural production while the large expenditures by government on public health has favourably affected the productive potential of the labour force. Although predominantly an agricultural island, Grenada was one of the wealthier and better administered islands, with a good potential for economic development.
Table 7: G.D.P. at Factor Cost (Proportions)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>47.5</td>
<td>42.3</td>
<td>31.8</td>
<td>39.5</td>
<td>33.4</td>
<td>38.8</td>
<td>37.8</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>2.3</td>
<td>2.1</td>
<td>2.4</td>
<td>2.1</td>
<td>2.4</td>
<td>2.2</td>
<td>2.2</td>
</tr>
<tr>
<td>Construction</td>
<td>5.8</td>
<td>11.8</td>
<td>19.9</td>
<td>13.8</td>
<td>15.3</td>
<td>9.8</td>
<td>10.2</td>
</tr>
<tr>
<td>Government and Public Utilities</td>
<td>12.5</td>
<td>11.8</td>
<td>13.2</td>
<td>13.2</td>
<td>14.0</td>
<td>18.3</td>
<td>18.7</td>
</tr>
<tr>
<td>Ownership of Dwellings</td>
<td>9.5</td>
<td>8.9</td>
<td>8.1</td>
<td>7.4</td>
<td>7.5</td>
<td>7.3</td>
<td>7.4</td>
</tr>
<tr>
<td>All Other</td>
<td>22.4</td>
<td>23.1</td>
<td>24.6</td>
<td>24.0</td>
<td>27.3</td>
<td>23.6</td>
<td>23.7</td>
</tr>
<tr>
<td>Total Value (EC $000)</td>
<td>20,906</td>
<td>22,581</td>
<td>24,513</td>
<td>26,967</td>
<td>28,373</td>
<td>28,668</td>
<td>29,167</td>
</tr>
</tbody>
</table>

Source: 1964-1968 Development Plan, Table 2.1 p.21
III:2. Recent Structure: pre and post Revolution

It is difficult to discuss the economic performance of the Grenadian economy in the 1970's and early 1980's without some understanding of political events, both during the period and before. A very brief summary is therefore given below. It is based on the account of events presented in the document Grenada: The Peaceful Revolution [1982] produced by EPICA (Ecumenical Program for Interamerican Communication and Action).

Events go back to December 1949 when Eric Gairy returned to Grenada from Aruba. He registered his trade union, the Grenada Manual and Mental Workers Union (GMMWU) in July 1950. On 19 February 1951 this Union called the first island-wide strike in Grenada's history to protest a reduction of wages made by employers to Cocoa workers when the price of cocoa fell. It was this strike, together with his imprisonment and subsequent release, that catapulted Gairy into national and Caribbean prominence. He organized a political party, the Grenada People's Party (G.P.P.) to contest that year's elections, the first since universal adult suffrage was granted the year before. On 10 October 1951 the GPP won 71% of the votes of 20,622 voters and became the political leader of Grenada.

According to EPICA, Gairy's victory in the 1951 elections had three important impacts: it shook the foundations of planter rule in Grenada; it injected a new dynamism into the rural workers giving them a sense of dignity and self-confidence they never had before; and it had a psychological impact on race relations in Grenada. Gairy had upset the cultural status-quo and as a black, rural Grenadian was rejected both by the white elite plantocracy and the coloured, urban middle classes. But to the majority of the people, Gairy was a rebel who had challenged the old order, and that spirit alone kept Gairy a hero and leader for years.
Gairy remained in office for two terms, until 1957 when he was defeated in the national elections. His record of performance during this time was not good. Of 110 pieces of legislation passed during 1952-54, only 9 offered any semblance of benefits for the working class. His political party had no organization, no policy and no programme and his lack of national strategy resulted in his compromising with the Colonial Government in the name of reciprocity. As a result, the great popular militancy and enthusiasm generated by the 1951 revolt dissipated during the decade.

Between 1957 and 1961 the party in power, the Grenada National Party led by Herbert Blaize, also performed dismally. In July 1961 Gairy was back in power, and much more power than during his first two terms because the provisions of the new 1960 Constitution allowed executive power to be exercised by a wholly elected Executive Council. As a result of Gairy's abuse of this power, an inquiry had to be held less than a year later to investigate Gairy's corruption and "squandermania". The constitution was suspended and new elections called, which Gairy lost because of his failure to support the union with Trinidad as a Unitary State. Realizing his need to regain the confidence of his constituency, and recognizing that the movement towards self-rule meant greater power for the party in power, Gairy was able to win the 1967 elections through his labour organization and his campaign rhetoric.

During the next twelve years Gairy "turned Grenada into an oppressive dictatorship: the glorification of one man at the expense of the whole society. The period is distinguished by three continuing themes: economic deterioration, domestic repression and Gairy's personal corruption." [EPICA, 1982: 49]. The island's road system fell into dangerous disrepair. Medical care was inferior and expensive. Education was particularly neglected: school buildings

Opposition to Gairy mobilized around two new organizations: the Movement for Assemblies of the People (MAP) under Maurice Bishop and JEWEL (Joint Endeavour for Welfare, Education and Liberation) under Unison Whiteman - which eventually merged to become the New Jewel Movement (NJM). EPICA describes the mobilization of support around this movement as all Grenadians came to realize, especially after Independence in 1974, that it was impossible to get rid of Gairy legally via elections. This mobilization culminated in the overthrow of the Gairy regime on 13 March 1979, when he was out of the country.

The assessment of Grenada's potential in the 1960's was optimistic, and the country seemed poised for reasonable economic growth and diversification. But the economic deterioration under Gairy and the neglect of most public services denied this optimism. Le Franc [1980], makes the point that it is difficult to assess the economy of Grenada during the 1970's. This is not only because of the major political changes which took place, but also because of the limitations of the data available. The non-availability of data is a major problem in most of the region's territories but for Grenada, the data available "often seem to suggest contradictory and even conflicting conclusions", especially the data on agriculture. "There are sometimes up to three different sets of figures relating to the same item" and little means of assessing them [Le Franc, 1980: 10].

There are several sources which give data on the Gross Domestic Product for the decade of the 1970's: Le Franc [1980], the World Bank Economic Memorandum on Grenada [1982], two reports by ECLA on the Economic Activity of
the Caribbean, and two reports by Bernard Coard of the P.R.G. on the National Economy. Table 8, which presents data on the G.D.P. for 1965 to 1980, is compiled from the Le Franc and ECLA sources. Le Franc gives data for 1960 as well which is comparable with that given in Table 7, i.e., they seem to use the same baseline data. Both Le Franc and ECLA give data for 1976, 1977 and 1978. Their figures are the same for 1976 and 1977 but for 1978 the ECLA figure is larger by $15 million. In his Report on the National Economy in 1981, Coard gives figures for G.D.P. which are larger than those used in any other source. In his Report on the National Economy in 1982, Coard adopts the World Bank figures, which are different from those given in 1981 - without any explanation for the change. But the World Bank figures are also higher than those from the other sources: World Bank G.D.P. for 1979 is EC $196.6 million compared to the ECLA figure of EC $156.3 million. Because of the continuity from the 1960's, and to avoid any over-estimate, the ECLA figures will be used here. (See Table 8).

In absolute terms the economy of Grenada has grown from EC $20.9 million in 1954, to EC $34.5 million in 1965, to EC $195.1 million in 1980. However, it is not clear whether there was real growth during all of this period. All of the reports refer to inflation during the 1970's, sometimes double digit inflation. But there is consensus that there has been real growth since 1977. A Retail Price Index constructed in 1977 facilitated a comparison based on constant prices which showed real growth rates of between 2.1 and 5.5 per cent from 1979 to 1982. However, there is also some confusion here. Although ECLA's figures for G.D.P. at current cost are different from those of the World Bank, ECLA adopts the World Bank figures for G.D.P. at constant costs without, apparently making its own calculations. Perhaps it is best to accept
Table 8: Gross Domestic Product, by Economic Activity, at Factor Cost. (Current Prices)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total G.D.P.)</td>
<td>34.5</td>
<td>61.3</td>
<td>84.6</td>
<td>96.8</td>
<td>110.9</td>
<td>135.5</td>
<td>156.3</td>
<td>195.1</td>
</tr>
<tr>
<td>(EC $ mill.)</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Goods</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture,</td>
<td>13.4</td>
<td>38.8</td>
<td>14.6</td>
<td>23.7</td>
<td>32.7</td>
<td>33.8</td>
<td>36.7</td>
<td>40.6</td>
</tr>
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<td>Government Services</td>
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<td>13.5</td>
<td>11.8</td>
<td>19.2</td>
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<td>16.9</td>
<td>21.3</td>
<td>22.0</td>
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<td>15.8</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>

Sources: Le Franc (1980)
ECLA (1983)
the trends shown by the figures, since these are the same, but to agree that any figures given are only estimates.

The economy remained predominantly an agricultural one, although the importance of the sector has declined since the 1950's. In 1954 Agriculture comprised 47.5 per cent of G.D.P. This proportion declined to 37.8 in 1962, 33.2 in 1977 and dropped below 30 per cent to 26.2 in 1980. This decline was gradual but not steady as the performance of the agricultural sector tended to be erratic during the period under review. However, the absolute value of the agricultural sector has not declined but has increased from EC $13.4 million in 1965 to EC $51.1 million in 1980. Rather, the decline of the contribution of agriculture to G.D.P. points to a diversification of the economy.

The growth of the manufacturing and tourism sectors would be expected to have contributed to this diversification. But this is not the case. The contribution of manufacturing to the economy has not increased since 1954 when it was 2.3 per cent to 1980 when it was 2.4 per cent. During that time its contribution has risen above three per cent only twice, however, it has been nearer to three per cent than two during the 1970's. The performance of the tourism sector has been very similar, hovering around three per cent of G.D.P., although the tendency has been towards decline since the Revolution.

The performance of the construction sector, normally an indicator of dynamism in a Caribbean economy, has been dismal during the 1970's. During the 1950's its contribution to G.D.P. remained above ten per cent except for 1954, and even approached 20 per cent in 1957. But its contribution began to decline in the 1960's and, except for an increase in 1970, fell to a low of less than three per cent for most of the 1970's - clear evidence of neglect by Gairy. The sector then began to grow under the P.R.G.
Until the 1970's, public utilities like electricity and water were included in the contribution of the Government sector to G.D.P. (Table 7). In Table 8, however, these public utilities are shown together with transport and communications as basic services. The contribution of Basic Services to G.D.P. has grown since 1965, but has grown erratically. However, the contribution of the public utilities has been both negligible and declining, and any growth that has taken place has been due to Transport and Communications.

Thus, the declining contribution of Agriculture to the economy has been balanced solely by the activity of Government - both in Transport and Communications and in Government Services. The contribution of this sector has also been erratic, but with a tendency towards growth having increased its proportion of G.D.P. from 13.5 per cent in 1965 to 19.9 per cent in 1980. The question therefore arises as to whether there has really been any diversification in the Grenadian economy since Government Services and Transport and Communications would not normally be considered productive sectors.

Coard, in his Report on the National Economy for 1982, does give a breakdown of the Government or State Sector as it was called after the Revolution. This Report showed that the State Sector increased from 31.7 per cent of G.D.P. in 1981 to 35.9 per cent. Construction comprised a half of the State Sector in both years with Commerce and Industry being the only other two areas whose contribution to the State Sector was more than twelve per cent. The main aspect of commerce was the importation of goods in bulk so that these goods could be sold more cheaply. The conclusion must, therefore, be that little real diversification took place in the Grenadian economy either before or after the Revolution.
III:3. Agriculture

The problem of unreliable and conflicting data arises again when we look at agricultural production. Table 9, which shows the values of export crops, was compiled from Le Franc [1980] and ECLA [1983]. It should be noted, however, that Coard in his Report on the National Economy for 1982 also gives figures for the value of these Exports for 1981 and 1982; and they are different from those of ECLA — although the differences are not great. For consistency, this study will present only the figures given by ECLA. However, Coard in his Report on the National Economy for 1982, outlines the problems faced by the P.R.G. in transforming the economy and these are given here and in the following section.

Table 9: Value of Exports of Main Crops (EC $ '000's)

<table>
<thead>
<tr>
<th>Year</th>
<th>Bananas</th>
<th>Cocoa</th>
<th>Nutmeg</th>
<th>Mace</th>
<th>Total Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1972</td>
<td>1,558</td>
<td>3,441</td>
<td>3,348</td>
<td>843</td>
<td>9,190</td>
</tr>
<tr>
<td>1973</td>
<td>1,967</td>
<td>3,574</td>
<td>2,786</td>
<td>1,018</td>
<td>9,345</td>
</tr>
<tr>
<td>1974</td>
<td>3,277</td>
<td>5,423</td>
<td>5,744</td>
<td>1,802</td>
<td>16,246</td>
</tr>
<tr>
<td>1975</td>
<td>6,526</td>
<td>7,193</td>
<td>7,002</td>
<td>1,168</td>
<td>21,889</td>
</tr>
<tr>
<td>1980</td>
<td>10,525</td>
<td>17,959</td>
<td>8,567</td>
<td>1,775</td>
<td>22,666</td>
</tr>
<tr>
<td>1981</td>
<td>9,301</td>
<td>20,168</td>
<td>8,194</td>
<td>1,844</td>
<td>39,507</td>
</tr>
<tr>
<td>1982</td>
<td>8,943</td>
<td>11,456</td>
<td>3,332</td>
<td>2,329</td>
<td>31,060</td>
</tr>
</tbody>
</table>

Agriculture remains the mainstay of the Grenadian economy providing one-third of all income and employment, two-thirds of exports as well as substantial quantities of the food consumed at home. Medium and large farms, that is those of more than 5 acres, account for 4.9 of the total farm population, but are the main producers for the export trade, accounting for 81.5 per cent of the banana production and 45 per cent of the nutmeg production. On the other hand, small farms (those of less than 5 acres) comprise 95.1 per cent of the farm population and also produce 85 per cent of the root and vegetable crop [ECLA, 1981].

The performance of the main export crops since the Revolution has been uneven. The value of nutmegs exported remained more or less the same between 1980-1982 but Grenada has more than a million pounds of unsold nutmegs in stock. Mace is the only export crop which has increased over the period, though both the value and the increase are small. The value of bananas exported during the period has declined, while that of cocoa has been erratic. Low output levels have been due to adverse weather conditions: flood rains in the last half of 1980, and Hurricane Allen in August 1980, while bananas have been affected by disease. In contrast, in domestic agriculture output of almost every crop has increased due to improved market outlets via the Agro-Industrial processing plant and the Marketing and National Import Board. As a result, food imports declined from a high 30.6 per cent of all imports in 1979 to 28.2 per cent in 1981 and 27.5 per cent in 1982.

In his Report on the National Economy for 1982, Minister of Planning, Finance and Trade of the P.R.G., Bernard Coard, outlined the problems facing agriculture in Grenada. One of these was the low level of productivity of
the agricultural worker which, on average, was two to three times less than
the agricultural wage. Others were primitive technology, the aging and health
of the Agricultural labour force; together with the low educational level of
the labour force. All of these are problems which can not be solved in the
short-term, but require the investment of financial and human resources for
some time before returns can be seen.

However, the traditional problems of Caribbean agriculture continued to
plague Grenada. Some of these are the variability of the prices of export
crops over which Grenada and the other Caribbean Governments have little
control; the vagaries of the weather which affect all countries dependent on
agriculture; and the effects of global inflation and recession which are
suffered by all the 'open' economies of the Caribbean.

III: 4. Other Sectors

The two other sectors in which the Grenadian Government hoped for growth
were those of tourism and manufacturing. As early as 1963, tourism was being
amed as potentially a useful contributor to the economic growth of Grenada.
As we have seen, in neither case has the potential been realized. Rather in
both cases the sectors seem to have remained in the grip of inertia. Table
10 shows that there has been some growth in the actual numbers of visitors
but the effects of the Revolution and the poor relations between the U.S. and
Grenada are clearly seen in the three years of negative growth in the number
of stop-over tourists since the Revolution.

The P.R.C. owned 6 hotels which were grouped together as one company:
Grenada Resorts Corporation. This Corporation suffered a number of problems.
It was extremely overstuffed, employing nearly twice as many workers per hotel
Table 10: Number of Visitors to Grenada 1961-1981

<table>
<thead>
<tr>
<th>Year</th>
<th>Stop Over ('000's)</th>
<th>% Increase</th>
<th>Cruise Ship ('000's)</th>
<th>% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>1961-65</td>
<td>10.1</td>
<td>-</td>
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<td>-</td>
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<tr>
<td>1966-70</td>
<td>24.4</td>
<td>141.6</td>
<td>28.0</td>
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<tr>
<td>1971</td>
<td>35.7</td>
<td>46.3</td>
<td>48.7</td>
<td>73.9</td>
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<tr>
<td>1972</td>
<td>37.9</td>
<td>6.2</td>
<td>94.1</td>
<td>93.2</td>
</tr>
<tr>
<td>1973</td>
<td>33.5</td>
<td>-11.6</td>
<td>132.3</td>
<td>40.6</td>
</tr>
<tr>
<td>1974</td>
<td>14.1</td>
<td>-57.9</td>
<td>54.6</td>
<td>-58.7</td>
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<tr>
<td>1975</td>
<td>21.1</td>
<td>49.6</td>
<td>85.5</td>
<td>56.6</td>
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<tr>
<td>1976</td>
<td>24.6</td>
<td>16.6</td>
<td>106.9</td>
<td>25.0</td>
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<td>1977</td>
<td>28.5</td>
<td>15.9</td>
<td>108.3</td>
<td>1.3</td>
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<td>1978</td>
<td>32.3</td>
<td>13.3</td>
<td>116.3</td>
<td>7.4</td>
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<tr>
<td>1979</td>
<td>32.3</td>
<td>-</td>
<td>138.7</td>
<td>19.3</td>
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<tr>
<td>1980</td>
<td>29.4</td>
<td>-9.0</td>
<td>145.6</td>
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<tr>
<td>1981</td>
<td>25.1</td>
<td>-14.6</td>
<td>77.6</td>
<td>-46.7</td>
</tr>
<tr>
<td>1982</td>
<td>23.3</td>
<td>-7.2</td>
<td>62.0</td>
<td>-20.1</td>
</tr>
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</table>

room as did the private hotels. Moreover, most of these workers had no experience of hotel work and very little training was available for them. Very weak management and poor structures and systems resulted in poor control of food and other stocks, resulting in pilferage and waste; poor control of vehicles, weak financial controls, and failure to cut expenses through bulk-purchasing and more efficient use of workers.

The problems with the infant manufacturing industry are similar with little attributable to external forces. An Agro-Industrial Plant was constructed by the P.R.C. for the processing of agricultural products. As a new venture, the turnover of the plant in 1980-81 was small: EC $30,820 paid out to farmers for the agricultural produce and EC $30,820 worth of processed products sold. The major problems faced by the plant has been the unreliability of the arrival of packaging material from abroad, the regular black outs of electricity and insufficient storage facilities.

The National Fisheries Corporation which started operations in April 1981, and which was to produce surplus fish for the Fish Processing Plant faced similar problems. The Corporation experienced serious shortages both of equipment and ice and lacked an efficient ship-to-shore radio contact system. Ships engines consistently gave problems: 7 of the 8 boats were not functioning properly during 1981/82 and many boat-days were lost because the Corporation could not get spare parts for the boats. In addition there was poor management which resulted in constant delays in solving problems as well as the mishandling of boats by inexperienced crews. As a result the P.R.C. closed down the National Fisheries Corporation until better management could be found and more efficient structures instituted.
Other than the industries based on the processing of agricultural or fishing products, there are only two non-traditional exports: clothing and furniture. However, it can be argued that the production of flour is also a new export in the sense that the wheat for its production has to be imported. The value of these exports increased from EC $3 million in 1980 to EC $7 million in 1982. Their contribution to exports has increased from 3.9 per cent in 1974 to 14.2 per cent in 1982.

III:5. Possibilities and Constraints

The possibilities for economic growth and structural change in Grenada are severely limited. They are limited in number or diversity, so that agriculture and tourism are really the only possibilities which can be developed from local resources. The processing of agricultural and fishing products is also a possibility based on local resources, but any other manufacturing such as clothing has to depend on the import of raw materials.

But even these limited possibilities were constrained by the deterioration of all aspects of the economy which took place during the 1970's. However, Coard, in his Report on the National Economy for 1982 summarized the problems facing Grenada in the 1980's as the need for education for economic development. It is useful to quote his summary here:

"You will have noticed certain problems cropping up over and over again in several state businesses:

1. Weak management - we have very few trained managers in our country.
2. Lack of organization.
4. Low worker productivity."
5. Lack of training in modern methods of production.

6. Use of primitive technology.

All these problems are related to each other, for all are related to one factor, education. Everything on this list speaks of something which people can learn. Everything on this list has something to do with technical skills. But before you reach for technical skills you have to talk about basic education, you have to talk about the academic levels of workers.

You have to have a certain educational level before you can learn technical skills. You can't take any kind of training unless you can read and understand what is in the textbooks. Farmers can't learn accounting in order to better manage their farms if they have never learnt basic Mathematics. Workers can't be trained in modern methods of production, nobody can be trained to make proper use of modern technology, unless they have a basic understanding of science.

Many of the problems affecting the economy can only be solved if we can raise the educational levels of our people. We have inherited a backward country with backward agriculture, little industry, old-fashioned methods, little mechanization and low levels of education among the people. Education is the most critical factor to change our situation." [Coad, 1983: 73].

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——— 1983 Economic Activity 1982 in Caribbean Countries, Trinidad

<table>
<thead>
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<th>Author/Institution</th>
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<tr>
<td>Grenada</td>
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IV:1. Overview of Development Strategies

As in the other Caribbean countries, development planning in Grenada began with the 1946-1956 Plan. During 1935-38, disturbances occurred throughout the British West Indies and were recognized generally as a response to especially bad economic conditions. Because of the comprehensive nature of the disturbances, and the response of the Colonial Office to these, the period is perceived as having ushered in a new era of change. Grants of money were made to the various colonies under the Colonial Development and Welfare Act, and one of the stipulations of the grant was that a Development Plan should be prepared in each colony for its social and economic development.

Some of the Eastern Caribbean islands, like St. Vincent and St. Lucia, were fortunate in receiving assistance in the formulation of their plans from various faculty members of the Imperial College of Tropical Agriculture in Trinidad. As a result, the Plan for St. Vincent not only surveyed the fiscal resources of the island but analyzed the economic state of the colony and attempted to devise a strategy for development. Unfortunately Grenada was not able to benefit from these intellectual resources except for a two-page letter which attempted to summarize the colony's position. This letter, written by C.Y. Shephard and reproduced as the first chapter of the 1946-56 Development Plan, stated that the economic development in the island was "still at an almost medieval state; most production is carried out by toiling human power, and little organization is employed to produce goods with less expenditure of resources".

Despite the expression of lofty aims of achieving "optimum economic prosperity" and an "optimum standard of living of the people", the plan was
little more than a plan for balancing fiscal expenditure and revenue. As with the other Caribbean islands this strategy emphasized welfare rather than development because of its perception of the colonies as dependent on agriculture with no possible alternatives at a time when the trend of World conditions were "generally adverse to the development of economic life based on the export of agricultural products". Given the positive demand by West Indians for a better and less restricted life, this strategy could see "no way to avoid expenditure from outside resources on social improvements in the West Indies" [United Kingdom, 1945: 356-7].

Since this first attempt at development planning in Grenada, there have been three stages in the evolution of development planning strategies in the Caribbean. The second strategy of 'industrialization by invitation' was first argued by the Nobel prize winner, Sir Arthur Lewis, before the Moyne Commission which investigated the disturbances of the 1930's. The need for rapid industrialization was based on the perceptions that, in the Caribbean islands, the land had reached the limits of its capacity to carry people, that the islands were over-populated, and that there was a dire need to create new opportunities for employment. As in the first strategy, the external environment was to provide the stimulus for development, in this case the investment and the markets needed for industrialization. Although this strategy has been much criticized, it still survives in some form or another in the development planning of almost every Caribbean country.

The other two development strategies which have emerged see economic dependence as the dominant feature of Caribbean economies. They see the countries as dependent on the external environment for capital, markets, supplies, skills and expertise, banking and financial services, as well as
for the maintenance and growth of internal levels of employment, output and demand [Girvan, 1973]. Hence the third strategy of self-sufficiency and self-reliance. One element of this dependence is structural, conditioned by the natural variable of small size. The fourth strategy, therefore, is a response to the need to increase this natural variable by union of the countries, i.e., integration. Thus all four strategies have recognized the two essential characteristics of the countries: small size and openness. But whereas the earlier two accepted them as irrevocable, the latter two have insisted on the need to overcome them if the countries are to support the consistent improvement in the material welfare of their people.

IV:2. Evaluation

Certainly during the 1970's and probably before, i.e., under Gairy, there was no development planning or strategy for Grenada. Thus Coard expressed the first aim of the P.R.G. as "the setting free of our National Economy from all the secrecy, scandal and corruption of the years of the dictator". He added that "our centuries of colonialism and the cold, joyless, twenty-eight years long blast of Hurricane Gairy, had left us with virtually nothing. So we have to start from scratch to build our economy" [Coard, 1982: 1-2].

The ultimate goal of the P.R.G., or "fundamental objective" as Coard put it, is the same as most other countries of the Caribbean: to improve the living standards of the people and to systematically upgrade their quality of life. The P.R.G. recognized the extent of Grenada's dependence on the advanced countries and realized that Grenada could only do this by developing economic self-reliance. The P.R.G. planned to do this via a mixed economy: mixed both in the sense of utilizing both public and private sectors, as well as in the sense of developing agriculture, industry and tourism. However, in referring
to the mixed economy, the P.R.G. stressed the three pronged strategy of developing the public sector, the private sector and the newly-created co-operative sector - but with the stated long-term goal that the state sector should be dominant.

The P.R.G. was in power for only four and a half years, and this is an extremely short time to achieve change, especially given the serious deterioration of the economy during the 1970's. Therefore, it is probably unfair to evaluate the achievements of the P.R.G. against their ultimate goals. Certainly the state sector was by no means dominant in 1983, comprising less than 40 per cent of total G.D.P. In addition, a number of the state enterprises were experiencing serious difficulties as we have seen, while the co-operative sector had not really got off the ground. However, the P.R.G. had invested most of their resources in infrastructural projects like feeder roads. The largest and single most important infrastructural project was the construction of the International Airport at Point Salines, and it is significant that all Grenadians, whatever their political persuasion, have called for the completion of this airport. One criticism that can be made of the P.R.G. is that little of their financial resources seem to have been invested in electricity, water or telephone, all of which are crucial to the development of tourism and industry.

One final point needs to be made. The development aim of a mixed economy was stated in Marxist terminology. But the actual goal is one that is shared by most of the Caribbean countries. Although not many of them would declare that the state sector must be dominant, the Government sector in all countries is fairly active. Indeed, there seems to be little choice, especially for the
small islands of the Eastern Caribbean, other than the development of any opportunity for development which presents itself - a mixed economy.

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