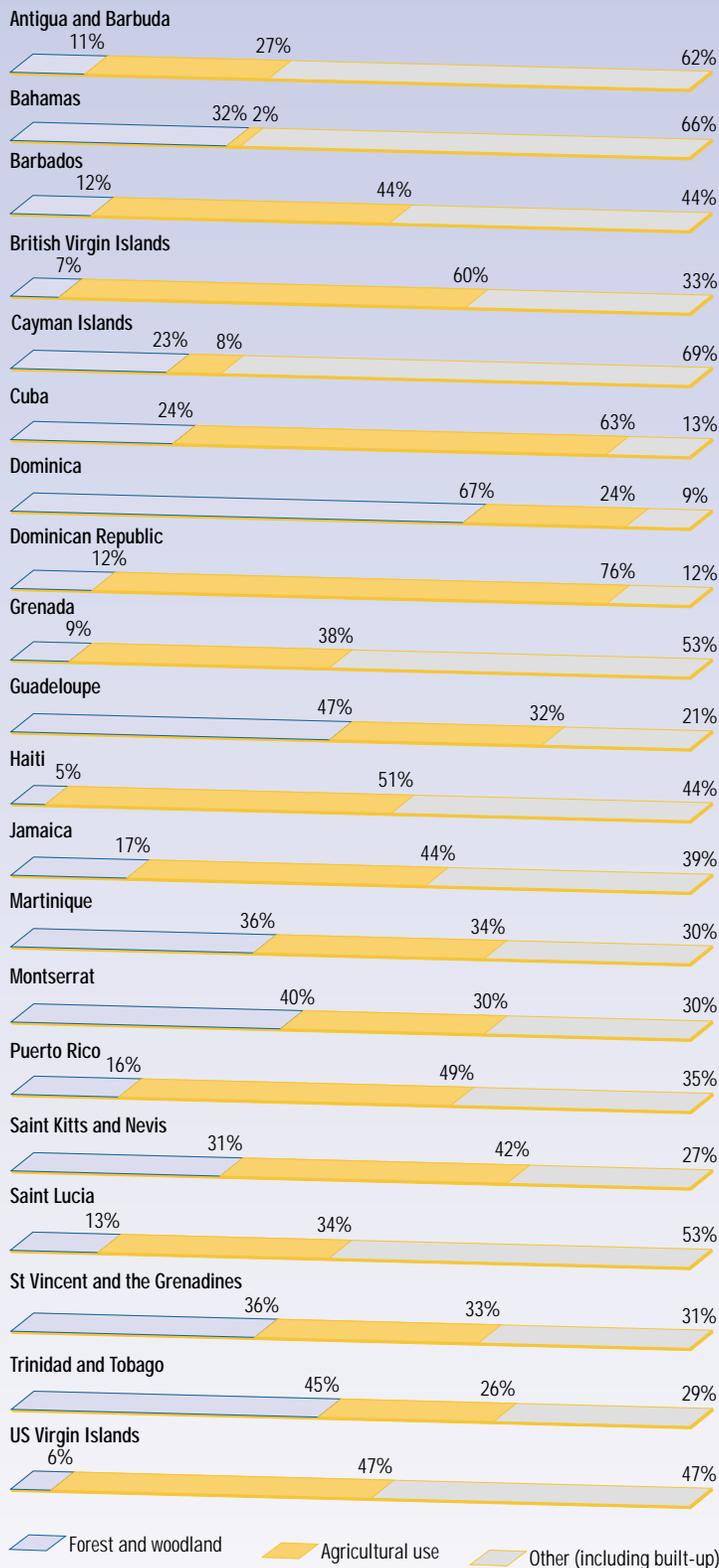


Figure 1.1: Caribbean land use in 1995 (in thousands of hectares)



Source: FAO 1990–1998, Dec. 1998 (calculated)

Land and food resources

A large portion of the Caribbean is recognizably and directly affected by human activities (Figure 1.1). The small size and rugged topography of most countries in the region create limits to the amount of land available for human settlements, agriculture, industry, tourism, mining, roads, ports and other infrastructure, grasslands and pastures, and forests – all of which compete for the limited space. Inappropriate land use has led to the ir retrievable loss of valuable land that would otherwise have had high economic or social value for agriculture, watershed protection or biodiversity conservation.

More than 70 per cent of the dry lands used for agriculture in Latin America and the Caribbean suffer from moderate to extreme degradation (UNEP 1997). For example, in the early twentieth century, cotton cultivation on the lower slopes of Montserrat and Nevis created major soil loss, while in Barbados pressure from small-scale farming, especially the grazing of numerous domesticated animals such as sheep and goats, resulted in loss of fertility and erosion on the steeper slopes of the Scotland District. Over the years, agricultural land degradation has continued as agricultural lands have been extended into marginal areas, as land has become degraded from over-use, and as informal squatter settlements have spread. In Jamaica, Haiti and the Dominican Republic, urban expansion of both housing and industrial estates has taken over prime agricultural land, which in turn has led to threats to forests and other natural areas not formerly used for agriculture.

Landholding patterns

Landholding patterns in the Caribbean vary greatly from island to island due to differences in the natural environment and also to differences in the historic settlement processes. These different landholding patterns in turn lead to different conditions and threats to the environment.

One of the key differences among the islands of the Caribbean was the ability of natural conditions on an island (viz. topography, remaining soil fertility, rainfall and so on) to support large-scale plantation agriculture after the abolition of slavery. In those islands favourable to plantation agriculture, alienation of land ownership and maintenance of large landholdings producing products for world export markets continued. Where conditions would not support plantation agriculture, the tendency was for plantation lands to be abandoned, and

landholdings to revert to local residents who usually had smallholdings producing a variety of crops for local consumption. The contrasts between neighbouring small islands can be startling: St. Croix, for example, remained a plantation economy until the early 1960s, whereas St. Thomas and St. John were characterized by generally small plots (plus some commercial activity in St. Thomas); St. Kitts is still a major producer of sugar on large state-owned plantations, whereas most of the Great Houses on Nevis were abandoned until they were 're-cycled' as resorts, beginning in the 1960s.

On larger islands, both conditions could operate at the same time: agricultural land use would be characterized by scattered multi-crop smallholdings worked by small farm families, alongside vast plantations held by powerful interests such as wealthy landowners, the government and co-operatives. Inequality in land distribution between smallholders and wealthy landowners has contributed to this pattern of ownership and control. For example, in Jamaica and St. Kitts substantial areas of high-quality land are controlled by wealthy landowners, the government and co-operatives, while small farmers typically own 0.8–1.2 hectares of marginal land, often on steep slopes which are inherently prone to erosion.

This pattern of land ownership and control was entrenched in land distribution policies in the past, and even with reforms within the last 30 years inequalities in ownership and control still exist. Consequently, land conservation techniques among peasant farmers are not always exercised, and in most cases peasant holdings remain informal and tenuous. Ignorance about basic land conservation techniques also exists. Such inadequate land tenure policies contribute to increasing levels of squatting on state lands in Trinidad and Tobago, Jamaica, and St. Vincent and the Grenadines.

Food production by small and large holdings also differs as large farms typically focus on monocultures for export (such as sugar cane, coffee, bananas) while small peasant holdings produce a variety of crops, mainly for domestic consumption. By all indications, the agricultural sector in many countries in the Caribbean has failed to produce enough food to satisfy domestic demand and in some cases has had to be supplemented by imports. This situation has been compounded over the years by the movement of rural workers from rural areas to urban centres. On the other hand, poor agricultural policy initiatives undertaken by many governments in the region have created an imbalance that resulted in food production that did not match the level of domestic and external demand. With few exceptions, export food

production in the region has fallen short of market quotas. However, a recent study by the United Nations Food and Agriculture Organization Sub-regional Office for Latin America and the Caribbean (FAO/SLAC) in eight selected Caribbean Community (CARICOM) countries indicated the following:

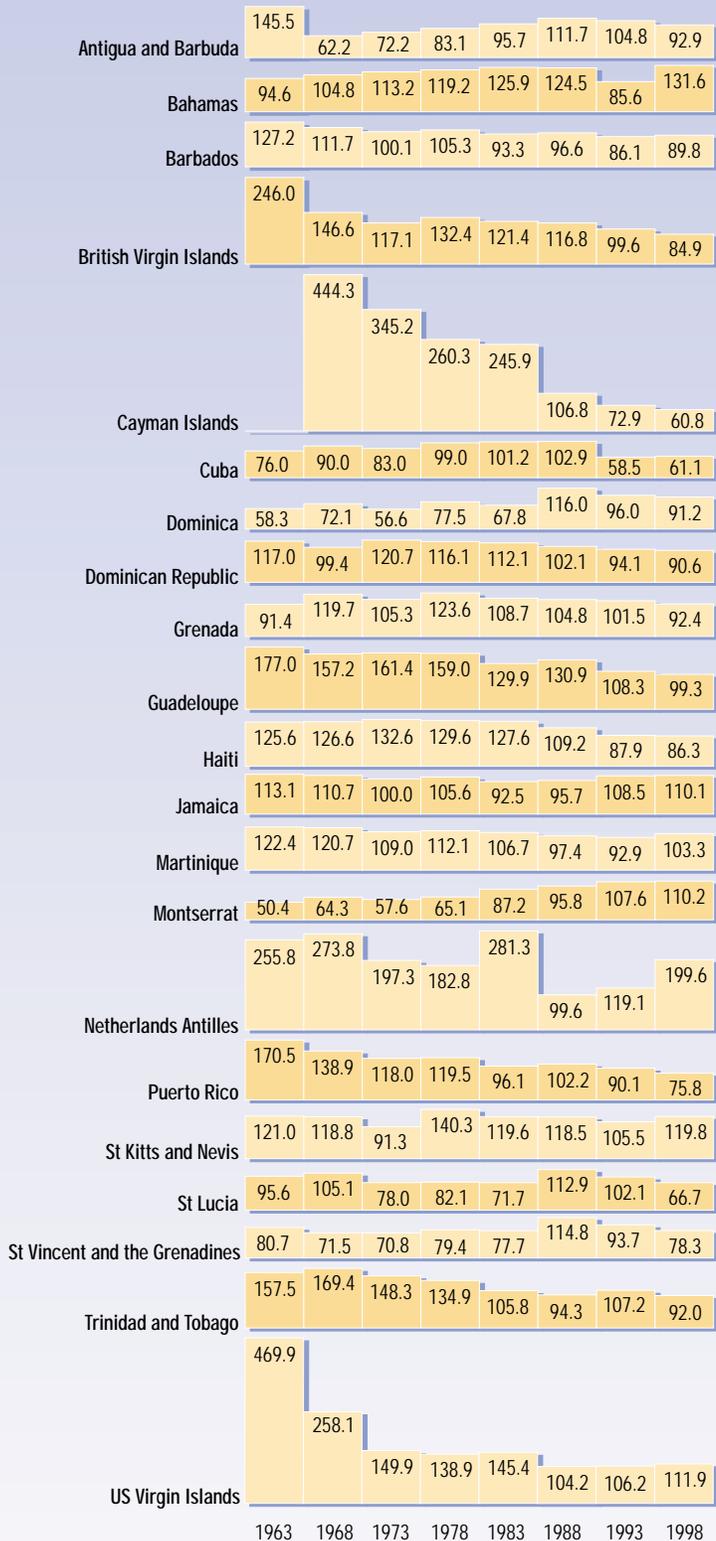
- Over the period 1986–1995, agricultural GDP increased in all countries of the Caribbean except Barbados and Grenada. In the case of Barbados, the food sub-sector's performance is directly linked to the decline of the sugar industry throughout the decade, while in Grenada, agricultural production showed variable performance for the decade. Traditional crops such as bananas, cocoa and nutmeg accounted for most of the decline in the Grenada agricultural sector's performance.
- Domestic food production is on the rise, in particular that of non-traditional crops, and a considerable share of the food security in the Caribbean is derived from domestic agricultural production.
- On the other hand, trade liberalization, increased transport services and stiffer competition from imported goods – in most cases cheaper than locally produced goods – will increase food imports. This situation is exacerbated by the increase in people's incomes, and the strong demonstration effects of the tourism and financial services sectors.

The dilemma faced by many islands in the region is that in order to maintain food self-sufficiency and expand export crops to earn much-needed foreign exchange, countries will need to farm more intensively and increase the amount of land under agriculture. The need to re-examine the trade policies of the majority of Caribbean territories will take on greater importance given the rise in competition for markets as a result of globalization and the simultaneous dismantling of preferential market access arrangements.

Agriculture in the Caribbean is diminishing in terms of both total and per capita agricultural production. Figure 1.2 shows Food and Agriculture Organization (FAO) calculations of per capita agricultural production, especially in the last ten years. Other indicators, such as gross agricultural production (in both dollar value and weight), exports and agricultural employment all show similar declines.

Other things being equal, reduced agricultural production may decrease environmental stresses from erosion, sedimentation, nitrification and pesticide use.

Figure 1.2: Changes in the index of per capita agricultural production: 1963–1998 (net per capita agricultural PIN 89–91)



Source: FAOSTAT, FAO website December 1998