



2.8 POPULATION DYNAMICS

2.8.1 SIZE

Table 1 : Intercensal Population Estimates

Census Year	Total Population At End Of Interval	Total Growth	Intercensal Change (%)
1871	39,872		
1881	41,001	1,129	2.83
1891	43,963	2,962	7.22
1901	42,556	(1,407)	(3.20)
1911	39,228	(3,328)	(7.82)
1921	33,984	(5,244)	(13.37)
1946	41,206	7,222	21.25
1960	50,883	9,677	23.48
1970	44,884	(5,999)	(11.79)
1980	43,309	(1,575)	(3.51)
1991	40,618	(2,691)	(6.21)
2001	46,111	5493	11.9

Source: Statistics department (Planning Unit)

At the 2001 census the preliminary population for SKN was estimated at 46,111, which represents a 13.5% rise over the 1991 census status (Table 1). Of this 34,930 persons reside on St. Kitts and 11,181 reside on Nevis.

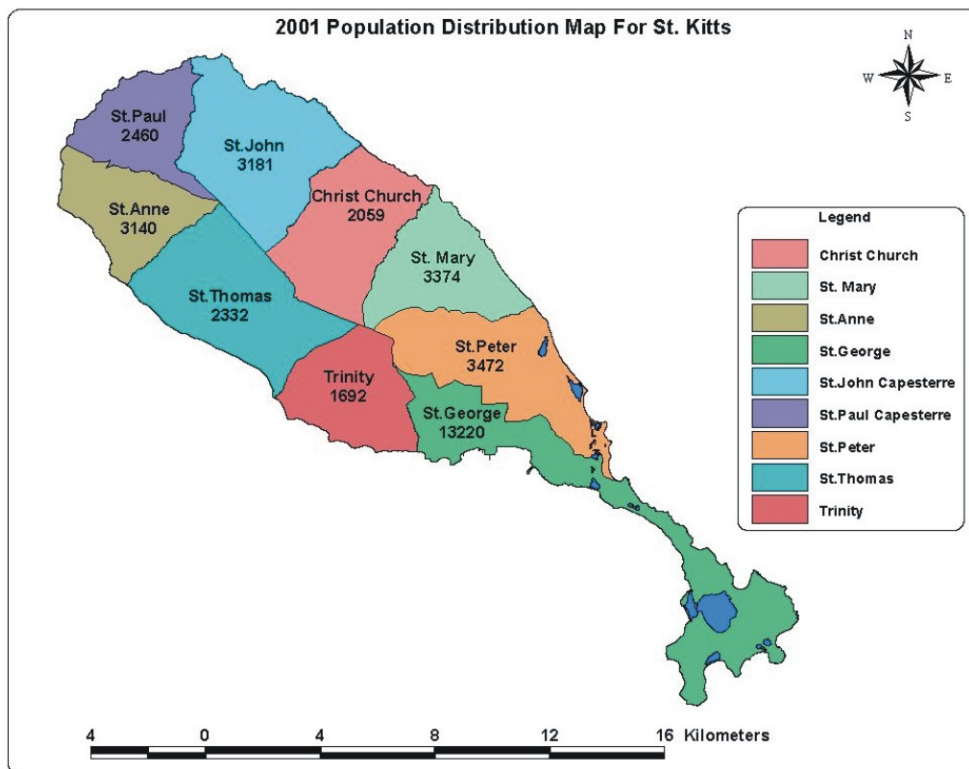
Overall the population has been relatively stable over the last 100 years, primarily as a result of migration. The early part of the twentieth century saw citizens migrating to the Bermuda dockyards, the Unties States, the cane fields of the Dominican Republic, the United Kingdom, Aruba, Curacao, the United States Virgin Islands and Canada. The 1960s saw some changes in the migration pattern with citizens migrating to North America and the United Kingdom.

In the 1970's, direct migration to North America continued, though movements to the United Kingdom were greatly reduced from the levels of previous decades. From the early 1970's to the present, there has been an increase in intra-regional migration, with the majority of migrants moving to other Caribbean Islands, such as the Virgin Islands, Puerto Rico and St. Maarten.



2.8.2 POPULATION DISTRIBUTION

The 2001 Population Census indicated that the majority of the population lived in the parish of St. George on St. Kitts and in St. John on Nevis. In St. Kitts, the parish of St. George contains the major town of Basseterre, while in Nevis the St. Paul's parish includes the capital, Charlestown. Approximately 37.8% of the population reside in St. George, St. Kitts while 16.3% reside in St. Paul.



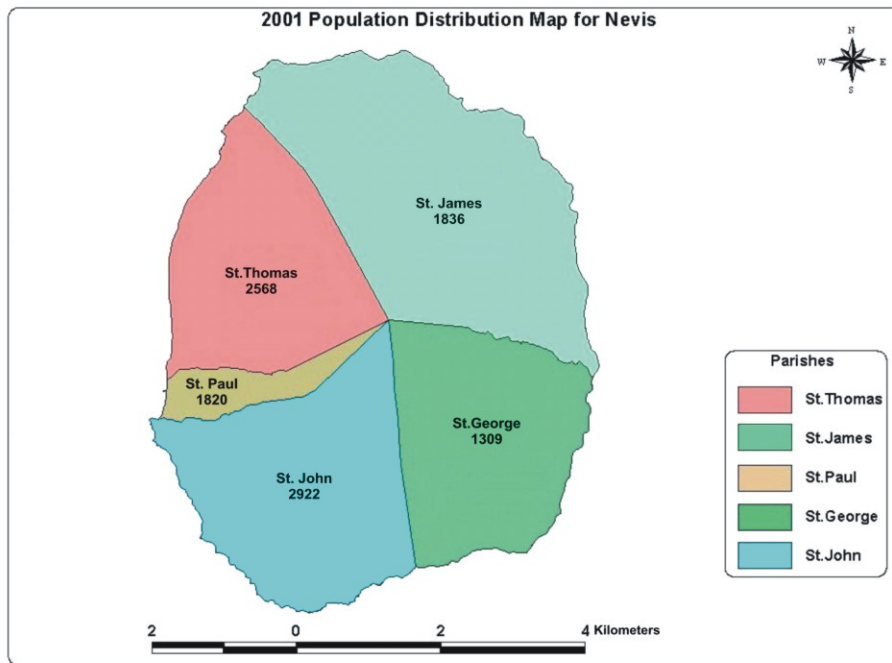
Map 2: Population distribution for St. Kitts (2001)

DENSITY

Population density measures the concentration of population in a given area. In 2001, the population census revealed that the highest population density for St. Kitts is 13,220 persons per km² and existed in the Parish of St. George, *see Map 3*. The issue of carrying capacity, particularly in the Basseterre area is a concern of policy makers. On Nevis, St. Paul Parish is the most densely populated with 1820 persons per km².



Parish is the most densely populated with 2,922 persons per km². The least densely populated is St. Paul with 1,820 persons per km², *see Map 3*.



Map 3: Population distribution for Nevis (2001)

2.8.3 Economic Characteristics

The sectoral contribution in the economy has undergone structural changes. Whereas agriculture was the dominant contributor to GDP in the early 1980s, by the 1990s its contribution dropped significantly and continues to do so into the new century mainly as a result of the fluctuating prices of sugar in the export market and the high production costs within the industry. As a result there have been calls for the closure of the industry a decision that has high environmental and social ramifications. Sectors such as communications, construction, banking and insurance, government services, wholesale and retail, are now the dominant contributors (Table 2).



Table 2: Sectoral contributions in the economy

SECTOR	1996	1997	1998	1999	2000	2001	2002
Agriculture	6.08	6.84	5.98	5.24	4.52	4.92	5.52
Manufacturing	11.14	11.55	11.33	11.79	12.15	13.53	12.89
Construction	13.51	13.35	14.14	15.35	18.65	19.01	18.02
Wholesale and Retail	14.8	14.56	15.01	15.01	14.85	11.84	12.28
Hotels And Restaurants	7.13	6.99	7.08	5.96	4.98	4.37	3.90
Transport	7.91	7.86	7.75	7.60	7.45	7.85	8.15
Communications	9.90	9.74	9.73	10.32	9.58	10.50	10.64
Banking and Insurance	11.74	12.33	12.2	12.16	12.63	12.76	12.60
Government Services	15.95	15.32	15.88	15.72	14.98	15.21	15.50

Source: Statistics Department, Planning Unit

The economy of the Federation of St. Kitts and Nevis experienced positive GDP growth for the decade of the nineties (Table 3). A trend which could have been significantly more if not for the passage of hurricanes Luis and Marilyn(1995), Georges (1998), Jose and Lenny (1999); all of which devastated the tourism and agriculture sectors.

Year	Growth Rate
1991	2.26
1992	3.09
1993	5.42
1994	5.40
1995	3.46
1996	5.90
1997	7.33
1998	1.02
1999	3.74
2000	7.54
2001	3.64
2002	2.15

Table 3: Growth rates

Source: Statistics department, Planning Division

2.8.4 Public Debt

The public debt in 1994 was 69.6% of GDP; at the end of 1998 the figure jumped to 113.8% of GDP and rose steadily to 157.5% in 2002. The level of debt is of serious concern as it threatens to cloud the economic outlook of the country. A number of measures therefore have been undertaken to restore debt sustainability, namely, improving fiscal measures and promoting growth.



2.8.5 Poverty

St. Kitts

The Poverty Assessment Report (2001) reported that 30.5 percent, or a little less than 1 in 3 individuals in St. Kitts are poor. This means that their monthly expenditure is less than the cost of meeting their minimal food and other basic requirements at a value of EC\$280.05 (US\$103.72) per month for an individual.

Eleven percent, or slightly more than 1 in 10 individuals in the country, were found to be extremely poor or indigent - the indigence line is EC \$177.94 (US\$65.90) per month.

More than two-thirds of the poor (67.8%) are under 25 years of age. Males account for 44 percent of the poor and women 56 percent. Above this age the Poverty Assessment Report (2001) reported that, 29 percent of males and 32 percent of women were poor.

Nevis

On Nevis, 32 percent or a little less than 1 in 3 individuals are poor. This means that their monthly expenditure is less than the cost of meeting minimal food and other basic requirements or less than EC\$328.40 (US\$121.63).

Seventeen percent of all individuals are extremely poor or indigent, and do not have the EC\$204.40 (US\$75.70) necessary to meet their dietary needs.

Overall 58 percent of the poor are under the age of 25. Males make up 37 percent of the poor and females 63 percent. Above this age the Poverty Assessment Report (2001) reported that 26 percent of the poor are males and females account for 36 percent of the poor.



2.9 INFRASTRUCTURE

Energy

The islands' power systems are operated independently, with the St. Kitts Electricity Department (St. Kitts) headquartered in Basseterre and the Nevis Electricity Company Limited (NEVLEC) headquartered in Charlestown. St. Kitts and Nevis distributes power at a primary voltage level of 11, 000 volts. Secondary voltage levels are 400/230 volts three-phase. Existing conductor sizes ranges from 16mm² AAAC (St. Kitts) and 246.9mcm alliance to triple X (Nevis).

Over the years the island of St. Kitts and Nevis has experienced frequent tropical storms, which have caused considerable damage to the island's electric distribution system, primarily overhead, resulting in widespread outages. Other interruptions are caused by earthquakes, lightning episodes, automobile accidents, trees and vegetation overgrowth, obsolete equipment, lack of protective device coordination, floods, and cane field fires (Stanley Consultants 2002).

Water resources

The distribution and availability of freshwater in St. Kitts and Nevis is related to climate variability, rainfall changes and land-use patterns as this influences infiltration and runoff. The freshwater sources on St. Kitts and Nevis consist of a) direct rainfall b) water from springs c) storm runoff and d) groundwater (Agriculture Diversification project 2002).

Sewerage resources

Sewerage Treatment has been given little attention in the past, this however cannot continue due to the fact that the Federation is becoming increasingly dependent on groundwater resources. The operation of sewerage systems is not wide spread. Those that do exist serve mainly the hospitals, the Frigate Bay area and the Four Seasons Resort, where a package areation sewerage treatment plant functions. The remainder of St. Kitts and Nevis uses septic tanks (Agriculture diversification project 2002)



Roads and rail

St. Kitts is served by an island main road which forms the principal artery for the transport network. St. Kitts has approximately 99.1km of paved roads, 40.1km of unpaved roads and 60.0km of tracks. On Nevis the road network consists of 93km of paved roads and 45km of unpaved roads.

Additional roads are in demand so as to reduce overcapacity and facilitate access to areas. In 2003 the road linking Pinney's Industrial site to Pump road (Charlestown by-pass road) was opened in an effort to relieve congestion on the Nevis Island main road. On St. Kitts there are plans to construct a West Basseterre by pass road to ease some of the congestion entering the central city area and to facilitate access to the Airport.

On St. Kitts there exists 48km of rail (built in 1912 and completed in 1925) around the island catering mainly to the sugar industry. On Nevis rail networks of this kind exists because it was practice for sugarcane plants to be transported to St. Kitts for processing. Although the rail network is not used by the general public the Scenic Railway Company-, a business that offers tours by rail around the island, shares the network during the tourist season.



St. Kitts and Nevis

Flora



Designed by Michael Shaw

Pictures provided by the St. Christopher Heritage Society (SCHS)



CHAPTER 3 CURRENT (known) RANGE OF BIODIVERSITY ON ST. KITTS AND NEVIS

In order to protect biodiversity it is necessary to take an inventory of what exists within a country. This chapter thus presents coastal biodiversity, marine and terrestrial flora and fauna found within St. Kitts and Nevis.

VEGETATION

The halophytic, xerophytic, cultivated belt, mesophytic flora along with the the vegetation of the mountain summits describe the main vegetative sub-divisions on the island.

(1) The Halophytic zone consists of the coastal belt with habitats such as the beach strand, mangroves and other wetlands and rocky coastal outcrops. Plants found within this zone are able to tolerate salt water and extreme exposure to sun and wind. Halophytic flora comprises of trees such as: coconut palm (*Cocos nucifera*), seaside mahoe (*Thespesia populnea*), manchineel (*Hippomane mancinella*), indian almond (*Terminalia catappa*), casuarina (*Casuarina equisetifolia*) and tamarind (*Tamarinus indica*). In addition, shrubs namely: sea grape (*Coccoloba Uvifera*), sea lavender (*Argusia gnaphalodes*), suriana (*Suriana maritime*), nicker seed (*Caesalpinia bonduc*) and giant milkweed (*Calotropis procera*). A variety of herbaceous plants eg. morning glory (*Ipomoea Pes-Caprae*), seaside bean (*Canavalia rosea*), sea purslane (*Sesuvium portulacastrum*); along with mangrove trees (*Rhizophora Mangle*, *Avicennia nitida*, and *Laguncularia racemosa*). Floating or submerged in the wetland ponds one will come across water lilies (*Nymphaea ampla*, *Ruppia maritima* and *Najas guadalupensis*) (Robinson & Lowery 2000).

(2) Occurring behind the coastal belt is the xerophytic zone which is divided into three ecosystems – dry woodland, grassland and cactus scrub. Here it is not uncommon to find trees such as: loblolly, button mangrove, braceletwood, white cedar, fleshy herbaceous,



monkey-fiddle, aloes and herbs spider lilly, wild frangipani (*Plumeira alba*), casha (*Acacia Farnesiana*), Aloes (*aloe vera*) etc. *volubilis*) to name a few (Robinson & Lowery 2000).

(3) The cultivated belt can be described as the most fertile zone on the island and is therefore inundated with a variety of native and introduced plants which occur as agricultural crops, weeds of cultivation or flora.

Shrubs

Sugar apple	<i>Annona squamosa</i>
Soursop	<i>Anonas muricata</i>
Castor Oil plant	<i>Ricinus communis</i>
Indigo	<i>Indigofera suffruticosa</i>
Barbados cherry	<i>Malpighia emarginata</i>
Barricada bush	<i>Jatropha gossypifolia</i>

Medicinal Herbs

White top	<i>Parthenium hysterophorous</i>
Rabbit meat	<i>Leonotis nepetifolia</i>
Donkey rub down	<i>Rhynchosia minima</i>
Broom	<i>Sida spp</i>
White Lady	<i>Thunbergia fragrans</i>
Nutgrass	<i>Cyperus rotundus</i>

Seasoning Herbs

Onion	<i>Allium cepa</i>
Chives	<i>A. schoenoprasum L.</i>
Thyme	<i>Thymus vulgaris</i>

Root And Tuber Crops

Sweet potato	<i>Ipomea batatas</i>
Dasheen	<i>Colocasia esculenta</i>
Yam	<i>Dioscorea alata</i>
Cassava	<i>Manihot esculenta</i>
Tannia	<i>Xanthosoma sagittifolium</i>
Eddoe	<i>Colocasia sp.</i>

Legumes

Peanuts	<i>Arachis hypogaea</i>
String beans	<i>Phaseolus vulgaris</i>
Pigeon peas	<i>Cajanus cajan</i>

Trees

Flamboyant	<i>Delonix regia</i>
Frangipani plant	<i>Plumeria rubra</i>
Boabob Tree	<i>Adansonia digitata</i>
Cashew	<i>Anacardium occidentale</i>
Saman	<i>Samanea saman</i>
Pawpaw	<i>Carica papaya</i>
Hog Plum	<i>Spondias mombin</i>
Gliriciddy	<i>Gliricidia sepium</i>
Banana	<i>Musa L.</i>
Mango	<i>Mangifera indica cv. Julie</i>
Pineapple	<i>Ananas comosus</i>
Avocado	<i>Persea Americana</i>
Grapefruit	<i>Citrus paradisi</i>
Orange	<i>Citrus. sinesis</i>
Lime	<i>Citrus. aurantifolia</i>
Breadfruit	<i>Artocarpus altillis</i>
Wax apple	<i>Syzygium samarangense</i>
Indian jujube	<i>Zizyphus mauritiana</i>

