

# ST. KITTS AND NEVIS LAND POLICY ISSUES PAPER





# **ST. KITTS AND NEVIS LAND POLICY ISSUES PAPER**

**BY**

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**Prepared for**

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## **EXECUTIVE SUMMARY**

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Land is an extremely emotive issue in St. Kitts and Nevis (SKN) and this land issues paper represents a major point of departure in the way stakeholders in SKN currently perceive the arena of land administration and management. It considers a number of legislative, regulatory and policy interventions by the government of St. Kitts and Nevis (SKN) and the Nevis Island Administration (NIA) as well as their adequacy and effectiveness. With respect to the way forward, the paper discusses critical concerns identified by stakeholders with far reaching social, cultural, economic and political ramifications. In this regard, the overall objective of this land issues paper is to inform the vision for a future Land Policy which is to guide the country towards a sustainable and equitable use of land. These critical issues are as follows:

### **Demographic patterns**

Pivotal to the issue of economic growth in SKN is the improvement of services in urban and rural areas to accommodate the changing size and composition of resident population while meeting basic needs. The continued growth of the population and households will eventually lead to shortages in the housing stock as well as social services. Thus present and future population characteristics will have significant implications on future birth rates, the levels of internal migration, employment opportunities, the provision of services and critical facilities, the delivery of land and housing as well as infrastructural development.

### **Economic growth**

SKN is presently undergoing a transition from a way of life that evolved over four centuries of sugar cane cultivation to a political-economy that is influenced by investments in the development of tourism. With competing demands for land, its sustainable management is vital for the economic and social well-being of the country.

### **Poverty alleviation**

GOSKN needs to analyse the linkages between poverty alleviation, economic development and SLM by: (a) examining how poverty causes or contributes to land degradation; (b) studying how poverty reduction can reduce people's vulnerability to hazards; (c) analysing how disasters cause or exacerbate poverty; and, (d) encouraging greater private sector involvement in poverty eradication programmes.

### **Land use patterns**

The closure of the sugar industry poses a serious challenge with respect to future land management and land use. The immediate issue raised is how the land should be managed to retain its productivity and facilitate its subsequent use with minimal environmental damage.

### **Land-for-debt swap**

In more recent times, there has been expressed fear of foreigners taking over land as a result of the contentious Citizenship By Investment (CBI) programme. These fears have arisen because there seems to be no restrictions imposed on this new class of citizens in acquiring an interest in land. Much as this strategy is a pointer to increased economic development, it has also brought about contradictory implications for the land rights of the poor.

### **Conformity to International Conventions**

Apart from the DPPE on St. Kitts and the DPPNRE on Nevis many other relevant agencies are not been actively engaged to fully understand their roles and to assist with the discharge of national obligations under international conventions and agreements.

### **Gender Considerations**

GOSKN must continue to ensure that there is gender balance in participation in all stages of the economic, social and SLM processes.

### **Governance Issues**

GOSKN and the NIA need to demonstrate their commitment to SLM through the adoption of appropriate mechanisms to identify threats of land degradation and the barriers and bottlenecks to addressing land degradation.

### **Land administration and management**

The economy of SKN is growing and the country faces difficult choices about resource allocation and management of the physical environment. The current situation is one where land is being developed and exploited at a rapid pace and often without proper assessment either of the need to develop or the effects which development will have. There is a critical need for the mainstreaming SLM in national development programmes. This will require a robust partnership between the public sector, private sector, civil society organizations and the community. Thus, it is imperative that effective land use planning becomes a prime concern of both the GOSKN and NIA. The adoption of a framework for effective land administration requires the implementation of both NPDPs which lays out well-sequenced and prioritized plans of action. Unless this is done, the adoption of specific policy measures may well raise high expectations that will be difficult to deliver on. Finally, a mechanism to facilitate greater collaboration and cooperation between all land management institutions urgently needs to be

developed. Additionally, the planning of strategic objectives, the development of procedures and the implementation of baseline surveys.

### **Security of tenure**

In SKN, improvements to the administration of land titles must go beyond the transfer of customary deed title to certificate of title. There is an urgent need for the implementation of a land cadastre. Clarification and security of land rights are essential for the success of an integrated approach to the planning and management of land resources. Settling these rights provide the following benefits.

- a. reduces conflicts between stakeholders,
- b. increases the confidence required for SLM practices by the actual land cultivators,
- c. determines the respective responsibilities, and,
- d. provides the basis for a fair and environmentally-sound allocation of incentives and subsidies.

### **Public education and awareness**

Environmental and land management issues are generally not seen as exciting or interesting enough to get serious attention among the media and political leaders, especially in the light of higher profile domestic issues. Insufficient interest among the media managers to be actively involved in the dissemination process for sustainable land management is an area of critical concerns. GOSKN and the media needs to provide additional coverage of SLM activities in SKN.

### **National parks**

Increased attention needs to be paid to watershed and coastal protection as well as marine conservation in the development planning process. For the CFRNP to be effectively managed, there needs to be involvement in the decision-making process by the community and users of the natural resources of the forests. Additionally, the boundaries of the CFRNP need to be marked. Continuous groundwater monitoring, especially with warning systems and anthropic activity monitors, is essential in the Royal Basseterre Valley Park's coastal aquifer.

### **Sustainable livelihoods**

There is a need for GOSKN to utilize lands to: (a) eradicate poverty and ensure food security through a more equitable distribution of land access and ownership, and greater tenure security for vulnerable groups; and, (b) promote equitable access and ownership of land resources for poverty eradication.

### **Land degradation**

A number of land degradation causes need to be urgently addressed. These include water pollution, deforestation and erosion, flooding and poor drainage, sedimentation, over-grazing and uncontrolled bush fires.

## **Balancing economic considerations and sustainability**

Collaboration and coordination between government agencies, the private sector and non-governmental organizations need to be improved to create a networking mechanism to allow for more information sharing and joint planning for the improved management of terrestrial and marine protected area systems. GOSKN needs to continually assess the short- and long-term impacts of its decision-making on the use of limited natural resources. Further, GOSKN needs to continue its support of regional and sub-regional initiatives that address the sustainable development of resources.

## **Situation on informal settlements**

The key to managing the problem of “squatting” in SKN is to institutionalize a participatory and evolutionary approach towards settlement status and land tenure. Specific strategies to resolving the “squatting” problem include: (a) infrastructure delivery; (b) evolution of tenure from Crown Lands to individual ownership; and, (c) evolution of urban and rural settlement patterns and land management to that required under the DCPA, 2000.

## **Land information systems**

There is a need to develop a high quality land information system showing the total and location of lands suitable for alternative land uses including non-sugar agriculture, housing, national parks, conservation areas, tourism, commercial and industrial activity, and to be able to assess the vulnerability of valuable land resources. In this regard, the DPPE’s GIS needs to be upgraded to a cadastre-based LIS to allow for improved land administration and management.

## **Land markets**

In SKN, a lot of pressure has been put on land and has caused a hike in the land market. Thus, there is a need for GOSKN to: (a) promote and support the development of an efficient, effective and equitable land market; and, (b) mitigate the negative socio-economic effects of the current land market. Rental markets are particularly important to SKN because transactions based on renting can develop quickly in response to opportunities, can provide ways in which poor but more efficient farmers can access land and landowners can participate in non-farm activities but rental markets are particularly sensitive to policy distortions and insecurity of tenure.

## **Coastal land management**

The beaches and reefs must be preserved if their contribution to tourism is to continue. To be effective, protection designation must be accompanied by a management system and enforcement that focuses on quantifiable social and bio-physical goals. GOSKN needs to build on the foundation of TNC’s MZP project and take necessary steps to finalize and implement a marine zoning plan for SKN.

## **Water resources management**

It is prudent to protect and conserve both surface and underground potable water sources on SKN. The cost of environmental protection of catchments to facilitate aquifer recharge could result in lower water costs than those associated with alternative sources, such as desalination. The unit cost of desalinated water is typically in the order of ten times higher than that obtained from groundwater.

### **Climate Change Considerations**

It is imperative that GOSKN adopt the following policy imperatives with respect to climate change adaptation:

1. Ensure the protection of natural systems and maintenance of biodiversity;
2. Adopt appropriate technologies in the energy and water sectors;
3. Encourage private water storage (cisterns).
4. Develop information systems to facilitate sound environmental management;
5. Ensure that sea level rise and storm surge are considered in the evaluation of development proposals within the coastal zone including coastal setbacks and raised floor level;
6. Link national adaptation programmes to regional and international initiatives on climate change.

### **Urbanization issues**

With respect to land policy there are a number of critical concerns. Firstly, it is necessary for the GOSKN to identify and redevelop lands with basic infrastructure on which persons from within the inner city areas of Basseterre in the lower socio-economic groups would have access for residential and commercial activities. Secondly, it is desirable to return dilapidated and abandoned property to productive use and back onto the local tax roll. Thirdly, appropriate management strategies should be put in place to curb increasing population growth and rapid urbanization in order to reduce pressures on the environment and the limited land area. Fourthly, suburban development in Basseterre and Charlestown has resulted in a dramatic shrinkage of overall agricultural lands.

### **Agricultural productivity**

Food security is a major concern for SKN, which are very small islands with limited quantities of agriculturally suitable lands and large expanding populations. The land resource base is therefore subjected to increasing pressure. Against this backdrop, lands for agriculture should be allocated based on the capability, suitability and ability of land to support various agricultural activities. Under-utilized tree crop cultivation is a high potential commercial venture and an environmental necessity if the rate of land degradation is to be reduced and aquifer-recharge enhanced. From an environmental management perspective, a move to large-scale farming also implies a hidden impoverishment of biodiversity and the wider ecological values on land that is to be put to such a use. The widespread clearing of land often results in disturbance and loss to floral and faunal populations.

## **Risk assessment and hazard mitigation and reduction**

For environmental risks to be reduced, development policy needs to change at the national level to address issues directly related to land management. Varied frameworks, including national visions for sustainable development, are used to plan country development agenda. A country vulnerability assessment needs to be conducted using the OECS Benchmarking Tool methodology so that the private sector, GOSKN and its citizenry will know the areas on which we need to concentrate. Emphasis on the capture and documentation of lessons learnt is essential. NEMA needs to update its disaster management policies, national response plans and hazard management plans to support the National Emergency Management Plan.

## **Illegal sand mining**

As a means of deterrence, it is necessary to educate the general public on the negative effects of illegal sand mining both at the coastal level and deep inland at the rivers around the island. The implementation of a “zero tolerance” approach to sand mining on the island of St. Kitts and the strict enforcement of the NCEPA is desirable. In respect to the ghauts, GOSKN needs to continue monitoring of ghauts so as to ensure that when a site is declared legal the mining operations are done in a sustainable manner.

## **Wetland infilling**

A methodology needs to be developed to assess the value of wetland ecosystems before all is lost. Where feasible, mangrove seedlings and other wetland plants should be collected for transplant and propagation;. Map all remaining wetlands within a comprehensive GIS database and declare a moratorium on their use for developmental purposes.

## **Land taxation**

There is a need for all streets in SKN to be named and for all houses to be issued a number. This would significantly reduce the number of mails issued by the Inland Revenue Department being returned to the institution. A mechanism needs to be put in place that allows access to land information by the Property Division of the Inland Revenue Department from the DPPE and the DLS thereby allowing efficiencies in land tax collection. GOSKN needs to investigate the extent to which taxes and/or financing incentives can be used for promoting greater use of SLM principles in development projects.

## **Conclusions**

Most of the land issues identified above are at the systemic level, that is, the overall policy and framework in which land management agencies operate and interact with each other. Several of the other land issues are at the institutional level, that is, the overall organisational performance and functioning capabilities, as well as the ability of organisations to develop and successfully implement programmes or activities to address challenges within their jurisdiction. The above critical issues should be considered as priority elements for attention in the development of any future land policy for SKN.

The following eight priority actions are critical to the preparation of any future land policy to protect the land resources of SKN:

1. Establishment of a public education and awareness programme;
2. Strengthening of planning and environmental regulation and enforcement support structures;
3. Upgrading of the respective NPDP documents on both islands;
4. Regularisation of squatter residential communities and squatter agricultural lands;
5. Preparation of minimum standards for quarrying activities;
6. Implementation of an integrated management structure to ensure the protection of the country's potable water resources;
7. Strengthening of the Land Management Unit to ensure soil conservation; and,
8. Establishment of a unified real estate registration system through the creation of a sound land registration and cadastre system.



## 1.0 INTRODUCTION

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### 1.1 GEOGRAPHY

#### 1.1.1 Location

The twin island Federation of St. Kitts and Nevis (SKN) consists of two islands located in the northern part of the Lesser Antilles chain of islands in the Eastern Caribbean. St. Kitts is located at latitude 17° 15' north and longitude 62°45' west and Nevis is located two miles (3 km) to the south-east, at 17° 10' north and longitude 62°35' west (*see Fig. 1.1*).

#### 1.1.2 Climate

The climate of SKN is classified as tropical marine. Generally, it is influenced by steady northeast trade winds and tropical oceanic cyclonic movements. The islands enjoy warm even temperatures with a mean of approximately 27.8°C (79.6°F). Only at higher elevations do temperatures drop below 17°C (60°F). Seasonal and diurnal variations in temperature are small. Rainfall is mainly orographic and increases in amount and frequency with altitude. The uplift effect of the central mountain ranges produces an annual average of 64 inches (1,625 mm). Mean annual rainfall ranges from about 40 inches in the coastal areas, to about 150 inches in the central mountain ranges. The situation at the South-east Peninsula (SEP) on St. Kitts is quite different, with mean annual precipitation varying from 39 inches on the peaks to 34 inches at Cockleshell Bay. Generally, rainfall is unevenly distributed between years and between months with a reliable wet period from August to September and driest months from January to April.

#### 1.1.3 Physical characteristics

SKN has a total land area of 269 sq. km. (104 sq. miles). The larger of the two islands, St. Kitts is 176 sq. km. (68 sq. mi.) in area. It is approximately 36.8 km (23 mi) long and is roughly oval in shape with a narrow neck of land extending like a handle from the southeastern end. Nevis has an area of 93 sq. km. (36 sq. mi), with a length of 12.3 km (7.64 mi) and a width of 9.6 km (5.96 mi) at its widest point.

The physical landscape of St. Kitts is characterised by three volcanic centres: 1) the central northwest range, dominated by Mt. Liamuiga, which rises with a pronounced crater to 1,156 meters (3,792 ft). It is the Federation's highest peak; 2) the middle range, which consists of a number of irregular related peaks dominated by Verchild's mountain at a height of 975 meters (3,200 ft). The slopes in this range are steeper and shorter towards the leeward coast; and 3) the southeast range, which consists of a number of irregular peaks, with the highest being 900 meters (2,953 feet) above mean sea level. Like the middle range, the slopes here are steeper and shorter on the leeward side (*see Fig. 1.2*). Most flat or moderately sloped land occurs near the coast, and as a result, most urban and agricultural developments have occurred there. The island's coastline largely consists of cliffs, some 15 – 30 meters (50 to 100 feet) high. Beaches at the foot of these cliffs are narrow and the sand is coarse and black, with many pebbles and boulders. Exceptions are in the northwest, where the cliffs are lower and some beaches have yellow sand and are

wider. From Conaree, on to the southeast of the island, there are long stretches of fine yellow sand beaches.

**Fig. 1.1: Map of Caribbean showing location of St. Kitts and Nevis**



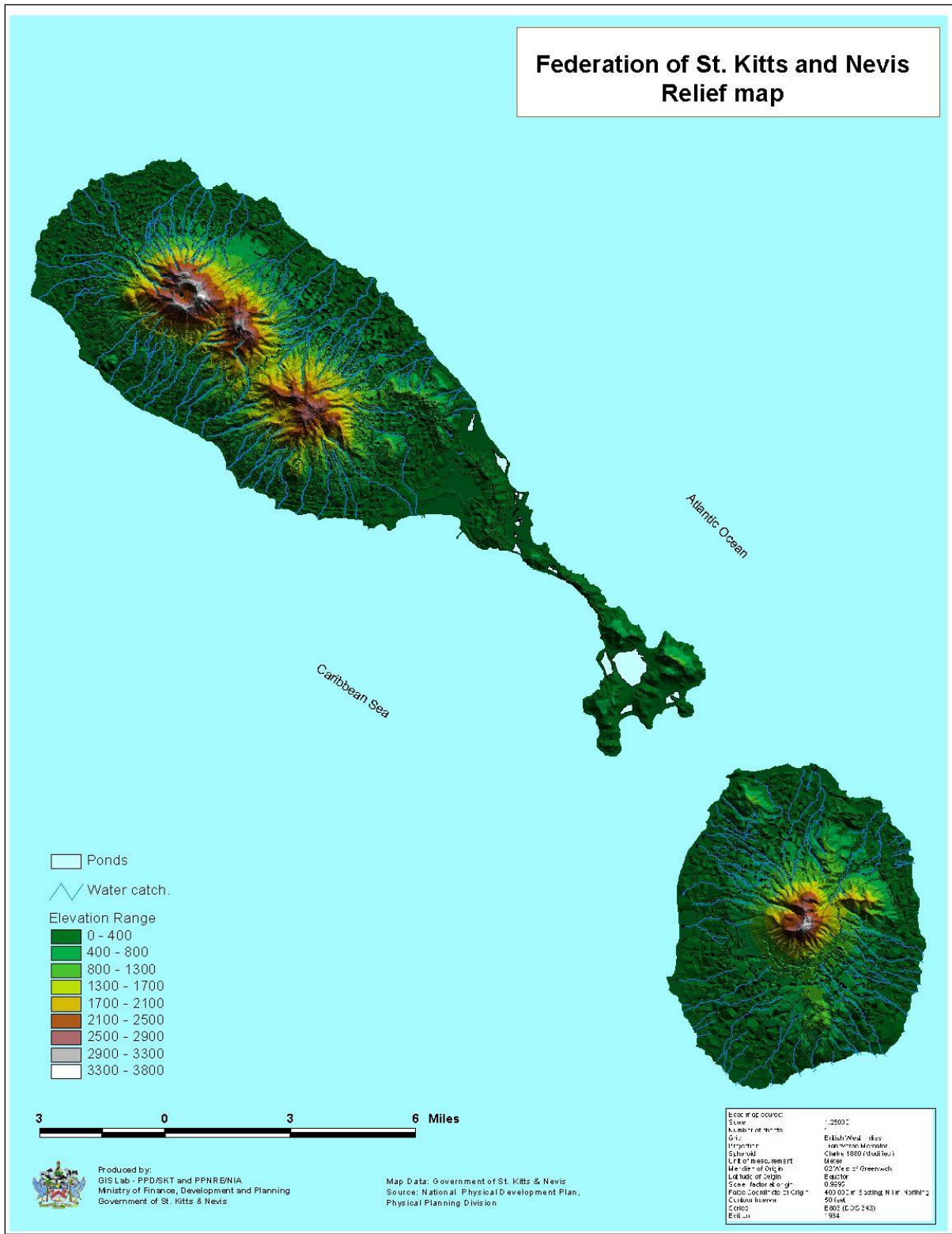
Source: *First St. Kitts and Nevis Digital Data Atlas (2002)*

Topographically, Nevis is approximately circular and dominated by the central Nevis Peak, 985 m (3,232 ft.) high. Windy Hill (309m) and Saddle Hill (381m) at the head and tail of the island, respectively, align with Nevis Peak to form a north-northwest/south-south-east trending spine comparable to the more pronounced spine of St. Kitts. To the east, the spine is thickened by the bulge of Butlers Mountain (478m). Slopes vary from almost zero near the sea, to over 40 percent in the vicinity of Saddle Hill, Butlers Mountain, Nevis Peak and Windy Hill.

#### **1.1.4 Forest resources of St. Kitts and Nevis**

While some Caribbean countries such as Dominica have undisturbed and extensive forests, the present vegetation of SKN provides evidence of great disturbance by human activity. In the lowland areas, intensive land use has removed all vestiges of the natural vegetation. Although the mountain peaks are still covered by forest, they do not have virgin forest characteristics. Lower slopes are covered by secondary growth on abandoned farms. The resident vegetation comprises about 243 species of trees (*Beard, 1946*).

**Figure 1.2: Relief map of St. Kitts and Nevis**



## 1.2 HISTORY

SKN were originally inhabited by Carib and Arawak Amerindians in the pre-Columbus era. The Caribs called St. Christopher *Liamuiga*, meaning “fertile island” and Nevis was termed *Oualie* meaning “land of beautiful waters”. The islands were sighted and named by Christopher Columbus during his voyage of 1493. In 1623, St. Kitts was the first island colonized by the British in the western hemisphere with tobacco as its main export crop. By the mid-1620s, the Carib population had been annihilated. During the 17<sup>th</sup> century, the sugar plantation economy was established and slave laborers imported from Africa. St. Kitts became a major sugar producer for 350 years before the sugar industry was closed in 2005.

## 1.3 DEMOGRAPHY<sup>1</sup>

Demographic features of the population of SKN include the following:

- The population of St. Kitts increased at about 0.93% per annum over the period 1991 - 2001. The population of St. Kitts is projected to grow from its 2001 figure of 35,217 to a total population of 33,836 by the year 2021 (an increase of 6.3% in 15 years).
- The total number of households is increasing as average household size has been declining. The trend for smaller but more numerous households will greatly influence the demand for land and housing.
- A significant proportion of households (approximately 43.0% in 2001) in SKN are headed by women. Thus, social and housing policies need to target interventions to suit the needs of this group, and enhance their access to opportunities.
- SKN, like many islands in the Caribbean, has a very young population. In the year 2001, 29.6% of the population was under 15 years of age;
- SKN has maintained remarkable stability in the crude birth rate since the 1970's. In 1970, the crude birth rate was 25.9 live births per 1000 population, by 1980 it was 29.8 live births per 1000 population and by 2000 it had fallen to 20.47.
- The crude death rate for SKN in 1970 was 11.1 deaths per 1000 population per annum, and has declined to 7.98 in 2000 largely due to improvements in the delivery of primary health care. The infant mortality rate (per 1000) children of one year and below, decreased from 48.4 in 1970 to 19.67 in 1990 and 14.32 in 2000. In 1986, the total number of infant death was 40 and by 1995 it had decreased to 18. This change indicates an improvement in child health care on the island.

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<sup>1</sup> 2001 Population Census figures are used as the 2011 figures are unavailable

**Table 1.1: Demographic indicators, St. Kitts and Nevis (1993 - 2003)**

Characteristics	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Crude Birth Rate (per 1,000)	20.45	22.53	18.86	20.69	22.21	21.13	19.98	20.47	18.90	17.24	16.50
Crude Death Rate (per 1,000)	8.68	8.62	8.19	10.54	8.81	8.78	8.92	7.98	7.59	6.75	7.67
Rate of Natural Increase per (1,000)	10.52	11.82	9.46	8.54	11.83	11.84	10.50	11.90	9.78	8.93	8.01
Infant Mortality Rate (per 1,000)	22.38	24.20	22.58	24.01	22.86	27.75	12.73	14.32	12.45	22.43	17.62
Neonatal Mortality Rate (per 1,000)	17.67	19.80	16.31	19.21	20.57	21.97	12.70	10.74	7.47	18.47	14.91
General Fertility Rate (per 1,000 annum)	76.08	83.24	74.48	76.92	83.02	82.38	76.33	80.04	Na	Na	Na
Net Reproduction Rate (per woman)	1.09	1.20	1.13	1.20	1.30	1.20	1.18	1.20	Na	Na	Na
Total Fertility Rate (per woman)	2.27	2.53	2.22	2.41	2.61	2.60	2.46	2.54	Na	Na	Na
Gross Reproduction Rate (per woman)	1.13	1.29	1.17	1.21	1.37	1.28	1.23	1.27	Na	Na	Na
Life Expectancy at Birth (yrs)											
Male	67.86	67.41	67.87	68.23	67.67	67.19	67.96	67.58	Na	Na	Na
Female	71.14	70.35	72.96	71.61	71.10	70.53	71.81	71.65	Na	Na	Na

Source: Statistical Review (2004)

- The main feature of the distribution pattern in 2001 was the marked concentration of population in Basseterre city with 37.9% of the population of St. Kitts. Other major population centers include Sandy Point in the west (9%), Cayon in the northeast (10%), St. Peters north of Basseterre (10%), St. Pauls in the west (7%) and Old Road in the southwest.
- The gross population density of the island of St. Kitts is 202 persons/sq. km. (525 persons/sq. ml.). Population densities of the parishes are shown in *Figure 1.3*. There is a great deal of variability in the population densities of the parishes, which range from just over 99 persons/sq. km. in St. Thomas to nearly 462 in St. George, which includes the Capital, Basseterre. In addition, the parishes of St. Anne and St. Mary have considerable higher densities of 248 and 227 persons/sq. km., respectively.

### 1.3.1 Critical Issue

*Pivotal to the issue of economic growth in SKN is the improvement of services in urban and rural areas to accommodate the changing size and composition of resident population while meeting basic needs. The continued growth of the population and households will eventually lead to shortages in the housing stock*

as well as social services. Thus present and future population characteristics will have significant implications on future birth rates, the levels of internal migration, employment opportunities, the provision of services and critical facilities, the delivery of land and housing as well as infrastructural development.

**Table 1.2 Distribution of population by parish, St. Kitts (1991 and 2001)**

Parish	Population (1991)	Population (2001)	No. of households (1991)	No. of households (2001)
St. George	12,605	13,251	3,922	4,624
St. Anne	3,077	3,167	904	1,057
St. Peters	2,656	3,541	746	1,171
St. Mary	3,249	3,423	876	1,100
St. Paul	2,130	2,453	547	713
St. John	2,936	3,248	880	1,097
Trinity	1,250	1,679	366	586
Christ Church	1,664	2,061	461	707
St. Thomas	2,257	2,395	668	793
<b>TOTAL</b>	<b>31,824</b>	<b>35,217</b>	<b>9,370</b>	<b>11,848</b>

Source: Statistical Review (2004)

## 1.4 ECONOMY

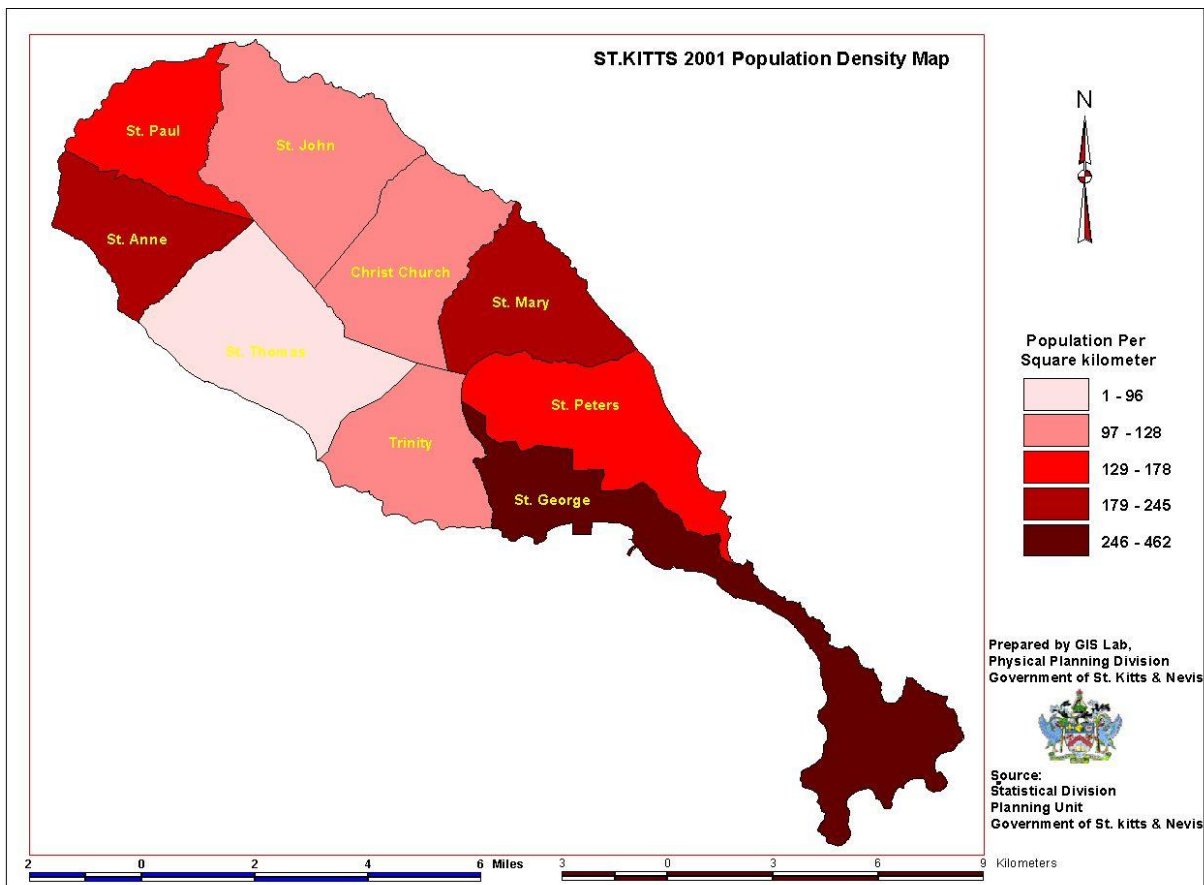
Traditionally, the SKN economy was dominated by sugar production, but it has been undergoing a process of gradual transformation into a more diversified modern economy in which the other key sectors are tourism, financial services, construction and manufacturing.

In 2013, preliminary estimates provided by the *Eastern Caribbean Central Bank* (ECCB), the *International Monetary Fund* (IMF) and the MSD's Department of Statistics indicated that the SKN economy contracted by -0.91% in 2012 compared with -4.22% in 2009, 0.05% in 2010 and -1.85% in 2011. This was largely attributable to the ravages of the global financial and economic crisis. Positive sectoral growth was recorded in manufacturing (7.95%), tourism (0.46%), communications (2.2%) and financial institutions (3.14%). Important sectors, such as construction (-6.79%), agriculture (-13.4%) and transport (-5.92%), exhibited negative growth during 2012.

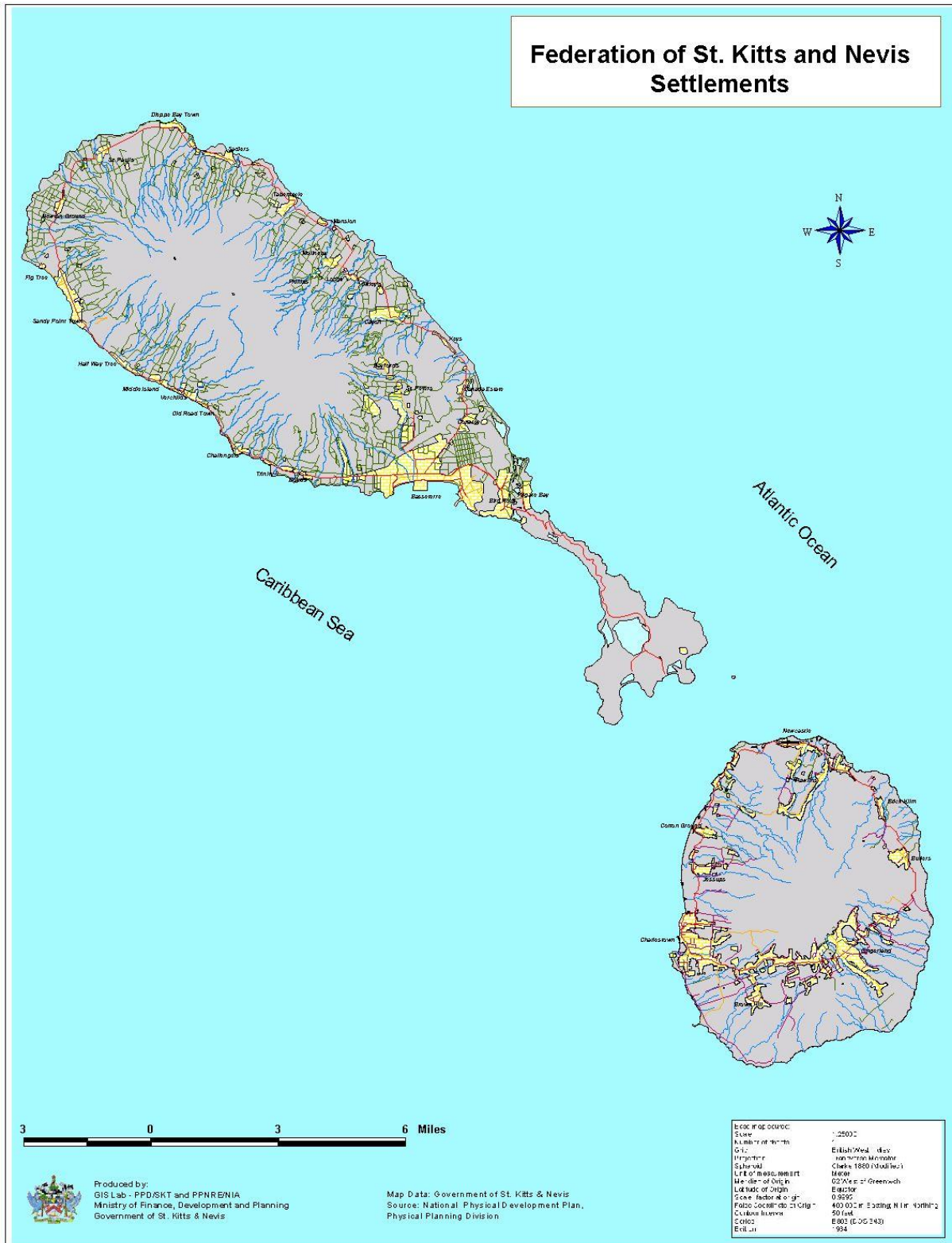
Real GDP growth is expected to recover to 1.8% in 2013, as it is predicted that *foreign direct investment* (FDI) will gain momentum. It is projected that the additional growth impetus will originate from several sectors: construction, retail and tourism (on the basis of the momentum following the relatively strong outturn in 2012). Eighty-five (85) rooms at a boutique cottage hotel and an 18-hole golf course is nearing completion at the Kittitian Hill project. Additionally,

the Kittitian Hill's Terrace Complex which includes a lobby, lounge, bar, all day dining and fitness centre, and main swimming pool is expected to open for the 2013 – 2014 tourist season under the management of Sedona Resorts. The Christophe Harbour Development also continues to make progress on the construction of the mega-yacht marina, the 'Harbour Side' homes and 'Windswept' villas. At the Silver Reef Resort Development seventy-two (72) apartments have been completed and two additional buildings are to be constructed as part of the Phase 3 activities of this project. Other development projects include the Koi Resort and Residences, the US \$10 million 86-room Imperial Bay Beach and Golf Residences in Half Moon Bay, the ultra-luxury five-star 200 room Parks Hyatt Hotel on the South-east Peninsula, the EC \$84 million expansion to Ross University and the US \$115 million 258-room Pelican Bay condominium and hotel project in Potato Bay. Real GDP growth is envisaged to reach 4% by 2016.

**Fig. 1.3: Population density map, St. Kitts**

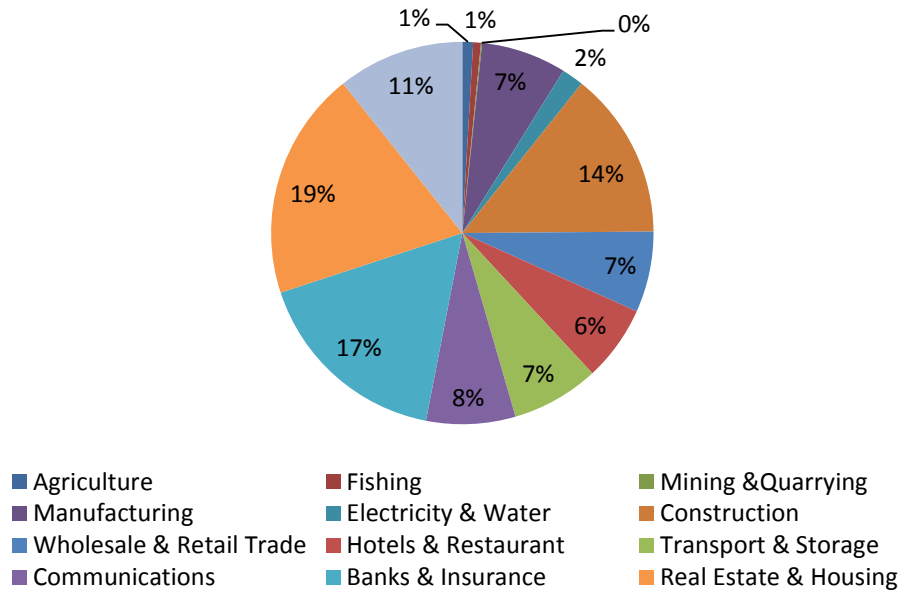


**Figure 1.4: Map showing the location of settlements on St. Kitts and Nevis**





**Fig. 1.5: GDP by Economic Activity at Basic Price  
In Constant (2006) Prices (E.C. \$ Million)**



Clearly, SKN needs further economic diversification in order to lessen the economic vulnerability represented by the high dependence on tourism and given the challenges imposed by developments in the regional and international economies, especially the realities of globalization, trade liberalization and its obligations under the WTO, the dismantling of trade preferences, the CSME, increasing fuel prices and the fear of possible increase in global inflation that could exert upward pressure on interest rates. The economy needs to generate the financial resources for servicing the national debt and to redress the foreign exchange imbalance also partly due to the importation of fuel, food and other goods and services.

#### **1.4.1 Critical Issues**

1. SKN is presently undergoing a transition from a way of life that evolved over four centuries of sugar cane cultivation to a political-economy that is influenced by investments in the development of tourism, the vagaries of international trade and an uncertain environmental future. With competing demands for land, its sustainable management is vital for the economic and social well-being of the country.
2. The development of low impact tourism should be encouraged to minimize the environmental and socio-cultural impact of tourism. In addition, to take advantage of the unique qualities of the island,

## **1.5 POVERTY REDUCTION**

The Poverty Assessment Report (2001) reported that 30.5%, or a little less than 1 in 3 individuals in St. Kitts are poor. This suggests that their monthly expenditure is less than the cost of meeting their minimal food and other basic requirements – the poverty line was estimated at EC \$280.05 (US\$103.72) per month for an individual. Eleven (11) percent, or slightly more than 1 in 10 individuals in the country, were found to be extremely poor or indigent – the indigence line was EC \$177.94 (US\$65.90) per month. More than two-thirds of the poor (67.8%) are under 25 years of age. Males were 44 percent of the poor and women 56 percent. Twenty-nine percent of males are poor and 32 percent of women are poor.

Similarly in Nevis, 32% or a little less than 1 in 3 individuals are poor. This suggests that their monthly expenditure is less than the cost of meeting minimal food and other basic requirements or less than E.C. \$328.40 (US\$121.63). Seventeen percent of all individual are extremely poor or indigent, and do not have the E.C. \$204.40 (US\$75.70) necessary to meet their dietary needs. Fifty-eight percent of the poor are under the age of 25. Males make up 37 percent of the poor and females 63 percent. Twenty-six percent of males are poor and females account for 36 percent of the poor.

GOSKN's policy position is that vulnerable groups in the society must not be forgotten during the economic adjustment process following the closure of the sugar industry. It will be necessary to cushion the effects of adjustment on the most adversely affected groups. Special safety net provisions have been made for the poor and for selected former workers of the sugar industry. The extent to which these will be needed throughout the adjustment period will depend on how well they are combined with programmes to retrain and resettle displaced workers and the unemployed into meaningful jobs that are needed in the economy.

### ***1.5.1 Critical Issues***

1. *GOSKN has to continue the sustainable utilization of SKN's Crown land resources as part of its programme for poverty eradication. The goal of this approach must be:*
  - *To create an enabling environment for equitable access to land and security of tenure;*
  - *To increase land productivity through optimal and sustainable use;*
  - *To promote an integrated approach to planning and management of land resources; and,*
  - *To enhance the role of the land sector in poverty eradication.*
2. *GOSKN needs to analyse the linkages between poverty alleviation, economic development and SLM by: (a) examining how poverty causes or contributes to land degradation; (b) studying how poverty reduction can reduce people's vulnerability to hazards; (c) analysing how disasters cause or exacerbate poverty; and, (d) encouraging greater private sector involvement in poverty eradication programmes.*

## 1.6 RATIO OF STATE LAND TO PRIVATE LAND

Approximately 80% of the St. Kitts land resource is owned by GOSKN and about 7,000 acres are privately owned (*see Table 1.3*). It is estimated that up to 90% of the land in Nevis is held by private interests. The South-east Peninsula accounts for 50% of the privately owned lands on the island of St. Kitts. The existing land ownership pattern is a direct result of the compulsory acquisition of the sugar estates in 1975 by the Government. In some cases, freehold interest has been granted by the Crown with respect to residential lands on former sugar estates while a lease hold interest has been given for some agricultural lands. The Village Lands Freehold Purchase Act of 1996 dealt explicitly with land ownership and opened up the possibilities for qualified tenants of lots of certain stipulated village lands the right to freehold ownership on the payment of legal fees, cost of transfer, stamp duty and land surveyor's fees.

### 1.6.1 Critical Issue

*The 2005 closure of the sugar industry has provided an opportunity for the divestment of former sugar lands into non-sugar agriculture, resort development, residential expansion and other land use options.*

## 1.7 LAND USE PATTERNS AND IMPACT ON EMPLOYMENT

In St. Kitts, the major urban areas are Basseterre – the capital city – Sandy Point and Cayon. The drift from rural to urban areas over the past two decades has led to Basseterre becoming overcrowded. Sandy Point and Cayon are also experiencing expansion related problems. The city centre is, for the most part, well planned, being laid out on a grid-iron pattern. Near to the city centre, there are some other areas of well-planned low-to medium-density suburbs (Shadwell, Wades Garden, Ponds Pasture and Fortlands). Interspersed amongst these are a few areas of high density residential developments.

In Nevis, much of the population is located around the coastal capital, Charlestown. Most villages follow ribbon-style development along the island main road. There is more evidence of dispersed settlement patterns than in St. Kitts, primarily due to the construction of large homes on large land plots mostly by the expatriate community. Recently, there is an increasing change in land ownership to foreign nationals for upmarket residences on large plots of land.

In SKN, as in other OECS territories, land is central to the economy and the overall governance framework in which land issues are played out and resolved are important. In SKN, there is no official articulated “land policy” at the Federal level. However, both islands have enacted “planning” legislation which speaks to, and institutional arrangements have been made to assure the administration and management of lands. Under these new “planning” legislations *National Physical Development Plans* have been prepared and adopted – St. Kitts in 2006 and Nevis in 2009.

In St. Kitts, at the closure of the sugar industry in 2005, there were some 9,300 acres under sugar cane out of about 12,472 acres of land (*see Table 1.3*) in agricultural production (or 28% of the total area of the island). Forests and scrub accounted for approximately 21,756 acres (50%) of

the total land area. Scrub vegetation is the dominant landscape feature on the 3,600-acre South-east Peninsula. The upper slopes above the sugar lands have mixed uses including grazing, food and tree crops and abandoned (unused) cane farms. The other significant land use category is the built-up area (comprising various forms of residential, commercial, industrial, tourism and institutional use) that covers about 4,150 acres (10%) of the island's total land. The remaining 2,482 acres (5.4%) constitute derelict land, rocks, salt ponds, national park, and beaches (*see Fig. 1.6 and Table 1.4*).

**Table 1.3: Status of land ownership, St. Kitts (1994)**

<b>1. Land Ownership</b>	<b>Acres</b>
Government - owned Lands (including Crown Lands)	31,789
Privately-owned Lands	7,035
CHA-owned Lands: (this is, in fact, also Government-owned Lands)	493
<b>Total =</b>	<b>39,317</b>
<b>2. Semi-details of Land Ownership</b>	
Privately-owned South-east Peninsula (SEP)	3,672
Parastatal - Frigate Bay Development Corporation (FBDC)	836
Parastatal - Central Housing & Planning Authority (CHA)	493
Other Privately-owned Lands	3,363
SSMC including 10,374 acres as registered cane-fields	11,528
Other Government-owned Lands	19,425
<b>Total =</b>	<b>39,317</b>

Source: Granger, M. (1995)

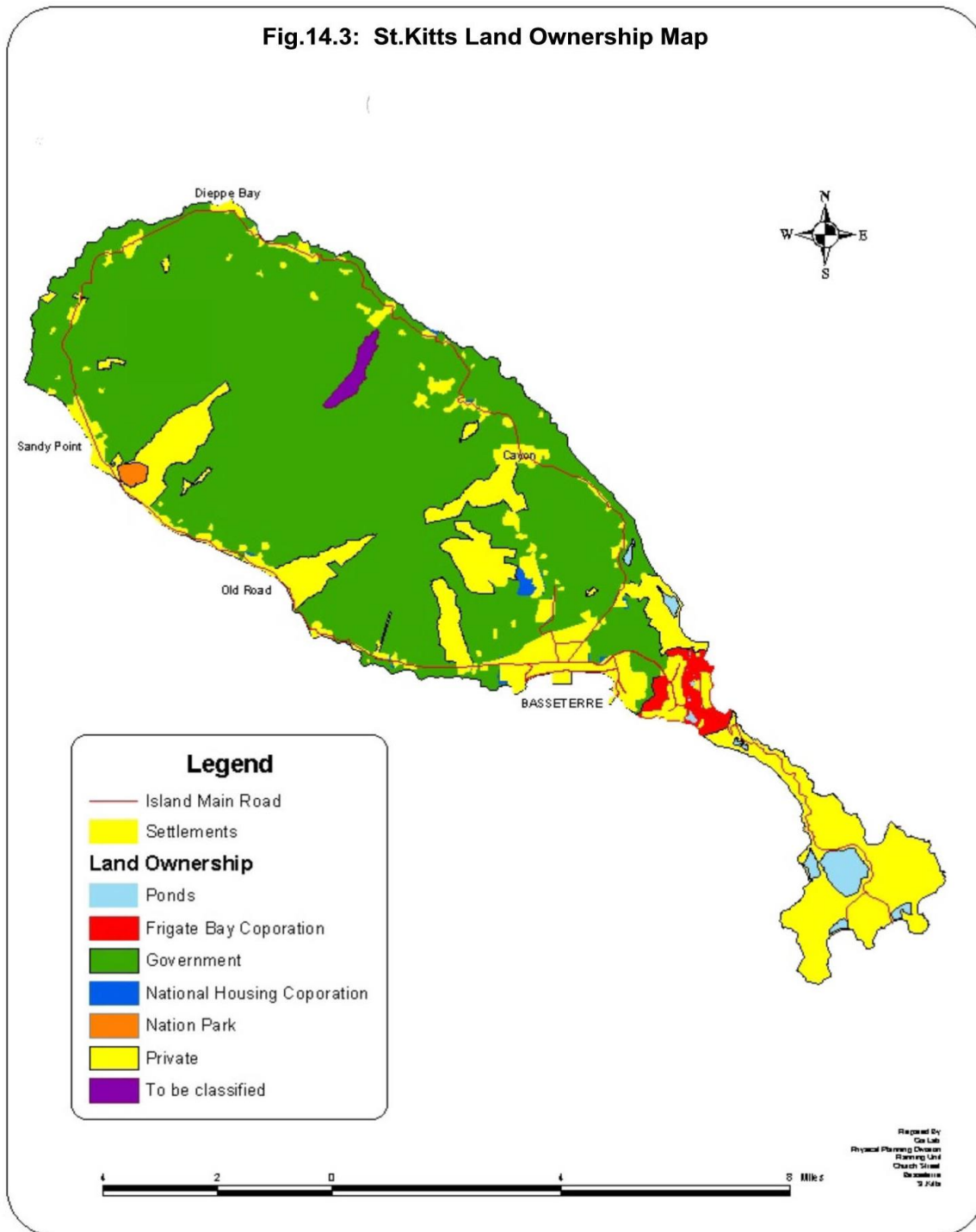
The existing land use patterns have had some impact on employment in SKN. With the closure of the sugar industry in 2009, GOSKN is faced with the challenges of developing an adaptable labour force with new skills. The new thrust in economic development requires a sound programme of education and training geared to produce the skills required. Raising the level of skills and education of these former sugar workers would contribute to raising productivity in the country.

**Table 1.4: Land use by sector in St. Kitts (acres)**

TYPE OF USE	ST. KITTS
Permanent Crops	10,287
Temporary Crops	865
Cultivated Pastures	91
Naturally Grown Grasslands	813
Fallow/Resting	252
Wood/Forest	24
Other unused Lands	140
<b>TOTAL</b>	<b>12,472</b>

Source: "Assistance in the Development of Land Use, Planning and Agricultural Production Zoning in the OECS States" by Anthony Johnson, FAO September 15<sup>th</sup> 2001, Table 1.

Fig. 1.6: Land ownership map, St. Kitts



Source: NPDP, 2006

**Table 1.5: General land use, St. Kitts (1996)**

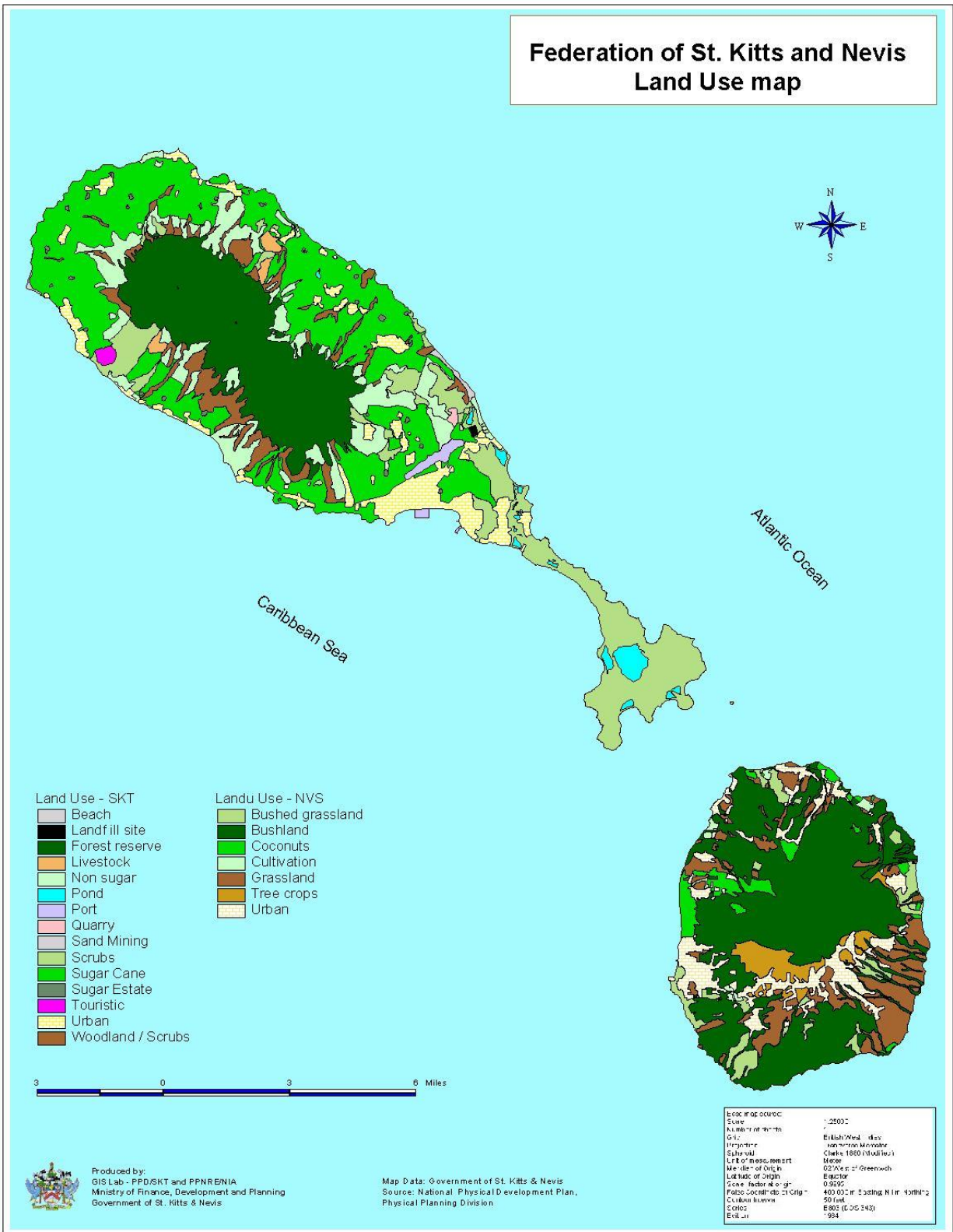
CATEGORY	ACRES	PERCENTAGE
Forest (< 1,000' contour)	10,058	23.1
Forest/wood land/scrub (<1,000' contour)	7,120	16.4
Scrub	4,578	10.5
Sugar Cane	10,210	23.5
Non-sugar farms	4,922	11.3
Built-up areas	4,150	9.5
National Park	133	0.3
Other land uses (rock, sand, water bodies, quarry)	2,349	5.4
<b>TOTAL</b>	<b>43,520</b>	<b>100.0</b>

*Source: NPDP 2006*

### **1.7.1 Critical Issue**

*The closure of the sugar industry poses a serious challenge with respect to future land management and land use. Increasing non-sugar cane production remains a desirable goal. However, the main constraints relate to the distribution of agricultural lands and the land tenure system. The immediate issue raised is how the land should be managed to retain its productivity and facilitate its subsequent use with minimal environmental damage. Although there is some understanding of the likely land use changes expected following sugar, there is a need for more robust information, to make informed decisions on the potential land management options.*

**Fig. 1.7: Land use map of St. Kitts and Nevis**



## **2.0 STATUS OF LAND POLICY AND LEGAL FRAMEWORK**

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GOSKN has established laws, regulations, guidelines and standards that govern the sustainable use and exploitation of its natural resources. These laws and regulations are implemented by Government Departments with the support of funding agencies, NGOs and local communities through monitoring, management or active participation.

### **2.1 NATIONAL POLICY FRAMEWORKS**

The following are some of the domestic policies related to sustainable development of the terrestrial and coastal resources of SKN:

#### **2.1.1 National Environmental Action Plan (1994)**

The 1994 *National Environmental Action Plan* (NEAP) was prepared by GOSKN as a result of its participation in UNCED. The NEAP identifies the major environmental problems of the country and recommends appropriate policies and actions to address these problems. Over the years, GOSKN has used the recommendations and findings in the overall planning process to ensure that economic development does not proceed at the expense of the environment in an attempt to assure a balance between economic development and environmental conservation. Also, the NEAP was intended to ensure that the country's involvement in regional and international projects related to sustainable development, assisted with the enhancement of environmental legislation, the review of development policies and the upgrade of existing institutions to address environmental concerns.

#### **2.1.2 National Physical Development Plan (2006)**

To ensure the sustainability of the island's resources through the regulation of land-use, the *Development Control and Planning Board* (DCPB) developed a 15-year *National Physical Development Plan* (NPDP) in 2006. The plan include policies and guidelines for sustainable development and seeks to guide location of housing, industry, parks/conservation areas, hotel and tourism development with regards to land suitability and other physical and environmental attributes. The NPDP will be used to direct growth on the island when considering future land use, re-zonings, natural and heritage conservation, the provision of public infrastructure and aiding decisions for private sector investment. The NPDP promulgates policies intended to reduce the negative environmental, economic and social impacts of development projects.

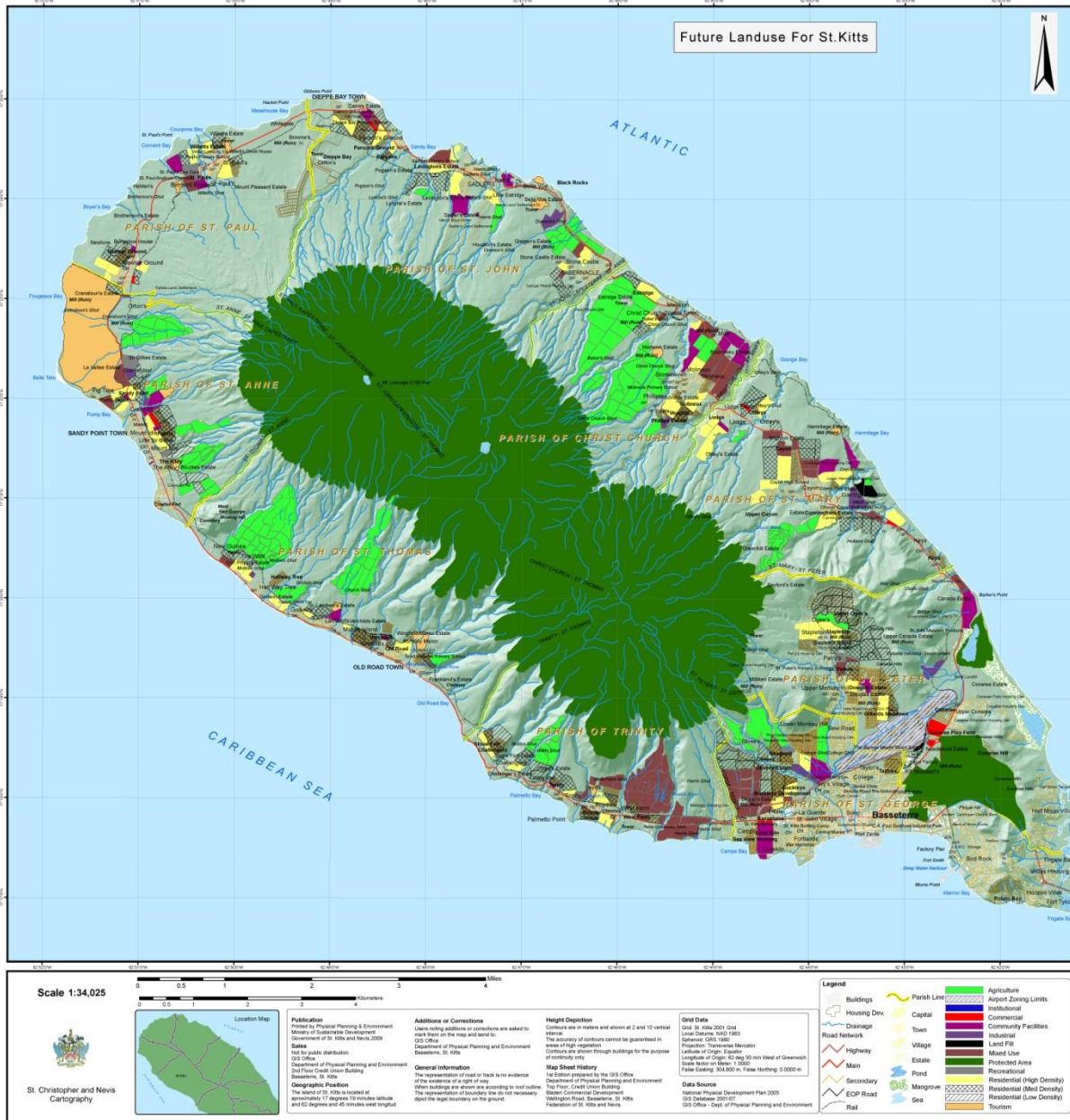
#### **2.1.3 National Environmental Management Strategy (NEMS)**

The *National Environmental Management Strategy* (NEMS) defines the specific directions and mechanisms for more effective environmental policy implementation and includes specific actions necessary and results expected to realize the policy objectives of the government. It articulates the key strategies and priority actions for environmental management in the context of sustainable development. With specific reference to resource management, the NEMS proposes



measures to restore environmentally degraded coastal and marine areas and to ensure the sustainable use of natural resources in a manner which recognizes the intricate linkages between ecological systems in SKN. Key activities under the NEMS include: (a) formulation of criteria for and identification of environmentally degraded areas; and, (b) identification of critical areas for the conservation of terrestrial and marine biodiversity.

**Fig. 2.1: Future Land Use Management Plan, St. Kitts (2006)**



#### **2.1.4 The National Biodiversity Strategy and Action Plan (NABSAP)**

The *National Biodiversity Strategy and Action Plan* (NABSAP) was completed and ratified by Government in 2006. In accordance with the *United Nations Convention on Biological Diversity* (UNCBO), the NABSAP identifies the factors contributing to land and marine degradation and promotes measures required to protect and conserve natural ecosystems as well as mitigate the effects of development.

#### **2.1.5 The National Action Programme (NAP) for Combating Desertification and Land Degradation in SKN**

The *National Action Programme for Combating Desertification and Land Degradation in St. Kitts and Nevis* (NAP) is a comprehensive and integrated framework for addressing the physical, biological and socio-economic aspects of the process of land degradation. Accordingly, the NAP integrates strategies for poverty reduction, sustainable land management, institutional collaboration and cooperation, and the creative sourcing of funds for combating land degradation at the national and community levels.

#### **2.1.6 Medium Term Economic Strategy Paper (MTESP)**

The Medium Term Economic Strategy (MTESP) sets out the sectoral priority policies of the GOSKN. While traditionally the MTESP has focused primarily on the economic sectors, there is now increased recognition of the need to include environmental considerations. The 2005-2007 MTESP identified the following objectives as the Government's priority for the environment over the medium term:

- To reduce current and potential environmental degradation;
- To reduce the adverse environmental effects of current and future economic development;
- To educate and raise awareness on current and potential environmental issues; and,
- To raise the profiles of the available alternative sources of energy.

#### **2.1.7 National Adaptation Strategy (NAS)**

The GOSKN developed the *National Adaptation Strategy* (NAS) for the period 2006–2013 in response to the closure of the sugar industry in 2005. The NAS outlines the policy framework for reconfiguring the economy of SKN around a more diversified economic base and to implement a comprehensive and integrated adjustment programme. In large measure, the NAS is supported by the *European Commission* (EC) within the framework of its 2007-2013 support strategy to promote fiscal sustainability, private sector development, market liberalization, skills development, poverty reduction and institutional strengthening. Several proposed initiatives that are relevant to SLM are included the NAS. These include: (a) land use planning and management; (b) watershed management; and, (c) protected areas management

### **2.1.8 National Capacity Self Assessment (NCSA)**

The *National Capacity Self Assessment* (NCSA) project was funded by the *Global Environmental Facility* (GEF), implemented by the *United Nations Development Programme* (UNDP), and executed by the DPPE in the MSD. The purpose of the NCSA was to identify and analyze priorities and needs at the country level for capacity development related to the implementation of the UNCBD, UNFCCC, and the UNCCD.

### **2.1.9 St. Kitts Agricultural Strategy Plan (ASP)**

The 2005-2009 *Agricultural Strategic Plan* (ASP) was developed in response to the new *European Union* (EU) sugar regime and closure of the sugar industry. The ASP aims to expand significantly the development of non-sugar agriculture and increase its contribution to national development. A market-led approach has been developed toward influencing crop and livestock production. Specific objectives include developing farmer groups, strengthening the programme of services to farmers, and maximizing irrigation applications in production. The plan has sought to place farmers at the forefront of this “new agricultural revolution”. Special emphasis is placed on the commercialization of farmers in an attempt to transform the sector from a largely subsistence base into one that is wholly competitive.

### **2.1.10 Natural Hazard Management and Mitigation Policy (NHMMP)**

A *Natural Hazard Management and Mitigation Policy* (NHMMP) was developed for SKN in 2001. The purpose of this policy was to provide proactive approaches for reducing vulnerability to environmental hazards by enhancing capacity for mitigation and engendering a culture of adopting mitigation measures. Specifically, the policy seeks to:

- Foster an environment supportive of resilient building and land use planning practices that were aligned with the principles of sustainable development;
- Encourage effective coordination among key stakeholders involved in national development; and,
- Increase community consciousness and commitment to carry out disaster mitigation and environmental risk reduction practices.

## **2.2 NIA POLICY FRAMEWORKS**

The following are some of the domestic policies related to sustainable development of the terrestrial and coastal resources of the island of Nevis:

### **2.2.1 Integrated Strategic Development Plan, Nevis**

An *Integrated Strategic Development Plan* (ISDP) 2001 – 2005 was prepared in Nevis to improve the quality of life and achieve sustainable development. The ISDP is concerned with establishing an integrated and coherent programme for proper management of development over

a five year period. The ISDP has goals that are consistent with those in Agenda 21. The goals are:

- Effective governance and integrated development planning;
- Sustainable human development;
- Poverty alleviation and empowerment of special groups;
- Sustainable economic development;
- Private sector participation in the development process;
- Environment and development;
- Disaster mitigation and preparedness;
- Infrastructure facilities to support development activities; and,
- Management of the external environment.

### **2.2.2 Nevis Physical Development Plan (NEPPD)**

To ensure the sustainability of the island's resources through the regulation of land-use, the DPPRNE has developed a 15-year *Nevis Physical Development Plan* (NEPPD). The plan includes policies and guidelines for sustainable development and seeks to guide location of housing, industry, parks/conservation areas, hotel and tourism development with regards to land suitability and other physical and environmental attributes. The NEPPD will be used to direct growth on the island when considering future land use, re-zonings, natural and heritage conservation, the provision of public infrastructure and aiding decisions for private sector investment. The NEPPD promulgates policies intended to reduce the negative environmental, economic and social impacts of development projects.

## **2.3 LEGISLATIVE FRAMEWORK**

### **2.3.1 St. Kitts**

In St. Kitts and Nevis, all plans for development have to be approved by the DCPB. The DPPE is the coordinating and regulatory body for all physical planning and environmental matters. If there is a possibility that the proposed development could have detrimental effects on the environment, the DCPB may request the preparation of an *Environmental Impact Assessment* (EIA) or *Statement* (EIS) as the situation may dictate (*see Table 3*).

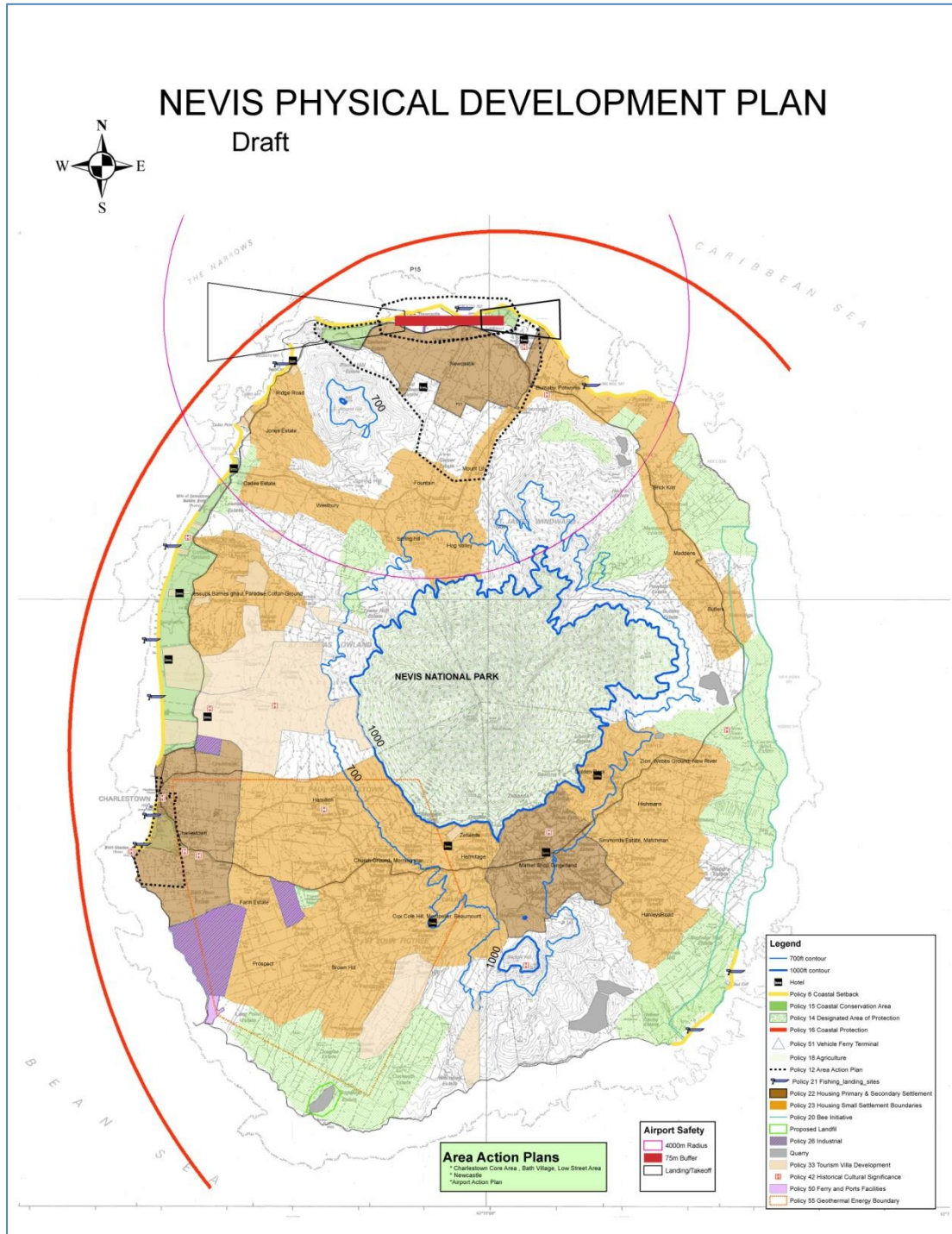
The following environmental legislation are relevant to this issues paper:

#### ***The Development Control and Planning Act (DCPA) 2000***

Under the *Development Control and Planning Act*, the DCPB is empowered to issue permits to persons undertaking any new development, construction or enterprise, anywhere on the island of St. Kitts, as well as permits for the construction or modification of any work causing the discharge of trade or sewage effluent into the environment. The DPPE monitors construction to ensure that development restrictions and requirements are adhered to. It also deals with issues such as fencing and appropriate signage around the island. The DPPE requires that any proposal

for the subdivision of land and the construction of houses thereon be accompanied by a plan of the area inclusive of, but not restricted to, the following:

**Fig. 2.2: Nevis Physical Development Plan**



- The manner in which it is intended that the area shall be laid out, in particular, the land intended to be used for the provision respectively of houses, roads and open spaces for public and commercial uses;
- the approximate area of the land;
- the approximate number and nature of the houses and other buildings to be provided;
- the average number of houses to be constructed per acre; and,
- Particulars relating to water supply drainage and sewage disposal.

### ***National Conservation and Environmental Protection Act (NCEPA) 1987***

The *National Conservation and Environmental Protection Act* (NCEPA) is a synopsis of various matters related to conservation, environmental protection and management and the preservation of historic sites. It empowers the Minister responsible for managing the environment to designate certain land or marine sites as "protected areas". Areas that may be designated as such include national parks, nature reserves, botanical gardens, marine reserves, historic sites, scenic sites, or areas of special interest. The purpose of this Act is to preserve biological diversity of flora and fauna species that may be endemic or threatened by extinction and their habitat, land and marine biological communities, areas that are important for the maintenance of life-support systems such as water and air, and basic ecological processes such as water recharge and soil regeneration. It is also intended to protect scenic sites, or sites of scientific, ecological, historic or archaeological interest.

### ***Public Health Act (1969)***

The Department of Environmental Health, in the Ministry of Health, administers the *Public Health Act* under which air, soil and water pollution control standards are established and monitored. This agency is primarily concerned with public health issues insofar as pollution is concerned. With regards to the proposed project, the *Public Health Act* will have a bearing on the construction phase of the project, specifically those activities that may generate significant levels of fugitive dust.

The Act also covers details for sewage disposal; in particular, design criteria for pumping stations, screening and grit removal facilities, treatment ponds, sludge handling and disposal, and outfalls.

### ***Solid Waste Management Corporation Act (1996)***

The Solid Waste Management Corporation Act for SKN was introduced in 1996 to provide for the management of solid waste in conformity with the best environmental practices. The Act provides the legislative framework for the storage, treatment and disposal of solid waste, so as to avoid environmental degradation. Section 28 (1a) of the Act, requires that no individual shall not deposit or knowingly cause to be deposited solid waste in or on land, beach, foreshore, marine waters or river banks.

Since the closure of the sugar industry the incidence of illegal solid waste disposal has been on the increase. While the Act makes no specific reference to SLM, it can be well appreciated that

its effective implementation can assist in realizing the objectives of the SLMP. The Solid Waste Management Corporations on St. Kitts and Nevis have oversight for the waste management. The Ministries of Health on both islands are the parent ministries of the SWMC.

### ***National Housing Corporation Act***

The GOSKN delivers its affordable housing programme through the *National Housing Corporation* (NHC). The *National Housing Corporation Act* gives the NHC the statutory authority to conduct its business. Other than the allocations to the DOA for agricultural development, the NHC housing programme is the main consumer of public lands.

In theory, the NHC is required to seek land development approval from the DCPB. However, this has not been the practice as several NHC subdivisions have been implemented without meeting the requirements for approval as prescribed by the DCPA. The National Housing Corporation Act does not address SLM.

### ***Whitegate Development Corporation Act, No. 15 of 1999***

This Act has been established to provide for the redevelopment and regeneration of the Whitegate Development Area which consists of approximately 7,000 acres. The Act sets out the operational framework for the Whitegate Development Corporation as it seeks to attract investment and development.

The objectives of the Corporation as outlined in the Act are to:

1. Attract new development that would take full advantage of the unique quality of the development area.
2. Attract sufficient independent new investment and development.
3. Create new job opportunities and businesses so as to enhance the physical, social and economic standard of the existing communities in the development area and the entire development area.
4. Enhance the value of land and the quality of life of residents of the development area.

### ***Water Courses and Water Works Ordinance (Cap 185 of 1956)***

Watershed management is shared between several agencies on SKN. These include the:

- Water Services Department;
- Department of Physical Planning and Environment;
- Department of Physical Planning Natural Resources and the Environment; and
- Department of Agriculture.

The principal water legislation is the *Watercourses and Waterworks Ordinance* (Cap 185 of 1956) and the *Watercourses and Waterworks Regulations*. This Ordinance establishes legislative and regulatory powers for the WSD on both islands to, among other things, regulate the supply of water to consumers, prevent waste, misuse and pollution of water and control sanitation of

watersheds. Substantively, it addresses issues of water supply and protection of watercourses. “Watercourses” is defined to mean any pond, spring, stream or part thereof vested in the Crown or declared subject to the Ordinance.

Under this legislation it is an offence to put any rubbish or offensive solid or liquid matter into a watercourse, or to pollute water flowing into or out of a watercourse. Regulations provide details on water supply, water meters and the control of standpipes.

Public health inspectors also discharge responsibilities in respect of maintaining drinking water quality. Under the Public Health Act the Minister having responsibility for health 5 is authorized to make regulations for the protection of water from contamination and pollution including the:

- inspection and approval of sources of supply, and the conditions, if any, on which such approval is granted;
- testing and analysis of water;
- construction, alteration, maintenance and purification of water supplies and water distribution systems;
- supervision and control of any river, spring or part thereof contributing to a public water supply;
- regulation of persons bathing, washing clothes, cleaning vehicles, utensils or animals at or in any river, stream or spring or part thereof contributing to a public water supply; and
- prescribing the limit or purpose for which water may be used and distributed.

### ***Public Health Act No. 22 of 1969***

Despite being chronically outdated, the Public Health Act remains the main legislative instrument for addressing environmental health issues in SKN. Initially, the Act did not address important issues of wastewater management including the discharge of untreated sewage, waste reduction, collection, storage transport, recycling or any of the present day concepts regarding waste management. As such, the scope of the legislative framework for environmental health revolved mainly around the maintenance of general sanitary conditions and cleanliness. However, the introduction of the Solid Waste Management Corporation Act in 1996 provided a legal framework to undertake waste management.

Public health and environmental protection is a multi-faceted issue. There is a need to further revise the Public Health Act and/or consolidate the environmental management provisions of other legislations toward establishing more appropriate institutional arrangements to support, coordinate and direct relevant environmental health activities.

### ***Agricultural Development Act 1973***

The Agricultural Development Act makes provisions for the more efficient use and economic development of agricultural lands. It sought to promote the development of income and employment opportunities for farmers, particularly in the rural areas of SKN. The Act provided for the establishment and incorporation of an Agricultural Land Authority to manage the



provisions of the Act and to inform agricultural development policies. The Departments of Agriculture on St. Kitts and Nevis manage the administration of the Act.

Under the Act, the DOA is required formulate general plans for utilization of agricultural lands and establish an adequate mode of use on the basis of the natural environments of agricultural lands, social and economical factors, technical conditions and farmers' vulnerability.

### ***St. Kitts-Nevis Building Regulations, Code and Guidelines (No.7 of 2000)***

The SKN Building Regulations, Code and Guidelines (commonly referred to as the Building Code) provide the regulatory framework for the management of construction and built developments. Its scope applies to the construction of new buildings and structures, alterations, renovations, remodeling, demolitions, removal, relocation, maintenance and occupancy of existing buildings.

The DCPA is the parent legislation that guides the implementation of the Code. In a general way various provisions of the Code are tied with those of other legislative, regulatory and policy instruments such as NCEPA, the Forestry Ordinance, the Solid Waste Management Corporation Act and the Public Health Act.

### **2.3.2 Nevis**

In Nevis, all plans for development have to be approved by the *Development Control Authority* (DCA). This authority consults with other relevant organizations before a final decision is taken. These include the DPPNRE and the DOA, DOF, DOH and PWD. The DPPNRE is the coordinating and regulatory body for all physical planning and environmental matters. As in St. Kitts, the DCA requests the preparation of EIA reports when necessary. A multi-sectoral *Environmental Review Committee* (ERC) also assists in the review of EIA documents. Legislative instruments in Nevis of relevance to this paper include:

#### ***The Physical Planning and Development Control Ordinance (2005)***

Under the *Nevis Physical Planning and Development Control Ordinance* (PPDCO) of 2005, the DPPNRE is empowered to issue permits to persons undertaking any new development, construction or enterprise, anywhere on the island of Nevis, as well as permits for the construction or modification of any work causing the discharge of trade or sewage effluent into the environment. The DPPNRE monitors construction to ensure that their development restrictions and requirements are adhered to and deals with issues such as fencing and appropriate signage around the island.

#### ***Nevis Housing and Land Development Corporation Ordinance 1984***

The Nevis Housing and Land Development Corporation Ordinance provides the legislative and operational framework for the *Nevis Housing and Land Development Corporation* (NHLDC). The purpose of the Ordinance is to provide for the systematic development and alienation of land by the Corporation in respect of residential development, agriculture, industry, and tourism. As

with the NHC Act on St. Kitts, the primary purpose of the NHLDC is to provide affordable housing with related infrastructure on Nevis.

### ***Draft Quarry Management Bill***

Unregulated quarrying is of greater concern on the island of Nevis than it is on St. Kitts. Mining and quarrying operations on St. Kitts are managed by Government through the PWD. Additionally, where land is excavated for development purposes, the requisite permit is granted by the DCPB. On Nevis there are several quarry sites on lands that are privately owned. The absence of mining regulations and poor operations management result in significant soil loss that has contributed to land degradation. If enacted, the Quarry Management Act will provide the legislative foundation for the development of regulations to govern quarry operations on Nevis, including environmental management and performance standards.

#### **2.3.3 Critical Issues**

1. *The limited exposure of the legal personnel, including magistrates, to environmental issues and impacts, minimizes the effectiveness of the enforcement system. Outdated legislation and poor enforcement, including planning guidelines and zoning regulations are major weaknesses.*
2. *The sharing of information among agencies and coordination of efforts to enforce legislation is inadequate.*
3. *An evaluation of the EIA system in SKN reveals that there is a need for improvement in the following four basic subject areas: (a) transparency and stakeholder involvement; (b) triggering actions; (c) content; and, (d) monitoring and enforcement.*

## **2.4 DEVELOPMENT CONTROL AND PLANNING STANDARDS**

### **2.4.1 St. Kitts**

The Development Standards necessary for development control and planning on the island of St. Kitts can be found in the *St. Kitts and Nevis Building Code*, the *St. Kitts and Nevis Building Guidelines* and the *St. Kitts and Nevis Land Use Code*.

#### ***Draft Land Use Code (2008)***

The *St. Kitts and Nevis Land Use Code* (LUC) was developed with the view of strengthening the development and planning policies and proposals of the NPDP. The LUC is a comprehensive compilation of regulations that control land use management and administration in SKN. As such, it is a companion document to the revised *St. Kitts and Nevis Building Code* and the *St. Kitts and Nevis Building Guidelines* and further strengthens the goals and objectives of the *Development Control and Planning Act (2000)*. The Code therefore defines zoning districts as well as their uses and their intensities. In addition, it establishes processes for subdivisions, site plan review and site development standards. Procedures and standards are created for EIA reports as well as other land uses including roads and parking, infrastructure, signs and advertisements, amenity orders and historic preservation.

### **2.4.2 Nevis**

The Development Standards necessary for development control and planning on the island of Nevis can be found in the Nevis Building Code – Coastal and Marine Development document prepared by Smith-Warner International, a Jamaica-based environmental and engineering consulting firm. The Nevis Building Code recommends a minimum 50-year return period hurricane event as the design criteria requirement for coastal structures such as seawalls, revetments, and breakwaters. Also, a minimum 50 year return period hurricane event is required to determine inundation elevations and minimum floor elevations for building infrastructure in the coastal zone.

**Table 2.1: Summary of legislative instruments of relevance to land management in St. Kitts**

<b>Enabling Legislation</b>	<b>Responsible Institution</b>	<b>Key legislative provisions</b>
Water Courses and Water Act (1949)	Water Department	Control water supply and management
Public Health Act (1969)	Public Health Department	Maintain environmental health control
National Conservation and Environmental Protection Act (1987)	National Conservation Commission	Control management and development of historic and natural resources
Litter Act 1989	Public Health Department	Restrict the deposit of litter in public and private places.
Solid Waste Management Act (1996)	Solid Waste Management Authority	Provisions for establishment of management authorities and orderly and safe collection and disposal of solid waste.
Fisheries Act (1984)	Department of Fisheries	Manage fisheries and marine reserves
Development Control and Planning Act (2000)	DPPE and DCPB	Provisions for the orderly and progressive development of land and for the protection of the environment and improvement of amenities.

## **2.5 REFORM INITIATIVES – CHALLENGES AND SUCCESSES**

In recent times, the three main reform initiatives are the transition from sugar, the adoption of new agricultural policies and the land-for-debt swap. These are further discussed in the sections below.

### **2.5.1 Transition from sugar**

The Sugar Transition Office, established after the closure of the sugar industry in 2005, recommended the following land uses:

- Development of approximately 1,250 acres of cane lands either in the Brighton's/White's area or the Brotherson's/Cranstoun Ghaut/Belmont area for a rum distillery and tourism center;
- Development of approximately 5 acres of land in the Cunningham Estate area for food processing and packaging operations;
- Development of approximately 5 acres of land for hydroponics operation;
- Reservation of 5,000 acres of land for 10MW co-generation of electricity, production of ethanol from cane juice and for animal feed; and,
- Reservation of approximately 100 acres of land for small-scale food production by estate workers.

### **2.5.2 Agriculture land-use policies**

Following the closing of the sugar industry, the DPPE and the *Department of Agriculture* (DOA) have spearheaded the planning for the agricultural transition. Several policies have been established for post-sugar agriculture, including:

- The reservation of lands between the 500-foot to 1,000-foot contour as priority areas for agricultural diversification; and,
- Provision of community grazing pastures for villages to distribute to individual herders.

GOSKN's strategy for the development of agriculture, following the closure of the sugar industry, is to significantly increase agricultural production in a competitive and sustainable manner through the transformation of the sector to satisfy local demand and for exports. A significant challenge to the development of non-sugar agriculture is the potential for soil loss and erosion. In the context of SKN, soil erosion occurs primarily under the influence of water and wind. Human activity, particularly in the development sector further induces the level of erosion. The intensity of the erosion hazard threat is determined by several inter-related factors such as relief, surface drainage, rainfall, soil properties, land use and human influence.

Also, in addition to the changing external environment of increased trade liberalization, the declining availability of concessional aid and increased competition in the wider global economy, there are challenges inherent within the domestic context given high levels of public sector indebtedness and fiscal imbalances, and relatively high levels of poverty. Economic restructuring and transformation in SKN is therefore necessary in order to meet these challenges and ultimately to facilitate increased agricultural productivity.

### **2.5.3 Land-for-debt swap**

The St. Kitts-Nevis-Anguilla National Bank (Vesting of Certain Lands) Act 2012 was passed in the Federal Parliament on Friday September 21<sup>st</sup> 2012. The intent of the Act is to effect a reduction in the Federation's huge debt. Through the Act, 1,200 acres of Crown Land has been

vested in the bank to be sold by a company – in which both the National Bank and the GOSKN would be shareholders – for the settlement of debt owned by the GOSKN to the bank.

According to the Schedule of the Bill, about 13 parcels of land (497.17 acres) are from the Sir Gillies, Farms Estate and Bourkes Estate areas, six parcels (103) acres from Lodge Estate, two parcels (207.231 acres) from Hermitage Estate, one parcel (195.73 acres) from Brighton Estate and 192.6 acres from Lamberts Estate. This amounts to 1,200 acres of crown lands to be transferred to the bank for the settlement of government's \$900M debt to that institution.

Within one week of the passage of the bill into law, widespread outcry was heard across the Federation in objection to GOSKN's move to settle some of the nation's debt in the manner that it has. Concerns were raised by different individuals and groups who suggested that the sale of the 1,200 acres of land would not be enough to settle the debt. These included the opposition People Action Movement party which organized demonstrations, Operation Rescue, three NGOs in Sandy Point – SPIRIT, SPACS and CIPEO, as well as two former ministers of government who were fired and resigned from the Cabinet, respectively. A motion of no confidence was filed in the Federal Parliament by the Leader of the Opposition.

Notwithstanding all the opposition to the land-for-debt swap initiative, the Prime Minister has stuck to his guns and maintains that this initiative will reduce the Federation's debt to GDP ratio to well under 100% and create even more fiscal space to accelerate growth-related development initiatives while modernising and strengthening the Federation's social safety net programmes.

Others are equally strident in their position that there are alternatives to the land swap deal. It has been suggested that GOSKN could have directed all monies earned by the SIDF into the treasury as a means of paying National Bank its XCD \$900 million debt without having to lose the 1,200 acres of land. A second alternative that has been suggested is to allow Social Security to acquire the lands and have GOSKN purchase them from the institution once its finances are in order.

Even now, the debate lingers on with strong support on both sides of the divide. This issue is emotive with extremely strong economic, social and political overtones.

### **2.5.3 Critical issue**

*In more recent times, there have been expressed fears of foreigners taking over land as a result of the contentious Citizenship By Investment (CBI) programme. These fears have arisen because there seems to be no restrictions imposed on this new class of citizens in acquiring an interest in land. Under CBI, foreign direct investment is a major factor. Much as this strategy is a pointer to increased economic development, it has also brought about contradictory implications for the land rights of the poor. In many cases, government land allocation simply gives precedence to commercial investors with more capital-intensive production systems, rather than smallholder farmers, lower and middle class housing strategies and traditional resource users in rural areas.*

## 2.6 CONFORMITY TO INTERNATIONAL CONVENTIONS

SKN is signatory to five (5), and Party to forty one (41), international environmental agreements of which eighteen (18) are deemed to be the most important (Planning Unit, 2004). The obligations of SKN under a number of these international agreements have been recognized in national law, and resulted in the 1996 amendment to the 1987 NCEPA. The amendment, by Act No. 12 of 1996, gives force of law to eight (8) international environmental agreements.

The multi-lateral environmental agreements (MEAs) directly relevant to protected areas that have been signed by the GOSKN, as follows:

- The *Convention concerning the Protection of the World Cultural and Natural Heritage* (World Heritage Convention) – accepted July 10, 1986; and
- The *UN Convention on Biological Diversity* (CBD) – signed June 6, 1992 and ratified January 7, 1993.

Other multi-lateral environmental agreements of relevance to specific operational aspects of protected areas management (such as pollution control) include:

- The *UN Convention on International Trade in Endangered Species* of Wild Fauna and Flora (CITES);
- The *UN Framework Convention on Climate Change* (UNFCCC) which was ratified in 1993;
- The *United Nations Convention to Combat Desertification* (UNCCD) which was acceded to in 1997;
- The *United Nations Convention on the Law of the Sea* (UNCLOS);
- The International Convention on Civil Liability for Oil Pollution Damage;
- The *International Convention for the Prevention of Pollution from Ships* (MARPOL 73/78);
- The *Convention for the Protection and Development of the Marine Environment in the Wider Caribbean Region* (ratified June 15, 1999); and
- The *Protocol Concerning Cooperation in Combating Oil Spills in the Wider Caribbean Region*.

SKN also participates in a number of regional and sub-regional environmental programmes that further reinforces their commitment to conservation and sustainable development such as:

- *Caribbean Environment Programme* (CEP);
- The *Barbados Programme of Action* (BPOA);
- The CARICOM Regional Fisheries Mechanism;
- The *Caribbean Regional Environmental Programme* (CREP); and
- The *St. George's Declaration of Principles for Environmental Sustainability in the OECS* (SGD).

Of the regional agreements, the SGD has the most significant direct influence on national environmental policy. It outlines a set of principles that places environmental management as a

cornerstone of sustainable development. In that context, the declaration functions as a regional policy for achieving enhanced management of the environment in pursuit of sustainable development objectives in the OECS region. The preparation of the NEMS provides a mechanism for national expression of environmental programming in support of those sustainable development objectives.

### **2.6.1 Critical Issue**

*Several government departments in SKN have potential roles in the implementation of international conventions. However, apart from the DPPE on St. Kitts and the DPPNRE on Nevis many other relevant agencies are not actively engaged to fully understand their roles and to assist with the discharge of national obligations under these international conventions and agreements. Relevant departments that need to be more engaged in the process include the Meteorological Office, the DOA, the Department of Marine Resources, the Department of Public Works, the Department of Environmental Health and the Tourism Authority. Additionally, NGOs such as the St Christopher National Trust and the Nevis Historical and Conservation Society should become more active in projects related to climate change, biodiversity conservation, land degradation and other regional and international agreements.*

## **2.7 GENDER CONSIDERATIONS**

All aspects of life in SKN are gendered. To the extent that most households are headed by females, economic and social development must, of necessity, identify gender differences with respect to access to land. It is for this reason that GOSKN created a *Ministry of Gender Affairs* (MGA) which ensures the informed participation of gender groups in all stages of the development process. GOSKN recognised that there were development costs to gender bias and clear growth benefits from reversing gender inequality. Due to the policies of the MGA, gender-based biases and inequalities (such as education, health, political and economic status, and resource ownership) and roles and relations in society (such as family and community care responsibilities) have been significantly reduced. Gender biases in access to productive resources such as land for farming and capital formation have elevated the status of women in SKN's society.

### **Critical Issue**

*GOSKN must continue to ensure that there is gender balance in participation in all stages of the economic, social and SLM processes.*

## **2.8 GOVERNANCE ISSUES**

Governance is the process of decision-making at all levels of society by the state, non-state actors and the private sector. It comprises the set of instruments, mechanisms, processes, institutions and capacities through which people govern them. Good governance involves decision processes that follow the rule of law and are consensus-oriented, participatory, coherent, effective and efficient, equitable, transparent and accountable.

With respect to SLM, GOSKN has proved a clear vision and a sense of mission in the achievement of SLM goals. This is manifested in the strengthening of the DPPE and the creation of a LMU in the DSL. However, this enabling environment needs further nurturing, particularly with respect to participatory approaches and strong public-private partnerships. Further whilst there is some institutional collaboration between various state and non-state actors, there is no clear assignment of roles and coordination of activities with respect to land administration and management. SLM policies need to be comprehensive, integrated and balanced across sectors. Thus, it is necessary to integrate SLM in the activities of relevant agencies.

### **2.8.1 Critical issues**

1. *GOSKN and the NIA need to demonstrate their commitment to SLM through the adoption of appropriate mechanisms to identify threats of land degradation and the barriers and bottlenecks to addressing land degradation.*
2. *GOSKN needs to finance SLM through the PSIP by first intervening in the project cycle.*

## **2.9 NGO PARTICIPATION**

There are two key NGOs in SKN. These NGOs take an active role in projects related to heritage conservation, environmental management and protection and are involved in the implementation of initiatives for civil society participation in sustainable land management. Colleges and other educational institutions on St. Kitts are also engaged in addressing land management issues. The two main NGOs are discussed in the sections below.

### **2.9.1 Saint Christopher National Trust (SCNT)**

The *Saint Christopher National Trust* (SCNT) is a non-governmental organization founded in 2009 with the goal of preserving the national heritage of St. Kitts. The Trust evolved from the St. Christopher Heritage Society which was incorporated as a private company in 1994, and currently manages the National Museum in the Old Treasury Building in Basseterre. A key objective of the SCNT is to promote the protection, conservation, interpretation and enhancement of the natural environment of St. Kitts, including its animals and plant life. Additionally, the Trust is intended to provide a forum for the exchange of ideas, information and knowledge.

### **2.9.2 Nevis Historical and Conservation Society**

The *Nevis Historical and Conservation Society* (NHCS) was established in 1980 to conserve the natural, cultural, and historic resources of the island of Nevis and adjacent marine areas. The Society is a non-profit organization governed by an Executive Board. Since its inception the NHCS has instituted projects and policies designed not only to preserve Nevis' unique history and environment, but also to make that heritage accessible and intelligible to locals and visitors to the island.

## **3.0 LAND ADMINISTRATION AND MANAGEMENT**

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### **3.1 INSTITUTIONAL ARRANGEMENTS FOR LAND MANAGEMENT AND ADMINISTRATION**

#### **3.1.1 St. Kitts**

##### **3.1.1.1 Ministry of Sustainable Development**

The restructuring the Ministry of Planning and Development between 1996 and 2001 positioned GOSKN to proceed with the vision to meaningfully address a wide range of issues related to sustainable development and integrated development planning. In 2005, considering the complexities of existing and emerging development pressures, it became necessary to transform the Ministry of Development and Planning into a new *Ministry of Sustainable Development* (MSD). The MSD assumed the land and survey functions of the former Ministry of Agriculture and Housing and the environment management portfolio from the Ministry of Health. As a result, the departmental components of the MSD now include:

1. Administration;
2. Economic Affairs and PSIP;
3. Physical Planning and Environment;
4. Lands and Surveys; and,
5. Statistics.

##### ***Department of Physical Planning and Environment***

The multiple-agency *Development Control and Planning Board* (DCPB) is responsible for land and coastal administration on the island of St. Kitts. The DPPE serves as secretariat to the Board. Under the aegis of the DCPA (2000), the DCPB has the responsibility to implement the NPDP for the island of St. Kitts and to grant permits for development.

The DPPE is responsible for the preparation of long range and local area plans. Activities also include the design and conduct of surveys, policy review, preparation of development project proposals, review of EIAs and review of development applications. The DPPE also manages development control activities. The range of activities included within the DPPE portfolio include: (a) receipt, review and approval of building applications; (b) building inspection; (c) evaluation of applications for duty free concessions on construction projects; and, (d) monitoring and enforcement of development standards.

With respect to environmental management and the achievement of sustainable development goals, the DPPE is responsible for the administration of the NCEPA. The preparation of national project documents including country position papers and national communications as required by multi-lateral environmental agreements are also the responsibility of the DPPE. Other activities that fall within the day-to-day functions of the DPPE are preparation of project proposals for funding and implementation and review of development applications.

##### ***Department of Lands and Surveys***

The *Department of Lands and Surveys* (DLS) assists the MSD in the fair and equitable distribution of Crown Lands and provides for proper land management policies in order to enhance the well-being of the citizens of SKN. The department is the first point of contact in the processing of all land issues. Key responsibilities include:

- the design, survey and implementation of residential land subdivision schemes;
- the provision of land management services such as surveying, mapping and land valuation for the GOSKN;
- the establishment of a fixed boundary coordinated cadastral system after a systematic resurvey
- the identification of residential, commercial and industrial lots for sale in order to generate revenue and meet the demand for new developments and expansion in the business sector;
- the provision of valuation services for the GOSKN;
- the provision of technical support to the National Housing Corporation;
- the management of the Special Land Distribution Initiative; and,
- the complete development of a Land Information System that would fully support the survey, registration, valuation and management of land.

With representation on the DCPB, the DLS works closely with the DPPE and other key public sector institutions to rationalize land use and land development decisions.

### ***Department of Economic Affairs and Public Sector Investment Planning***

This Department serves as the coordinating unit for several regional and international donor agencies that embark on a range of capital initiatives with the GOSKN such as the *Caribbean Development Bank* (CDB), *Organization of American States* (OAS), UNDP, *United Nations Environment Programme* (UNEP); the GEF, World Bank, and the European Union (EU). It facilitates the coordination of requests for technical assistance, grant funding and loan funding between various government ministries and non-governmental institutions and external donor agencies, in an effort to augment the existing resource base available for in country project implementation.

It prepares and manages the Public Sector Investment Programme (PSIP) through close collaboration with line ministries and statutory corporations. The PSIP is a ministry-wide project management database which captures relevant project information on a timely and consistent basis to aid in decision making. The PSIP also informs the budgeting process and assists in ensuring integration and complementarities in inter-ministerial and inter-departmental programming, so as to reduce duplication and maximize resources.

#### **3.1.1.2 Water Services Department**

The *Water Services Department* (WSD) is responsible for the identification, upkeep and protection of water supply sources on St. Kitts. The Watercourses and Waterworks Ordinance (1956) makes provision for the declaration of watersheds to protect waterworks and water sources. Watershed management is critical to maintaining both surface and groundwater sources,

but the Water Services Department does not consider itself a watershed management institution, and would prefer to leave that function to a competent institution. Notwithstanding the WSD, working in close collaboration with the DPPE, has spearheaded the implementation of the first phase of the IWCAM project which seeks to rehabilitate the lower coastal section of the Basseterre. Additionally, the WSD for many years has been playing a lead role in the management of the Wingfield Watershed.

### **3.1.1.3 Department of Agriculture (DOA)**

In SKN, agricultural development policies and programmes are developed and managed by the *Department of Agriculture* (DOA). While the DOA on both departments have separate organizational structures and reporting systems, there is strong partnership and collaboration at the national level. Traditionally, the DOA has focused on agricultural extension services, focusing primarily on methods of cultivation and overall crop production. Generally, the DOA is responsible for a range of services related to agriculture and rural development in both SKN. Some of these include:

- Soil sampling and analysis;
- Soil conservation;
- Forestry;
- Water conservation;
- Integrated pest management;
- Animal and plant health;
- Food safety and nutrition;
- Food security;
- Marketing; and,
- Natural resources management.

### **3.1.1.4 Public Works Department (PWD)**

The *Public Works Department* (PWD) is responsible for overseeing the design of new and maintenance of existing public infrastructure, including roads, drainage, bridges, and culverts. It is responsible also for overseeing the design, construction and repair of public buildings. As a member of the DCPB, the PWD provides technical support to the land development and building application review processes. The PWD is a member of the existing PSIP framework that is managed by the Ministry of Sustainable Development.

### **3.1.1.5 National Housing Corporation (NHC)**

The *National Housing Corporation* (NHC) on St. Kitts and the *Nevis Housing and Land Development Corporation* (NHLDC) on Nevis are responsible for the public supply of affordable shelter accommodation and related infrastructure. The NHC and the NHLDC are vested lands by the GOSKN and the NIA respectively. Both organizations are responsible for developing the said lands according to the guidelines established by the DCPB and the DPPNRE.

### **3.1.1.6 Solid Waste Management Corporation (SWMC)**

Statutory authority for the *Solid Waste Management Corporation* (SWMC) on St. Kitts and on Nevis is provided by the Solid Waste Management Corporation Act. The SWMC is charged with the responsibility of developing solid waste management facilities for storage, collection, treatment and disposal of solid waste. While there are two private companies on St. Kitts involved in solid waste collection and disposal, the SWMC remains the primary collector and transporter of waste throughout the Federation.

### **3.1.2 Nevis**

The multiple-agency Development Control Agency (DCA) is responsible for land and coastal administration on the island of Nevis. The principal institution for the development and control of land and coastal areas is the DPPNRE, with the assistance of the Environmental Review Committee (ERC). Under the aegis of the PPDCO (2005), the DCA has the responsibility to prepare a National Physical Development Plan for the island of Nevis and to grant permits for development.

The DPPNRE is responsible for the preparation of long range and local area plans. Activities also include the design and conduct of surveys, policy review, preparation of development project proposals, review of environmental impact assessments (EIAs) and review of development applications. This department undertook the preparation of the new Nevis Physical Development Plan. The DPPNRE also manages development control activities. The range of activities included within the DPPNRE portfolio include receipt, review and approval of building applications, building inspection, evaluation of applications for duty free concessions on construction projects and monitoring and enforcement of development standards.

Other agencies with some role in land management either as a beneficiary or resource custodian, include the WSD, Ministry of Public Works and the Ministry of Tourism. The Ministry of Finance plays a significant role in land negotiations particularly with respect to major property developments.

## **3.2 EFFECTIVENESS OF LAND ADMINISTRATION SYSTEMS**

Overall responsibility for sustainable land management is vested in the MSD. However, there are a number of institutions within and outside the MSD with overlapping mandates in land administration in St. Kitts. The main institution for the development and control of land is the Development Control and Planning Board (DCPB). Under the aegis of the Development Control and Planning Act (2000), the DCPB has the responsibility to prepare a NPDP for the island of St. Kitts and to grant permits for the development of land. Whilst its secretariat, the DPPE, plays an instrumental role in land management, its functions are mainly forward planning, development control and environmental conservation and protection. The actual utilization of land falls within the mandate of the DLS whilst the management of land resources in terms of agricultural land use and soil conservation practices falls within the mandate of the Department of Agriculture.

The DCPB's permission does not extend to agricultural lands and soil conservation, which remain the clear mandate of the Ministry of Agriculture. Similarly, the National Housing

Corporation (NHC) has inherited the planning mandate of the former Central Housing Authority (CHA). Although the NHC does not issue permits, it receives Crown Lands and establishes housing units. Indeed, it is one of the main instruments for changing land uses in St. Kitts.

The Frigate Bay Development Corporation (FBDC) further complicates the situation. The FBDC, which was created by the Frigate Bay Development Corporation Act (1972), is empowered to carry out construction, maintenance, building and engineering operations within the 850-acre Frigate Bay area. The FBDC has the authority to prepare a development plan for the designated area and to set out the manner in which land in the designated area is to be used and laid out.

The entire situation quickly degenerates into cross-purposes in the absence of a clearly enunciated Land Policy relating to land use. Indeed, the relative level of autonomy of these four Government agencies allows Land Use Policy to be made by fiat. It will be necessary to harmonize the roles of these land management agencies to facilitate the development of a SLM policy for SKN.

Given the limited land resources, competition among several uses and need for protection and conservation of critical landscapes, a wider cross section of stakeholders have secondary interests in SLM. The tourism industry, housing sector, livestock farmers and quarry operators have the largest demand for and impact on land resources. As such they must be involved in the formulation and implementation of strategies geared towards achieving SLM.

### **3.2.1 Critical issues**

- 1. A mechanism to facilitate greater collaboration and cooperation between all land management institutions urgently needs to be developed. Additionally, the planning of strategic objectives, the development of procedures, the implementation of baseline surveys and the preparation of a work plan for the LMU needs to be conducted.*
- 2. The need to establish adequate institutional capacity, including planning mechanisms and procedures to adequately address development and planning issues, so as to ensure the orderly development and proper management of land resources.*
- 3. The creation of adequate and efficient, inter-agency coordination with respect to the development and planning process.*
- 4. Developmental planning and control activities should be coordinated to ensure development and economic growth on a sustainable basis.*

## **3.3 LAND MANAGEMENT**

### **3.3.1 Land use and development control**

Current planning documents such as the NPDP, NEPPD, draft LUC, Building Code and Building Guidelines hold fast to the principles that growth should be channeled to existing communities, agricultural lands should be protected, and preservation of the environmental and natural resources of SKN should be a high priority in making land use decisions.

### **3.3.2 Critical Issues**

- 1. Upgrading of land use planning and zoning is justified for the entire terrestrial space of SKN but there has to be upfront calculations made about costs and benefits. There have to be fairly distributed and predictable rules put in place in substitution for bureaucratic discretion.*
- 2. The increasing competing demands between the key sectors of the economy in St. Kitts and Nevis is putting pressure on the country's finite land resources and has the potential to exacerbate land degradation. Isolated sectoral approaches to development planning more often than not tend to prove costly and ineffective.*
- 3. The traditional sectoral approach to the planning of land resources should be avoided, as this may lead to incompatible and often conflicting uses which together may result in land degradation. An integrated rather than sectoral approach is regarded as a means to prevent or resolve conflicts related to land use and water resources consumption. It optimizes the planning process and creates an enabling environment for conflict resolution/mediation.*
- 4. There is a critical need for the mainstreaming SLM in national development programmes. This will require a robust partnership between the public sector, private sector, civil society organizations and the community.*
- 5. There is no clear cut institutional coordinating mechanism for SLM. A clearly defined coordinating mechanism is required as part of the mainstreaming of SLM into national development. It is expected that implementation of the SLMP will produce such a mechanism.*
- 6. Data management systems for SLM are inadequate. Additionally, insufficient research capacity for environmental management affects the availability and quality of data that is relevant to SLM*
- 7. GOSKN needs to consider the increased use of new building technologies and designs to offset the impacts of climate change and to reduce the impacts on land.*

### **3.4 SECURITY OF TENURE**

At present, there are two systems of land registration in SKN: (a) a registration of deeds system under the Registration and Records Act of 1881; and, (b) a Torrens registration system under the Title by Registration Act of 1987. The registry is headed by a registrar who holds the position of registrar of the high court, registrar of patents and trademarks. Thus, there is no specific land registry. Furthermore, there is no system of computerization of records. The land tenure system is affected by lack of a proper land registration system.

The majority of privately-owned lands are still registered under the deed system. There does not appear to be any specific data as to the exact number of deeds or Certificates of Title registered. This has been compounded by the destruction of a number of deeds during the fire of 1983 that destroyed the old Court House building. The system is not a cadastral-based system and in the absence of unique parcel-based identification numbers, there have been reported instances of duplication in the registration of title of land.

The existing land ownership pattern is a direct result of the compulsory acquisition of the sugar estates in 1975 by the Government. In some cases, freehold interest has been granted by the Crown with respect to residential lands on former sugar estates while a lease hold interest has been given for some agricultural lands.

The Village Freehold Purchase Act of 1996 further addresses the historical situation of unclear tenure. Most villages were developed on the outskirts of the sugar estates utilizing lands owned by these estates. By 1990, most villagers had established full possession of their house lots without any form of tenure. Once the State had acquired the sugar lands, the villages were now technically occupying government-owned lands. The Village Freehold Purchase Act literally provided a facility for persons in current possession of such lands to purchase the land at concessionary (non-market value) prices.

**Table 3.1: Percentage of land area by type of tenure**

Land Tenure	St. Kitts
Owned	84.46%
Rented from Others	10.38%
Squatting	3.27%
Multiple Forms	1.88%

*Source: "Assistance in the Development of Land Use, Planning and Agricultural Production Zoning in the OECS States" by Anthony Johnson, FAO September 15<sup>th</sup> 2001,*

### **3.4.1 Critical Issues**

1. *In SKN, improvements to the administration of land titles must go beyond the transfer of customary deed title to certificate of title. There is an urgent need for the implementation of a land cadastre.*
2. *Investing in securing of tenure will eventually pay for itself as property values can increase by between 40-80%. Registration-transferability is an important component of increased value.*
3. *Increased security of tenure can improve the sustainability and conservation of marginal areas. Conversely, weak property rights can contribute to over-exploitation of natural resources.*
4. *Inappropriate land use decisions have the potential to lead to and/or exacerbate soil erosion and overall land degradation.*
6. *In SKN there are several actual and/or potential conflicts with respect to land among different owners, claimants, actual land users and otherwise affected persons and communities.*
7. *Clarification and security of land rights are essential for the success of an integrated approach to the planning and management of land resources. Settling these rights provide the following benefits.*
  - e. *reduces conflicts between stakeholders,*
  - f. *increases the confidence required for SLM practices by the actual land cultivators,*
  - g. *determines the respective responsibilities, and*
  - h. *provides the basis for a fair and environmentally-sound allocation of incentives and subsidies.*

## **3.5 PUBLIC EDUCATION AND AWARENESS**

Consistent efforts for awareness building and education on environment matters, particularly on land degradation, are inadequate. An evaluation of the effectiveness of existing and past awareness and education activities is needed so as to better guide future efforts.

### **3.5.1 Critical Issues**

1. *Insufficient interest among the media managers to be actively involved in the dissemination process for sustainable land management is an area of critical concerns. Environmental issues are generally not seen as exciting or interesting enough to get serious attention among the media, especially in the light of higher profile domestic issues.*
2. *Failure of land management institutions to target required publics to get message on sustainable land management across.*
3. *Lack of funding for effective Public Education and Outreach (PEO) programmes on sustainable land management. A PEO is critical in providing the general public as well as specific interested parties with correct information regarding the proposed recommendations and the resultant interventions. Such a PEO strategy must not only address the technical aspects of the land administration and management but, more importantly, the socio-cultural aspects that might hinder their acceptance.*
4. *GOSKN needs to identify risk information management systems in operation in the region including web sites on natural disasters, hazards and SLM with the view of sharing this information with all local SLM stakeholders.*
5. *GOSKN needs to include environmental risk and SLM education part of the curriculum of schools at all levels.*
6. *The media should be encouraged to provide coverage of SLM activities in SKN.*

### **3.6 REGISTRATION AND RELATED COSTS**

Land transaction costs in SKN include surveyor's fees, legal fees, stamp duty, insurance and a registration fee. The minimum fee paid to surveyors in SKN is XCD \$750 for small lots and XCD \$1,000/ acre on large lots. The actual rate is dependent upon size and topography with sloping lands generally commanding a higher fee. The registration of lands include lawyer fees which could amount to XCD \$800 or more, stamp duty which amounts to 12% of the value of the land, insurance fees which amount to 0.05% of the consideration and a registration fee of XCD \$7.20.

The minimum total cost associated with bringing a 4,000 sq. ft. parcel of land under the Registration of Titles Act (where there is no complexity) is approximately XCD \$15,363.20 (including the cost of the land). When such activities relate to an estate where sub-division is necessary, the related costs multiply.

### **3.7 LAND CONFLICT RESOLUTION MECHANISMS**

Land disputes in SKN involving deeds are, for the most part, adjudicated by the Court. Generally, when a land owner dies, the title immediately and automatically is transferred to the deceased's heirs and successors if he/she died testate (having made a last will and testament) or the heirs-at-law if the decedent died intestate (without a will). However, in order to determine



the individual/group that is vested with the title, the estate of the record owner must be probated to officially determine who the owners are. It is important to note that the recent upsurge in the use of Certificate of Titles where the Crown guarantees the ownership of land has significantly reduced the number of land disputes and conflicts.

#### **4.0 SUSTAINABLE DEVELOPMENT**

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## 4.1 LAND USE PLANNING (PROCESS AND IMPLEMENTATION)

Appropriate land use planning, administration and management is necessary if the GOSKN's and NIA's present land policy, which focuses on agriculture, housing and tourism, is to succeed. The broad goal in agriculture is to diversify the production base, providing employment opportunities and successfully transferring the former sugar-cane producing lands to other remunerative uses. The broad goal of the GOSKN's and NIA's strategy for tourism development is to achieve sustained growth in stay-over visitors and to obtain optimal long-term benefits to the population from tourism without adversely affecting the country's cultural heritage or its natural resources.

### 4.1.1 Using the NPDP and the NEPDP to guide future spatial development

On both islands, the respective physical plans provide direction for managing anticipated economic and physical growth. The NPDP and NEPPD have four overall goals:

- The conservation and protection of natural resources, historic resources, and neighborhoods;
- The provision of adequate acreage and public facilities to accommodate projected population growth;
- The orderly development of the land uses needed to accommodate the projected growth; and,
- The preparation of detailed plans to address specific development opportunities and redevelopment needs.

### 4.1.2 Critical Issues

1. *The adoption of a framework for effective land administration requires the implementation of both NPDPs which lays out well-sequenced and prioritized plans of action. Unless this is done, the adoption of specific policy measures may well raise high expectations that will be difficult to deliver on.*
2. *GOSKN needs to ensure the improvement of compliance with planning regulations and standards.*
3. *The economy of SKN is growing and the Federation faces difficult choices about resource allocation and management of the physical environment. The current situation is one where land is being developed and exploited at a rapid pace and often without proper assessment either of the need to develop or the effects which development will have. Thus, it is imperative that effective land use planning becomes a prime concern of both the GOSKN and NIA.*

## 4.2 PROTECTION OF NATURAL RESOURCES

On both islands, the "planning" acts require the preparation of EIAs for those project proposals that severely impact natural resources. However, the ability of the DCPB on St. Kitts and the DCA on Nevis to provide for the protection of the environment is not to be confused with the explicit environmental framework provided by NCEPA (1987). This becomes very important as SKN continues to face the challenges of alternate uses of natural resources in its quest for development.

#### 4.2.1 Natural resource management and land policy

SKN does not have legislation that deals specifically with soil conservation, although there are provisions in the legislation dealing with forestry and land tenancy that are related to soil conservation. The problem of “landless” livestock farmers grazing their animals in unrestricted areas contributes to the challenge of soil conservation.

Prior to the designation of the CFRNP and the Royal Basseterre Valley Park as protected areas, the Brimstone Hill National Park Fortress on St. Kitts and the Bath Hotel on Nevis were the only two effectively declared protected areas in the Federation. On Nevis, land above 1000’ contour is now totally protected through administrative means rather than an actual declaration of protected status. However, there is interest in developing the appropriate mechanisms which would provide authority to declare this area as protected.

##### 4.2.1.1 Critical Issues

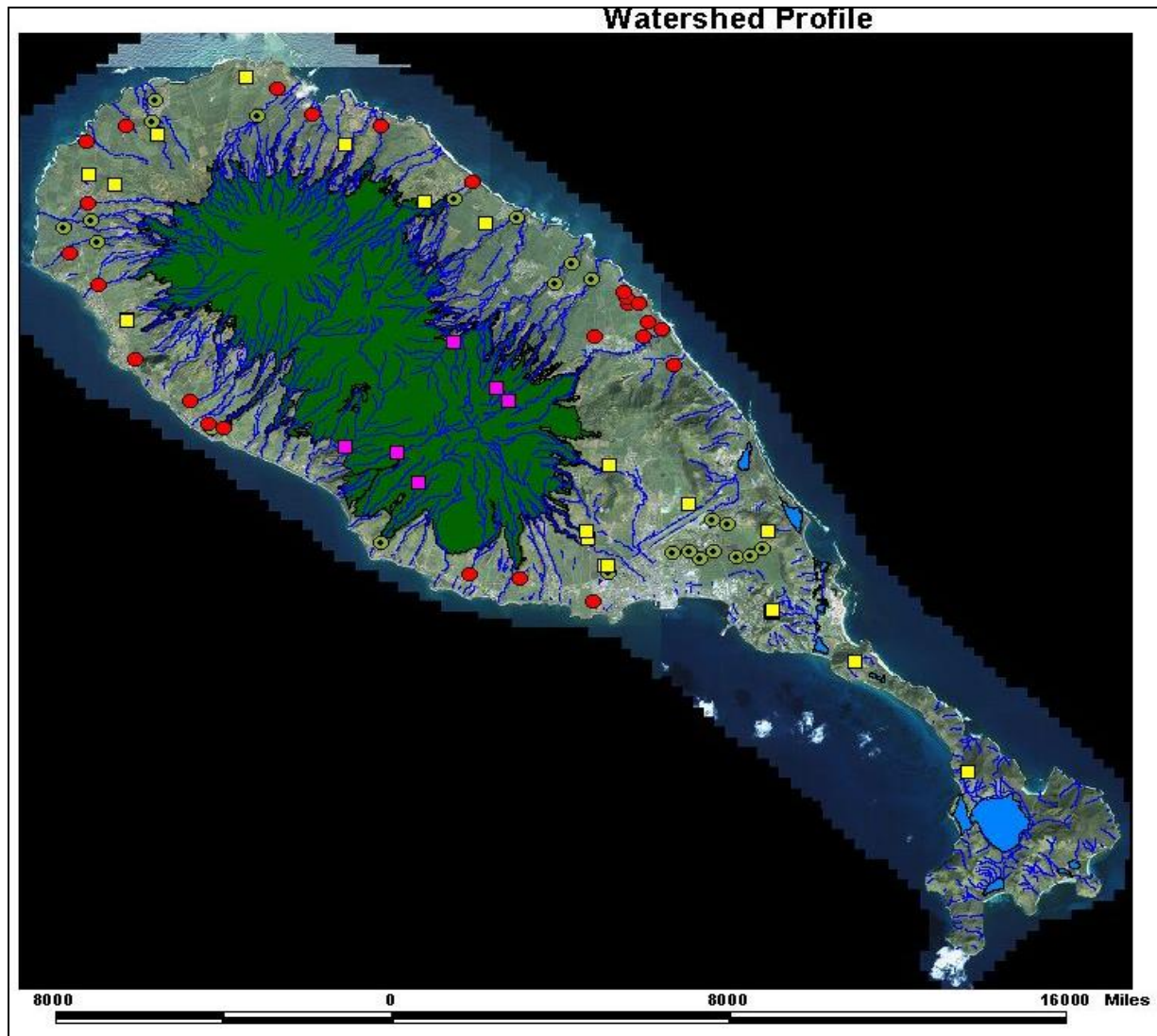
1. Adequate attention needs to be paid to watershed and coastal protection as well as marine conservation in the development planning process.
2. Areas of outstanding natural beauty, of biological and geological significance and of historical and cultural importance should receive protected status that will ensure their continued use.

#### 4.2.2 The Central Forest Reserve National Park (CFRNP)

The *Central Forest Reserve National Park* (CFRNP) 12,500 acres (50 km<sup>2</sup>) of cloud forest provide habitat for a number of threatened resident birds as well as important stopover habitat for migratory birds. It was designated as a globally important bird area (BirdLife International, 2009) in the Caribbean where large-scale tourism development continues to fragment and degrade the remaining wildlife habitat. Equally important, the newly designated park protects several important cultural sites and the watersheds that supply a clean, stable water supply and flood control for the human population of St. Kitts (*see Fig. 4.1*).

The CFRNP was approved by decision #265 of the Cabinet of St. Kitts and Nevis on October 23<sup>rd</sup> 2006 and gazetted March 29<sup>th</sup> 2007. Apart from the forests, water is perhaps the most important resource in the CFRNP. Currently the CFRNP is the most significant source of potable water for the island. The Water Services Department indicates that although there is no actual intake of water above the 1,000 ft contour, it is the source of much of the water that is used on the island. In fact, the WSD indicates that some 30% of the water supply of St. Kitts – water found in rivers and springs – originates from surface runoff within the CFRNP.

**Fig. 4.1:** Satellite image showing Central Forest Reserve National Park in St. Kitts



***Sustainable livelihoods within the CFRNP***

While the CFRNP provides a host of ecological and biological resources, heritage resources within the CFRNP are limited. Over the next few years, ecotourism in the new national park will be carefully expanded to provide economic opportunities while maintaining resource protection. Tourism will be small-scale and dispersed, based on a network of long-distance footpaths that connect villages, historic sites, and spectacular vistas around the island. This small-scale development will foster economic opportunities for the islanders who most need them, while increasing the pride that the people of St. Kitts and Nevis have in their natural and cultural heritage. The following livelihoods currently obtains within the CFRNP:

Trees and plants (sticks, bushes, roots)

The vegetation of the CFRNP is a particularly important resource which supports the livelihood activities of a considerable number of Kittitians. Such activities include the collection of budge wood (*Myrtaceae*) by about 600 fishers to make fish pots. It is to be noted that the excessive removal of trees such as budge wood for sticks could have environmental consequences through greater runoff and increased susceptibility to flooding.

#### Wood for art and craft

The use of wood from the forest is also important to the livelihoods of many craft makers. Bamboo, coconut and calabash are sourced in the forest to make craft items. Recent surveys indicate that the shortage of these trees makes it mandatory that former sugar lands be reserved for the replanting of coconut, bamboo and calabash for use by craft makers.

#### Plants for traditional medicines

The trees and plants found in the CFRNP have also proven to be useful for traditional medicinal purposes. The gathering of these medicinal “bushes” is very informal in nature and includes the cutting of Trumpet bush (*Cecropia peltata*) for treating asthma and colds; and Bitter ash (*Picrasma antillana*) for cleaning the blood. Information on this practice is limited as it is mostly done on an *ad hoc* basis, thus it is unclear how widespread it is or what are the current implications of the practice. Plant roots have also proved to be an important resource in the CFRNP particularly for local informal agro-processing. Cacanda and Sarsaparilla root have both been known to be used to make juices. This local knowledge of medicinal properties of plants within the CFRNP is a powerful heritage resource and has been formalized by some citizens as a viable livelihood activity. The extent of the extraction of these plants is unknown, thus, determining the significance of this practice is difficult.

#### Hunting of Green Vervet Monkey and Wild Hogs

The Green Vervet Monkey and wild hogs are two animals found within the CFRNP that are hunted for the purpose of selling their meat.

#### Tour guides

A number of scenic trails run through the CFRNP and include the Crater Trail, the Old Military Trail; the Dos D’ane Pond Trail; the Mt. Liamuiga Trail and the Peter Manning Trail. These trails provide a significant opportunity for local tour guides to earn a lucrative livelihood.

The previous discussion on the ecological, biological and heritage resources of the CFRNP suggest that, if properly managed, the CFRNP could be a viable source for supporting current and future livelihood pursuits.

#### **4.2.2.1 Critical Issue**

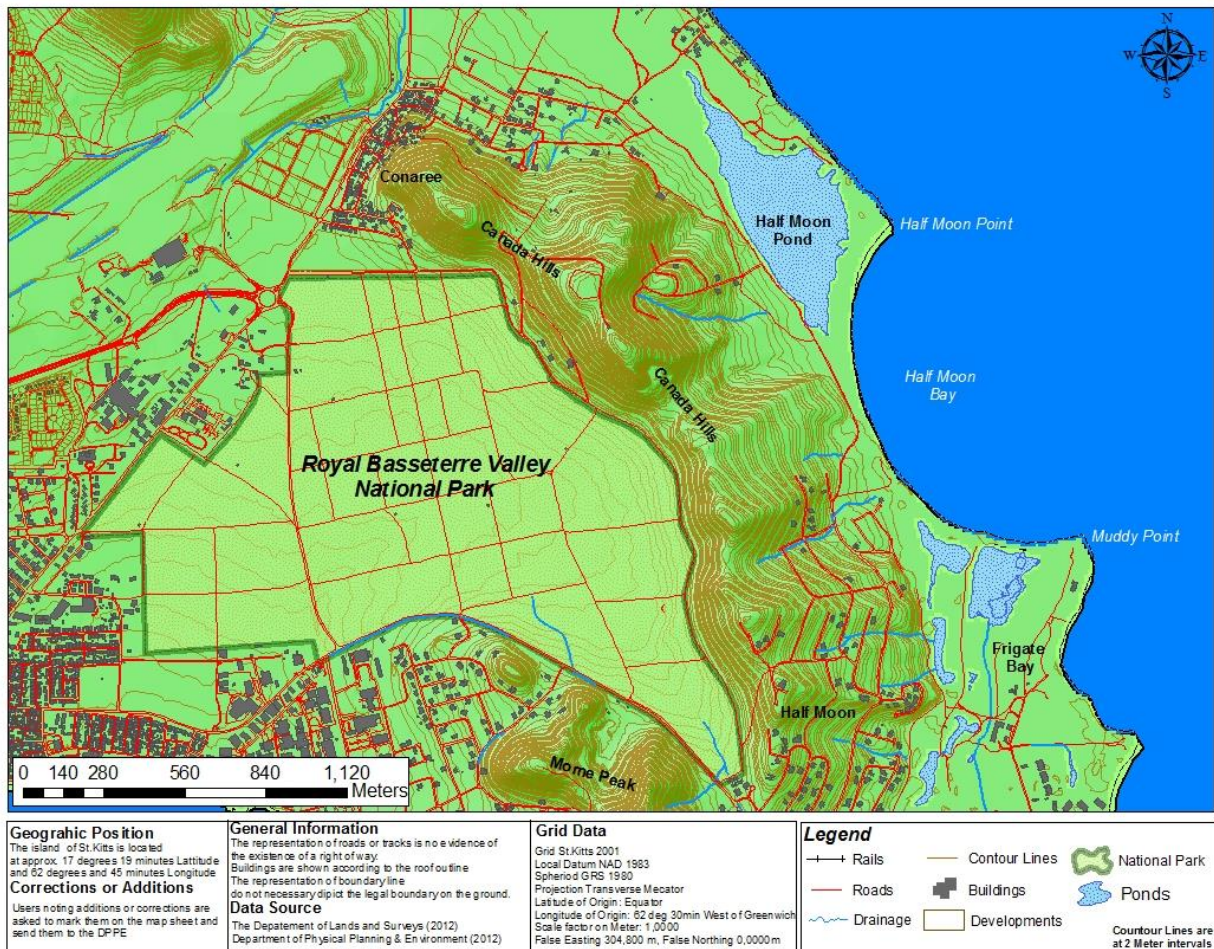
*The need for GOSKN to utilize lands to: (a) eradicate poverty and ensure food security through a more*

*equitable distribution of land access and ownership, and greater tenure security for vulnerable groups; and, (b) promote equitable access and ownership of land resources for poverty eradication.*

### 4.2.3 Royal Basseterre Valley Park

The Basseterre Valley (474 acres), which is immediately adjacent to its capital, Basseterre, houses an aquifer which supplies 40% of the water supply to the country’s capital (*see Fig. 4.2*). This aquifer produces approximately 2.5 million gallons of the daily national water consumption of 5 million gallons per day (gpd).

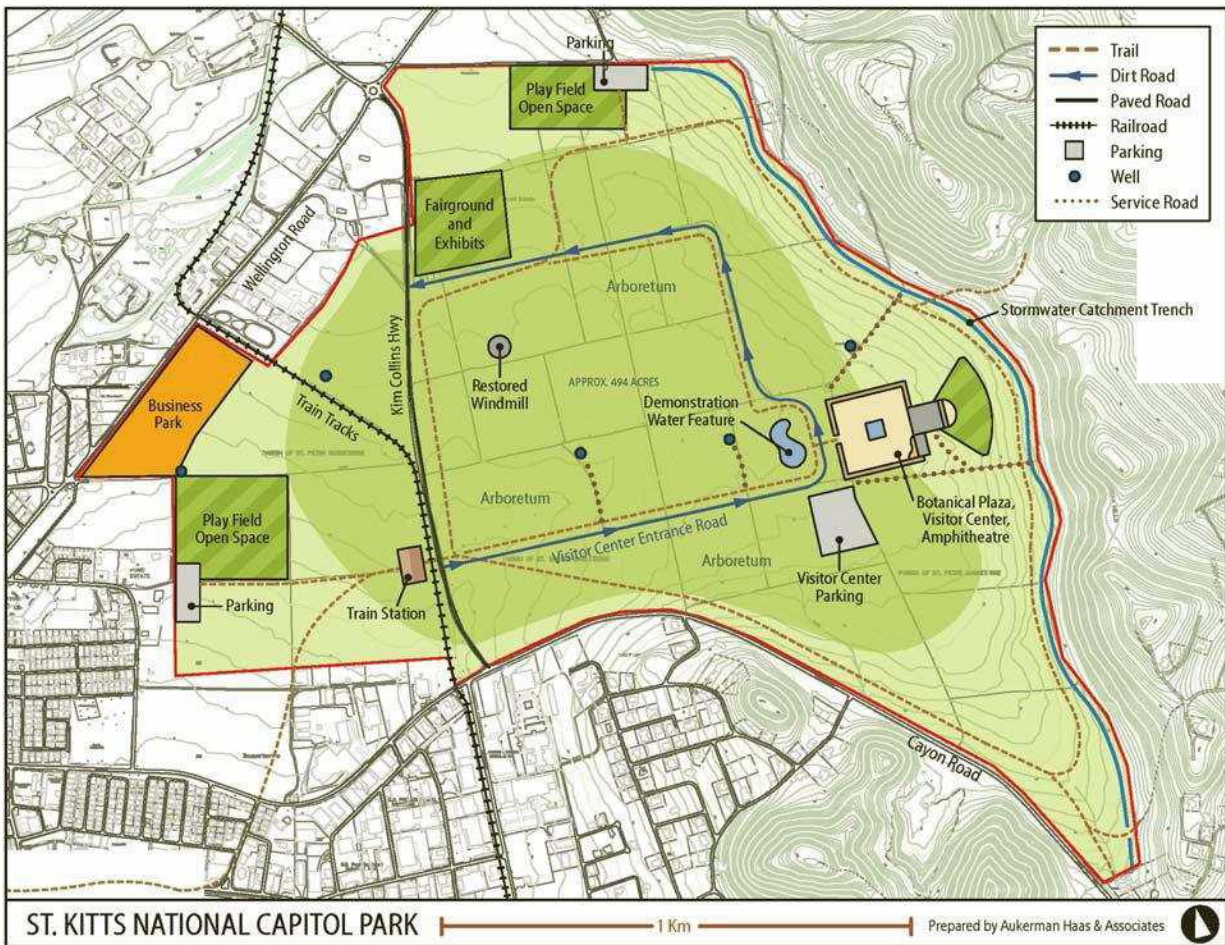
**Fig. 4.2: Map showing location and environs of the Royal Basseterre Valley National Park**



The presence of commercial activities, coupled with other human-induced impacts, have the potential to negatively affect the water quality supplied by the aquifer. Impacts enumerated, such as fertilizer application, sewage treatment and disposal and storm water runoff along major roads have the potential to increase nitrate and phosphate loadings to the aquifer.

On March 3<sup>rd</sup> 2012, the Basseterre Valley Aquifer area was declared the *Royal Basseterre Valley Park* (RBVP) by their Royal Highnesses Prince Edward and Princess Sophie, at a ceremony during which a plaque was unveiled and a tree planted to mark the occasion in celebration of the Diamond Jubilee of Her Majesty Queen Elizabeth II. Prime Minister Dr. Denzil Douglas commented that the Basseterre Valley Aquifer is, “*the source of the most precious commodity known to man – water, which, as we know, is the basis of all life. Indeed, countless and far-ranging cultures, religions, and societies across face of the earth, water is given very special symbolic significance.*”

**Fig. 4.3: Royal Basseterre Valley Park site plan**



A management plan for the protection of the aquifer was prepared by the *Ocean Earth Technologies* (OET) Consortium. The Royal Basseterre Valley Park has as its chief purpose the protection of the aquifer while being an environmentally sustainable income earner. The park consists of a combination outdoor botanical plaza, visitor center building and outdoor hillside amphitheatre. The outdoor botanical plaza would be a walled 90,000 square feet outdoor area with water features, attractive vegetation, and covered verandas on each side to accommodate

raised vaulted (contained) garden planters and a walkway for people to tour. The plaza would lead to the visitor center building entrance. The visitor center building on the first floor would contain educational exhibits, an information desk, video presentation area, artifacts, restaurant and tea area, book store, bathrooms, and storage. The second floor would contain a 150 person classroom/meeting space, warming kitchen, public viewing deck, administrative offices and bathrooms. By passing through the first floor of the visitor center, a guest would enter an outdoor amphitheatre with canopied stage, backstage prep area, rows of benches, a grassed hillside with a capacity for 1500 people, and a security wall (*see Fig. 4.3*).

#### **4.2.3.1 Critical Issues**

- 1. GOSKN needs to adopt policies which: (a) promote management and use practices of natural resources to ensure environmental sustainability; (b) promote optimal use of productive land in urban and rural areas; (c) protect fragile eco-systems and environmentally vulnerable areas from the negative impacts of land use; and, (d) ensure the conservation of the environment, and the equitable sharing of benefits arising out of the utilization of natural resources.*
- 2. For the CFRNP to be effectively managed there needs to be involvement in the decision-making process by the community and users of the natural resources of the forests. Additionally, the boundaries of the CFRNP need to be marked.*
- 3. Continuous groundwater monitoring, especially with warning systems and anthropic activity monitors, is essential in the Basseterre Valley National Park coastal aquifer. Detailed and accurate long-term monitoring is critical in the Basseterre Valley aquifer, particularly in the wake of climate change.*

#### **4.2.4 UNESCO's Man and the Biosphere Project**

A certificate declaring St. Mary's as a Biosphere Reserve was handed over to GOSKN at the 36th Session of the *United Nations Educational Scientific and Cultural Organisation* (UNESCO) General Conference, in early November 2011. St. Mary's, on the island of St. Kitts, with its cloud forests, mangroves and coral reefs, is one of the first biosphere reserves in the Caribbean. The area is known for its myriad fresh and salt water fish species, crayfish, lots of palms and ferns, fruit trees, and beautiful heliconias.

According to UNESCO, a Biosphere Reserve is an area "of terrestrial and coastal ecosystems promoting solutions to reconcile the conservation of biodiversity with its sustainable use. They are internationally recognized, nominated by national governments and remain under sovereign jurisdiction of the states where they are located." One benefit of a biosphere reserve is that it "can be used as a framework to guide and reinforce projects to enhance people's livelihoods and ensure environmental sustainability." According to the official UNESCO website, there are 580 biosphere reserves in 114 countries and last year, which was the 40th Anniversary of the programme, 18 new biospheres were designated by the United Nations organ. This project enables participating country-members of UNESCO to improve the relationship of people with their environment globally. It targets the ecological, social, and economic dimensions of biodiversity loss and the reduction of this loss. Chief among the programme's activities is the development of a world network of biosphere reserves.



A management plan is being prepared with community involvement. all activities in the area. The proposed plan would allow for human activities to be carefully monitored and regulated so as not to disturb the delicate balance of nature. Government officials are touting the potential of the Keys Beach area for eco-tourism and have re-opened a number of hiking trails. It is also anticipated that this *Man and the Biosphere* (MAB) project would foster significant employment opportunities. The area also possesses many important indigenous plants and wildlife. Antonio Maynard, Secretary General of the SKN National Commission for UNESCO, oversaw the MAB nomination process and recognized the potential of the programme to “*contribute to promoting innovative approaches to economic development that is socially and culturally appropriate and environmentally sustainable for a small island developing state.*”

According to GOSKN, the priority placed on the development of the MAB project is based on its “*potential impact on addressing issues related to climate change including global warming, sea level rises, violent storms, coral reef destruction, infrastructural damage and coastal degradation.*”

#### **4.2.4.1 Critical Issues**

1. *GOSKN needs to examine the effectiveness of existing policy and legislation in addressing key environmental management issues such as drought and land degradation, wetland conservation, marine, coastal and freshwater resources and climate change.*
2. *GOSKN’s development policy and budget processes must anticipate the effects of biological diversity loss.*
3. *GOSKN must link national adaptation programmes to regional and international initiatives on biological diversity loss.*
4. *GOSKN must ensure that the capacity of individuals, organizations and authorities at the community, local, and national level are developed to institutionalize adaptive management to biological diversity loss.*
5. *GOSKN must ensure that adaptive management strategies for biodiversity loss build on the foundation of local knowledge systems and traditional wisdom and coping and survival practices*

### **4.3 IMPROVING THE REGULATORY SYSTEM FOR HANDLING LAND APPLICATIONS**

As alluded to earlier, there are a number of agencies with a legal mandate for dealing with land issues on SKN. However, there is a critical need for a regulatory framework for handling land applications that is cross-sectoral. As at present, all land applications are initially submitted to the MSD. The current decision-making system provides a workable mechanism for receiving and processing land applications and makes provisions for informing the applicant of the receipt of the dossier of information. Rather than imposing a different administrative system, existing bureaucracies should be utilized. Inputs should be sought from relevant agencies including the Ministry of Finance, the DPPE, the Department of Economic Affairs and Public Sector Investment Planning, the DLS and the DOA. These comments should then be forwarded to the DPPE that ensures that the application conforms to the requirements of the future *Land Use Management Plan* (LUMP). More vigorous collaboration between the DPPE and the DLS can provide a system of scientific oversight and evaluation of the application. Their recommendations should then be communicated back to the MSD and a final decision made.

#### 4.4 LAND DEGRADATION

Land degradation can be attributable to four main reasons: overuse of lands for monocrop sugar cane agriculture; clearing of lands for residential and tourism development; farming on high elevations above the 1000 ft contour; squatting and unregulated settlements. The island's land resource is subject to competing demands in terms of agriculture, tourism, housing, services and facilities. Uncontrolled competition for land use can cause land degradation as outlined below:

- A shrinking agricultural land base;
- Denuded forests and water catchment areas;
- Spontaneous settlements on unserviced land;
- Building activity in hazardous locations;
- Inadequate solid and liquid waste management systems;
- Coastal zone degradation; and,
- Traffic congestion.

It is believed that the closure of the sugar cane industry can result in increased problems with land degradation due to an increased percent of abandoned lands and failure to adopt soil conservation measures. Increased gullying and rilling is proof that there is considerable soil loss on the island of St. Kitts. The lack of maintenance as well as poorly designed roads is also contributing to soil loss. On the island of Nevis, unregulated quarrying activities has led to increased loss of soil. On both islands, soil loss has led to increased sedimentation rates and concomitant adverse impacts on coastal and marine ecosystems.

##### 4.4.1 Critical Issues

*Land degradation and its associated impacts have the potential to become an impediment to sustainable development in SKN as the country is heavily reliant on land as an economic asset. The following are critical areas of concern:*

###### 1. Policy

*There is a need for the preparation of a comprehensive risk management strategy to offset the potential threats posed by future hazards.*

###### 2. Water Pollution

*In Basseterre, especially along Bay Road, the discharge of contaminated water and other wastes into the sea from residential areas, restaurants and hospital is often visible. The potential/possible contamination of the Basseterre aquifer from fertilizer use and the high bacterial count at most water quality monitoring stations due to domestic wastes, sewage treatment plant effluents, sugar factory wastes, and farm wastes were cited as major concerns.*

###### 3. Deforestation and Erosion

*Deforestation on some hillsides in St Kitts mainly for charcoal, poles, fish traps, shacks and small farms on steep slopes is evident in several areas. Cutting of mature vegetation [delete Deforestation] in Nevis is attributed to the demand for fish pot sticks, charcoal, boat building materials, and construction materials for houses and joinery. The clearing of vegetation for houses on both steep and gently sloping lands additionally contributes to soil erosion, especially during the rainy season.*

4. Flooding/poor drainage

*Maintenance of drainage and roads and other soil conservation activities in the sugarcane lands is critical to minimizing flooding and erosion, particularly with the closing of the St Kitts Sugar Manufacturing Company in July 2005. The cutting of the road to the project in Banana Bay without appropriate erosion prevention measures and destruction of wetlands causes drainage problems in adjacent areas. Poor drainage in the vicinity of Greatheeds Pond causes the road to become impassable in heavy rains. The surface drainage in Charlestown is inadequate and contributes to flooding especially in rainy weather. Further, the discharge of water from housing projects, especially runoff from heavy rains, needs to be properly managed to reduce the incidence of erosion and flooding.*

5. Sedimentation

*Unregulated quarrying causes erosion and leads to sedimentation on adjacent lands, on the roadways, in ghauts, ponds and the smothering of corals in the near shore marine environment.*

6. Overgrazing

*An abundance of feral donkeys (in Nevis) and free ranging livestock have denuded the vegetative cover in several areas and scarred the land surface (trenching by pigs). Overgrazing by untethered animals accelerates erosion and is more pronounced in the dryer parts of the country, especially at Baths, Indian Castle and in the Southeast Peninsula.*

7. Fires

*Uncontrolled bush fires have caused extensive damage to landscapes and increases the potential for soil erosion and sedimentation on adjacent marine habitats. This problem is severe in the Southeast Peninsula, however, because much of the land is privately owned (often absentee owners); effective solutions are difficult to prescribe.*

## 4.5 BALANCING ECONOMIC CONSIDERATIONS AND SUSTAINABILITY

SKN is presently undergoing a transition from a way of life that evolved over four centuries of sugar cane cultivation to a political-economy that is influenced by investments in the development of tourism, the vagaries of international trade and an uncertain environmental future. It is vital to plan now in order to safeguard SKN's natural resource base. The sustainable management of land resources is vital for the economic and social well-being of the country.

Now, more than ever, it is necessary to evaluate the suitability and quantity of land for proposed alternative activity. Thus, there is a need to develop good quality information showing the total and location of lands suitable for alternative uses including non-sugar agriculture, housing, national parks, conservation areas, tourism, commercial and industrial activity, and to be able to assess the vulnerability of valuable land resource as the sugar crop is diminished.

### 4.5.1 Critical Issues

1. *Collaboration and coordination between government agencies, the private sector and non-governmental organizations need to be improved to create a networking mechanism to allow for more information sharing and joint planning.*
2. *Mechanisms to ensure the improved management of terrestrial and marine protected area systems should be introduced.*
3. *GOSKN needs to continually assess the short- and long-term impacts of its decision-making on the use of limited natural resources.*

4. *GOSKN needs to continue its support of regional and sub-regional initiatives that address the sustainable development of resources.*

#### 4.7 SITUATION ON INFORMAL SETTLEMENTS

Like other Caribbean islands, SKN is experiencing the phenomena known as “squatting”. Squatter settlement areas in SKN are mostly found outside formal settlement boundaries and jurisdictions and in some cases, within. Generally, they have some or all of the following interrelated characteristics: (a) unplanned growth resulting in, amongst other things, negative environmental health issues and environmental degradation; (b) tenure of residents is not always based on clearly defined and enforceable title; (c) planning and building guidelines and regulations, and provision of urban services are not applied; (d) service infrastructure is inadequate to meet even basic needs; (e) social infrastructure does not meet basic needs; and, (f) a significant proportion of residents are in lower income categories.

Squatting is now recognized as a problem in SKN. About 408 acres of land in St. Kitts are reported to be under illegal possession. This is viewed mostly as indicative of the acute need for shelter.

The key to managing the problem of “squatting” on the island of St. Kitts is to institutionalise a participatory and evolutionary approach towards settlement status and land tenure. Specific strategies to resolving the “squatting” problem include: (a) infrastructure delivery; (b) evolution of tenure from Crown Lands to individual ownership; and, (c) evolution of urban and rural settlement patterns and land management to that required under the DCPA, 2000.

##### 4.6.1 Critical Issue

1. *There is insufficient statistical and other data on the extent and seriousness of landlessness in the country and how this impacts on poverty to enable GOSKN to tackle this issue.*
2. *The key to managing the problem of “squatting” in St. Kitts and Nevis is to institutionalise a participatory and evolutionary approach towards settlement status and land tenure. Specific strategies to resolving the “squatting” problem include: (a) infrastructure delivery; (b) evolution of tenure from Crown Lands to individual ownership; and, (c) evolution of urban and rural settlement patterns and land management to that required under the DCPA, 2000.*
3. *Some attempts at low income housing and the Special Land Initiative have actually improved the landlessness situation in SKN as more poor people are housed in their own homes. Farmers have increased access to land, individual homeowners have the ability to grow their own food.*

#### 4.7 LAND INFORMATION SYSTEMS

Land information in St. Kitts still resides in different agencies. The Land Registry at the High Court is the repository for all deeds and *Certificates of Title* (COT). Alien land holding

licenses, which reflect the extent of non-citizen ownership, are held in the Ministry of Agriculture. There are also various books or registers dealing with condominiums. The focus of land information, however, should be in the DCPB. This institution, is applying GIS technology in analyzing and maintaining information on land in St. Kitts.

A number of recent projects address the promotion of the adoption of sustainable land management policies and strategies. These include:

- a) *A Land Resource Analysis Project (LRA)*; and,
- b) *The St. Kitts Integrated Land System (SKILS) Project*.

#### **4.7.1 The Land Resource Analysis (LRA) Project**

The objective of the LRA was to determine the areas where non-sugar agriculture could succeed in both the sugar lands and non-reserved agricultural lands on the island of St. Kitts. Using GIS, available spatial data sources (maps and imagery) and questionnaires gleaned scientific information about local conditions, the project team used a *Food and Agriculture Organisation (FAO)* methodology to map thresholds for individual criteria (altitude, slope, soil cultivability and type, temperature, precipitation, flood hazard, soil erosion hazard, and wind hazard) to determine the suitability of six agricultural enterprises; field crop, fruit tree crop, vegetable crop, pasture crop, pineapple, and livestock production.

Expected results and outputs of the project will include maps and statistics on the feasibility and suitability of alternative land uses and information on the vulnerability of land to soil erosion. Vulnerability information will include ghaat management and analysis of downstream effects on infrastructure, buildings and to the marine environment. The baseline data developed will be installed in the centrally-located GIS at the DPPE for the use of other stakeholders who will be trained in the use of the system.

#### **4.7.2 The St. Kitts Integrated Land System (SKILS) project**

This SKILS project will target key stakeholders. Primarily, it will feed quality information to decision-makers in government, Ministers, Permanent Secretaries and Department Heads to help them make day-to-day and strategic decisions. It will also provide useful monitoring, evaluation and reporting information both at a national level and to support multilateral agreements. Secondly, it will aid civil servants in each of the stakeholder departments, as it will more clearly define the needs for information and streamline the methods for bringing that data together. Finally, it will assist all citizens because it will show good governance in valuing their rights of land ownership and derive a fair tax revenue system.

The expected outputs and results of the project will include training for both technical staff and decision makers along with the establishment of a:

- a) *National GIS Framework* – to coordinate and standardize the management of spatial information;

- b) *Land Cadastral Map* – showing parcel boundaries and identification number. Where possible, the nature of boundaries will be established, and an updating methodology derived;
- c) *Land Ownership Database* – showing, for each parcel, the ownership, leasehold and other instruments of land holding. A fully historical database can be made showing discharges and resale, as well as any mutations to the parcels (subdivision, boundary disputes);
- d) *Land Taxation System* – using the aerial calculation from the cadastre and summarizing based on each land owner, the system will define the amount of tax payable, and keep track of dues;
- e) *Land Use Map* – a fully annotated land use map that assists physical planning and strategic development as well as agricultural, environmental and forestry applications. It will be based on an internationally recognized classification system but will be sensitized to national needs.

#### **4.7.3 Critical Issues**

1. *With the ongoing transition away from the sugar industry in St. Kitts, it is necessary to evaluate the suitability and quantity of land for proposed alternative activity. Thus, there is a need to develop good quality land information systems showing the total and location of lands suitable for alternative uses including non-sugar agriculture, housing, national parks, conservation areas, tourism, commercial and industrial activity, and to be able to assess the vulnerability of valuable land resources.*
2. *Reliance on food and other imports as well as scarce energy resources will be reduced through the encouragement of conservation, efficiency, substitution and the adoption of new and appropriate technologies. To this end, the development of Geographical Information Systems, Remote Sensing, Global Positioning Systems and other information systems and analytical techniques that facilitate the sustainable development of the natural resource base will be encouraged.*
3. *To maximise the benefits of GIS in the long term, the necessary human and financial resources need to be made available to the DPPE to take its GIS services to a higher level.*
4. *GOSKN needs to establish a centrally-coordinated and cross-departmentally-steered National GIS that would help monitor information quality, increase its quantity, give appropriate access to information, and have a level of automation that will significantly increase its usefulness in day-to-day government operations. In particular, streamlining the functions of those departments that deal with land issues will increase the efficiency of those departments, reduce duplicity, improve timely delivery of information, and raise revenues in a fair system.*
5. *There is a need to upgrade the GIS to a cadastre-based LIS to allow for improved land administration and management.*
6. *There is an urgent need for spatial data management to be more holistically tackled by GOSKN, with the adaptation of the LRA technology to Land Information Systems for cadastral and taxation purposes. Additionally, GOSKN should build on the existing National GIS at the DPPE to enable data management in SKN.*

## **4.8 LAND MARKETS**

Based on the number of building permissions granted in recent times, it is clear that the land market is very vibrant in SKN (*see Fig. 14.4*). This is evident in the continued performance of the construction sector. Land sales and land values have been influenced by the construction of hotels, golf courses and retirement homes. The land market in St. Kitts is generating solutions that are challenging the “carrying capacity” of the location.

#### 4.8.1 Public sector land rates

On November 13<sup>th</sup> 2006, Cabinet decided on rates for the rental of government lands as follows:

Industrial and Commercial lots with <b>Full Infrastructure</b>	–	XCD \$0.60 per sq. ft. per year
Industrial and Commercial lots with <b>No Infrastructure</b>	–	XCD \$0.50 per sq. ft. per year
Industrial and Commercial lots with <b>Buiding</b>	–	XCD \$15.00 per sq. ft. per mth
Agricultural lands for <b>Livestock Farming</b>	–	XCD \$100 per acre per year
Agricultural lands for <b>Crop Farming</b>	–	XCD \$300 per acre per year

Agricultural and industrial lands are leased only. For commercial lands, the selling rate increased from XCD \$7.00 per sq. ft. to XCD \$10.00 per sq. ft.

With respect to lands for the construction of residences, GOSKN, in 2007, introduced its Special Land Distribution Initiative for first time home-owners thereby giving the poor and middle class access to land. According to statistics provided by the MSD, some 400 acres of land have been made available to locals by this initiative. The rates for said lands are as follows:

1 <sup>st</sup> 4,000 sq. ft.	–	XCD \$2.95 per sq. ft.
Additional 2,000 sq. ft.	–	XCD \$3.95 per sq. ft.
Over 6,000 sq. ft.	–	XCD \$6.95 per sq. ft.

#### 4.8.2 Private sector land rates

Generally, the price of lands in the private sector is determined by location. For example land rates in the urban area fluctuates between XCD \$10.00 per sq. ft. to XCD \$20.00 per sq. ft. In the rural areas, land may be sold between XCD \$6.00 and XCD \$10.00. In special development areas such as Frigate Bay, Half Moon Bay and the South-east Peninsula the price of land also varies. Prior to the opening of the Marriott Hotel in 2003, land prices in Frigate Bay topped off at around US \$5.00 per sq. ft. After 2003, land prices in Frigate Bay tripled and quadrupled to US \$12.50 – \$20 per sq. ft. up to 2008. Largely due to the global recession, most of the sales in the Frigate Bay area today are re-sales. Prices have dropped to US \$15 – \$18 per sq. ft. on the hill to US \$8 – \$10 per sq. ft. on the flatter areas around the golf course. In the nearby Half Moon Bay development area land is being sold for US \$7 – \$9 per sq. ft.

It is undisputed that there are currently two land markets in St. Kitts and Nevis – one uses the EC \$ currency and the other, the US \$ currency. The latter market is dominated by expatriates and the former is predominantly used by the local citizenry.

#### 4.8.3 Critical Issues

1. *There is a need for GOSKN to: (a) promote and support the development of an efficient, effective and*

*equitable land market; and, (b) mitigate the negative socio-economic effects of the current land market.*

- 2. The increasing complexity of land markets, the role of the public sector versus private sector actions, and the links between spatial and financial planning.*
- 3. Approval process and procedural delays; the tedious process of approval adds substantial costs to any development ventures.*
- 4. In SKN, a lot of pressure has been put on land and has caused a hike in the land market.*
- 5. Rental markets are particularly important to SKN because transactions based on renting can develop quickly in response to opportunities, can provide ways in which poor but more efficient farmers can access land and landowners can participate in non-farm activities but rental markets are particularly sensitive to policy distortions and insecurity of tenure.*
- 6. Sales markets can provide basis for establishment of financial markets but will be susceptible to imperfections such as distress sales, thin markets, segmentation and other distortions linked to macro economic factors and will not improve access to land by the poor through mortgage purchase or self correct the distortions of original distributions.*

#### **4.9 ROLE OF NON-STATE ACTORS**

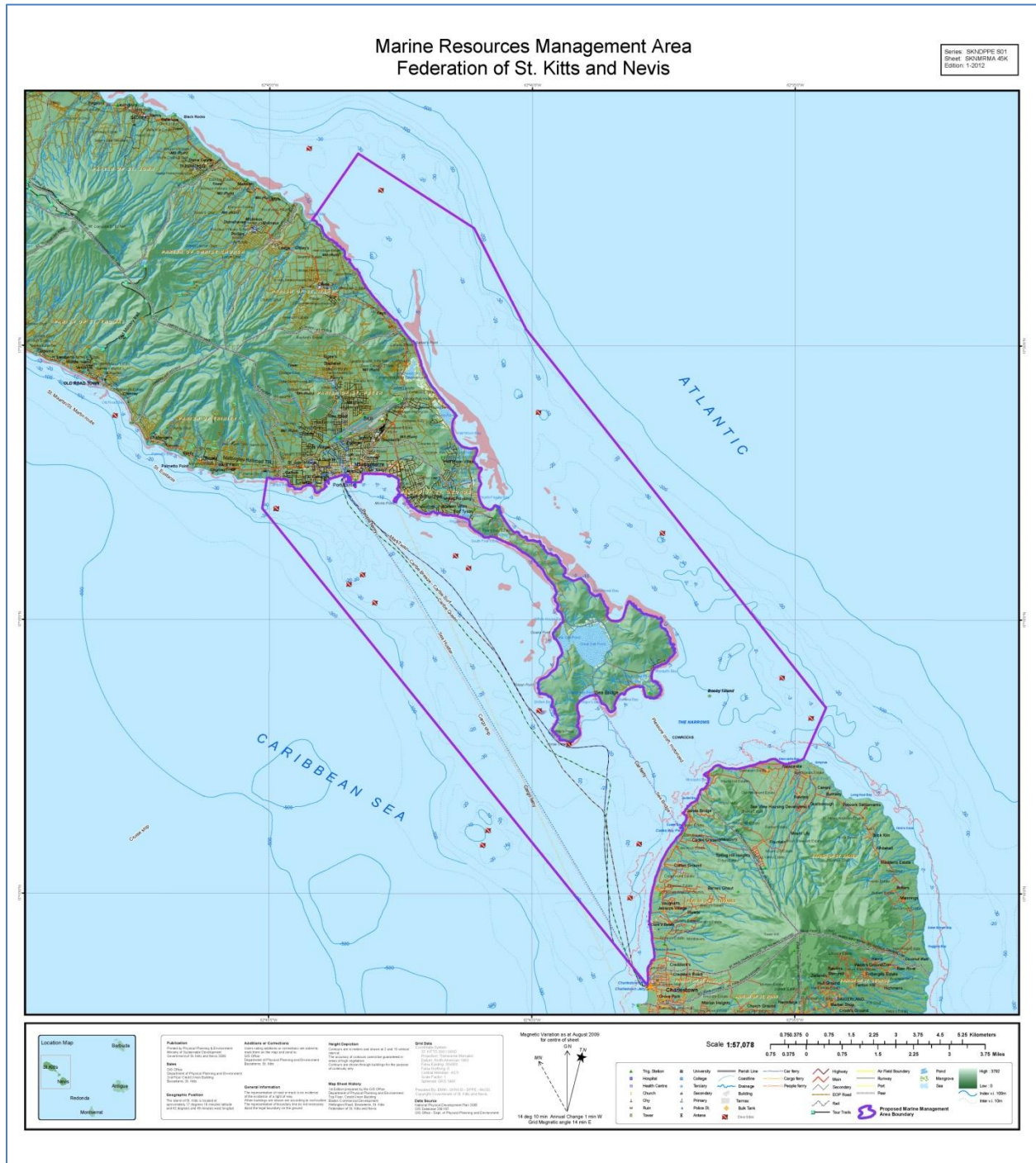
For the effective administration and management of land, there is a critical need to strengthen the National Trust. This institution's purpose includes the conservation of the historical and natural heritage of SKN. The trust should be empowered to preserve historic buildings, pre-historic sites, areas of special beauty and interest with their associated flora and fauna, the reefs, the shoreline, monuments and places of architectural interest. In addition, it should be empowered to acquire property and raise funds for the management of such property.

#### **4.10 COASTAL LAND MANAGEMENT**

The coastal areas of SKN are an invaluable asset and a vital part of its tourism infrastructure. The islands abound in shore and marine natural resources including coral reefs, mangroves, saltwater lagoons, sea-grass beds, as well as coral and volcanic beaches. Coastal resources are being threatened both by continual development and by the ravages of storms, particularly in the last decade. The impact of human activities coupled with land-based processes such as shore development, farming, quarrying, sewage disposal and dredge-and-fill is placing a tremendous stress on the ecological balance of coral reefs, seagrass beds and mangroves causing an unusually rapid decline of marine ecosystems' overall health and ability to function. In SKN, elevated nutrient levels in the coastal zone is caused by wastewater and desalination treatment plant discharges, urban stormwater run-off, agricultural run-off, industrial operations and soil erosion. Nutrients generally enter the marine environment through the many ghauts around the islands. Excessive nutrient inputs from catchments to the coast have lead to imbalances to marine ecosystems. Unsustainable fishing practices assist in the depletion of fish stocks, degrade nursery areas and produce the unintentional removal of non-targeted species during fishing operations (by-catch). Moreover, hotel development has mushroomed at the same time the islands have been visited by several severe hurricanes, most notably Hurricane Georges in 1998 and Hurricane Lenny in 1999.



**Fig. 4.4: Proposed St. Kitts and Nevis Marine Resource Management Area**



**4.10.1 Integrated Coastal Zone Management Programme (ICZMP)**

Like other tropical small island developing states, the coastal and marine resources of SKN are

experiencing degradation. It is for this reason that it is critical that the nation's marine ecosystems be protected. Yet, protection through designation alone remains an inadequate tool. A 2007 proposed GEF-funded *Integrated Coastal Zone Management Programme* (ICZMP) is to provide support for the development of strategies that will contribute to judicious use of coastal and marine resources through a national integrated coastal zone management strategy.

The long-term goal that the project seeks to achieve is the protection and conservation of coastal and marine biodiversity resources and their sustainable use so that ecosystem productivity and ecological functions are maintained while contributing directly to the environmental, economic and social well-being of the country. The project will realize four outcomes: (1) adoption of a comprehensive ICZMP by GOSKN, based on detailed studies of the coastal zone and associated resources, and focusing on the sustainable development of both land and sea resources integrated with long-term protection and conservation of coastal and marine resources; (2) formal designation of a network of *Marine Management Areas* (MMAs); (3) establishment of a government-supported, participatory, multi-sectoral and financially sustainable *Coastal Zone Management Authority* (CZMA) to oversee and monitor the requirements of the ICZMP, the MMA network as well as policy and legislative amendments; and, (4) the creation and management of computerized coastal ecosystem databases to inform decision-making. The two-year project is to be implemented by the DPPE using a multi-stakeholder participatory approach involving public, private and non-governmental organizations.

#### **4.10.2 Marine Zoning Plan (MZP) for SKN**

In 2010, the *Marine Zoning Plan* (MZP) for SKN was funded by the *United States Agency for International Development* (USAID) and implemented by *The Nature Conservancy* (TNC). The goal of the MZP project was to lay the groundwork for future implementation of marine zoning in SKN by assisting in the development of a marine zoning design and providing a set of tools that could inform this and other management efforts. The project had two primary guiding principles: (1) reliance on the best available science for making decisions; and, (2) engagement of stakeholders at all possible levels.

The project team engaged a diverse group of stakeholders including government officials, community groups, the private sector and fishers. Through this participatory process, stakeholders defined a vision for marine zoning in SKN waters. The project devoted significant resources to gathering, evaluating and generating spatial data on ecological characteristics and human uses of the marine environment. Three main approaches were used to fill data gaps: (a) expert mapping, (b) fisher surveys, and (c) habitat surveys. To help GOSKN to make informed planning decisions, finalize a zoning design, and implement a marine zoning plan, the project produced a spatial database with geo-referenced maps of fisheries uses and values, seabed habitat maps, compatibility maps, and outputs of multi-objective analysis and a web-based map viewer. The draft marine zoning design and all of the project activities leading up to it have built a strong foundation for marine zoning in SKN.

#### **4.10.3 Critical Issues**

1. *The beaches and reefs must be preserved if their contribution to tourism is to continue.*
2. *To be effective, designation must be accompanied by a management system and enforcement that*

*focuses on quantifiable social and bio-physical goals.*

- 3. GOSKN needs to build on the foundation of TNC's MZP project and take necessary steps to finalize and implement a marine zoning plan for SKN.*

#### **4.11 WATER RESOURCES MANAGEMENT**

The supply and distribution of potable water is the responsibility of the GOSKN through its *Water Services Department* (WSD). It is estimated that over 90% of the population in St. Kitts is served through house connections while the remaining 10% is located within acceptable distances from stand-pipes (400 m). In 2003, the total water consumption reached 1,540,593 thousand gallons as compared to 1,036,014 thousand gallons in 1993. Whereas surface water consumption has shown a declining trend in the period 1993-2003, well water consumption increased from 537,756 to 1,129,366 thousand gallons during the same period of time.

The principal ingredient into the water distribution system in St. Kitts is rainfall, which is either impounded in reservoirs directly through surface catchments, or is extracted from the ground water reserve through drilling. It is estimated that about 20% of the rainfall becomes ground water flow or a ground water recharge, accounting for approximately 6 million gallons per day (mgd).

The current total water production capacity is seven (7) million gallons per day (mgpd) of which two (2) mgpd is extracted from surface springs and five (5) mgpd from twenty-nine (29) tube wells. The wells range in capacity from 25 gallons per minute (gpm) to 400 gpm. The depth of wells ranges from 80 feet to 350 feet. The Basseterre Valley aquifer is the main source of ground water supply in St. Kitts, yielding an estimated two (2) million gallons per day. The WSD estimates that the total groundwater potential safe-yield is about 11 mgpd. Therefore, the island of St. Kitts potentially have another six (6) mgpd to develop for future expansion (over the next five years).

There are also two (2) privately-owned desalination plants operating on the island with capacities of 0.8 and 11.2 mgpd. Both supply golf courses. The desalination plant at the Frigate Bay Gold Course is already operational.

There are about thirty (30) service reservoirs ranging in size from 40,000 gallons to 2 million gallons. Total storage capacity is about 5.5 million gallons in the Basseterre/Frigate Bay area and about 1.5 million gallons in the rural areas.

Water quality is generally of an acceptable standard. However, after heavy showers the water becomes turbid. This is of major concern as water is only treated at the La Guerite treatment plant in Basseterre. In the rural areas, water is taken directly from streams and/or wells directly to the distribution systems. GOSKN is considering plans for the treatment of all water supplies in the very near future.

Over the next five years Basseterre would need an additional one (1) million gallons and the rural areas an additional 0.5 million gallons. Future demand for water will be derived from population increase; increases in the number of households; higher levels of consumption; and the overall broadening of the economic base of the country. The housing sector and the tourism

industry, in particular, the accommodation and the emerging golf sector, are likely to be the major consumers of the country's potable water supply. There is therefore a need to undertake frequent water demand analyses to ascertain the WSD's capacity to respond to the anticipated increased demand.

#### **4.11.1 Critical Issues**

- 1. It is prudent to protect and conserve both surface and underground potable water sources on St. Kitts and Nevis. The cost of environmental protection of catchments to facilitate aquifer recharge could result in lower water costs than those associated with alternative sources, such as desalination. The unit cost of desalinated water is typically in the order of ten times higher than that obtained from groundwater.*
- 2. GOSKN needs to examine the extent which communities and other beneficiaries can be involved in managing water resources.*

#### **4.12 CLIMATE CHANGE CONSIDERATIONS**

The *Nairobi Declaration on Climate Change* (1990) asserted that, “*global climate change is fundamentally different from the conventional environmental agenda where the practice has been to react and correct. The challenge now is to anticipate and prevent.*” This declaration provides the point of departure for assessing the vulnerability of the natural resources of SKN to climate change and the provision of ideas relevant to policy guidance for the sustainable management of the natural resources of SKN.

Natural systems sensitive to climate change in SKN include water resources, agriculture (especially food security), forests, coastal zones and marine systems (particularly fisheries), human settlements, energy and industry, insurance and other financial services and human health.

The Barbados-based *Caribbean Institute of Meteorology and Hydrology* (CIMH) notes the following recent climatic trends in the Caribbean:

- Mean temperature increases of about 1<sup>0</sup>C (1976-2000) and thus increased evaporation;
- Maximum & Minimum Temperatures ~ 5% increase (1958-99);
- Reduction of annual rainfall in most countries except northern parts of the Caribbean (1900-2000);
- Increase in frequency of high intensity rains, 3% increase in heavy rain events (1958-97);
- Maximum # of consecutive dry days (1958-99) declined by 6 days; and,
- Sea level increases of up to 20 cm in the last century in the north.

Projections for the future show a temperature change by season of between 2.0<sup>0</sup>C and 3.3<sup>0</sup>C by the year 2080. Precipitation change for the said year is anticipated to range between -4.4% and +24.4%. By 2080, mean sea level rise is projected to rise between 0.13m and 2.0m. The number of tropical storms per year is projected to range between 7 and 10 and the number of severe

hurricanes per year is predicted to range between 2 and 4. The increased wind speed of the strongest hurricanes is likely to increase by 10 – 15%.

These projections are alarming to the extent that they will adversely impact SKN. Projected drought and/or decrease in precipitation will lead to reduced crop yields, loss of livestock due to body weight, diseases, lower fertility and juvenile mortality. Forestry resources will be affected by reduced base flow, increased evapo-transpiration, water scarcity, altered soil conditions, changes in altitudinal zonation and species type.

Anticipated increases in rainfall frequency and intensity could lead to increased flooding and landslides, increased sedimentation and flooding, water courses prone to flooding, ghauts overflowing their banks, damage to cropland through soil erosion and leaching, damage to residences and businesses due to flooding and the disruption of economic activities, particularly tourism.

Any increase in the frequency and intensity of hurricanes would lead to coastal storm damage and damage to buildings and infrastructure affecting the entire economy and foreign exchange earning potential including tourism, agriculture, forests and other terrestrial habitats and biodiversity and endemic species.

An increase in sea level rise has the potential to inflict considerable coastal damage including loss of reduction of freshwater resources through over-extraction and inundation by storm surges, increased contamination of near surface lenses due to surface run-off of contaminated water, contamination of underground aquifers leading to the abandonment of wells due to saline intrusion and salinization of agricultural soils.

Climate change may impose new stresses on reefs, or it may interact synergistically with more direct anthropogenic pressures to accelerate environmental damage. Fisheries impacts include habitat degradation (mangroves, reefs, sea grass beds), negative impacts on biological production of the sea including fish production changes in upwelling rates would have major impact on coastal fish production. Additionally, an increase in the frequency of El Niño events will lead to decline of plankton biomass and fish larvae abundance – adverse effect on fish and ocean biodiversity.

Precious water resources will decline as evaporation and evapo-transpiration increases due to temperature increases.

#### **4.12.1 Critical Issues**

*It is imperative that GOSKN take the following steps:*

- 1. Ensure the protection of natural systems, maintenance of biodiversity and preservation of ecological systems.*
- 2. Minimise resource depletion, environmental degradation and cultural disruption to ensure sustainable livelihoods.*
- 3. Encourage conservation, efficiency and the adoption of appropriate technologies in the energy and*

*water sectors.*

- 4. Encourage and promote private water storage (cisterns).*
- 5. Develop information systems to facilitate sound environmental management.*
- 6. Strengthen institutions within the MSD responsible for sustainable land management.*
- 7. Ensure compliance with environmental, planning and infrastructure regulations, guidelines and standards with climate change provisions.*
- 8. Ensure that sea level rise and storm surge are considered in the evaluation of development proposals within the coastal zone including coastal setbacks and raised floor level.*
- 9. GOSKN's development policy and budget processes must anticipate the effects of climate change.*
- 10. GOSKN must link national adaptation programmes to regional and international initiatives on climate change.*
- 11. GOSKN must ensure that the capacity of individuals, organizations and authorities at the community, local, and national level are developed to institutionalize adaptive management to climate change.*
- 12. GOSKN must ensure that adaptive management strategies for climate change build on the foundation of local knowledge systems, and traditional wisdom and coping and survival practices.*

#### **4.13 URBANIZATION ISSUES**

The city of Basseterre was designated as the English administrative capital of St. Kitts in 1727 following a century of disputes between the English and French colonists. By the end of the 18<sup>th</sup> century, Basseterre was the center of commerce on the island with over 3,000 urban residents and had a bustling port. The capital city was also becoming a culturally diverse center. Irish Town, at the western portion, was populated by Irish Roman Catholics who had come to St. Kitts to work as indentured servants. Because of their religious affiliation, they were discriminated against by the British who were primarily Anglican.

By the end of the 19<sup>th</sup> century, approximately one half of the population of St. Kitts resided in Basseterre. Prior to the abolition of slavery, most whites lived on sugar plantation properties and the vast majority of blacks lived outside the City on the plantations where they worked. However, a few black skilled crafts-persons lived in Basseterre. Following Emancipation, as the number of plantations continued to decline, many blacks began to move to Basseterre.

Today, most downtown buildings are late 19<sup>th</sup> century and early 20<sup>th</sup> century structures and some date back even further. However, a few downtown properties have either been renovated or totally rebuilt. Notwithstanding, modern town development has been slow to hit Basseterre. Many buildings show signs of applied facades from different periods as attempts were made to update them to modern status in the 1960s and 1970s. Generally, the continued traditional use of the downtown area as a commercial center has contributed to unplanned preservation of the townscape.

Pressure for approvals to use land for manufacturing, industry, tourism and for expansion of urban and rural settlements continues to be strong. Land use decisions need to be taken within the ambit of integrated urban development plans based on cost benefit analyses into which is factored environmental criteria, the so-called sustainable development approach.

In no other sector is the need for sustainable development so great as in the urban sector. The 2005 *Basseterre Urban Revitalisation Plan* (BURP) attempted to respond to the pressure points

of shelter, employment creation, food supply, water, waste disposal, energy, transport, health and social services in the capital city of Basseterre within a framework of integrated planning.

#### **4.13.1 Critical Issues**

1. *Shelter is a particularly critical issue. The lack of home ownership amongst urban residents is largely due to scarce and expensive financing, unavailability of land, and standards and regulations that prohibit the participation of this group in the formal housing market. Accordingly, the poor provide their own shelter and, sometimes, on lands that are not suitable for this purpose.*
2. *Within the inner city areas of Basseterre, it is necessary for the GOSKN to identify and redevelop lands with basic infrastructure on which persons in the lower socio-economic groups would have access for residential and commercial activities.*
3. *It is desirable to return dilapidated and abandoned property to productive use and back onto the local tax roll as well as revitalising neighborhoods and businesses.*
4. *The upgrading of downtown urban streetscapes through the use of appropriate lighting, landscaping, signage, sidewalk improvements and street furniture is mandatory.*
5. *The identification of buildings/monuments of architectural or historical interest, archaeological sites and other areas which may require implementation of conservation measures should be implemented.*
6. *Appropriate management strategies should be put in place to curb increasing population growth and rapid urbanization in order to reduce pressures on the environment and the limited land area.*
7. *GOSKN must ensure that urbanization does not result in the loss of prime agricultural lands and that it does not mean a complete loss of agricultural development in an area. In fact agriculture can adapt to urbanization through the intensification of farming practices, so that the expansion of the zone of urban influence does not undermine agricultural productivity.*
8. *Within the inner city areas of Basseterre, the issue of “family lands” need to be addressed to allow for urban revitalization and regeneration.*

#### **4.14 AGRICULTURAL PRODUCTIVITY**

The *Agricultural Development Strategy (2006)* identifies the development of commercial farms as critical to increasing food production and security in SKN. Accordingly, specific lands have been identified for distribution to farmers in an attempt to increase the production of fresh vegetables and fruits. The objective is to increase the supply of selective crops to a point where consumers can benefit from reduced prices of vegetables on the local market. The contribution of the agriculture sector to real GDP declined from 15.6 percent in 1980 to 5.2 percent in 2004, and 1.43% in 2012.

##### **4.14.1 Crop production**

St. Kitts have a total cultivable land area of about 22,000 acres, of which some 12,000 actually are cropped. Despite the thrust toward tourism, however, agriculture is expected to play a vital role in the economic future of St. Kitts.

##### ***Vegetable cultivation***

Vegetables, root and tubers are grown on holdings that are up to 8 hectares in size. Crop farming is dominated by small farmers with average holdings of less than 1.0 hectare and a few larger

farms of holdings that are greater than 5.0 hectares. The crops cultivated include pumpkin, carrot, watermelon, cucumber, tomato, sweet pepper, string beans, onion, white potato, sweet potato, dasheen and yam. However, a large amount of food is imported into the country on a regular basis. The value of vegetables and fruits imported on an annual basis is over EC\$18M.

### ***Fruit and tree crops***

The landscape of St. Kitts is characterized by a range of fruit trees found in the foothills of mountains, along ghauts and the sides of mountain paths. In terms of established orchards, there is one main mango, citrus and avocado orchard in Wingfield Mountain. Along with this 13 hectare orchard there also exists two smaller mango orchards in Molineaux and Parsons that are managed by individual farmers. Farmers are now planting more of the minor exotics namely carambola, hybrid guava, Indian Jujube and wax apple with a small emphasis on the traditional fruits.

#### **4.14.2 Livestock farming**

In 2012, output from the livestock sub-sector contracted by 26.0% as disease, poor husbandry practices and the high cost of feed remained a challenge for livestock farmers. There still exists a large gap between imported meats and locally produced meats with the exception of beef. However, the challenge still exists to substitute large quantities of imported meats and to sustain the improved level of beef production.

#### **4.14.3 Fishing**

The fishing sub-sector recorded a slight decline in performance during 2012. Fish landings declined by 3% totalling 692,780 pounds when compared to 2011 with a total value of XCD \$6.8 million.

#### **4.14.4 Lands required for future agricultural activity**

The issue of land use policy, production zoning and the utilization of idle lands has become even more crucial in determining the future direction and development of the agricultural sector. In this regard, the DOA and DPPE have collaborated on the finalization of an agriculture land use map, primarily based on the goals and objectives of the ASP but also utilizing land suitability and capability criteria. The suitability of remaining sugar land for potential agricultural land uses was determined by studying a number of land quality and characteristic factors including land capability, soil type and fertility, elevation, slope zone analysis, annual precipitation, and proximity to water for irrigation. Preliminary indications are that 569.25 acres and 1,389.81 acres will be needed for crop production and livestock production, respectively, over the next fifteen years.

#### **4.14.5 Critical Issues**

- 1. Lands for agriculture should be allocated based on the capability, suitability and ability of land to support various agricultural activities.*



2. *Crop production continues to be mainly rain-fed resulting in surplus vegetable production during the first four to five months of the year and shortages for the remaining months. Investment in the provision of irrigated water to farmers is a necessity to ensure sustained crop yields.*
3. *Monkeys remain a major pest while increasing crop damage caused by stray/roaming animals has become a major problem for crop farmers.*
4. *Limited access to land for some crops including peanut, white potato and fruit trees appears to have restricted their development despite significant domestic market opportunities.*
5. *Under-utilized tree crop cultivation is a high potential commercial venture and an environmental necessity if the rate of land degradation is to be reduced and aquifer-recharge enhanced. The development of orchards to enable substitution of imported fruits and fruit juices would take time, but encouragement should be given to introducing tourists to local fresh fruits and juices to stimulate interest and improve the prospects for local processing of a range of such juices.*
6. *The livestock sub-sector is facing several challenges including: (a) an absence of commercial farmers; (b) low management and husbandry skills of livestock farmers; and, (c) insufficient lands allocated to livestock development.*
7. *The effects of climate change can have a devastating effect on the continued development of the fishing sub-sector. The primary concerns include potential changes in the distribution and structure of species and their habitats. It is mandatory that GOSKN explore adaptive measures that will build resilience within the fishing sub-sector, as well as protect the biodiversity of our marine species in surrounding waters from over-fishing.*
8. *Food security is a major concern for SKN, which are very small islands with limited quantities of agriculturally suitable lands and large expanding populations. The land resource base is therefore subjected to increasing pressure.*
9. *There remains the need to regulate and stimulate small farmers to improve farm management practices and overall production. Sustainable productivity of small holdings has the potential to stimulate the rural and by extension the national economy.*
10. *In order to ensure an adequate level of food security, the Ministry of Agriculture must encourage the development of a limited number of commercial farms. In fact the availability of former sugar lands in areas earmarked for agriculture provides a ideal opportunity to pursue large scale farming which maximizes production through the use of inputs such as machinery, fertilizers, irrigation, etc.*
11. *From an environmental management perspective, a move to large-scale farming also implies the widespread clearing of land which can result in disturbance and loss to floral and faunal populations.*

#### **4.15 RISK ASSESSMENT AND HAZARD REDUCTION AND MITIGATION**

Reminders of the diversity of hazards affecting us in SKN are ever present. The recent and On-going swarm of earthquakes remind us of the 7.5 magnitude earthquake in 1974. The ravages of Hurricanes Hugo (1989), Luis (1995), Marilyn (1995), Bertha (1996), George (1998), Hurricane Jose (1999), Lenny (1999), Omar (2008) and Earl (2010) are tangible reminders that SKN needs to focus on hazard and risk reduction strategies. Also, in recent times, there has been significant flood events (1998) adversely impacting life, property and business operations in the capital city, Basseterre.

These natural disasters may have been exacerbated by unsustainable practices and poor developments. Natural disasters affect our economic well being, in particular our agricultural and service sectors, our social well being - through injury and loss of life, loss of possessions, incomes and in some cases loss of health service, and thus our ability to recover from the impact

of such disasters. In many instances, government had to bear the majority of the rehabilitation costs, since most persons affected did not have insurance coverage or adequate financial means to undertake restoration works and recovery of livelihoods.

In 2001, the Cabinet of Ministers established a Natural Hazard Management and Mitigation Council which is chaired by the Honourable Prime Minister. The Council has responsibility for ensuring that SKN is in a state of readiness to respond to emergencies and for co-ordinating responses in the aftermath of a hurricane or any other natural disaster. Notwithstanding the creation of the Council, the evidence suggests that development decisions in SKN continue to contribute to the country's vulnerability. The experiences of residents along the Caribbean coastline of St. Kitts, between Old Road and Sandy Point, in the aftermath of recent hurricanes attest to this and make clearer the need to revisit disaster management strategies in SKN. Additionally, much of the adverse effects of these natural disasters could have been reduced if appropriate mitigation measures had been implemented.

It is in this regard that the OECS Disaster Risk Management Benchmarking Tool, otherwise known as the Vulnerability Benchmarking Tool or more simply the BTool, provides a specific action agenda directed at achieving a measurable reduction in SKN's disaster response risk profile. The tool itself is an integral part of a spectrum of activities designed to improve the ability of national governments, civil society organizations and the private sector, to proactively plan and implement actions to reduce vulnerability to natural disasters and create greater economic resilience when they do occur. The Benchmarking tool is one of a suite of instruments which, if adopted, will allow SKN to attain a better understanding of where the country sits on the resilience continuum.

#### **4.15.1 Critical Issues**

- 1. For environmental risks to be reduced, development policy needs to change at the national level to address issues directly related to land management. Varied frameworks, including national visions for sustainable development, are used to plan country development agenda.*
- 2. A country vulnerability assessment needs to be conducted using the OECS Benchmarking Tool methodology so that the private sector, GOSKN and its citizenry will know the areas on which we need to concentrate. Emphasis on the capture and documentation of lessons learnt is essential.*
- 3. NEMA needs to update its disaster management policies, national response plans and hazard management plans to support the National Emergency Management Plan.*

#### **4.16 ILLEGAL SAND MINING**

Over the years, illegal sand mining has been a continuing problem in SKN. This practice has had adverse effects and consequences on the landscape, ecosystems and economy of SKN. Sand is needed to build houses, however licensed person are importing sand which is to be used for construction. Illegal sand mining has become more pronounced with the boom in the construction industry. As a result, several problems have arisen.

It has reduced the beauty of the beaches which we need as additional marketing tools for the tourism industry, it exposes the coastline to erosion and it also creates a situation where the breach of the law, if allowed to continue, may escalate to other areas.

In many instances, unsupervised illegal sand mining has led to the significant removal of sand from coastal berms, which is the area between the water and further inland. Once the berm is removed, it leaves coastal areas more vulnerable to flooding in the instance of high seas.

Three species of turtle, specifically the leatherback, hawksbill and green turtle, nest on the beaches of SKN. The biodiversity of SKN, including the sea turtle population, is under threat due to the increase in illegal sand-mining that is taking place. Tractors and other heavy machinery used for sand mining can also destroy turtle eggs.

Whilst beach sand mining is allowed on the island of St. Kitts, the authorities in Nevis have taken a “zero tolerance” stance when it comes to persons illegally mining sand from the island’s beaches. In Nevis, imported sand is currently being sold for \$120 per cubic foot while illegally mined sand is being sold for \$90-\$95 per cubic foot.

In St. Kitts, the procedure to be followed by persons desirous of obtaining sand is to make payments to the Public Works Department at EC\$5.00 per cubic yard for ghaut sand and EC\$7.00 per cubic yard for bay sand. The department will in turn indicate the specific mining area where the materials can be acquired.

Section 30(a) and (b) of the NCEPA, the 2002 revised edition, states, “*No person shall remove or assist in the removal of any natural barrier against the sea, or engage in sand mining from any land that is part of the foreshore, or from any land within the coastal zone except under the authority of a permit granted by the Minister in writing, in such form as the Minister approves.*”

Further, Section 36 of the NCEPA, which speaks directly to offences related to beach protection reads: “*... any person who removes barrier against the sea or digs and takes away or assists in digging and taking sand, stone, gravel, or shingle in contravention of section 30 commits an offence and is liable, on summary conviction, to a fine not exceeding ten thousand dollars or to imprisonment for a term not exceeding one year or both.*” Additionally, any vehicle, or other equipment used in committing the offence, is also liable for forfeiture.

#### **4.16.1 Critical issues**

1. *As a means of deterrence, it is necessary to educate the general public on the negative effects of illegal sand mining both at the coastal level and deep inland at the rivers around the island.*
2. *The implementation of a “zero tolerance” approach to sand mining on the island of St. Kitts and the strict enforcement of the NCEPA.*
3. *In respect to the ghauts, COSKN needs to continue monitoring of ghauts so as to ensure that when a site is declared legal the mining operations are done in a sustainable manner.*

#### **4.17 WETLAND INFILLING**

The Federation is losing its coastal mangrove habitats due to developmental pressure and natural hazards. Consequently, there are very few remaining wetlands in the Federation, the largest of which are on the island of Nevis. These are presently under threat by infilling for residential homes and hotels which are seafront properties with high market value. On the South-east Peninsula, all of the coastal mangroves along the Cockleshell Bay beachfront was removed and a significant portion of the salt pond was filled for the construction of the Casablanca Hotel project. Mangroves along the Majors Bay salt pond were lost due to the construction of a coastal road along the beach berm. The Christophe Harbour developers have filled in significant portions of the Great Salt Pond to allow waterfront residential homes by their proposed marina. Mangrove destruction has occurred in the Frigate Bay and Half Moon Bay areas. The mangroves and associated wetlands around the Great Heeds Pond are under threat from the operations of St. Kitts Masonry products.

Today, development and conversion continue to pose major threats to wetlands, despite their ecosystem value and importance. KRL Hospitality, Inc. (“KRL”) is about to commence construction of a new US \$180 million development, Koi Resorts and Residences, on the island of St. Kitts. The Resort will be a luxurious internationally branded hotel with meticulously appointed villas and suites all built on the Half Moon Bay salt pond. Project activities include the filling of part of the pond and the building of the infrastructure. Jobs and economic growth have been touted as the number one priorities of GOSKN for 2013. PM Hon Denzil L. Douglas stated that, “construction and construction-related activities will figure very prominently in the economic momentum that we have worked to generate.”

#### **4.17.1 Critical issues**

1. *A methodology needs to be developed to assess the value of wetland ecosystems before all is lost.*
2. *Where feasible, mangrove seedlings and other wetland plants should be collected for transplant and propagation;*
3. *Map all remaining wetlands within a comprehensive GIS database and declare a moratorium on their use for developmental purposes.*

#### **4.18 LAND TAXATION**

In SKN, every property owner is liable to pay Property Tax, unless an exemption is made under the provisions of Section 6 of the Property Act. Exempted properties include buildings used for divine worship, schools and properties owned by government.

The Property Tax Act (No. 13 of 2006) uses a market value approach to assess properties on SKN. Market value is the amount that a property might be expected to realize if it is sold on the open market by a willing seller and buyer, both dealing at arm’s length. The Property Division of the Inland Revenue Department uses three approaches to calculate market value – sales comparison, replacement costs and income approach.

The following rates of taxation are applied to the following five valuation classes:

- Residential properties – 0.2%;

- Commercial properties – 0.3%;
- Accommodation – 0.3%;
- Institutions – 0.0%; and,
- Certified agricultural land – 0.0%.

There is a surcharge for areas designated as “Special Development Areas”, such as the South-east Peninsula and Frigate Bay, and is applied after ownership is held beyond a period of one year and the owners fail to develop the land. The surcharge is applied at a rate of 1% of the assessed value for the first year and an additional 1% each year up to a maximum of 5%. The Minister of Finance reserves the right to change the surcharge rate. In “Special Development Areas”, a special tax is also paid to the government. Vendors are legally obligated to pay a transfer tax of 12% of the consideration whenever there is a change of title.

#### **4.18.1 Critical Issues**

1. *There is a need for all streets in SKN to be named and for all houses to be issued a number. This would significantly reduce the number of mails issued by the Inland Revenue Department being returned to the institution.*
2. *A mechanism needs to be put in place that allows access to land information by the Property Division of the Inland Revenue Department from the DPPE and the DLS thereby allowing efficiencies in land tax collection.*
3. *Land taxation will be an important source of revenue for GOSKN and land taxes have some advantages over other forms of revenue raising so that despite the political difficulties of collection greater use can and should be made of simple land taxes.*
4. *GOSKN needs to investigate the extent to which taxes and/or financing incentives can be used for promoting greater use of SLM principles in development projects.*

## **5.0 SYNTHESIS OF NATIONAL WORKSHOP**

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The National Land Issues Workshop was held at the Marriott Hotel in St. Kitts on May 27<sup>th</sup> 2013. The workshop attracted 28 participants from the public and private sectors as well as the NGO community. The full workshop report can be viewed in Annex C.

## **5.1 RECOMMENDATIONS/STRATEGIES BY THE CONSULTANT**

Mr. Patrick Williams, the Issues Paper Consultant, highlighted the main land issues encountered in SKN as follows:

- The need to ensure adequate and efficient inter-agency coordination with respect to the development and planning process;
- The inadequacy of data management systems for SLM;
- The lack of tenure with respect to “family lands”;
- The need to pay increased attention to watershed protection, coastal protection and marine conservation in the development planning process;
- The need to minimize flooding and erosion through the maintenance of soil conservation activities on former sugar-cane lands;
- The need to adopt proper land use and land management practices to reduce soil depletion and erosion associated with the clearing of vegetation on steep slopes and uncontrolled grazing by loose livestock;
- The need to regulate the extraction of beach sand for construction purposes which is resulting in severe problems of coastal erosion and reduction of the recreation capability of beaches;
- The need to regulate quarrying activity on Nevis as this is causing land degradation and the smothering of corals in the near-shore marine environment;
- The need to control bush fires as this is causing extensive damage to landscapes and increasing the potential for soil erosion and sedimentation on adjacent marine habitats;
- The need to collect statistical and other data on the extent and seriousness of landlessness;
- The need to upgrade the existing National GIS at the DPPE to a cadastre-based LIS to enable data management in SKN and to allow for improved land administration and management; and,
- The need to protect and conserve both surface and underground potable water sources as these sources of water are cheaper than alternative sources such as desalination.

## **5.2 SUMMARY OF REGIONAL ISSUES BY UWI REPRESENTATIVE**

Speaking on behalf of UWI and OECS, Mr. Sunil Lalloo introduced the following similarities that impact on regional land policy development: (a) size; (b) population density; (c) economy; (d) vulnerability; (e) resource management; and, (f) institutional capacity. He summarized the key regional land policy issues to include: (a) land tenure, informal tenure; family land and squatting; (b) social impact priorities; foreign ownership, access to land, culture, evictions and relocations; and, (c) land availability and use, conflicting and conversion of use. He identified the key land issues specific to St. Kitts and Nevis as: (a) fears concerning the foreign control and ownership of land; (b) institutional weaknesses and lack of inter-agency coordination; (c) the lack of a complete land cadastre; (d) the need for an effective land administration framework; and, (e) the need for a land information management system.

### 5.3 SOLUTIONS PROPOSED BY PARTICIPANTS

Following the two presentations, participants got very involved in discussions during a plenary session. During the plenary session, participants offered the following solutions to some vexing issues:

1. The Police are not doing a good job in terms of enforcement simply because they themselves do not know the laws. Increases education and awareness of Police and the Magistracy is recommended.
2. Politicians too are not well informed of the laws. Often times many of them tend to make decisions or allow certain things based on political reasons (cases in point: a house in Nevis was allowed to be built above the 1000 ft. contour and one in St. Kitts was allowed to be built on the beach).
3. Land administration is weak and systems ought to be put in place to ensure improvements.
4. There is a lack of cooperation and collaboration between agencies particularly with respect to the sharing of critical land management information. Options for new institutional collaboration should be considered and explored.
5. Sand mining is also an issue that needs to be looked at. One solution is the possibility of generating commercial sand from quarrying operations.
6. While the GOSKN has continued to pursue an aggressive policy of providing lands for public use and general distribution to the poor, the rise of a secondary US dollar land market can no longer be ignored.

During the afternoon session, workshop participants were divided at random into three working groups to discuss the following issues:

- Group 1: Land Policy and Legal Framework;
- Group 2: Land Administration and Management; and,
- Group 3: Sustainable Development;

This approach in my view maximized the participation of participants by ensuring that there were synergies created by persons of different backgrounds being involved in discussions in areas that were not their normal comfort level. Following the working group discussions, the participants were assembled in a plenary session to hear and discuss the results of their discussions, as presented by the working group rapporteurs.

With respect to the way forward, participants discussed a number of approaches, as follows:

- a) St. Kitts and Nevis requires a structured approach to land markets, social equity and access to land and environmental protection and sustainable land use practices.
- b) St. Kitts and Nevis needs to pursue land policies which will improve the viability of production systems, address social needs of housing/settlement and poverty reduction and achieve environmental balance in the use of land resources.
- c) GOSKN should attempt to ensure security of tenure, improved land administration, protection of renewable and non-renewable resources and access of disadvantaged groups to land and water.

- d) The development of a Land Information System should include appropriate baseline and inventory data, information on natural resources and areas of informal settlements to allow for social equity analyses.
- e) Land policy needs to take into account preparation and response to natural disasters including hazard mitigation.
- f) Soil loss needs to be emphasized again as it has implications for sustainable agriculture and high rates of sedimentation impacting nearshore ecosystems such as coral reefs and sea grasses.
- g) There is an urgent need to address “family” lands in the inner-city areas of Basseterre.
- h) The policy to allow in-filling of wetland areas need to be re-examined with the view to curtailing this activity.
- i) The need to find and promote alternative sources of sand with the view of halting unconditionally sand mining activities along the coastline of St. Kitts and Nevis.

#### **5.4 VIEWS OF CONSULTANT**

I am satisfied that the workshop went very well and arrangements were impeccable. There was a high level of participation during the discussions held at the workshop out of which the Consultant was able to further strengthen the draft document. Specifically, the workshop allowed the Consultant to include aspects of beach sand mining, the land market, “family lands”, wetlands management and hazard response and mitigation that were missing from the earlier drafts.

However, the Consultant had two major concerns. One stemmed from the fact that there were only three participants from Nevis. The other had to do with the failure to establish a Steering Committee (SC) for the project. Whilst the workshop provided the Consultant with some positive feedback, the preferred option would have been to present the Consultant’s findings to the SC for review.

## **6.0 CROSS-CUTTING ISSUES**

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### **6.1 ISSUES THAT CUT ACROSS LAND ADMINISTRATION AND MANAGEMENT IN SKN**

The major cross-cutting issues with respect to land policy issues can be summarized into five groups, namely:



- Conceptualisation and formulation of policies, legislation, strategies and programmes;
- Implementation of policies, legislations, strategies and programmes;
- Engagement and building of consensus among all stake-holders;
- Mobilisation of information and knowledge; and
- Monitoring, evaluation, reporting, and learning

The cross-cutting issues can be summarized as a lack of, or inadequate:

- National land policy and legal framework;
- Enforcement of existing regulatory framework;
- Awareness and exchange of information;
- Institutional mandates, co-ordination and processes for interaction and co-operation among all stakeholders;
- Land information systems management;
- Financial resources; and
- Incentive systems and market instruments.

### **6.1.1 National policy, legal and regulatory framework**

With respect to the NEMS, there is no effective cooperation policy in SKN on environmental and related administrative matters, or adequate regulations to ensure compliance with existing environmental legislation. However, the preparation of the NCEMA presents an opportunity for the development of an appropriate legal and regulatory framework that could potentially strengthen the implementation of environmental provisions. A review and analysis of policy related to the implementation of the NEMS is needed. This process should have high level support and should result in the development of appropriate policies.

### **6.1.2 Monitoring and enforcement**

Systematic monitoring of projects that impact on the environment or the monitoring of policy implementation and its effects on the environment and human livelihoods are essentially non-existent. Enforcement to ensure compliance with existing policies and laws or regulations related to the environment, is poor.

Sufficient trained staff, dedicated to monitoring for compliance is needed. Institutionally, staff redeployed and dedicated to monitoring and compliance responsibility within the Ministry of Sustainable Development should be considered. This redeployment should also facilitate technical assistance to departments as needed, in the implementation of their programmes.

### **6.1.3 Awareness and exchange of information**

Senior decision makers, particularly politicians, are insufficiently aware of the national irreversible consequences of ignoring the prescriptions of EIAs, or of the extent of sustainable benefits to be accrued from enlightened environmental stewardship. Detailed information on development projects that may have large negative impacts are not readily shared with many departments, NGOs or other civil society parties. There are opportunities to improve

transparency in decision making and information exchange, including best practice in planning or impact mitigation. A policy on information sharing in decision-making and related administrative framework is needed.

#### **6.1.4 Institutional mandates, co-ordination and processes for interaction and co-operation**

The institutional mandate with respect to land administration and management seems to be clear within the departments responsible for land management in SKN. However, active co-ordination and processes for informed and meaningful interactions and co-operation are weak or not well defined, leading to less than desirable outcomes. Inviting representatives from different agencies to an “as hoc” committee meeting to discuss issues does not necessarily lead to better co-ordination or co-operation. Roles (including terms of reference), targets, resources and sources of funds must be agreed upon. Wherever appropriate, the “coordination committee” should be Cabinet appointed or the committee could be established by statutory instrument to ensure that it has sufficient legitimacy.

#### **6.1.5 Institutional management and performance**

MSD departments generally report through the Permanent Secretary to the Minister. However, there appears to be no clearly defined mechanism that ensures departments are held accountable for delivery of their annual work programmes. No routine performance evaluation of work programmes were carried out within most departments. Training in programme planning, including the preparation of work programmes and development of performance indicators are needed to improve efficiency. A system of periodic performance measurement has to be developed and procedures put in place to help staff identify and overcome deficiencies.

#### **6.1.6 Access to land information systems**

In SKN, some GIS land information is organized and available in hard copy and digital format. However, there is currently no efficient land information management system in which maps and other information relating to land management are readily accessible to the public. All available land information needs to be catalogued and stored in a centralized, systematic retrieval system. A digital cataloging system should be utilized to improve efficiency. The setting up of a clearing house facility is needed for the collection and cataloguing of related land information and the facilitation of public access to such information.

#### **6.1.7 Access to financial resources**

The government currently allocates financial resources to pay existing staff salaries at the agencies responsible for land administration and management. However the budget does not allow for capital or development costs associated with implementation of existing land policies. The government also makes some in-kind contributions towards implementation of related projects. The ability of the DPPE and the DPPNRE to access funds needs to be improved.

## **6.2 CONCLUSION**

Most of the cross cutting capacity issues identified above are at the systemic level, that is, the overall policy and framework in which land management agencies operate and interact with each other. Several of the other cross cutting issues are at the institutional level, that is, the overall organisational performance and functioning capabilities, as well as the ability of organisations to develop and successfully implement programmes or activities to address challenges within their jurisdiction. These cross cutting capacity issues should be considered as priority elements for attention in the development of any future land policy for SKN.

The following eight priority actions are critical to the preparation of any future land policy to protect the land resources of SKN:

1. Establishment of a public education and awareness programme;
2. Strengthening of planning and environmental regulation and enforcement support structures;
3. Upgrading of the respective NPDP documents on both islands;
4. Regularisation of squatter residential communities and squatter agricultural lands;
5. Preparation of minimum standards for quarrying activities;
6. Implementation of an integrated management structure to ensure the protection of the country's potable water resources;
7. Strengthening of the Land Management Unit to ensure soil conservation; and,
8. Establishment of a unified real estate registration system through the creation of a sound land registration and cadastre system.

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## **ANNEX A: COUNTRY SITUATION OVERVIEW**

### **St. Kitts and Nevis Data Profile**

	1991	2001	2011
<b>DEMOGRAPHY</b>			
Population, Total	40,618	46,323	46,204

Population growth (annual %)	-0.56	1.41	-3.03
Females (% of population)	50.93	50.41	50.79
Youth (% of population under 18 years)	44	38.4	NA
Urban population (%)	34.51	32.47	31.73
Life expectancy (years)	68	73	NA
Fertility rate (births per woman)	2.71	2.54	NA
Infant mortality rate (per 1,000 live births)	16.39	12.45	
Under 5 mortality rate (per 1,000 children)		19.93	
<b>GEOGRAPHY</b>			
Surface area (sq. km.)	269.4		
Forests (sq. km.)	50	50	50
Arable land (%)	65.93		
Urban land (%)	12.5		
Access to improved water source (% of total population)	98.6	98.1	NA
Access to improved sanitation (% of urban population)	95.7	95.8	NA
<b>SOCIO-ECONOMIC INDICATORS</b>			
GNI, Atlas method (current, US \$)	157.53	423.93	722.08
GNI per capita, Atlas method (current, US \$)	3,878.32	9,151.13	15,628.04
GDP (current, US \$)	140.49	462.01	751.38
GDP growth (%)	26.63	22.89	6.26
GDP implicit price deflator (annual % growth)	102.96	86.92	114.09
Value added in agriculture (% of GDP)	7.20	1.63	1.53
Value added in industry (% of GDP)	26.47	34.45	21.7
Value added in services (% of GDP)	66.33	64.02	76.77
Exports of goods and services (% of GDP)	58.95	33.18	32.95
Imports of goods and services (% of GDP)	80.47	60.71	51.54
Gross capital formation (% of GDP)	42.94	31.00	10.29
Main employment	14,546	16,879	24,958
Unemployment (%)	14.1	4.8	6.5
Aircraft departures (St. Kitts only)		20,969	8,817

## **ANNEX B: SUMMARY OF LAND ISSUES IN ST. KITTS AND NEVIS**

<b>Category</b>	<b>Sub-category</b>	<b>Issues</b>
<b>Background</b>	Land area (hectares)	• 32,239 (79,664 acres)

	State land ownership (%)	<ul style="list-style-type: none"> <li>• 69</li> </ul>
	Property parcels	<ul style="list-style-type: none"> <li>• n.r.</li> </ul>
	Squatting situation	<ul style="list-style-type: none"> <li>• An estimated 165 hectares (408 acres) of land is occupied by squatters</li> <li>• GOSKN needs to manage the problem of “squatting” by institutionalize a participatory and evolutionary approach towards settlement status and land tenure that includes: (a) infrastructure deliver; (b) evolution of tenure from Crown Lands to individual ownership; and, (c) evolution of urban and rural settlement patterns and land management to that required under the DCPA, 2000</li> </ul>
	Family lands (%)	<ul style="list-style-type: none"> <li>• n.r.</li> </ul>
	Other ownership Patterns	<ul style="list-style-type: none"> <li>• Rental holdings:15% in St. Kitts, 21% in Nevis</li> </ul>
	Major land uses (3)	<ul style="list-style-type: none"> <li>• Forests (28%)</li> <li>• Scrub and grassland (37%)</li> <li>• Agriculture (11%)</li> </ul>
<b>Land Policy and legal framework</b>	Prevailing policies (Land, Housing, Other)	<ul style="list-style-type: none"> <li>• Environmental policies contained in National Physical Development Plan (2006), National Environmental Management Strategy (2002), National Biodiversity Strategy and Action Plan, National Action Programme to Combat Desertification and Medium Term Economic Strategy Paper</li> </ul>
	Laws and regulations	<ul style="list-style-type: none"> <li>• Enactments (Development Control and Planning Act, 2000 and National Conservation and Environmental Protection Act, 1987) to protect historic and scenic sites, designate protected areas and preserve biological diversity</li> </ul>
	International conventions	<ul style="list-style-type: none"> <li>• GOSKN needs to continue its support of regional and sub-regional initiatives that address the sustainable development of resources.</li> <li>• Apart from the DPPE (St. Kitts) and the DPPRNE (Nevis), more GOSKN departments and NGOs need to assist with the discharge of national obligations under international conventions and agreements.</li> </ul>
	Housing policy	<ul style="list-style-type: none"> <li>• GOSKN's housing policy is implemented by the NHC and focuses on the provision of housing for low-income families</li> </ul>
	NGOs Associated with land	<ul style="list-style-type: none"> <li>• Local NGO co-operation in conservation issues includes the St. Christopher National Trust and the Nevis Historical and Conservation Society</li> </ul>
<b>Land Administration &amp; Management</b>	Institutions	<ul style="list-style-type: none"> <li>• Overlapping mandates in DPPE, DLS, National Housing Corporation and Frigate Bay Development Corporation</li> </ul>
	Gender considerations	<ul style="list-style-type: none"> <li>• GOSKN must continue to ensure that there is gender balance in participation in all stages of the economic, social and SLM processes</li> </ul>
	Title registration	<ul style="list-style-type: none"> <li>• Registration of Deeds of Conveyance</li> <li>• Registration of Certificates of Title (COT)</li> </ul>
	Tenure regimes	<ul style="list-style-type: none"> <li>• Improvements to the administration of land titles must involve the transfer of customary deed title to certificate of title</li> <li>• There is an urgent need for the implementation of a land</li> </ul>

		cadastre
	Land Information systems	<ul style="list-style-type: none"> <li>• GIS in Department of Physical Planning and Environment (DPPE)</li> <li>• Land Registry information on State Lands at Department of Lands and Surveys (DLS)</li> <li>• The DPPE's GIS needs to be upgraded to a cadastre-based LIS to allow for improved land administration and management</li> </ul>
	Land distribution	<ul style="list-style-type: none"> <li>• There is a need for GOSKN to utilize lands to eradicate poverty and ensure food security through a more equitable distribution of land access and ownership, and greater tenure security for vulnerable groups</li> <li>• There has been an expressed fear of foreigners taking over Crown lands as a result of the contentious Citizenship By Investment (CBI) programme</li> </ul>
	Land disputes	<ul style="list-style-type: none"> <li>• n.r.</li> </ul>
	Conflict resolution mechanisms	<ul style="list-style-type: none"> <li>• n.r.</li> </ul>
	Enforcement of Laws	<ul style="list-style-type: none"> <li>• Whilst there is planning and environmental legislation on the books, their enforcement leaves a lot to be desired and needs to be strengthened. Part of the problem stems from the fact that many laws are not accompanied by the necessary regulations to give them teeth</li> </ul>
<b>Sustainable Development</b>	Land use planning	<ul style="list-style-type: none"> <li>• There is a critical need for the mainstreaming SLM in national development programmes. This will require a robust partnership between the public sector, private sector, civil society organizations and the community</li> <li>• It is imperative that effective land use planning becomes a prime concern of both the GOSKN and NIA</li> <li>• A mechanism to facilitate greater collaboration and cooperation between all land management institutions urgently needs to be developed</li> <li>• Collaboration and coordination between government agencies, the private sector and non-governmental organizations need to be improved to create a networking mechanism to allow for more information sharing and joint planning for the improved management of terrestrial and marine protected area systems</li> <li>• GOSKN and the NIA need to demonstrate their commitment to SLM through the adoption of appropriate mechanisms to identify threats of land degradation and the barriers and bottlenecks to addressing land degradation</li> </ul>
	Environmental protection	<ul style="list-style-type: none"> <li>• Increased attention needs to be paid to watershed and coastal protection as well as marine conservation in the development planning process</li> <li>• Land degradation causes, including water pollution, deforestation and erosion, flooding and poor drainage, sedimentation, over-grazing and uncontrolled bush fires, need to be urgently addressed</li> <li>• The beaches and reefs must be preserved if their contribution to tourism is to continue. To be effective, protection designation must be accompanied by a management system and enforcement that focuses on</li> </ul>

		<p>quantifiable social and bio-physical goals</p> <ul style="list-style-type: none"> <li>• A “zero tolerance” approach to sand mining on the island of St. Kitts and the strict enforcement of the NCEPA need to be implemented</li> </ul>
	Water/Immersed lands	<ul style="list-style-type: none"> <li>• It is prudent to protect and conserve both surface and underground potable water sources on SKN</li> <li>• A methodology needs to be developed to assess the value of wetland ecosystems before all is lost</li> <li>• All remaining wetlands on St. Kitts and Nevis need to be mapped within a comprehensive GIS database and declare a moratorium on their use for developmental purposes</li> </ul>
	Climate change consideration	<ul style="list-style-type: none"> <li>• It is imperative that GOSKN adopt the following policy imperatives with respect to climate change adaptation: (a) ensure the protection of natural systems and maintenance of biodiversity; (b) adopt appropriate technologies in the energy and water sectors; (c) encourage private water storage (cisterns); (d) develop information systems to facilitate sound environmental management; (e) ensure that sea level rise and storm surge are considered in the evaluation of development proposals within the coastal zone including coastal setbacks and raised floor levels; and, (f) link national adaptation programmes to regional and international initiatives on climate change</li> </ul>
	Urbanization issues	<ul style="list-style-type: none"> <li>• It is necessary for the GOSKN to identify and redevelop lands with basic infrastructure on which persons from within the inner city areas of Basseterre in the lower socio-economic groups would have access for residential and commercial activities</li> <li>• It is desirable to return dilapidated and abandoned property to productive use and back onto the local tax roll</li> <li>• Appropriate management strategies should be put in place to curb increasing population growth and rapid urbanization in order to reduce pressures on the environment and the limited land area</li> <li>• Suburban development in Basseterre and Charlestown has resulted in a dramatic shrinkage of overall agricultural lands</li> </ul>
	Agricultural productivity	<ul style="list-style-type: none"> <li>• Lands for agriculture should be allocated based on the capability, suitability and ability of land to support various agricultural activities</li> <li>• Under-utilized tree crop cultivation is a high potential commercial venture and an environmental necessity if the rate of land degradation is to be reduced and aquifer-recharge enhanced</li> <li>• From an environmental management perspective, a move to large-scale farming also implies a hidden impoverishment of biodiversity and the wider ecological values on land that is to be put to such a use. The widespread clearing of land often results in disturbance and loss to floral and faunal populations</li> </ul>
	Land market performance	<ul style="list-style-type: none"> <li>• There are two land markets in SKN: (a) the EC\$ market mostly controlled by GOSKN and used by locals where</li> </ul>

		prices are fairly constant; and, (b) the US\$ market dominated by expatriates. The latter market shows great volatility with inflation ranging between 20% to 100%
	Land taxation	<ul style="list-style-type: none"> <li>• There is a need for all streets in SKN to be named and for all houses to be issued a number. This would significantly reduce the number of mails issued by the Inland Revenue Department being returned to the institution</li> <li>• A mechanism needs to be put in place that allows access to land information by the Property Division of the Inland Revenue Department from the DPPE and the DLS thereby allowing efficiencies in land tax collection</li> <li>• GOSKN needs to investigate the extent to which taxes and/or financing incentives can be used for promoting greater use of SLM principles in development projects</li> </ul>
	Land value capture (Price Inflation)	<ul style="list-style-type: none"> <li>• There is a need for GOSKN to: (a) promote and support the development of an efficient, effective and equitable land market; and, (b) mitigate the negative socio-economic effects of the current land market</li> </ul>
	Role of non-state actors	<ul style="list-style-type: none"> <li>• These include NGOs such as the St. Christopher National Trust, the Nevis Historical and Conservation Society and the Chamber of Industry and Commerce who operate as partners in sustainable development initiatives</li> </ul>

## **ANNEX C: WORKSHOP REPORT**

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### **National Land Issues Workshop** **SUPPORTING THE EASTERN CARIBBEAN TO IMPROVE LAND POLICIES AND MANAGEMENT**

**Monday May 27<sup>th</sup> 2013**  
**Marriott Hotel, Frigate Bay, St. Kitts**

## **FINAL WORKSHOP REPORT**

**By Patrick I. Williams**

### **1. INTRODUCTION**

The St. Kitts and Nevis National Land Issues Workshop was held at the Marriott Hotel, St. Kitts on May 27<sup>th</sup> 2013. The workshop attracted 28 participants from the public and private sectors, NGO community and a building contractor (*see Appendix 1 for details*).

The Organization of Eastern Caribbean States through its Secretariat requested of the Australian Government support for implementation of its sustainable land management programme. In response, the Australian government enlisted UN-Habitat's technical expertise for provision of this support.

UN-Habitat, in collaboration with national and regional partners including the Organization of Eastern Caribbean States (OECS), University of West Indies (UWI), national land agencies and land stakeholders), will support the OECS and national governments to develop foundations for sustainable land management reflecting the region's aspirations for equity, efficiency and sustainability. This will entail development of OECS Land Policy Guidelines highlighting the crucial importance of land management to the achievement of economic development, poverty reduction, social stability and the protection of environmentally sensitive areas. In addition, support will be provided to develop National Land Policies in OECS Member States in line with the guidelines and adapted to local conditions. The process will include capacity enhancement for inclusive consultations on the land agenda and the use of relevant tools in responding to land challenges. This intervention should result in enhanced regional, national and local capacity to implement human settlements policies, strategies and programmes with special focus on the reduction of poverty and the response to natural and man-made disasters; and improved national policies on housing and sustainable development in line with UN-Habitat global norms – gender, innovative, pro-poor etc. – and increased regional knowledge of rural and urban conditions and trends.

The objective of the project is to achieve enhanced sustainability of development in the OECS - economic development, poverty reduction, social stability and the protection of environmentally sensitive areas - through the formulation, adoption and implementation of comprehensive land policies.

### **2. OPENING SESSION**

The invocation was done by Pastor Don Simpson.

Participants were welcomed to the Workshop by Ms. Beverly Harris, Permanent Secretary, Ministry of Sustainable Development.



Mr. Cornelius Isaac, Project Coordinator in the OECS, Mr. Isaac gave brief synopsis of the entire project. He stated that the goal of the project is to enhance the sustainability of development in the OECS through the formulation, adoption and implementation of appropriate land policies. He told the participants that total funding amounted to US \$1.2 and the project had a timeframe from July 2011-June 2014

The objectives of the project are to:

1. Build capacity in terms of land policy;
2. Develop the proper guidelines for a regional policy (based on the feedback that comes from national land issues papers);
3. Establish Land committees;
4. Develop National land policies;
5. Piloting a STDM for improved land record development; and,
6. Develop a way to establish communication strategy.

The main concerns of the project are:

1. Informal land tenure;
2. Land administration systems lag behinds current developments;
3. Land Administration is essential to providing comprehensive assessment of the situation;
4. Land Policy should be based on how the public perceive social equity in terms of access to land; and,
5. Environment and SLM are critical issues.

Mr. Sunil Lalloo, UWI representative, gave a brief overview of UWI's role in this initiative, as follows:

1. To provide technical assistance and training wherever necessary through the project;
2. To identify land issues presented by the various member state countries and finalise a regional land issues document;
3. To provide the necessary solutions to the national land issues with input from the stakeholders.

He expressed the hope that the Workshop would share experiences and lessons learnt that would assist in developing an OECS perspective as well as an approach to improving land administration and land management in the sub-region.

The Feature Opening Address was delivered by Ms. Beverly Harris, Permanent Secretary, on behalf of the Minister of Sustainable Development. She outlined the progress made by the Government of St. Kitts and Nevis in developing and implementing programmes for improving land administration and management.

The opening session concluded with a Vote of Thanks by Ms. Nerissa Williams of the Ministry of Sustainable Development.

### 3. INTRODUCTION OF PARTICIPANTS

Twenty-eight (28) persons participated in this workshop, all of whom represented the various stakeholders that will directly be involved in this project. A list of the names is attached to this document as *Appendix 1*. Each Participant introduced themselves by name, organization and designation.

### 4. PRESENTATION OF A SYNTHESIS OF NATIONAL LAND-RELATED ISSUES

Mr. Patrick Williams, the Issues Paper Consultant, highlighted the main land issues encountered in SKN as follows:

- holders of leases and freeholds without documentation;
- equitable access to land and security of tenure;
- the need to enhance the role of the land sector in poverty eradication;
- the minimization of the effectiveness of the enforcement system due to the limited exposure of legal personnel, including magistrates, to environmental issues and impacts;
- a fear of foreigners taking over land as a result of the contentious Citizenship By Investment (CBI) programme.
- NGOs, such as the St Christopher National Trust and the Nevis Historical and Conservation Society, should become more active in projects related to climate change, biodiversity conservation, land degradation and other regional and international agreements.
- GOSKN must continue to ensure that there is gender balance in participation in all stages of the economic, social and SLM processes.
- there needs to be a clear assignment of roles and coordination of activities with respect to land administration and management;
- the need to ensure adequate and efficient inter-agency coordination with respect to the development and planning process.
- there is a critical need for the mainstreaming of SLM in national development programmes
- data management systems for SLM are inadequate
- the land tenure system is affected by lack of a proper land registration system.
- lease terms not sufficient to enable leaseholders to get access to credit;
- lack of information by the holders of land about markets and the domination of informal market transactions resulting in ever greater frequency of holdings without legal documentation of rights;
- the tenure situation with respect to “family lands”;
- keeping the tax roll updated and enforced;
- the high costs associated with bringing land onto the registry and squatting;

- the failure to adopt the framework for effective land administration as provided by the implementation of both NPDPs which lays out well-sequenced and prioritised plans of action for effective land administration and management;
- the need to pay increased attention to watershed protection, coastal protection and marine conservation in the development planning process.
- the need for involvement in the decision-making process by the community and users of the natural resources of designated protected areas;
- the maintenance of soil conservation activities in former sugar-cane lands is critical to minimizing flooding and erosion;
- the loss of forest cover from indiscriminate agricultural practices and its implications for soil and water conservation and maintenance of wildlife habitats and landscape amenity value;
- soil depletion and erosion associated with clearing of vegetation on steep slopes and other poor land-use and land-management practices, such as uncontrolled grazing of loose livestock;
- the unregulated extraction of beach sand for construction purposes resulting in severe problems of coastal erosion and reduction of the recreation capability of beaches.
- the failure to properly manage run-off from housing and other developmental projects;
- unregulated quarrying causes erosion and leads to sedimentation on adjacent lands and the smothering of corals in the near-shore marine environment;
- uncontrolled bush fires cause extensive damage to landscapes and increases the potential for soil erosion and sedimentation on adjacent marine habitats;
- collaboration and coordination between government agencies, the private sector and non-governmental organizations need to be improved to allow for the sustainable development of limited natural resources;
- GOSKN needs to continue its support of regional and sub-regional initiatives that address the sustainable development of resources;
- the need to collect statistical and other data on the extent and seriousness of landlessness;
- the need to improve the landless situation in SKN through the use of use GOSKN's low income housing programmes;
- the need to upgrade the existing National GIS at the DPPE to a cadastre-based LIS to enable data management in SKN and to allow for improved land administration and management.
- GOSKN needs to: (a) promote and support the development of an efficient, effective and equitable land market; and, (b) mitigate the negative socio-economic effects of the current land market;
- tourism development has created complexity in the land market as a great deal of land has been excised from the local market and sold to the wealthy on the international markets. Sales of land in Frigate Bay and the South-east Peninsula are the best examples of this.
- In addition, there is a duality of prices on land sold by locals. Locals are offered land in local currency, while aliens are offered land in US prices.
- the need to protect and conserve both surface and underground potable water sources as these sources of water are cheaper than alternative sources such as desalination and significantly reduces environmental damage;

- the need to return dilapidated and abandoned property in downtown Basseterre to productive use and back onto the tax roll;
- lands in agricultural priority zones should not be used by other sectors; and,
- GOSKN needs to investigate the extent to which taxes and/or financing incentives can be used for promoting greater use of SLM principles in development projects.

Mr. Williams summarized the cross-cutting issues as a lack of, or inadequate:

- National land policy and legal framework;
- Enforcement of existing regulatory framework;
- Awareness and exchange of information;
- Institutional mandates, co-ordination and processes for interaction and co-operation among all stakeholders;
- Land information systems management;
- Financial resources; and,
- Incentive systems and market instruments.

## **5. FEEDBACK FROM UWI/OECS**

Speaking on behalf of UWI and OECS, Mr. Lalloo introduced the following similarities that impact on regional land policy development: (a) size; (b) population density; (c) economy; (d) vulnerability; (e) resource management; and, (f) institutional capacity. In particular, he highlighted the following regional vulnerabilities: (a) external shocks, including natural disasters; (b) limited economic diversification opportunities; (c) high dependence on international trade; (d) high cost of public service provision due to diseconomies of scale' (e) limited capacity in public and private sectors; (f) changes in the global economic policies, removal of preferential trade agreements; (g) decrease in foreign aid; (h) an increase in number of countries offering offshore banking; (i) the use of the region as transit point for illicit narcotics; (j) an increase in the frequency and intensity of natural hazards; (k) political instability; and, (l) increased social tensions due to increased crime and violence, migration, brain drain and the AIDS epidemic.

He stated that based on his survey of country issues paper received to date he would summarise the key regional land policy issues to include: (a) land tenure, informal tenure; family land and squatting; (b) social impact priorities; foreign ownership, access to land, culture, evictions and relocations; and, (c) land availability and use, conflicting and conversion of use

He opined that, having surveyed the Consultant's report, the key land issues specific to St. Kitts and Nevis included: (a) fears concerning the foreign control and ownership of land; (b) institutional weaknesses and lack of inter-agency coordination; (c) the lack of a complete land cadastre; (d) the need for an effective land administration framework; and, (e) the need for a land information management system.

## **6. DISCUSSION AND CLARIFICATIONS**

Following Mr. Lalloo's presentation, participants raised the following issues during the plenary and discussed some potential solutions:

7. The Police are not doing a good job in terms of enforcement simply because they themselves do not know the laws. Increases education and awareness of Police and the Magistracy is recommended.
8. The St. Christopher National Trust Act was left out of the Consultant's presentation on existing relevant legislation. Land management has to also take into consideration lands that are vested in the National Trust. It was pointed out that whilst not a part of the presentation, it was included in the report.
9. Politicians too are not well informed of the laws. Often times many of them tend to make decisions or allow certain things based on political reasons (a case in point: a house in Nevis was allowed to be built above the 1000ft contour).
10. Lack of education is a fundamental part of the issues here in St. Kitts. Many entering the construction industry have very little knowledge of environmental hazards. The land policy is broader than what we see and if we educate contractors before they start their building construction career it would assist minimizing the problem.
11. Land administration is weak and systems ought to be put in place to ensure improvements.
12. There is a lack of cooperation and collaboration between agencies particularly with respect to the sharing of critical land management information. Options for new institutional collaboration should be considered and explored.
13. Sand mining is also an issue that needs to be looked at. One solution is the possibility of generating commercial sand from quarrying operations.
14. Equity concerns raised with respect to gender, poverty and the problem of ensuring access for the least advantaged as land market development intensifies.
15. While the GOSKN has continued to pursue an aggressive policy of providing lands for public use and general distribution to the poor, the rise of a secondary US dollar land market can no longer be ignored.
16. Problems surrounding the dissemination of information about records of ownership, use and value of land were also discussed.

## **7. BREAK OUT SESSIONS**

Following the presentation by Mr. Lalloo, workshop participants were divided at random into three working groups (*see Appendix 3*) to discuss the following issues.

- Group 1: Land Policy and Legal Framework;  
Group 2: Land Administration and Management; and,  
Group 3: Sustainable Development;

## **8. GROUP REPORTS**

Following the working group discussions, the participants were assembled in a plenary session to hear and discuss the results of their discussions, as presented by the working group rapporteurs. The reports are summarised in the tables below by group:

### Land Policy and Legal Framework Group

**Rapporteur: Gene Knight**

Issue identified	Solutions recommended
Prevailing policy, laws and regulations	No permanent structures for farmers
Initiatives and reforms	
Challenges and successes	
Conformity to national conventions	
Human rights and social justice	
Gender considerations	Men are more being considered for housing and land ownership.
Activities of NGOs	

### Land Administration and Management Group

**Rapporteur: Ellis Hazel**

Issue identified	Solutions recommended
Institutional arrangements LAM handled by government, private and statutory bodies	<ul style="list-style-type: none"> <li>• Mandate for government needs to be made clearer.</li> <li>• Establish Land review board/ Land Management Unit</li> </ul>
Role clarity within institutions	
Effectiveness of land administration systems	It is not at all effective. Developing a complete land registry will remove it from the court and placed within a land sales agency/sustainable development removes the responsibility from lawyers hence reducing the steps to enhance the process.
Registration and costs	
Perceptions on tenure security	
<ul style="list-style-type: none"> <li>• Properties are registered via COT or deed of conveyance and the group recognised that deed of conveyance is not as effective as COT</li> <li>• Squatting and freehold</li> </ul>	Pill- acknowledgement of squatting, regularizing squatting Vaccine-establishing a redevelopment plane for the areas that are affected by squatters. Freehold Act- it provides some level of tenure

lands where closely examined	Develop a complete land cadastre.
Institutional capacity • There are weaknesses in quality and quantity	Vaccine- Education, training and awareness internally and externally and at all levels.
Inter-agency collaboration • The avenue is working fair enough in St. Kitts.	It lacks an operational committees to compare operational plans, work plans etc. using creating ways to achieve certain initiative under their mandate.
Prevailing tenure	
Equity in access to land	
Land governance	*The means by which decisions are made with respects to land management, land use and land administration. There are three land markets in the federation. Therefore it is recommendation that they establish a land sales agency. First put in place regulations to govern land sales/ land price index in order to set the parameters for the government to sell land.
Transparency	
Access to land information	
Land conflict resolution	
Enforcement of rules and regulations	
Currency of land data	

**Sustainable Development Group**  
**Rapporteur: Judith Rawlins**

<b>Issue identified</b>	<b>Solutions recommended</b>
Land use planning	Lack of information and education for land land plan... lose adaption of the information on paper and some non adherence. Pill- collaroabrative
Role of non-state actors	
Environmental considerations	<ul style="list-style-type: none"> <li>• Sand mining/techniques</li> <li>• Concern- illegal activies lead to runoffs and aggrate on the shorelines.</li> <li>• Pill- policing and more education. Establish booth to monitor ins and out of the area.</li> <li>• Vaccine- enforcement</li> </ul>
Protection of natural resources and fragile ecosystems	
Coastal land management	
Water /immersed lands	
Climate change	

considerations	
Balancing economic with ecology	
Urbanisation	Forward planning- Grid planning is essential for development of urban areas. Redevelopment of the slum area. A long term plan.
Informal settlements	Squatting is high to avoid taxation. Encourage community rallying so that persons can quickly respond to persons who may have started to strated to squat.(pill) Vaccine- fairly established areas should be provided with infrastructure and use lesgistaleion to enable them to get some fomr of ownership
Agricultural productivity	
Land value capture	
Land market performance	
Land taxation	

## 9. PLENARY DISCUSSION ON THE WAY FORWARD

The plenary discussions following the group presentations are summarised as follows.

- a) St. Kitts and Nevis requires a structured approach to land markets, social equity and access to land and environmental protection and sustainable land use practices.
- b) St. Kitts and Nevis needs to pursue land policies which will improve the viability of production systems, address social needs of housing/settlement and poverty reduction and achieve environmental balance in the use of land resources.
- c) GOSKN should attempt to ensure security of tenure, improved land administration, protection of renewable and non-renewable resources and access of disadvantaged groups to land and water.
- d) The development of a Land Information System should include appropriate baseline and inventory data, information on natural resources and areas of informal settlements to allow for social equity analyses.
- e) Land policy needs to take into account preparation and response to natural disasters including hazard mitigation.
- f) Soil loss needs to be emphasized again and again as it has implications for sustainable agriculture and high rates of sedimentation impacting nearshore ecosystems such as coral reefs and sea grasses.
- g) There is an urgent need to address “family” lands in the inner-city areas of Basseterre.



- h) The policy to allow in-filling of wetland areas need to be re-examined with the view to curtailing this activity.
- i) The need to find and promote alternative sources of sand with the view of halting unconditionally sand mining activities along the coastline of St. Kitts and Nevis.

**APPENDIX 1: LIST OF PARTICIPANTS**

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<b>NAME</b>	<b>ORGANISATION</b>	<b>POSITION</b>
Jacqueline Armony	St. Christopher National Trust	Document Center Coordinator
Althea Authurton	Nevis Department of Fisheries	Director
Ramona Benjamin	Whitegate Development Corporation	Accountant
Lester Blackette	Nevis Disaster Management Department	
Atiba Byron	Department of Physical Planning & Environment	Development Control Officer
Calvin Cable	Chamber of Industry and Commerce	Executive Director

Dwight Francis	Department of Lands and Surveys	Director of Surveys
Beverly Harris	Ministry of Sustainable Development	Permanent Secretary
Ellis Hazel	Whitegate Development Corporation	Chief Executive Officer
Eshe Hendrickson	Ministry of Justice and Legal Affairs	Crown Counsel
Carl Herbert	National Emergency Management Agency	National Disaster Coordinator
Samuel Heyliger	Department of Marine Resources	Fisheries Officer
June Hughes	Department of Physical Planning & Environment	Senior Environment Officer
Cornelius Isaac	OECS	Project Coordinator
Melvin James	Department of Agriculture	Compliance Officer
Gene Knight	Department of Agriculture	Senior Project Officer
Sunil Laloo	University of the West Indies	Land Tenure Specialist
Leonard Lestrade	Department of Agriculture	Compliance Officer
Evetta Liburd	Ministry of Finance	Budget Analyst
Livingston Pemberton	Public Works Department	Engineer
Judith Rawlins	National Housing Corporation	General Manager
Verleen Simpson	Ministry of Sustainable Development	Senior Administrative Officer
Narissa Walters	Ministry of Sustainable Development	Rapporteur
Lennox Warner	Lennox Warner and Partners	Building Contractor
Joel Williams	Nevis Department of Physical Planning	GIS Officer
Nerissa Williams	Ministry of Sustainable Development	Project Analyst
Patrick Williams	Eco-Solutions Ltd.	Lead Consultant
Cyril Zakers	Department of Lands and Surveys	Assistant Surveyor

## **APPENDIX 2: WORKSHOP PROGRAMME**

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### **Agenda Monday May 27<sup>th</sup> 2013**

- 9:00 – 9:15**      **Opening Remarks**
- Representative of the St. Kitts and Nevis Government
  - Representative of the UWI
  - Representative of the Secretariat of OECS

<b>9:15 – 9:30</b>	<b>Introductions</b> Brief introductions of each participant. Participants are provided an open forum to share preliminary thoughts on the proceeding of the workshop.
<b>9:30 – 10:00</b>	<b>Presentation of a synthesis of national land related issues</b> Presenter: Mr Patrick Williams; Issues Paper consultant
<b>10:00 – 10:15</b>	<b>COFFEE BREAK</b>
<b>10:15 – 10:45</b>	<b>Feed Back from Local Panel</b> Representatives of the NPSC <ul style="list-style-type: none"> <li>• Status of Land Policy and legal framework</li> <li>• Land Administration and Management</li> <li>• Sustainable Development and other cross-cutting issues</li> </ul>
<b>10:45 – 11:15</b>	<b>Feed Back from UWI, OECS</b>
<b>11:15 – 12:00</b>	<b>Discussion and clarifications</b> Participants will discuss outputs from the morning sessions
<b>12:00 – 1:00</b>	<b>LUNCH</b>
<b>1:00 – 1:30</b>	<b>Break-out sessions (Development of Recommendations)</b> <ul style="list-style-type: none"> <li>• Land Policy and legal framework</li> <li>• Land Administration and Management</li> <li>• Sustainable Development and other cross-cutting issues</li> </ul>
<b>1:30 – 2:00</b>	<b>Group reports</b>
<b>2:00 – 3:00</b>	<b>Plenary Discussions</b>
<b>3:00 – 3:30</b>	<b>Closing Session; Moving Forward</b> Taking deliberations of the workshop into consideration, participants will be given an opportunity to share their views.

### **Appendix 3: Saint Kitts and Nevis Working groups**

#### **Group 1 – Land Policy and Legal Framework Group**

Participants:

- 1) Eshe Hendrickson
- 2) Nerissa Williams
- 3) Gene Knight
- 4) Althea Arthurton

- 5) Calvin Cable
- 6) Dwight Francis

**Group 2 – Land Administration and Management Group**

- 1) Lenard Lestrade
- 2) Cyril Zakers
- 3) Jacqueline Armony
- 4) Lester Blackett
- 5) Joel Williams
- 6) Verlene Simpson
- 7) Ellis Hazel

**Group 3 – Sustainable Development**

- 1) Evetta Liburd
- 2) Samuel Heyliger
- 3) Livingston Pemberton
- 4) Carl Herbert
- 5) Judith Rawlins

**Appendix 4: Template for development of recommendations for land issues in individual countries**

**Land Policy and Legal Framework Group**

<b>Issue identified</b>	<b>Solutions recommended</b>
Prevailing policy, laws and regulations	
Initiatives and reforms	
Challenges and successes	

Conformity to national conventions	
Human rights and social justice	
Gender considerations	
Activities of NGOs	

### **Land Administration and Management Group**

<b>Issue identified</b>	<b>Solutions recommended</b>
Institutional arrangements	
Role clarity within institutions	
Effectiveness of land administration systems	
Registration and costs	
Perceptions on tenure security	
Institutional capacity	
Inter-agency collaboration	
Prevailing tenure	
Equity in access to land	
Land governance	
Transparency	
Access to land information	
Land conflict resolution	
Enforcement of rules and regulations	
Currency of land data	

### **Sustainable Development Group**

<b>Issue identified</b>	<b>Solutions recommended</b>
Land use planning	
Role of non-state actors	
Environmental considerations	
Protection of natural resources and fragile ecosystems	

Coastal land management	
Water /immersed lands	
Climate change considerations	
Balancing economic with ecology	
Urbanisation	
Informal settlements	
Agricultural productivity	
Land value capture	
Land market performance	
Land taxation	

#### **Appendix 4: Workshop Photos**











## **ANNEX D: GLOSSARY OF TERMS**

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**Biodiversity:** the variability among living organisms from all sources including *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems.

**Biological resources:** genetic resources, organisms or parts thereof, populations, or any other biotic component of ecosystems with actual or potential use or value for humanity.

**Board or DCPB:** the Development Control and Planning Board established under section 6 of the Development Control and Planning Act, 2000.

**Catchment:** The area from which any rainfall will drain into the watercourse, contributing to the runoff at a particular point in a river system, synonymous with the term river basin.

**Conservation:** maintenance of a favourable balance in the use of resources by careful control and management, especially for the benefit of posterity.

**Crown Land:** any land owned or leased by the Crown.

**Development:** includes the carrying out of building, engineering, mining or other operations in, on, over or under any land, the making of any material change in the use of any building or other land, or the subdivision of any land.

**Disaster:** a serious disruption of the functioning of a society causing widespread human, material or environmental losses which exceed the ability of the affected society to cope using only its own resources. The disruption caused to people's lives can be in the form of personal injury, the loss of property or livelihood, or in extreme cases, the loss of life.

**Disposal:** the discharge, deposit, injection, dumping, spilling, leaking, or placing of any waste into or on any land, water so that it may enter the wider environment, including ground water sources.

**Ecology:** the study of the relations of living organisms to one another, their surroundings, their habitats and modes of life.

**Ecosystems:** a dynamic complex of plant, animal and micro-organism, communities and their non-living environment interacting as a functional unit.

**Effluent:** waste-water (treated or untreated) that flows out of a treatment plant, sewer or industrial outfall. Generally refers to wastes discharged into surface waters.

**EIA:** a planning tool that seeks to incorporate environmental considerations into decision-making by predicting impacts on a scientific basis and prescribing mitigation measures.

**Environment:** the sum of all external conditions (including layers of the atmosphere; organic and inorganic matter and living organisms) and the interacting systems that affect the life, development and survival of an organism within the boundaries of a country.

**Fauna:** the animal life of any region, geological formation or period.

**Flora:** the plant-life of any region, formation or period.

**Geology:** the scientific study of the origin, history, and structure of the earth.

**Groundwater:** water below the land surface in a zone of saturation.

**Habitat:** a place where a particular plant or animal lives: Generally refers to a smaller area than environment.

**Hazard:** extreme events that disrupt the lives of people. The hazard may be natural such as a flood, earthquake or hurricane. It may be man-based such as armed conflict, intimidation, hostility, or it may be created in circumstances where human activity exacerbates a natural phenomenon, for e.g., deforestation increasing the risk of flooding.

**Infrastructure:** includes roads, water, sewerage, solid waste disposal system electricity, telephones and other basic installations on which urban development depends.

**Land cadastre:** a technical term for a set of records showing the extent, value and ownership (or other basis for use or occupancy) of land compiled for purposes of taxation, and to provide a ready means of precise description and identification of particular pieces of land as well as a continuous record of rights in land.

**Natural vegetation:** the plant communities which would develop and be present in the absence of human intervention.

**Pollutant:** any dredged spoil, solid waste, incinerator residue, sewage, garbage, chemical waste, heat, industrial, domestic, municipal or agriculture waste discharged into the environment.

**Pollution:** the direct or indirect alteration of the physical, chemical, thermal, biological or radioactive properties of any part of the environment in such a way as to create a hazard or potential hazard to the health, safety or welfare of living species.

**Renewable energy sources:** non-fossil energy sources, including wind, solar, maritime, hydro, biomass and geothermal.

**Run-off:** the flow of water under gravity in open channels.

**Saline intrusion:** Replacement of freshwater by saline water in an aquifer, usually as a result of groundwater abstraction, typically evidenced by well water samples showing values of 100 mg/l or greater of chlorides..

**Sanitary landfill site:** a facility at which municipal, industrial wastes and hazardous wastes are applied onto or incorporated into the soil surface.

**Sewage:** any human body waste and the waste from toilets and other receptacles intended to receive or retain body wastes that are discharged into the environment.

**Sustainable Development:** a process of desirable growth plus change on the basis of the efficient utilization of a country's resources to achieve sound economic progress without compromising the ability of future generations to achieve the same. It represents a comprehensive long-term integration of environment and economy.

**Sustainable Livelihoods:** concerned with people's capacities to generate and maintain their means of living, enhance their well-being, and that of future generations. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base.

**Topography:** the physical shape of the land surface.

**Transportation:** this includes major and minor roads, parking areas, sidewalks, foot and bicycle routes, the railway, new harbours, airport expansion, sea port improvements and bus lay-bys and terminals.

**Unconfined Aquifer:** has an upper boundary defined by the water table. This means that the water level can rise or fall as the recharge [e.g. from surface precipitation (rainfall or snow) and infiltration] and discharge [e.g. to lakes and rivers, or other formations] conditions change over time.

**Utilities:** physical services, such as water, telephone, cable television, sewerage, gas distribution installations, solid waste collection points and electricity, but excluding roads.

**Water table:** The upper surface of the saturated zone of an unconfined aquifer at which pore pressure is at atmospheric pressure, the depth to which may fluctuate seasonally.

**Watershed:** the region draining into a river, river system, or other body of water.

## **ANNEX E: ACRONYMS**

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<b>ASP</b>	Agricultural Strategic Plan
<b>BPOA</b>	Barbados Programme of Action
<b>BURP</b>	Basseterre Urban Revitalisation Plan
<b>CBD</b>	United Nations Convention on Biological Diversity
<b>CBO</b>	Community Based Organisation
<b>CBI</b>	Citizenship By Investment
<b>CDB</b>	Caribbean Development Bank
<b>CEP</b>	Caribbean Environmental Programme
<b>CIC</b>	Chamber of Industry and Commerce
<b>CIMH</b>	Caribbean Institute for Meteorology and Hydrology
<b>COT</b>	Certificate of Title
<b>CREP</b>	Caribbean Regional Environment Programme
<b>CZMA</b>	Coastal Zone Management Authority
<b>DCPA</b>	Development Control and Planning Act, 2000
<b>DCPB</b>	Development Control and Planning Board
<b>DEH</b>	Department of Environmental Health
<b>DFID</b>	UK's Department for International Development
<b>DLS</b>	Department of Lands and Surveys
<b>DOA</b>	Department of Agriculture
<b>DOMR</b>	Department of Marine Resources
<b>DPPE</b>	Department of Physical Planning and the Environment
<b>DPPNRE</b>	Department of Physical Planning, Natural Resources and the Environment (Nevis)
<b>EIA</b>	Environmental Impact Assessment
<b>ERC</b>	Environmental Review Committee
<b>EU</b>	European Union
<b>FAO</b>	Food and Agricultural Organization
<b>FDI</b>	Foreign Direct Investment
<b>GDP</b>	Gross Domestic Product
<b>GEF</b>	Global Environment Facility
<b>GIS</b>	Geographical Information Systems
<b>GOSKN</b>	Government of St. Kitts and Nevis
<b>Ha</b>	Hectare
<b>ICZMP</b>	Integrated Coastal Zone Management Programme
<b>IMF</b>	International Monetary Fund
<b>LIS</b>	Land Information Systems
<b>LRA</b>	Land Resource Analysis Project
<b>MAB</b>	Man and the Biosphere
<b>MEA</b>	Multi-lateral Environmental Agreement
<b>Mgdp</b>	million gallons per day
<b>MMA</b>	Marine Management Areas
<b>MOF</b>	Ministry of Finance
<b>MPPNRE</b>	Ministry of Communication & Works, Public Utilities & Posts, Physical Planning, Natural Resources & Environment (Nevis)

<b>MSD</b>	Ministry of Sustainable Development
<b>MSL</b>	Mean Sea Level
<b>MTES</b>	Medium Term Economic Strategy Paper
<b>MZP</b>	Marine Zoning Plan
<b>NABSAP</b>	National Biodiversity Strategy and Action Plan
<b>NAP</b>	National Action Plan
<b>NCEPA</b>	National Conservation and Environmental Protection Act, 1987
<b>NDMC</b>	National Disaster Mitigation Council
<b>NEMA</b>	National Emergency Management Agency
<b>NEMS</b>	National Environmental Management Strategy and Action Plan
<b>NEPDP</b>	Nevis Physical Development Plan
<b>NEVLEC</b>	Nevis Electricity Company Ltd.
<b>NGO</b>	Non-Government Organization
<b>NHC</b>	National Housing Corporation
<b>NHLDC</b>	Nevis Housing and Land Development Corporation
<b>NHMMP</b>	Natural Hazard Management and Mitigation Project
<b>NIA</b>	Nevis Island Administration
<b>NPDP</b>	National Physical Development Plan (2006)
<b>NSWMC</b>	Nevis Solid Waste Management Corporation
<b>OAS</b>	Organisation of American States
<b>PPDCO</b>	Physical Planning and Development Control Ordinance, 2005 (Nevis)
<b>PSIP</b>	Public Sector Investment Programme
<b>PWD</b>	Public Works Department
<b>RBVP</b>	Royal Basseterre Valley Park
<b>SGD</b>	St. George's Declaration of Principles for Environmental Sustainability in the OECS
<b>SKELEC</b>	St. Kitts Electricity Company Ltd.
<b>SKILS</b>	St. Kitts Integrated Land System Project
<b>SKN</b>	St. Kitts and Nevis
<b>SLI</b>	Special Land Initiative Project
<b>SLM</b>	Sustainable Land Management
<b>SSMC</b>	St Kitts Sugar Manufacturing Company
<b>SWMC</b>	Solid Waste Management Corporation
<b>UN</b>	United Nations
<b>UNCCD</b>	United Nations Convention to Combat Desertification
<b>UNDP</b>	United Nations Development Programme
<b>UNEP</b>	United Nations Environment Programme
<b>UNESCO</b>	United Nations Educational Scientific and Cultural Organisation
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>US</b>	United States
<b>USAID</b>	United States Agency for International Aid
<b>WSD</b>	Water Services Department
<b>XCD</b>	Eastern Caribbean Dollar

## **ANNEX F: BARRIERS TO SUSTAINABLE LAND MANAGEMENT IN ST. KITTS AND NEVIS<sup>1</sup>**

- 1. Institutional and Governance:** There is no central coordinating entity that has technical and policy oversight for land development across all sectors, as this responsibility is spread between six different agencies. Of the agencies, the Development Control and Planning Board has relatively greater responsibility at the policy planning level. There tends to be a general weakness in coordination between the various agencies with responsibility for environmental management with very little private sector participation in implementation of best practices. In addition, the institutions have inadequate financial, human and technical capacity to effectively perform their mandate. Institutional information management systems are needed to enhance the decision-making processes. Presently information on land resources is scattered between various agencies. A dedicated land management agency or unit to harmonize the roles, responsibilities and resources for effective administration has been identified as a critical need for the country.
2. Although efforts are being made to rationalize land use allocation on St. Kitts and Nevis through the National Physical Development Plan (St. Kitts) and the Nevis Physical Development Plan, full operationalization is yet to be realized. This will require extensive stakeholder buy-in at all levels to effect reform of development processes in the public and private sectors. Additionally, there is a need to ensure that land use allocation takes into account of and provides for maintenance of ecosystem functionality.
3. St. Kitts/Nevis has an outdated system of administering land records. The title by Registration Act Chapter 279 provided for the registration of title of land by the Registrar of Titles in the form of a Certificate of Title. This bill was enacted in 1886. The majority of lands belonging to the Government are registered in the Land Registry of the Supreme Court. The majority of private lands, however, are still held by deed. There does not appear to be any specific data as to the exact number of deeds or Certificates of Title registered and this has been compounded by the fire of 1983 which damaged and destroyed a number of deeds (Williams, 2003).
4. The system is not a cadastral-based system and in the absence of a unique parcel-based identification number, there have been reported instances of duplication in the registration of title of land. Some of the lands acquired by Government have not been registered because of similar problems of obtaining legal title in the name of Government (Williams, 2003).
- 5. Economic and Financial:** The average small farmer who relies exclusively on the land resources is often unable to secure the necessary resources required to implement soil and water conservation measures which usually require financially heavy capital investments. There is lack of an appropriate incentive environment to defray the costs of uptake of appropriate technologies aimed at mitigating land degradation.

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<sup>1</sup> Excerpts from 2006 “Adaptation strategy in response to the new EU sugar regime 2006 – 2013”



6. For the most part, State investment in SLM has been through the SSMC with respect to on-ground investments on government-owned sugar lands, with relatively little resource allocation directed at non-state lands. Enhancement of individual and institutional resource capacities within relevant agencies is needed to improve advisory service delivery particularly to stakeholders outside of the government sugar lands. Investment in capacity will become highly important as these sugar lands are transitioned into alternative agricultural production systems or non-agricultural land uses. Research and monitoring programmes in support of SLM are minimal on account of limited investment in state agencies which in turns hampers effective planning.
7. **Social and Behavioral:** An inherent problem with environmental management and protection in general is that, cultural values held on regarding the environment often does not engender a sense of personal responsibility and stewardship – the tragedy of the commons. Environmental management is largely seen as the domain of government agencies and formal organizations. The environment is also viewed as a free resource which is self sustaining. Thus as evidenced by everyday practices, a culture of conservation and protection is not present in utilization of land resources and invariably leads to problems such as degradation of steep slopes through poor farming practices, solid and liquid waste pollution of surface waters and destruction of coastal ecosystems for development projects.
8. **Technological and Knowledge:** Techniques for agricultural land conservation has been introduced through the SSMC under its soil **conservation** programme, however there is need to ensure that these efforts continue in light of the reallocation of the sugar lands to alternative purposes following closure of the industry. Expansion of the knowledge base into non-agricultural development applications where soil conservation is considered important. The country generally lacks appropriate technologies and processes to systematically assess, and monitor land degradation.
9. Among the challenges faced is absence of efficient access to information on the state of land resources and the environment in the country to facilitate **national** level planning. A GIS database has been installed within the Department of Physical Planning and Environment but this needs to be broadened into a national repository for land information that can be easily shared amongst agencies within a single platform. Such a system will greatly enhance harmonized and coordinated planning efforts by all agencies concerned with land management.
10. **Insufficient Capacity:** Besides the technologies themselves, capacities within State and non-state agencies and other stakeholders will need to be strengthened to ensure sustainability of technological applications. Under previous project-driven initiatives in St. Kitts and Nevis (and other Caribbean states), personnel from various state and non-state agencies, community-based organizations, farmers and other stakeholders have been exposed to technological applications that are of relevance to sustainable land management; these have ranged from demonstration of land management techniques to application of information technology to facilitate decision-making. However, once these “special projects” come to an end the status-quo resumes with little semblance of continuity of the initiative. A key barrier in many cases is the lack in effort to institutionalize these initiatives

into the business plans of agencies and organizations from a human resource development perspective. Personnel who may have benefited from capacity-building themselves are often not sufficiently empowered to become resource providers, and there is generally little attempt at creating the environment that warrants active demand of skills attained in real-world application. This is manifested in low emphasis on technical in-house human resource development using trainer-of-trainer approaches.

11. The relatively **high** turnover rate of skilled technical personnel in government agencies in particular, is of concern as once persons obtain valued skill sets they tend to seek alternative, more lucrative employment, in many cases within the private sector. A general perception is that the mandate for human resource capacity-building in technical areas (such as SLM) lies with the state. As a result, expertise that may reside in the private sector (in this case, the civil and environmental engineering fraternities) is often overlooked as a potential ally in building overall national human resource capacities for SLM. There are generally only weak attempts to solicit active engagement of private sector partners in HR development.