



Environmental Profiles

Overseas Countries and Territories:

ANNEX K-SINT MAARTEN

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ENVIRONMENTAL PROFILE SINT MAARTEN



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SUMMARY

Sint Maarten, previously part of the Dutch Antilles, became an independent country within the Kingdom of the Netherlands on October 10, 2010. At the same date the Dutch Antilles were dissolved. Aruba, Curação and Sint Maarten now have the same status: they are an independent countries within the Kingdom of the Netherlands while the other three former Dutch Antilles have become Dutch municipalities with special status (Bonaire, Sint Eustatius, and Saba). Sint Maarten has full autonomy for internal affairs, the Dutch government being responsible for defence, foreign affairs and some maritime surveillance tasks.

Sint Maarten is highly dependent on tourism and therefore maintaining and protecting the natural environment is essential to socio-economic wellbeing. The country is actively analysing possibilities concerning renewable energy and improved waste management (the latter together with Saint Martin).

In economic terms Sint Maarten (and Curação) face substantial challenges: low growth, high unemployment, aging population and the current account deficit has risen to worrisome levels. Major data gaps significantly complicate the diagnosis.(1)

1 BACKGROUND INFORMATION

Situated in the Caribbean Sea, on one of the northern or Leeward Islands, nearly 1,000 km north of the three southern islands Aruba, Bonaire and Curaçao. Sint Maarten shares the same island with the French territory Saint Martin. Together, these two entities make up the smallest landmass in the world shared by a self-governing state (Sint Maarten) and an overseas collectivity (of France, Saint Martin).(2)

Sint Maarten has an elected parliament, the leader of the party winning the elections usually becomes Prime Minister and head of government. A Governor General is appointed by and represents the Dutch King. The Council of Ministers includes a representative in the Netherlands (Minister Plenipotentiary). The territorial Parliament has legislative powers.

Name of Territory	Sint Maarten	
Region	Caribbean	
Land area	34 km² (including the French side: 87 km²	
Maritime claims	Exclusive fishing zone: 12 nm, EEZ : 12,860 km ²	
Population	39,000 (est. 2013, estimate CIA); density 1,147 inhab/km²	
GDP/capita	15,259 €	
Literacy rate	95.8 % of population 14 and older	
Unemployment rate	12% (est. 2010 IMF)	
% below poverty line	30 % of male working population (45% for female workers) earn less than ANG 2,000 per month while minimum wages amount to ANG 1482,59 – 1799,11 per month	

Sint Maarten is hilly with more than 30 bays and partly covered with salt lakes and lagoons. Highest point is Mount Flagstaff (386 m), an extinct volcano. Its climate is tropical but moderate as it has northeast trade winds and has hurricanes season (from July to November). The average rainfall is 1,500 mm/year.

Physically, the west end is an atoll of low land surrounding a lagoon, while the east end is a range of conical hills. The island has white sandy beaches and numerous bays. A lagoon and three brackish ponds are home to all four species of mangrove.(3)

Demography, socio-economy

A population density of over 1,147 /km2 is high compared with other OCTs. Only 20% was born on the island. Most immigrants are from Haiti and Dominican Republic. The aging population is seen as a problem. English is the main language, Dutch is the official language.

The country has a high mean income compared with many other Caribbean countries. The most important sectors is tourism (including tourism related activities) that accounts for 80% of GDP. In 2013 there were almost 2 million cruise ship visitors and almost 500 thousand stay-over tourists.(4)

Sint Maarten saw a booming expansion of hotel capacity since the 1970's, but the development of new resorts has slowed down. It also has an oil terminal at Coles Bay.

With no significant agriculture and limited local fishing, almost all food is imported. Energy resources and manufactured goods are also imported.(5)

2 BIOGEOGRAPHY, ENDEMISM, IMPORTANCE FOR GLOBAL BIODIVERSITY

There is no on-land nature park but the hills of Sint Maarten show hibiscus, orange sage, flamboyant, mahogany and cactus. In coastal areas there are palm trees, sea grapes and aloe. Tropical birds (including the nation bird, the Brown pelican) and lizards abound. Sint Maarten has patch reefs (6) and barrier reefs (7) and some mangrove stands.

The Man of War Shoal Marine Park was established in 2010. It is located off the southern shore of the island and is home to varied reef fish, sea turtles, lobsters and the rare queen conch. It also is a stopover point for many marine mammals. It includes the island's most valuable ecological and economic marine habitat. It provides a safe haven for whales, sharks, sea turtles and hundreds of species of fish. It includes not only a range of habitats from coral reefs to sea grass beds and open water, but also the Proselyte Reef. (8)

The Man of War Shoal Marine Park is a home and migratory stopover or breeding site for 3 IUCN red list species, 10 CITES Appendix I species and 89 Appendix II species. It is an area with a relatively healthy population of marine mammals including migratory whales and dolphins, numerous species of shark, sea turtles and numerous fish species.

Establishing the Man of War Shoal Marine Park was in accordance with the Specially Protected Areas of Wildlife (SPAW) Protocol and with the Federal Decree on Maritime Management.

3 STATE OF THE ENVIRONMENT AND MAIN ENVIRONMENTAL CHALLENGES

Coral reefs are at risk due to damage from hurricanes, bleaching due to water temperature rise, pollution (waste water and seepage from cesspits), tourism (diving, trampling of sea grasses, breakage by anchors) and oil spills.(9) Mangroves, crucial as spawning grounds for coral reef fish, have also been reduced near populated areas as a result of development.

Large land areas have been eroded by extensive grazing and agriculture in the past.(10)

Challenge 1 - Climate change and natural disasters - Severe

Climate change is expected to have a whole raft of adverse effects in many countries, but these effects are likely to be particularly severe in small tropical islands. Increase in water temperature bleaches coral reefs and CO2 in the air dissolves in water and makes it more acidic, which is also bad for coral reefs. Low lying land is vulnerable to sea level rise and climate change means more frequent and more intense storms.

Sint Maarten is particularly vulnerable to the threat of global warming given its dependence on the tourist industry and the low altitude of part of its territory. The island is fringed by coral reefs, which are a crucial component in the delicate ecosystem found there. The reefs are very important as a tourist attraction and therefore to livelihoods on the island, as a spawning ground for fish and as a natural buffer area protecting the islands from sea damage during storms. Climate change also poses a threat to beaches a major concern given the reliance of the economy on tourism.

The Netherlands Antilles Coral Reefs Initiative (NACRI) reported substantial loss of coral reefs in Sint Maarten after a water temperature rise to 30°C in 2005. (11)

The table below applies this general analysis to the specific circumstances:

Impact	Severity	Comments
Inundation of coastal land	•	Sint Maarten has low-lying areas (e.g. Philipsburg and Simpson Bay) and is vulnerable to rising sea-level. The potential loss of beaches is also a serious threat (for the tourist industry).
Coral reefs threatened (bleaching, pH)	•	Major bleaching occurred in 2005 due to water temperature rise.
Salinisation of groundwater	0	On Sint Maarten groundwater is no longer used for drinking water, partly because of contamination, but it is used by local laundries.
Tourist industry	•	Tourist industry accounts for 80% of GDP. Diving and fishing are important attractions.
Sea grass	•	Much of the sea grass beds that were present 20 years ago, have been lost due to pollution, hurricanes, and development. Sea grass beds are breeding grounds for marine life and act as "anchor points for sand" 12
More frequent and more intense storms	۰	This poses a threat for the Leeward Islands which are already frequently affected by hurricanes.
O Nil O	Slight	● Moderate ● Heavy

Challenge 2 - Loss of natural habitats and biodiversity - Severe

Sint Maarten's coral reefs are threatened not only by climate change. (13) They are also exposed to multiple other threats like physical damage (breaking, stifling, invasive species) and pollution (coral reefs intolerant of pollution, particularly sewage and other nutrient-rich pollution and turbidity). Mangroves are being quickly eradicated by uncontrolled tourism development (14) and the situation with sea grass beds is similar(15). If these beds are not there, sand will begin to shift and can be lost, or even worse, can be moved to areas where too much sand will stifle any marine life. Without sea grass beds, a large hurricane can move the unprotected sand to other places, either filling a beach with too much sand, or leaving it bare.

Most of these threats are the result of ongoing development, building activity, habitat destruction and environmental degradation due to increased population density in low-income areas and mass tourism. In particular tourism, which results in demand for development land for hotels and other facilities, increased production of sewage and solid waste, increased disturbance and physical damage is responsible for many pressures. As noted earlier on, in 2013 there were almost 2 million cruise ship visitors, and almost 500 thousand stay-over tourists. Infrastructures and a qualified workforce are necessary. The main reason why tourists come to Sint Maarten is the climate, the sea, the beaches and the Caribbean heritage and culture.

Studies conducted by the Sint Maarten Nature Foundation have shown that biodiversity in the marine area, particularly coral reef coverage, is high and the economic goods and services, which the ecosystem provides are in excess of \$ 50 million annually.(16)

Related issues

- Lack of sewage and waste water treatment in many areas is polluting the groundwater and the sea,
- Poor waste management; landfills are reaching maximum capacity, increasing risks of groundwater contamination
- Some appropriate national and island environmental regulations exist, but enforcement is limited by institutional capacity;
- Saba, St Eustatius and Sint Maarten are located within the hurricane belt. Almost every year at least one tropical cyclone occurs within a range of 100 miles and on average once every 4-5 years hurricane conditions are experienced.

Challenge 3 - Energy dependence - Severe

Sint Maarten is fully dependant on petroleum products. The only power producer and distributor is the government owned company N.V. GEBE. It uses diesel and HFO (heavy fuel oil). (17) Studies are being executed to reduce the HFO share by converting some of the power generators to LNG (liquid natural gas) or LPG or installing Dual Fuel Engines. There are plans by an independent power producer (IPP) to build a 9.32 MW waste-to-energy power plant, to be in operation in the beginning of 2016. There are also studies (on Saba) to explore geothermal potential. The Saba geothermal project could interconnect Sint Maarten via a 60 km submarine cable.

The minister of Public Housing, Spatial Planning, Environment and Infrastructure (VROMI) has established an energy committee in the summer of 2013 and the committee (consisting of representatives of the ministries of VROMI and TEZVT, and N.V. GEBE) has drafted a (green) energy policy and a regulatory framework on (among others) allowing renewable energy sources to the net to be approved by the Council of Ministers.

However, in the Energy Concession agreement between N.V.GEBE and the government (18) there is a clause that limits the power capacity of other (new) companies or residents (to max 500 kVa/ 450kW). An IPP cannot sell electricity to the utility, and an IPP is not allowed to distribute power to its own clients. The energy committee is currently working on changing this clause.(19)

4 ENVIRONMENTAL GOVERNANCE

4.1 CONSTITUTION

Since October, 10, 2010, when Sint Maarten became an independent country within the Kingdom of the Netherlands, Sint Maarten's governing body is primarily responsible for nature and environmental policies and their implementation. Many non-governmental bodies are also active in nature management on Sint Maarten.

The Dutch government prepared a Nature Policy Plan for the three 'special municipalities' of the Caribbean Netherlands (Saba, Bonaire and Sint Eustatius) (20) and hopes that the three other countries of the Kingdom (Curaçao, Sint Maarten and

Aruba) will want to join in common efforts. For instance the Netherlands are responsible for the management of the exclusive economic zone (EEZ) linking the four countries of the Kingdom (i.e. the Netherlands and three other Caribbean countries of the Kingdom). In order to coordinate the sustainable management of this extensive marine area, a management plan was put in place, parts of which have already been implemented by the Netherlands and the Caribbean Netherlands. The parties now strive to have the Aruba, Sint Maarten and Curaçao to join in.

The Kingdom of the Netherlands is signatory and party to various multilateral environmental agreements. The Dutch Minister of Foreign Affairs represents the Kingdom and signs. Each country or territory in the Kingdom can decide independently whether to join and implement such agreements. Sint Maarten is autonomous when it concerns internal affairs and the environment.

4.2 REVIEW OF CURRENT INSTITUTIONS

The Ministry of Public Housing, Spatial Planning, Environment and Infrastructure (VROMI) has 5 executive services and a policy department: (21)

- New Projects: ensures the realisation of high quality level of diverse building, utility and civil engineering projects for Sint Maarten.
- Infrastructure Management: responsible for equipping and proactively managing the public areas in order to safeguard a good quality of the spatial surroundings in the interest of the public of Sint Maarten.
- Domain Affairs: deals with all aspects of policy and administration in regard to land and real property in the broadest sense of the word. The department does this by rendering its service to internal and external clients in a direct, clear and accurate manner.
- Permits: focuses on a professional, efficient and client friendly manner of processing and issuance of permits within the work-sphere of the ministry of VROMI.
- Inspection: responsible for the inspection and control of domain, building, (public) properties, environment and work safety to safeguard an environmentally safe, structured and safe living and work surroundings for the public.

Policy Department: Its tasks includes policy advising in all areas of the ministry, including the environment and nature, spatial planning and infrastructures in the broadest sense (related to waste, drainage, utilities). The last annual report (over 2011) shows how well organised the ministry is, but also how many critical vacancies could not be filled.(22)

The ministry and the parliament holds regular Townhall meetings to discuss zoning plans (Greater Philipsburg).(23)

The Ministry of Tourism, Economic Affairs, Transport & Telecommunication plays a leading role in providing information and is instrumental in developing the economy by means of diversification in industries which are complementary to the tourism based economy. The Tourism Department has as tasks: marketing, training, data and information for more sustainable and targeted marketing and better development of tourism policy.

The Meteorological Service is responsible for the hurricane warning service. However, it is the responsibility of the local island governments to maintain and activate a disaster preparedness organisation. This is done by the Department of Disaster Management.

NGOs

Several NGOs in Sint Maarten are undertaking tasks that are normally a government's responsibility.

The Nature Foundation in Sint Maarten has created, monitors and is the official manager of the Man of War Shoal Marine Park (since 2010). The Foundation was established in 1997 with the objective of enhancing the local environment through effective management, education, awareness and protection of the island's natural resources. (24) It receives a yearly subsidy from the Government of Sint Maarten (a monthly fee to cover their operational budget). The Ministry VROMI has a Management Agreement appointing the Nature Foundation as the Management and Scientific Authority for the island.

The Nature Foundation also receives grants from international agencies as well as subsidies and donations from local companies.

The Emilio Wilson Estate Foundation (EWEF) has as its primary goal the creation of an official protected area around the culturally and biologically rich former plantation. The buying of the estate by the government, which would make it a nature park, is pending. The current 2013 budget, approved by Parliament in April, only has some ANG 30 million (\sim € 12.2 million) allotted for capital investment. That amount would have only covered the purchase of the Emilio Wilson Estate, the prime minister said.(25) The EWEF is financed through subsidies as well as gifts from local companies.

EPIC (Environmental Protection in the Caribbean) is an organisation based in both Sint Maarten and the United States with the mission of protecting the Caribbean environment through research and community-based action. The organization has a number of initiatives to accomplish their mission including establishing bird observation huts, conducting bird monitoring and research, restoring habitats and providing educational programs to local communities.

4.3 POLICY, STRATEGY, PLANS, PROGRAMMES

The Ministry VROMI's Plan for 2012-2014 (26) aims at "improving the organization and its performance to gain the respect of the community and meet the expectations of the citizens through consistent actions and perseverance". The plan is being implemented with an action plan.(27) The policy objectives include:

- the promotion of a well-functioning organization that lives up to the expectations of the citizens;
- the promotion of an effective and sustainable management of spatial development and the environment;
- to facilitate the realization of affordable housing and to promote home ownership;
- the improvement of mobility through expansion of the road network;

- to achieve long term and sustainable solutions for the management of solid waste, sewage and surface drainage; and
- to pursue the improvement of the living environment in neighbourhood.

Currently a Nature Policy Plan and an Environmental Policy Plan are being drafted and will be completed and implemented in 2014. The Nature Policy Plan concerns the natural environment on the island and the Environmental Policy Plan encompasses the gray area of the environment such as waste, energy, soil, air and water pollution. There is a separate Energy policy plan, a climate change management plan for coastal zones and a coral bleaching management plan.

There is a draft "Structure Vision" document in preparation with a chapter on sustainability, water, nature, environment and energy. And a "Hillside Policy Plan" which relates to Hill Side Conservation Areas Zoning Plan. It consists of measures to protect nature and environment.(28)

Based on the National Ordinance on Spatial Planning, the government of Sint Maarten has undertaken to prepare development plans with zoning regulations (zoning plans).(29)

Sint Maarten has the intention to include Environmental Impact Assessment (EIA) in the evaluation of projects. (30) Currently there is no law binding developers to include EIAs of projects. However, the intention is to formulate a law encompassing requirements, criteria, etc.

There is a cooperation agreement between Sint Maarten and the city of Amsterdam (2013-2017) among others on management plans, waste, energy, etc.(31)

4.4 LEGAL FRAMEWORK, MONITORING AND ENFORCEMENT

Article 22 of the Constitution (32) says "It shall be the constant concern of the government to keep the country habitable and to protect and improve the natural environment and welfare of animals".

Before October 10, 2010, when Sint Maarten was part of the Netherlands Antilles, these two ordinances were valid (and still are). (33)

- the National Nature Conservation Ordinance of 1998 (P.B. 1998,49 about how protection should be organised).(34)
- an ordinance about implementation of the above ordinance (based on Article 15),
 adopted in 2003.35 This second ordinance, the Nature Conservation Ordinance Sint Maarten of 2013 (AB 2013, GT no 809) (36) regulates:

Adopted, regulates	Implements
Protection of flora and fauna	Protection of Flora and Fauna: the protection of the island's Flora and Fauna is regulated in the Nature Conservation Ordinance Sint Maarten (AB 2013, GT no. 809). Addendums I and II of the Sea Turtle Treaty (Inter-American Convention for the Protection and conservation of Sea-Turtles) Addendum I of Bonn Convention on Migratory Species
Conservation of biodiversity	Convention on Biological Diversity
Management and conservation of habitats and ecosystems	Recently an advice has been approved by the Council of Ministers to designate
Trade in endangered species	Addendum I of the CITES or Washington Convention
Legislation on waste	In 2013 the Waste Ordinance Sint Maarten was implemented (AB 2013, GT no. 137). This ordinance regulates the waste when it concerns collection and disposal of household waste, bulk waste, liquid waste, commercial waste, car wrecks and other forms of waste.
Nature parks	The Nature Foundation manages the Sint Maarten Marine Park, the only designated nature park area of the island (Man of War Shoal Marine Park. There is currently no designated terrestrial nature park. The intention is in the future to establish another one and, with these two nature parks combined, a national parks system.
NEW - protection of sharks	In October 2011 an important step was taken by the Sint Maarten government for shark conservation in Dutch Caribbean waters by prohibiting the targeted fishing for and killing of sharks in the territorial waters around Sint Maarten. ³⁷
NEW - Asbestos	Basel Convention on transboundary movement and disposal of hazardous waste Rotterdam Convention on international trade of (and exchange of information on) hazardous substances The is currently a Ministerial Decree stating that it is forbidden to trade asbestos and asbestos containing goods on the island (Ab. 2007, Nr. 73)
Others	There is also a tree ordinance protecting monumental trees (with a list) among others a regulations for removing trees Also a Hindrance ordinance: AB 2013, GT no. 139 And Hindrance besluit (decision) AB 2013 no 140

There is no new legislation for nature protection, the new policy plans are being made for both Nature and Environment. There is however a National Ordinance on Spatial Development Planning of 2013.(38)

MEA	Remarks	
and Development of the Marine Environment of the Wider	Convention, together with the Oil Spills and SPAW Protocols will be implemented in national law. But this has not yet been implemented in the laws of Sint Maarten. The intention is in the future to incorporate all treaties that Sint Maarten is a party to in national laws.	
Convention on Biological Diversity (CBD)	Siological Enabling law is included in the National Nature Conservation Ordinance, but for full implementation island legislation is required, but has not yet been done.	
Ramsar Convention	Recently, an advice was approved by the Council of Ministers to designate Mullet Pond as a RAMSAR site.	
CITES	Requirements implemented through the National Nature Conservation Ordinance by directly referring to the relevant texts in the convention text.	
Convention on the Conservation of Migratory Species of Wild Animals (CMS)	Enabling law is included in the National Nature Conservation Ordinance, but for full implementation island legislation is required. Not yet done.	

Monitoring

The Nature Foundation has different monitoring activities for the protection of nature. It is assisted by the island's dive operators. It uses its own monitoring protocol; based on Reefcheck and coral watch protocols. The nature foundation also monitors water quality, marine mammals, invasive species (e.g. lionfish), seagrass, and mangroves.

The Foundation started a Shark Research Project, tagging individual sharks on a regular basis, to see whether the 2011 legislation prohibiting shark killing is effective. An integral part of this project is the creation of awareness among the local population.

Monitoring goes hand in hand with creating / having/ maintaining a database. The Dutch Caribbean Nature Alliance (DCNA) is setting up a Dutch Caribbean Biodiversity Database (DCBD). This started in 2013. The DCNA will be responsible for the content management.(39)

Enforcement

There is a general lack of enforcement of existing environmental legislation. A main problem with the enforcement of environmental legislation is the lack of qualified staff. There is currently one environmental inspector and his main problem is dealing with the discharge of sewage water on private properties and public roads. This problem can only be solved when there is an island wide sewage system/plan in place.(40)

4.5 ENVIRONMENTAL AWARENESS

Extensive information about environmental issues, policy and legislation is available on the website of the government.(41) All the laws including environmental laws and all policies can be found under the tabs of the respective Ministries. Environmental policies can be found under the tab Ministry VROMI.

Also, extensive environmental information is given by the Nature Foundation on Sint Maarten. The coalition of nature organisations DCNA (Dutch Caribbean Nature Alliance) has a site with a lot of information on flora, fauna, nature parks and nature initiatives concerning sharks and lionfish.(42)

The Nature Foundation is re-launching an island wide outreach programme on sharks. There is still a lack of awareness with regards not only to the importance of sharks and rays to the marine ecosystem and to the economy of Sint Maarten, but also to the still existent belief that sharks are inherently dangerous to humans. Outreach will, amongst others, feature public service announcements in the local media, presentations and featured speakers.(43)

The Nature Foundation also has the snorkel club and junior ranger program and environmental education is given in schools.

4.6 FINANCE FOR THE ENVIRONMENT

The Ministry of VROMI had a budget of ANG 33.87 million for operational expenses in 2013.(44) In addition, VROMI had ANG 14 million was available for Capital Expenditure. In the VROMI report on 2011 an amount of approximately ANG 48 million was mentioned for investments in infrastructures as well for the upgrading of the organization of VROMI. This amount was divided into about ANG 12 million from the European Development Fund (EDF) targeting the urban improvement in the area of Middle Region and the remainder of about ANG 36 million funded by the Dutch Development Cooperation budget.

Other funds come from user fees for diving in the Marine park (at USD4,- per daily dive or USD20,- per annual pass) and from various permits.

Serious concern has been voiced in the Netherlands (by the Parliament and by the Dutch ministerPlasterk for Internal affairs and Kingdom Relations) that the 2013 budget was showing a deficit which is not allowed in the October 10, 2010 agreements.(45)

In 2007 a Trust Fund was set up for financing nature projects in the 6 Dutch OCTs. Funding came from the IUCN, the Dutch government, WWF, the Dutch National Lottery. DCNA (Dutch Caribbean Nature Alliance) is involved in this initiative (as an umbrella organization that handles capacity building and funding of nature parks in the 6 Dutch OCTs) but the Trust Fund is managed by an independent board.

5 COOPERATION

Sint Maarten, as an independent country in the Kingdom of the Netherlands, is autonomous as concerns its internal affairs and the environment. It has and wants to have good relations (also concerning the environment) at several levels: with the Netherlands, in the Caribbean, at the UN level (SIDS Small Island Developing States and UNDP Poverty assessment), the European Union (10th EDF).

The Council Decision on the association of OCTs with the EU, which governs EU-Overseas Countries and Territories (OCTs) relations, supports co-operation and development projects. In the framework of the 10th EDF, the Dutch Antilles (that is, including Sint Maarten) received aid for economic growth and social recovery: incentives for small companies, education, health, combatting crime and building new infrastructures in deprived areas. These infrastructures were for socially deprived areas, including improvements in water supply, drainage, roads, electricity and promotion of innovative house-building technologies. Some of these measures were expected to have a positive effect on the environment but EU funding was not aimed at reducing environmental threats as such.

Energy

Before 2007, the utilities of St Barthelemy, Sint Maarten and Anguilla had worked under the European programme INTERREG III-B towards the interconnection of the islands. This interconnection project, originally planned for the end of 2007, has not materialized. St Barthelemy authorities are now strongly opposed to any interconnection to other islands.

The Chief Minister of Anguilla highlighted at the 2010 OCT Forum that island proposals to established a submarine power transmission link to /from Sint Maarten had been rejected by the UK Government in the 1990s, despite the opportunity for importing more efficiently produced power (rather than relying on diesel generators). EC programming and other documents are silent on this matter.

Risk Reduction Strategy

A Regional Risk Reduction Strategy (also known as R3I = Regional Risk Reduction Initiative) is being developed with European assistance through the EU Regional Delegation in Barbados - and it is being implemented via a contribution agreement through UNDP Barbados and the OECS (Organisation of Eastern Caribbean States).

R3I achieved a significant result in terms of coordination of the British and Dutch OCT disaster management offices as UNDP organized several common meetings to formulate precise common activities to be implemented by R3I. The first concrete result achieved by this initiative is a Benchmarking vulnerability assessment exercise implemented in all Caribbean British and Dutch OCTs under a common Format (using the B-Tool = Benchmarking Tool). This study, implemented during May and June 2010, allowed for the identification of specific disaster management gaps to be addressed by the project. The European Commission reserved € 4,932 million for R3I, covering a period of three years (2009-2011).

6 CONCLUSIONS AND RECOMMENDATIONS

Environmental policy making is complex, time consuming and cumbersome. In practice it means that policy in many smaller countries like Sint Maarten is often not implemented. Environmental policies require an integrated approach, physical planning and a good insight in the carrying capacity of the island. This is in particularly a challenge for a new country like Sint Maarten. Sint Maarten had to set

up new administrative services, recruit expert staff, make new policy plans and laws while being in a sense under scrutiny of the Netherlands. In 2015 the new constitutional agreement (of October 10, 2010) will come under review.

However, Sint Maarten has been able to make progress. Currently both a Nature Policy Plan and an Environmental Policy Plan are being drafted and will be completed and implemented in 2014. The Nature Policy Plan concerns the natural environment on the island and the Environmental Policy Plan encompasses the 'grey' area of the environment such as waste, soil, air and water pollution. Also an Energy policy plan is in the making. Cooperation with the French side of the island, for some of these policy areas and projects is important for efficiency and effectiveness reasons.

Goal	Action	Baseline situation	
Energy saving	Build waste-to-energy plants	Project has started. An independent power producer has been chosen.	
and using more			
renewable energy	Draft a building and hindrance permit. Make building plans for the construction of the facility. Building will start at the beginning of the Summer of 2014. Facility in operation in the beginning of 2016.		

Goal	Action	Baseline situation	time frame	entity(ies)
Energy saving	Subsidise pilot projects using sun and wind energy	All energy on the island is produced with imported diesel and heavy fuel		
and using more	Activities	,		
renewable energy		call for pilot projects using sustainable ene els (PV photo voltaic) on the roofs of gover initiatives.		as sun and wind.
Goal	Action	Baseline situation	Priority and time frame	Implementing entity(ies)
	Awareness campaign	Income, population and tourism increase is spoiling nature beyond repair in certain places		
Diminish the	Activities			
ecological footprint Produce brochures, publications, videos, radio and TV common Set up an environmental hotline for info on nature and environmental set up a campaigns, school competitions etc. Ban plastic bags. Stimulate a cleaner, safer island, saving water and electricity		tline for info on nature and environment. competitions etc.		

Goal	Action	Baseline situation	Priority and time frame	Implementing entity(ies)	€ and HR Needs	Risks Assumr
Legal action		Most of the environmental legislation is outdated				
environmental	Activities					
legislation	Write legislation where it is lacking: in the areas of noise pollution, soil pollution, air quality, renewable energy, solid and liquid waste. Introduce enforcement.					

Priority and Implementing

FOOTNOTES

1 IMF Country Report No. 11/342, Dec 2011,

https://www.imf.org/external/pubs/ft/scr/2011/cr11342.pdf

- 2 CIA: https://www.cia.gov/library/publications/the-world-factbook/geos/sk.html
- 3 DCNA, Dutch Caribbean Nature Alliance, http://www.dcnanature.org/ecosystems-tag-archive/?ecosystems=St%20Maarten
- 4 CIA idem note 2.
- 5 CIA idem note 2
- 6 Patch reef: an isolated, often circular reef, usually within a lagoon or embayment.
- 7 Barrier reef: reefs that are separated from land by a lagoon or open water.
- 8 Where lays the Proselyte's wreck, a Ducth frigate
- 9 http://www.reefbase.org/
- 10 IUCN / ONERC: Changement climatique et biodiversité dans l'outre-mer européen, Jérôme Petit & Guillaume Prudent, 2008.
- 11 Report on observations of coral bleaching in St Eustatius Marine Park, Saba Marine Park, Sint Maarten Marine Park by Nicole Esteban& David Kooistra (Ocean Care Sint Maarten): http://www.nacri.org/BleachingreportSSSislandsNov05.pdf
 12 Global and local sea grasses threatened, Andy Caballero, Nature Foundation Sint Maarten, 2000. http://www.thescubashop.net/OldWebsite/seagrass.htm
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- 15 Global and local sea grasses threatened, Andy Caballero, Nature Foundation Sint Maarten, 2000.
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