



United
Nations
Environment
Program



Original: ENGLISH

Proposed areas for inclusion in the SPAW list
ANNOTATED FORMAT FOR PRESENTATION REPORT FOR:

Bonaire National Marine Park
Netherlands

Date when making the proposal : *October 5th, 2010*

CRITERIA SATISFIED :

Ecological criteria

Representativeness
Diversity

Cultural and socio-economic criteria

Cultural and traditional use

Area name: Bonaire National Marine Park

Country: Netherlands

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SUMMARY

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Chapter 1. IDENTIFICATION

a - Country:

Netherlands

b - Name of the area:

Bonaire National Marine Park

c - Administrative region:

Bonaire

d - Date of establishment:

1/1/79

e - If different, date of legal declaration:

not specified

f - Geographic location

Longitude X: -68.280058

Latitude Y: 12.134495

g - Size:

27 sq. km

h - Contacts

Contact adress: STINAPA Bonaire P.O. BOX 368, Bonaire, Dutch Caribbean

Headquarter visitor's address: Barcadera z/n, Bonaire, Dutch Caribbean

Website: www.bmp.org

Email address: marinepark@stinapa.org

i - Marine ecoregion

66. Southern Caribbean

Comment, optional

Chapter 2. EXECUTIVE SUMMARY

Present briefly the proposed area and its principal characteristics, and specify the objectives that motivated its creation :

The Bonaire National Marine Park was first established in 1979. It surrounds the island of Bonaire and includes the satellite island and the waters around Klein Bonaire. Bonaire lies in the Southern Caribbean approximately 100km (60 miles) north of Venezuela and 12' north of the equator. Bonaire is unusual in that it is a true oceanic island, separated from the South American mainland by a deep water trench. Bonaire is part of the Kingdom of the Netherlands and is regarded by the European Union as an Overseas Territory. The marine park falls entirely within the territorial waters and jurisdiction of the Island of Bonaire and is protected by the Marine Environment Ordinance (A.B 1991 Nr.8). The marine park was declared a National Park by the Central Government of the Netherlands Antilles in November 1999. For issues related to World Heritage, Ramsar wetlands, threatened and endangered species, migratory species and marine pollution the Central Government Department of Nature and the Environment (MINA) also has jurisdiction.

The marine park includes 2,700 hectares of coral reef, seagrass and mangrove ecosystems and provides habitat for a diverse range of marine species including over 50 species of stony coral and more than 350 species of reef fish. Sea turtles nest on the shores of Klein Bonaire and forage in Lac, a semi enclosed seagrass and mangrove bay located on the islands windward shore. Bottlenose and Spinner dolphin as well as various species of whale can be found seasonally in the seas around Bonaire. Bonaire is regularly visited by migratory birds.

Bonaire has a well deserved international reputation for excellence in the field of SCUBA diving and is routinely listed in the top five destinations for the Caribbean.

The Bonaire National Marine Park consists of the waters around Bonaire from the high water mark to the 200' (60m) depth contour, the island of Klein Bonaire and its surrounding waters and the mangrove, seagrass and coral reefs of Lac. The park is managed by a local non governmental, not for profit foundation, STINAPA Bonaire which has a co-management structure with stakeholders, conservationists and local interest groups represented on the Board. The day to day management is carried out under the supervision of a Director but the Marine Park manager, Chief Ranger and Rangers employed by STINAPA Bonaire.

Explain why the proposed area should be proposed for inclusion in the SPAW list

The marine park is managed predominately for biodiversity conservation, the promotion of sustainable use and for the protection of cultural and historical sites within the park with the aim of providing protection for the island's unique marine resources whilst allowing appropriate recreational and commercial use to be made of the park.

In 1979 the Bonaire Marine Park was first set up with grant funding from the World Wildlife Fund, in the Netherlands, assistance from the Island Government and other funding sources. The responsibility for management was given to STINAPA Bonaire, an existing non governmental conservation organisation which was already managing the islands land park, the Washington Slagbaai National park which had been created a decade earlier. Over the next four years the Marine Park was actively managed, legislation was passed protecting the park, a system of dive moorings was established along the length of the leeward shore and a range of outreach materials were developed in addition to the very first Guide to the Bonaire Marine Park written by Tom van't Hof (1982). However, failure to identify a sustainable source of funding for the park caused serious financial difficulties. Eventually, with funding for operational management, the Park became a 'paper park' — established on paper but without any active day to day management. For the coming six years the spirit of the Park was kept alive through the hard work of the dive industry and a few dedicated individuals.

By 1990 there was a real fear that the expanding dive industry and increasing tourist visitation were creating a serious threat to the health of Bonaire's coral reefs. After serious concerns had been raised about the lack of formal management of the Marine Park, after a trebling in diver activity, and with increasing pressure on the island's coastal resources, Dutch Government funding (Meerjaaren Plan Fondsen – MJP funds) was sought to reestablish, or 'revitalize', the Marine Park. This was successful and in April 1991 the marine park was revitalized and a new manager, Kalli De Meyer, was hired to work alongside Tom van't Hof in order to re-establish the Bonaire Marine Park. The Dutch Government funding, which amounted to Naf 225,000 per annum for a maximum period of three years, was administered by DEPOS (Departement Ontwikkeling Samenwerking) on Curaçao and had a number of significant strings attached.

It obligated the Island Government of Bonaire to:

- Ensure that the Marine Park became self financing within the term of the grant
- Set up an appropriate management structure for the Marine Park

Both of these requirements were fulfilled. The Marine Park was re-established and the Island Government passed amendments to the Marine Environment Ordinance allowing an annual admission fee of US\$ 10 per diver to be levied in order to offset operational expenses. In January 1992 admission fees were introduced and in the course of the first year over US\$ 170,000 was raised, enough to cover salaries and operating costs. The Island Government gave management of the Marine Park to STINAPA Bonaire (Stichting Nationale Parken Nederlandse Antillean), a local NGO which was already had management of the island's land park and created a 'Begleidingscommissie' made up of representatives of the tourism sector, conservation interests as well as local island interests to guide Park management.

Since the early 1990's the Marine Park has gone from strength to strength. By the end of that decade it was considered a model marine park and was being copied as far a field as Bunaken, Indonesia. It was selected as a UNEP/ICRAN demonstration site for the Caribbean and ranked along side the Great Barrier Reef and Florida Keys National Marine Sanctuary for the value of its conservation work. In November 1999

the Marine Park was formally declared a National Park by the Central Government of the Netherlands Antilles and the name was changed to Bonaire National Marine Park (BNMP).

According to you, to which Criteria it conforms (Guidelines and Criteria B Paragraph 2)

Representativeness
Diversity

Cultural and socio-economic criteria

Cultural and traditional use

Chapter 3. SITE DESCRIPTION

a - General features of the site

Terrestrial surface under sovereignty, excluding wetlands:

60 sq. km

Wetland surface:

170 ha

Marine surface:

27 sq. km

b - Physical features

Brief description of the main physical characteristics in the area:

See below

Geology:

Bonaire lies on a conservative plate boundary, where the South American and Caribbean Tectonic Plates meet and slide past one another. Along with its sister island of Curacao and the oceanic islands off Venezuela's north coast, it has been travelling eastward at a slow but steady rate having originated in the Pacific in the vicinity of the current day Galapagos Islands.

The geology of Bonaire is complex, with the core of the island consisting of strongly folded and faulted rocks of volcanic origin, silica rich sediments and turbidites (debris deposited from an underwater landslide) formed during the Cretaceous era some 120 million years before present (Beets, 1972a; Beets, 1972b)). Overlying this are later

fossil reef and reefgenerated calcareous (calcium rich) deposits. It is these limestone formations which make up the coastline in the form of coral-rubble beaches (coral shingle and calcareous sand) or iron shore, except in the north where low limestone cliffs are found (see Image 1) (Zonneveld, Buisonje & Herweijer, 1972) Klein Bonaire consists entirely of limestone formations (Buisonje, 1974) which are the remains of emergent reefs. Substantial changes in sea level have left up to four stranded terraces above the present mean sea level on Bonaire, and one below. These terraces can generally be distinguished by "solution notches" (undercutting caused by chemical erosion, physical erosion and in some cases biological erosion (see Image 2) in the elevated seaward facing limestone cliffs.

Sand dunes:

Length of sandy beaches: 1.8 Km

Others:

FRESHWATER INPUTS

Mean annual precipitation (in mm)

Average rainfall is just 490.5 mm/year. Rainfall is unequally distributed geographically, with approximately four times as much rain falling in the northern portion of the island as in the south. The rainy season begins at the end of October and lasts until around the beginning of January; a second, shorter rainy season occurs in June/July.

c - Biological features

Habitats

**Brief description of dominant and particular habitats (marine and terrestrial)*:
List here the habitats and ecosystems that are representative and/or of importance for the WCR (i.e. mangroves, coral reefs, etc):**

A wide range of habitats are represented on Bonaire and Klein Bonaire and within the surrounding waters. These range from the xerotropic (drought resistant) forest covering the northern part of the Island, through sand dunes, salt pans, mangroves, seagrass beds to a number of different coral reef communities. The following descriptions focus on the marine and terrestrial habitats and species which are associated directly or indirectly with the Bonaire National Marine Park (species lists can be found in Appendix 4).

The northern part of the island is hilly consisting of fine grained volcanic rock and limestone. The southern part is flat and consists of fossil coral reef deposits enclosing some lagoonal areas which are either open (Lac) or enclosed (Pekelmeer).

Detail for each habitat/ecosystem the area it covers:

<i>Marine / coastal ecosystem categories</i> Detail for each habitat / ecosystem the area covers	Size (estimate)		Description and comments
	unit	Area covered	
<i>Mangroves</i>			
Mangroves	ha	1000	Around Bonaire, four species of mangroves can be found; Red mangrove, Black mangrove (<i>Avicennia germinans</i>), White Mangrove (<i>Laguncularia racemosa</i>) and Buttonwood (<i>Conocarpus erectus</i>). Lac has the most significant stand of mangroves with about 2.5km ² of a total of 7.5km ² supporting mangrove species.
Terrestrial ecosystems	Size (estimate)		
	unit	Area covered	
<i>Wetlands</i>			
Wetlands	sq.km	60	Terrestrial surface, excl. wetlands (ha): 6000
<i>Other terrestrial ecosystems</i>			
Beaches	sq.km	2	- Length of sandy beaches: 1.8 Km - Length of pebble or stony beaches: Approx 15 Km

Flora

Brief description of the main plant assemblages significant or particular in the area:

The only land area included in the Bonaire National Marine Park is Klein Bonaire which is characterized by sclerophyllous evergreen shrubland.

Other plant assemblages are mangrove forest, and seagrass beds See Appendix 1 for:

- Klein Bonaire Species List and Shoreline and dunes plants of Bonaire
- Bonaire Vegetation Map

List of plant species within the site that are in SPAW Annex I

List of species in SPAW annex I	Estimate of population size	Comments if any
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List of plant species within the site that are in SPAW Annex III

List of species in SPAW annex III	Estimate of population size	Comments if any
Combretaceae: Conocarpus erectus	not given	
Compositae : Laguncularia racemosa	not given	
Cymodoceaceae: Syringodium filiforme	not given	
Hydrocharitaceae: Thalassia testudinum	not given	
Rhizophoraceae: Rhizophora mangle	not given	
Ruppiaaceae: Ruppia maritima	not given	
Verbenaceae: Avicennia germinans	not given	

List of plant species within the site that are in the IUCN Red List. UICN red list : <http://www.iucnredlist.org/apps/redlist/search> You will specify the IUCN Status (CR:critically endangered; EN:endangered; VU:vulnerable).

List of species in IUCN red list that are present in your site	IUCN Status	Estimate of population size	Comments if any
Conocarpus : erectus	Unknown	not given	Silver-leaved Buttonwood
Avicennia : germinans	Unknown	not given	Black Mangrove
Laguncularia : racemosa	Unknown	not given	White Mangrove
Rhizophora : mangle	Unknown	not given	Red Mangrove
Ruppia : maritima	Unknown	not given	Beaked Tasselweed
Syringodium : filiforme	Unknown	not given	Species code Sf
Thalassia : testudinum	Unknown	not given	

List of plant species within the site that are in the national list of protected species

List of species in the national list of protected species that are present in your site	Estimate of population size	Comments if any

Fauna

Brief descript° of the main fauna populations and/or those of particular importance present (resident or migratory) in the area:

Coral reef.

See Appendix 1 Bonaire Fish Abundance Part I and II – Lac Fish Species and BNMP Species List – Bonaire coral list - pictures.

List of animal species within the site that are in SPAW Annex II

List of species in SPAW annex II	Estimate of population size	Comments if any

Reptiles: Caretta caretta	not given	
Reptiles: Chelonia mydas	not given	
Reptiles: Eretmochelys imbricata	not given	
Reptiles: Dermochelys coriacea	not given	

List of animal species within the site that are in SPAW Annex III

List of species in SPAW annex III	Estimate of population size	Comments if any
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List of animal species within the site that are in the IUCN Red List. IUCN Red List : <http://www.iucnredlist.org/apps/redlist/search> You will specify the IUCN Status (CR:critically endangered; EN:endangered; VU:vulnerable).

List of species in IUCN red list that are present in your site	IUCN Status	Estimate of population size	Comments if any
Rhincodon : typus	VU - Vulnerable	not given	Whale Shark
Sphyrna : mokarran	EN - Endangered	not given	Squat-headed Hammerhead Shark
Epinephelus: itajara	CR - Critically endangered	not given	Atlantic Goliath Grouper
Epinephelus : striatus	EN - Endangered	not given	Nassau Grouper
Balistes : vetula	VU - Vulnerable	not given	Queen Triggerfish
Lachnolaimus : maximus	VU - Vulnerable	not given	Hogfish
Lutjanus : analis	VU - Vulnerable	not given	Mutton Snapper
Lutjanus : cyanopterus	VU - Vulnerable	not given	Canteen Snapper
Mycteroperca : interstitialis	VU - Vulnerable	not given	Yellowmouth Grouper
Scarus : guacamaia	Unknown	not given	Rainbow Parrotfish

List of animal species within the site that are in the national list of protected species

List of species in the national list of protected species that are present in your site	Estimate of population size	Comments if any
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d - Human population and current activities

Inhabitants inside the area or in the zone of potential direct impact on the protected area:

	Inside the area		In the zone of potential direct impact	
	Permanent	Seasonal	Permanent	Seasonal
Inhabitants	not given	not given	15000	not given

Comments about the previous table:

Inside the area, Date of data: 2010 In the zone of potential direct impact, Date of data: 2009

Description of population, current human uses and development:

Between 10,000 and 13,000 people are considered permanent residents of Bonaire (CBS, 2005). The population density of the permanent residents on Bonaire is 35 people per km², which is considerably lower than the other islands. Figure 3 illustrates how the resident and visitor populations have changed since 1992. The fact that visitors increase the population over the year by 5 or 6 times has a considerable impact on the islands infrastructure, although visitors generally do not stay on island for periods of time more than 2 weeks.

The most important human use of the marine park is for recreational activities on and around the reef. There is some recreational fishing and boating. Commercial fishing activity in the park is very limited as most of it is focused off shore. The marine park is also used by some commercial shipping traffic.

Activities	Current human uses	Possible development	Description / comments, if any
Tourism	significant	unknown	Around 28,000 tourists a year make use of the marine environment on Bonaire. The majority of visitors and locals alike take part in diving and snorkelling activities. Diving and related activities are the mainstay of Bonaire's economy. It is frequently rated as the number one dive destination for shore diving in the world by the diving press. Sales of dive tags to divers and other water users sustainably finances STINAPA Bonaire. Many visitors to the island, including cruise boat passengers take part in snorkelling along the coral reefs or around the mangroves. Many other water activities take place on Bonaire including Power boating (including Banana Boat rides and parasailing), jet skiing, kayaking, glass bottom boating, waterskiing, kitesurfing, windsurfing and yachting. The latter wind sports benefit from the constant trade winds from the East. Lac is an internationally recognised windsurfing destination and kitesurfing is rapidly establishing itself as a popular sport on the west coast.
Fishing	significant	unknown	A small number of sport fishing operators run businesses on the island. Charter boats take visitors fishing for larger pelagic fish in deeper waters than the current marine park boundary. Some local

			fishermen at Lac use the bay as fishing grounds and others use Sorobon pier and the beaches on the West coast (Image 40) to moor their boats which they use to fish in pelagic environments. Commercial fishing mainly takes place beyond the boundaries of the marine park, though some of the fish caught in Lac are sold on.
Agriculture	unknown	unknown	
Industry	absent	unknown	
Forestry	unknown	unknown	
Others	significant	unknown	Shipping: There are three active harbour areas: in the main town which is used by freight carrying ships, in front of CARGILL the salt company which is used to ship salt to destination and in front of BOPEC the oil transshipment facility. Around 6 cruise ships visit the Island every month, using the piers in the town centre. A total of around 80 cruise ships per year visit and the passengers disembark for tours of the island and the marine park.

e - Other relevant features

f - Impacts and threats affecting the area

Impacts and threats within the area

Impact and threats	level	Evolution In the short term	Evolution In the long term	Species affected	Habitats affected	Description / comments
Exploitation of natural resources: Fishing	significant	increase	increase			Assess if the current rates of exploitation of natural resources within the area (sand, water and mineral exploitation, wood gathering, fishing, grazing...) are deemed unsustainable in quality or quantity, and try to quantify these threats, e.g. the percentage of the area under threat, or any known increase in extraction rates.
Exploitation of natural resources:	limited	unknown	unknown			N/A

Agriculture						
Exploitation of natural resources: Tourism	significant	increase	increase			N/A
Exploitation of natural resources: Industry	limited	unknown	unknown			N/A
Exploitation of natural resources: Forest products	limited	unknown	unknown			N/A
Increased population	limited	unknown	unknown			N/A
Invasive alien species	very important	increase	increase			The detection of the invasive Indo-Pacific lion fish in October 2009 represents a threat to the marine environment within the Bonaire National Marine Park.
Pollution	limited	unknown	unknown			N/A
Other	significant	unknown	unknown			Extensive sand mining occurs in some areas of the East coast in a way that is not considered sustainable.

Impacts and threats around the area

Impact and threats	Level	Evolution In the short term	Evolution In the long term	Species affected	Habitats affected	Description / comments
Exploitation of natural resources: Fishing	significant	unknown	unknown			Although not at big scale, poaching of conch, fish, and turtle species from a number of locations still takes place. Enforcement takes place.
Exploitation of natural resources: Agriculture	limited	unknown	unknown			N/A
Exploitation	limited	unknown	unknown			N/A

of natural resources: Tourism						
Exploitation of natural resources: Industry	limited	unknown	unknown			N/A
Exploitation of natural resources: Forest products	limited	unknown	unknown			N/A
Increased population	significant	unknown	unknown			The current human presence next to the boundaries of the BNMP represents a potential threat.
Invasive alien species	limited	unknown	unknown			N/A
Pollution	significant	unknown	unknown			Non-point source. Sewage from the human population is the main source of nutrient pollution on Bonaire's. Sewage makes its way onto Bonaire's coral reefs through inadequate waste water treatment and use. Sewage is a source of major damage to Bonaire's coral reefs and a cause of human illness. Terrestrial run-off from Bonaire onto the fringing reef is a source of nutrients, sediments and other pollutants such as hydrocarbons (oil based chemicals), pesticides and herbicides, heavy (poisonous) metals.
Other	limited	unknown	unknown			N/A

h - Information and knowledge

Information and knowledge available

See BNMP MANAGEMENT PLAN 2006

List of the main publications

Title	Author	Year	Editor / review
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Briefly indicate in the chart if any regular monitoring is performed and for what groups/species

Species / group monitored (give the scientific name)	Frequency of monitoring (annual / biannual / etc...)	Comments (In particular, you can describe here the monitoring methods that are used)
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Chapter 4. ECOLOGICAL CRITERIA

(Guidelines and Criteria Section B/ Ecological Criteria) Nominated areas must conform to at least one of the eight ecological criteria. Describe how the nominated site satisfies one or more of the following criteria. (Attach in Annex any relevant supporting documents.)

Representativeness:

A wide range of habitats are represented on Bonaire and Klein Bonaire and within the surrounding waters. These range from the xerotropic (drought resistant) forest covering the northern part of the Island, through sand dunes, salt pans, mangroves, seagrass beds to a number of different coral reef communities. The following descriptions focus on the marine and terrestrial habitats and species which are associated directly or indirectly with the Bonaire National Marine Park (species lists can be found in Appendix 4). The northern part of the island is hilly consisting of fine grained volcanic rock and limestone. The southern part is flat and consists of fossil coral reef deposits enclosing some lagoonal areas which are either open (Lac) or enclosed (Pekelmeer).

Diversity:

Reef formation begins at the shoreline with a gradually shelving submarine terrace extending seaward for between 10 and 250 m. Beyond this, at depths of 10-12 m, the terrace drops off and the reef slope commences. The drop-off zone exhibits maximum diversity of benthos and maximum coral cover (Bak, 1977) The reef slope drops down steeply at a 20-50° angle to depths of 25-55 m where it flattens out onto a shelf. A second drop-off occurs beyond this (Duyf, 1985) to depths of >50m. There is some zonation within the coral community with shallow water dominated by a mix of stony and soft corals, mid-depth reefs (15-25 metres) being dominated by *Montastrea* sp. and deeper waters being dominated by *Agaricia* sp.

The reef slopes from 12m to 25m continue to show an abundance and diversity of stony coral and other sessile (fixed) organisms in most places. The deeper, lower

reef slopes continue to be dominated by Encrusting Fan-Leaf Alga (Lobophora variegata), with some Lettuce, Plate and Star Corals in between.

Chapter 5. CULTURAL AND SOCIO-ECONOMIC CRITERIA

(Guidelines and Criteria Section B / Cultural and Socio-Economic Criteria)

Nominated Areas must conform, where applicable, to at least one of the three Cultural and Socio-Economic Criteria. If applicable, describe how the nominated site satisfies one or more of the following three Criteria (Attach in Annex any specific and relevant documents in support of these criteria).

Cultural and traditional use:

Recreation

Traditional artisanal fishery

Historical conch piles at Cai

Healthy, diverse mangrove stand

Flourishing seagrass beds

Traditional uses include navigation, and charcoal production

Chapter 6. MANAGEMENT

a - Legal and policy framework (attach in Annex a copy of original texts, and indicate, if possible, the IUCN status)

National status of your protected area:

Marine Ordinance A.B 1991 # 8 and associated by laws (active). Island Ordinance. National marine park.

IUCN status (please tick the appropriate column if you know the IUCN category of your PA):

unknown

b - Management structure, authority

STINAPA Bonaire

c - Functional management body (with the authority and means to implement the framework)

Description of the management authority

The island government delegated management of the Bonaire National Marine Park to the NGO STINAPA Bonaire, by means of a management contract in 1991 (see Appendix 2- Contract Bonaire Gov-STINAPA 1991).

Means to implement the framework

The Marine Environment Ordinance was passed in 1991 but was revised (2001) to include provision for the protection of the island of Klein Bonaire as part of the Marine Park. It provides a general framework to protect the marine park and control activities within the park, to regulate fisheries and there is a special section concerned with the protection of Lac. The full translation of the Marine Environment Ordinance is presented in Appendix 12 The ordinance contains a number of EBHAMS (island resolution containing general provision). EBHAMS are used to leave the possibility open to further regulate activities which become problematic, to extend and increase user fees and to protect additional species and or areas. They are relatively easy to write and approval can be quite fast as they only need the approval of the Executive Council.

d - Objectives (clarify whether prioritized or of equal importance)

Objective	Top priority	Comment
Zoning	No	
Governing body(s)	No	
Administration Protection Natural resources management	No	
Tourism and visitation	No	
Education and training	No	
Research and monitoring	No	
Services and concessions Fund	No	
Raising activities Periodic	No	
Revisions of the MF	No	

e - Brief description of management plan (attach in Annex a copy of the plan)

The management plan was written to assist both staff and Board by providing a solid framework for reference, decision-making and planning. The management plan aims to ensure continuity of management effort and allow stakeholders and other interest groups to understand and participate in the planning process (as illustrated below).

The stages in Blue indicate the consultative parts of the process (2006 meetings, radio interviews, stakeholder questionnaires), Orange represents the formal development of the management plan and those in Purple to the right provide the necessary feedback for adaptive management. Background information collection and preparation for stakeholder consultations started in 2005. Field information and stakeholder positioning meetings were held in January 2006. Formal stakeholder input into the management plan was conducted during February 2006. The management plan was submitted to the Executive Council of the Island Government for their approval.

Management plan - date of publication

: 1/1/91

Management plan duration

: not specified

Date of Review planned

: not specified

f - Clarify if some species/habitats listed in section III are the subject of more management/recovery/protection measures than others

Habitats

Marine / costal / terrestrial ecosystems	Management measures	Protection measures	Recovery measures	Comments/description of measures
Mangroves	no	no	no	
Coral	no	no	no	
Sea grass beds	no	no	no	
Wetlands	no	no	no	
Forests	no	no	no	
Others	no	no	no	

Flora

Species from SPAW Annex 3 present in your area	Management measures	Protection measures	Recovery measures	Comments/description of measures
Combretaceae:	no	no	no	

Conocarpus erectus				
Compositae : Laguncularia racemosa	no	no	no	
Cymodoceaceae: Syringodium filiforme	no	no	no	
Hydrocharitaceae: Thalassia testudinum	no	no	no	
Rhizophoraceae: Rhizophora mangle	no	no	no	
Ruppiaceae: Ruppia maritima	no	no	no	
Verbenaceae: Avicennia germinans	no	no	no	

Fauna

Species from SPAW Annex 2 present in your area	Management measures	Protection measures	Recovery measures	Comments/description of measures
Reptiles: Caretta caretta	no	no	no	
Reptiles: Chelonia mydas	no	no	no	
Reptiles: Eretmochelys imbricata	no	no	no	
Reptiles: Dermochelys coriacea	no	no	no	

g - Describe how the protected area is integrated within the country's larger planning framework (if applicable)

not specified

h - Zoning, if applicable, and the basic regulations applied to the zones (attach in Annex a copy of the zoning map)

Name	Basic regulation applied to the zone
Diving	2 no diving zones.
Fishing	2 Fish protected areas.
Kiteboarding	1 Kiteboarding zone.

i - Enforcement measures and policies

Five staff of the Bonaire National Park were empowered as special agents of police in 2005. Two staff are remaining, and new staff are on the waiting list for the police course. The two existing special agents of police on staff are able to issue warnings and process verbal for violations. The maximum penalty for damage to fauna, flora or landscape of the National Park is Naf 5,000 (US\$2,809). The maximum penalty is considered low.

j - International status and dates of designation (e.g. Biosphere Reserve, Ramsar Site, Significant Bird Area, etc.)

International status		Date of designation
Biosphere reserve	no	
Ramsar site	yes	5/23/80
Significant bird area	no	
World heritage site (UNESCO)	no	
Others:	no	

Comments

UNEP/ICRAN demonstration site for the Caribbean. 2 RAMSAR sites within the boundaries of the BNMP (Lac and Klein Bonaire).

k - Site's contribution to local sustainable development measures or related plans

not specified

l - Available management resources for the area

Ressources		How many/how much	Comments/description
Human ressources	Permanent staff		- Field Experts (scientific Permanent monitoring) - Field Technicians (maintenance, etc) Wardens (Of which marine wardens) In addition to BNMP permanent staff, STINAPA has a full time director, a full time Accounting Manager, full time Education Coordinator, Full time Communication Coordinator and full time Office Assitent and Janitor. We also count we a good number of
	Volunteers		
	Partners		

			trained volunteers for different programs
Physical resources	Equipments	- Guard post on the main accesses Self guided trails with signs - Terrestrial vehicles - Marines vehicles - Radio and communications - Environment awareness materials - Capacity to respond to emergencies	
	Infrastructures	- Office and/or laboratory in the field - Signs on the main accesses - Visitors information centre	
Financial resources	Present sources of funding		The basic financing is ensured. However, the present financial means are low for implementation of the management plan in full. Long-term funding prospects are excellent, through a Trust Fund set up by the Dutch Caribbean Nature Alliance (DCNA) which will pay out for operational costs of the National Parks from 2016. The constitutional change of the Netherlands Antilles in October 2010 means that there may be additional technical or financial support from the Netherlands as Bonaire becomes a municipality.
	Sources expected in the future		
	Annual budget (USD)		

Conclusion Describe how the management framework outlined above is adequate to achieve the ecological and socio-economic objectives that were established for the site (Guidelines and Criteria Section C/V).

By 1990 there was a real fear that the expanding dive industry and increasing tourist visitation were creating a serious threat to the health of Bonaire's coral reefs. After serious concerns had been raised about the lack of formal management of the Marine Park, after a tripling in diver activity, and with increasing pressure on the island's coastal resources, Dutch Government funding (Meerjaren Plan Fondsen – MJP funds) was sought to reestablish, or 'revitalize', the Marine Park. This was successful and in April 1991 the marine park was revitalized and a new manager, Kalli De Meyer, was hired to work alongside Tom van't Hof in order to re-establish the Bonaire Marine Park. The Dutch Government funding, which amounted to Naf

225,000 per annum for a maximum period of three years, was administered by DEPOS (Departement Ontwikkeling Samenwerking) on Curaçao and had a number of significant strings attached. It obligated the Island Government of Bonaire to:

- Ensure that the Marine Park became self financing within the term of the grant
- Set up an appropriate management structure for the Marine Park

Both of these requirements were fulfilled. The Marine Park was re-established and the Island Government passed amendments to the Marine Environment Ordinance allowing an annual admission fee of US\$ 10 per diver to be levied in order to offset operational expenses. In January 1992 admission fees were introduced and in the course of the first year over US\$ 170,000 was raised, enough to cover salaries and operating costs. The Island Government gave management of the Marine Park to STINAPA Bonaire (Stichting Nationale Parken Nederlandse Antillean), a local NGO which was already had management of the island's land park and created a 'Begleidingscommissie' made up of representatives of the tourism sector, conservation interests as well as local island interests to guide Park management.

Since the early 1990's the Marine Park has gone from strength to strength. By the end of that decade it was considered a model marine park and was being copied as far a field as Bunaken, Indonesia. It was selected as a UNEP/ICRAN demonstration site for the Caribbean and ranked along side the Great Barrier Reef and Florida Keys National Marine Sanctuary for the value of its conservation work. In November 1999 the Marine Park was formally declared a National Park by the Central Government of the Netherlands Antilles and the name was changed to Bonaire National Marine Park (BNMP).

Chapter 7. MONITORING AND EVALUATION

In general, describe how the nominated site addresses monitoring and evaluation

A strategic summary in the management plan incorporates management planning and extensive stakeholder input, summarizing interaction between the goals, issues and strategies. The issues are evaluated, reviewed and reported on an annual basis by the DCNA management effectiveness project. This is adequate for evaluation of conservation goals and reporting to the different institutions and stakeholders.

What indicators are used to evaluate management effectiveness and conservation success, and the impact of the management plan on the local communities

Indicators by category	Comments
<i>Evaluation of management effectiveness</i>	
N/A	
<i>Evaluation of conservation measures on the status of species populations within and around</i>	

<i>protected area</i>		
N/A		
<i>Evaluation of conservation measures on the status of habitats within and around the protected area</i>		
N/A		
<i>Evaluation of conservation measures on the status of ecological processes within and around the protected area</i>		
N/A		
<i>Evaluation of the impact of the management plan on the local communities</i>		
N/A		

Chapter 8. STAKEHOLDERS

Describe how the nominated site involves stakeholders and local communities in designation and management, and specify specific coordination measures or mechanisms currently in place

Stackeholders involvement	Involvement	Description of involvement	Specific coordination measures	Comments (if any)
Institutions	yes	Two delegates of the Island Government		
Public	no			
Decision-makers	no			
Economic-sectors	yes	- A delegate of the Bonaire Hotel and Tourism Association (BONHATA). - A delegate of the Council of Underwater Resort Operators (CURO). - A delegate from the Tourism Cooperation Bonaire (TCB). - Representatives from fishermen and farmers have a seat in the Board of Directors bus have never been taked.		
Local communities	yes	Four delegate of the local people.		
Others	no			

Chapter 9. IMPLEMENTATION MECHANISM

Describe the mechanisms and programmes that are in place in regard to each of the following management tools in the nominated site (fill only the fields that are relevant for your site)

Management tools	Existing	Mechanisms and programmes in place	Comments (if any)
Public awareness, education, and information dissemination programmes	yes	Information: The STINAPA website is active and updated every week for 2 hours with new reports and downloads being added. Other work carried out by STINAPA relating to information included: <ul style="list-style-type: none"> • Five radio broadcasts a day on 3 different radio stations covering a variety of topics. • Six television programmes for event publicity • 50 press releases including some foreign press work • Video production for the WNF Education A number of education programmes were operated in 2009 involving approximately 470 individuals over around 44 events and programmes. The main activities were; <ul style="list-style-type: none"> • Reef ranger training programme for dive staff and operators, with 13 participants • Reef resilience workshop for marine park managers for 34 participants • Tortuga di Bonairu (snorkelling for 9-12 year olds), 30 lessons with materials and curriculum • Swimming for the youth; 12 lessons with materials and curriculum 	
Capacity building of staff and management	no		
Research, data storage, and analysis	no		
Surveillance and enforcement	no		
Participation of exterior users	yes	Outreach The National Parks 40 year anniversary events were spread over the year from 15th March to the 18th December. This celebration involved 26 days of activities from tree planting to scientific workshops. In excess of 1500 people were involved with the various activities. A total of 200 people took part in the tree planting event that took up 80 hours of the Directors time. The director also spent 80 hours addressing Jong Bonaire with the STINAPA presentation. Other	

		activities that took place in 2009 included Children's painting events, Bird watching, Cave activities and beach clean ups. Presentations were given to different groups about Lionfish awareness, which included 3 events and 60 people in total. The public service paper "Makubekein" was edited and distributed twice by STINAPA staff, 5,500 copies were distributed.	
Alternative and sustainable livelihoods	no		
Adaptative management	no		

Chapter 10. OTHER RELEVANT INFORMATION

Contact addresses

	Name	Position	Contact adress	Email adress
who is submitting the proposal (national focal point)	HOETJES Paul	Policy Coordinator Nature		Paul.Hoetjes@rijksdienstcn.com
who prepared the report (manager)	De Leon Ramón	Park Manager	STINAPA Bonaire P.O. BOX 368, Bonaire, Dutch Caribbean Headquarter visitor's address: Barcadera z/n, Bonaire, Dutch Caribbean	marinepark@stinapa.org

Date when making the proposal

: 10/05/2010

List of annexed documents

Name	Description	Category
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