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

Mt. Scenery National Park

The Kingdom of the Netherlands

Date when making the proposal : *10/10/2018*

CRITERIA SATISFIED :

Ecological criteria

Representativeness
Conservation value
Rarity
Naturalness
Critical habitats
Diversity

Cultural and socio-economic criteria

Cultural and traditional use
Socio-economic benefits

Area name: Mt. Scenery National Park

Country: Kingdom of the Netherlands

Contacts

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- Map of Mt. Scenery National Park and landscape ecological vegetation map of Saba
- Management plan for Mt. Scenery National Park
- Island Ordinance National Park Mt. Scenery and protection of animal and plant species and artefacts

Chapter 1. IDENTIFICATION

a - Country:

Kingdom of the Netherlands

b - Name of the area:

Mt. Scenery National Park

c - Administrative region:

Saba, Caribbean Netherlands

d - Date of establishment:

18/9/2018

e - If different, date of legal declaration:

not specified

f - Geographic location

Longitude X: - 63°14'20.00"W

Latitude Y: 17°38'5.00"N

g - Size:

3.4 sq. km

h - Contacts

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Website: <https://english.rijksdienstcn.com/agriculture-nature-and-food-quality/nature>

Email address: paul.hoetjes@rijksdienstcn.com

i - Marine ecoregion

64. Eastern Caribbean

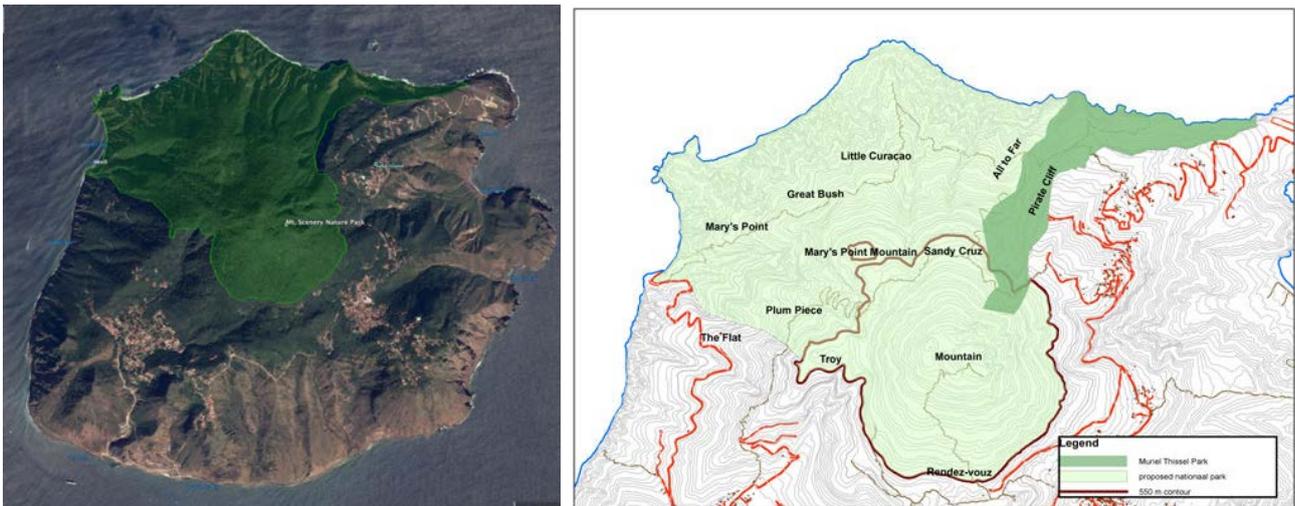
Comment, optional

none

Chapter 2. EXECUTIVE SUMMARY

Description of the proposed area and its principal characteristics, and the objectives that motivated its creation:

The Mt. Scenery National Park comprises the northern part of Saba plus the centrally located Mt. Scenery above 550 m height, an area of approximately 25% of the total island area (see map) ranging from the shoreline to the highest top of the island. The area is predominantly wilderness and contains all six of the vegetation zones found on Saba.



Why the proposed area is proposed for inclusion in the SPAW list

The Mt. Scenery National Park comprises the northern and central part of the Island of Saba which are the most biodiverse parts of the island. This includes the following species:

Plants: Two threatened species (*Nectandra krugii*, *Guaiacum officinale*, both EN)

20 endemic plant species, including 4 species restricted to only a few islands of the Lesser Antilles (*Chromolaena macrantha*, *Begonia retusa*)

The Elfin forests are mainly composed by Mountain Mahogany (*Freziera undulata*), a plant species restricted to the Lesser Antilles.

Invertebrates: 3 butterflies and 4 orthoptera endemic to Lesser Antilles

Reptiles: 3 endemic reptiles, including *Anolis sabanus* strictly restricted to Saba and *Alsophis rufiventris* (EN) endemic to Saba and St-Eustatius.

Lesser Antillean whistling frog (*Eleutherodactylus johnstonei*), Annex II SPAW

The Saban iguana (*Iguana iguana*) is a unique island population, possibly an endemic subspecies.

Birds: 3 bird species restricted to the Lesser Antilles and Puerto Rico. Presence of important populations of Audubon's Shearwater (*Puffinus lherminieri*). Largest Caribbean breeding population of Red-billed Tropicbirds (*Phaethon aethereus*).

Mammals: five bat species, of which the St. Vincent fruit-eating bat (*Brachyphylla cavernarum*) and the free-tailed bat (*Tadarida brasiliensis antillarum*) are listed in Annex II of the SPAW Protocol.

Ecosystems: All of the island's vegetation zones are represented in the protected area, from the dry

croton thickets on the dry lowest slopes of the mountain, going up to dry evergreen forest, secondary rainforest and ravine primary rainforest, tree-fern brake, palm brake and 'elfin woodland' on the top of the mountain.

The Mt. Scenery elfin forest is regionally unique due to its relatively low elevation (825-870 m), which allows the dominant Mountain Mahogany (*Freziera undulata*) to grow much taller and forming a much higher canopy than in other such cloud forests in the region.

Cultural and traditional use: The area includes remnants of the traditional small scale subsistence agriculture plots that are an important part of the island's heritage and that will be allowed to continue and promoted.

The protected area will also protect and highlight the historical ruins of the abandoned settlement of Mary's Point, which is a part of the island's colonial history and an archaeological site. There are also several Archaic Amerindian sites.

Socio-economic benefits: The area contains a large part of the island's historical trail network (the historical 'roads' connecting the small settlements of the island) currently one of the main tourism attractions of the island. The Mt. Scenery National Park will ensure maintenance and improvement of these hiking trails, and allow further development of tourism through guided bird tours and orchid and fern tours on the trails.

Criteria it conforms with (Guidelines and Criteria B Paragraph 2)

Representativeness

Conservation value

Rarity

Naturalness

Critical habitats

Diversity

Connectivity/coherence

Cultural and socio-economic criteria

Productivity

Cultural and traditional use

Socio-economic benefits

Chapter 3. SITE DESCRIPTION

a - General features of the site

Terrestrial surface under sovereignty, excluding wetlands:

3.4 sq. km

Wetland surface:

0 ha

0 sq. km

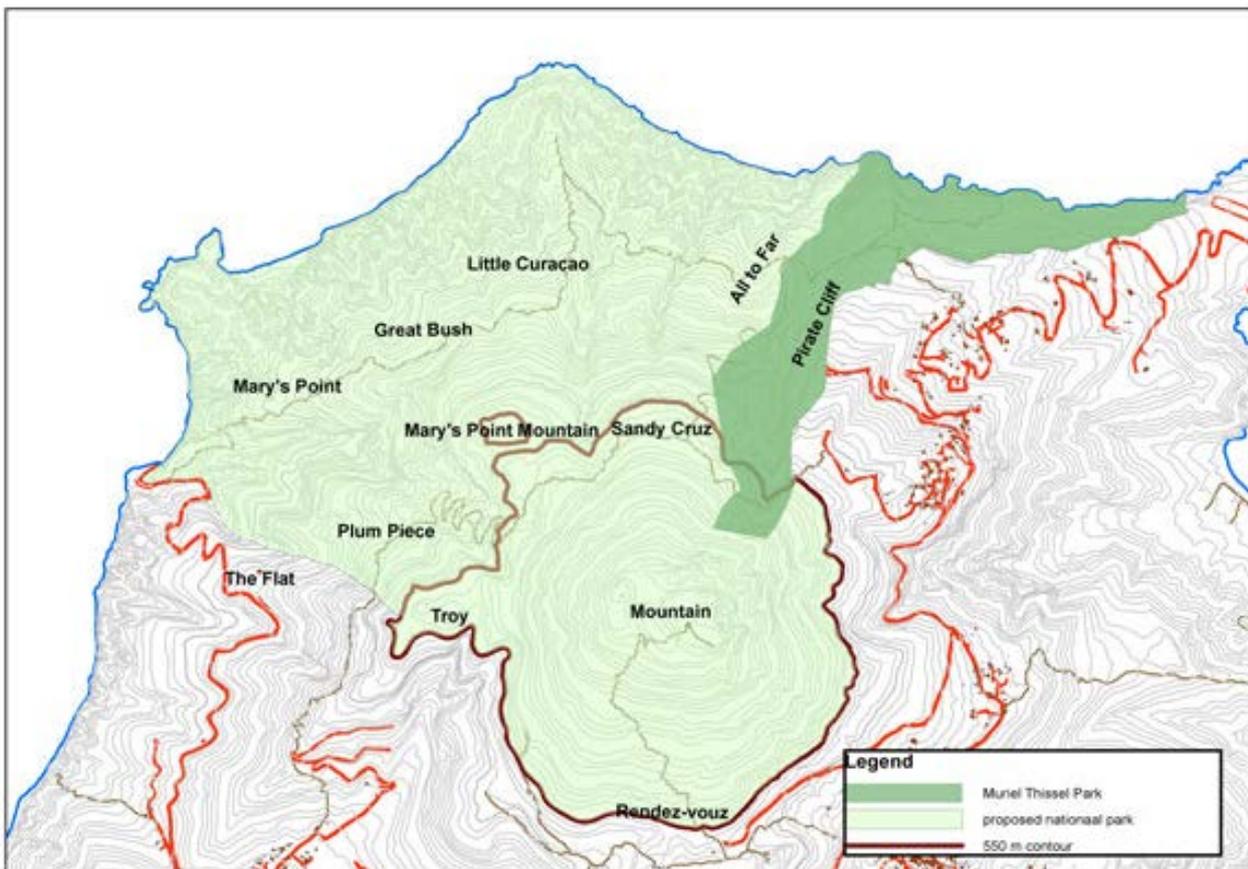
Global comment for the 3 previous fields (optional):

This is exclusively a terrestrial area from the shore line to the top (877m) of the island. It consists off the steep slopes, deep ravines and rock formations in the northern quadrant of the island, rising up to the top and including everything around the top above 550 m height.

b - Physical features

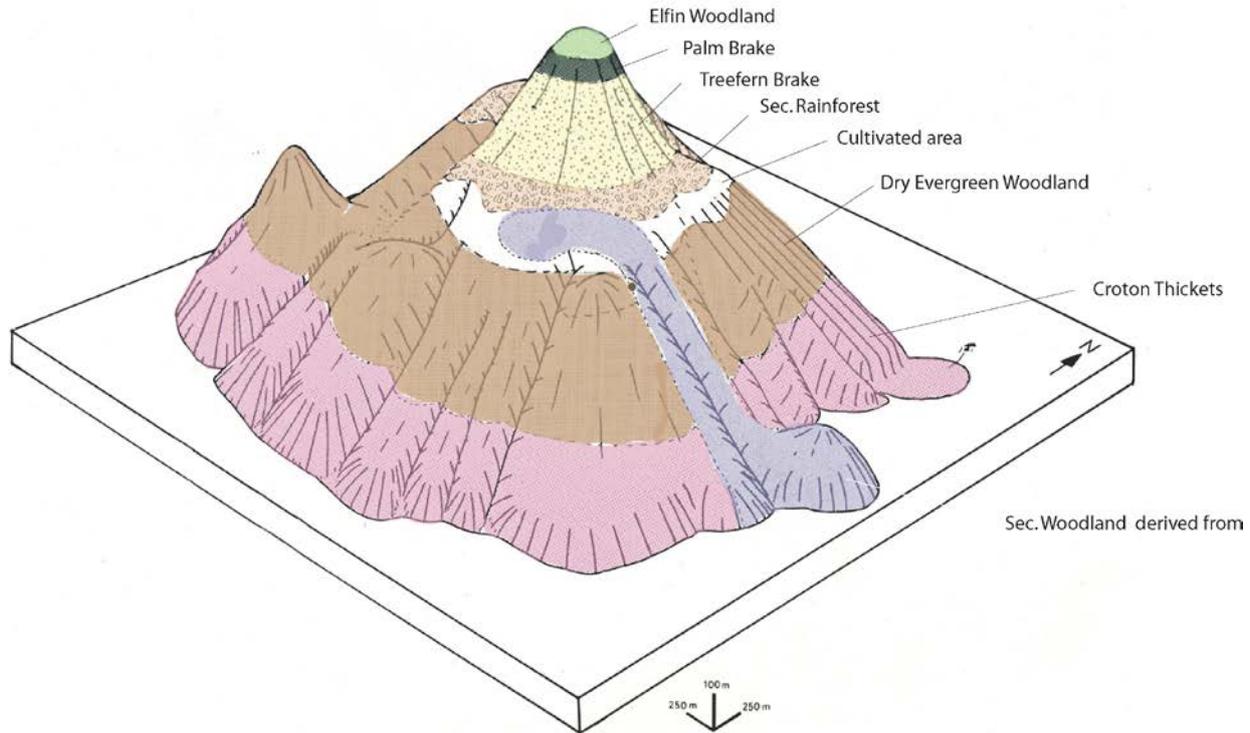
Brief description of the main physical characteristics in the area:

The Mt. Scenery National Park comprises the north and north-west coast and steep northern slopes of the island of Saba all the way up to the upper parts of the centrally located Mt. Scenery and including the entire area around the top above 550 m height, comprising 26 % of the total island area.



Map of the Mt. Scenery National Park

The steep slopes are cut into by deep ravines that form refuges for mostly untouched vegetation including primary rainforest. The less steep parts of the slopes were farmed (small scale subsistence farming plots) until around the middle of the previous century after which most plots were abandoned. Since then the area is predominantly wilderness and contains all six of the vegetation zones found on Saba, from sea level up: dry coastal shrub, dry evergreen forest, secondary rainforest (with primary rainforest in the ravines), tree-fern brake, palm brake and elfin woodland



Schematic representation of the island of Saba with the various vegetation zones

Geology:

Saba is the northernmost volcanic island in the Active Arc of the Lesser Antilles with an area of only 13 sq. km. It is rhomb shaped and is a single volcano measuring 4.6 km east to west and 4.0 km north to south rising to a central peak of Mt. Scenery at 887m. The island has the appearance of a deceptively simple stratovolcano, but this is not the case as it has been built up of a large number of Pelean domes with their aprons of coarse pyroclastic deposits that form a distinctive shoulder on the island at about 450 to 500 m above sea level. Mt. Scenery is a younger cone perched somewhat eccentrically to the north on this foundation of Pelean domes.

Hot springs are present on the northwest (and southeast) coast of the island and on the sea floor immediately offshore of these areas. Orange areas of discoloration are present on the flanks of the volcano marking the sites of former fumarolic activity. On the northeast coast immediately underlying the prominent basaltic andesite lava flow, is a layer of yellow sulfur mineralization that has been mined in the past and is also included in the protected area

Soil:

‘Clay loam’ on the top of Mount Scenery, followed by various intergrading degrees of ‘very stony loam’ and ‘cherty sandy loam’, going down to the shore.

Topography:

Saba, and in particular the northern side, has a rugged, steep topography, with most of the island sloping (dramatically) to the sea.

Hydrodynamics:

The top of Mt. Scenery with its dense forest and montane cloud forest, acts as a sponge for the precipitation that is generated by the high elevation rising steeply from the ocean. Water is stored in retained in the vegetation and released slowly to lower elevations. This is an essential ecosystem service. The deep ravines (guts) are thickly forested as well, slowing down run-off from heavy rains.

Volcanic formations:

The entire island of Saba is a volcanic formation with a number of older volcanic domes on the north side of the island mostly covered by the most recent dome of Mt. Scenery

Sand dunes:

N.A.

Underwater formations:

N.A.

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 landscape ecological vegetation map of Saba was completed in 2016 (Freitas et al. 2016) distinguishing a total of two main and nine different sub-landscape types based on geology, geomorphology and nine distinguished vegetation types. In Saba, sharp contrasts in soil, geomorphology and climatic factors are found on a small spatial scale and this meant that there is relatively little mixing and merging of vegetation types at the landscape vegetation level:

- M1. **HELICONIA - CHARIANTHUS MOUNTAINS** Only one vegetation type is found in, and is also restricted to this sub-landscape: the *Heliconia - Charianthus* type (type 1). M1 is restricted to the highest parts of Mount Scenery, in the depression as well as on the rim and on the first stretch down the slope of the mountain.
- M2. **PHILODENDRON - MARCGRAVIA MOUNTAINS** The *Philodendron - Marcgravia* sub-landscape consists completely of the *Philodendron - Marcgravia* vegetation (type 2). It is found lower on the slopes of Mount Scenery than the *Heliconia - Charianthus* Mountains (M1). On the northern and western slopes, this sub-landscape type continues downwards to lower altitudes (app. 500 m) than on the eastern and southern slopes (app. 600 m). Downwards on the slopes the soil eventually changes from a 'Scenery clay loam' to a 'Rendez-vous stony loam type'.
- M3. **PHILODENDRON - INGA MOUNTAINS** This sub-landscape is dominated by the *Philodendron - Cordia* type (type 3), but with the *Inga - Pharus* type (type 4) occasionally, and *Coccoloba - Myrcianthus* type (type 5) more rarely present. This sub-landscape is characteristic for the higher hilltops around Mount Scenery, e.g. Mary's Point Mountain, Troy Hill and Bottom Hill. On the western slopes its lower limit is approximately at 200 m a.s.l., and on the eastern slopes its lower limit is at approximately 500 m. The area of this sublandscape consists mainly of the 'Middle Island very stony loam' soil.
- M5. **COCCOLOBA - WEDELIA MOUNTAINS** This sub-landscape covers a wide area in the northern part of Saba. The more northwestern section of it is occurrence is relatively more

exposed to the influence of the wind. These *Coccoloba - Wedelia* Mountains occur on the lower slopes of Mount Scenery, along the cliffs. The main soil types are the 'Middle island very stony loam' and 'Gile's cherty sandy loam'. The *Coccoloba - Myrcianthus* vegetation type (type 5) is dominant while the *Wedelia - Plumbago* type (type 7) is less frequent.

M6. COCCOLOBA - INGA MOUNTAINS This sub-landscape is found in an area of the lower parts of Saba that stretches from the lower southwestern and southern sides to the north-eastern side of Saba. The more eastern parts of this sublandscape area are more exposed to the influence of the predominant wind. The vegetation is a mosaic of four vegetation types that are of approximately the same importance: *Coccoloba - Myrcianthus* (type 5), Inga - Pharus type (type 4), *Philodendron - Cordia* (type 3) and *Wedelia - Plumbago* type (type 7).

M8. BOTHRIOCHLOA MOUNTAINS This sub-landscape is restricted to a small area north of Deep Gut and west of the old sulphur mine, situated directly above the seaboard cliffs. Only one vegetation type is found in this sub-landscape, namely the *Bothriochloa pertusa* type (type 8).

C. ARISTIDA CLIFFS A steep seaboard surrounds most of the island of Saba. This cliff is a mostly barren steep slope, partly rubble and partly rocky. A very sparse and scattered cover of the *Aristida - Mitracarpus* type (type 9) vegetation is found in these areas.

Detail for each habitat/ecosystem the area it covers:

Terrestrial ecosystems	Size (estimate)		M1. HELICONIA - CHARIANTHUS MOUNTAINS Only one vegetation type is found in and is also restricted to this sub-landscape: the <i>Heliconia - Charianthus</i> type (type 1). M1 is restricted to the highest parts of Mount Scenery, in the depression as well as on the rim and on the first stretch down the slope of the mountain.
	ha.	7.2	
Terrestrial ecosystems	Size (estimate)		M2. PHILODENDRON - MARCGRAVIA MOUNTAINS The <i>Philodendron - Marcgravia</i> sub-landscape consists completely of the <i>Philodendron - Marcgravia</i> vegetation (type 2). It is found lower on the slopes of Mount Scenery than the <i>Heliconia - Charianthus</i> Mountains (M1). On the northern and western slopes, this sub-landscape type continues downwards to lower altitudes (app. 500 m) than on the eastern and southern slopes (app. 600 m). Downwards on the slopes the soil eventually changes from a 'Scenery clay loam' to a 'Rendez-vous stony loam type'.
	ha.	75	
Terrestrial ecosystems	Size (estimate)		M3. PHILODENDRON - INGA MOUNTAINS This sub-landscape is dominated by the <i>Philodendron -</i>

	ha.	100	<i>Cordia</i> type (type 3), but with the <i>Inga - Pharus</i> type (type 4) occasionally, and <i>Coccoloba - Myrcianthus</i> type (type 5) more rarely present. This sub-landscape is characteristic for the higher hilltops around Mount Scenery, e.g. Mary's Point Mountain, Troy Hill and Bottom Hill. On the western slopes its lower limit is approximately at 200 m a.s.l., and on the eastern slopes its lower limit is at approximately 500 m. The area of this sublandscape consists mainly of the 'Middle Island very stony loam' soil.
Terrestrial ecosystems	Size (estimate)		M5. COCCOLOBA - WEDELIA MOUNTAINS This sub-landscape covers a wide area in the northern part of Saba. The more northwestern section of it is occurrence is relatively more exposed to the influence of the wind. <i>These Coccoloba - Wedelia</i> Mountains occur on the lower slopes of Mount Scenery, along the cliffs. The main soil types are the 'Middle island very stony loam' and 'Gile's cherty sandy loam'. The <i>Coccoloba - Myrcianthus</i> vegetation type (type 5) is dominant while the <i>Wedelia - Plumbago</i> type (type 7) is less frequent.
	ha.	109	
Terrestrial ecosystems	Size (estimate)		M6. COCCOLOBA - INGA MOUNTAINS This sub-landscape is found in an area of the lower parts of Saba that stretches from the lower southwestern and southern sides to the north-eastern side of Saba. The more eastern parts of this sublandscape area are more exposed to the influence of the predominant wind. The vegetation is a mosaic of four vegetation types that are of approximately the same importance: <i>Coccoloba - Myrcianthus</i> (type 5), <i>Inga - Pharus</i> type (type 4), <i>Philodendron - Cordia</i> (type 3) and <i>Wedelia - Plumbago</i> type (type 7).
	ha.	190	
Terrestrial ecosystems	Size (estimate)		M8. BOTHRIOCHLOA MOUNTAINS This sub-landscape is restricted to a small area north of Deep Gut and west of the old sulphur mine, situated directly above the seaboard cliffs. Only one vegetation type is found in this sub-landscape, namely the <i>Bothriochloa pertusa</i> type (type 8).
	ha.	3.6	
Terrestrial ecosystems	Size (estimate)		ARISTIDA CLIFFS A steep seaboard surrounds most of the island of Saba. This cliff is a mostly barren steep slope, partly rubble and partly rocky. A very sparse and scattered cover of the <i>Aristida - Mitracarpus</i> type (type 9) vegetation is found in these areas.
	ha.	53	

Flora

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

Sea above

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
<i>Guaiacum officinale</i>	unknown	

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
<i>Nectandra krugii</i> (black sweetwood)	EN	unkn.	
<i>Swietenia mahagoni</i> (West Indian Mahogany)	EN	unkn.	
<i>Guaiacum officinale</i> (Lignum vitae)	EN	unkn.	

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
<i>Freziera undulata</i> (Mountain mahogany)	unkn.	

*Note: The Caribbean Netherlands do not have a national list of protected species because the national government has mandated that to the islands themselves. Hence Saba has its own protected species list

Fauna

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

The small size and isolation of Saba has led to relatively few species of fauna making a home on the island. Five bat species are the only mammals on Saba that were not introduced by humans. There is one endemic vertebrate; the Saban Anole (*Anolis sabanus*, Saban Anole) A number of vertebrates are endemic to the Lesser Antilles and Virgin Islands, including several species of birds, reptiles and one amphibian. Very little is known about the invertebrates living on Saba, some of which may be endemic such as the Scorpion *Oiclus purvesii sabae*.

Birds

There are 26 species of bird that breed in the area, including the endangered Bridled Quail-dove (*Geotrygon mystacea*), with a further 36 species using the island as a migratory stop over. Of the breeding populations, 9 species or sub-species of forest dwelling bird are endemic to the Lesser Antilles and/or the Virgin Islands.

The shoreline of the Mt. Scenery National Park is home to the Caribbean's largest breeding colony of Red-Billed Tropic Birds. The steep hills and ravines in the Mt. Scenery National Park are an important site for Audubon's Shearwater (*Puffinus lherminieri*, SPAW Annex II) that nest there.

Two birds of prey that live on Saba are the Red-tailed Hawk (*Buteo jamaicensis jamaicensis*) and The American Kestrel (*Falco sparverius caribaeum*). Saba's coastal areas including the shoreline of The Mt. Scenery Nature Park are home to a number of species of sea bird including 4 endangered

species: Brown Noddy (*Anous stolidus*), Sooty Tern (*Sterna fuscata fuscata*) and Bridled Tern (*Onychoprion anaethetus*).

Reptiles and Amphibians

The only amphibian found on Saba is Johnstone's Whistling Frog (*Eleutherodactylus johnstonei*, SPAW Annex II), however, from sound recordings a second as yet unnamed species of *Eleutherodactylus* and possibly a third species of frog appear to be present. The 10 species of reptile found on Saba include five species of lizard including the endemic Saban Anole (*Anolis sabensis*), one species of tortoise (Powell, Henderson & Parmerlee, 2005). The Red-bellied Racer snake (*Alsophis rufiventris*), is only found on Saba and St. Eustatius.

The population of Green Iguanas (*Iguana iguana*) on Saba is distinctive and warrants designation as a distinct species or subspecies. The characteristics of the Saban population would disappear if iguana's from other areas arrived on the island.

Other animals

A total of 86 species of invertebrate have been accounted for on Saba, including the endangered Mountain Crab (*Gecarcinus ruricola*), 14 species of snail and 70 insect species including 27 butterflies.

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

List of species in SPAW annex I	Estimate of population size	Comments if any
<i>Puffinus lherminieri</i> (Audubon's Shearwater)	300-400	
<i>Cinlocerthia ruficauda</i> (Brown trembler)	unkn.	
<i>Eleutherodactylus johnstonei</i> (Johnstone's whistling frog)	unkn.	
<i>Brachyphylla cavernarum</i> (St. Vincent fruit-eating bat)	unkn.	
<i>Tadarida brasiliensis antillularum</i> (free-tailed bat)	unkn.	

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
<i>Iguana iguana</i> (Saban black iguana)	Unkn,	

List of animal species within the site that are in the IUCN Red List. 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
<i>Alsophis rufiventris</i> (red-bellied racer)	EN	unkn.	

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
<i>Iguana iguana</i> (Saba Black Iguana)	unkn.	
<i>Geotrygon mystacea</i> (Bridled Quail Dove)	unkn.	
<i>Phaethon aethereus</i> (Redbilled tropicbird)	unkn.	
<i>Puffinus lherminieri</i> (Audubon's Shearwater)	300-400	

<i>Cinlocerthia ruficauda</i> (Brown Trembler)	unkn.	
<i>Alsophis rufiventris</i> (Red-bellied racer snake)	unkn.	
All hummingbirds: <i>Orthorhyncus cristatus</i> , <i>Eulampis jugularis</i> , <i>Eulampis holosericeus</i>	unkn.	
*Note: The Caribbean Netherlands do not have a national list of protected species because the national government has mandated that to the islands themselves. Hence Saba has its own protected species list		

List of the main publications

Augustinus, P. G. E. F., Mees, R. P. R. & Prins, M. (1985). Biotic and abiotic components of the landscape of Saba (Netherlands Antilles), Natuurwetenschappelijke Studiekring voor Suriname en de Nederlandse Antillen.

De Palm, J. (1985). Encyclopedie van de Nederlandse Antillen. De Walburg Pers, Zutphen.

Freitas, J.A. de, Nijhoff, B.S.J., Rojer, A.C., Debrot, A.O. 2016. A landscape ecological vegetation map of Saba (Lesser Antilles).

Howard, R. A. (1974). Flora of the Lesser Antilles. Orchidaceae. Arnold Arboretum, Harvard University, Massachusetts.

Howard, R. A. (1989). Flora of the Lesser Antilles. Vol.2: Pteridophyta. Vol 3: Monocotyledoneae. Vol 4, 5, 6: Dicotyledoneae I, II, III. Arnold Arboretum, Harvard University, Massachusetts.

Lazell, J. D. (1972). The Anoles (Sauria, Iguanidae) of the Lesser Antilles. Bull.Mus.Comp.Zoo 143, 1-28.

Mori, S. A., W. R. Buck, C. A. Gracie & M. Tulig. 2007 onward. Plants and Lichens of Saba (<http://sweetgum.nybg.org/saba/>). Virtual Herbarium of The New York Botanical Garden.

Powell, R., Henderson, R. W. & Parmerlee, J. S. J. (2005). The Reptiles and Amphibians of the Dutch Caribbean. Reptile Education and research publishing, Kansas City, Missouri.

Rojer, A. (1997). Biological Inventory of Saba. Carmabi Foundation.

Stoffers, A. L. (1960). Vegetation on the Windward Islands of the Netherlands Antilles. The vegetation of Saba. The Vegetation of St. Eustatius. Schakels.

Wiersma, P. (1984). Moss Flora and Vegetation of Saba and St. Eustatius (West Indies). Proc.Kon.Ned.Akad.Wet. Series C, 337-369.

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)
<i>Freziera undulata</i> Mountain Mahogany	Irregular (opportunistic)	marking of surviving trees after hurricanes, permanent light intensity and temperature loggers to assess impacts
Birds	Irregular (opportunistic)	assessments by Adrian Delnevo (via Dutch Caribbean Nature Alliance)
Bats	Irregular (opportunistic)	assessments by Fernando Simal

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:

The Mt. Scenery National Park includes 7 of the nine vegetation types distinguished on the island, these include types typical for the region:

- Dry evergreen forest
- Secondary Rainforest
- Montane cloud forest with tree ferns

The area harbours regionally important breeding populations of Red-billed tropicbirds (*Phaeton aethereus*) and Audubon's Shearwater (*Puffinus lherminieri*)

Conservation value:

The Mt Scenery National Park comprises about 25 % of the whole island, including the most pristine and untouched areas of the island and most diverse vegetation types. The area is large enough to be a self-contained system for the ecosystems present within it.

The Cloud forest on Mt. Scenery is very important due to its regional rarity, the presence of unique species, and also because of its water capturing potential.

The vegetation on the mid-level slopes is recovering from past disturbance and has particular value due to the wealth of species, both of higher plants as well as mosses and liverworts.

The dry evergreen forest and shrub land areas on lower slopes are essential in the control of erosion, and they also have scenic value. Internationally, areas with dry tropical forests have been seriously marginalised by human activity and have for instance practically disappeared in Central America and certain areas in South America.

In addition the Mt. Scenery National Park is:

- An important water reserve since the plants and soil on the higher elevations absorb rainwater and acts as a sponge, which helps to control the flow of water during heavy rainfall to the island's low-lying areas and allows the water to drain into the ground
- A genetic resource containing old abandoned cultivars of valuable plants that were cultivated historically, such as cacao and coffee that still thrive in the forest

Rarity:

Iguana iguana on Saba is thought to be an endemic sub-species. Interbreeding with the non-native green iguana is taking place and may result in dilution of the gene pool and a loss of the sub species.

The Red-Bellied Racer (*Alsophis rufiventris*) has already become extinct on the islands of St. Kitts and Nevis, and now only lives on Saba and St. Eustatius.

The montane cloud forest (elfin forest) on top of Mt. scenery is unique in the region because of its signature species the mountain mahogany (*Freziera undulata*) a species that is uncommon or absent in other cloud forests and has a limited distribution in the Lesser Antilles. Also, the cloud forest on Saba does not show the stunted or dwarfed growth form of trees that is so characteristic of other cloud forests.

Mt. Scenery is the highest point of the entire Kingdom of the Netherlands, including the continental

part.

Naturalness:

Although there used to be widespread small plot subsistence agriculture on the island wherever the slope was not too steep, this stopped some 50-60 years ago and these areas have been recovering ever since and are now mostly covered in secondary rainforest. On the steeper slopes and within the very steep ravines that run all the way down to the shore, the vegetation is mostly still pristine and in its natural state. The Mt. Scenery National Park comprises the most inaccessible and least used areas of the island on the northern side and thus the most untouched areas.

Critical habitats:

The tree *Nectandra krugii* (SPAW Annex I) occurs exclusively in the high elevation rainforest within the National Park.

As stated above, the Mt. Scenery National Park contains significant breeding areas of the tropic bird and Audubon Shearwater (SPAW Annex II).

The elfin forest and the ravine rainforest are essential habitat for seven restricted range (Lesser Antilles) bird species on the island, including the purple-throated carib (*Eulampis jugularis*) and the brown trembler (*Cinclocerthia ruficauda pavidus*, SPAW Annex II).

The endangered red-bellied racer, *Alsophis rufiventris*, (EN) is dependent on the dry evergreen forest and secondary rainforest on the slopes in the Mt. Scenery National Park

Diversity:

The Mt. Scenery National Park includes the areas of highest biodiversity of the island, in stable natural habitats that have shown the ability to recover after hurricane damage.

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).*

Productivity:

The Mt. Scenery National Park contains has the potential for small-scale sustainable forest agriculture of valuable crops such as cocoa and coffee, that were grown there historically.

Cultural and traditional use:

The Mt. Scenery National Park contains the last remnants of the traditional small scale subsistence agriculture, which is an important cultural heritage for the island community.

This cultural heritage also includes the ruins of an abandoned settlement from colonial times, which are being restored, preserved and made accessible within the framework of the National Park management.

The Mt. Scenery National Park also contains at least one Archaic Amerindian site, one of the oldest such sites in the Caribbean, which will also be preserved, studied further and showcased as part of the park management. **The Mt. Scenery National Park legislation includes protection for archaeological artefacts.**

Socio-economic benefits:

The hiking trail network in the Mt. Scenery National Park is one of the main attractions (after diving) for tourism to the island. The island is dependent on nature oriented tourism and the establishment of the Mt. Scenery National Park was partly motivated by the wish to strengthen this tourism sector to benefit the island's economy. The establishment of the National Park will enhance the experience of hiking tourists by protecting and showcasing the rich biodiversity of the island as well as the colonial and archaic history of the island. Development of the Mt. Scenery National Park will greatly enhance the nature values of the area which can be monetized by small entrepreneurs operating within the park providing services to visiting tourists.

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 the protected area:

The Mt. Scenery National Park is legally protected through an Island Ordinance based on the National Nature Conservation Framework Act BES (Bonaire St. Eustatius and Saba).

The management of the Park is mandated in the legislation to the Saba Conservation Foundation (SCF), in cooperation with the Saba Archaeological Centre(SABARC) that will manage the archaeological sites within the park. The legislation also specifies a management plan. This Management Plan is currently under development.

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

Category II, National Park.

Comments:

The Mt. Scenery National Park is intended to protect the ecosystems and biodiversity, but also to strengthen sustainable tourism. With regard to the archaeological ruins contained in the Park it also functions as a protected landscape (cat. V)

b - Management structure, authority

Management falls under the responsibility of the Island Government and has been mandated to the Saba Conservation Foundation (SCF), on the basis of a management plan currently in development.

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

Description of the management authority

The Saba Conservation Foundation (SCF) is a non-governmental organisation established in 1987 with a mission to preserve and manage Saba's natural and cultural heritage. It is committed to the idea that a stronger island economy will result from the sustainable use of Saba's rich and virtually unspoiled resources. Saba Conservation Foundation (SCF) has a permanent Board of Directors, which oversees Foundation activities.

The Vision of the Saba Conservation Foundation is to have an island and community where:

- nature is respected and protected;
- nature continues to play a central role in the life and the economy of the island, notably through tourism and fisheries;
- development is environmentally and economically sustainable, socially inclusive and culturally relevant;
- people can live peacefully and harmoniously, free of poverty and insecurity.

In this vision, Saba's nature will be:

- respected, known and appreciated by all;
- well-preserved and protected, as much as possible, from internal and external sources of impact, including invasive species;

- used sustainably for tourism, recreation, fisheries, agriculture, animal husbandry and other forms of economic and social development.

The mission of the SCF therefore, is:

- a. to preserve and manage the natural environment of Saba in general, both on land and in the water, and in particular of areas that are exceptionally scenic, host endemic species of plants and/or animals, or that have unique ecological or geological values.
- b. to optimise the economic, educational, recreational and scientific potential of such areas to the benefit of the people of Saba and that of foreign visitors, insofar that this is not in conflict with the objectives of conservation”.

The foundation is non-profit, relying on fee-generated income, grants and government subsidies. Saba Conservation Foundation also manages the Saba National Marine Park, and the Saba Bank National Park

Means to implement the framework

The SCF has its main offices in Fort Bay next to the harbour on the South Coast of Saba and also has a ticketing and information office (trail shop) in the centre of Windward Side near the trail head for Mt Scenery.

The SCF currently employs ten staff: two marine park rangers, a trail manager and assistant, three Saba Bank officers, a communication/educational officer and an administrator, all under direction of a Parks Manager. In addition the SCF works with a group of dedicated volunteers (e.g. a group of Canadian volunteers comes over every year to assist in major trail maintenance or trail breaking) and usually several interns working on research projects.

Once the management plan for the Mt. Scenery National Park is finalized the SCF expects to hire an additional trail ranger

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

Objective	Top priority	Comment
Protect and manage the biological diversity and other natural values of the area	Yes	
Optimize the economic, educational, recreational and scientific potential of the area to the benefit of the people of Saba and tourists, insofar that this is not in conflict with the objectives of conservation”.	Yes	
	No	
	No	

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

Since the National Park Mt. Scenery was only established in September 2018, the legally mandated management plan is currently still in development and still needs adjustments based on stakeholder consultations. Only a very preliminary draft is available at this stage which is appended in Annex A here, but which is still confidential and we request reviewers of this submission not to share it with

others.

The basic outline of the management plan is set out in the legislation to establish the National Park Mt. Scenery: the Management Plan will specify:

- a. The way in which the management and conservation of nature and the essential characteristics of the Park are achieved;
- b. The way in which accessibility to nature, archaeological heritage and special features in the Park is achieved;
- c. The tasks that result from this;
- d. The goals that have to be achieved for this;
- e. The resources available for the implementation of the management;
- f. The management agreement is valid for live year, after which it is reviewed and renewed.

The management plan now under development follows a common template produced by the Dutch Caribbean Nature Alliance (DCNA) created to set a standard for all islands. This has been designed to be a dynamic document, accessible via hard copy, electronic copy and relevant websites. It should be kept up to date with additional material to allow adaptive management as situations and issues change and management actions succeed. The plan has 4 Parts:

Part 1: Background Information.

The physical, social and political environment within which the management will take place and which will greatly influence the operations of the protected area. Those using the management plan may not be aware of the circumstances of the Mt. Scenery National Park and can refer to this section for background information. Technical terms are explained in the text and names of plants and animals are given as the common name in English, followed by local and scientific names where appropriate.

Part 1 can be used as a stand-alone introduction to the island and the Mt. Scenery National Park and has been written with a range of audiences in mind.

Part 2: Management Environment.

This is the first part of the working document which states the significance, mission and goals for the Saba Conservation Foundation. Resources available to the SCF are described, including the legal instruments, institutional arrangements and human and physical resources. The main issues facing the Mt. Scenery National Park are detailed and described before being summarised.

Part 2 will be of interest to those wishing to develop a more in depth understanding of the operational management and issues likely to face the Mt. Scenery National Park.

Part 3: Management Plan.

In part 3 the strategies that SCF and partners need to take to work towards the mission and goals are clarified.

Part 3 is of concern to those with an interest in the current activities of SCF and the Mt. Scenery National Park and the rationale behind actions being taken.

Part 4: Additions and Developments.

The final part of the plan is intended to act as a place marker for updates, where management actions have led to outcomes that can be described or there has been a change in the tools available to the protected area. This section needs to be kept up to date so that staff can work from the proposed actions and work schedule, and so any interested party can pick up the whole plan and have a thorough understanding of the Mt. Scenery National Park from the context through to the most recent management actions.

Part 4 is to be used by the management body to keep the management plan up to date; its contents are unlikely to be available until the plan has been formally updated.

Management plan - date of publication

2018, date t.b.d.

Management plan duration

5 years

Date of Review planned

2023

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

terrestrial ecosystems	Management measures	Protection measures	Recovery measures	Comments/description of measures
Montane cloud forest (elfin forest)	no	Yes	no	Protection of orchids and ferns (inspection at departure)
Dry evergreen forest	no	no	Yes	Reforestation efforts

Flora

List of species in IUCN red list present in the site	Management measures	Protection measures	Recovery measures	Comments/description of measures
<i>Nectandra krugii</i> (black sweetwood)	no	no	no	
<i>Swietenia mahagoni</i> (West Indian Mahogany)	no	no	yes	reforestation
<i>Guaiacum officinale</i> (Lignum vitae)	no	no	no	
List of species in the list of protected species present in the site	Management measures	Protection measures	Recovery measures	Comments/description of measures
<i>Freziera undulata</i> (Mountain mahogany)	yes	no	no	monitoring

Fauna

Species from SPAW Annex 2 present in your area	Management measures	Protection measures	Recovery measures	Comments/description of measures
<i>Puffinus lherminieri</i> (Audubon's Shearwater)	yes	yes	no	Identification and protection of nesting sites
<i>Cinlocerthia ruficauda</i> (Brown trembler)	no	no	no	

<i>Eleutherodactylus johnstonei</i> (Johnstone's whistling frog)	no	no	no	
<i>Brachyphylla cavernarum</i> (St. Vincent fruit-eating bat)	no	no	no	
<i>Tadarida brasiliensis antillularum</i> free-tailed bat)	no	no	no	
Species from SPAW Annex 3 present in your area	Management measures	Protection measures	Recovery measures	Comments/description of measures
<i>Iguana iguana</i> (Saban black iguana)	no	yes	no	

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

The Mt. Scenery National Park helps to implement the existing building regulation prohibiting development above 550 m.

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

Comments, if necessary

i - Enforcement measures and policies

The protection of the Mt. Scenery National Park and threatened species has been specified by law. This enables the management organization to enforce the protective measures as set out in the law. The Parks Manager of the SCF has been licensed as a special investigative officer, with formal enforcement authority.

Travellers leaving the island will be checked by customs for possession of protected species

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

International status		Date of designation	Comments
Significant bird area (Birdlife International)	yes	2009	Part of the IBA is enclosed in Mt. Scenery National Park
Others: Key Biodiversity Area (EU)	yes	2016 by EU BEST program	

Comments

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

The aim of the Saba government is to protect the unique richness of the area and thereby make it possible to use the park in an appropriate way that can be both recreational and commercial. As the Island Council decision to approve the legislation to establish the Mt. Scenery National Park states, the aim is to:

- Promote the sustainable use and accessibility of nature and especially of the north and central part of Saba, which can be regarded as the most biodiverse parts of the island as well as the highest point of the Kingdom.
- Enhance the synergy of nature and tourism.

l - Available management resources for the area

Resources		How many/how much	Comments/description
Human resources	Permanent staff	4	Trail Manager, Trail Shop Associate, Communication/Education Officer, Administrator Yearly group of 20 volunteers for 2 weeks, trail cleaners work on contractual basis SABARC for archaeological work
	Volunteers	20	
	Trail Cleaners	6	
Physical resources	Equipment	Pick-up truck Chainsaws (3) Generator Demolition Jackhammer Electrical Hand Drill and Bits Powered Pruning Saw Hand Saw (2) Sawhorse Circular Saw Sledge Hammers (2) Rakes (4) Powered Weed Trimmers (2) Pruning shears (2) Anvil Loppers (4) Shovels (4) Pick Mattock (2) Machetes (10) Frame Carriers (2) Temperature/light gauges (5) Rain gauge Weather Station Wildlife Surveillance Cameras (7) Binoculars (4 pairs) Beekeeping Equipment Bat/bird nets (for monitoring)	Sulfur mine property owned by the Saba Conservation Foundation is part of park. Signage installed at all trails, Interpretive displays at 4 locations, rope railing installed at Mary's Point Trail, Pipe Railings installed on the upper part of the Mount Scenery Trail, 3 rest installed sheds on Mount Scenery Trail, rest benches on Sandy Cruz (2), Elfin Forest (1), Mount Scenery (1), Well's Bay (1) and Mary's Point (1) trails, weather station to be repaired

		Plant presses Drying ovens (2) Microscope Desktop Computer Laptop Computer Printer POS System	
	Infrastructures	Trail shop, Trail signage, interpretive displays, rope and pipe railings, rest sheds, - benches	
Financial resources	Present sources of funding	hotel trail fee \$1/night, souvenir sales, guided hikes, birdwatching tours, island government subsidy	
	Sources expected in the future	Increased trail fee, research grants	
	Annual budget (USD)	\$95,000.00	

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).

The management framework as described above is sufficient to manage the Mt. Scenery National Park, as the SCF has in effect already been maintaining the trail network for many years before the formal establishment of the park. Now, additional funding can be sourced and additional work can be undertaken, i.e. to break new trails, improve safety of existing trails, provide more information and oversee activities in the Park. That this is feasible has already been demonstrated through a EU funded pilot project for the abandoned colonial settlement of Mary's Point to make it safely accessible, restore ruins and showcase specific features with informative signs that was successfully completed, and the recently completed complete renovation of the trail to the top of Mt. Scenery.

Chapter 7. MONITORING AND EVALUATION

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

Yearly, the SCF and SABARC will report on their activities in regard to the management of the Park to the island government.

Every five years the management plan will be reviewed, evaluated and adapted as necessary

Mountain mahogany (*Freziera undulata*) trees are marked and monitored regularly (e.g. after major storms/hurricanes)

Biannual bird monitoring is undertaken

Numbers of tourists are monitored

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>	
effort direction	indicator of percentage of effort directed at specified threats and other management objectives, allowing redirection of efforts if necessary
<i>Evaluation of conservation measures on the status of species populations within and around protected area</i>	
Audubon Shearwater est. nesting numbers	
Tropicbirds nesting numbers	
<i>Evaluation of conservation measures on the status of habitats within and around the protected area</i>	
Elfin forest	<i>Freziera undulata</i> monitoring permanent light intensity and temperature loggers in elfin forest
<i>Evaluation of conservation measures on the status of ecological processes within and around the protected area</i>	
<i>Evaluation of the impact of the management plan on the local communities</i>	
number of attendance at yearly public presentations	Yearly presentations will be provided to the community on the activities in Mt. Scenery National Park.

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

Stakeholders involvement	Involvement	Description of involvement	Specific coordination measures	Comments (if any)
Institutions	yes	consultations with Saba tourism office	planning of activities, e.g new trails, provision of information	
Public	yes	Public consultations to finalize the management plan Regular public presentations on activities		
Decision-makers	yes	Yearly report to island government		
Economic-sectors	yes	Hotel sector and local guides included in public presentations		
Local communities	yes	Public equals local community		
Others	yes	regular meetings for information exchange and planning of joint activities	to be determined with each group	NGO partners: Dutch Caribbean nature Alliance (DCNA) Law enforcement: Customs National Government

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	Public presentations	
Capacity building of staff and management	yes	training for specific survey techniques with University of Wageningen scientists, DCNA training workshops, bird experts	
Research, data storage, and analysis	yes	All data stored in the Dutch Caribbean Biodiversity Database (www.dcbd.nl) from which trend lines are produced when possible.	
Surveillance and enforcement	yes	Trail maintenance staff keeps an eye on hikers. Customs check departing visitors for possession of protected species	
Participation of exterior users	no		
Alternative and sustainable livelihoods	yes	Local guides are trained for guided birding tours or hiking tours	
Adaptative management	yes	The management plan will be reviewed and adapted every five years	

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	Ministry of Agriculture, Nature and Food Quality (LNV) National Office for the Caribbean Netherlands (RCN) P.O.Box 357, Kralendijk, Bonaire Caribbean Netherlands	Paul.Hoetjes@rijksdienstcn.com
who prepared the report (manager)	HOETJES Paul	Ibid.	Ibid	paul.hoetjes@rijksdienstcn.com

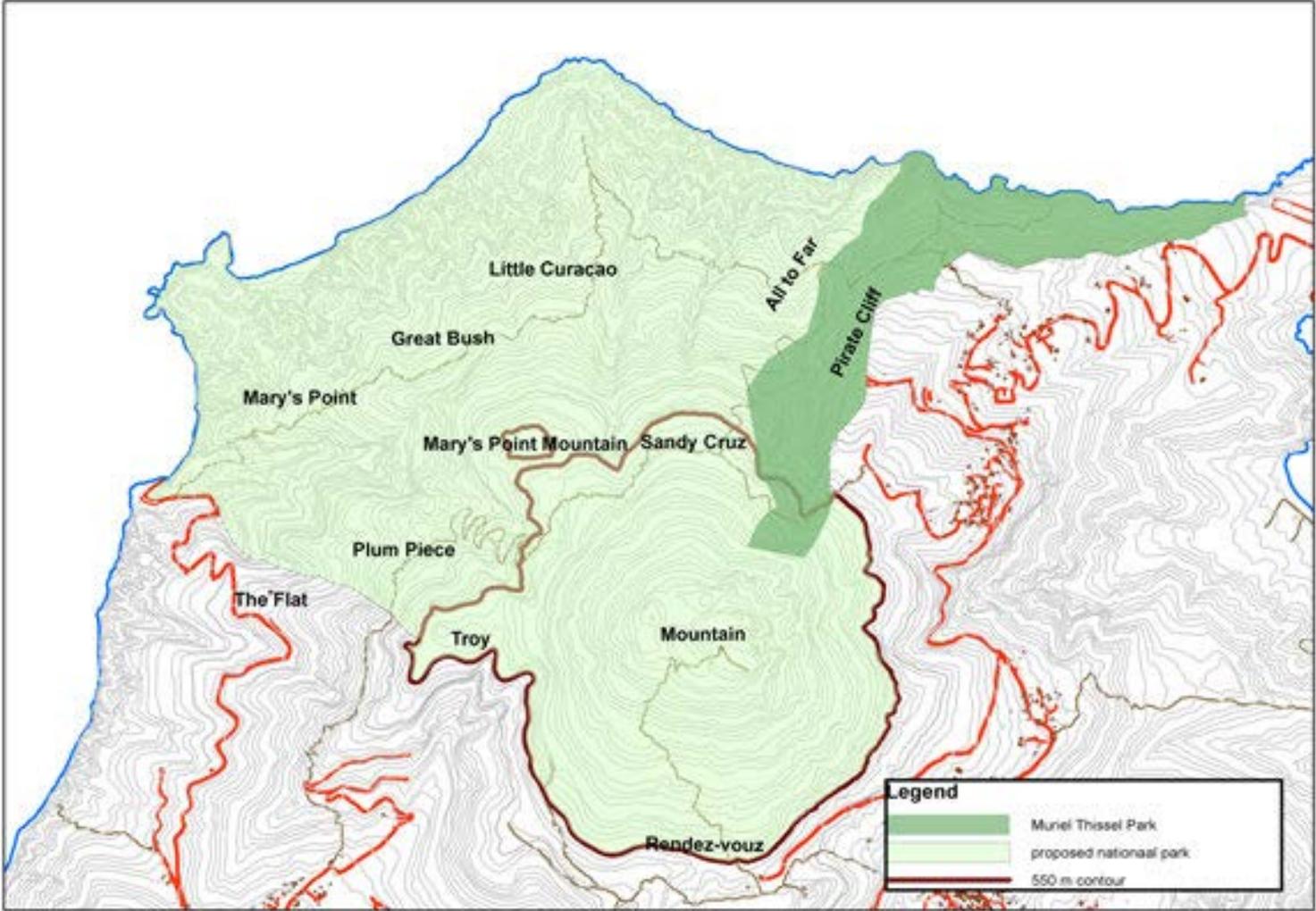
Date when making the proposal

: 11-10-2018

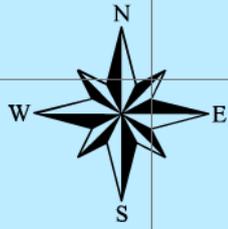
List of annexed documents

Name	Description	Category	
Maps of Mt. Scenery National Park	Map of Park boundaries and landscape ecological vegetation map	map	
Mt Scenery Nature Park mgmtpln INFO ONLY.docx	Preliminary confidential draft Management Plan Mt. Scenery National Park	Management Plan	
2018.003 ICP+D+IO National Park Mt. Scenery and the protection of animal species plant species and artefacts.pdf	Legislation establishing the Park, listing protected species and protecting archaeological artifacts	legislation	
C195.15 Report A landscape ecological vegetation - D. Debrot - ro_volledige PDF.pdf	Analysis of vegetation and landscape of Saba identifying and mapping ecological units	report	

Annex: Map of Mt. Scenery National Park



Landscape ecological vegetation map



LEGEND

Landscape units

Cliffs

C, Aristida Cliffs

Mountains

- M1, Heliconia-Charianthus Mountains
- M2, Philodendron-Marcgravia Mountains
- M3, Philodendron-Inga Mountains
- M4, Swietenia Mountains
- M5, Coccoleba-Wedelia Mountains
- M6, Coccoleba-Inga Mountains
- M7, Aristida-Bothriochloa Mountains
- M8, Bothriochloa Mountains

Miscellaneous

A, Airport

U, Urbanized areas

Topographical features

— Roads



Landscape ecological vegetation map of Saba (Lesser Antilles)

Scale 1:20.000

Cartographic design and construction:
B.S.J. Nijhof
L.P.J. Pors

Editing and layout of map:
B.S.J. Nijhof
J.A. de Freitas

Accompanying report:
Landscape ecological vegetation map of Saba (Lesser Antilles)
by J.A. de Freitas, B.S.J. Nijhof, A.C. Rojer & A.O. Debrot,
CARMABI Foundation & Imares, 2011.

This project was funded by KABNA
(Kabinet voor Nederlands-Antilliaanse Zaken)
under project nr. 108.755 & Ministerie van Economie,
Landbouw & Innovatie.

Sources of information

Aerial photographs interpretation based on April and December 1991
true colour aerial photography (scale 1:8000)
by B.S.J. Nijhof & A.C. Rojer

Field survey (October 14, 1999 - November 4, 1999) by A.C. Rojer,
B.S.J. Nijhof & J.A. de Freitas, CARMABI Foundation, Curaçao

Base map derived from topographical maps, 1:10.000

© CARMABI Foundation & Ministerie van Economie,
Landbouw & Innovatie (Imares).

General information

The grid lines represent one kilometer interval lines.