



# Saba Conservation Foundation

## *Building a resilient economy with Nature*

### *Nature, Saba's most valuable asset*

Healthy ecosystems such as the forests of Mount Scenery and the coral reef around the island are critical for Saba. A study conducted by Wolfs Company and VU Amsterdam in 2014 showed that marine and terrestrial ecosystems of the island contributed **US \$29 million per year** to the Saba's economy. However, in the last decades various local and global developments have resulted in serious ecosystem threats, such as overfishing, erosion, invasive species, coral diseases and climate change. These threats endanger not only nature itself but also the foundations of the island's economy.

Both marine and terrestrial ecosystems support tourism activities - such as diving or hiking - that mostly depend on the quality of the natural environment. As the main component of Saba's economy, tourism alone contributes an estimated **US \$7.5 million per year** (Wolfs Company and VU University, 2014). Keeping Saba's ecosystems healthy also supports local culture, recreation, research, fishing and carbon sequestration, among other basic aspects of the resilience of the island's economy.

### *The essential role of Saba Conservation Foundation*

Active management is crucial to effectively protect Saba's nature and economy. To accomplish this, *Saba Conservation Foundation* (SCF) acts as the main authority that protects and enhances the marine and terrestrial environment on Saba through education, scientific research, monitoring, enforcement and policy advice. By performing daily activities and working on conservation projects (**Research product 1**), SCF has an essential and comprehensive role in the achievement of the four strategic goals that are set forth in the **Nature and Environment Policy Plan 2020-2030 (NEPP)**.

SCF undertakes coral monitoring and research to help reverse coral reef degradation and support future coral restoration (NEPP Goal 1), develops and implements management plans to conserve key habitats and species (NEPP Goal 2), enforces regulations and participates in tourism development to ensure a sustainable use of natural capital (NEPP Goal 3), and engages with the island's community for effective nature management (NEPP Goal 4).

### *Daily action requires consistent funding*

Despite SCF's essential role in conserving Saba's nature, research conducted by Wolfs Company in 2020 revealed that the optimal implementation of daily activities necessary to protect Saba's fragile ecosystems could cost SCF up to **US \$1.7 million per year (Research product 2)**, assuming that implementation of all targets is done simultaneously. This **exceeds** the pre-COVID-19 **average annual budget of SCF by US \$880,000**. This additional funding is necessary for SCF to: hire specialized staff, from park rangers to senior science officers; make capital investments in lab facilities, vehicles and a boat, among others; and purchase and maintain equipment for diving and underwater monitoring. This is especially needed in order to reach the NEPP goals to *reverse coral reef degradation to enhance well-being* (NEPP Goal 1) and *restore and conserve the unique habitats and species* (NEPP Goal 2). The additional financing needs for SCF to support the achievement of these goals is estimated to be respectively **US \$330,000** and **US \$440,000 per year**.

### *Collaborative solutions for a resilient future*

SCF's current funding comes from a combination of **project grants, public subsidy, donations, support from the Dutch Caribbean Finance alliance (DCNA) and fees**. Taken together, these sources are far from generating an adequate amount that helps SCF meet its funding needs. During workshops held in November 2019, SCF identified opportunities for collaboration with **partner organizations** to raise funds through the **ANBI status**, the improvement of **lab facilities and services**, and **internship facilitation**. Prior to Covid-19, a combination of these potential financing mechanisms was projected to yield around **US \$180,000 per year** if implemented (**Research product 3**). However, further efforts would still be needed to cover the remaining gap and deal with the current crisis, which has had dramatic effect in SCF's staff capacity. SCF can collaborate with other stakeholders to optimize nature management costs and eventually introduce additional financing mechanisms. The highest potential for structural funding is however found in further collaboration with the **Public Entity**. Working together on a comprehensive management agreement can lead to improved budgeting and clear allocation of responsibilities, while collaboration on solutions to fund nature conservation can set the basis for healthy public funding streams (e.g. revised fees or other public funding sources or mechanisms) for a resilient future on Saba.

## Research product 1: Current scope of work of SCF

The table below displays the current scope of work for SCF, its defined functional areas and the corresponding service levels:

Functional area and action	Service Level (active projects in 2019)
<b>Saba bank (SMBU)</b>	
Monitoring, Research and Conservation	<ul style="list-style-type: none"> <li>- Monitoring, research and conservation: fisheries (Saba Bank), e.g. <i>Experimental Trap Fishing Project</i></li> <li>- Monitoring, research and conservation: coral and other characteristic or essential habitats (Saba Bank), e.g. <i>Diadema antillarum Project</i></li> <li>- Monitoring, research and conservation: key species (Saba Bank), e.g. <i>Shark Bycatch Program</i></li> </ul>
Invasive species management	Invasive species management (Saba Bank), e.g. <i>Lionfish culling program</i>
Park maintenance	<ul style="list-style-type: none"> <li>- Park maintenance (Marine), e.g. <i>mooring maintenance</i></li> <li>- (Park) maintenance (Saba Bank), e.g. <i>boat maintenance</i></li> </ul>
Patrolling, enforcement, disaster and emergency support	Patrolling enforcement, disaster and emergency response (Saba Bank), e.g. <i>patrolling or PSSA surveillance AIS</i>
Staff recruitment and training	Staff recruitment and training (Saba Bank), e.g. <i>Intern/Volunteer recruitment and training, staff training, workshops &amp; conferences</i>
Expert support	<ul style="list-style-type: none"> <li>- Monitoring, research and conservation: fisheries (Saba Bank), e.g. <i>fishery meeting/update</i></li> <li>- (Academic) Expert support (Saba Bank), e.g. <i>Support academic research and knowledge development</i></li> </ul>
Head office	Head office management
<b>MSNP and other terrestrial activities</b>	
Monitoring, Research and Conservation	<ul style="list-style-type: none"> <li>- Monitoring, research and conservation: key species (Terrestrial), e.g. <i>bird monitoring</i></li> <li>- Monitoring, research and conservation: cloud forests and other characteristic or essential habitats (Terrestrial), e.g. <i>bee management</i></li> <li>- Biophysical and climate change monitoring</li> </ul>
Invasive species management	Invasive species management (Terrestrial), e.g. <i>cat and rat management or invasive plant management</i>
Roaming livestock management	Roaming livestock management (Terrestrial), e.g. <i>goat management</i>
Park maintenance, trail shop and tourism development	<ul style="list-style-type: none"> <li>- Park maintenance and tourism development (Terrestrial), e.g. <i>Sulfur mine maintenance or hiking trail maintenance, repair and upgrade safety</i></li> <li>- Trail shop, e.g. <i>trail shop renovation and maintenance</i></li> </ul>
Patrolling, enforcement, disaster and emergency support	Patrolling, enforcement, disaster and emergency response (Terrestrial), e.g. <i>patrolling or search and rescue program trails</i>
Staff recruitment and training	Staff recruitment and training (Terrestrial), e.g. <i>intern/volunteer recruitment and training or improve communication systems and procedures</i>
Expert support and policy support (non-tourism related)	(Academic) Expert support (Terrestrial)
Head office	Head office management
<b>Marine Park (SNMP)</b>	
Monitoring, Research and Conservation	<ul style="list-style-type: none"> <li>- Monitoring, research and conservation: coral and other characteristic or essential habitats (Marine), e.g. <i>GCRMN monitoring</i></li> <li>- Monitoring, research and conservation: key or characteristic species (Marine), e.g. <i>water climate change indicator monitoring</i></li> <li>-Biophysical and climate change monitoring</li> </ul>
Tourism development and tourism policy support	Tourism development and tourism policy support (Marine)
Invasive species	Invasive species management (Marine), e.g. <i>Lionfish Culling Program or Halophyllia stipulacea monitoring (and other invasive species)</i>

Park maintenance	-Park maintenance (Marine), e.g. <i>repair and install moorings, boat maintenance, or workshop room/office maintenance</i> - Tourism development and tourism policy support (Marine), e.g. <i>decompression chamber assistance and maintenance</i>
Patrolling, enforcement, disaster and emergency support	Patrolling, enforcement, disaster and emergency response (Marine), e.g. <i>marine park patrolling, disaster response (Oil Spills, Disaster Repairs, Response Standby) or implement SCF dive safety protocol</i>
Staff recruitment and training	Staff recruitment and training (Marine), e.g. <i>intern or volunteer recruitment and training</i>
Expert support & policy support (Non-tourism related)	(Academic) Expert support (Marine), e.g. <i>Liaison to other research programs or helping others (Fishermen, other staff etc.)</i>
Head office	Head office management
<b>Revenue generation</b>	
Revenue generation (finance mechanisms)	Revenue generation, e.g. <i>projects on behalf of the Island Government or projects for outside companies</i>
Tourism development, support and policy	Tourism development, support and policy, e.g. <i>Triathlon preparation, tourism plan development or policy support</i>
Trail Shop and botanical garden	Trail Shop and botanical garden as potential revenue generating tools
Impact assessments (human or otherwise)	Impact assessments (human or otherwise), e.g. <i>Harbour expansion impact assessment</i>
Sea lab	Facilities for researchers as potential revenue generating tools
Head office	Head office management
<b>Education and outreach</b>	
Education and outreach	Education and outreach, e.g. <i>social media, website, newsletter, or general events</i>
After school programs	After school programs , e.g. <i>Junior Rangers, SCUBA club or Sea Scouts</i>
Head office	Head office management
<b>Administration and management</b>	
Consultancy	Consultancy
Management	Management
Capacity building	Capacity building
Administration (general)	Administration (general)
Head office	Head office management

## Research Product 2: Results of financial needs assessment of SCF for optimal Nature management

The table below displays the estimates of additional financing needs of SCF to fulfill their expected role in the implementation of the NEPP by strategic goal and target. This represents the additional financing needed on top of the yearly average revenue of US\$ 800,000, without taking into account the effects of Covid-19. These estimates are based on information provided by SCF's staff in all functional areas during interviews with Wolfs Company and on the review of previous budgets developed by SCF for specific activities (e.g. coral restoration).

### Estimates of additional financing needs of SCF to fulfill its role at an optimal level by NEPP goal on average per year

NEPP goal	Additional financing needed per year with respect to the pre-COVID-19 baseline situation (2019) (in US \$ per year)	NEPP strategic target (and main role of SCF)	Additional financing needed per year with respect to the pre-COVID-19 baseline situation (2019) (in US \$ per year)
1. Reverse coral reef degradation to enhance wellbeing in the CN	443,400	1.1. Control erosion and run-off <i>Supportive role to the local government within the boundaries of the national parks</i>	42,800
		1.2. Effective waste and wastewater management <i>Monitoring and data management</i>	61,100
		1.3. Coral reef restoration <i>Direct role in implementation</i>	339,500
2. Restore and conserve the unique habitats and species in the CN	330,300	2.1. Conservation and restoration of key habitats <i>Direct implementation</i>	235,400
		2.2. Conservation of keystone and flagship species <i>Direct implementation</i>	46,100
		2.3. Prevent new and control established invasive species <i>Implementation within expected capacity</i>	48,800
3. Sustainable use of land and water for the development of the local economy	50,800	3.1. Sustainable fisheries <i>Monitoring and supportive role to enforcement agencies and for policy development</i>	13,700
		3.2. Tourism industry in balance with nature conservation <i>Advisory function and supportive role for policy development</i>	28,200
		3.3. Invest in sustainable local food production <i>Advisory and educational role</i>	8,900
4. Create the local conditions to ensure sustainable results of the nature policy plan	53,100	4.1. Create awareness through education and training	32,400
		4.2. Create employment through investments in nature	13,800
		4.3. Develop a structural research agenda	6,900
<b>Total</b>	<b>877,600</b>		<b>877,600</b>

The table below displays the current costs, optimal costs and financing gap per conservation program and action:

**Estimates of total and additional financing needs of SCF to fulfill its role in NEPP implementation by conservation program on average per year**

Costs per conservation program and action	Budget projection based on Pre-Covid-19 baseline situation (2019) (in US \$ per year)	Total financing needs for NEPP implementation (2020-2024) (in US \$ per year)	Additional financing needs or financial gap (in US \$ per year)
<b>Saba Bank National Park (SBNP)</b>			
Monitoring, research and conservation: coral and other characteristic or essential habitats	4,700	8,900	4,200
Monitoring, research and conservation: key or characteristic species	30,800	40,200	9,400
Monitoring, research and conservation: fisheries	91,200	114,800	23,600
Invasive species management	20,200	22,300	2,100
Park maintenance	32,500	42,100	9,600
Patrolling, enforcement, disaster and emergency support	8,600	13,500	4,900
Staff recruitment and training	8,800	14,100	5,300
Expert support	11,300	17,200	5,900
Head office (admin support)	42,200	46,400	4,200
<b>MSNP and Other Terrestrial Activities</b>			
Monitoring, research and conservation: key species	2,700	59,800	57,100
Monitoring, research and conservation: cloud forests and other characteristic or essential habitats	0	100,100	100,100
Invasive species management	7,300	29,200	21,900
Roaming livestock management	2,700	17,700	15,000
Park maintenance, trail shop and tourism development	130,500	138,100	7,600
Biophysical and climate change monitoring	0	3,800	3,800
Patrolling, enforcement, disaster and emergency support	7,600	31,100	23,500
Staff recruitment and training	1,800	2,100	300
Expert support and policy support (non-tourism related)	9,100	30,800	21,700
<b>Saba National Marine Park (SNMP)</b>			
Monitoring, research and conservation: coral and other characteristic or essential habitats	32,000	341,100	309,100

Monitoring, research and conservation: key or characteristic species	1,100	50,200	49,100
Tourism development and tourism policy support	5,700	6,300	600
Invasive species	1,200	24,700	23,500
Park maintenance	146,000	147,500	1,500
Patrolling, enforcement, disaster and emergency support	5,000	84,100	79,100
Staff recruitment and training	5,000	5,600	600
Expert support & policy support (Non-tourism related)	11,600	34,300	22,700
Biophysical and climate change monitoring	400	8,100	7,700
Head office (admin support)	38,500	38,500	0
<b>Revenue generation</b>			
Revenue generation (finance mechanisms)	10,200	13,000	2,800
Tourism development, support and policy	5,700	7,000	1,300
Trail Shop and botanical Garden	47,200	53,400	6,200
Impact assessments (human or otherwise)	1,600	7,300	5,700
<b>Education and outreach</b>			
Education and outreach	13,600	39,000	25,400
After school programs	7,100	10,300	3,200
<b>Administration and management</b>			
Consultancy	9,900	12,700	2,800
Management	10,900	13,700	2,800
Capacity building	14,100	16,900	2,800
Administration (general)	53,800	61,500	7,700
Team coordination	12,100	14,800	2,700
Head office (admin support)	38,100	38,100	0
<b>Total</b>	<b>882,700</b>	<b>1,760,300</b>	<b>877,600</b>

The table below displays the current costs, optimal costs and financial gap for each conservation program, broken down by budget item.

**Estimates of total and additional financing needs of SCF to fulfill its role in NEPP implementation by budget item on average per year**

Costs per conservation program and budget type	Budget projection based on Pre-Covid-19 baseline situation (2019) (in US \$ per year)	Total financing needs for NEPP implementation (2020-2024) (in US \$ per year)	Additional financing needs or financial gap (in US \$ per year)
<b>Saba Bank National Park (SBNP)</b>	<b>250,400</b>	<b>319,500</b>	<b>69,100</b>
Staff costs (e.g. salaries or park manager costs )	85,400	130,300	44,900
Operating expenses (e.g. maintenance or office management)	57,700	78,900	21,200
Investments (e.g. equipment or office purchases)	65,500	68,500	3,000
Project expenses	41,700	41,700	0
<b>MSNP and Other Terrestrial Activities</b>	<b>161,700</b>	<b>412,700</b>	<b>251,000</b>
Staff costs (e.g. salaries or park manager costs )	32,300	273,600	241,300
Operating expenses (e.g. maintenance or office management)	69,400	79,300	9,900
Investments (e.g. equipment or office purchases)	5,600	5,600	0
Project expenses (e.g. Mount Scenery)	54,300	54,300	0
<b>Saba National Marine Park (SNMP)</b>	<b>246,500</b>	<b>740,400</b>	<b>493,900</b>
Staff costs (e.g. salaries or park manager costs )	57,100	256,500	199,400
Operating expenses (e.g. maintenance or office management)	24,400	79,100	54,700
Investments (e.g. equipment or office purchases)	300	240,100	239,800
Project expenses (e.g. WWF SBMU)	164,700	164,700	0
<b>Revenue generation</b>	<b>64,700</b>	<b>80,800</b>	<b>16,100</b>
Staff costs (e.g. salaries or park manager costs )	51,200	57,500	6,300
Operating expenses (e.g. maintenance or office management)	10,700	20,500	9,800
Investments (e.g. equipment or office purchases)	2,700	2,700	0
Project expenses	0	0	0
<b>Education and outreach</b>	<b>20,700</b>	<b>49,300</b>	<b>28,600</b>
Staff costs (e.g. salaries or park manager costs )	20,200	48,700	28,500
Operating expenses (e.g. maintenance or office management)	300	400	100
Investments (e.g. equipment or office purchases)	200	200	0
Project expenses	0	0	0
<b>Administration and management</b>	<b>139,000</b>	<b>157,800</b>	<b>18,800</b>
Staff costs (e.g. salaries or park manager costs )	60,500	60,500	0
Operating expenses (e.g. maintenance or office management)	35,300	54,100	18,800
Investments (e.g. equipment or office purchases)	10,400	10,400	0
Project expenses	32,800	32,800	0
<b>Total</b>	<b>882,700</b>	<b>1,760,300</b>	<b>877,600</b>

### Research product 3: Potential options to generate additional funds for Nature protection on Saba

As one of the results from the workshop held in November 2019, the potential for implementing new financial mechanisms was explored. The following tables contain the identified financial mechanisms that were identified in the course of these workshops, their potential to generate additional yearly revenue for SCF and the estimated period of time it will take for these mechanisms to generate revenue. These estimations have been made prior to Covid-19.

Public support		
Mechanism	Funding potential (in US \$ per year)	Mechanism to generate funds after a period of
Revision of yacht fees	~ 10,000	~ 6 months
Revision of trail fees	~ 20,000	~ 1 year

Private-led mechanisms		
Mechanism	Funding potential (in US \$ per year)	Mechanism to generate funds after a period of
Professional fundraising	~ 50,000	~ 6 months
SCF lab and education	~ 40,000	~ 6 months
Trail shop	~ 15,000	~ 6 months
Internship facilitation	~ 15,000	~ 6 months
ANBI / 501c3 status	~ 30,000	~2 months