

# The Sixth National Report to the United Nations Convention on Biological Diversity



April 2019  
Paramaribo, Suriname



## **Disclaimer**

---

The information, used in this document, is from reputable sources, provided through questionnaires, interviews, reports and websites and has been validated by relevant stakeholders.

## Acknowledgment

---

Suriname is party to the United Nations Convention on Biological Diversity (UNCBD) since 11 April 1996. In accordance with Article 26 of this Convention, *'each Contracting Party shall, at intervals to be determined by the Conference of the Parties, present to the Conference of the Parties, report on measures which it has taken for the implementation of the provisions of this Convention and their effectiveness in meeting the objectives of this Convention'*.

Suriname has participated in the last three reporting cycles, which were in 2009, 2013, 2015 and now in 2018 with the sixth National Reporting (6NR). This Report focuses on monitoring the effectiveness of national strategies and actions in achieving National and Aichi Biodiversity Targets and related biodiversity outcomes. It reflects the status of and threats to the national biodiversity and activities that have been undertaken to conserve and sustainably use Suriname's biodiversity between 2015 and 2018. Herewith, Suriname fulfills her commitment under this convention.

The 6NR is executed under the project *"Technical Support to Eligible Parties to Produce the Sixth National Report to the UNCBD for Latin America and the Caribbean"* and is financed by the Global Environment Facility. Together with Suriname, twelve (12) other countries in Latin America and the Caribbean are participating in this project.

Coordination Environment, at the Cabinet of the President of the Republic of Suriname, as the National Focal Point, acknowledges all who contributed to the development of this report, in particular the United Nations Development Programme as the implementing partner, and the members of the Working Group (Steering Committee). Nevertheless, the active participation of the Indigenous and Tribal Peoples of Suriname through Consultations made it possible to have this well-balanced National Report. Finally, we express our gratitude to the Institute for Graduate Studies and Research for compiling the report.

We hope that through the information reported here, partnerships between Government institutions and national organizations will improve the protection of our nation's biodiversity.

Sincerely,



Mr. Winston G. Lackin  
*Ambassador at Large in charge of Environment*  
*Presidential Advisor*  
*UNCBD National Focal Point*

## Table of contents

---

Disclaimer.....	2
Acknowledgment .....	3
Table of contents .....	4
List of figures.....	7
List of tables .....	7
List of acronyms .....	8
Executive summary .....	14
Information on the preparation of the report.....	21
Section I: Information on targets being pursued at the national level.....	23
Section II: Implementation measures taken, assessment of their effectiveness, associated obstacles and scientific and technical needs to achieve national targets.....	24
Objective 1: Conservation of biodiversity.....	24
Objective 2: Sustainable use of biodiversity .....	31
Objective 3: Regulate access to genetic material and associated traditional knowledge, with fair and equitable sharing of benefits .....	42
Section III: Assessment of progress towards each national target.....	46
Aichi Biodiversity Target 1 .....	46
Aichi Biodiversity Target 2 .....	53
Aichi Biodiversity Target 3 .....	57
Aichi Biodiversity Target 4 .....	59
Aichi Biodiversity Target 5 .....	65
Aichi Biodiversity Target 6 .....	69
Aichi Biodiversity Target 7 .....	73
Aichi Biodiversity Target 8 .....	78
Aichi Biodiversity Target 9 .....	84
Aichi Biodiversity Target 10 .....	87
Aichi Biodiversity Target 11 .....	91
Aichi Biodiversity Target 12 .....	96
Aichi Biodiversity Target 13 .....	100
Aichi Biodiversity Target 14 .....	104
Aichi Biodiversity Target 15 .....	108
Aichi Biodiversity Target 16 .....	111
Aichi Biodiversity Target 17 .....	113
Aichi Biodiversity Target 18 .....	115

Aichi Biodiversity Target 19 .....	118
Aichi Biodiversity Target 20 .....	121
Section IV: Description of the national contribution to the achievement of each global Aichi Biodiversity Target .....	127
Section V: Description of the national contribution to the achievement of the targets of the Global Strategy for Plant Conservation .....	128
GSPC Target 1: An online flora of all known plants .....	129
GSPC Target 2: An assessment of the conservation status of all known plant species, as far as possible, to guide conservation action .....	129
GSPC Target 3: Information, research and associated outputs, and methods necessary to implement the Strategy developed and shared .....	131
GSPC Target 4: At least 15 per cent of each ecological region or vegetation type secured through effective management and/or restoration .....	134
GSPC Target 5: At least 75 per cent of the most important areas for plant diversity of each ecological region protected with effective management in place for conserving plants and their genetic diversity .....	135
GSPC Target 6: At least 75 per cent of production lands in each sector managed sustainably, consistent with the conservation of plant diversity .....	135
GSPC Target 7: At least 75 per cent of known threatened plant species conserved <i>in situ</i> .....	136
GSPC Target 8: At least 75 per cent of threatened plant species in ex situ collections, preferably in the country of origin, and at least 20 per cent available for recovery and restoration programs. ....	136
GSPC Target 9: 70 per cent of the genetic diversity of crops including their wild relatives and other socio-economically valuable plant species conserved, while respecting, preserving and maintaining associated indigenous and local knowledge .....	137
GSPC Target 10: Effective management plans in place to prevent new biological invasions and to manage important areas for plant diversity that are invaded .....	138
GSPC Target 11: No species of wild flora endangered by international trade .....	138
GSPC Target 12: All wild harvested plant-based products sourced sustainably .....	139
GSPC Target 13: Indigenous and local knowledge innovations and practices associated with plant resources, maintained or increased, as appropriate, to support customary use, sustainable livelihoods, local food security and health care .....	140
GSPC Target 14: The importance of plant diversity and the need for its conservation incorporated into communication, education and public awareness programmes .....	141
GSPC Target 15: The number of trained people working with appropriate facilities in plant conservation increased, according to national needs, to achieve the targets of this strategy .....	143
GSPC Target 16: Institutions, networks and partnerships for plant conservation established or strengthened at national, regional and international levels to achieve the targets of this Strategy .....	143
Section VI: Additional information on the contribution of indigenous peoples and local communities (completion of this section is optional) .....	144

Section VII: Suriname Biodiversity Country Profile.....	145
Biodiversity Facts .....	145
Status and trends of biodiversity, including benefits from biodiversity and ecosystem services .....	145
Main drivers of change to biodiversity (direct and indirect) .....	147
Measures to Enhance Implementation of the Convention .....	147
Implementation of the NBSAP .....	147
Actions taken to achieve the 2020 Aichi Biodiversity Targets .....	148
Support mechanisms for national implementation (legislation, funding, capacity-building, coordination, mainstreaming, etc.) .....	149
Mechanisms for monitoring and reviewing implementation .....	149
National Contacts.....	150
Convention on Biological Diversity .....	150
Cartagena Protocol on Biosafety .....	150
Global Strategy on Plant Conservation .....	151
Gender affairs .....	152
Appendix I – Information on the reporting party .....	156
Appendix II – Important documents and links.....	158
Appendix III – IGSR team.....	161
Appendix IV – Overview of representatives in the Working Group .....	162
Appendix V – Overview of stakeholders .....	163

## List of figures

---

Figure 1. Overview of administrative districts of Suriname .....	16
Figure 2. Overview of deforestation in Suriname in the period 2000-2016.....	67
Figure 3. Overview of protected and proposed protected areas in Suriname.....	94
Figure 4. Overview of fauna and flora species in Suriname .....	99
Figure 5. Overview of ecosystems in Suriname .....	130
Figure 6. Overview of vegetation types in Suriname .....	133
Figure 7. Overview of the forest cover in Suriname .....	146

## List of tables

---

Table 1. Cultivated land (in ha) by crops in 2015 .....	75
Table 2. Import of pesticides (in liters) in 2015.....	76
Table 3. Emissions of the bauxite sector 2011-November 2015 .....	81
Table 4. Greenhouse gas emissions from Iamgold Rosebel Gold Mines N.V. 2011- 2015.....	82
Table 5. Summary of change in land cover for Suriname .....	109
Table 6a. Overview of budgets and expenditures 2015-2016 .....	122
Table 6b. Overview of budgets and expenditures 2017-2018.....	122

## List of acronyms

---

6NR	6 <sup>th</sup> National Report to the United Nations Convention on Biological Diversity
ABS	General Bureau of Statistics ( <i>Algemeen Bureau voor de Statistiek</i> )
ACP	African, Caribbean and Pacific group of States
ACT	Amazon Conservation Team
ACTO	Amazon Cooperation Treaty Organization
AdeKUS	Anton de Kom University of Suriname
AmReCo	Amazona Recycling Company N.V.
ASGM	Artisanal Small-Scale Gold Mining
ASYCUDA	Automated System for Customs Data
Audubon	National Audubon Society
BBS	National Herbarium of Suriname ( <i>Nationaal Herbarium van Suriname</i> )
BCRC Caribbean	Basel Convention Regional Centre for Training and Technology Transfer for the Caribbean Region
BGA	Bureau for Gender Affairs ( <i>Bureau voor Gender Aangelegenheden</i> )
BIS	Bauxite Institute Suriname ( <i>Bauxiet Instituut Suriname</i> )
BiZa	Ministry of Home Affairs ( <i>Ministerie van Binnenlandse Zaken</i> )
BRDs	Bycatch Reduction Devices
BOG	Bureau of Public Health ( <i>Bureau Openbare Gezondheidszorg</i> )
BOSNAS	Forest and Nature Authority Suriname ( <i>Bos- en Natuurbeheer Autoriteit Suriname</i> )
BuZa	Ministry of Foreign Affairs ( <i>Ministerie van Buitenlandse Zaken</i> )
CARICOM	Caribbean Community
CARPHA	Caribbean Public Health Agency
CBO	Community-Based Organization
CCCD	Cross-Cutting Capacity Development
CEDAW	Convention on the Elimination of all Forms of Discrimination Against Women
CELAC	Community of Latin American and Caribbean States
CFIP	Community Fishery Improvement Project
CGPC	Coordinating Group of Pesticides Control Boards of the Caribbean
CELOS	Centre for Agricultural Research in Suriname ( <i>Centrum voor Landbouwkundig Onderzoek in Suriname</i> )
CI Suriname	Conservation International Suriname
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CLME+	Caribbean and North Brazil Shelf Large Marine Ecosystems



CM	Coordination Environment at the Cabinet of the President of the Republic of Suriname ( <i>Coördinatie Milieu</i> )
CNFO	Caribbean Network of Fishers Organization
CEPA	Communication, Education and Public Awareness
CSNR	Central Suriname Nature Reserve ( <i>Centraal Suriname Natuureservaat</i> )
DIM	Direct Project Implementation Modality
EAF	Ecosystem Approach to Fisheries
EBM	Ecosystem-Based Management
ECOSEO	Ecosystem Services Observatory on the Guiana Shield
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
ESAV	Indigenous Platform ESAV
ESIA	Environmental and Social Impact Assessment
ESM	Environmental Sensitivity Map
EU	European Union
FAO	Food and Agricultural Organization
FNS-CELAC	Food and Nutrition Security for the Community of Latin American and Caribbean States
FPIC	Free, Prior and Informed Consent
FREL	Forest Reference Emission Level
FSC	Forest Stewardship Council
GBIF	Global Biodiversity Information Facility
GCCA+	Global Climate Change Alliance+
GEF	Global Environment Facility
GHFS	Green Heritage Fund Suriname
GHG	Green House Gas
GMD	Geological Mining Service ( <i>Geologische Mijnbouwkundige Dienst</i> )
GMO	Genetically Modified Organism
GPS	Global Positioning System
GSPC	Global Strategy for Plant Conservation
GTI	Global Taxonomy Initiative
HBCD	Hexabromocyclododecane
HI&T	Ministry of Trade, Industry and Tourism ( <i>Ministerie van Handel, Industrie en Toerisme</i> )
IAS	Invasive Alien Species
ICCA	Indigenous Peoples' and Community Conserved Territories and Areas
ICZM	Integrated Coastal Zone Management
IICA	Inter-American Institute for Cooperation on Agriculture
IDB	Inter-American Development Bank
IGSR	Institute for Graduate Studies and Research
IMO	International Maritime Organization
INDC	Intended Nationally Determined Contributions

IOL	Institute for the Training of Teachers ( <i>Instituut voor de Opleiding van Leraren</i> )
IP	Intellectual Property
IPR	Intellectual Property Rights
ITPs	Indigenous and Tribal Peoples
IUCN	International Union for Conservation of Nature
IUU	Illegal, Unreported and Unregulated
JP	National Annual Plan ( <i>Jaarplan</i> )
JusPol	Ministry of Justice and Police ( <i>Ministerie van Justitie en Politie</i> )
KAMPOS	Collaboration of Tribal Peoples in Suriname consisting of the Kwinti, Aluku, Matawai, Paamaka, Okanisi and Saamaka (tribal communities) ( <i>Samenwerkingsverband van Tribale volkeren in Suriname bestaande uit de Kwinti, Aluku, Matawai, Paamaka, Okanisi en Saamaka (tribale gemeenschappen)</i> )
KBF	Foundation for Children's Books Festival ( <i>Stg. Kinder Boeken Festival</i> )
KKF	Chamber of Commerce and Industry ( <i>Kamer van Koophandel en Fabrieken</i> )
KPS	Police Force Suriname ( <i>Korps Politie Suriname</i> )
LAC	Latin America and the Caribbean
LBB	Suriname Forest Service ( <i>'s Lands Bosbeheer</i> )
LFI	Lowland Forest Inventories
LMO	Living Modified Organism
LVV	Ministry of Agriculture, Animal Husbandry and Fisheries ( <i>Ministerie van Landbouw, Veeteelt en Visserij</i> )
LULC	Land Use and Land Cover
MDG	Millennium Development Goals
MIA	Minamata Initial Assessment
MPA	Marine Protected Area
MRV	Measurement, Reporting and Verification
MUMA	Multiple Use Management Area
NAP	National Action Plan
NB	Nature Conservation Division ( <i>Natuurbeheer, afdeling bij 's Landsbosbeheer</i> )
NBS	National Biodiversity Strategy
NBAP	National Biodiversity Action Plan
NBSAP	National Biodiversity Strategy and Action Plan for Suriname
NCCR	National Coordination Center for Disaster Management ( <i>Nationaal Coördinatie Centrum voor Rampenbeheersing</i> )
NDC	Nationally Determined Contributions
NFMS	National Forest Monitoring System
NFP	National Focal Point
NFI	National Forest Inventories
NGO	Non-Governmental Organization

NH	Ministry of Natural Resources ( <i>Ministerie van Natuurlijke Hulpbronnen</i> )
NII	National Information Institute ( <i>Nationaal Informatie Instituut</i> )
NIMOS	National Institute for Environment and Development in Suriname ( <i>Nationaal Instituut voor Milieu en Ontwikkeling in Suriname</i> )
NIP	National Implementation Plan
NOAA	National Oceanic and Atmospheric Administration
NOSCP	National Oil Spill Contingency Plan
NSTP	National Strategic Tourism Plan 2018-2030
NTFP	Non-Timber Forest Product
NRTM	Near Real Time Monitoring System
N.V. EBS	Suriname Energy Company ( <i>Naamloze Vennootschap Energie Bedrijven Suriname</i> )
NZCS	National Zoological Collection of Suriname
OIS	Organization of Indigenous People in Suriname ( <i>Organisatie van Inheemsen in Suriname</i> )
OGS	Committee for Ordering the Gold Mining Sector in Suriname ( <i>Ordering Goudsector Suriname</i> )
OWC	Ministry of Education, Science and Culture ( <i>Ministerie van Onderwijs, Wetenschap en Cultuur</i> )
OWTC	Ministry of Public Works, Transport and Communication ( <i>Ministerie van Openbare Werken, Transport en Communicatie</i> )
P3DM	Participatory 3-Dimensional Mapping
PA	Protected Area
PAC	Protected Areas Commission
PAHO	Pan-American Health Organization
PCB	Polychlorinated biphenyl
PCN	Polychlorinated naphthalenes
PDBE	Polybrominated diphenyl ethers
PeCB	Pentachlorobenzene
PET	Polyethylene terephthalate
PFOS	Perfluorooctane sulfonic acid
PGR	Plant Genetic Resources
POP	Persistent Organic Pollutant
PSMA	Party to the Agreement on Port State Measures
REDD+	Reducing emissions from deforestation and forest degradation and the role of conservation, sustainable, management of forest and enhancement of forest carbon stocks in developing countries
RGB	Ministry of Spatial Planning, Land and Forest Management ( <i>Ministerie van Ruimtelijke Ordening, Grond- en Bosbeheer</i> )
RO	Ministry of Regional Development ( <i>Ministerie van Regionale Ontwikkeling</i> )
SAMAP	Suriname Agriculture Market Access Project

SBB	Foundation for Forest Management and Production Control ( <i>Stichting voor Bosbeheer en Bostoezicht</i> )
SCF	Suriname Conservation Foundation
SCPAM	Suriname Coastal Protected Areas Management Project
SEA	Strategic Environmental Assessment
SFISS	Sustainable Forestry Information System Suriname
SGP	Small Grants Program
SHATA	Suriname Hospitality and Tourism Association
SLMS	Satellite Land Monitoring System
SMNR	Sustainable Management of Natural Resources
SNRI/ADRON	Anne van Dijk Rice Research Centre Nickerie ( <i>Anne van Dijk Rijst Onderzoekscentrum Nickerie</i> )
SORTS	Foundation for Development of Radio and Television in Suriname ( <i>Stichting voor Ontwikkeling van Radio en Televisie in Suriname</i> )
SRCS	Scientific Research Center Suriname
Stibula	Foundation Community Work in Latour ( <i>Stichting Buurtwerk Latour</i> )
STS	Foundation for Tourism in Suriname ( <i>Stichting Toerisme Suriname</i> )
SSB	Suriname Standards Bureau
SuReSur	Support Recycling Suriname Foundation ( <i>Stichting Support Recycling Suriname</i> )
Suralco	Suriname Aluminium Company
TBI	Tropenbos International
TED	Turtle Excluding Device
TK	Traditional Knowledge
TTEDs	Turtle and Trash Excluder Devices
UG	University of Guyana
UK	United Kingdom
UNCBD	United Nations Convention on Biological Diversity
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNIDO	United Nations Industrial Development Organization
UNOPSS	United Nations Office for Project Services
UNFPA	United Nations Population Fund
UPOPS	Unintentional POPs
UTGS	United Tour Guides of Suriname
VG	Ministry of Health ( <i>Ministerie van Volksgezondheid</i> )
VIDS	Association of Indigenous Village Leaders in Suriname ( <i>Vereniging van Inheemse Dorpshoofden in Suriname</i> )
VMS	Vessel Monitoring System

VSG	Association of Saamaka Authorities ( <i>Vereniging van Saramakaanse Gezagsdragers</i> )
WG6NR	Working Group 6NR (Steering Committee)
WHSRN	Western Hemisphere Shorebird Reserve Network
WISE REDD+	Widening Informed Stakeholder Engagement for REDD+
WWF	World Wildlife Fund

## Executive summary

---

On the Northeastern coast of South America, bordering the Atlantic Ocean in the North, the Republic of Guyana in the West, French-Guiana in the East and Brazil in the South, lies one of the more forested countries on Earth: The Republic of Suriname. Independent from The Netherlands since 1975 and populated by approximately 567,291 inhabitants (mid-year population estimation in 2015), Suriname encompasses 93% of forest and an Exclusive Economic Zone of 345 sea miles (Maritime Zones Act S.B. 2017 no. 41).

Suriname has approximately 3.5 inhabitants per km<sup>2</sup>, making Suriname a low populated country. According to a mid-year population estimation in 2015, the largest ethnic groups are Hindustani (30%), followed by Creoles (20.6%), Javanese (19.6%), mixed race (14.4%), Maroons (10.5%) and others (including Chinese, Indigenous people, Lebanese and European) (4.9%). The sex distribution of the population remained stable, with females accounting for 50.1% of the population and males 49.9%.

There are 10 administrative districts: Brokopondo, Commewijne, Coronie, Marowijne, Nickerie, Para, Paramaribo, Saramacca, Sipaliwini and Wanica [**Figure 1**]. The districts Paramaribo and Wanica have the highest population densities.

With a land surface of 163,800 km<sup>2</sup>, Suriname is divided into two main geographic regions: the Northern coastal area, with the majority of the population residing here; and the Southern area, mainly consisting of tropical rainforest and a sparsely populated savannah along the Brazilian border. Seven types of ecosystems have been distinguished, namely (i) marine ecosystems, (ii) coastal ecosystems, (iii) brackish water ecosystems, (iv) freshwater ecosystems, (v) savannah ecosystems, (vi) marsh ecosystems and (vii) tropical rainforest and inselbergs.

As part of the Guiana Shield, Suriname's tropical rainforest has a rich biodiversity. In 2012, 192 mammal species have been reported, along with 102 amphibian species, 175 reptile species, 730 bird species, 450 fresh water fish species, and in 2016, 6044 vascular (higher) plants.

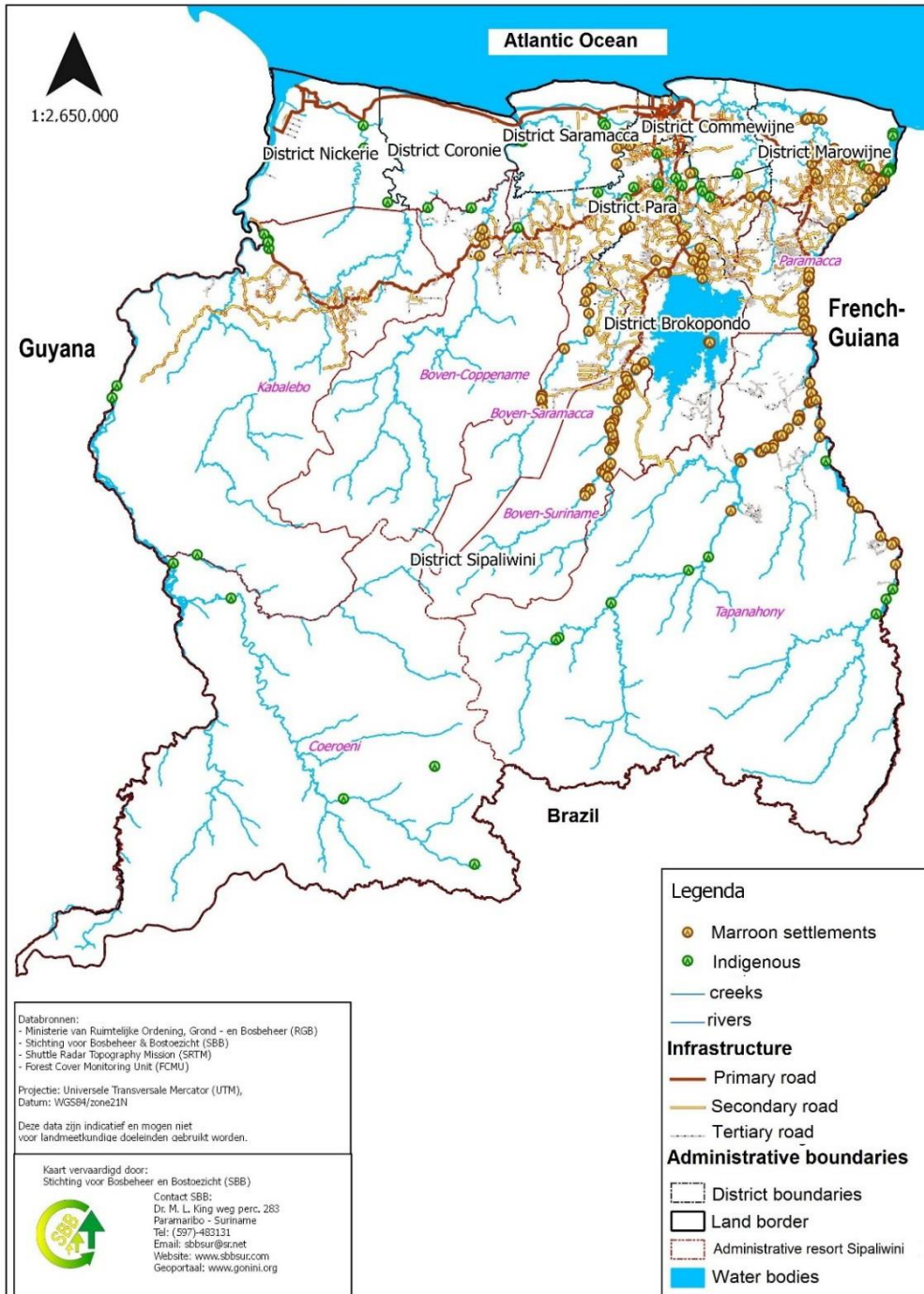
The long history of protecting Suriname's biodiversity dates back to 1954. Sixteen protected areas have been established since then, consisting of 11 Nature Reserves, 4 Multiple Use Management Areas and 1 Nature Park. Together they make up 2,293,200 hectares or 14% of the country's land surface. Of the 11 Nature Reserves, the Central Suriname Nature Reserve in the district of Sipaliwini is the largest and is put on the World Heritage list of the UNESCO; the Hertenrits, in the district of Nickerie, is the smallest. Currently, four additional Nature Reserves have been proposed to be designated as protected areas, namely the Nani, Kaburi Creek, Mac Clemen and Snake Creek Nature Reserves.

In addition, the Republic of Suriname has committed itself to Multilateral Environmental Agreements regarding biodiversity, such as:

- 1977 – International Plant Protection Convention (IPPC) – [implemented by the Ministry of Agriculture, Animal Husbandry and Fisheries (LVV)]
- 1980 – Amazon Cooperation Treaty (ACT) – [Ministry of Foreign Affairs (BuZa)]
- 1981 – Convention on International Trade in Endangered Species (CITES) – [Ministry of Spatial Planning, Land and Forest Management (RGB)]
- 1985 – Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (Western Hemisphere) – [Ministry of RGB]
- 1985 – RAMSAR Convention on Wetlands of international importance, in particular as habitat for waterfowl (RAMSAR). *The Coppename estuary in Saramacca designated under RAMSAR* – [Ministry of RGB]
- 1996 – Convention on Biological Diversity. *A National Biodiversity Strategy (2006) and a National Biodiversity Action Plan 2012-2016 (2013) have been drawn up* – [Coordination Environment (CM) at the Cabinet of the President of the Republic of Suriname]
- 1997 – United Nations Framework Convention on Climate Change - [CM]
- 1997 – Convention for the Protection of the World Cultural & Natural Heritage (UNESCO) – [Ministry of Education, Science and Culture (OWC)]
- 1998 – International Tropical Timber Agreement (ITTA) – [Ministry of RGB]
- 2000 – Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade. *Dieldrin and Monocrotophos are banned by Suriname and 26 other chemicals prohibited for import* - [CM]
- 2004 – International Whaling Commission – [Ministry of LVV]
- 2006 – Kyoto Protocol of the United Nations Framework Convention on Climate Change. *CO<sub>2</sub> emissions are inventoried, and a National Change Plan has been drawn up.*
- 2008 – Cartagena Protocol on Biosafety (CPB) to the Convention on Biological Diversity. *A National Framework for Biosafety has been drawn up* – [CM]
- 2011 – Stockholm Convention on Persistent Organic Pollutants. *A National Implementation Plan has been drawn up, as well as a National Waste Chemical Profile (2006), which was updated in 2010* – [CM]
- 2011 – Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposals – [CM]
- 2018 – Minamata Convention on Mercury – [CM].

**Figure 1. Overview of administrative districts of Suriname**

This map gives an overview of, among others, the 10 administrative districts of Suriname, waterways, Indigenous (green icons) and Tribal (brown icons) villages and the infrastructure, including main roads. *Kindly provided by SBB.*





On a national level, actions, policies, strategies and legislations have been implemented in the period 2015-2018 to protect, conserve and sustainably use biodiversity. Some of which are listed below, and described more in detail throughout this report.

2015:

- Enactment of a new Energy Act, opening the way to produce renewable energy by private companies.
- Endorsement of the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME)+ Project, funded by the Global Environment Facility (GEF) [endorsed by the Fisheries Department of the Ministry of LVV].
- Development of a National Master Plan for Agricultural Development by the Ministry of LVV.
- Development of a Fisheries Management Plan for the period 2014-2018 by the Ministry of LVV.
- Capacity in land use and forest cover mapping has been built within the Ministries.
- Establishment of a Mangrove Education Center in the district of Coronie by the Ministry of RGB.

2016:

- Signing of the Paris Agreement by the Government of Suriname during the High-Level Signing Ceremony in New York, United States of America.
- Commencement of initiatives for a new Mining Decree and a draft finalized in 2018.
- Preparation of a draft Coastal Protection Act by the Ministry of Public Works, Transport and Communication (OWTC) and submission to Parliament.
- Launch of the Gonini Geoportal as a national land monitoring tool.
- Execution of a pre-inventory of Invasive Alien Species management in Suriname.
- Commencement of the GEF/FAO project Sustainable Management of Bycatch in Latin America and the Caribbean (LAC) Trawl Fisheries (REBYC-II-LAC project), which aims at sustainable management of bycatch in order to minimize food waste.
- Publication of a National Masterplan for Agricultural Development in Suriname by the Ministry of LVV, containing a comprehensive national policy and its implementation through specific regional projects (for aquaculture, citrus, rice and vegetables).
- Development of a National Forest Monitoring System (NFMS) by the Foundation for Forest Management and Production Control (SBB).

- Execution of a United Nations Environment Programme (UNEP) Tier 1 inventory of mercury sources under the Mercury Storage and Disposal project by Coordination Environment.
- Formulation of the National Oil Spill Contingency Plan (NOSCP) by the Cabinet of the President.
- Establishment of the non-governmental organization, namely Suriname Hospitality and Tourism Association (SHATA), which offers essential services to improve tourism in Suriname with the aim of increasing the number of travelers and tourist spending.
- Seventh publication of the biannually formulated Environmental Statistics by the General Bureau of Statistics (ABS).
- Establishment of a Presidential Committee on the Rights of Indigenous and Tribal Peoples (ITPs) in Suriname to make proposals for solving the land rights issues that the country faces.

2017:

- Adoption of the Animal Welfare Act by Parliament.
- Adoption of the Act on Maritime Zones by Parliament.
- Approval of The Protection of Residential Areas and Areas of Indigenous and Tribal Peoples (ITPs) Act by Parliament, which aims to prevent that (residential) areas of ITPs are included in concession areas.
- Adjustments to the Sea Fisheries Act of 1980 to align the definition of the fishing zones in the Sea Fisheries Act with the definitions used in the Maritime Zones Act.
- Implementation of the Artisanal and Small-Scale Gold Mining project to develop a National Action Plan - to reduce, and where feasible, eliminate mercury use in Artisanal and Small- Scale Gold Mining (ASGM).
- Development of a Roadmap for a National Forest Monitoring System (NFMS).
- Publication of the National Strategic Tourism Plan 2018-2030 by the Ministry of Trade, Industry and Tourism (HI&T), describing the vision, mission and strategic goals regarding tourism.
- Formulation of a Policy Development Plan 2017-2021, including environmental strategies.
- Finalization of a Land Use Land Change map of 2017 by SBB.
- Execution of an elaborated survey on Invasive Alien Species (IAS) Management in collaboration with the Caribbean Community (CARICOM) and the UNCBD Secretariat.

2018:

- The Draft Environmental Framework Act has been further elaborated by CM, at the Cabinet of the President, and submitted to Parliament for perusal.
- Inventories for Persistent Organic Pollutants (POPs) were done under the Regional POPs Project (2015-2020) by CM in the process of finalizing the Stockholm Convention National Implementation Plan (NIP) Update.
- Formulation of the Land Degradation Neutrality Report under the Target Setting Programme by the Government.
- Execution of a UNEP Tier 2 inventory of mercury sources under the Mercury Initial Assessment project by NIMOS.
- Ratification of the Minamata Convention on Mercury.
- Development of the Forest Reference Emission Level (FREL) Report by NIMOS and submitted to the United Nations Framework Convention on Climate Change (UNFCCC).
- Implementation of the training workshop under the project “Building technical expertise to enhance species detection for invasive alien species, pests, wildlife trade and biodiversity management” for eleven key stakeholders in Suriname.

In recent years, steps have been undertaken nationally as well as through international partnerships, to collect data on a consistent basis so that trends can be recognized over time. As such, for example, SBB collects data on timber production and deforestation annually.

Monitoring of forest usages is also taking place to ensure sustainable forest management practices. Furthermore, since 2018, through the Cross-Cutting Capacity Development Project (CCCD Project), funded by GEF, and implemented by NIMOS, the development of a framework for documenting habitat and ecosystem services nationally is in progress.

Currently, the major direct threats to biodiversity that Suriname is experiencing are mining (mined ore has traditionally been a major commodity in the national economy), infrastructure, agriculture, logging, energy and housing, as reported in 2016. Indirectly, Suriname is threatened by the presence of Invasive Alien Species (IAS), the import of exotic animal and plant species that may become pests, illegal hunting and fisheries, the poaching of sea turtle eggs, the overharvesting of fish brood and the illegal trade in biological diversity. More recently, the increased frequency of natural disasters and climate change also pose threats to biodiversity.

In 2016, the following threatened species have been reported: mammals (9 species), birds (9 species), reptiles (6 species), amphibians (1 specie), fish (30 species), other invertebrates (1 specie) and plants (27 species).

Following Suriname's tradition of nature conservation, the National Biodiversity Action Plan for Suriname was developed for the period of 2012–2016. The Plan consists of eight objectives, each with its own set of sub-objectives and desired actions:

1. Conservation of biodiversity;
2. Sustainable use of biodiversity;
3. Access to genetic material and related knowledge, with equitable benefit sharing;
4. Acquisition of knowledge through research and monitoring;
5. Capacity building;
6. Enhancement of awareness and empowerment, through education and communication;
7. Cooperation at local and international levels;
8. Sustainable financing.

The first three objectives of the Plan are considered core goals, i.e. essential goals that need to be achieved, while the remaining goals are supporting goals, i.e. goals to be achieved to facilitate the core goals. In this regard, due to time constraints, the first three objectives were selected to be assessed during this reporting period, as these also correspond to the objectives of the United Nations Convention on Biological Diversity.

## Information on the preparation of the report

---

Coordination Environment (CM), at the Cabinet of the President of the Republic of Suriname, is the National Focal Point for the United Nations Convention on Biological Diversity (UNCBD), and is the responsible institution for the submission of the 6th National Report (6NR) to the UNCBD in March 2019.

**The 6NR team** - As part of the preparation process of the 6NR, CM contracted the Institute for Graduate Studies and Research (IGSR), at the Anton de Kom University of Suriname (AdeKUS), to formulate the report. In addition, CM organized a multi-disciplinary Working Group (Steering Committee), chaired by CM, to guide IGSR and give advice during the formulation of the report. The United Nations Development Programme (UNDP) in Suriname provided technical and administrative support as part of the Direct Project Implementation Modality (DIM) with funding from the Global Environment Facility (GEF).

The contract between IGSR, CM and UNDP was signed on May 17<sup>th</sup>, 2018. To guarantee a report of excellence and accuracy, the IGSR has collaborated with a team of experts in the field of environmental policy, legislation and biodiversity, respectively.

In the period May – October 2018, six meetings were convened in Paramaribo between the Working Group, IGSR and experts for input, verification of data and updates on the progress of the report.

**Stakeholder engagement process** - In order to facilitate data sourcing from stakeholders for the formulation of the 6NR, questionnaires were prepared for each section by the experts and reviewed by the Working Group, based on guidelines from the UNCBD, and shared with stakeholders via email. Stakeholders from various sectors were approached, including the forestry, mining, agriculture and fisheries sector. Moreover, consultation sessions with approximately 18 representatives of Indigenous and Tribal Peoples (ITPs) were held on October 25<sup>th</sup> and 26<sup>th</sup> 2018, with a gender-balance of ca. 1:1 male/female ratio. During these sessions, topics were addressed regarding e.g. ecosystem protection and management, Traditional Knowledge (TK), access to genetic material, self-determination rights and gender.

Following this consultation, a workshop was held on November 5<sup>th</sup> and 6<sup>th</sup> 2018, where all relevant stakeholders were invited, including representatives of the ITPs, to validate the second draft of the 6NR. Comments, suggestions and recommendations, following this validation session, are incorporated into the current document. In total, close to 100 stakeholders have been approached for information in the period July – November 2018.

**The formulation process of the 6NR** - The experts were each assigned to write specific sections of the 6NR, using indicators such as data on forest cover, cultivated lands and certified sustainable fisheries (<http://www.bipindicators.net/>). Subsequently, these written sections were edited and merged into a comprehensive document by the project manager and lead expert.

A first draft of the 6NR was delivered digitally on September 5<sup>th</sup>, 2018 by IGSR to CM and the Working Group. A second draft on October 30<sup>th</sup>, by email to CM, the Working Group and all invited stakeholders prior to the validation workshop. Following the validation workshop, the draft 6NR underwent a few more revision rounds. The current document entails the seventh and final draft of the 6NR.

The information for the 6NR is sourced from policy documents, governmental annual plans and progress reports, sector specific national strategies and action plans, national reports of multilateral environmental agreements, as provided by the Working Group and other stakeholders. In addition, the information included in the 6NR is also based on expert opinion and data from surveys conducted through questionnaires (sent through email), one-on-one interviews, group consultations and the stakeholders' validation workshop.

Details on the reporting party, important documents and links consulted during the preparation of the 6NR, and an overview of the Working Group representatives and stakeholders, are provided in Appendices I – V, respectively.

## Section I: Information on targets being pursued at the national level

---

My country has adopted national biodiversity targets or equivalent commitments in line with the Strategic Plan for Biodiversity 2011-2020 and the Aichi Targets

or

My country has not adopted national biodiversity targets and is reporting progress using the Aichi Biodiversity Targets for reference. (Move to section II. In section III, the Aichi Biodiversity Targets should be used for the purpose of this report as the national targets and progress should be assessed towards their achievement in the national context.)

## **Section II: Implementation measures taken, assessment of their effectiveness, associated obstacles and scientific and technical needs to achieve national targets**

---

The National Biodiversity Action Plan (NBAP) for Suriname was developed in 2011-2012 for the period of 2012–2016. The Plan consists of eight objectives, each with their own set of sub-objectives and desired actions. Due to time constraints, only the first three objectives were selected to be assessed, as these correspond with the objectives of the UNCBD. They are also considered core goals, i.e. essential goals that need to be achieved, while the remaining goals are supporting goals, i.e. goals to be achieved to facilitate the core goals. The measures that have been implemented during the reporting period 2015 – 2018 were identified and described according to the desired actions of each sub-objective.

### **Describe a measure taken to contribute to the implementation of your country's national biodiversity strategy and action plan.**

#### **Objective 1: Conservation of biodiversity**

##### *1.1 Adjust national laws and rules for the conservation of biodiversity inside and outside protected areas*

The desired actions that were identified under this sub-objective were, among others, to evaluate options for the establishment of protected areas (PAs) by communities, to evaluate effectiveness of current national laws/rules, to adjust and approve, where necessary, laws and regulations and also terminology. The activities that were implemented in the reporting period, include the following:

- In 2016, initiatives for a new Mining Act (Mijnbouwwet) have started. A committee was established to finalize the draft in 2018.
- In 2016, a Draft Coastal Protection Act (Wet Bescherming Kustgebied) was prepared by the Ministry of Public Works, Transport and Communication (OWTC) and submitted to Parliament. According to Parliament, it is still under review. It is unclear when this Act will be approved. This Coastal Protection Act is specifically designed to protect the vulnerable coastal ecosystems, such as the mangrove forests, from anthropogenic pressures such as urban development and climate change.
- In March 2017, a process to review the Nature Conservation Act 1954 (Natuurbeschermingswet) was started by Conservation International (CI) Suriname with the project "Project Onze Natuur op 1". While a stakeholders' consultation process (which did not include ITP consultations) took place, it is necessary that this draft law is further streamlined with existing national policies and strategies. In August 2018, this draft law was presented to Parliament, however only after acceptance by the Government will it be considered.



- In 2017, the Act on Maritime zones (Wet Maritieme Zones) has been endorsed by Parliament. According to this act, the Exclusive Economic Zone (EEZ) of Suriname is expanded from 200 to approximately 345 sea miles. In this zone, the State has sovereign rights for the exploration, exploitation, preservation and management of the natural resources.
- Preparations for the adjustments of retribution, licensing rights, inspection fees and tariffs were done by the Foundation for Forest Management and Production Control (SBB) and enforced by the Ministry of Spatial Planning, Land and Forest Management (RGB), the Ministry of Trade, Industry and Tourism (HI&T) and Ministry of Finance.
- In September 2018, the Draft Environmental Framework Act (Milieu Raamwet) has been further elaborated by Coordination Environment at the Cabinet of the President and submitted to Parliament. It contains provisions regarding Environmental Impact Assessment (EIA) and pollution control, which should counteract the major drivers of Suriname's forest degradation and deforestation. Adoption of an Environmental Act providing the major elements for the regulation of environmental protection in the country, as well as mandatory Environmental and Social Impact Assessment (ESIA), will strengthen the legal basis for an effective, efficient and sustainable protection of the forests and the environment.
- The Animal Welfare Act (Wet Dieren Welzijn 2017) was approved by Parliament in 2017 and was enacted in 2018. It promotes the general welfare of animals, regulates captivity of wild animals and sets rules for the conditions in which animals in captivity should be living.

*1.2 Preserve the biodiversity of Suriname in an adequate and effective national system of protected areas and in areas beyond this system*

The desired actions that were identified under this sub-objective were among others to identify species and areas that need effective protection urgently, to prepare or adjust management plans for nature reserves and vulnerable species, to implement the Coastal Zone Management Plan (ICZM Plan), and to conduct EIA for the establishment of new PAs. The activities that were implemented in the reporting period, include the following:

- Restructuring of the Suriname Forest Service (LBB) at the Forestry Directorate (Ministry of RGB) for effective control and enforcement and actions towards the establishment of the Forest and Nature Authority (BOSNAS) for an integrated approach to biodiversity preservation.
- Established National Forest Monitoring System by SBB, which includes Near Real Time Monitoring. This makes it possible to help detect deforestation and illegal logging activities using satellite images.

- Rewriting of 3 coastal management plans within the Global Climate Change Alliance+ (GCCA+) project (2016-2019), namely for the Bigi Pan, North Coronie and North Saramacca Multiple Use Management Areas (MUMAs). The focus will be on the regulations for hunting, fishing and tourism in specially appointed zones.
- There are currently four proposed protected areas: Nani, Kaburi, Mac Clemen and Snake Creek for a total area of 132,000 ha (Environmental Statistics 2016). Noteworthy, the Coronie swamp is being considered as a Protected Area.

### *1.3 Rational designation and use of land, taking into account biodiversity conservation and the impact of disasters*

The desired actions that were identified under this sub-objective were, among others, to evaluate current land use based on environmental impact, to zone land based on sustainable use, to conduct Social Environmental Assessment (SEA) for inter-linked development projects and policies, to evaluate compulsory EIA of independent development projects, and to develop plans to minimize environmental damage in case of disasters. The activities that were implemented in the reporting period, include the following:

- In 2015, capacity in land use and forest cover mapping has been built within the Ministries through technical collaboration. All data is being shared through the online geoportal [www.gonini.org](http://www.gonini.org)
- A land use map is being produced by SBB in collaboration with several stakeholders, Ministries and government institutes. This provides current data on land use, which is a good start for land use planning.
- Finalization of a land use land change map of 2017 by SBB.
- The launch of the Gonini Geoportal in 2016 as a national land monitoring tool.
- No actions have been taken for the actual land use in relation to environmental impacts. However, initiatives for sustainable land use planning, including an evaluation of the current laws and regulations for land use, evaluation of the human and organizational capacities to realize sustainable land use planning and an evaluation of the existing data gaps, have been taken.
- An inter-departmental commission is currently working on a concept law for Spatial Planning, under coordination of the Spatial Planning department of the Ministry of RGB.

### *1.4 Responsible mining with minimization of damage to the environment and biodiversity and environmental restoration*

The desired actions that were identified under this sub-objective were to evaluate mining policy and practice regarding sustainability, to adjust mining policy and mining legislation, to adjust mining permits, and to enhance practices that limit environmental impact from small-scale mining. The activities that were implemented in the reporting period, include the following:

- In 2016, the National Oil Spill Contingency Plan (NOSCP) was formulated. This Plan has been approved the same year and is under the responsibility of the National Coordination Center for Disaster Management (NCCR) for implementation and coordination. In 2018, a process has started to revise this Plan.
- Since 2016, together with the National Institute for Environment and Development in Suriname (NIMOS), the Ministry of Natural Resources (NH) is implementing the Minamata Initial Assessment (MIA) project (2016-2017). This project allows Suriname to identify the national mercury challenges and the extent to which legal, policy and regulatory framework will enable the country to implement obligations under the Minamata Convention on Mercury. Awareness activities to emphasize the risks of mercury use are also part of the project implementation.
- In 2017, initiatives for the establishment of a mineral institute for coordinated monitoring and control of the mining policy were started. The Ministry of NH together with the existing mining institutes Geological Mining Service (GMD), Bauxite Institute Suriname (BIS) and part of the committee for Ordering the Gold Mining Sector in Suriname (OGS) developed an implementation plan for a smooth transformation of these institutes into one mineral institute. With this initiative, the first phase of the establishment of a national mineral institute was finalized.
- Initiatives by the Ministry of NH for public private partnerships in the small-scale mining industry to promote environmentally friendly technologies.
- Implementation of the Artisanal and Small- Scale Gold Mining (ASGM) National Action Plan project (2017-2019) to develop a National Action Plan (NAP) to reduce, and where feasible, eliminate mercury use in artisanal and small-scale gold mining. With funds from the Global Environmental Fund (GEF) the government of Suriname can support artisanal and small-scale enterprises by creating policies and market incentives, connecting them to international markets and supplying chains that favor gold which use less or no mercury in its extraction.
- The Ministry of NH is currently in the phase of operationalizing a seven-year project named: "Improving Environmental Management in the Mining Sector, with Emphasis on the ASGM sector in Suriname", which is funded by the GEF. This project will focus on the introduction of sustainable mining techniques, including mercury free mining in the ASGM sector through the introduction of education centers in different mining regions in the country. Also, as part of its policy plans, the Ministry is actively implementing measures to register and formalize illegal miners within the country and guide them to

better and adequate mining activities that are in line with the national and international commitments of the country.

#### *1.5 Spread of dangerous objects, substances or organisms in natural ecosystems limited and under control*

The desired actions that were identified under this sub-objective were, among others, to conduct inventory of hazardous objects, substances and organisms, to develop and approve (new) laws/regulations regarding Invasive Alien Species (IAS), to revise the list of import of hazardous objects, substances and organisms, to intensify control on the import of substances and organisms, to inspect and clean up hazardous objects, substances and organisms in protected areas. The activities that were implemented in the reporting period, include the following:

- In 2016, a Level 1 inventory of mercury pollution was done under the Mercury Storage and Disposal project by Coordination Environment, making use of the United Nations Environment Programme (UNEP) Mercury Toolkit.
- In 2016, a pre-inventory of IAS management in Suriname was done. This research showed that there is no unambiguous definition for IAS. Participating organizations are using different definitions. Also, that there are insufficient and lack of legal regulations and laws with regards to IAS, in particular protection against IAS. Furthermore, there is no coordinated program of protocol in place with regards to management of IAS.
- In 2016, 96,4 tons of obsolete pesticides (six of 40 feet containers) have been removed and shipped to the United Kingdom (UK) for incineration.
- In 2017, a more elaborated survey on IAS Management was done in collaboration with the Caribbean Community (CARICOM) and Convention of Biological Diversity (CBD) Secretariat. Preparations for a National IAS Management workshop are in progress.
- In 2017, small-scale goldminers were granted permission to mine in the Roma Pit, an area within the Iamgold Rosebel Gold Mines concession area. Their activities, however, are being monitored and they are not allowed to use mercury in the process.
- In 2018, inventories for Persistent Organic Pollutants (POPs) were done under the Regional POPs Project (2015-2020). An inventory was made for the following POPs: polychlorinated biphenyl (PCB), polybrominated diphenylethers (POP-PBDEs), hexabromocyclododecane (HBCD), perfluorooctane sulfonic acid (PFOS) and unintentional POPs (UPOPS). The Stockholm Convention National Implementation Plan of 2011 was updated in 2018 with addition of PFOS. Ways are being discussed to do further testing, management and disposal of the PCBs at the Suriname Energy Company (N.V. EBS). To reduce UPOPS production, a new design for the waste dump at Ornamibo in the district of Para was made. A chemicals communications plan and chemical legislation are being drafted.

- In 2018, a Level 2 inventory of mercury pollution was done under the MIA project by NIMOS.
- The Minamata Convention on Mercury was ratified in 2018.

**For the implementation measure, please indicate to which national or Aichi Biodiversity Target(s) it contributes**

1.1 Adjust national laws and rules for the conservation of biodiversity inside and outside protected areas.	ABT 11
1.2 Preserve the biodiversity of Suriname in an adequate and effective national system of protected areas and in areas beyond this system	ABT 11 & 12
1.3 Rational designation and use of land, taking into account biodiversity conservation and the impact of disasters	ABT 7 & 14
1.4 Responsible mining with minimization of damage to the environment and biodiversity and environmental restoration	ABT 10 & 15
1.5 Spread of dangerous objects, substances or organisms in natural ecosystems limited and under control	ABT 8 & 9

**Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes:**

- Measure taken has been effective
- Measure taken has been partially effective
- Measure taken has been ineffective
- Unknown

**Please explain the selection and where possible indicate the tools or methodology used for the assessment of effectiveness above**

The effectiveness of the measures taken could not be assessed, because the provided and/or available data/information was insufficient.

### Relevant websites, web links and files

*Documents:*

- Survey on Invasive Alien Species management and Aichi Target 9 – For Caribbean small island developing states towards achieving Aichi Biodiversity Target 9
- Wet Dierenwelzijn 2017 (Animal Welfare Act):  
[http://www.dna.sr/media/162299/SB\\_2017\\_No.4\\_Dierenwelzijn.pdf](http://www.dna.sr/media/162299/SB_2017_No.4_Dierenwelzijn.pdf)
- Support for sound land use planning in Suriname (March 2015)

*Web links:*

- ASGM National Action Plan: <https://www.thegef.org/project/artisanal-and-small-scale-gold-mining-asgm-national-action-plan-nap-suriname>

### Other relevant information

N/A

### Obstacles and scientific and technical needs related to the measure taken:

<i>Sub-objective</i>	<i>Obstacles/scientific and technical needs</i>
1.1. Adjust national laws and rules for the conservation of biodiversity inside and outside protected areas.	- Insufficient technical expertise, capacity and skilled personnel within the various Government Institutes.
1.2. Preserve the biodiversity of Suriname in an adequate and effective national system of protected areas and in areas beyond this system	- Insufficient technical expertise, capacity and skilled personnel within the various Government Institutes.
1.3. Rational designation and use of land, taking into account biodiversity conservation and the impact of disasters	- Insufficient technical expertise, capacity and skilled personnel and data. - Insufficient knowledge on the link between biodiversity conservation and impact from land use.

	<ul style="list-style-type: none"> <li>- Overlapping laws and regulations that relate to land use planning resulting in unclear mandate for Ministries and institutes.</li> </ul>
1.4. Responsible mining with minimization of damage to the environment and biodiversity and environmental restoration	<ul style="list-style-type: none"> <li>- The informal character of a large part of the mining sector is a major obstacle to promote responsible mining and identify critical issues that are harmful to the environment.</li> <li>- The lack of awareness about responsible mining, of small-scale miners.</li> </ul>
1.5. Spread of dangerous objects, substances or organisms in natural ecosystems limited and under control	<ul style="list-style-type: none"> <li>- Insufficient control and enforcement to prevent the spread of dangerous objects in the environment.</li> <li>- Insufficient capacity to carry out control and enforcement.</li> <li>- Insufficient data, instruments and equipment within the organizations responsible for control and enforcement.</li> </ul>

**Describe a measure taken to contribute to the implementation of your country's national biodiversity strategy and action plan.**

**Objective 2: Sustainable use of biodiversity**

*2.1. Sustainable fisheries in the marine, estuary and inland waterways*

The desired actions that were identified under this sub-objective were to evaluate the fisheries offshore, in the estuary zone and also the fresh water fisheries regarding sustainability, and to adjust the fisheries policy for more sustainability. The activities that were implemented in the reporting period, include the following:

- The Ministry of Agriculture, Animal Husbandry and Fisheries (LVV) has developed a Fisheries Management Plan for the period 2014-2018. This plan was developed using principles of the Food and Agriculture Organization (FAO) Ecosystem Approach to Fisheries and the general policy goals of the Ministry of LVV. The Plan sets out general measures regarding the permit system, fishing zones, the use of the Vessel Monitoring

System (VMS), and specific measures for the different fishing categories (such as reporting of fish species caught, shrimp and seabob research, net and boat criteria, criteria per fishing zone). Preparations are carried out to revise/update the Plan.

- The fisheries sector is regulated by the following national laws: the Fish Stocks Protection Act 1961 (Visstandbeschermingswet), the Sea Fisheries Act 1980 (Zeevisserijwet) and the Fish Inspection Act 2000 (Viskeuringswet). The Sea Fisheries Act has been adjusted in 2017 (SB 2017 no. 41), which relates to aligning the definition of the fishing zones in the Sea Fisheries Act with the definitions used in the Maritime Zones Act 2017 (Wet Maritieme Zones).
- The GEF/FAO project Sustainable Management of Bycatch in Latin America and the Caribbean (LAC) Trawl Fisheries (REBYC-II- LAC project) started in 2016, which aimed at sustainable management of bycatch in order to minimize food waste. Under this project, data collection at sea has started to obtain an overview of the catch composition, bycatch and discards in the finfish fishery. This information will be used to understand the current needs for bycatch reduction and gear improvements, a prerequisite for the introduction of effective bycatch reduction measures in fishery. The data is collected in partnership with the Anton de Kom University of Suriname (AdeKUS), and will continue throughout the fishing season.

Within this project, a flexible Turtle Exclusion Device (TED) for finfish trawlers has been developed and is being tested. The results were presented in late 2017 and several ideas for adaptations of the gear were proposed. The flexible TEDs have proven very effective in reducing unsustainable bycatch, reducing the discard rates for rays by up to 95%. This also has a positive effect on the quality of the fish and the catch sorting process.

The loss of target catches, however, is still too high to make the device acceptable for the industry at present. In 2018, further improvements to the TEDs are being tested to overcome this problem.

- Preparations are carried out to conduct a gender study in the fisheries sector in late 2018 until 2019.
- In 2017, the Suriname Coast Guard has been trained in fisheries inspection, and they will collaborate closely with the Fisheries Department regarding this aspect.
- Preparations are being carried out to start a regional demonstration project regarding artisanal fisheries under the Caribbean and North Brazil Shelf Large Marine Ecosystems (CLME+) project (2015-2020), which will locally be implemented by NIMOS and LVV.
- In early 2018, awareness sessions for small-scale fishers have started regarding concepts of the Ecosystem Approach to Fisheries.



## *2.2. Sustainable forestry – both logging and harvest of plant NTFPs – and forest restoration*

The desired actions that were identified under this sub-objective were, among others, to evaluate exploitation of timber and Non-Timber Forest Products (NTFP) regarding sustainability and productivity, adjust laws and regulations to the sustainable and productive utilization of forests, to ensure enforcement of laws on forest exploitation and forest conversion, to facilitate certification of forestry companies, and to restore damaged areas. The activities that were implemented in the reporting period, include the following:

- Forest management measures are implemented according to the Forest Management Act 1992 (Wet Bosbeheer), National Forest Policy 2006 and Interim Strategic Action Plan 2009 – 2013. These measures include, among others, measures regarding land use planning, timber and non-timber forest production, and ecological and environmental protection. The policy documents have been reviewed and were integrated in the country's Draft National Reducing Emission from Deforestation and Forest Degradation (REDD)+ Strategy.
- Legislation has been adjusted; related to retribution, concession rights, inspection fees and tariffs. According to SBB, there are also plans to implement measures that discourage the export of round wood and to strengthen the local processing capacities.
- The government supports any initiative regarding Forest Stewardship Council (FSC)-certification of the forestry companies. The number of certified forestry companies in Suriname increased from four in 2014 to five in 2016 according to SBB's publication 'Rapport Bosbouw Sector 2016'.
- A Roadmap for a National Forest Monitoring System (NFMS) was developed in 2017. The NFMS which includes the Measurement, Reporting and Verification (MRV) System for REDD+ has the following sub-systems:
  - o Satellite Land Monitoring System (SLMS) or mapping of land/forest cover/use change in close collaboration with the relevant Ministries and institutions. As an online platform for data exchange, <http://www.gonini.org/> was developed. This geoportal is maintained at SBB.
  - o Near Real Time Monitoring System (NRTM), where unplanned activities in the forest are followed on a day-to-day basis. This system involves an effective response system, which is currently strengthened for unplanned logging activities.
  - o Sustainable Forestry Information System Suriname (SFISS): updating and improving the LogPro system, by integrating technology and enhancing the role of the stakeholders. This program will support a structural implementation of the draft Code of Practice, and will be complemented by a long-term capacity building program.

- National Forest Inventory (NFI): Currently being developed for mangrove forest, designed with a multipurpose character to include the assessment of national biodiversity data as one of its targets.
  - Community-Based Monitoring: Enhancing the role of communities within the different sub-systems, among others, through the role of the REDD+ Assistants Collective.
  - Reporting: Developing systems for structural reporting on the state of Suriname's forest.
- Investments are being made to strengthen the human capacity of SBB: they are currently (throughout the end of 2018 and together with other Ministries/institutes) participating in an international 'train the trainers' course "Conservation of Biodiversity through Ecologically Responsible Forest Management in the Productive Forest of the Amazon", which is held within the context of the Amazon Cooperation Treaty Organization (ACTO) project "Building capacities of ACTO Member Countries in ecological responsible forest management and biodiversity conservation in managed forests of the Amazon".

### *2.3. Sustainable use of wildlife (terrestrial)*

The desired actions that were identified under this sub-objective were to evaluate hunting and collecting animals as a form of sustainable use, including the system of catch/export quota, to revise the Game Act 1954, to intensify the control on commercial catch/export of wild animals, and to adjust the catch and export quota. The activities that were implemented in the reporting period, include the following:

- Wildlife management measures are being implemented according to the Game Act 1954 (Jachtwet), Nature Conservation Act 1954 (Natuurbeschermingswet), Fish Stock Protection Act 1961 & 1981 (Visstandbeschermingswet), Fish Stock Protection State Order 1961 (Visstandbeschermingsbesluit), Sea Fisheries Act 1980 (Zeevisserij wet), Forest Management Act 1992 (Wet Bosbeheer) and Game State Order 2002 (Jachtbesluit).
- In 2002, the Game Act has been amended by Game State Order 2002, but further efforts are dependent on the set up of a Forest and Nature Authority (BOSNAS), of which preparations have only recently begun, and also the approval of the Environment Framework Act.
- Efforts are in progress to adjust the game quota system, in which wildlife exporters have participated, and it is expected to finalize these efforts by the end of 2018.

- Cooperation between Game Wardens, Police, Attorney General and Prosecution Department has been established in order to increase the control on gaming and export of wildlife.
- A project “Awareness program for the protection of shorebirds, including the Scarlet Ibis” has been initiated with the goal to reduce poaching of shorebirds and to better protect these birds. This was done in collaboration with Suriname Conservation Foundation (SCF), David Mizrahi (an American biologist for sandpipers) and Arie Spaans (from the National Audubon Society, New Jersey).

#### *2.4. Responsible tourism, particularly nature and eco-tourism*

The desired actions that were identified under this sub-objective were to evaluate nature and eco-tourism regarding growth potential, impact, and sustainability, to develop national standards for responsible business practices in the tourism sector, to adjust tourism policy to enhance responsible tourism, and to facilitate certification of eco-tourism companies. The activities that were implemented in the reporting period, include the following:

- The United Tour Guides Suriname (UTGS) was founded in 2014 to unite and certify tour guides active in the tourism sector, and to strengthen their capacities. They have organized training sessions to broaden the competencies of the tour guides and they are actively cooperating with the Suriname Bureau of Standards (SSB) on developing standards for the tourism sector.
- In 2016, the Suriname Hospitality and Tourism Association (SHATA) was established. SHATA is a non-governmental organization, which offers essential services to improve tourism in Suriname with the aim of increasing the number of travelers and tourist spending. SHATA has closely collaborated with the government Foundation for Tourism (Stichting Toerisme Suriname, STS), until STS’ closing in 2018.
- In 2017, the tourism policy area became one of the responsibilities of the Ministry of Trade and Industry, thus becoming the Ministry of Trade, Industry and Tourism (HI&T). By November 2017, the Ministry of HI&T published the National Strategic Tourism Plan 2018-2030 (NSTP) describing the vision, mission and strategic goals regarding tourism, which will focus on nature and culture tourism. In the NSTP a SWOT analysis for the nature and culture tourism is described. Sustainable tourism is the leading principle for the tourism policy.
- Mid 2018, a draft national standard for tour guides was developed by a technical working group headed by the SSB and is awaiting approval for enactment as a national standard.
- End 2018, permit guidelines are drafted by the Ministry of RGB for the tourist lodges in the Bigi Pan MUMAs.

### *2.5. Responsible agriculture, causing less environmental damage*

The desired actions that were identified under this sub-objective were to evaluate and adjust agricultural policy/practice regarding mitigation of negative impacts, to evaluate the use and the advantages of local strains/varieties, to encourage the sparingly use of pesticides, and to stimulate the transition to sustainable agriculture. The activities that were implemented in the reporting period, include the following:

- In March 2016, the Ministry of LVV published its National Master Plan for Agricultural Development in Suriname containing a comprehensive national policy and its implementation through specific regional projects (for aquaculture, citrus, rice and vegetables). The Master Plan is rooted in two main values, namely agriculture and population, and sustainable agriculture. The Master Plan also seeks to protect ecological values through three central strategies, namely: concentrating expansion of cultivation within previously abandoned agricultural areas, so as not to harm the surrounding natural forests; adopting environmentally friendly cultivation methods, in order to protect the surrounding natural ecology; defining the coastal strip as a shield for the entire coastal plain of Suriname against the penetration of seawater, whereby natural growth in this strip (mangrove forests) will be preserved in order to protect development just South of it, as well as the natural habitat of several endangered species.
- The Anne van Dijk Rice Research Centre Nickerie (SNRI/ADRON) organizes farmer field schools where rice farmers are educated about the principles of water management and integrated pest management. In the past 15 years, rice farmers have been informed about responsible pesticide use and responsible agricultural practices through brochures and information videos through local TV stations.
- From October 2017 – October 2018 a school project called ‘Everyday food: Growing vegetables no matter what weather’ was conducted in the district of Commewijne. It was funded by the Japan Caribbean Climate Change Partnership (JCCCP) in collaboration with NIMOS and United Nations Development Programme (UNDP) Suriname. The objective of this project was to raise the awareness of the youth at the primary school level regarding climate change and the impact on agriculture. Among others, about 150 youths have participated in this project.

### *2.6. Responsible application of biotechnology*

The desired actions that were identified under this sub-objective were to evaluate risks of import and use of Genetically Modified Organisms (GMOs), and to revise and approve laws and regulations on GMOs in accordance with international obligations. The activities that were implemented in the reporting period, include the following:

- The National Biosafety Framework that was developed in 2004 is still in use, but must be updated, especially regarding the institutional framework.
- Suriname participated in the Global Environment Facility (GEF)-funded Regional Biosafety Project in the period of 2012-2016. The main goal of the project was to implement effective, operable, transparent and sustainable National Biosafety Frameworks. This caters to national and regional needs, delivers global benefits and is compliant to the Cartagena Protocol on Biosafety in 12 Caribbean countries to ensure that their biodiversity will be less vulnerable to any potential risks from introduced Living Modified Organisms (LMO). In this project, national laws and regulations regarding biosafety and biotechnology were drafted and laboratory equipment was purchased.
- In 2017, steps were taken to finalize these laws and regulations through an inter-Ministerial Committee on Biosafety and Biotechnology for Food Security and Food Safety, which consists of representatives of the Ministry of LVV, Ministry of Health, Ministry of HI&T, the AdeKUS and Coordination Environment (CM).
- No imports or exports regarding GMOs were reported nor have any risk analyses been carried out for the use of GMOs.

### *2.7. Ecosystems valued for the services they supply*

The desired actions that were identified under this sub-objective were to make an overview of measurable services of Suriname's ecosystems, and to carry out a pilot project to pass on the ecological value in the price of a product/service. The activities that were implemented in the reporting period, include the following:

- From 2014-2017, Tropenbos International (TBI) Suriname together with the Association of Saamaka Authorities (VSG) has implemented projects in the Upper Suriname River, with the goal to map ecosystem services using Participatory-3D-Mapping (P3DM).
- The Suriname Coastal Protected Areas Management (SCPAM) Project (2011-2015) resulted in revised management plans, business plans and economic valuation reports for three Multiple Use Management Area (MUMAs).
- The SCPAM project is followed-up by the Global Climate Change Alliance+ (GCCA+) (2016- 2019). The projects aim to develop a National Mangrove Strategy and conduct an economic (monetary) valuation study of the mangrove ecosystems ex. of Scarlet ibis and Tarpon.
- Annually, SBB produces analysis reports of the forestry sector. These reports include, amongst others, activities in the forestry sector, production and export statistics.

**For the implementation measure, please indicate to which national or Aichi Biodiversity Target(s) it contributes**

2.1. Sustainable fisheries in the marine, estuary and inland waterways	- ABT 4, 6 & 7
2.2. Sustainable forestry – both logging and harvest of plant NTFPs – and forest restoration	- ABT 5 & 7
2.3. Sustainable use of wildlife (terrestrial)	- ABT 4 & 12
2.4. Responsible tourism, particularly nature and eco-tourism	- ABT 2 & 4
2.5. Responsible agriculture, causing less environmental damage	- ABT 2, 4 & 7
2.6. Responsible application of biotechnology	- ABT 13
2.7. Ecosystems valued for the services they supply	- ABT 2 & 14

**Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes:**

- Measure taken has been effective
- Measure taken has been partially effective
- Measure taken has been ineffective
- Unknown

**Please explain the selection and where possible indicate the tools or methodology used for the assessment of effectiveness above**

The effectiveness of the measures taken could not be assessed, because the provided and/or available data/information was insufficient. According to stakeholders, the objective of the sustainable use of biodiversity has partly been achieved.

The definition of indicators and targets is needed, to enable the assessment of the effectiveness of measures taken.

## Relevant websites, web links and files

### Documents:

- Surinaamse Bosbouw Sector 2016, SBB (Report Forestry Sector 2016):  
<http://sbbsur.com/wp-content/uploads/2018/02/Rapport-Bosbouw-Sector-2016.pdf>
- NFMS Roadmap – Status and Plans for Suriname’s National Forest Monitoring System:  
[https://info.undp.org/docs/pdc/Documents/SUR/NFMS\\_Roadmap\\_Suriname\\_final2016.pdf](https://info.undp.org/docs/pdc/Documents/SUR/NFMS_Roadmap_Suriname_final2016.pdf)
- International Course on Conservation of Biodiversity: <https://ftcigy.com/wp-content/uploads/2018/09/International-Course-on-Conservation-of-Biodiversity-through-Ecologically-Responsible-Forest-Management-in-the-Productive-Forest-of-the-Amazon.pdf>
- LVV – Visserij Management Plan voor Suriname 2014-2018 (Fisheries Management Plan 2014-2018):  
[http://www.gov.sr/media/968160/visserij\\_management\\_plan\\_voor\\_suriname.pdf](http://www.gov.sr/media/968160/visserij_management_plan_voor_suriname.pdf)
- LVV – National Masterplan for Agricultural Development:  
<https://www.share4dev.info/kb/documents/5426.pdf>
- HI&T – Nationaal Strategisch Tourisme Plan 2018-2030 (National Strategic Tourism Plan 2018-2030):  
<https://drive.google.com/file/d/1D8917UpLYf6TsEwJddNyJBjKqUULv10/view>

### Web links:

- National Geoportal Gonini: <http://gonini.org/>
- GEF/FAO REBYC-II-LAC project: <http://www.fao.org/in-action/rebyc-2/en/>

## Other relevant information

N/A

## Obstacles and scientific and technical needs related to the measure taken:

<i>Sub-objective</i>	<i>Obstacles/scientific and technical needs</i>
2.1. Sustainable fisheries in the marine, estuary and inland waterways	- Insufficient human resources available and an extended hiring process is involved.

	<ul style="list-style-type: none"> <li>- Financial resources within the government system is not easily made available.</li> <li>- Assistance and additional means needed to combat piracy at sea.</li> </ul>
<p>2.2. Sustainable forestry – both logging and harvest of plant NTFPs – and forest restoration</p>	<ul style="list-style-type: none"> <li>- The laws and regulations are not fully up to date, capacity-strengthening activities are not sufficient, infrastructure in the hinterlands as well as work facilities for the forest rangers are not properly and regularly maintained and they are also not sufficient.</li> <li>- The local wood processing industry is not sufficiently capable to process all harvested round wood, so Suriname mainly exports round wood. The recovery rate of round wood processing is low, which results in a lot of wood waste.</li> <li>- Capacity-strengthening of SBB personnel for monitoring and enforcement.</li> <li>- Improvement of the wood processing industry in Suriname in order to encourage the export of wood products.</li> <li>- Increase coverage of forest rangers in the hinterland.</li> <li>- Additional equipment and transportation vehicles are needed.</li> <li>- Insufficient funds to cover operational costs, regular maintenance on existing forest ranger's checkpoints.</li> </ul>



	<ul style="list-style-type: none"> <li>- Awareness-raising activities regarding sustainable forest management is also needed.</li> </ul>
2.3. Sustainable use of wildlife (terrestrial)	<ul style="list-style-type: none"> <li>- Insufficient personnel, insufficient funds.</li> <li>- Training personnel on issues regarding protected areas management, research, management and trade in protected plants and animals.</li> <li>- No scientifically sound quota lists available due to lacking data on population monitoring.</li> </ul>
2.4. Responsible tourism, particularly nature and eco-tourism	<ul style="list-style-type: none"> <li>- Research needed on the link between biodiversity and tourism.</li> <li>- Human and technical assistance is needed to further develop the tourism potential of Suriname's biodiversity.</li> </ul>
2.5. Responsible agriculture, causing less environmental damage	<ul style="list-style-type: none"> <li>- Additional resources are needed for research on how to address challenges imposed by climate change on rice production.</li> </ul>
2.6. Responsible application of biotechnology	<ul style="list-style-type: none"> <li>- Legislation and policy need to be updated, insufficient human capacity and financial resources.</li> <li>- The biosafety policy also needs to be updated.</li> </ul>
2.7. Ecosystems valued for the services they supply	<ul style="list-style-type: none"> <li>- Insufficient human capacity and knowledge, especially regarding the link between economics and ecosystem services.</li> </ul>
<p><b>Describe a measure taken to contribute to the implementation of your country's national biodiversity strategy and action plan.</b></p>	

**Objective 3: Regulate access to genetic material and associated traditional knowledge, with fair and equitable sharing of benefits**

*3.1. Regulate access to genetic material in the territories of Indigenous and Maroons, with fair and equitable sharing of benefits*

The desired actions that were identified under this sub-objective were to evaluate existing agreements/laws/regulations with regard to access and Intellectual Property Rights (IPR), to develop participation mechanisms regarding territories of Indigenous and Tribal Peoples (ITPs), to consult traditional communities on laws and regulations that need to be developed, to develop and approve (new) laws/regulations regarding the access and use of genetic material, to give a body/institute the responsibility for the control and enforcement of the access and use of genetic material and benefit sharing, to develop model agreements for research and development, to develop procedures regarding benefit sharing from the use of genetic material, to develop and approve regulations on benefit sharing. The activities that were implemented in the reporting period, include the following:

- In the beginning of 2016, a Community Engagement Strategy for the Government was developed by the Association of Indigenous Village Leaders in Suriname (VIDS) and the Association of Saamaka Authorities (VSG) within the Widening Informed Stakeholder Engagement (WISE) REDD+ project (2013-2016) implemented by Conservation International Suriname. However, this strategy has not been widely used by the Government.
- At the end of 2017, the Act on Protection of Residential and Living Areas for Indigenous and Tribal Peoples (ITPs) (Wet Bescherming Woon- en Leefgebieden) (S.B. 1982 no. 10, as amended by S.B. 2003 no. 8) was approved by Parliament. However, this Act still needs to be enacted by the President of the Republic of Suriname. Although it is claimed that this Act aims to prevent that residential and living areas of ITPs are included in concessions for mining and forestry, ITPs do not consider this Act as providing protection to their territories. Preferably, ITPs want their land rights to be recognized by law.
- In 2016, a Presidential Committee was established to draft proposals for solving the land rights issues that the country faces. They produced a Joint Declaration by the Government of the Republic of Suriname and the Traditional Authorities of the Indigenous People of Suriname on the process of legal recognition of land rights and a Roadmap for realizing the legal recognition of the land rights of the Indigenous People in Suriname. At the beginning of 2018, the government came to an agreement with the ITPs to implement an Action Plan regarding the land rights of these communities. This action plan consists of components on the development of legislation, the demarcation of the areas of ITPs and to raise awareness.

- During consultation sessions with the ITPs, it was mentioned that any successful regulation regarding Access and Benefit Sharing will depend on the recognition of their land rights.

### *3.2. Regulate access to genetic material in other areas, with fair and equitable sharing of benefits*

The desired actions that were identified under this sub-objective were to evaluate existing agreements/laws/regulations with regard to access and IPR, to develop and approve (new) laws/regulations regarding the access and use of genetic material, to give a body/institute the responsibility for the control and enforcement of the access and use of genetic material and benefit sharing, to develop model agreements for research and development, to develop procedures regarding benefit sharing from the use of genetic material, and to develop and approve regulations on benefit sharing. The activities that were implemented in the reporting period, include the following:

There has been no policy and strategy developed as yet regarding access to genetic material in other areas, with fair and equitable sharing of benefits.

### *3.3. Regulate access to traditional knowledge, with fair and equitable sharing of derived benefits*

The desired actions that were identified under this sub-objective were to develop participation mechanisms for discussion about the use of traditional knowledge (TK), to define what TK comprises within the context of Suriname, to develop and approve regulations to protect TK, to give a body/institute the responsibility for the control and enforcement, and to develop a strategy to encourage further regulated use of TK. The activities that were implemented in the reporting period, include the following:

- In 2016, the Bureau on Intellectual Property (Bureau Intellectuele Eigendom), which is responsible for the protection of intellectual property, was transferred from the Ministry of Justice and Police (JusPol) to the Ministry of HI&T. In that same year, the Ministry of HI&T held a workshop on TK in order to develop a legal framework to protect TK within the context of improvement of the investment and entrepreneurial environment in Suriname.
- Currently there is no national definition for the term 'Traditional Knowledge'. Also, there has been no policy and strategy developed yet regarding TK.

**For the implementation measure, please indicate to which national or Aichi Biodiversity Target(s) it contributes**

3.1. Regulate access to genetic material in the territories of Indigenous and Maroons, with fair and equitable sharing of benefits	-
3.2. Regulate access to genetic material in other areas, with fair and equitable sharing of benefits	-
3.3. Regulate access to traditional knowledge, with fair and equitable sharing of derived benefits	- ABT 18

**Assessment of the effectiveness of the implementation measure taken in achieving desired outcomes:**

- Measure taken has been effective
- Measure taken has been partially effective
- Measure taken has been ineffective
- Unknown

**Please explain the selection and where possible indicate the tools or methodology used for the assessment of effectiveness above**

The effectiveness of the measures taken could not be assessed, because the provided and/or available data/information was insufficient. However, according to stakeholders, little progress has been made in achieving the objective of regulating access to genetic material and associated TK, with fair and equitable sharing of benefits.

The definition of indicators and targets is needed, to enable the assessment of the effectiveness of measures taken.

**Relevant websites, web links and files**

Information sourced through questionnaires by the Ministry of Regional Development (RO) and an interview with Community-Based Organizations (CBOs) of the ITPs.

**Other relevant information**

N/A

**Obstacles and scientific and technical needs related to the measure taken:**

<i>Sub-objective</i>	<i>Obstacles/scientific and technical needs</i>
3.1. Regulate access to genetic material in the territories of Indigenous and Maroons, with fair and equitable sharing of benefits	<ul style="list-style-type: none"><li>- There is a lack of laws and regulations on the access to genetic material in the territories of Indigenous and Tribal communities, with fair and equitable sharing of benefits.</li><li>- Capacity development needed regarding access and benefit sharing for the general public and the government.</li><li>- ITPs need legal assistance when drafting benefit sharing contracts and agreements with third parties.</li><li>- ITPs see the recognition of their land rights as a prerequisite for any regulation regarding Access and Benefit Sharing.</li></ul>
3.2. Regulate access to genetic material in other areas, with fair and equitable sharing of benefits	<ul style="list-style-type: none"><li>- There is a lack of laws and regulations on the access to genetic material with the fair and equitable sharing of benefits.</li><li>- Capacity development needed regarding access and benefit sharing.</li></ul>
3.3. Regulate access to traditional knowledge, with fair and equitable sharing of derived benefits	<ul style="list-style-type: none"><li>- There is a lack of laws and regulations regarding access to and the use of TK, and benefit sharing regarding TK.</li><li>- Capacity development needed regarding TK for the general public and the government.</li><li>- ITPs see the recognition of their land rights as a prerequisite for any regulation regarding TK, which cannot be granted readily due to provisions in the Constitution.</li></ul>

## Section III: Assessment of progress towards each national target

Suriname has not (yet) developed any national targets specifically related to or in line with the Aichi Biodiversity Targets. Therefore, chapter III only views the assessments of progress towards the Aichi Biodiversity Targets. It can be emphasized that in the NBAP 2012-2016 specific sub-objectives are related to and are in line with some specific Aichi Biodiversity Targets.

For the assessment of progress towards the Aichi Biodiversity Targets, international indicators (<https://www.bipindicators.net/>) are used, since no specific indicators were developed at national level. Based on these international indicators, relevant data is used for evaluation in this report.

### Aichi Biodiversity Target 1

*By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.*

#### Category of progress towards the implementation of the selected target

- On track to exceed target
- On track to achieve target
- Progress towards target but at an insufficient rate
- No significant change
- Moving away from target
- Unknown

#### Date the assessment was done

Mid-August 2018

#### Additional information

Awareness on the value of biodiversity is raised through the implementation of many projects. This is an ongoing process and does not always occur at the same pace. Although not all of these projects specifically target the overall awareness on the value of biodiversity, they are often indirectly targeting specific areas of biodiversity, such as the value of the rainforest, medicinal plants, and specific animals such as sea turtles. Awareness activities in the country are often collaborative, meaning that government, local Non-Governmental Organizations (NGOs) and international organizations often work together in the implementation. This has created a network of partner organizations (both

government and non-government) that are active when it comes to raising awareness.

In this regard, an overview is provided of the most recent biodiversity-related awareness activities that have been or are in the process of being implemented by the different partners based on subject:

**Plastics:** the detrimental effects of single-use plastics have become more evident in Suriname. The rivers, creeks and other waterways are polluted, and ultimately end up clogging drainage ways to the rivers and ocean. In this regard, combined efforts of organizations such as Green Heritage Fund Suriname (GHFS), World Wildlife Fund (WWF) Guianas, the National Institute for Environment and Development in Suriname (NIMOS), Support Recycling Suriname Foundation (SuReSUR) and Amazona Recycling Company (AmReCo) help raise awareness on this problem. They are regularly organizing plastic clean up days, where volunteers go out to different locations in the country and collect as much plastic waste as possible. These activities have a dual purpose: for one they contribute to the extraction of plastic waste from our rivers, thus preventing this waste from reaching the ocean. Secondly, through media attention and postings on social media, such as Facebook, they help create more awareness on this subject. The effects are getting more noticeable, with many different private sector initiatives rising. SuReSUR and AmReCo have a partnership and are also collecting Poly-Ethylene Terephthalate (PET), other plastics and aluminum through collections bins that are situated at many locations throughout the country. Their aim is to have 450 collection bins spread over the whole country. Currently, WWF Guianas is preparing an awareness campaign focused on individual responsibilities for the use of single-use plastics.

**Forests & wildlife conservation:** the focus on Suriname's forest and its functions has increased, due to government initiatives for the further conservation of its forests. Historically, Suriname has always maintained a more conservationist standpoint with regards to the use of its forest. This has translated into a current forest cover of 93%.

With regards to raising awareness on the functions of forests, through the years, different organizations have implemented awareness activities on forest conservation, sustainable use of Non-Timber Forest Products (NTFPs), medical uses of plants and protection of wildlife. The REDD+ project (2014-2018), along with the Foundation for Forest Management and Production Control (SBB), has been at the forefront of mapping forest cover, land use and the drivers of deforestation. During project implementation, information sharing sessions were held all over the country for a broad range of stakeholder groups, such as schools, coastal and hinterland communities, etc. The focus of these sessions is to make stakeholders aware of climate change, the effects of climate change on our country and how the forest and its biodiversity can play a role in combatting climate change.

Other organizations have also focused on other areas of forest and wildlife conservation. For example, together with the AdeKUS, Conservation International Suriname (CI-

Suriname) is protecting and restoring the mangrove habitat at the 'Weg naar Zee' area for coastal protection.

Also, sustainable livelihood projects with local Indigenous communities are promoted, ensuring the continued focus of local communities on conservation.

Other organizations, such as GHFS, are focused on specific animals such as sloths. Their Xenarthra Program (*Xenarthra* is an order of animals that includes the sloths, armadillos and anteaters), includes the shelter, care, rehabilitation and release of these animals. This means that orphaned and distressed animals are adopted temporarily until they are healthy and prepared to return to the forest. The ultimate goal of this project is to have children and adults rediscover their bond with nature and their own humanity and compassion by becoming engaged in the fate of the sloths.

**Marine environment:** a healthy marine environment starts with healthy mangroves. In 2015, initiatives were taken to establish a Mangrove Education Center in the district of Coronie by the Ministry of Spatial Planning, Land and Forest Management (RGB) as part of the GEF funded Suriname Coastal Protected Areas Management Project (SCPAM) Project (2011-2015). This Center is unique for both the district of Coronie and the total Surinamese community, because it is the first of its kind. Mangrove forests are of eminent importance for coastal protection. It also functions as a breeding ground for shrimps and sea fish and serves as a habitat for local coastal birds and food areas for the many migratory birds from Northern regions. However, it appears that the mangrove forests are threatened by various factors. The goal of the Mangrove Education Center is to raise awareness for the importance of mangrove forests among the community. The renovation and set-up of the center was realized, among others, by Staatsolie Foundation, KOSMOS Energy and the United Nations Development Programme (UNDP).

Furthermore, there is an increased focus on marine animals and the impacts of human activities on their habitats. GHFS has been implementing a Dolphin Program. This program includes the collection of basic data, training of volunteers and other stakeholders, and providing education and information to the general public.

Also, WWF Guianas has been actively campaigning against the local consumption of the eggs of the Greenback Turtle. The campaign involves the use of well-known Surinamese who speak out against the consumption of the eggs.

These activities are done in close collaboration with the Ministry of RGB that has nature conservation as one of its responsibilities. In early 2018, awareness sessions for small-scale fishers have started regarding concepts of the Ecosystem Approach to Fisheries by the Fisheries Department.

**Environmental education:** through many initiatives of governmental and non-governmental actors, there are many projects and programs on overall environmental education. One such initiative is the '*Groene Leskist*' (translated as Green Teaching Kit),



which is focused on combining the efforts of different organizations in creating educational materials for schools into one cohesive package. Various environmental organizations have developed a lot of material and numerous projects on the environment in recent years; and this is valuable material that should not be lost. The central point of the schools, the media library, was provided with this teaching kit.

In 2014, more than 30 environmental organizations met in the Paramaribo Zoo to train teachers of different schools in the structured way of providing environmental education. The Ministry of RGB also participated in this project. During the training, the teachers were taught didactic forms for processing the material in the lesson, writing projects and looking for sponsors for the projects. In addition to the teaching kit, a general website was created that is linked to the various environmental organizations and their activities.

Furthermore, through Coordination Environment, at the Cabinet of the President, where all environmental activities of the government are coordinated at the highest level, there have been specific activities. These include the publication of articles and news items, through the government media National Information Institute (NII) on International Environmental Days, such as World Biodiversity Day, World Forest Day, etc.

Another organization that has been promoting environment through its activities is the Foundation "Stichting Projekten Christelijk Onderwijs Suriname" (Stichting Projekten). Their goal is to foster good reading behavior with young people by promoting literature in various forms to young people and making them accessible through the annual organization of one or more children's books festivals. This foundation has multi-year themes with 'Environment' being one of them from 2005 to 2007. Currently, in collaboration with a number of partners, preparations are being made to put the Children's Education Center into use in 2018. This Center will offer children, educators, schools and organizations a 'Nature Education Center', where various topics such as renewable energy, environmental protection, climate change, healthy lifestyle, can be read, watched, listened to and learned in a unique way. In 2017, they organized a school quiz with subject "Biodiversity" for Middle School students.

In collaboration with the Suriname REDD + project (2014-2018), Stichting Projekten is preparing the initiation of the project "The forest, the environment, our survival, our future". With this project, awareness is being raised regarding the following aspects: the meaning of the words REDD+, forest, ecosystem, environment, oxygen, climate change, 'blue carbon', etc.

Furthermore, learning about current national and international activities concerning conservation of the forest, climate, soil, etc.; learning how to use these concepts in daily life and to transfer them to their 'peers'; information about the flora and fauna of the project area; and learning to interact with each other in nature, using field attributes such as the binoculars and magnifying glasses.

Also, in collaboration with the Suriname REDD+ Project, Villa Zapakara Foundation, a

Children's Museum, the Sranan Krakti exhibition will be setup. By means of this exhibition, awareness will be raised about services that the natural environment offers to young and old. The exhibition consists of various exhibition components, namely the Mini-forest, the Nature pharmacy, the Technical Waterpark and the Media library. In addition to the exhibition, Villa Zapakara is involved in various events such as World Water Day, Children's Day, World Environment Day, etc., allowing them to be the platform for young and old, where translations are made of, sometimes difficult, topics in interactive workshops.

The "Fighting Mosquito-Borne Illnesses through STEM (Science, Technology, Engineering and Mathematics) Education" project aims to promote knowledge and monitoring of mosquitoes that carry vector-borne diseases. This is done by teacher and student training, using the Citizen Science Mosquito Protocol of the Global Learning and Observation to Benefit the Environment (GLOBE) program. Through the implementation of "Fighting Mosquito-Borne Illnesses through STEM Education" project, funded by the United States Embassy in Paramaribo, many community organizations have become involved in the GLOBE Mosquito habitat mapping project. In total three Country Mosquito Trainings (CMTs) were organized. During the first CMT 27 trainers were trained from six different districts. During the second training 25 trainers were trained from four different districts. During the third training 21 trainers were trained from three different districts. The material used for the CMTs was provided by GLOBE and translated to Dutch by GHFS. The Bureau for Public Health provided accurate data about mosquitoes in Suriname.

GHFS is also implementing the See Marine Interactions Project. This project focuses on people-centered advocacy required to successfully confront and reduce human threats to the marine environment and enhance climate resilience and food security in the coastal and marine environment. The GHFS engages with coastal communities, the general public, civil society groups as well as political parties to engender a positive change in societal attitudes towards the marine environment by enhancing awareness and knowledge of Suriname's unique marine environment. Activities to strengthen capacity and enhance national awareness are carried out to facilitate the ability of coastal communities, civil society, and the general public to advocate their interests and better understand and positively influence their environment. The expected outputs and planned activities of See Marine Interactions have a common orientation, empowerment of coastal communities, and increasing knowledge and awareness of the marine environment in Suriname to promote a positive shift in societal attitudes and behavior towards the environment. The expected outputs are designed to maximize the feasibility of achieving the project objectives and to address the challenges and mitigate the threats to sustainable development, climate resilience, and food security in the coastal and marine environment of Suriname.

Also, can be mentioned activities from non-government organizations in organizing on either annual basis or periodically, awareness activities. Activities around World Ocean Day organized by GHFS and car-free days by the Foundation for Community Work in Latour

(Stichting Buurtwerk Latour, Stibula) are examples of these awareness activities.

Although many actions are taken at different levels towards raising awareness about the value of biodiversity, currently no recent studies have been done on the impact of these awareness projects on the overall level of awareness of the population about the value of biodiversity. This makes an assessment of Suriname's progress towards the attainment of this target difficult.

An overall increase in awareness projects has become more noticeable through the years, which is why for this target it can be said that there is progress towards the achievement of the target, but at an insufficient rate. The target of 2020, where Surinamese people as a whole will be aware of the value of biodiversity and have taken steps to conserve and use it sustainably, will probably not be reached due to the fact that a more coordinated and structured approach is needed.

### **Indicators used in this assessment**

- Data on awareness and attitudes toward biodiversity
- Data on public engagement regarding biodiversity

### **Please describe any other tools or means used for assessing progress**

Desktop study, expert opinion and stakeholder consultations (questionnaires and interviews) during the period of July – November 2018.

### **Relevant websites, web links and files**

#### *Documents:*

- NIMOS, SBB and UNIQUE (2016). *Background study for REDD+ implementation in Suriname: Multi-perspective analysis of drivers of deforestation, forest degradation and barriers to REDD+ activities*. Paramaribo, Suriname:  
<https://www.surinameredd.org/media/1183/ddfdbplus-study-inception-report.pdf>
- Questionnaire LVV/Fisheries Department, Ms. Y. Babb

#### *Web links:*

- Green Heritage Fund: <http://www.greenfundsuriname.org/en/sloths/>
- SuReSur: <http://www.suresur.org/over-suresur/>
- CI Suriname: <http://www.conservation.org/global/suriname/Pages/default.aspx>

- CI Suriname programs: <http://www.conservation.org/global/suriname/programs>
- Facebook page Mangrove Action Project: <https://www.facebook.com/MangroveActionProject/>
- Article on World Forest Day 2018: <https://www.deboodschap.today/thema-wereld-bossen-dag-2018-bossen-en-duurzame-steden/>
- Article on World Biodiversity Day 2018: <https://www.deboodschap.today/wereld-biodiversiteit-dag-2018-25-jaar-biodiversiteit-conventie/>

**Level of confidence of the above assessment**

- Based on comprehensive evidence
- Based on partial evidence
- Based on limited evidence

**Please provide an explanation for the level of confidence indicated above.**

Due to the lack of translation of international targets to national circumstances, it is not possible to give a quantifiable assessment of Suriname’s progress towards the achievement of this target. The assessment can only be done using expert opinion and stakeholder consultations.

**Adequacy of monitoring information to support assessment**

- Monitoring related to this target is adequate
- Monitoring related to this target is partial (e.g. only covering part of the area or issue)
- No monitoring system in place
- Monitoring is not needed

**Please describe how the target is monitored and indicate whether there is a monitoring system in place.**

To be able to make better statements on the level of awareness of the general public, it is of importance to conduct national (regional) studies on the level of awareness of the general public and specific stakeholders’ groups, such as government officials, women, youth, businesses, Indigenous and Tribal Peoples (ITPs), etc. In doing so the government (and other groups) will be better able to focus their messages and subjects to the different target groups.

Also, studies on behavioral change as a direct result of awareness activities is recommended.

## **Aichi Biodiversity Target 2**

*By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.*

### **Category of progress towards the implementation of the selected target:**

- On track to exceed target
- On track to achieve target
- Progress towards target but at an insufficient rate
- No significant change
- Moving away from target
- Unknown

### **Date the assessment was done:**

Mid-August 2018

### **Additional information**

At a national level, the Development Plan 2017-2021 describes an environmental strategy, as one of the development priorities. Within this environmental strategy, the following objective is formulated "Revised Legislation and Increased Awareness under Policymakers and the Society to Ensure Responsible Use of Natural Resources". However, aside from valuations in the agriculture, animal husbandry and fishery sector, no specific indicator or program is mentioned in the Development Plan 2017-2021 with regards to biodiversity values in general.

In accordance to the UNCBD, Suriname has developed a National Biodiversity Strategy (NBS) 2006-2020 and a National Biodiversity Action Plan (NBAP) 2012-2016. The NBS establishes the national vision: seven objectives to be pursued in order to conserve and sustainably use the nation's rich biodiversity and biological resources, foster the sustainable management of its natural resources, and support the equitable sharing of biodiversity related to services and benefits provided by the ecosystems.

In section II under the NBAP 2012-2016, a sub-objective 2.7 "Ecosystems Valued for the Services they Supply", was formulated. Under this Aichi Biodiversity Target, as well as sub-

objective 2.7, the following can be stated that for biodiversity values, various institutions have conducted (ecosystem) valuation research. Amongst others can be mentioned:

- Tropenbos International (TBI) Suriname has implemented projects in the Upper Suriname River from 2014 to 2017, with the goal to map ecosystem services with the local communities using Participatory-3D-Mapping (P3DM).
- The Suriname Coastal Protected Areas Management (SCPAM) Project (2011-2015) resulted in revised management plans, business plans and economic valuation reports for Multiple Use Management Area (MUMAs).
- Annually, SBB produces analysis reports of the forestry sector. These reports include, amongst others, activities in the forestry sector, production and import statistics.

Also, between 2015 and 2018, there were various biodiversity related Policy Documents produced. To describe the most important ones:

- 2015, National Master Plan for Agricultural Development: this Master plan was formulated on behalf of the Ministry of LVV. It is built up of six parts. The first part gives a general overview of the situation regarding Agriculture in Suriname. The second part touches on the challenges Suriname faces and policies to be put in place to tackle these challenges. The third part is a summary of a survey done on the agricultural potential in the ten districts of Suriname. Part four talks about the physical conditions of the agricultural lands and the fifth part gives an overview of special topics. Lastly, the sixth part gives a summary and conclusion on the Master Plan. One of the important things stated is that to Suriname agriculture is not only as an economic tool in itself, but also a social and cultural theme that present Suriname with certain values, which include maintaining lands and traditional landscapes, and preserving culture, heritage, ecological and environmental assets;
- 2017, National Strategic Tourism Plan 2018-2030: this Strategic Plan, formulated on behalf of the Ministry of HI&T, offers Suriname solutions to developing Suriname's tourism potential sustainably with analysis of the different kinds of Tourism best suited for our situation. Especially helpful is the section on the 'quick wins' for Suriname for 2018-2020, whereas it is stated that the four strategic transition paths to develop the tourism sector are 1) strengthening the organizational and management structure, 2) exponentially increase the investments in the sector, 3) transformation of the sector to an industry and 4) innovation of the tourism products and services. Suriname has an enormous potential for nature tourism products like bird watching, other wildlife watching and research and nature wellness and health;
- 2018, DRAFT National REDD+ Strategy: this strategy is formulated under the REDD+ Project (2014-2018) and has four strategic lines: 1) Suriname continues to be a High Forest Cover, Low Deforestation (HFLD) country and receive compensation for economic transition, 2) Forest governance is implemented, 3) Land use planning is

done and 4) Conservation of forests and reforestation is done. This Strategy has not been endorsed yet.

These plans, although very sound and mindful of the sustainability of the different economic sectors, are however not streamlined with the Aichi Biodiversity Targets.

At a local level, biodiversity values are at some level integrated into the District Plans. All District Plans highlight their focus areas such as agriculture, infrastructure, forestry sectors (where applicable) and the tourism sector. In the District Plan, conditions are identified to promote and enhance the focus areas. For example, in the district of Coronie it is identified for 2018 to promote and enhance the animal husbandry and fishery sector by renovating the local abattoir (slaughtering house) and the establishment of a fishery center.

Thus, Suriname has somehow integrated biodiversity values into national and local plans. Based on available data, we can conclude that some progress is being made on Aichi Biodiversity Target 2.

### **Indicators used in this assessment**

- Measures with regards to biodiversity values embedded in national and local plans.
- Available data in accordance to sub-objective 2.7 of the NBAP 2012-2016.

### **Please describe any other tools or means used for assessing progress**

Desktop study, expert opinion and stakeholder consultations (questionnaires and interviews) during the period of July – November 2018.

### **Relevant websites, web links and files**

#### *Documents:*

- District Plans (2015-2018)
- Draft National REDD+ Strategy 2018

#### *Web links:*

- Ontwikkelingsplan 2017-2021: <http://www.planningofficesuriname.com/wp-content/uploads/2017/05/OP-2017-2021-Ontwikkelingsprioriteiten-van-Suriname-1.pdf>
- Policy Development Plan 2017-2021: <http://www.planningofficesuriname.com/wp-content/uploads/2018/02/2017-2021-DEVELOPMENT-PLAN.pdf>

- National Biodiversity Strategy 2006-2020: <https://www.cbd.int/doc/world/sr/sr-nbsap-01-en.pdf>
- Surinaamse Bosbouw Sector 2016, SBB (Report Forestry Sector 2016): <http://sbbsur.com/wp-content/uploads/2018/02/Rapport-Bosbouw-Sector-2016.pdf>
- Bosbouwstatistieken: Productie, export en import van hout en houtproducten in 2016, SBB (Forestry Statistics: production, export and import of wood and wood products in 2016): <http://sbbsur.com/wp-content/uploads/2018/02/Prod-2016.pdf>
- National Master Plan for Agricultural Development 2016: <http://www.share4dev.info/kb/documents/5426.pdf>
- Nationaal Strategisch Toerisme Plan 2018 – 2030: <https://drive.google.com/file/d/1D8917UpLYf6TsEwJddNyJBjKqUUlv10/view>

#### **Level of confidence of the above assessment**

- Based on comprehensive evidence
- Based on partial evidence
- Based on limited evidence

#### **Please provide an explanation for the level of confidence indicated above.**

The level of confidence is based on existing national and local plans. This assessment is based on an analysis of projects, initiatives and stakeholders, which are biodiversity-related.

#### **Adequacy of monitoring information to support assessment**

- Monitoring related to this target is adequate
- Monitoring related to this target is partial (e.g. only covering part of the area or issue)
- No monitoring system in place
- Monitoring is not needed

#### **Please describe how the target is monitored and indicate whether there is a monitoring system in place**

Ministries with environmental related tasks have the responsibilities to ensure enforcement and monitoring. For in general known reasons such as limited human capacity and limited finance by the government, limited monitoring takes place. Joined



efforts by governmental and non-governmental organizations could efficiently contribute to implementing a monitoring system.

### **Aichi Biodiversity Target 3**

*By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio-economic conditions.*

#### **Category of progress towards the implementation of the selected target:**

- On track to exceed target
- On track to achieve target
- Progress towards target but at an insufficient rate
- No significant change
- Moving away from target
- Unknown

#### **Date the assessment was done:**

Mid-August 2018

#### **Additional information**

In Suriname, it is generally known that efforts are made to minimize and or ban all activities/goods that are harmful to the biodiversity. Suriname has an Economic Crimes Act 1986 (Wet Economische Delicten en Wijzigingen) in place, which is an overarching law for all violations mentioned in various laws.

In the State Order Negative List 2003 and its amendments (Besluit Negatieve Lijst en Wijzigingen), certain goods are included for the import and export, categorized in prohibited, certified or registered goods. The Ministry Trade, Commerce and Tourism (HI&T) is responsible for the enforcement of this State Order. For example, imports and exports of Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) species, mentioned in the appendixes lists of CITES, require a permit. Also, certificates are required for import of micro-organisms, live plants and plant parts.

**Indicators used in this assessment**

Data on the amount of goods, including animal and plant samples, harmful for the biodiversity, endangered or threatened, are included in the State Order Negative List 2003.

**Please describe any other tools or means used for assessing progress**

Desktop study, expert opinion and stakeholder consultations (questionnaires and interviews) during the period of July – November 2018.

**Relevant websites, web links and files**

*Documents:*

- Economic Crimes Act 1986 and Amendments (Wet Economische Delicten en Wijzigingen): [http://www.dna.sr/media/19228/wet\\_economische\\_delicten.pdf](http://www.dna.sr/media/19228/wet_economische_delicten.pdf)
- State Order Negative List 2003 and Amendments (Besluit Negatieve Lijst 2003 en Wijzigingen): [http://www.gov.sr/media/790227/besluit\\_negatieve\\_lijst\\_2003\\_en\\_wijzigingen.pdf](http://www.gov.sr/media/790227/besluit_negatieve_lijst_2003_en_wijzigingen.pdf)

**Level of confidence of the above assessment**

- Based on comprehensive evidence
- Based on partial evidence
- Based on limited evidence

**Please provide an explanation for the level of confidence indicated above.**

No other specific data available.

**Adequacy of monitoring information to support assessment**

- Monitoring related to this target is adequate
- Monitoring related to this target is partial (e.g. only covering part of the area or issue)
- No monitoring system in place
- Monitoring is not needed

**Please describe how the target is monitored and indicate whether there is a monitoring system in place**

The Customs department of the Ministry of Finance supervises all activities with regards to import and export. The Custom department has checkpoints at the national borders and at all airports. However, due to limited human capacity and lack of specific knowledge, for instance, in recognizing certain animal and plant species and parts, monitoring is not being done adequately.

**Aichi Biodiversity Target 4**

*By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.*

**Category of progress towards the implementation of the selected target**

- On track to exceed target
- On track to achieve target
- Progress towards target but at an insufficient rate
- No significant change
- Moving away from target
- Unknown

**Date the assessment was done**

Mid-August 2018

**Additional information**

Sustainable production and consumption are on the agenda of both the government, the private sector and others. A Draft Environmental Framework Act has been prepared by the Government and is submitted to Parliament for discussion. Awaiting the approval of the Environmental Framework Act, several activities have been taken place from the government's side to ensure sustainable production. These activities regard the main production sectors mentioned in the Development Plan 2017-2021, namely mining (gold, crude oil), agriculture (rice & banana), livestock, fisheries, forestry, service sector, tourism and energy.

The following summary of activities illustrates some efforts made by the government to

ensure sustainable production:

- i) Decrease of issuance of licenses for mining of sea shells resulted in an overall decrease of river and sea shells mining. Currently, no mining licenses are being issued by the government, redirecting miners to mine for alternative materials.
- ii) NIMOS is administering an Environmental Assessment procedure based on published Environmental and Social Impact Assessment (ESIA) Guidelines. Several mining companies are complying with the ESIA guidelines, either voluntary or compulsory based on signed mineral agreements (e.g. minerals and palm oil industry). These ESIA studies usually result in Environmental Management and Monitoring plans. NIMOS is the agency to monitor these management plans.
- iii) The Ministry of Natural Resources (NH) is in the phase of operationalization of a seven-year project for the Artisanal Small-Scale Gold Mining (ASGM) in Suriname. The project “Improving Environmental Management in the Mining Sector”, with emphasis on the ASGM sector in Suriname, will focus on the introduction of mercury free mining techniques through the introduction of education centers in different mining regions in the country.
- iv) The Ministry of Agriculture, Animal Husbandry and Fisheries (LVV) implements different projects to transform the agriculture sector to a more sustainable one. The focus is on the use of good agriculture practices within the horticulture and the use of other sustainable techniques such as greenhouses to reduce the use of pesticides.
- v) In the coming planning period 2017-2021, the agricultural development will take place according to a two-track policy. Both the population and the medium- and large-scale agriculture will receive the necessary attention with the view to enhance the resilience of the sector. Development of the sector will more than ever be done in consultation with all stakeholders and actors.

As mentioned in section II regarding the NBAP 2012-2016, under sub-objective 2.5 “Responsible agriculture, causing less environmental damage”, in 2016, the National Master Plan for Agriculture Development in Suriname was finalized. This plan should serve as the basis for the development planning for the coming period. The principle of sustainability has been incorporated and is recommended to be the basis for further actions within the sector. Specifically, for the impacts on the environment in general and more specifically biodiversity from the agriculture sector, the focus will be on better resource use, concentrated in relatively few areas, use of environmentally-friendly cultivation methods, including limited and careful use of pesticides and fertilizers and the encouragement of organic agriculture.

- vi) The Fisheries Management Plan 2014 – 2018 is based on an ecosystem approach.

However, the government has not formally endorsed it yet. Currently, the Ministry of LVV and the Anton de Kom University of Suriname (AdeKUS) are working on an update of the plan.

- vii) The government has banned some unsustainable practices such as the use of cages for sea fisheries and has also introduced the Turtle Exclusion Device (TEDs) within the shrimp fisheries. Currently, other bycatch reduction devices are tested. In addition, the government is focusing on the introduction of Aquaculture as a more sustainable alternative to the growing need for fish nationally and internationally. The Aquaculture Act is being finalized. The Fisheries Department is also a party to the Caribbean and North-Brazil Shelf Large Marine Ecosystems (CLME+) Project, which was financed by the Global Environment Facility (GEF) (April 2015).
- viii) In 2017, the Ministry of Trade, Industry and Tourism (HI&T) presented its National Strategic Tourism Plan to the sector. With this plan the Ministry aims to diversify the economic sectors in Suriname to refocus certain unsustainable practices, such as ASGM using mercury, into eco- and nature tourism. In the period of 2011-2015, there has been an increase of 50.4% in the number of visitors to the Nature Reserves Raleigh Falls, Brownsberg Nature Park and Galibi sea turtle nesting areas.
- ix) In March of 2015, a new Energy Act was enacted, opening the way to produce renewable energy by other private companies. This Law will be implemented by the Energy Authority Suriname, a statutory body established by the Energy Authority Act of 2015. The focus on renewable energy is a major move of the government to create incentives for the private sector to invest in renewable energy plans. There has been a decrease of energy generation through hydro power within the period 2011-2015.
- x) The Ministry of RGB, who is responsible for wildlife management, has delegated this task to the Nature Conservation Division (NB). In practice, NB utilizes the Game Calendar for management of wild animals. The calendar categorizes wildlife animals as game, caged animals, and mainly endangered and protected animal species. The animals in these categories are protected during the whole year according to open and closed hunting seasons with bag limits. International traders in animal species and wild flora must apply for permits at NB, who manages the CITES and the Suriname Forest Service (LBB) permit system and supplies export quota information to CITES headquarters. Suriname has 45 CITES and 118 non-CITES species of mammals, birds, reptiles and amphibians listed for export. As mentioned in section II regarding the NBAP 2012-2016, under sub-objective 2.3 “Sustainable use of wildlife (terrestrial)”, efforts are in progress to adjust the game quota system, in which wildlife exporters have participated, and it is expected to finalize these efforts by the end of 2018.
- xi) The Forest management measures are implemented according to the Forest

Management Act (1992), the National Forest Policy (2005) and Interim Strategic Action Plan 2009 – 2013. These policy documents have fed the country's Draft National REDD+ Strategy. A draft Code of Practice has been formulated which includes a concrete guideline to reduce the impact of logging on the prevailing biodiversity.

Sustainable Forest Management is integrated within Suriname's (Intended) Nationally Determined Contribution to the Paris Agreement, and in the Country's Forest Reference Emission Level (FREL) submitted to the United Nations Framework Convention on Climate Change (UNFCCC) in 2018. The government supports any initiative regarding Forest Stewardship Council (FSC)-certification of the forestry companies. The LogPro system, a log tracking system that has been developed in house with technical assistance of the Food and Agriculture Organization (FAO) in 1998, also contributes to successful application of adequate "chain of custody" which is a requirement for Forest Certification.

A Roadmap for a National Forest Monitoring System (NFMS) was developed in 2017. In the period 2011 -2015, the production of round wood has increased by 52.9%, which has prompted the government to look into plans to reduce the export of round wood and strengthen the local processing capacities. The promotion and facilitation of the access to markets of four NTFPs is integrated in the Suriname Agriculture Market Access project (SAMAP-project).

- xii) Currently a four-year project (January 2017–December 2020) is being implemented named: Promoting Integrated Ocean and Participatory Governance in Guyana and Suriname: the Eastern Gate to the Caribbean. Partners include WWF Guianas, GHFS and the Nature Conservation Division of the Suriname's Forest Service and the Protected Areas Commission (PAC) in Guyana. The project aims to significantly enhance the governance and protection of marine and coastal resources of Guyana and Suriname through collaborative processes with all ocean stakeholders, improved knowledge of the coastal and marine environment, enhanced capacity of key stakeholders and informed marine spatial management. The project covers the coastal (upstream until the brackish water line) and marine areas (Exclusive Economic Zone, EEZ) of Suriname and Guyana. The project area supports important fisheries, major nursery grounds, spawning grounds and a rich diversity of marine species and is of both regional and global significance. Whilst key threats are recognized (overfishing of some species; increased hydrocarbon exploration) there are significant data gaps which hamper efforts to sustainably manage the marine environment.

In addition to government initiatives, also the private sector is working towards sustainable production and consumption, given the fact that several companies in the mining industry, food and beverage, and transport sector have an environmental management system in place or are ISO 14001 certified. In addition, the number of certified

forestry companies has increased from four in 2014 to five in 2016.

The government and private businesses are in a transition phase, moving away from traditional, “business as usual” production paths to more sustainable ones. This gives a clear sign of progress toward the achievement of the target. Furthermore, no study has been done on consumption patterns to establish if these have become more sustainable and if the impacts are within safe ecological limits. Also, it is not clear if steps are taken at all levels and how far reaching the current initiatives are, and if the target of 2020 will be met.

### **Indicators used in this assessment**

- Data on the use of natural resources and/or related concepts
- Data on numbers of visitors to the Protected Areas
- Data on numbers of CITES and non-CITES species listed for trade
- Data on numbers of certified forestry companies

### **Please describe any other tools or means used for assessing progress**

Desktop study, expert opinion and stakeholder consultations (questionnaires and interviews) during the period of July – November 2018.

### **Relevant websites, web links and files**

#### *Documents:*

- NFMS Roadmap – Status and Plans for Suriname’s National Forest Monitoring System:  
[https://info.undp.org/docs/pdc/Documents/SUR/NFMS\\_Roadmap\\_Suriname\\_final2016.p df](https://info.undp.org/docs/pdc/Documents/SUR/NFMS_Roadmap_Suriname_final2016.pdf)
- Assessment of International Wildlife Trade in Suriname, A Focus on the Live Wild Caught Animal Trade 2002-2009, M. Small (thesis):  
[http://www.academia.edu/33021890/THESIS\\_Assessment\\_of\\_International\\_Wildlife\\_Tra de\\_in\\_Suriname\\_20130815\\_final](http://www.academia.edu/33021890/THESIS_Assessment_of_International_Wildlife_Tra de_in_Suriname_20130815_final)
- Milieustatistieken 2016 (Environmental Statistics 2016): <http://www.statistics-suriname.org/index.php/statistieken/downloads/category/34-milieu-publicatie-2012>
- HI&T – Nationaal Strategisch Tourisme Plan 2018-2030 (National Strategic Tourism Plan 2018-2030):  
<https://drive.google.com/file/d/1D8917UpLYf6TsEwJddNyJBjKqUUIv10/view>

- LVV – Visserij Management Plan voor Suriname 2014-2018 (Fisheries Management Plan 2014-2018):  
[http://www.gov.sr/media/968160/visserij\\_management\\_plan\\_voor\\_suriname.pdf](http://www.gov.sr/media/968160/visserij_management_plan_voor_suriname.pdf)
  - LVV – National Masterplan for Agricultural Development:  
<https://www.share4dev.info/kb/documents/5426.pdf>
  - Ontwikkelingsplan 2017-2021: <http://www.planningofficesuriname.com/wp-content/uploads/2017/05/OP-2017-2021-Ontwikkelingsprioriteiten-van-Suriname-1.pdf>
- Policy Development Plan 2017-2021: <http://www.planningofficesuriname.com/wp-content/uploads/2018/02/2017-2021-DEVELOPMENT-PLAN.pdf>
- Guidance Note NIMOS Environmental Assessment Process:  
<http://www.nimos.org/smartcms/downloads/Final%20Guidance%20Note%20NIMOS%20EIA%20Process%202017.pdf>

#### **Level of confidence of the above assessment**

- Based on comprehensive evidence
- Based on partial evidence
- Based on limited evidence

#### **Please provide an explanation for the level of confidence indicated above.**

Due to the lack of translation of international targets to national circumstances, it is not possible to give a quantifiable assessment of Suriname's progress towards the achievement of this target. The assessment can only be done through the use of expert opinion and stakeholder consultations.

#### **Adequacy of monitoring information to support assessment**

- Monitoring related to this target is adequate
- Monitoring related to this target is partial (e.g. only covering part of the area or issue)
- No monitoring system in place
- Monitoring is not needed



**Please describe how the target is monitored and indicate whether there is a monitoring system in place.**

It is recommended that the government in collaboration with the private sector work out plans to promote and implement sustainable consumption at the national level, cross-cutting different areas.

### **Aichi Biodiversity Target 5**

*By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.*

#### **Category of progress towards the implementation of the selected target**

- On track to exceed target
- On track to achieve target
- Progress towards target but at an insufficient rate
- No significant change
- Moving away from target
- Unknown

#### **Date the assessment was done**

Mid-August 2018

#### **Additional information**

With a forest cover of 93%, Suriname is one of the most forested countries in the world. Its forest is part of the Guiana Shield tropical rainforest eco-region, one of the largest contiguous and relatively intact, forested eco-regions in the world. Suriname has a forest cover of 28 ha per capita. The vegetation of Suriname has been categorized into three main types: hydrophytic forest (1.3 million ha), xerophytic forest (150,000 ha) and mesophytic forest (13.4 million ha). Commercially the mesophytic forest is seen as the most valuable vegetation type.

Based on a study, the proximate drivers of deforestation in Suriname from 2000 to 2015 were mining, road infrastructure and agriculture (UNIQUE, 2016). All drivers of deforestation have increased over that time. In terms of forest degradation, shifting cultivation and forestry are the two main proximate drivers identified.

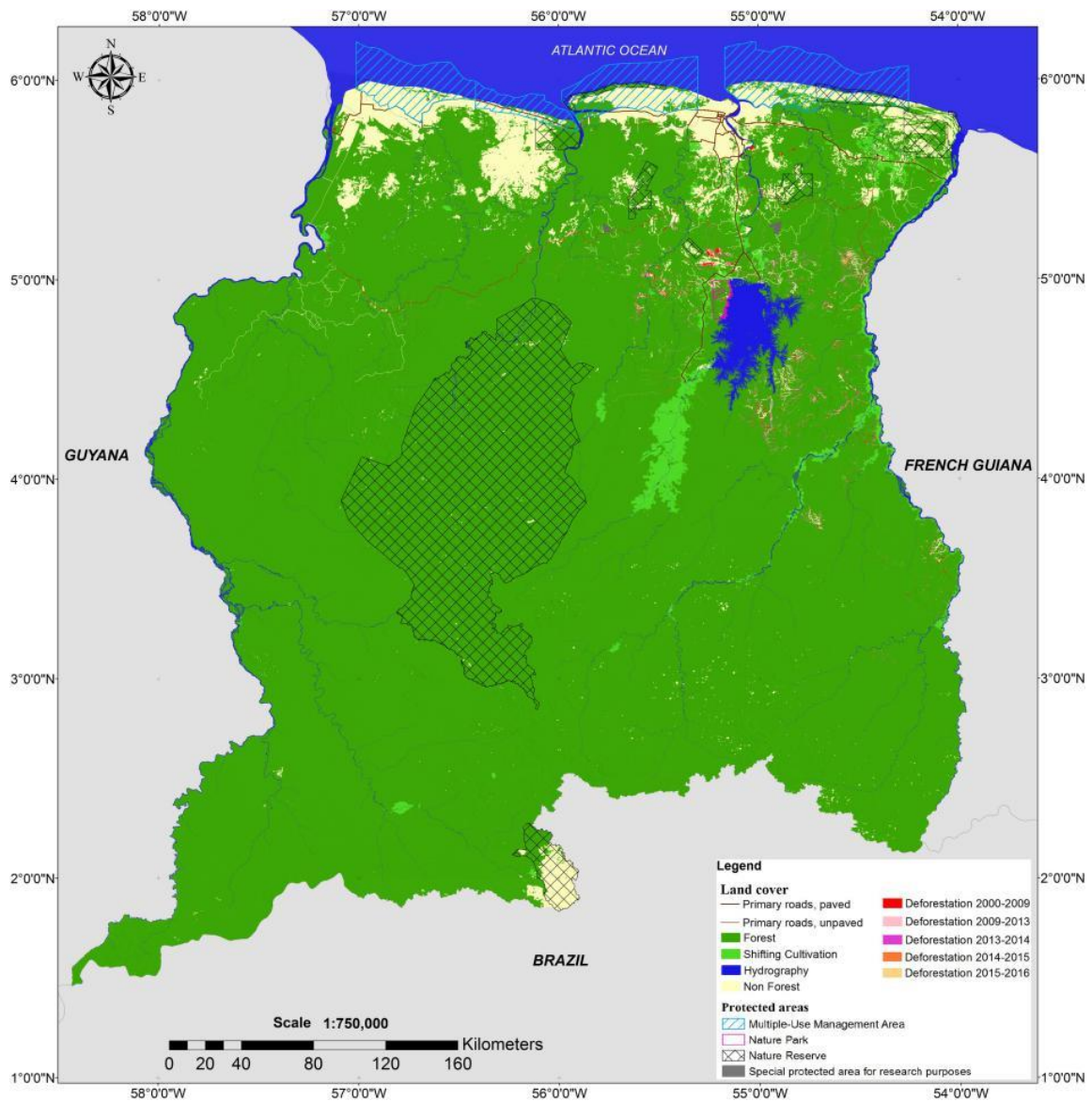
Through the REDD+ program that is currently in its readiness phase, there is a heavy focus on maintaining the forest cover status and improving those areas that are currently considered to be degraded or deforested in any way. A Draft National REDD+ Strategy has been prepared but not yet officially endorsed by the government. However, for further development of the country, support from the international community is indispensable.

Sustainable forest management through extensive logging has been practiced in the country since after the Second World War. To date this system is being managed and monitored by SBB. As mentioned in section II regarding the NBAP 2012-2016, under sub-objective 2.2 “Sustainable forestry – both logging and harvest of plant NTFPs – and forest restoration”, Forest management measures are implemented according to the Forest Management Act 1992, National Forest Policy 2006, Interim Strategic Action Plan 2009–2013 and a DRAFT National Plan for Forest Cover Monitoring 2014. The intention of the government to participate in the REDD+ program under the UNFCCC has greatly enhanced the focus on sustainable forest management, and more specifically on the forest monitoring. Partly through the REDD+ preparation project, SBB has been able to develop Land Use and Land Use Cover (LULC) maps with the use of Geographic Information System (GIS) data.

Also, the development of instruments such as a FREL in 2018 have played an important role in gathering data on the state of the forest and its degradation. Through SBB, satellite images are available from 1990 onwards. The satellite images are: Landsat 5,7 and 8, Spot, Sentinel 1 and 2, and only a few radar images. In addition, there are also deforestation maps that reflect the change in forest cover over time. These are available from 2009 onwards and of which 2000 is the reference year. There are also LULC maps available from 2009, 2013 and 2015. A National LULC map is currently being worked on for the year 2015.

Over the period of 2009–2015 there has been a slight decrease in forest cover from 93% to 92.6%. In this period, the forest has decreased by 0.4% that amounts to 604 ha [**Figure 2**].

Based on this information, it can be stated that habitat loss is not a major issue for Suriname, however measures are being taken to monitor this closely.



**Figure 2. Overview of deforestation in Suriname in the period 2000-2016**

Kindly provided by SBB. For further information, please visit the website <http://gonini.org/>.

### Indicators used in this assessment

- Data on forest cover
- Progress towards sustainable forest management (indicator for SDG target 15.2)
- Natural habitat extent (land area minus urban and agriculture)
- Proportion of land that is degraded over total land area (indicator for SDG target 15.3)

### **Please describe any other tools or means used for assessing progress**

Desktop study, expert opinion and stakeholder consultations (questionnaires and interviews) during the period of July – November 2018.

### **Relevant websites, web links and files**

#### *Documents:*

- Final Draft Suriname REDD+ Vision and Strategy 2018
- Surinaamse Bosbouw Sector 2016, SBB (Report Forestry Sector 2016): <http://sbbsur.com/wp-content/uploads/2018/02/Rapport-Bosbouw-Sector-2016.pdf>
- NIMOS, SBB and UNIQUE (2016). Background study for REDD+ implementation in Suriname: Multi-perspective analysis of drivers of deforestation, forest degradation and barriers to REDD+ activities. Paramaribo, Suriname: <https://www.surinameredd.org/media/1183/ddfdbplus-study-inception-report.pdf>
- Milieustatistieken 2016 (Environmental Statistics 2016): <http://www.statistics-suriname.org/index.php/statistieken/downloads/category/34-milieu-publicatie-2012>

#### *Web links:*

- LULC, deforestation maps and others: <http://www.gonini.org/>
- SBB: [sbbsur.com](http://sbbsur.com)

### **Level of confidence of the above assessment**

- Based on comprehensive evidence
- Based on partial evidence
- Based on limited evidence

### **Please provide an explanation for the level of confidence indicated above.**

Based on reports and forest cover maps that are produced on a regular basis by national institutes such as SBB (<http://www.gonini.org/>).

### **Adequacy of monitoring information to support assessment**

- Monitoring related to this target is adequate
- Monitoring related to this target is partial (e.g. only covering part of the area or issue)
- No monitoring system in place
- Monitoring is not needed

**Please describe how the target is monitored and indicate whether there is a monitoring system in place.**

*Document:*

Forest cover monitoring under SBB – National Plan for Forest Cover Monitoring (2014):  
[http://sbbsur.com/wp-content/uploads/2015/06/Forest\\_Cover\\_Monitoring\\_Plan\\_FCMP\\_Suriname.pdf](http://sbbsur.com/wp-content/uploads/2015/06/Forest_Cover_Monitoring_Plan_FCMP_Suriname.pdf)

**Relevant websites, web links and files**

*Web link:*

<http://www.gonini.org/>

### **Aichi Biodiversity Target 6**

*By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.*

### **Category of progress towards the implementation of the selected target**

- On track to exceed target
- On track to achieve target
- Progress towards target but at an insufficient rate
- No significant change
- Moving away from target
- Unknown

## **Date the assessment was done**

Mid-August 2018

## **Additional information**

The fisheries sector is important for the economy of Suriname. Small-scale fisheries (*bevolkingsvisserij*) are important for the provision of the local market, however the overall contribution of the fisheries sector to the GDP was 4.8% in 2016.

In 2011-2015, the shrimp- and fish catches show an increase of 23.7% and the types of shrimp that are caught the most are the Sea shrimp and the Atlantic Seabob. For eight shrimp and fish species the percentage of stocks within safe biological limits is 100% (based on FAO estimates), but for all the fish in Suriname the estimated percentage is 65%.

For all three types of trawlers (large shrimp, seabob and finfish) from 2001 to 2011, the number of issued licenses has never exceeded the maximum allowed number. From 1963 to 1987 there was an increasing trend for shrimp trawlers and from 1990 to 2016 a decreasing trend especially for large shrimp.

As mentioned in section II regarding the NBAP 2012-2016, sub-objective 2.1 “Sustainable fisheries in the marine, estuary and inland waterways”, the Fisheries Management Plan 2014 – 2018 has been formulated since 2013 and is based on an ecosystem approach. Currently the Ministry of LVV and the AdeKUS are updating the plan. The plan states that all trawl fisheries should adopt the most suitable TEDs and Bycatch Reduction Devices (BRDs) to minimize bycatch and discards (LVV Fisheries Department, 2013). These efforts are now being supported by the regional FAO/GEF project REBYC-II LAC.

According to the conditions of their permits, the sector has been using TEDs since 1999 and BRDs since 2009. Out of baselines studies done in December 2017, it was concluded that the highest bycatch-to-target catch ratios in the Suriname were: trawl fisheries in the shrimp trawl fishery (5:1) followed by the finfish trawl fishery (1:1) and the seabob trawl fishery (0.8:1). Following this study, another study was done in which other bycatch reduction devices, namely the Turtle and Trash Excluder Devices (TTEDs) with 2” and 3” bar-spacing were tested. Both experimental TTEDs performed very well in the reduction of bycatch, while retaining and even improving the target catch. The possibility to introduce these alternative bycatch reduction devices will be further explored under this project.

Suriname is also participating in the CLME+ Project (UNDP/GEF) (2015-2020). This project aims at facilitating Ecosystem-Based Management (EBM) and implementation of the Ecosystem Approach to Fisheries (EAF) in the CLME+ region, to ensure the sustainable and climate-resilient provision of goods and services from shared living marine resources.

By making the Vessel Monitoring System (VMS) on all fishing boats under Surinamese flag

mandatory, Suriname is also focusing on the fight against Illegal, unreported and unregulated (IUU) fishing in its territorial waters. Although the Ministerial order has been issued, not all vessels adhere to the rules. Also, Suriname is currently working on becoming a party to the Agreement on Port State Measures (PSMA) under the International Maritime Organization (IMO). This is the first binding international agreement to specifically target illegal, unreported and unregulated fishing. Its objective is to prevent, deter and eliminate IUU fishing by preventing vessels, engaged in IUU fishing, from using ports and landing their catches.

Currently a Community Fishery Improvement Project (CFIP) is ongoing in collaboration between the Ministry of LVV (Fisheries Department) and The Fishing Collective of the districts of Commewijne and Paramaribo. This project is aimed at managing the driftnet fishing of the bang-bang (*Cynoscion acoupa*) and kandratiki fish (*Cynoscion virescens*) within this Collective.

The project Promoting Integrated Ocean and Participatory Governance in Guyana and Suriname: the Eastern Gate to the Caribbean (January 2017 – December 2020) will support important fisheries, major nursery grounds, spawning grounds and a rich diversity of marine species and is of both regional and global significance. Besides key threats (overfishing of some species; increased hydrocarbon exploration), there are significant data gaps that hamper efforts to sustainably manage the marine environment.

Suriname has been making progress towards the achievement of this target, but will not be able to reach it by 2020.

#### **Indicators used in this assessment**

- Data on certified sustainable fisheries
- Data on proportion of depleted, target and bycatch species with recovery plans
- Data on population and extinction risk in target and bycatch
- Data on fishing practices
- Data on proportion of fish stocks outside safe biological limits
- Data on catch per unit effort

#### **Please describe any other tools or means used for assessing progress**

Desktop study, expert opinion and stakeholder consultations (questionnaires and interviews) during the period of July – November 2018.

#### **Relevant websites, web links and files**

*Documents:*

- WWF Report on Marine Management in Suriname 2017
- CBD GAP analysis and legislative review report: [http://www.abs-initiative.info/fileadmin/media/Knowledge\\_Center/Pulications/Concept\\_Gap\\_Analysis/Co\\_ncept - National ABS Gap Analysis - ABS-I 20161116.pdf](http://www.abs-initiative.info/fileadmin/media/Knowledge_Center/Pulications/Concept_Gap_Analysis/Co_ncept_-_National_ABS_Gap_Analysis_-_ABS-I_20161116.pdf)
- LVV – Visserij Management Plan voor Suriname 2014-2018 (Fisheries Management Plan 2014-2018):  
[http://www.gov.sr/media/968160/visserij\\_management\\_plan\\_voor\\_suriname.pdf](http://www.gov.sr/media/968160/visserij_management_plan_voor_suriname.pdf)
- FAO Regional Fishery Bodies (RFB), Newsletter no.17, July 2018:  
<http://www.fao.org/3/ca0133en/CA0133EN.pdf>
- REBYC II- LAC Project Documents:
  - Evaluating Trash-and-Turtle Excluder Devices (TTEDs) for bycatch reduction in Suriname’s seabob shrimp trawl fishery , December 2017
  - Project Bycatch and discards in Suriname trawl fisheries (2012 – 2017), a baseline study, December 2017
- Fisheries Management Plan of Suriname: Seabob shrimp (*Xiphopenaeus kroyeri*) 2016 - 2021), Fisheries Department

*Web links:*

- Agreement on Port State Measures (PSMA): <http://www.fao.org/port-state-measures/en/>

**Level of confidence of the above assessment**

- Based on comprehensive evidence
- Based on partial evidence
- Based on limited evidence

**Please provide an explanation for the level of confidence indicated above.**

Currently, Suriname does not possess relevant and quantifiable data to support a sound assessment of progress towards the achievement of this target.

**Adequacy of monitoring information to support assessment**



- Monitoring related to this target is adequate
- Monitoring related to this target is partial (e.g. only covering part of the area or issue)
- No monitoring system in place
- Monitoring is not needed

**Please describe how the target is monitored and indicate whether there is a monitoring system in place.**

In order to effectively assess progress on this target it is necessary to gather more data on fish stocks, not limiting to the fish species most demanded but having a more overall view. Also, data on sea mammals and other marine environment should be gathered.

**Aichi Biodiversity Target 7**

*By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.*

**Category of progress towards the implementation of the selected target**

- On track to exceed target
- On track to achieve target
- Progress towards target but at an insufficient rate
- No significant change
- Moving away from target
- Unknown

**Date the assessment was done**

Mid-August 2018

**Additional information**

The focus areas – agriculture, aquaculture and forestry – are also embedded in the Development Plan 2017-2021.

**Agriculture:** Regarding the agriculture sector, a geographic overview for land suitable for agriculture activities is given in the Development Plan 2017-2021. For agriculture, six zones

are identified for agricultural purposes, for example zones suitable for horticulture, aquaculture and rice cultivation. The zoning of land based on sustainable use was mentioned in section II regarding the NBAP 2012-2016 under sub objective 1.3 “Rational designation and use of land, taking into account biodiversity conservation and the impact of disasters”.

As mentioned in section II regarding the NBAP 2012-2016, sub-objective 2.5 “Responsible agriculture, causing less environmental damage”, in 2016, a National Master Plan for Agricultural Development in Suriname was developed.

In the agricultural sector a project started in December 2017. This project “Suriname Agriculture Market Access project” (SAMAP) was initiated by the Ministry of LVV and financed by EU. For the period of four years, the strategic objective under the FAO will be achieved by enabling more inclusive and efficient agricultural and food systems and identifying main priority areas.

Also contributing to this target is the training in pesticides inspection. In December 2017, a training workshop was held for pesticides inspectors and custom officers. This training was organized by the Ministry of LVV under the ACP-MEAs Program and with financial support of FAO. The outcome of the workshop was that 20 pesticide inspectors and 14 custom officers were trained in managing pesticides and enforcing relevant national and international conventions in accordance with the Basel, Rotterdam and Stockholm Conventions.

Suriname is a member of the Coordinating Group of Pesticides Control Boards of the Caribbean (CGPC). The CGPC was founded in 1995 and is comprised of representatives from pesticides and chemical boards or authorities of twelve countries of the Caribbean. The CGPC meets on an annual basis to discuss pesticides management in the Caribbean. As part of the awareness program, CGPC organizes on an annual basis an awareness week around the third week of September with the focus on the benefits and negative effects of the use of pesticides. The theme for 2018 was “Increase food safety and reduce dependence of pesticides by applying Integrated Pest Management (IPM)”. During this awareness week, several education activities are held.

**Aquaculture:** As mentioned in section II regarding the NBAP 2012-2016, under objective 2 “Sustainable use of biodiversity” sub-objective 2.1 “Sustainable fisheries in the marine, estuary and inland waterways”, for the fishery sector, there are existing legal regulations such as Fish Stocks Protection Act 1961 (Visstandbeschermingswet), the Sea Fisheries Act 1980 (Zeevisserijwet) and the Fish Inspection Act 2000 (Viskeuringswet). Also, a Fishery Management Plan 2014-2018 is developed for sustainable fisheries in Suriname. International guidelines for sustainable fisheries (the ecosystem approach) are embedded in the Fishery Management Plan 2014-2018. The ecosystem approach is sustainable by balancing the sustainable use of the fish stocks and at the same time minimizing the impact on the environment.

Apart from making the sea fisheries sector more sustainable, the government is also focusing

on the introduction of aquaculture as a more sustainable alternative to the growing need for fish nationally and internationally. The draft Aquaculture Act is currently being finalized.

**Forestry:** As for the forestry sector, Suriname, as a high forest cover (93%) and low deforestation country (HFLD country), wishes to maintain its status as one of the most forested countries, thus reducing emissions from deforestation, and forest degradation (REDD+) is seen as a tool for sustainable development. Since 2012, Suriname is in the Readiness Phase of the REDD+ program of the UNFCCC.

As mentioned in section II regarding the NBAP 2012-2016, under objective 2 “Sustainable use of biodiversity” sub-objective 2.2 “Sustainable forestry – both logging and harvest of plant NTFPs – and forest restoration”, a National Forest Monitoring System (NFMS) was developed by SBB, a work arm of the Ministry of RGB and is the management authority in the forestry sector. This roadmap envisages that monitoring activities will be continued, improved and institutionalized. This document emphasizes the importance of forest monitoring as an added value in national processes and international reporting.

In 2016, SBB also developed a geo-portal (<http://gonini.org/>), which is a national land monitoring system for Suriname, with support of the REDD+ project (2014-2018). This system gives an overview of geographic information regarding forest cover, protected areas, mangrove areas and monitoring with local communities.

With regards to its enforcement activities, SBB has ten checkpoints (field control stations) all over the country.

For the agriculture, aquaculture and forestry sectors, data (environment statistics) has been produced by the General Bureau of Statistics (ABS). In the Environment Statistics Publication of 2016, an overview of tables with regards to fish catches, marine areas, agriculture areas and land use are given.

The total fish catches in 2015, by type of fishery, was 6,821 ton (shrimp catches) and 37,094 ton (marine and other fish types) (Environmental Statistics 2016 table 9.1). Compared to 2014, the total fish catches have increased.

Annual crops	61,932.00
Semi-perennial crops	2,782.00
Perennial crops	2,997.00
<b>Total</b>	<b>67,711.00</b>

For marine areas (proportion of terrestrial and marine areas), statistics show that this covers 13.2 % of the total land area (Environmental Statistics 2016 table 9.5). There has been no change in this number also before 2015.

In 2015, the total cover of cultivated land by crops was 67,711 ha. Compared to 2014, this number has decreased (Environmental Statistics 2016 table 10.1 & 10.2). A detailed overview is given below.

In 2015, total cover of grassland for cattle stocks was 16,329 ha. Compared to 2014, this number has also decreased (Environmental Statistics 2016 table 10.5).

As for the import of pesticides, in 2015 a total of 1,990,514.02 liters was imported compared to 1,480,617.49 liters in 2014 (Environmental Statistics 2016 table 10.8). A detailed overview for 2015 is given below.

<b>Table 2. Import of pesticides (in liters) in 2015</b>	
Insecticides	249,529.50
Herbicides	795,092.80
Fungicides	744,181.78
Rodenticides	14,038.00
Molluscides	19,600.00
Household supplies (aerosols)	168,071.94
<b>Total</b>	<b>1,990,514.02</b>

Conclusion: based on aforementioned data there are activities that contribute to this target. Therefore, progress is being made towards this target.

### **Indicators used in this assessment**

- Data on forestry (2015-2016) and agricultural ecosystems under sustainable use (2015)
- Data on planted area and crops (2015-2016)
- Data on cultivated lands (2015)
- Data on grass land for cattle stock (2015-2016)
- Data on pesticide imports (2015-2017)

### **Please describe any other tools or means used for assessing progress**

Desktop study, expert opinion and stakeholder consultations (questionnaires and interviews) during the period of July – November 2018.

## Relevant websites, web links and files

### Documents:

- Assessment of the forest cover and deforestation rate in Suriname:  
<http://sbbsur.com/wp-content/uploads/2016/01/SBB-Assessment-of-the-forest-cover-and-the-deforestation-rate-in-Suriname.pdf>
- Milieustatistieken 2016 (Environmental Statistics 2016): <http://www.statistics-suriname.org/index.php/statistieken/downloads/category/34-milieu-publicatie-2012>
- Ontwikkelingsplan 2017-2021: <http://www.planningofficesuriname.com/wp-content/uploads/2017/05/OP-2017-2021-Ontwikkelingsprioriteiten-van-Suriname-1.pdf>  
Policy Development Plan 2017-2021: <http://www.planningofficesuriname.com/wp-content/uploads/2018/02/2017-2021-DEVELOPMENT-PLAN.pdf>
- LVV – Visserij Management Plan voor Suriname 2014-2018 (Fisheries Management Plan 2014-2018):  
[http://www.gov.sr/media/968160/visserij\\_management\\_plan\\_voor\\_suriname.pdf](http://www.gov.sr/media/968160/visserij_management_plan_voor_suriname.pdf)
- Surinaamse Bosbouw Sector 2016, SBB (Report Forestry Sector 2016):  
<http://sbbsur.com/wp-content/uploads/2018/02/Rapport-Bosbouw-Sector-2016.pdf>

## Level of confidence of the above assessment

- Based on comprehensive evidence
- Based on partial evidence
- Based on limited evidence

## Please provide an explanation for the level of confidence indicated above.

Desktop study, expert opinion and stakeholder consultations (questionnaires and interviews) during the period of July – November 2018.

## Adequacy of monitoring information to support assessment

- Monitoring related to this target is adequate
- Monitoring related to this target is partial (e.g. only covering part of the area or issue)
- No monitoring system in place
- Monitoring is not needed

**Please describe how the target is monitored and indicate whether there is a monitoring system in place.**

Partial monitoring systems are in place. For the forestry sector – as mentioned before – a NFMS is in place with the Gonini portal as a tool. On an annual basis, SBB produces the Forestry Sector Analysis reports. In these annual reports of SBB, trends in the forestry sector are reported with regards to deforestation, land use after deforestation and drivers of deforestation.

**Relevant websites, web links and files**

*Web links:*

- Gonini portal: <http://gonini.org/>
- General Bureau of Statistics – Environmental Statistics publications: <http://www.statistics-suriname.org/index.php/statistieken/downloads/category/34-milieu-publicatie-2012>

**Aichi Biodiversity Target 8**

*By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.*

**Category of progress towards the implementation of the selected target**

- On track to exceed target
- On track to achieve target
- Progress towards target but at an insufficient rate
- No significant change
- Moving away from target
- Unknown

**Date the assessment was done**

Mid-August 2018

## **Additional information**

In the line of further structuring the management and protection of the water resources, the Ministry of NH initiated draft legislation. These are: 1. Draft law on supervision of drinking water quality 2. Draft law on ground water and 3. Draft law on ground water protection areas.

These draft laws, with regards to water quality and protection, dated before 2015. However, the Ministry of NH has made continuous efforts to revise these draft laws. A milestone in this process is the approval of these three laws by the Council of Ministers in December 2017. The Council of Ministers has also approved the draft law regarding the establishment of the Surinamese Water Authority. The Ministry of NH is since end of 2018 in the process of drafting the corresponding State Orders.

The next steps are that this draft legislation (laws and corresponding State Orders) will be presented to Parliament for further discussion and approval.

As for pollution, Suriname is party to relevant international conventions, such as the Stockholm Convention on Persistent Organic Pollutants (2011), the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (2004), the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (2011) and recently the Minamata Convention on Mercury (2018).

The Stockholm Convention is a global treaty to protect human health and the environment from chemicals that remain intact in the environment. As party to this Convention since 2011, the same year Suriname submitted a National Implementation Plan (NIP), which describes the background of the Persistent Organic Pollutants (POPs) issues in Suriname and the current situation of the POPs substances. Furthermore, the NIP details all the strategies and actions, which need to be undertaken in order to meet all the obligations of the Convention. From the 3 major groups of POP's found, in Suriname all POPs pesticides listed under the SC in Annex A are banned with the exemption of chlordecone and pentachlorobenzene (PeCB). These have not been banned but are not registered or used.

For the industrial chemicals, polychlorinated biphenyl (PCB) and polychlorinated naphthalenes (PCNs), which are found in capacitors and transformers, are closely monitored by N.V. EBS. Polybrominated diphenyl ethers (PBDEs), which are brominated flame-retardants, are unintentionally produced POPs. In 2016, all obsolete pesticide stockpiles have been removed.

Under the Regional POPs Project (2015-2020), funded by the GEF, executed by United Nations Industrial Development Organization (UNIDO) and implemented by Basel Convention Regional Centre for Training and Technology Transfer for the Caribbean Region (BCRC Caribbean), Suriname is updating the NIP of 2011. In 2017, an Inventory of POPs in Suriname was done and now CM is in the process of finalizing this NIP Update.

Since 2004, Suriname is Party to the Rotterdam Convention and since 2011, Party to the Basel Convention. In the FAO/GEF project “Disposal of obsolete pesticides including POPs, promotion of alternatives and strengthening pesticides management in de Caribbean” (2015-2019), coordinated by the Ministry of LVV at national level, between September and August 2016 a pesticide stockpile of 96.4 tons (six of 40 feet containers) have been removed from Suriname and incinerated in the United Kingdom (UK). This information was also mentioned in section II regarding the NBAP 2012-2016, sub objective 1.5 “Spread of dangerous objects, substances or organisms in natural ecosystems limited and under control”. This action was part of the 319 tons of obsolete pesticides that are removed from the Caribbean. This removal is done in accordance to the Basel Convention guidelines.

In March 2018, Parliament approved the ratification of the Minamata Convention on Mercury. This Convention is a global treaty to protect human health and the environment from the adverse effects of mercury. As part of the process toward implementation, a National Inventory of Mercury Releases in the Republic of Suriname was conducted in 2018. For this, the use of the UNEP "Toolkit for identification and quantification of mercury releases" was made available by the Chemicals Branch of the United Nations Environment Program (UN Environment Chemicals). This is the two-tier mercury inventory preceded by a tier 1 mercury inventory in 2016. The final report is expected by the end of 2018. This was also mentioned in section II regarding NBAP 2012-2016, sub objective 1.5.

Regarding bio-monitoring of pollutants, in 2016 the *Meki Tamara* project is implemented/conducted by the Scientific Research Center Suriname (SRCS) of the Academic Hospital in cooperation with the National Zoological Collection of Suriname (NZCS) of the AdeKUS and Tulane University, under the Caribbean Public Health Agency (CARPHA). This project aims to research the effect of mercury and pesticides on the health of mothers and the unborn children. As part of the research method, pregnant women from rural and urban areas are being investigated. Children from these participating women are followed-up in the process of their physical and mental development until the age of four year.

With regards to water quality, the Bureau for Public Health (BOG) conducts testing for potable water, water for consumption purposes (bottled water, water used and processed in food products) and for recreation and tourist facilities in accordance with the Pan American Health Organization (PAHO) and CARPHA guidelines. Water quality testing for potable water, including bacterial and chemical, is done monthly and testing for waterbodies at recreation and tourist facilities on an annual basis. For treatment, BOG only gives advice and guidance in the process. For wastewater, there are still no legal regulations in place, so BOG only has an advising role concerning wastewater treatment and management.

On request, BOG also conducts testing on pesticides and POP residues in (breastfeeding) milk and residues of mercury in human samples. The aforementioned is done under supervision of the Ministry of LVV.

In addition, a number of fish species in Suriname has been examined on mercury levels (dr.



Jan Mol, AdeKUS) and categorized in four classes (Environmental Statistics 2016 table 9.9), namely:

- Class 1: <0.10 µg mercury per gram fish – considered safe to eat, including the *Tarpon atlanticus* (Tarpon or trapoen), *Centropomus spp* (Snook) and the *Nebris microps* (Smalleye croaker, butterfish);
- Class 2: 0.11-0.30 µg mercury per gram fish – containing a little bit of mercury, including the *Lutjanus purpureus* (Southern red snapper) and *Cynoscion virescens* (Green weakfish or Kandratiki);
- Class 3: 0.31-0.50 µg mercury per gram fish – close to the border of the maximum mercury level for fish according to EU standards, including the *Lutjanus synagris* (Lane snapper), *Hoplias aimara* (Anjumara) and the *Plagioscion spp* (Kubi);
- Class 4: >0.50 µg mercury per gram fish – above the border for the maximum mercury level for fish according to EU standards, including the *Hoplias malabaricus* (Wolf fish or Patakka), *Hoplerythrinus unitaeniatus* (Gold wolf fish or Walapa) and the *Caranx hippos* (Crevalle jack or Zeezalm).

With regards to emissions from the mining sector, sulfurdioxide (SO<sub>2</sub>), nitrogenoxides (NO<sub>x</sub>) and mercury (Hg) emissions from the bauxite sector decreased, as observed in the period 2011 until November 2015 (Environmental Statistics 2016 table 12.2); whereas greenhouse gas emissions from the Iamgold Rosebel Gold Mines N.V. increased (Environmental Statistics 2016 table 12.4). Results are depicted in the tables below.

<b>Table 3. Emissions of the bauxite sector 2011-November 2015</b>						
<b>Type</b>	<b>Unit</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Nov 2015</b>
Sulfurdioxide (SO <sub>2</sub> )	ton	5,433.00	5,461.00	4,376.00	4,928.00	2,695.00
Nitrogenoxides (NO <sub>x</sub> )	ton	1,735.00	1,616.00	1,584.00	1,501.00	992.00
Mercury (Hg)	kg	2,433.00	1,769.00	*721.00	605.00	-
				*mechanical improvement		

**Table 4. Greenhouse gas emissions from lamgold Rosebel Gold Mines N.V. 2011- 2015**

Parameter	Unit	2011	2012	2013	2014	2015
Greenhouse Gas Emissions	tons CO <sub>2</sub> e	111,443.00	125,431.00	144,296.00	214,848.00	148,593.00
Greenhouse Gas Emissions	tCO <sub>2</sub> e/t milled	0.01	0.01	0.01	-	-
GHG Intensity	tons CO <sub>2</sub> milled/ thousand tons milled	-	-	-	5.05	0.25

Conclusion: based on available data, it can be concluded that progress is being made with regards to Aichi Biodiversity Target 8.

#### **Indicators used in this assessment**

- Data on water quality testing for potable and for consumption purposes
- Data on bio-monitoring
- Data on fish species by mercury levels (2001)
- Data on greenhouse gas emissions by the bauxite sector (2011-Nov 2015)
- Data on greenhouse gas emissions by lamGold Rosebel Gold Mines N.V. (2011-2015)

#### **Please describe any other tools or means used for assessing progress**

Desktop study, expert opinion and stakeholder consultations (questionnaires and interviews) during the period of July – November 2018.

#### **Relevant websites, web links and files**

*Documents:*

- National Implementation Plan, 2011
- Mercury Levels in Women and Children from Interior Villages in Suriname, South

America: <https://www.ncbi.nlm.nih.gov/pubmed/29772808>

- Milieustatistieken 2016 (Environmental Statistics 2016): <http://www.statistics-suriname.org/index.php/statistieken/downloads/category/34-milieu-publicatie-2012>
- Jaarplan 2017 (National Annual Plan 2017): <http://www.planningofficesuriname.com/wp-content/uploads/2016/11/Jaarplan-2017.pdf>

*Web links:*

- POPs country profiles: <http://chm.pops.int/Countries/CountryProfiles/tabid/4501/Default.aspx>
- Meki Tamara: <http://www.researchcentersuriname.org/nl/mekitamara>

**Level of confidence of the above assessment**

- Based on comprehensive evidence
- Based on partial evidence
- Based on limited evidence

**Please provide an explanation for the level of confidence indicated above.**

In the Development Plan 2017-2021 there are some policy measures set out for pesticides, however only with regards to the use of pesticides in the agriculture sector. Other activities with regards to pollution are implemented on a project base as mentioned before.

**Adequacy of monitoring information to support assessment**

- Monitoring related to this target is adequate
- Monitoring related to this target is partial (e.g. only covering part of the area or issue)
- No monitoring system in place
- Monitoring is not needed

**Please describe how the target is monitored and indicate whether there is a monitoring system in place.**

- Meki Tamara Project: five-year monitoring system of women and environment is in place

- N.V. EBS monitors the POPs, chemical PCB
- Ministry of LVV monitors all pesticides including POPs and obsolete pesticides
- BOG does bio-monitoring of pesticides and POPs in human milk

### **Aichi Biodiversity Target 9**

*By 2020, Invasive Alien Species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.*

### **Category of progress towards the implementation of the selected target**

- On track to exceed target
- On track to achieve target
- Progress towards target but at an insufficient rate
- No significant change
- Moving away from target
- Unknown

### **Date the assessment was done**

Mid-August 2018

### **Additional information**

With regards to Invasive Alien Species (IAS) there is no mentioning of it in the Development Plan 2017-2021. Various initiatives and project activities were already mentioned in section II regarding the NBAP 2012-2016, under sub objective 1.5 “Spread of dangerous objects, substances or organisms in natural ecosystems limited and under control”.

Mention was made of a preliminary research conducted in 2016 by CM on the status of IAS in Suriname. The research focused on 3 questions: 1) Are IAS commercially traded?; 2) Are biological instruments being used in handling of IAS?; and 3) What policy measures are in place with regards to management and extermination of IAS? This research showed that there is no unambiguous definition for IAS. Participating organizations are using different definitions. Also, that there are insufficient and lack of legal regulations and laws with regards to IAS, in particularly protection against IAS. Furthermore, there is no coordinated program or protocol in place with regards to management of IAS.

Also, it was mentioned that in 2017, a survey was done in preparation of the Capacity-Building

Workshop for Caribbean Small Island Developing States towards Achieving Aichi Biodiversity Target 9 (Kingston, Jamaica). This research report includes among other things, an overview of IAS in Suriname, as well as (intentionally and unintentionally) introduced species. This study shows that in Suriname IAS of concern are identified and prioritized. Specifically, the *Bactrocera carambolae* (Carambola fruit fly) is on surveillance and measures have been taken to eradicate the population in the past. However, pathways for other IAS are not identified and prioritized. Various governmental and research institutions were involved in this survey.

The following governmental and non-governmental organizations have tasks related to IAS management:

- CM with regards to the coordination of environment policy.
- Ministry of Finance, Department of Customs, with regards to import and export of goods including plants and animals' species
- Ministry of LVV with regards to import permits of plants (parts) and seeds
- Ministry of RGB with regards to strict protection of the protected areas and wildlife import and export permits
- Anton the Kom University of Suriname (the Environmental Science and Agriculture Production studies (Bachelor's level), Sustainable Management of Natural Resources (SMNR) and Conservation Biology (studies at Master's level). Furthermore, plant training is also incorporated at the Pharmacology Department (Medical Faculty of the AdeKUS) with their research institutes.

One of the recommendations of this preliminary research was to ratify the Nagoya Protocol on Access and Benefit Sharing.

A project also contributing to achieving this Aichi Biodiversity Target is further mentioned under Aichi Biodiversity Target 19: project "Improve accessibility of Surinamese biodiversity data through digitizing and partnerships". This project started in 2017 for the duration of one year with funding of the European Union (EU) and Global Biodiversity Information Facility (GBIF). This project is conducted by the National Herbarium of Suriname (BBS), in cooperation with NZCS, Amazon Conservation Team (ACT) Suriname and the Anne van Dijk Rice Research Centre Nickerie (SNRI/ADRON). It aims to establish a publicly accessible national database for the flora and fauna of Suriname by sharing biodiversity data on, among others, IAS and weeds in rice fields.

Furthermore, also contributing to this target is the Global Taxonomy Initiative (GTI) project "Building technical expertise to enhance species detection for invasive alien species, pests, wildlife trade and biodiversity management", executed at the end of 2018 by NZCS together with BBS. The DNA barcoding training workshop held during this project aimed to upgrade the capacity to identify IAS, pests and other species for science, contribute to complete the list of IAS in Suriname and establishing a central national diagnostic laboratory. It was funded

through the CBD Secretariat with support from the Guelph University and Biodiversity Institute of Ontario (Canada). Eleven institutes covering government, academia and private sector were trained.

Conclusion: based on the available data, it may be concluded that some progress is made towards achieving this Aichi Biodiversity Target.

### **Indicators used in this assessment**

- Data on legal and institutional status of IAS management
- Data on identified and prioritized numbers of IAS species of concern
- Data on numbers of institutes trained in DNA barcoding for IAS detection

### **Please describe any other tools or means used for assessing progress**

Desktop study, expert opinion and stakeholder consultations (questionnaires and interviews) during the period of July – November 2018.

### **Relevant websites, web links and files**

#### *Documents:*

- Vooronderzoek naar IAS in Suriname (Preliminary Research on the status of Invasive Alien Species in Suriname, Cabinet of the President, Coordination Environment, January 2016)
- Survey on IAS management and Aichi Biodiversity Target 9 for Caribbean small-island developing states during a (CBD) Capacity building workshop, September 2017, Jamaica (CM)
- Global Taxonomy Initiative Training Courses:  
<https://www.cbd.int/doc/notifications/2017/ntf-2017-110-gti-en.pdf>

#### *Web links:*

- The GIASI Partnership Gateway: <http://giasipartnership.myspecies.info/en/country/SR>
- ISSG Global Invasive Species Database: <http://www.iucngisd.org/gisd/index.php>
- Global Invasive Species Database:  
<http://issg.org/database/species/search.asp?st=sss&sn=&rn=Suriname&ri=21964&hci=1&ei=-1&fr=1&sts=&lang=EN>

**Level of confidence of the above assessment**

- Based on comprehensive evidence
- Based on partial evidence
- Based on limited evidence

**Please provide an explanation for the level of confidence indicated above.**

The assessment was done through expert opinion and data made available by stakeholders through questionnaires.

**Adequacy of monitoring information to support assessment**

- Monitoring related to this target is adequate
- Monitoring related to this target is partial (e.g. only covering part of the area or issue)
- No monitoring system in place
- Monitoring is not needed

**Please describe how the target is monitored and indicate whether there is a monitoring system in place.**

No monitoring is currently taking place.

**Aichi Biodiversity Target 10**

*By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.*

**Category of progress towards the implementation of the selected target**

- On track to exceed target
- On track to achieve target
- Progress towards target but at an insufficient rate
- No significant change
- Moving away from target

Unknown

### **Date the assessment was done**

Mid-August 2018

### **Additional information**

Suriname is considered a carbon net sink country, as it absorbs more Green House Gases (GHG) than it produces. Therefore, our contribution to ocean acidification can be considered negative. These facts have guided Suriname's efforts in addressing pressures on our most vulnerable ecosystems. Below an overview is given of the most vulnerable ecosystems in the country that are impacted by climate change and the actions that have been taken.

One of our most vulnerable ecosystems impacted by climate change are the mangrove forests that are situated along the whole coastal line of the country. Climate change and other multiple anthropogenic pressures are already affecting these ecosystems. Since the early 2000, it was recognized by the government that the mangrove forests needed a special protected status, while also fulfilling its traditional functions, such as fish and hunting sources for the local communities. Nearly the entire coastline of Suriname falls within the country's protected area system. Only a section near the Eastern coast border and the highly urbanized central coastal area surrounding Paramaribo are excluded. Four MUMAs (245,000 ha) and six Nature Reserves (128,000 ha) are situated along Suriname's coastal zone. But rising urban development are one of the threats to mangrove forests. In this regard the AdeKUS has taken the lead and is currently doing research, with supported by Conservation International Suriname (CI Suriname) and others, on the use of sediment trapping as one method of capturing the highly fertile sediments from the Amazon River on our coast and providing a stable environment for mangroves to grow in areas where the mangrove forest have been under pressure.

Through the years, management plans have been prepared for protected areas along the coast of Suriname. The Ministry of RGB is currently revising some of these plans through stakeholder's engagement.

There is currently also a Bill (Act on Coastal Protection) at Parliament that specifically deals with the protection of mangroves, by prohibiting certain activities with a certain radius of the coastal mangrove forests. It is unclear when this Bill will be discussed in Parliament.

Offshore oil explorations are also seen as a big threat to the coastal area of the Guiana Shield. In anticipation of finding crude oil in Suriname's maritime area, the National Coordination Center for Disaster Management (NCCR) has worked on the formulation of a National Oil Spill Contingency Plan (NOSCP), in close collaboration with other very important stakeholders such as the Maritime Authority Suriname (MAS), Staatsolie N.V. (the State-owned Oil Company), NIMOS, District Commissioners and relevant Ministries. This Plan has been approved in 2016 and is under the responsibility of NCCR for implementation and coordination. Furthermore, all



offshore contractors are contractually mandated to do an ESIA and need approval of NIMOS before they can start their activities. Through this approach, the country, obtains critical data on its marine ecosystems. NCCR is currently preparing the revision of the NOSCP. This information is also mentioned in section II regarding sub objective 1.4 “Responsible mining with minimization of damage to the environment and biodiversity and environmental restoration” of the NBAP 2012-2016.

Another ecosystem which is also under pressure of climate change is the rainforest. This has stimulated the government of Suriname to take a more active approach in its efforts to conserve the forest. Through the years, a conservation approach was used with regards to logging. As mentioned earlier, the Centre for Agricultural Research in Suriname (CELOS) Management System has been in practice since the 1970’s and has now been further strengthened by more in-depth actions regarding forest cover monitoring, land use and land use change. The extractive industry, which has been identified as the main driver of deforestation, has motivated the government to implement projects on more environmentally conscious methods of extraction and rehabilitation of mined out areas. Suriname is currently implementing a REDD+ Project (2014-2018) and is in the national process of ratifying the Paris Agreement. On June 26th of 2018, the Parliament approved Suriname’s ratification of the Agreement and the instruments of ratification will be submitted. The signing of this Agreement had already taken place on 26 April 2016. Currently, CM together with other stakeholders is looking at ways to further update the Intended Nationally Determined Contributions (INDC) to become its first NDC.

With regards to coral reefs, it was long believed that there were no coral reefs present on the coast of the Guiana’s. In 2017 the existence of the Amazon Reef, which lies at the mouth of the Amazon River, was confirmed. Although for now it has been proven to extent from Brazil to French-Guiana, it is estimated that the Reef is 6 times larger than what is currently estimated (Greenpeace, 2018), making the possibility of reefs in Surinamese waters likely. Also, the fact that in 2017 Suriname extended its maritime borders and now has a maritime territory of 345 nautical miles, makes the existence of reefs in our maritime area very likely. But as mentioned earlier, due to the fact that Suriname was not aware of the existence of coral reefs in our waters it has not been the policy focus. As mentioned earlier data from ESIA’s for offshore crude oil explorations can be used in the future to formulate policy on this topic.

Suriname has yet to ratify Annex 6 of the International Convention for the Prevention of Pollution from Ships (MARPOL Convention), which provides guidelines for the prevention of GHG emissions from ships. However, with the enactment of the Act on Maritime Zones 2017 (Wet Maritieme Zones), the government has now incorporated the ban on dumping of waste and other forms of environmental pollutions within its territorial waters.

### **Indicators used in this assessment**

- Data on the extent and condition of other vulnerable ecosystems impacted by climate change or ocean acidification

### **Please describe any other tools or means used for assessing progress**

Desktop study, expert opinion and stakeholder consultations (questionnaires and interviews) during the period of July – November 2018.

### **Relevant websites, web links and files**

#### *Documents:*

- Wet Maritieme Zones SB 2017 no. 41 (Act on Maritime Zones):  
[http://www.dna.sr/media/190093/SB\\_2017\\_41\\_Wet\\_Maritieme\\_Zone.pdf](http://www.dna.sr/media/190093/SB_2017_41_Wet_Maritieme_Zone.pdf)
- Ontwerpwet Beschermde Kustgebied (2015) (Bill on Coastal Protection):  
[http://www.dna.sr/media/100559/15\\_435\\_initiatief\\_voorstel\\_wet\\_Beschermde\\_Kustgebied.pdf](http://www.dna.sr/media/100559/15_435_initiatief_voorstel_wet_Beschermde_Kustgebied.pdf)
- National Oil Spill Contingency Plan 2016:  
<http://www.racrempeitc.org/sites/default/files/Attachments/Signed%20NOSCP%20of%20Suriname.pdf>

#### *Web links:*

- Green Peace: <https://www.greenpeace.org/international/story/16583/5-things-you-need-to-know-about-the-amazon-reef/>

### **Level of confidence of the above assessment**

- Based on comprehensive evidence
- Based on partial evidence
- Based on limited evidence

### **Please provide an explanation for the level of confidence indicated above.**

Due to the lack of translation of international targets to national circumstances, it is not possible to give a quantifiable assessment of Suriname's progress towards the achievement of this target. The assessment can only be done through the use of expert opinion and stakeholder consultations.

### **Adequacy of monitoring information to support assessment**

- Monitoring related to this target is adequate
- Monitoring related to this target is partial (e.g. only covering part of the area or issue)

No monitoring system in place

Monitoring is not needed

**Please describe how the target is monitored and indicate whether there is a monitoring system in place.**

N/A

### **Aichi Biodiversity Target 11**

*By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.*

#### **Category of progress towards the implementation of the selected target**

On track to exceed target

On track to achieve target

Progress towards target but at an insufficient rate

No significant change

Moving away from target

Unknown

#### **Date the assessment was done**

Mid-August 2018

#### **Additional information**

The Act on Maritime zones 2017, delineates Suriname's maritime zones. Suriname's territorial sea is up to 12 nautical miles from the baseline. Suriname exercises sovereign rights over its land area and territorial sea. The contiguous Zone is the area adjacent to and extending from the outer boundary of the territorial sea to 24 nautical miles from the baseline and in this area the State exercises control over compliance with the laws within the territory. The Exclusive Economic Zone (EEZ) is the area adjacent to and extending from the outer boundary of the

territorial sea to 345 nautical miles from the baseline. In this zone, the State has sovereign rights for the exploration, exploitation, preservation and management of the natural resources. In addition, they have jurisdiction for marine scientific research and protection and conservation of the marine environment. Mention of this law was made in section II regarding the NBAP 2012-2016, sub objective 1.1 “Adjust national laws and rules for the conservation of biodiversity inside and outside protected areas”.

Up until now, 14% of Suriname's land surface has been declared as protected area, which can be categorized under different degrees of protection (i.e. Nature Reserves, MUMAs, Nature Park, etc.) [Figure 3]. Nearly the entire coastline of Suriname falls within the country's protected area system. Only a section near the eastern coast border and the highly urbanized central coastal area surrounding Paramaribo are excluded. Four MUMAs (245,000 ha) and six Nature Reserves (128,000 ha) are situated along Suriname's coastal zone. Each protected area is roughly divided between terrestrial and marine systems, extending approximately five kilometers inland and two kilometers into the sea. Bigi Pan, North Coronie, and North Saramacca are on the Western coast. North Commewijne – Marowijne is on the Eastern coast. Bigi-Pan is a Western Hemisphere Shorebird Reserve Network (WHSRN) site and a proposed RAMSAR site. Coppename-Monding Nature Reserve, located within North Saramacca, is an important RAMSAR and WHSRN site. There are currently four proposed protected areas: Nani, Kaburi, Mac Clemen and Snake Creek for a total area of 132,000 ha (ABS, 2016). Noteworthy, the Coronie Swamp Area is being considered as protected area. Mention of this law was made in section II regarding the NBAP 2012-2016, sub objective 1.2 “Preserve the biodiversity of Suriname in an adequate and effective national system of protected areas and in areas beyond this system”.

As of yet, there are no full Marine Protected Areas (MPAs), meaning areas that are fully situated within the territorial waters of Suriname. Although Suriname has no full MPAs, there is a system of protected zones in the ocean in place. In the Fisheries Management Plan 2014- 2018, different zones have been identified, with zone 1 being a breeding zone. This means that there are no trawler activities allowed in this zone. Also, the waters off the beaches of Galibi (in the Marowijne River Estuary) are declared a no-fishing zone because of its function as breeding ground for sea turtles. The Fisheries Management Plan is currently being updated by the Ministry of LVV, the Fisheries Department.

Both government and NGO initiatives have been undertaken to better regulate the nature conservation in the country. For example, a proposal for updates to the Nature Conservation Act 1954 have been made through a CI Suriname project “Onze Natuur op 1” (2017-2018) to adequately regulate more recent pressures on the Protected Areas (PAs). In August 2018, this proposal was presented to Parliament; however only after acceptance by the government will it be considered. Mention of this was made in section II regarding the NBAP 2012-2016, sub objective 1.1.

Earlier, in 2016, a Draft Coastal Protection Act was prepared by the Ministry of Public Works, Transport and Communication (OWTC) and submitted to Parliament. According to Parliament,

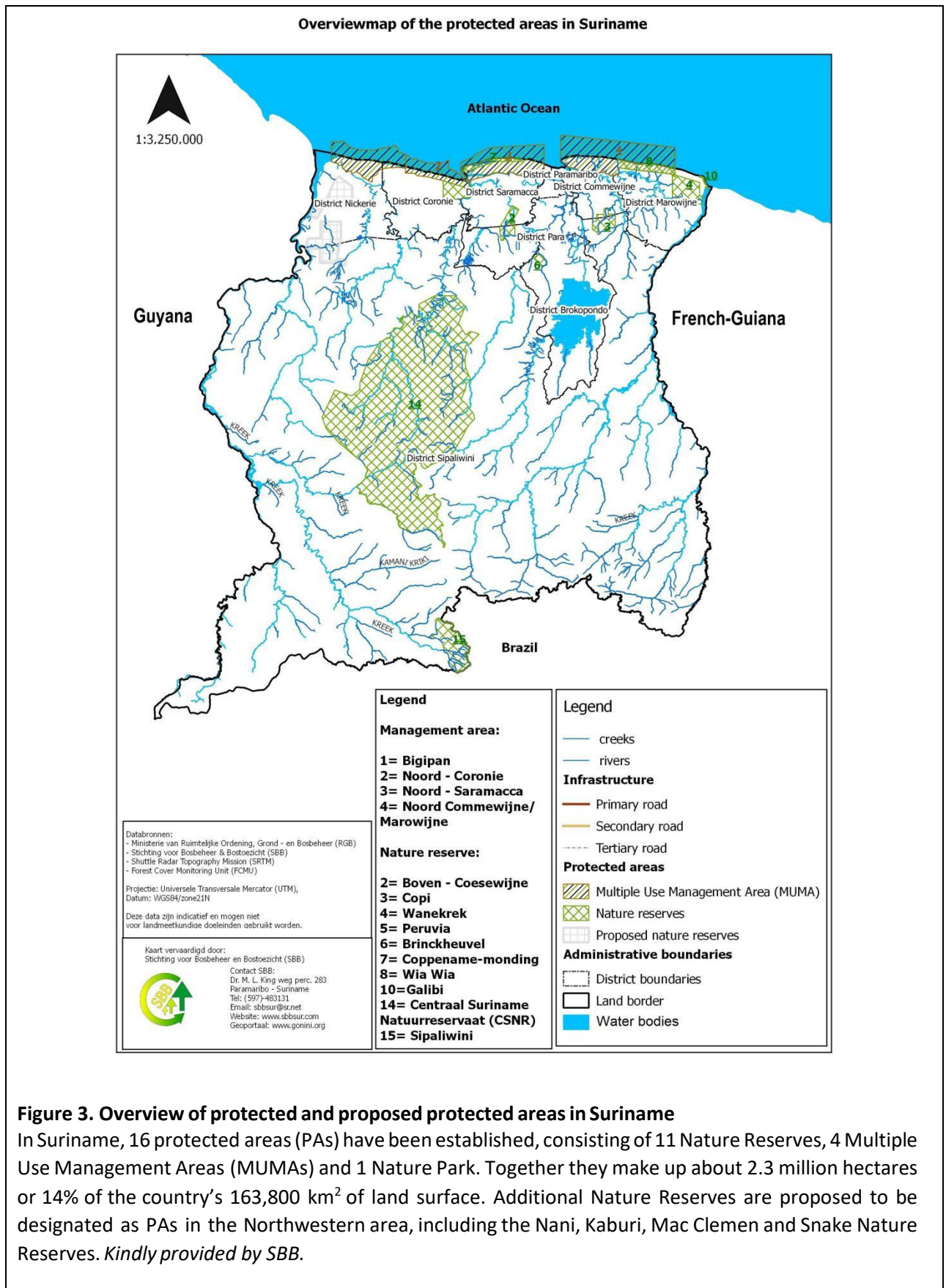
it is still under review. It is unclear when this Act will be approved. This Coastal Protection Act is specifically designed to protect the vulnerable coastal ecosystems, such as the mangrove forests, from anthropogenic pressures such as urban development and climate change. If this Act is promulgated it will mean that the mangrove forests along the whole coast of Suriname (except for a small part in the North of Paramaribo) will have a protected status. Mention of this was also made in section II regarding the NBAP 2012-2016, sub objective 1.1.

The Surinamese government is aware of the value of its coastal protected areas. A number of important projects have been carried out or are in the process of being carried out in the context of coastal and marine protection:

The SCPAM Project was implemented in the period 2011-2015. The project goal was to safeguard Suriname's globally significant coastal biodiversity, while the objective was to promote the conservation of biodiversity through improved management of PAs along the western coast of Suriname. Several activities have been carried out under this project; one of them was an improved management plan of the PAs in the coastal zone. Currently the Ministry of RGB is carrying out stakeholders' consultations to update these management plans under the Global Climate Change Alliance+ (GCCA+) project. The objective of this project is to reduce Suriname's vulnerability to negative effects of climate change, and to enhance Suriname's capacity for developing and undertaking appropriate and effective measures to adapt to climate change effects.

At the moment, the project "Promoting Integrated and Participatory Ocean Governance in Guyana and Suriname" (2017-2020) is being implemented. The project is funded by the EU and implemented in collaboration with the Nature Conservation Division (NB) of the Ministry of RGB and WWF Guianas. The rationale behind the project is that whilst key threats are recognized (overfishing of some species; increased hydrocarbon exploration), significant data gaps hamper efforts to sustainably manage the marine environment. Both Guyana and Suriname state in their CBD National Reports (2015) that no progress has been made towards meeting Aichi target 11 for 2020 (10% coastal & marine areas protected) and further action is required against 4, 6, 10 & 14. Specific objectives of the project are that by 2020, enhanced knowledge of the marine environment, increased capacity and a collaborative process with ocean users leads to significant progress against Aichi targets: i) at least 10% of Suriname/Guyana EEZ designated for MPA conservation status; ii) evidence of informed spatial management practices being applied outside MPAs across the EEZ.

Based on the above information it can be stated that Suriname is making progress towards this target but at an insufficient rate. It is unlikely to increase the percentage of PAs by 2020.



**Figure 3. Overview of protected and proposed protected areas in Suriname**  
 In Suriname, 16 protected areas (PAs) have been established, consisting of 11 Nature Reserves, 4 Multiple Use Management Areas (MUMAs) and 1 Nature Park. Together they make up about 2.3 million hectares or 14% of the country's 163,800 km<sup>2</sup> of land surface. Additional Nature Reserves are proposed to be designated as PAs in the Northwestern area, including the Nani, Kaburi, Mac Clemen and Snake Nature Reserves. *Kindly provided by SBB.*

### Indicators used in this assessment

- Data on area of terrestrial and inland water areas conserved
- Data on area of coastal and marine areas conserved
- Data on areas of particular importance for biodiversity conserved
- Data on areas of particular importance for ecosystem services conserved
- Data on laws and regulations for protected area management

### Please describe any other tools or means used for assessing progress

Desktop study, expert opinion and stakeholder consultations (questionnaires and interviews) during the period of July – November 2018.

### Relevant websites, web links and files

#### *Documents:*

- LVV – Visserij Management Plan voor Suriname 2014-2018 (Fisheries Management Plan 2014-2018):  
[http://www.gov.sr/media/968160/visserij\\_management\\_plan\\_voor\\_suriname.pdf](http://www.gov.sr/media/968160/visserij_management_plan_voor_suriname.pdf)
- Ontwerpwet Beschermde Kustgebied (2015) (Bill on Coastal Protection):  
[http://www.dna.sr/media/100559/15\\_435\\_initiatief\\_voorstel\\_wet\\_Beschermde\\_Kustgebied.pdf](http://www.dna.sr/media/100559/15_435_initiatief_voorstel_wet_Beschermde_Kustgebied.pdf)
- SCPAM Terminal Evaluation: <https://erc.undp.org/evaluation/evaluations/detail/6124>

#### *Web links:*

- Overview Protected Areas: <http://gonini.org/>
- Suriname GCCA+ website: <http://www.gcca.eu/programmes/suriname-global-climate-change-alliance-gcca>

### Level of confidence of the above assessment

- Based on comprehensive evidence
- Based on partial evidence
- Based on limited evidence

**Please provide an explanation for the level of confidence indicated above.**

Due to the lack of translation of international targets to national circumstances, it is not possible to give a quantifiable assessment of Suriname's progress towards the achievement of this target. The assessment can only be done through the use of expert opinion and stakeholder consultations.

**Adequacy of monitoring information to support assessment**

- Monitoring related to this target is adequate
- Monitoring related to this target is partial (e.g. only covering part of the area or issue)
- No monitoring system in place
- Monitoring is not needed

**Please describe how the target is monitored and indicate whether there is a monitoring system in place.**

N/A

**Relevant websites, web links and files**

*Documents:*

- WWF Report on Marine Management in Suriname 2017
- CBD GAP analysis and legislative review report: [http://www.abs-initiative.info/fileadmin/media/Knowledge\\_Center/Pulications/Concept\\_Gap\\_Analysis/Concept - National ABS Gap Analysis - ABS-I 20161116.pdf](http://www.abs-initiative.info/fileadmin/media/Knowledge_Center/Pulications/Concept_Gap_Analysis/Concept_-_National_ABS_Gap_Analysis_-_ABS-I_20161116.pdf)

**Aichi Biodiversity Target 12**

*By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.*

**Category of progress towards the implementation of the selected target**

- On track to exceed target
- On track to achieve target



- Progress towards target but at an insufficient rate
- No significant change
- Moving away from target
- Unknown

### **Date the assessment was done**

Mid-August 2018

### **Additional information**

According to the International Union for Conservation of Nature (IUCN) list, Suriname does not have any “Extinct” and “Extinct in Wild” species, but there are critically endangered and endangered species. In the period 2006-2016 the number of endangered species increased by 18.6%. A total of 83 animal and plant species are considered critically endangered, endangered or vulnerable.

Since 1981, Suriname has been a Party to the CITES Convention. In this regard, it has incorporated a quota list for the trade in species based on the CITES annexes and the IUCN red list.

The international trade in species is controlled through a permit system. In practice, NB utilizes the Game Calendar for management of wildlife, based on the Nature Conservation Act 1954. The calendar categorizes wildlife animals as Game, Caged Animals, Mainly Vermin and Protected Animal Species. The animals in these categories are protected during the whole year according to open and closed hunting seasons with bag limits. Protected species cannot be traded.

Although there is legislation in place to ensure the protection of endemic species (i.e. Game Act 1954, Nature Conservation Act 1954, Fish Stock Protection Act 1961 & 1981, Fish Stock Protection State Order 1961, Sea Fisheries Act 1980, Forest Management Act 1992 and Game State Order 2002), in practice the enforcement of these regulations proves difficult. This can be attributed to shortage of trained forest rangers and game wardens to cover the whole country and the shortage of available resources (such as transportation, fuel, etc.) to visit (remote) areas of the country. Mention of this was made in section II regarding the NBAP 2012-2016, sub objective 2.3 “Sustainable use of wildlife (terrestrial)”.

Rewriting of the three coastal management plans for the Bigi Pan, North Coronie and North Saramacca MUMA, with zoning for ex. fishing, gaming and tourism activities under de GCCA+ project (2016-2019) is also an activity under this target. These Plans will help to regulate human activities in these areas so their impact on the coastal ecosystems is minimized. The coastal and migratory birds (ex. Scarlet ibis), fisheries (ex. Tarpon) and other species will be monitored closely, so they do not become threatened. Mention of this was made in section II regarding the

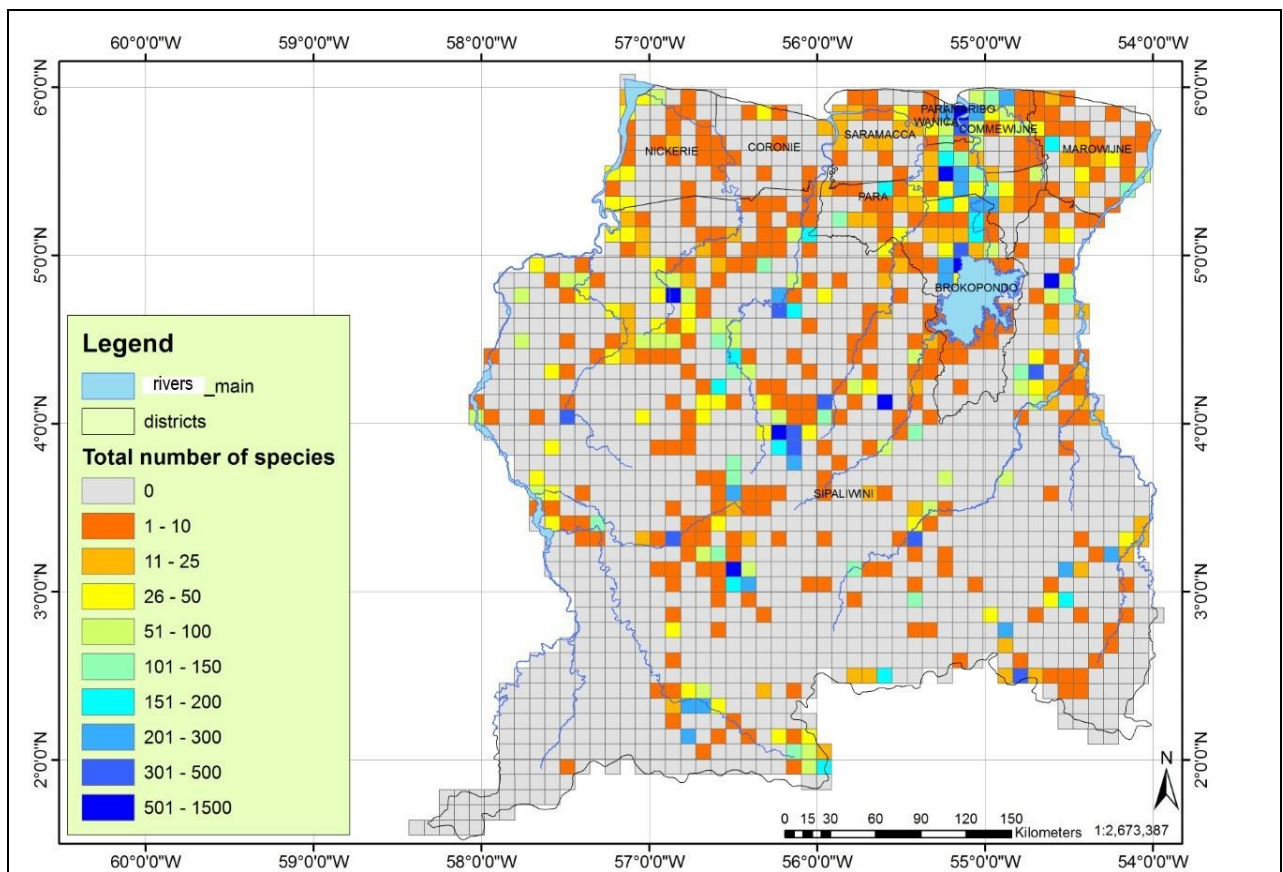
NBAP 2012-2016, sub objective 1.2 “Preserve the biodiversity of Suriname in an adequate and effective national system of protected areas and in areas beyond this system” and sub objective 2.3.

At the end of 2018, the Ministry of RGB was planning the revision of the export quotas. This will help to adjust possible pressures on the species in international trade. Mention of this was made in section II regarding the NBAP 2012-2016, sub objective 2.3.

NZCS is currently doing some studies on mammals and amphibians of Brownsberg and Coesewijne in the period 2012 – 2017 and jaguars and puma’s, but this research has not yet been published.

Currently, the project “Improve accessibility of Surinamese biodiversity data through digitizing and partnerships” should result in an accessible national database for the fauna and flora of Suriname by sharing biodiversity data and assessing trends. The figure below [**Figure 4**] is the result of the GBIF initial phase, in which the distribution of fauna and flora species from the NZCS-BBS GBIF database is presented.

In order to assess the progress towards the achievement of this target, data on population trends of species in Suriname is critical. This data is currently not available, because it is not being gathered in a structural manner by the different institutes, making any statement on the progress highly difficult.



**Figure 4. Overview of fauna and flora species in Suriname**

Source: NIMOS, NZCS and BBS.

### Indicators used in this assessment

- Data on number of critically endangered and endangered species
- Data on extinctions prevented
- Data on extinction risk and populations services

### Please describe any other tools or means used for assessing progress

Desktop study, expert opinion and stakeholder consultations (questionnaires and interviews) during the period of July – November 2018.

### Relevant websites, web links and files

Documents:

- Milieustatistieken 2016 (Environmental Statistics 2016): <http://www.statistics-suriname.org/index.php/statistieken/downloads/category/34-milieu-publicatie-2012>

**Level of confidence of the above assessment**

- Based on comprehensive evidence
- Based on partial evidence
- Based on limited evidence

**Please provide an explanation for the level of confidence indicated above.**

Due to the lack of translation of international targets to national circumstances, it is not possible to give a quantifiable assessment of Suriname's progress towards the achievement of this target. The assessment can only be done through the use of expert opinion and stakeholder consultations.

**Adequacy of monitoring information to support assessment**

- Monitoring related to this target is adequate
- Monitoring related to this target is partial (e.g. only covering part of the area or issue)
- No monitoring system in place
- Monitoring is not needed

**Please describe how the target is monitored and indicate whether there is a monitoring system in place.**

It is critical to collect and analyze data on population trends of species in Suriname.

**Aichi Biodiversity Target 13**

*By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.*

**Category of progress towards the implementation of the selected target**

- On track to exceed target
- On track to achieve target
- Progress towards target but at an insufficient rate

No significant change

Moving away from target

Unknown

### **Date the assessment was done**

Mid-August 2018

### **Additional information**

In the context of the State of World's Plant Genetic Resources for Food and Agriculture Suriname has reported on its Plant Genetic Resources (PGR) (Country report Suriname, 2012) under FAO Suriname reports on the PGR for food and agriculture. As mentioned in this report, in general Suriname has no specific national policy for the management of PGR. Several institutes have tasks related to Genetic Resources, such as the Ministry of LVV, SNRI/ADRON, SBB, CELOS and the AdeKUS (NZCS and BBS).

Furthermore, statistics on cultivated land by crops (ha) 2011-2015 has been produced by ABS (see also information at Target 7) as well as the annual number of bred livestock by type, 2011-2015.

In 2015, the total annual number of bred livestock by type was 86,173 (piece) for cattle and 5,439,000 (piece) for poultry. Compared to 2014, there has been a slight increase (Environmental Statistics 2016 table 10.6).

CELOS has established *ex situ* cassava gene banks in 2014. These gene banks are situated in test field areas in the district of Saramacca (Tijgerkreek West) and in the interior (Phedra). This project has aimed to support the development of the Surinamese cassava cultivation and processing sector. The results of this project were the following:

- Several *ex situ* field gene banks were established with several local cassava varieties at the two locations;
- Morphological and agronomic characterization took place (2008-2011);
- 46 phenotypically distinguishable cassava accessions at Phedra (in the 12<sup>th</sup> *ex situ* field gene bank season); 72 accessions at Saramacca (in the seventh *ex situ* field gene bank season); sixteen accessions in a quarantine field;
- Passport data collected and conserved accession included in the *ex situ* cassava gene bank.

Other (detailed) information on PGR is also mentioned under section V Global Strategy for Plant Conservation (GSPC) target 9. In addition to the information mentioned under GSPC target 9, the Ministry of LVV also manages several experimental gardens with a various collection of fruit

crops and other variety of agriculture crops.

In the PGR of Suriname (Country Report) 2012 various (indigenous) PGR are listed. As a high forest cover country (93%) with more than 400 forest tree species, six tree species are listed as protected and are not permitted to be harvested (e.g. Bolletrie (*Manilkara bidentata*). Also, other species of economic importance are listed in the report.

As PGR are important for crop propagation, increased crop production and the productivity and sustainability in agriculture – thus important to food supply – the Ministry of LVV established a National Committee for the coordination of PGR for Food and Agriculture since 2012. The national committee focus area was to promote the conservation and sustainable use of PGR in Suriname. In the National Committee various institutes were represented such as the Ministry of LVV, BBS, the Institute for Graduate Studies and Research (IGSR), the Ministry of RGB, the former Ministry of Labour, Technological Development and Environment (Environmental Section), the Suriname Conservation Foundation (SCF), SNRI/ADRON and CELOS.

In the NBAP 2012-2016 under “Knowledge acquisition through research and monitoring” (objective 4), several desired actions are formulated such as introduction to genetic analysis and registration (barcoding) of organisms. As mentioned at target 9, from October – November 2018, NZCS together with BBS and with aid of the CBD Secretariat organized a DNA barcoding training workshop under the project “Building technical expertise to enhance species detection for invasive alien species, pests, wildlife trade and biodiversity management” for eleven key stakeholders in Suriname.

With regards to plant and animals, Suriname has several laws and legal regulations in place such as the Plant Protection Act 1965, the Seed Act 2005, Act to control animal diseases 1954, Forest Management Act 1992 for tree species and the Nature Conservation Act 1954 for conservation of all species in protected areas. However, no specific provisions are embedded on genetic diversity specifically. Even in the Development Plan 2017-2021 no priorities on genetic diversity was described.

As mentioned in section II, regarding sub objective 2.6 “Responsible application of biotechnology”, Suriname implemented a Regional Biosafety Project (2012-2016), with deliverables including drafted national laws and regulations regarding biosafety and biotechnology. In 2017, steps were taken to finalize these laws and regulations through an inter-Ministerial Committee on Biosafety and Biotechnology for Food Security and Food Safety, which consists of representatives of the Ministry of LVV, Ministry of Health, Ministry of HI&T, the AdeKUS and Coordination Environment (CM).

Conclusion: despite aforementioned data, there is still a lack of national coordinated program on plant and animal genetic diversity. However, progress is being made towards achieving this target.

### Indicators used in this assessment

- Data on cultivated land by crops (ha) 2011-2015
- Data on numbers of bred livestock by type 2011-2015
- Data on institutes trained in DNA barcoding
- Data on specific national policy for the management of Plant Genetic Resources
- Data on tree species permitted to be harvested

### Please describe any other tools or means used for assessing progress

Desktop study, expert opinion and stakeholder consultations (questionnaires and interviews) during the period of July – November 2018.

### Relevant websites, web links and files

#### *Documents:*

- Plant Genetic Resources of Suriname (Country Report) 2012: <http://www.fao.org/pgrfa-gpa-archive/sur/docs/PGR%20Country%20Report%20Suriname%202012.pdf>
- Milieustatistieken 2016 (Environmental Statistics 2016): <http://www.statistics-suriname.org/index.php/statistieken/downloads/category/34-milieu-publicatie-2012>
- CELOS, Cassava *ex situ* field gene banks, factsheet 1, May 2014: <http://www.celos.sr.org/wp-content/uploads/2018/07/CELOS-Cassava-genebank-posters-2014>.

#### *Web links:*

- GBIF: <https://www.gbif.org/>

### Level of confidence of the above assessment

- Based on comprehensive evidence
- Based on partial evidence
- Based on limited evidence

### Please provide an explanation for the level of confidence indicated above.

N/A

**Adequacy of monitoring information to support assessment**

- Monitoring related to this target is adequate
- Monitoring related to this target is partial (e.g. only covering part of the area or issue)
- No monitoring system in place
- Monitoring is not needed

**Please describe how the target is monitored and indicate whether there is a monitoring system in place.**

N/A

**Aichi Biodiversity Target 14**

*By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.*

**Category of progress towards the implementation of the selected target**

- On track to exceed target
- On track to achieve target
- Progress towards target but at an insufficient rate
- No significant change
- Moving away from target
- Unknown

**Date the assessment was done**

Mid-August 2018

**Additional information**

Suriname's coastal region is extensive and low-lying and has been identified as highly vulnerable to climate-induced sea level rise in future decades. Suriname's mangrove forests are considered one of the most essential ecosystems providing services such as nursery functions for shrimp and fish, birds, bees and giving local communities access to these natural resources. Also, they



provide a much-needed buffer for sea level rise. The four MUMAs that are currently legally established along the coast give the local communities the opportunity to make use of the ecosystem services provided by the mangrove forests.

However, climate change, urban development, agriculture and overfishing are currently threatening the mangroves. Under the SCPAM Project (2011-2015) and followed-up by the GCCA+ project (2016-2019), several activities have been carried out to safeguard the coastal biodiversity through improved management of PAs along the Western coast of Suriname. Economic evaluations are being made for the Bigi Pan MUMA and will be revised with a focus on fisheries, hunting and tourism. Currently, the Ministry of RGB is conducting stakeholders' consultations to update these management plans. This was mentioned in section II, under the NBAP 2012-2016 sub objective 2.7 "Ecosystems valued for the services they supply".

Under the project "Promoting Integrated and Participatory Ocean Governance in Guyana and Suriname" (2017-2020), this earlier work will be elaborated on with specific objectives: i) at least 10% of Suriname/Guyana EEZ designated for MPA conservation status; ii) evidence of informed spatial management practices being applied outside MPAs across the EEZ.

The rainforest is another highly important ecosystem that gives many ecosystem services to not only the Indigenous and Maroon communities, but also other local and urban communities. The rainforest is considered to be of high value due to its ability to provide essential services, such as medicinal plants and other NTFPs, logging, etc., to all communities. Also, its capability as a carbon sink is of great importance to the world. Suriname has pledged to keep 93% of its forest intact and is currently preparing its institutions through the REDD+ project (2014-2018) to be able to monitor land cover and land use within the forest area.

Traditionally, Indigenous and Tribal Peoples (ITPs) have used the different ecosystem services in the interior in a sustainable manner. These include, amongst others, selective logging of palms as roofing material, as well as replanting and reserving part of the ecosystems for knowledge transfer. During the consultations with the ITPs, listings have been made what services ecosystems deliver to their livelihood, but ITPs are hesitant in sharing their Traditional Knowledge (TK). Because this was explicitly mentioned by them, no overview of ecosystem services will be mentioned here.

Through CI Suriname there have been initiatives to assist Indigenous communities to develop sustainable livelihoods projects and to apply the knowledge of the Indigenous communities in preserving the forest by implementing a Conservation Stewards Program. In 2015, with support of CI Suriname, the South Suriname Conservation Corridor was proposed by the Indigenous leaders as a community effort to conserve the ecosystems within their living areas. Noteworthy, is that this Corridor is not officially recognized by the government.

From 2014-2017, Tropenbos International (TBI) Suriname together with the Association of Saamaka Authorities (VSG) has implemented projects in the Upper Suriname River, with the goal to map ecosystem services with the local communities using P3DM. This project has involved 24 villages (approx. 15,000 people). The land use activities for these communities involve

shifting cultivation agriculture, small scale logging and nature tourism. With the economic development taking place in these areas, also logging, mining and agriculture take a very important use for ecosystems. Mention of this effort was made in section II, under sub objective 2.7.

The assessment of positive and negative impacts of large-scale projects in the ESIA process, administered by NIMOS, is also one of the manners in which ecosystems are safeguarded. The inclusion of public consultations, as a mandated part of the ESIA process, also ensures that the input of the local communities, affected by the activities, is taken into consideration early on in the project design phase. As of December 2017, NIMOS has reviewed 113 ESIA studies since its introduction in 2003 (NIMOS, ESA Office). Although the obligation to conduct an ESIA has not yet been declared legally binding in Suriname due to the absence of an Environmental Framework Act, for some large-scale activities the ESIA is mandatory based on signed agreements (minerals, palm oil). The resulting Environmental Management and Monitoring Plans (EMMPs) play an essential role in the assurance that in implementing these projects the proponents adhere to the actions that were identified to minimize the negative impacts and the monitoring of these impacts.

Currently, ACT Suriname is preparing to partner with SBB in a project to train four women of the Matawai Maroon tribe to become conservation rangers. These women will be trained to check if logging, done by the villages, is done according to FSC guidelines. Through this initiative, there will be women empowerment and community-based management of ecosystem services. This project is envisioned to start in 2019.

With regards to considering gender issues in relation to biodiversity in Suriname it can be stated that an assessment has not yet been done. However, agriculture and other biological forms, climate change mitigation and adaptation projects will be implemented in the near future. In these projects gender is considered a crucial factor, therefore gender differences and inequalities and their influence on the conservation and sustainable use of biodiversity will be taken into account.

In December 2017, the Bureau for Gender Affairs (BGA) trained a group of thirty-three women from the Western and Eastern polders of the district of Nickerie in organic plant propagation techniques. By enabling women to conduct organic horticulture, planting and selling the surplus of products, their socio-economic status can be improved.

For more information on gender affairs, see section “Gender Affairs”.

Based on the above information it can be said that Suriname is making progress toward the achievement but at an insufficient rate. The fact that some aspects of the target, such as species extinction, benefit from ecosystem services by specific groups, present some data gaps, makes an adequate assessment difficult.

**Indicators used in this assessment**

- Data on safeguarded ecosystems that provide essential services
- Data on ESIA studies reviewed
- Data on women trained to become conservation rangers
- Data on women trained in organic plant propagation techniques

**Please describe any other tools or means used for assessing progress**

Desktop study, expert opinion and stakeholder consultations (questionnaires and interviews) during the period of July – November 2018.

**Relevant websites, web links and files**

N/A

**Level of confidence of the above assessment**

- Based on comprehensive evidence
- Based on partial evidence
- Based on limited evidence

**Please provide an explanation for the level of confidence indicated above.**

Due to the lack of translation of international targets to national circumstances, it is not possible to give a quantifiable assessment of Suriname's progress towards the achievement of this target. The assessment can only be done through the use of expert opinion and stakeholder consultations.

**Adequacy of monitoring information to support assessment**

- Monitoring related to this target is adequate
- Monitoring related to this target is partial (e.g. only covering part of the area or issue)
- No monitoring system in place
- Monitoring is not needed

**Please describe how the target is monitored and indicate whether there is a monitoring system in place.**

N/A

### **Aichi Biodiversity Target 15**

*By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.*

#### **Category of progress towards the implementation of the selected target**

- On track to exceed target
- On track to achieve target
- Progress towards target but at an insufficient rate
- No significant change
- Moving away from target
- Unknown

#### **Date the assessment was done**

Mid-August 2018

#### **Additional information**

Suriname is a carbon negative country. The total amount of CO<sub>2</sub> (carbon dioxide) emitted is far less than the amount that is sequestered through the 93% rainforest coverage within the country. It is estimated that the tropical rainforest of Suriname stores about 11 Gigatons and absorbs more than 8.8 million tons of forest carbon annually (INDC, 2015). Because of its forest carbon sequestration and avoided deforestation, Suriname has been providing a key ecosystem benefit to the world long before the issue of climate change was widely recognized and accepted. At the UNFCCC 23<sup>th</sup> Conference of the Parties, Suriname further committed itself to maintaining a 93% forest cover. This while being a country with an economy in transition and with its own development needs.

The implementation of the REDD+ project (2014-2018) is further strengthening Suriname's

initiatives for sustainable forest management and tackling the main drivers of deforestation.

As mentioned in Section II, sub objective 1.4, currently there are initiatives within the government that will further enhance the sustainable use of the forest by tackling one of Suriname’s biggest drivers of deforestation, the mining sector. Activities taking place include the establishment of a mineral institute, the introduction of sustainable mining techniques in public private partnerships and implementation of the MIA project since 2016.

For the Artisanal Small-Scale Gold Mining (ASGM) sector, the Ministry of NH is currently in the phase of operationalizing a seven-year project named: “Improving Environmental Management in the Mining Sector, with Emphasis on the ASGM sector in Suriname”, which is funded by the GEF. This project will focus on the introduction of sustainable mining techniques, including mercury free mining in the ASGM sector through the introduction of education centers in different mining regions in the country. Also, as part of its policy plans, the Ministry is actively implementing measures to register and formalize illegal miners within the country and guide them to better and adequate mining activities that are in line with the national and international commitments of the country.

Regarding the contribution for combating desertification, in 2018, Suriname has formulated the Land Degradation Neutrality Report under the Target Setting Programme. This reports states that the mayor drivers of land degradations are mining, logging and agricultural activities. Using the year 2000 as a baseline, a summary of land cover change over the period of 2000-2015 is given in the table below.

<b>Table 5. Summary of change in land cover for Suriname</b>		
	<b>Area (sq km)</b>	<b>Percent of total land area</b>
Total land area	163,453.55	100.00%
Land area with improved land cover	34.04	0.02%
Land area with stable land cover	158,149.28	96.75%
Land area with degraded land cover	2750.02	1.68%
Land area with no data for land cover	2520.21	1.54%

The total amount of degraded land cover for the country is 1,68% of the total land cover.

Considering the above mentioned, Suriname is well on its way to exceed this target.

### Indicators used in this assessment

- Data on ecosystem resilience
- Data on carbon stocks within ecosystems
- Data on land use/cover degradation over 15 years of baseline period in Suriname.

### Please describe any other tools or means used for assessing progress

Desktop study, expert opinion and stakeholder consultations (questionnaires and interviews) during the period of July – November 2018.

### Relevant websites, web links and files

#### *Documents:*

- Project document ‘Improving Environmental Management in the Mining Sector, with Emphasis on the ASGM sector in Suriname’: <https://www.thegef.org/project/improving-environmental-management-mining-sector-suriname-emphasis-gold-mining>
- Land Degradation Neutrality Report 2018: [https://www.dropbox.com/s/upugghth4w3eorc/LDN%20TSP%20Baseline\\_Report-%20Suriname\\_final\\_version\\_approved.docx?dl=0](https://www.dropbox.com/s/upugghth4w3eorc/LDN%20TSP%20Baseline_Report-%20Suriname_final_version_approved.docx?dl=0)
- Intended Nationally Determined Contribution 2015: <https://unfccc.int/resource/docs/natc/surnc2.pdf>

#### *Web links:*

- REDD+ Suriname website: <http://www.surinameredd.org/en/reddplus-suriname/>

### Level of confidence of the above assessment

- Based on comprehensive evidence
- Based on partial evidence
- Based on limited evidence

### Please provide an explanation for the level of confidence indicated above.

Due to the lack of translation of international targets to national circumstances, it is not possible to give a quantifiable assessment of Suriname’s progress towards the achievement of

this target. The assessment can only be done through the use of expert opinion and stakeholder consultations.

**Adequacy of monitoring information to support assessment**

- Monitoring related to this target is adequate
- Monitoring related to this target is partial (e.g. only covering part of the area or issue)
- No monitoring system in place
- Monitoring is not needed

**Please describe how the target is monitored and indicate whether there is a monitoring system in place.**

N/A

**Aichi Biodiversity Target 16**

*By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.*

**Category of progress towards the implementation of the selected target**

- On track to exceed target
- On track to achieve target
- Progress towards target but at an insufficient rate
- No significant change
- Moving away from target
- Unknown

**Date the assessment was done**

Mid-August 2018

**Additional information**

Suriname is not yet Party to the Nagoya Protocol on Access and Benefit Sharing, however, small progress is made towards ratifying/acceding the Protocol. In this progress, it can be mentioned that as a result of a workshop (hosted by CARICOM secretariat) in Suriname in 2015, the countries' capacity for implementation of the Nagoya Protocol on Access and Benefit Sharing has been strengthened. The objective of this workshop was preventing the exploitation of Genetic Resources and associated Traditional Knowledge within CARICOM Member States. The workshop was held, in collaboration with the Access and Benefit Sharing Capacity Development Initiative and the Government of Suriname. The workshop forms part of the Work Program of Phase 2 of the EU funded Program for Capacity-Building related to Multilateral Environmental Agreements in ACP Countries. CM has prioritized this as a policy measure for 2019.

Furthermore, in preparation for the ratification of the Nagoya Protocol, Suriname is in the process of taking steps to start stakeholder's consultation in 2019. One of the main obligations under the Protocol is to incorporate Access and Benefit Sharing on Genetic Resources and Traditional Knowledge of the ITPs in Suriname.

**Indicators used in this assessment**

No indicator used

**Please describe any other tools or means used for assessing progress**

Desktop study, expert opinion and stakeholder consultations (questionnaires and interviews) during the period of July – November 2018.

**Relevant websites, web links and files**

N/A

**Level of confidence of the above assessment**

- Based on comprehensive evidence
- Based on partial evidence
- Based on limited evidence

**Please provide an explanation for the level of confidence indicated above.**

Based on the information provided by stakeholders.



### **Adequacy of monitoring information to support assessment**

- Monitoring related to this target is adequate
- Monitoring related to this target is partial (e.g. only covering part of the area or issue)
- No monitoring system in place
- Monitoring is not needed

**Please describe how the target is monitored and indicate whether there is a monitoring system in place.**

N/A

### **Aichi Biodiversity Target 17**

*By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.*

### **Category of progress towards the implementation of the selected target**

- On track to exceed target
- On track to achieve target
- Progress towards target but at an insufficient rate
- No significant change
- Moving away from target
- Unknown

### **Date the assessment was done**

Mid-August 2018

### **Additional information**

In 2006, Suriname developed the NBS for the period 2006-2020 with seven objectives. Later in 2013, the NBAP 2012-2016 was developed. The NBAP elaborates further on the objectives as set out in NBS 2006-2020 and an eight objective was added. All objectives in the NBAP are in

line with the three main objectives of the CBD.

The eight objectives of the NBAP are:

1. Conservation of biodiversity;
2. Sustainable use of biodiversity;
3. Regulated access to genetic material and associated knowledge, with fair and equitable sharing of benefits;
4. Knowledge acquisition through research and monitoring;
5. Capacity building;
6. Raising awareness and empowerment through education and communication;
7. Cooperation at local and international level;
8. Sustainable financing.

However, it is recommended to integrate the NBAP in national policies and national programs for the various biodiversity related sectors. It can be proposed that the Planning Office and the Ministries could incorporate several actions (as mentioned in the NBAP) in their annual policy plan. At the district level, the district board can also incorporate several actions of the NBAP in the Annual District Plan. Also, clear links should be made with the different sectoral strategies and plans.

Based on the assessments done for this report, steps will be undertaken to write a NBAP 2018-2020.

#### **Indicators used in this assessment**

- Data on development and adoption of NBSAP

#### **Please describe any other tools or means used for assessing progress**

Desktop study, expert opinion and stakeholder consultations (questionnaires and interviews) during the period of July – November 2018.

#### **Relevant websites, web links and files**

N/A

#### **Level of confidence of the above assessment**

- Based on comprehensive evidence
- Based on partial evidence

Based on limited evidence

**Please provide an explanation for the level of confidence indicated above.**

N/A

**Adequacy of monitoring information to support assessment**

- Monitoring related to this target is adequate
- Monitoring related to this target is partial (e.g. only covering part of the area or issue)
- No monitoring system in place
- Monitoring is not needed

**Please describe how the target is monitored and indicate whether there is a monitoring system in place.**

Based on the assessments done for this national report, a framework for the NBAP 2018-2020 will be developed. It may serve as a suggestion that various governmental and non-governmental institutions should be involved in the progress of developing the NBAP 2018-2020.

### **Aichi Biodiversity Target 18**

*By 2020, the Traditional Knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.*

**Category of progress towards the implementation of the selected target**

- On track to exceed target
- On track to achieve target
- Progress towards target but at an insufficient rate
- No significant change

Moving away from target

Unknown

### **Date the assessment was done**

Mid-August 2018

### **Additional information**

Legislation that protects TK and organizes landownership of the ITPs is not yet sufficient in Suriname. Various government administrations have placed the issue of recognition of land rights of the ITPs on their agenda. Probably due to the complexity of the issue and therefore lack of understanding of this issue, no concrete solutions have been found to date.

As mentioned in section II, under sub objective 3.3 “Regulate access to Traditional Knowledge, with fair and equitable sharing of derived benefits”, in 2016, the Bureau on Intellectual Property (Bureau Intellectuele Eigendom), which is responsible for the protection of intellectual property, was transferred from the Ministry of Justice and Police (JusPol) to the Ministry of HI&T. The Ministry of HI&T then held a workshop on TK in order to develop a legal framework to protect TK within the context of improvement of the investment and entrepreneurial environment in Suriname.

In 2017, the Parliament finally approved the Act on Protection of Residential and Living Areas of ITPs 2017 to protect the residential and living areas of the ITPs against the issuance of concession rights in those areas. These conflicts have happened in the past, due to lack of clarity about the demarcation of the intended residential and living areas, settlements and agricultural plots of ITPs as well as the lack of enforcement and sanctioning. This Act has yet to be signed by the President and published in the Government Gazette to give it legal force.

In December 2016, a Presidential Committee on the Rights of ITPs in Suriname was established to make proposals for solving the land rights issues that the country faces. This Commission is comprised of representatives of government and of the traditional authority. The Commission delivered two documents, namely: 1) a Joint Declaration by the government of the Republic of Suriname and the Traditional Authorities of the Indigenous People of Suriname on the process of legal recognition of land rights; and 2) a roadmap for realizing the legal recognition of the land rights of the Indigenous People in Suriname. These two documents were presented to the President and the roadmap and budget were approved in January 2018 by the Council of Ministers. It is the intention that the roadmap will be implemented within 12 months by a management team still to be set up. The activities that will be carried out are as follows:

1. Legislative proposals for the legal recognition of the rights of, among others, the Indigenous people in Suriname;
2. Demarcation of the residential and living areas of, among others, the Indigenous

Peoples;

3. Broad information and awareness among the entire Surinamese population.

With the approval of the Act on Protection of Residential and Living Areas of ITPs 2017, it can be prevented that while the government is in the process to come to a mutually accepted solution to the land rights issues, ITPs already have some form of protection of their homes.

### **Indicators used in this assessment**

No indicator used

### **Please describe any other tools or means used for assessing progress**

Desktop study, expert opinion and stakeholder consultations (questionnaires and interviews) during the period of July – November 2018.

### **Relevant websites, web links and files**

N/A

### **Level of confidence of the above assessment**

- Based on comprehensive evidence
- Based on partial evidence
- Based on limited evidence

### **Please provide an explanation for the level of confidence indicated above.**

N/A

### **Adequacy of monitoring information to support assessment**

- Monitoring related to this target is adequate
- Monitoring related to this target is partial (e.g. only covering part of the area or issue)
- No monitoring system in place
- Monitoring is not needed

**Please describe how the target is monitored and indicate whether there is a monitoring system in place.**

N/A

### **Aichi Biodiversity Target 19**

*By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.*

#### **Category of progress towards the implementation of the selected target**

- On track to exceed target
- On track to achieve target
- Progress towards target but at an insufficient rate
- No significant change
- Moving away from target
- Unknown

#### **Date the assessment was done**

Mid-August 2018

#### **Additional information**

In the NBAP 2012-2016 under objective 4 “Knowledge acquisition through research and monitoring” under sub objective 4.1 the following desired action is identified: identify species that are very sensitive to change. No specific data is available if this action has been conducted.

With funding of the EU and GBIF, BBS is now in the phase of digitizing their botanical collection, which will be made available online, partly through GBIF. This is being done in partnership with ACT Suriname, SNRI/ADRON and NZCS. The participating institutions in this project aim to establish a publicly accessible national database for flora and fauna on the following data:

- IAS
- Potentially threatened species in production areas for NTFPs

- Weeds in rice fields
- Commercial tree species

Also, researches from the AdeKUS, in this NZCS and CELOS, contribute towards achieving this target. NZCS has conducted various studies on species (invertebrate and vertebrate). NZCS also has conducted research projects in trends such as mercury pollution of aquatic ecosystems and impact of mining on biodiversity. CELOS promotes applied research in various aspects of agriculture and forestry management. This applied research includes the cassava gene bank project (also see section V GSPC target 9).

ABS has produced statistics with regards to protected mammals and protected birds in Suriname.

Forty one (41) mammals are protected, including the *Alouatta seniculus* (Guianan Red Howler Monkey or Babun) and the *Panthera onca* (Jaguar); and thirteen (13) species may not be exported without a CITES permit, including the *Saimiri sciureus* (Common Squirrel Monkey or MonkiMonki) and the *Dasyprocta leorine* (Red rumped Agouti or Konkoni) (Environmental Statistics 2016 table 11.12 and 11.13, respectively).

Additionally, fifty-seven (57) birds in total are protected, including the *Eudocimus ruber* (Scarlet ibis) and *Ardea alba* (Great Egret or Sabaku); and one hundred and thirteen (113) bird species may not be exported without a CITES permit, including the *Anhinga anhinga* (Fishman or Duikelaar) and the *Cairina moschata* (Muscovy duck or Bosi doksie) (Environmental Statistics 2016 table 11.15 and 11.16, respectively).

In November 2017, Suriname participated in the Regional Bio-Bridge Initiative (BBI) Round Table for Latin America and the Caribbean (Bogota, Colombia) and is planning to benefit from the opportunities that the BBI provides.

Conclusion: based on available data, the aforementioned efforts from the non-governmental organizations in particularly, it can be concluded that some progress is being made toward achieving this target.

### **Indicators used in this assessment**

- Data on number of protected mammals inventories (2015)
- Data on protected birds inventories (2015)

### **Please describe any other tools or means used for assessing progress**

Desktop study, expert opinion and stakeholder consultations (questionnaires and interviews) during the period of July – November 2018.

## Relevant websites, web links and files

### Documents:

- Milieustatistieken 2016 (Environmental Statistics 2016): <http://www.statistics-suriname.org/index.php/statistieken/downloads/category/34-milieu-publicatie-2012>

### Web links:

- Project “Improve accessibility of Surinamese biodiversity data through digitizing and partnerships” (May 2017 – December 2018): <https://www.gbif.org/project/83243/improve-accessibility-of-surinamese-biodiversity-data-through-digitizing-and-partnerships>
- Regional Bio-Bridge Initiative Round Table for Latin America and the Caribbean (27 - 29 November 2017 - Bogota, Colombia): <https://www.cbd.int/meetings/TSCWS-2017-03>

## Level of confidence of the above assessment

- Based on comprehensive evidence
- Based on partial evidence
- Based on limited evidence

## Please provide an explanation for the level of confidence indicated above.

Based on data, gathered in the period July - November 2018.

## Adequacy of monitoring information to support assessment

- Monitoring related to this target is adequate
- Monitoring related to this target is partial (e.g. only covering part of the area or issue)
- No monitoring system in place
- Monitoring is not needed

## Please describe how the target is monitored and indicate whether there is a monitoring system in place.

By making available data publicly accessible through the GBIF website, researchers are able to see improvements in their ability to monitor changes in biodiversity.



## Relevant websites, web links and files

N/A

## Aichi Biodiversity Target 20

*By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization, should increase substantially from the current levels.*

### Category of progress towards the implementation of the selected target

- On track to exceed target
- On track to achieve target
- Progress towards target but at an insufficient rate
- No significant change
- Moving away from target
- Unknown

### Date the assessment was done

Mid-August 2018

### Additional information

The economic recession in Suriname in 2015 seems to have an impact on the government financial management. Ministries (with environmental-related tasks) have budget allocated (own budget and from donors) to implement annual programs. However, no specific budget is allocated for specific conservation measures nor for monitoring of the NBSAP because, as stated before, this has not been incorporated into national policies.

For the Ministries with environmental-related tasks (including the Ministry of Labor, LVV, RGB, BiZa, BuZa, NH, Finance and Defense) the following view can be given with regards to budget and expenditures for the period 2015-2018, taking into account that these are estimated numbers (currency in Surinamese Dollars, SRD).

**Table 6a. Overview of budgets and expenditures 2015-2016**

	2015		2016	
	(x1000)		(x1000)	
Ministry	Budget	Expenditures	Budget	Expenditures
Labor <sup>1</sup>	350.00	n/a	n/a	n/a
LVV	184,421.00	82,961.00	74,839.00	9,337.00
RGB	19,500.00	4,859.00	13,250.00	8,345.00
BiZa	50,744.00	11,636.00	27,240.00	3,295.95
BuZa	72,730.00	1,220.00	7,200.00	601.00
NH	125,525.00	52,810.00	79,986.00	7,492.00
Finance	1,132,159.00	15,083.00	68,775.00	5,908.00
Defense	375.00	10.00	500.00	not reported

\*Source: Annual Plans 2015-2016. Currency: Surinamese Dollars, SRD.

<sup>1</sup>In 2015 (by State Order) the environmental-related tasks of the Ministry of Labor, were transferred to the Ministry of Home Affairs (BiZa).

**Table 6b. Overview of budgets and expenditures 2017-2018**

	2017		2018	
	(x1000)		(x1000)	
Ministry	Budget	Expenditures (Jan-June)	Budget	Expenditures
Labor	n/a	n/a	n/a	
LVV	144,209.26	4,293.00	144,993.00	
RGB	15,100.00	256.00	17,683.00	
BiZa	34,541.00	5,382.45	18,919.00	
BuZa	6,850.00	580.00	6,157.00	

NH	67,577.00	2,579.00	97,833.00	
Finance	38,533.00	6,456.00	30,845.00	
Defense	3,000.00	not reported	3,000.00	

\*Source: Annual Plans 2017-2018. Currency: Surinamese Dollars, SRD.

The overall conclusion is that in 2015, 10% of the budget for the Ministries with environmental-related tasks was realized. In 2016, the overall expenditures were 12%.

National, regional and international donor organizations have been, and still are, committed to contribute to protect and conserve our biodiversity. At national level SCF – a National Nature Fund, has been contributing for 15 years to conserve and manage our biodiversity. SCF has developed into a sustainable nature fund and finances many activities and projects with the focus on management of PAs, conservation outside of PAs, education and research with regards to nature conservation and activities focusing on generating income, taking into account sustainable use of biodiversity components. Non-Governmental Organizations, Community-Based Organizations, government and research institutions are eligible for grants. In 2015, nine new projects were financed and in 2016 ten new projects. Project commitments were in order of USD 40,000.00 and more.

A project, funded by GEF, regarding the introduction of sustainable mining techniques – including mercury free mining in the ASGM sector – is being executed by the Ministry of NH and will run for seven years (see also section 2.1.4). Project costs are over USD 25 million.

The Small Grants Program (SGP) is a program funded by GEF, executed by UNDP and implemented by the United Nations Office for Project Services (UNOPS). The SGP provides grants of up to USD 50,000 directly to local communities, including Indigenous people, Community-Based Organizations and other non-governmental groups for projects in Biodiversity, Climate Change Mitigation and Adaptation, Land Degradation and Sustainable Forest Management, International Waters and Chemicals. SGP has financed many projects in the aforementioned areas. In the area of biodiversity, SGP has financed the following projects in the period 2015-2018:

- Awareness:
  - Project Environmental awareness through visual arts in the village of Pikin Slee (Upper Suriname river), 2015, for USD 15,000.00
  - Project Assessment Survey Greening the Environmental of the Residential Project Richelieu Vlek 2 & 2, 2017, for USD 4,540.00

- Conservation:
  - Project Conservation of the Traditional Rice Varieties through Improved Agriculture Techniques in the Community of Kajapati, 2017, for USD 30,710.00
  - Project Capacity Building of Indigenous Communities, Strengthening Governance in Trio Communities to Face Internal and External Challenges to Sustainable Livelihoods, 2018, for USD 50,000.00

Other projects by NGOs and their allocated budgets include:

- Project “Promoting Integrated and Participatory Ocean Governance in Guyana and Suriname”- a collaboration between WWF Guianas, Protected Areas Commission (Guyana), the Nature Conservation Service of the Ministry of ROGB (Suriname) and the Green Heritage Fund Suriname (GHFS), with a grant of € 1.25 million from the European Union;
- Project on training, among others, four women of the Matawai Maroon tribe to become conservation rangers (Global Climate Change Alliance Suriname Adaptation Project) – a partnership between ACT Suriname and SBB (grant USD 98,000.00 from GCCA+ /UNDP );
- Project regarding digitization of the botanical collection of BBS – in partnership with ACT Suriname, SNRI/ADRON and NZCS (grant € 53,280.00 from the European Union and GBIF, co-financed by BBS € 42,653.00).

For a more detailed overview on planned and expended budgets (2010-2018), see section “Financial Framework”.

Conclusion: with regards to the progress towards this target, from the view of non-governmental organizations, progress toward achieving this target is being made.

### **Indicators used in this assessment**

- Data on amount of budget allocation and expenditures for Ministries with environmental-related tasks (2015-2018)
- Data on number of projects funded by SCF and SGP

### **Please describe any other tools or means used for assessing progress**

Information provided by CM

## Relevant websites, web links and files

### Documents:

- SCF Annual Report 2015: [http://www.scf.sr/images/PDF/SCF--ANNUAL-REPORT-2015\\_webversion\\_final.pdf](http://www.scf.sr/images/PDF/SCF--ANNUAL-REPORT-2015_webversion_final.pdf)
- SCF Annual Report 2016: [http://www.scf.sr/images/PDF/Annual%20Report%202016%2012122017\\_SCF\\_JV2016LR-web.pdf](http://www.scf.sr/images/PDF/Annual%20Report%202016%2012122017_SCF_JV2016LR-web.pdf)

### Web links:

- Annual Plans: <http://www.planningofficesuriname.com/jaarplan-ontwikkelingsplan/>
- The GEF Small Grants Program: [https://www.sgp.undp.org/spacial-itemid-projects-landing-page/spacial-ite\\_results.html?view=allprojects&limit=100&limitstart=0&paging=1](https://www.sgp.undp.org/spacial-itemid-projects-landing-page/spacial-ite_results.html?view=allprojects&limit=100&limitstart=0&paging=1)
- GEF project "Improving Environmental Management in the Mining Sector of Suriname, with Emphasis on Gold Mining": <https://www.thegef.org/project/improving-environmental-management-mining-sector-suriname-emphasis-gold-mining>
- Project "Promoting Integrated and Participatory Ocean Governance in Guyana and Suriname": [https://eeas.europa.eu/delegations/guyana\\_sr/20028/Promoting%20Integrated%20and%20Participatory](https://eeas.europa.eu/delegations/guyana_sr/20028/Promoting%20Integrated%20and%20Participatory)
- Global Climate Change Alliance Suriname Adaptation Project: [https://info.undp.org/docs/pdc/Documents/SUR/Grant%20Agreement\\_ACT\\_May%202017\\_signed.pdf](https://info.undp.org/docs/pdc/Documents/SUR/Grant%20Agreement_ACT_May%202017_signed.pdf)
- Project "Improve accessibility of Surinamese biodiversity data through digitizing and partnerships": <https://accessibility-of-surinamese-biodiversity-data-through-digitizing-and-partnerships>

### Level of confidence of the above assessment

- Based on comprehensive evidence
- Based on partial evidence
- Based on limited evidence

**Please provide an explanation for the level of confidence indicated above.**

Based on the data available for financial resources for the reporting period 2015-2018.

**Adequacy of monitoring information to support assessment**

- Monitoring related to this target is adequate
- Monitoring related to this target is partial (e.g. only covering part of the area or issue)
- No monitoring system in place
- Monitoring is not needed

**Please describe how the target is monitored and indicate whether there is a monitoring system in place.**

All organizations have their own monitoring systems in place. Under the Ministry of Finance, there is a department responsible for monitoring all finances projects by NGOs. However, the information is limited to UNDP related projects.

## **Section IV: Description of the national contribution to the achievement of each global Aichi Biodiversity Target**

---

Information on Suriname's national contribution to the achievement of each global Aichi Biodiversity Target is described at large in the previous section (III). There is no additional information to include in this section.

## Section V: Description of the national contribution to the achievement of the targets of the Global Strategy for Plant Conservation

---

This section gives an overview of the network, structures and institutions that are in place for establishing the Global Strategy for Plant Conservation (GSPC).

### Does your country have national targets related to the GSPC Targets?

Yes. Please provide details on the specific targets below:

or

No, there are no related national targets.

### Please provide information on any active networks for plant conservation present in your country

The National Herbarium of Suriname (BBS) is the National Collection Institute regarding plant collection in Suriname. Smaller, specific collections are available at the Ministry of Agriculture, Animal Husbandry and Fisheries (LVV) and at the Anne van Dijk Rice Research Centre Nickerie (SNRI/ADRON).

BBS, the Centre for Agricultural Research in Suriname (CELOS) and the Foundation for Forest Management and Production Control (SBB) are working on the standardization of the trees name list, which is part of a regional project regarding the vernacular/scientific names of trees within the Guiana Shield.

Other active national networks for plant conservation do exist, but are informal, for example regarding research on Non-Timber Forest Products (NTFPs).

*Web link:*

- Occurrence dataset SNRI/ADRON Riceweeds: <https://www.gbif.org/dataset/148cdf1-c323-4108-9c2c-547c11279a2f#description>

### Please describe the major measures taken by your country for the implementation of the Global Strategy for Plant Conservation.

Suriname is in the initial phase of implementing the GSPC. A national focal point has been assigned (Ms. Dorothy Traag, Head of BBS). The coordination of the GSPC is with Coordination Environment (CM).



### **GSPC Target 1: An online flora of all known plants**

**Please describe how and to what extent your country has contributed to the achievement of this GSPC Target and summarize the evidence used to support this description.**

The national plant collection of Suriname at the National Herbarium of Suriname (BBS), which was established on the 21<sup>st</sup> of July 1947, consists of a dry collection of plant specimens, a collection of seeds/nuts and an alcohol collection of flowers. The collection is alphabetically ordered by family.

BBS is now in the phase of digitizing the collection, which is made possible by several donors and will be made available online, partly through GBIF. This is being done in partnership with Amazon Conservation Team (ACT) Suriname, SNRI/ADRON and the National Zoological Collection of Suriname (NZCS).

The National Institute for Environment and Development Suriname (NIMOS) and United Nations Development Programme (UNDP), with funding from the Global Environment Facility (GEF), supported the digitizing equipment for this project. The collection is also in process to be linked with the Angiosperm Phylogeny Group (APG) III system through the Flora of the Guianas. The collection is not yet part of the World Flora Online Consortium.

### **GSPC Target 2: An assessment of the conservation status of all known plant species, as far as possible, to guide conservation action**

**Please describe how and to what extent your country has contributed to the achievement of this GSPC Target and summarize the evidence used to support this description.**

The National Collection at BBS has not been categorized based on the IUCN 3.1 Categories and Criteria or any national system. The Collection is categorized alphabetically by family. The Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES) categories are only applied for orchids, tree ferns and cacti.

For tree species a distinction is made in the Forestry Law (1992) between commercially timber (category A), possible commercially timber (category B) and trees that are banned from felling (category C).

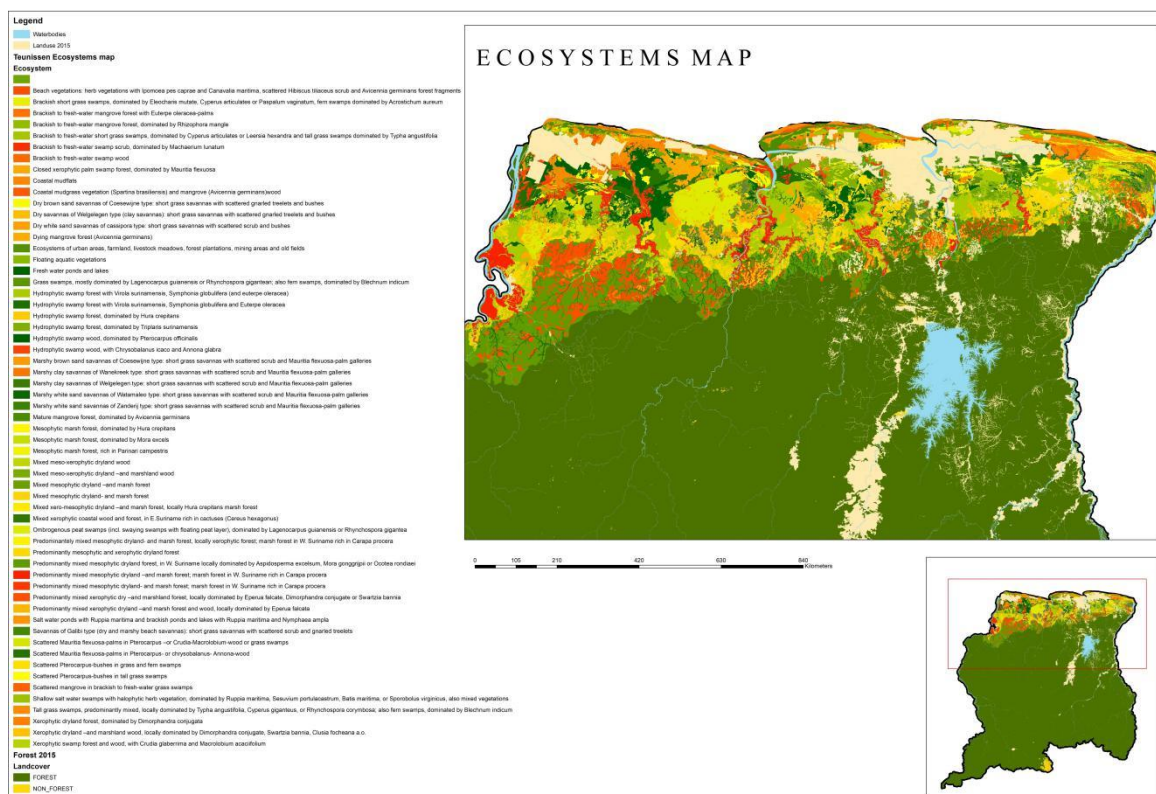
There is no figure on what proportion of the country's flora has been assessed. But the ecosystem mapping from Teunissen, 1978 yielded in the assessment of the Young Coastal Plain, the Old Coastal Plain and the Savannah Belt [Figure 5]. Assessments have also been

done in other parts of the country, especially in the protected areas (Teunissen, 1978). Furthermore, rapid assessments lead by Conservation International (CI) Suriname, were conducted from 2003 on in the Central Suriname Nature Reserve (CSNR), Lelygebergte, Grensgebergte, and Sipaliwini Area.

In the coastal area, the Suriname Coastal Protected Areas Management (SCPAM) Project has been conducted (2013), which focused on safeguarding the biodiversity of the coastal area. Within this project, an assessment of Invasive Alien Species (IAS) for one of the Multiple Use Management Areas was also done.

In the past ten years, vegetation types have also been assessed by Sarvison (2010) and Nation Forest Inventory (NFI) Pilot project (2013).

Recently, the project 'Mainstreaming Global Environment Commitments for Effective National Environmental Monitoring in Suriname' (Cross-Cutting Capacity Development (CCCD) Project) (2017-2018), has been implemented, which should result in an adequate planning and communication tool regarding the sustainable management of natural resources.



**Figure 5. Overview of ecosystems in Suriname**

In this overview, ecosystems are displayed from the Young and Old Coastal Plain and the Savannah Belt, respectively. Adapted from Teunissen, 1978. Source: LULC 2015, Suriname basemap.

### **GSPC Target 3: Information, research and associated outputs, and methods necessary to implement the Strategy developed and shared**

**Please describe how and to what extent your country has contributed to the achievement of this GSPC Target and summarize the evidence used to support this description.**

There is no figure on what proportion of the country's flora has been assessed. But the ecosystem mapping from Teunissen, 1978 [see **Figure 5**] yielded in the assessment of the Young Coastal Plain, the Old Coastal Plain and the Savannah Belt, including the official Protected Areas (PAs).

Furthermore, vegetation types have been assessed through area specific expeditions (CI Suriname Rapid Assessment Programs (RAPs) 2006-2012), Sarvision (2010) and NFI Pilot project (2015). Areas under surveyed are the difficult-to-access areas in the interior, especially the highland areas (for example Eilerts de Haan Mountain Range) [**Figure 6**].

Regarding the conservation and sustainable use of plant groups/species, research has been/is being done on:

- The inventory and use of plants for medicinal and cosmetic purposes (Medical Faculty of the Anton de Kom University of Suriname (AdeKUS))
- NTFPs (ACT Suriname/BBS/CELOS)
- Macro-fungi (BBS)
- Mangroves (SBB/CELOS)
- Ethno-botanical research on the use and chain of production of medicinal plants by local people (BBS in cooperation with Utrecht University)
- Macrophytes (BBS)
- Research on crop species (CELOS)
- The use of plant species as indicator for climate change (Smith and Bastidas, 2017)

BBS is now in the phase of digitizing the collection, which will be made available, partly through Global Biodiversity Information Facility (GBIF). Information on the GBIF website is accessible for the public.

Protocols regarding medicinal plants data gathering are being developed. All institutions use the standard national and international protocols for data gathering regarding plants.

Permits are being applied for at the Ministry of Spatial Planning, Land and Forest Management (RGB). SBB has a code of practice for concessionaires with guidelines for sustainable harvesting of commercial tree species. Furthermore, in cooperation with

CELOS, they have conducted the NFI/Lowland Forest Inventories.

*Ex situ* propagation of plant species is done on a very small scale and only for specific crop species (cassava (CELOS), rice (SNRI/ADRON)).

The suggested updates to the Nature Conservation Act 1954 by Conservation International also include provisions for sustainable use of plant resources. The Government should still approve these updates.

An Environmental Atlas regarding the natural resources of Suriname has been produced by NIMOS during the implementation of the CCCD Project.

Overviewmap of the vegetation types in Suriname

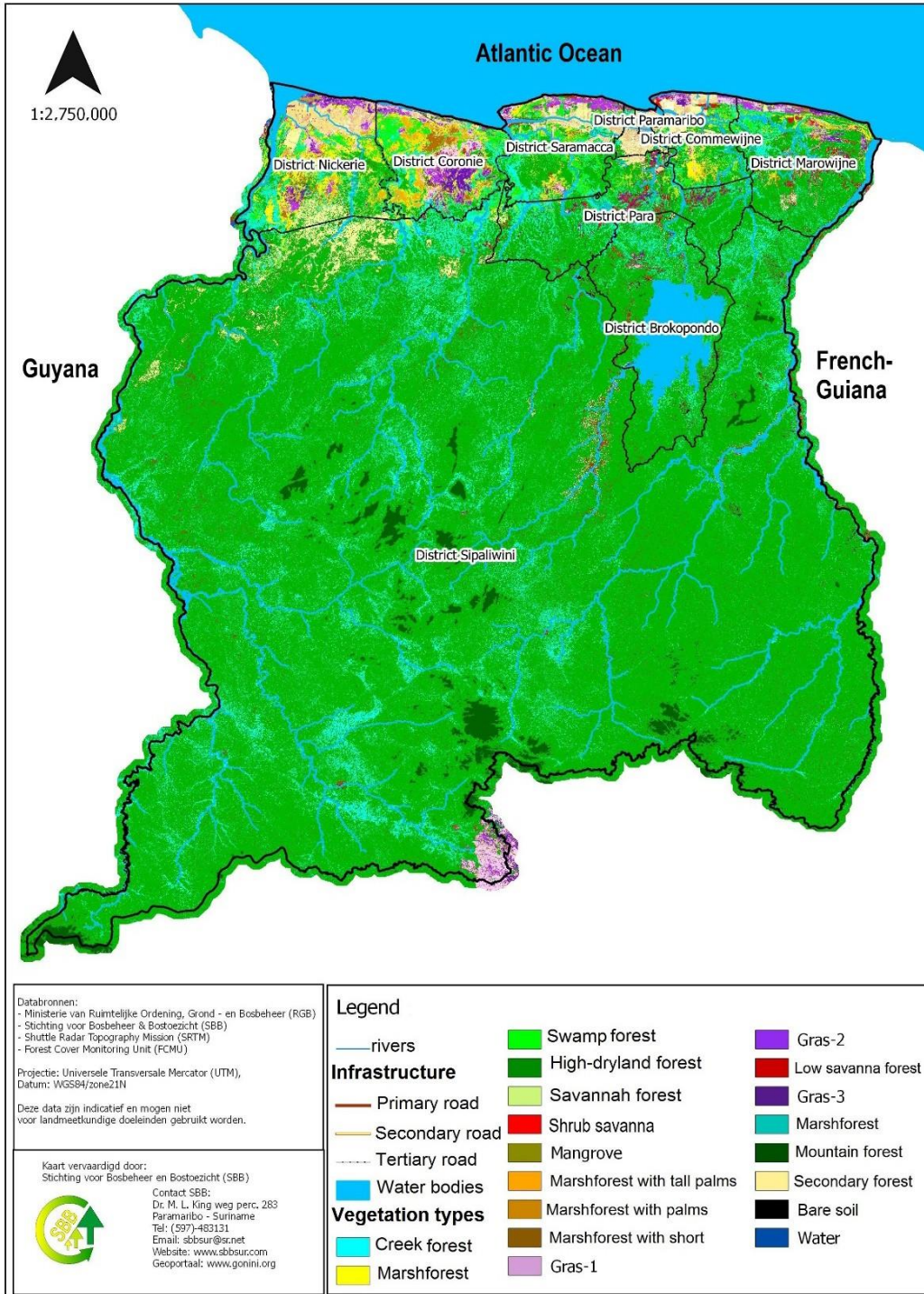


Figure 6. Overview of vegetation types in Suriname  
 Kindly provided by SBB.

**GSPC Target 4: At least 15 per cent of each ecological region or vegetation type secured through effective management and/or restoration**

**Please describe how and to what extent your country has contributed to the achievement of this GSPC Target and summarize the evidence used to support this description.**

Suriname has a long tradition in PAs (14% land area under a form of protection). The management of these areas lies with the Ministry of RGB. The Ministry of RGB is now in the phase of updating the management plans of 3 Coastal PAS as part of the Global Climate Change Alliance (GCCA)+ (2016-2019) project. As mentioned before, the assigning of a Marine Protected Area is in preparation within an EU-funded project "Promoting Integrated and Participatory Ocean Governance in Guyana and Suriname: the Eastern Gate to the Caribbean" (2017-2020) supported by World Wildlife Fund (WWF) Guianas.

Small initiatives for restoration of degraded areas have been implemented with the Suriname Aluminum Company (Suralco) in the past. Since 2015, this company is not active and these efforts have stopped. The gold mining company Iamgold Rosebel Gold Mines carries out reclamation projects, which include replanting with local grasses and shrubs, hydro-seeding and natural re-vegetation. The GEF-funded, seven-year project, "Improving Environmental Management in the Mining Sector, with Emphasis on the ASGM sector in Suriname" will also contribute to this target. Furthermore, CELOS, funded by GEF, started a rehabilitation project of terrains with secondary vegetation in the Marchall creek area.

Within the REDD+ project (2014-2018), work has been done on developing a Forest Reference Emission Level (FREL) for the forestry sector. Furthermore, a forest cover monitoring is being implemented.

Indigenous and Tribal Peoples (ITPs) have their traditional system in managing biodiversity (including vegetation types and ecosystems). Regarding PAs, their definition of a protected area differs from the definition set by the government. This may cause conflicts and can result in the livelihood of ITPs being endangered in these PAs and them being seen as a threat for conservation. According to the ITPs, this can be resolved if they get self-determination rights over their land.

**GSPC Target 5: At least 75 per cent of the most important areas for plant diversity of each ecological region protected with effective management in place for conserving plants and their genetic diversity**

**Please describe how and to what extent your country has contributed to the achievement of this GSPC Target and summarize the evidence used to support this description.**

Areas have been assigned as PAs based on important existing flora, fauna and ecosystems (Teunissen, 1978). The Ministry of RGB is responsible for the proper management of these areas.

Outside the PAs, some Non-Governmental Organizations (NGOs) have implemented projects within the communities regarding the management of communities' forest resources. Tropenbos International (TBI) Suriname has implemented projects in the Upper Suriname River, from 2014 to 2017, with the goal to map ecosystem services for the local communities using P3DM. With this, the community can assess the state of ecosystem services and discuss visions for future management of the area. A similar project was already done in the past in the Trio community in the South of Suriname by ACT Suriname.

Because there is no baseline regarding this subject, it is difficult to determine the outcome of this target.

**GSPC Target 6: At least 75 per cent of production lands in each sector managed sustainably, consistent with the conservation of plant diversity**

**Please describe how and to what extent your country has contributed to the achievement of this GSPC Target and summarize the evidence used to support this description.**

Timber harvesting is mainly done by, what is called by SBB, extensive logging. In getting the harvesting permit, concessionaires get guidelines for the operations and are obliged to submit an operation plan. There is also a code of practice with guidelines, which the concessionaires can use.

In the interior, farmers manage their own seed collection. Rice is being grown there using subsistence agricultural practices.



Because there is no baseline regarding this subject, it is difficult to determine the outcome of this target.

**GSPC Target 7: At least 75 per cent of known threatened plant species conserved *in situ***

**Please describe how and to what extent your country has contributed to the achievement of this GSPC Target and summarize the evidence used to support this description.**

According to the Forestry Law (1992), seven tree species are banned from timber harvesting. Apart from that, *Cedrela odorata* is on the CITES list. This species may occur in PAs, but it is not assessed. A study on *Cedrela odorata* was carried out in 2010 by Maureen Playfair from CELOS (<https://www.cites.org/sites/default/files/common/com/pc/19/E19i-06.pdf>) with funding from CITES in partnership with the Ministry RGB/LBB. However, this assessment was done outside of PAs. No additional assessments have been done.

The baseline regarding this subject remains unchanged and therefore difficult to determine progress towards achieving this target.

**GSPC Target 8: At least 75 per cent of threatened plant species in ex situ collections, preferably in the country of origin, and at least 20 per cent available for recovery and restoration programs**

**Please describe how and to what extent your country has contributed to the achievement of this GSPC Target and summarize the evidence used to support this description.**

There are no figures on the percentage of *ex situ* conserved threatened plant species.



**GSPC Target 9: 70 per cent of the genetic diversity of crops including their wild relatives and other socio-economically valuable plant species conserved, while respecting, preserving and maintaining associated indigenous and local knowledge**

**Please describe how and to what extent your country has contributed to the achievement of this GSPC Target and summarize the evidence used to support this description.**

Suriname does not have a specific national policy for the management of Plant Genetic Resources (PGR). In 2011, a National Committee for the coordination of the activities on PGR was installed by the Minister of LVV. Subsequently, the Committee established a National Information Sharing Mechanism on PGR. In managing PGR, the National Committee needs funding, adequate policy to ensure that PGR become a fundamental part of agricultural programs, sufficient capacity in germplasm management, adequate facilities, a well-coordinated national and regional system and good public awareness about the importance of germplasm management.

BBS has a seed collection, but no genetic work is being done on it. SNRI/ADRON has a seed collection for rice with 900 accessions. In sampling Genetic Resources, protocols of FAO and Biodiversity International are being used.

CELOS had research done on cassava and pine apple in some villages within the Guyagrofor project (2004-2009). Currently CELOS is conducting an agrobiodiversity project on tuber, root and rhizome crops, plantain, and seed-producing crops in three pilot villages.

Because there is no baseline regarding this subject, it is difficult to determine the outcome of this target.

*Documents:*

- Fact sheet ABD Project
- Farming systems and farmer strategies in the Suriname Interior: The case of the indigenous village of Matta: <http://edepot.wur.nl/133974>

*Web link:*

- CELOS fact sheet (2014): <http://www.celos.sr.org/wp-content/uploads/2018/07/CELOS-Cassava-genebank-posters-2014>;  
<http://www.celos.sr.org/en/publicaties/>

- Blog ABD project: <https://projekta-suriname.blogspot.com/search?q=CELOS>

**GSPC Target 10: Effective management plans in place to prevent new biological invasions and to manage important areas for plant diversity that are invaded**

**Please describe how and to what extent your country has contributed to the achievement of this GSPC Target and summarize the evidence used to support this description.**

Within the Suriname Coastal Protect Area Management (SCPAM) Project, an assessment of IAS was done in one of the coastal protected areas. Also, a workshop was held with farmers and local stakeholders in the coastal area to identify plant species that can be considered invasive in the area. The result of this was a Monitoring Plan for game wardens of the Ministry of RGB.

**GSPC Target 11: No species of wild flora endangered by international trade**

**Please describe how and to what extent your country has contributed to the achievement of this GSPC Target and summarize the evidence used to support this description.**

Suriname adopted the CITES convention (since 1981) and the guidelines in this Convention are used to regulate international trade. The Ministry of RGB is the coordinating governmental institution for the implementation of the CITES Convention. The Ministry is now in the process of reporting to CITES regarding trade on endangered species and an Action Plan for CITES Category 1 trajectory is being prepared.

It has not been measured what proportion of existing plant species are commercially traded nationally or internationally. Even though there are a lot of plants that are being exported to, especially, Europe, only the work by Van Andel *et al.* (2007) gives an overview of what is being exported.

For commercial timber, it is well-documented which species are being exported. For timber, there are seven tree species that are protected by law (Forestry Law, 1992). *Cedrela odorata*, which is on the list of commercial tree species in the Surinamese law, is on the CITES list.

The Ministry of LVV (Departments Plant Conservation; Quality Control) gives approval for the export of plant-based products.

The ASYCUDA system from the Ministry of Finance is in place for Suriname, but it is difficult to determine from plant extracts what the components of the substance is. Furthermore, BBS is not being consulted in the process of granting permits for the export of plant and plant material. The Ministry of HI&T is in the process of developing a strategy for the production and export of medicinal plants, but work also needs to be done on the national legislation.

*Document:*

The Medicinal Plant Trade in Suriname:

<http://journals.sfu.ca/era/index.php/era/article/viewFile/141/126>

## **GSPC Target 12: All wild harvested plant-based products sourced sustainably**

**Please describe how and to what extent your country has contributed to the achievement of this GSPC Target and summarize the evidence used to support this description.**

SBB has a Code of Practice, in which guidelines for the harvesting of commercial timber are given. These guidelines have to ensure less damage to the surrounding forest. Guidelines for logging are also given with the permit to the concessionaires. Concessionaires are obliged to submit a detailed planning of their extraction over time. The maximum extraction limit is 25 m<sup>3</sup>/ha, but on average a level of 7.5 m<sup>3</sup>/ha is extracted.

From 2012 on, research regarding the (sustainable) harvest of plants has been done on:

- The existing NTFPs in the Matawai area, which should lead to sustainable exploitation of these resources (ACT Suriname and BBS)
- The Traditional Knowledge (TK) regarding the cultivation of root and tuber crops (ginger, cassava, etc.) and the location where these cultivations occur (CELOS, BBS, Pater Albrinck Foundation (PAS) and the Agricultural Department of AdeKUS)
- The occurrence of *Carapa spp.* in West Suriname (CELOS, GEF)
- The impact of the use of Tasi (*Geonoma baculifera*) leaves on the environment (ACT Suriname)

- The diversity, knowledge and use of plants by the ITPs (Sofie Ruyschaert)

In the recent developed Draft National REDD+ Strategy (2017) the communities have identified plant resources as a possibility for economic diversification. The focus regarding plant resources is on NTFPs, medicinal plants and agricultural crops (SBB/REDD+).

**GSPC Target 13: Indigenous and local knowledge innovations and practices associated with plant resources, maintained or increased, as appropriate, to support customary use, sustainable livelihoods, local food security and health care**

**Please describe how and to what extent your country has contributed to the achievement of this GSPC Target and summarize the evidence used to support this description.**

ITPs in Suriname have a long tradition in using and preserving (plant) resources for their livelihood. TK is being passed on orally by parents to children over generations. TK is poorly documented locally for some plant species and its uses. For others, for example Tasi (*Geonoma baculifera*), the documentation is better (ACT Suriname). With minimal documentation and the passing of key persons within the community, information is being lost. During the consultations with the ITPs, listings have been made what services plants deliver to their livelihood, but ITPs are hesitant in sharing TK. Because this was explicitly mentioned by them, no overview of plant services will be mentioned here.

According to the ITPs, the government does not respect their TK and their areas. For example, concessionaires have more privileges in areas of the ITPs than the inhabitants of the area itself. Since Free, Prior and Informed Consent (FPIC) is an important tool in biodiversity conservation, the ITP conclude that the government and other organizations implement this poorly.

There is also no law that protects TK. For the ITPs it is important that the law for the protection of TK is made.

Furthermore, the ITPs believe that the maintenance of TK is being endangered, since Western technology invades the TK and application for patents on plant resources for medicinal purposes are made which primarily belonged to the ITPs. See example on the kwasibita molecule (<https://www.ncbi.nlm.nih.gov/pubmed/28576580>). Also, the ITPs are frightened that Western knowledge and technology may cause TK to fade away and or become subordinate to Western knowledge. Moreover, benefits from TK do not reach

these communities.

Despite that, the ITPs recognize the importance of Western knowledge and technology for maintaining and documenting TK, and for communication.

*Web link:*

- Quassia "biopiracy" case and the Nagoya Protocol: A researcher's perspective:  
<https://www.ncbi.nlm.nih.gov/pubmed/28576580>

### **GSPC Target 14: The importance of plant diversity and the need for its conservation incorporated into communication, education and public awareness programmes**

**Please describe how and to what extent your country has contributed to the achievement of this GSPC Target and summarize the evidence used to support this description.**

Formal plant training is incorporated in Biology lessons from primary to secondary school. Formal botanical training is given at the Institute for the Training of Teachers (IOL), and at the AdeKUS in the Environmental Science and Agriculture Production studies (Bachelor's level), Sustainable Management of Natural Resources (SMNR) and Conservation Biology (studies at Master's level). Furthermore, plant training is also incorporated at the Pharmacology Department (Medical Faculty of the AdeKUS).

Internships involving botanical works are also offered by several institutions/NGOs, such as the Pharmacology Department (Medical Faculty), BBS and ACT Suriname.

Some informal educational programs are being carried out, mostly as part of a bigger awareness program. For example, the Foundation for Development of Radio and Television in Suriname (Stichting voor Ontwikkeling van Radio en Televisie in Suriname, SORTS) has produced books (Wroko yu busi wan moro betre fasi; (translated: exploit your forest in a better way) for small scale gold miners; Wroko yu gudu wan moro betre fasi; (translated: exploit your minerals in a better way) for communities in the interior with community forest, and a green teaching kit (Groene Leskist) for primary schools. Stichting Kesabaran, in cooperation with NIMOS and UNDP Suriname, funded by the Japan Caribbean Climate Change Partnership (JCCCP), have implemented from October 2017 – October 2018, the awareness project 'Everyday food: growing vegetables no matter what weather'. During this project, schoolchildren from selected primary schools were taught how to adapt the cultivation of agricultural crops to the changing climate. The children also got the opportunity to learn about climate change. It has been recognized

that Suriname has no formal climate change education in schools.

Within the GCCA+ project, there are some awareness activities and training regarding the role of mangrove in Suriname, focusing on coastal protection and mitigation of negative impacts of climate change. For example, every day there is a knowledge audio clip regarding mangrove on one of the radio stations for the general public.

SNRI/ADRON organizes the farmer's field school for 15 years already, at which principles of integrated pest management, farming techniques and water management are being taught to rice farmers. Also, through folders and TV clips, information regarding, for example, pesticide use is being disseminated.

Moreover, a Mangrove Educational Center is being set up in Coronie (implementation organisation: BBS in cooperation with UNDP and the Ministry of RGB). This Mangrove Educational Center includes information regarding mangroves and other biotic and abiotic aspects of the mangrove ecosystem. The Center can be visited by schools, tourists and interested stakeholders.

BBS also conducts guided tours within the herbarium on request and gives applied botanical training to for example the Boy Scouts, game wardens, tree spotters and in several forest inventory projects.

In the interior, ACT Suriname facilitates first aid in the shaman training using traditional medicine. These courses have an exam to test what their knowledge is regarding the use of plant species.

The impact of awareness programs (regarding plant diversity), initiated by the government, is being perceived as poorly within the ITPs communities. According to the ITPs, they are not optimal being engaged in the awareness programs. Furthermore, they mentioned other factors that prohibit effective biodiversity awareness in the communities, such as not contacting the right person in the community, lack of finances, lack of feedback after consultation sessions within the villages, lack of trust for government initiatives and lack of the use of FPIC principles.

**GSPC Target 15: The number of trained people working with appropriate facilities in plant conservation increased, according to national needs, to achieve the targets of this strategy**

**Please describe how and to what extent your country has contributed to the achievement of this GSPC Target and summarize the evidence used to support this description.**

Since Suriname just committed itself this year (2018) towards the implementation of the GSPC, only a focal point has been appointed, but no arrangements have been made yet regarding mandate and responsibilities. Also, there is no inventory yet regarding facilities and manpower to implement the GSPC. However, there are already some structures in place regarding education, facilities and training (see GSPC Target 14), which can be used in developing the GSPC.

**GSPC Target 16: Institutions, networks and partnerships for plant conservation established or strengthened at national, regional and international levels to achieve the targets of this Strategy**

**Please describe how and to what extent your country has contributed to the achievement of this GSPC Target and summarize the evidence used to support this description.**

Since Suriname just committed itself this year (2018) towards the implementation of the GSPC, only a focal point has been appointed, but no arrangements have been made yet regarding mandate and responsibilities. Also, there is no inventory and planning yet regarding networks, partnerships for plant conservation. However, there are already some structures in place regarding networks and partnerships (see GSPC Target 1), which can be used in developing the GSPC.

## **Section VI: Additional information on the contribution of indigenous peoples and local communities (completion of this section is optional)**

---

Information on the contribution of Indigenous and Tribal peoples (ITPs) is incorporated in various other sections. There is no additional information to include here.



## Section VII: Suriname Biodiversity Country Profile

---

### **Biodiversity Facts**

#### **Status and trends of biodiversity, including benefits from biodiversity and ecosystem services**

The Republic of Suriname is located on the northeast coast of South America and is part of the Amazon biome and the Guiana Shield area. With 93% forest cover [Figure 7] of the national territory (as recorded in 2015 by Foundation for Forest Management and Production Control (SBB)), it has the distinction of being one of the most forested countries on Earth. Its Exclusive Economic Zone covers approx. 345 sea miles.

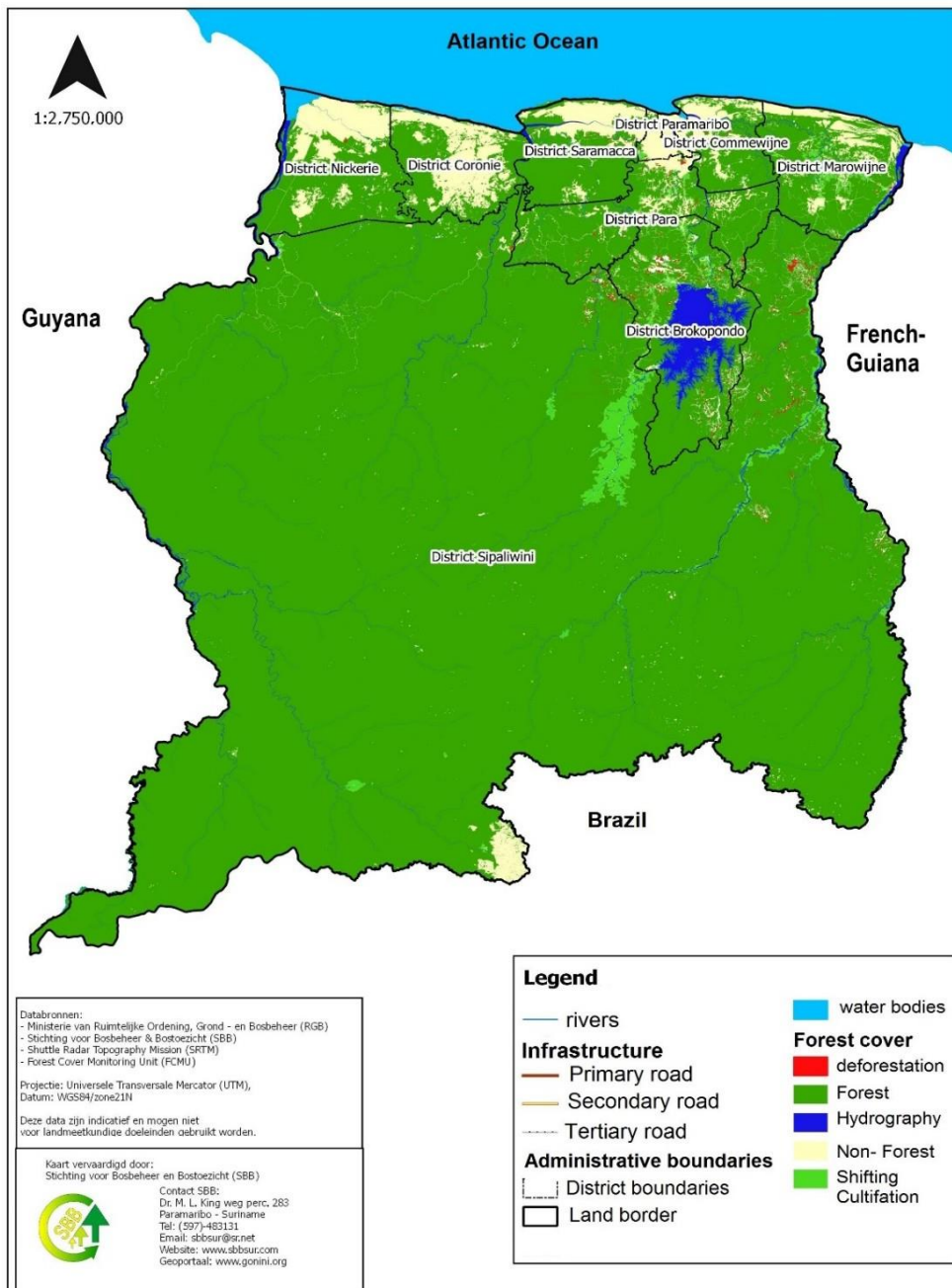
The country possesses seven types of ecosystems: (i) marine ecosystems (Atlantic Ocean, mud banks, sandbanks, mudflats), (ii) coastal ecosystems (mangrove forests, mangrove swamps), (iii) brackish water ecosystems (brackish water pans and lagoons), (iv) freshwater ecosystems (freshwater swamps, open freshwater systems such as the Brokopondo Lake, upper rivers and rapids in the interior), (v) savannah ecosystems (white and brown sand savannahs, rock savannahs), (vi) marsh ecosystems and (vii) tropical rainforest and inselbergs.

Suriname has a long history of protecting the biological diversity in these ecosystems. Starting from 1954, sixteen protected areas were established consisting of eleven nature reserves, four Multiple Use Management Areas (MUMAs) and one nature park. Together they make up about 2.3 million hectares or 14% of the country's land surface (as recorded in 2015 by SBB).

It is recognized that in order to follow trends, detailed data over time is required. In this regard, data on timber production and deforestation are being collected annually by SBB and are accessible on their website (<https://sbbsur.com/>). By 2018, steps have been taken to develop a framework to document habitat and ecosystem services nationally through the Global Environment Facility (GEF)-funded Cross-Cutting Capacity Development Project (CCCD Project) by the National Institute for Environment and Development in Suriname (NIMOS) and Coordination Environment (CM) at the Cabinet of the President of Suriname to facilitate environmental management planning. Furthermore, data will be gathered through Environmental Sensitivity Maps (ESMs), whereby these maps will represent a comprehensive description of the ecosystems sensitivity in the coastal region. This activity will be conducted through the 'Regional Ecosystem Services Observatory on the Guiana Shield' project (ECOSEO), starting in the fall of 2018.

In order to guarantee sustainable forest management practices, monitoring is occurring of forest' usages (e.g. production of honey in the coastal areas, nuts (and oil) harvested from the Carapa tree and the Brazilian nut tree in the interior are important commodities to the

### Overviewmap of the forestcover in Suriname



**Figure 7. Overview of the forest cover in Suriname**

Suriname has 93% of forest cover and is deemed one of the most forested countries on Earth. Kindly provided by SBB.

Surinamese people for income and subsistence). Examples of Non-Timber Forest Products (NTFPs) that generate income are the production of açai from the açai berry (*Euterpe oleracea*, Arecaceae), medicinal plants (e.g. kwasibita or bitterwood *Quassia amara* (Simaroubaceae)) used by the Indigenous and Tribal Peoples (ITPs), and others, oils from different seeds for the production of soaps and cosmetic products as well as for consumption. Moreover, forests provide opportunities for eco-tourism, while many characteristics of biodiversity are exploited for their cultural values.

### **Main drivers of change to biodiversity (direct and indirect)**

Major direct threats to the country's biodiversity include: mining (mined ore has traditionally been a major commodity in the national economy), logging, infrastructure agriculture, energy and housing (UNIQUE, 2016). The presence of Invasive Alien Species (IAS), the import of exotic animal and plant species that may become pests, illegal hunting and fisheries, the poaching of sea turtle eggs, the overharvesting of fish brood and the illegal trade in biological diversity, present major indirect threats. It is important to note that in certain areas with white sand savannah vegetation are burnt to maintain the savannah structure. Furthermore, natural disasters and climate change are also threatening biodiversity.

### **Measures to Enhance Implementation of the Convention**

#### **Implementation of the NBSAP**

Suriname's National Biodiversity Action Plan (NBAP) 2012-2016, finalized in February 2013, was essentially formulated on the basis of the directions outlined in the National Biodiversity Strategy (NBS) finalized six years earlier in 2007. The NBAP contains eight objectives: (i) biodiversity conservation, (ii) sustainable use of biodiversity, (iii) regulated access to genetic material and associated knowledge, with fair and equitable sharing of benefits, (iv) knowledge acquisition through research and monitoring, (v) capacity-building, (vi) communication, education & public awareness (CEPA), (vii) cooperation at local and international levels and (viii) sustainable financing.

Actions for the NBAP were elaborated through a phased approach with those for the Coastal Zone, including the urbanized areas, addressed in 2007 and those for the Interior in 2010-2012. Additionally, the final version of the NBAP incorporates actions promoting comprehensive stakeholder consultations, the rights of the communities (Indigenous and Tribal Peoples (ITPs)), the application of the Principles of Free, Prior and Informed Consent (FPIC) associated with the Nagoya Protocol, Environmental and Social Impact Assessment (ESIA), co-management of protected areas with local stakeholders.

Activities carried out in response to implementing the NBAP 2012-2016 as well as to

achieving the global biodiversity targets are highlighted in the sections below.

Suriname is currently undertaking activities aimed at developing a new NBSAP which is more aligned to the Strategic Plan for Biodiversity 2011-2020 and the Aichi Biodiversity Targets. It is expected to have a new NBSAP by 2019.

### **Actions taken to achieve the 2020 Aichi Biodiversity Targets**

Examples of actions are provided below (the list is not exhaustive).

Suriname has a National Forest Policy since 2005, which is still valid and being implemented. A Code of Practice for Sustainable Forest Management has been drafted and used on a voluntary basis. Furthermore, in 2014, a DRAFT National Plan for Forest Cover Monitoring was formulated and now a National Forest Monitoring System, including a Measurement, Reporting and Verification (MRV) System, is almost functional. Forest cover is being monitored and the information is available online (<http://www.gonini.org/>) for relevant stakeholders (re Target 5). Also, efforts have again been initiated to set up a Forest and Nature Management Authority (BOSNAS). Activities of capacity strengthening of the forest authority have been carried out to further promote sustainable forest management (re Target 4).

In 2016, 96.4 tons of obsolete pesticides (six of 40 feet containers) have been removed and shipped to the United Kingdom (UK) for incineration (re Target 8). The establishment of an inventory on IAS (vegetation) has been done in the coastal area by the National Herbarium of Suriname (BBS) at the Anton de Kom University of Suriname (AdeKUS) funded in the Suriname Coastal Protection Areas Management (SCPAM) Project (re Target 9). Actions towards eradicating the use of mercury have been implemented such as the authorization by Parliament to accede to the Minamata Convention in March 2018. Activities towards protecting important underground freshwater aquifers and other freshwater sources are underway, with the major watershed of the Central Suriname Nature Reserve (CSNR), and the coastal zone freshwater and brackish water swamps, already under protection (re Target 10). Land currently protected comprises about 2.3 million ha or 14% of the country's territorial surface, including sixteen protected areas, consisting of eleven Nature Reserves, four MUMAs and one Nature Park (re Target 11).

With regards to the Nagoya Protocol, it can be said that Suriname is in the process of taking steps to start stakeholder consultations in 2019 to accede to the Protocol. One of the main obligations under the Protocol is to incorporate Access and Benefit Sharing on Genetic Resources and Traditional Knowledge (TK) of the ITPs in Suriname. However, the issue of the land rights of these ITPs need to be resolved in order to make any significant progress in the future implementation of the Protocol (re target 16 and 18).

### **Support mechanisms for national implementation (legislation, funding, capacity-building, coordination, mainstreaming, etc.)**

Suriname is in the process of restructuring and rebuilding the State's Environmental Bodies in order to ensure the development and implementation of sound and integrated environmental policies. Since 2016, the Department of Environment, and consequently the coordination of the Management of Biological Resources, is brought to the level of the President at CM. In both sectoral as well as cross-sectoral fields, projects have been initiated and are ongoing.

Suriname has adopted a Fisheries Management Plan (2014-2018), which will be updated, planned for late 2018. In 2017, the Sea Fisheries act of 1980 has been revised, related to Maritime zones. Bycatch reduction devices have been tested and are currently implemented. The Aquaculture Act is being finalized. The Fisheries Department is also a party to the Caribbean Large Marine Ecosystem Project, which was endorsed by GEF (April 2015). In addition, fishermen have been trained (Global Positioning System (GPS) training, leadership cooperation and team building) and a fishery cooperative has been set up. This cooperative is part of the Caribbean Network of Fishers Organization (CNFO).

Graduate programs (Master of Sciences, topic-specific courses) have been created at the AdeKUS: Conservation Biology, and Sustainable Management of Natural Resources. To date, the program Conservation Biology has produced twelve graduates, and the program Sustainable Management of Natural Resources has produced 26 graduates, of which five have conducted biodiversity-related thesis research.

The government has conducted a project on quantifying mercury emissions in two phases: Inventory Level 1 and Inventory Level 2 (in progress), using the UNEP-mercury-toolkit.

The National Plan for Forest Cover Monitoring 2014 has been formulated and now a National Forest Monitoring System, including a Measurement, Reporting and Verification (MRV) System, is almost functional. As such, Suriname has already submitted its first Forest Reference Emission Level (FREL) to the United Nations Framework Convention on Climate Change (UNFCCC), in which Suriname has defined its own CO<sub>2</sub> emission's cap for the period 2016-2020, although the country is carbon negative.

### **Mechanisms for monitoring and reviewing implementation**

Although Suriname does not possess a comprehensive system for monitoring and reviewing implementation of the CBD Convention and the Aichi Biodiversity Targets, there are government and other institutions in place that see to the implementation of the various policies, strategies and management plans related to biodiversity, which are:

- CM,
- NIMOS,
- Ministry of Spatial Planning, Land and Forest Management (RGB),

- Ministry of Agriculture, Animal Husbandry and Fisheries (LVV),
- Ministry of Finance,
- Anton the Kom University of Suriname and it's institutes such as the National Herbarium of Suriname (BBS), the Zoological Collection of Suriname (NZCS) and the Centre for Agricultural Research in Suriname (CELOS),
- Ministry of Trade, Industry and Tourism (HI&T),
- Ministry of Justice and Police (JusPol),
- Ministry of Foreign Affairs (BuZa),
- Ministry of Natural Resources (NH),
- Ministry of Defense,
- Ministry of Health,
- Ministry of Regional Development (RO).

For the implementation of this Convention, it is eminent that the institutes and organizations who monitor and revise the implementation of these documents are actively involved in this process and that their efforts are coordinated with each other.

### **National Contacts**

#### Convention on Biological Diversity

---

##### **Mr. Winston G. Lackin**

Presidential Advisor  
 Coordination Environment  
 Cabinet of the President of the Republic of  
 Suriname  
 Dr. Sophie Redmondstraat #116-118  
 Paramaribo  
 Suriname

##### **CBD Primary NFP**

+597 472917  
 co.environment@president.gov.sr  
 marcigompers@gmail.com

---

##### **Mrs. Marci Gompers-Small**

Environmental Policy Officer  
 Coordination Environment  
 Cabinet of the President of the Republic of  
 Suriname  
 Dr. Sophie Redmondstraat #116-118  
 Paramaribo  
 Suriname

##### **Marine and Coastal Biodiversity NFP**

+597 472917  
 marcigompers@gmail.com  
 co.environment@president.gov.sr

---

#### Cartagena Protocol on Biosafety

##### **Mr. Winston G. Lackin**

Presidential Advisor  
 Coordination Environment

##### **Cartagena Protocol Primary NFP**

+597 472917

---

Cabinet of the President of the Republic of  
Suriname  
Dr. Sophie Redmondstraat #116-118  
Paramaribo  
Suriname

co.environment@president.gov.sr  
marcigompers@gmail.com

---

**Mrs. Marci Gompers-Small**

Environmental Policy Officer  
Coordination Environment  
Cabinet of the President of the Republic of  
Suriname  
Dr. Sophie Redmondstraat #116-118  
Paramaribo  
Suriname

**BCH NFP**  
+597 472917  
marcigompers@gmail.com  
co.environment@president.gov.sr

---

Global Strategy on Plant Conservation

---

**Ms. Dorothy Traag**

Head  
National Herbarium of Suriname  
Anton de Kom University of Suriname  
(AdeKUS)  
Paramaribo  
Suriname

**GSPC NFP**  
+597 538481  
dorothy.traag@uvs.edu  
djtraag@yahoo.com  
co.environment@president.gov.sr

## Gender affairs

---

The government of Suriname has committed itself to eliminate gender inequalities, on both a national and international level. With respect to human rights, Suriname has signed and ratified various international conventions.

In 1993, Suriname ratified the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and regularly reports on the Convention. In 2016, Suriname submitted its combined fourth to sixth reports to the UN-CEDAW Committee. On February 28<sup>th</sup>, 2018, an interactive dialogue was held between the Committee and Suriname, whereby principal areas of concern were addressed by the Committee in their concluding observations.

With regards to considering gender issues in relation to biodiversity in Suriname, thus far no assessment has been made. However, gender equality in agriculture and other biological forms of livelihood, is now being considered in the conservation and sustainable use of biodiversity. The logging and mining industry on the other hand – where the majority of employees are males – are encouraged to be more engaged in achieving gender equality in the production sector.

In the near future, climate change and mitigation projects will be implemented, whereby gender is considered as a crucial factor. In this regard, gender differences and inequalities, and the influence on the conservation and sustainable use of biodiversity will be taken into account.

Within Indigenous and Tribal communities, gender equality is gaining momentum. For decades, men were the main breadwinner and the ones in charge of the family. However, in recent years, a shift has taken place in the roles women fulfill within communities. Women are now given the opportunity to cultivate crops on designated grounds (deforested by men) and run their own small businesses, such as the manufacturing, marketing and sale of jewelry made from Non-Timber Forest Products (NTFPs). Moreover, women are given the right to education, involvement in decision-making and are also becoming captains of villages. Men admit to a remarkable growth in the independence and influence of women in communities. This shift is mainly apparent in communities where the traditional culture has made way for Western ideas or by other religious convictions, such as Christianity.

Women on the other hand, still hold the opinion that boys have more opportunities than girls whilst growing up. For example, girls spend more time with their mothers, learning the art of cooking and housekeeping, while the boys learn at a young age from fathers how to live in balance with nature.

A policy on gender equality is formulated in our Development Plan 2017-2021, recognizing the differences and inequalities between men and women with regards to responsibilities, activities, access to and management of resources, as well as decision-making opportunities. Gender discrimination entails discrimination based on their identity and role as men or women, limiting and/or depriving them of their rights, opportunities and resources.



The national goal is therefore to achieve gender equality, which will be evident in the equal treatment of people of different gender, equal respect for gender performance, equality in social interaction and visibility, participation and strengthening of both men and women.

This strategic goal for a multidisciplinary policy on gender has the following expected outcomes:

1. Equal access to education and training for boys, girls, men and women
2. Equal access to the job market and different professions; equal incomes and equal working conditions for men and women
3. Equal protection against domestic and sexual violence and molestation for men and women
4. Equal treatment in health care for men and women
5. Equal participation of men and women in decision-making bodies and positions
6. Promotion of laws and regulations, and policies that promote gender equality and raise awareness about social progress and the economic benefits that are being achieved.

The Bureau for Gender Affairs (BGA), residing within the Ministry of Home Affairs (BiZa), is responsible for the formulation, coordination and evaluation of gender policy. Formulation and implementation of gender policy are based on partnerships, analyzing available data, drafting and adapting legislation and regulations, and initiating and increasing gender awareness.

Part of the mechanism of BGA is the appointment of Gender Focal Points at all sixteen Ministries. However, the output until now is not at a satisfactory level, due to limited mandate and a low-level priority for gender issues at the Ministries.

With the formulation of the Agriculture Sector Plan by the Ministry of Agriculture, Animal Husbandry and Fisheries (LVV) in 2007, gender mainstreaming has been included as a policy principle. Projects and programs were initiated to increase the quality of the livelihood of women and youth through agriculture and agroprocessing. For example, in collaboration with the Inter-American Institute for Cooperation on Agriculture (IICA), through the Rural Women's Network or the Ti Colon Women's Group for the production and processing of herbs for food and health security and income generation, the SEED Foundation Inc. conducted a Farmer Field School (principle – learning by doing), funded by UNDP/GEF Small Grants Program, which promoted a backyard garden and school feeding program as well as the Farmer Certification to facilitate food safety.

In December 2017, the BGA trained a group of thirty-three women from the Western and Eastern polders of the district of Nickerie in organic plant propagation techniques. By enabling women to conduct organic horticulture, planting and selling the surplus of products, their socio-economic status can be improved.

Suriname is an active member of the Community of Latin American and Caribbean States

(CELAC) and endorsed the Gender Strategy for CELAC's Plan for Food Security, Nutrition and Hunger Eradication 2025 (FNS-CELAC Plan), a guide aimed at improving the participation of women in the generation and enjoyment of Food and Nutrition Service (FNS) and human rights.

Steps are undertaken towards generating more statistical information on sex-disaggregated data, i.e qualitative data for developing policy and problem-solving interventions.

In 2016, preparations were made to investigate the role of women in the fisheries sector. In September 2018, fieldwork for this investigation was initiated. Furthermore, a Gender and IP- equivalent Gap Analysis activity commenced in June 2018 and is to be completed in December 2018. A report is drawn up on the legal status of Indigenous and Tribal peoples (ITPs), including a description of the legal status of women.

The 8<sup>th</sup> Gender Publication, prepared by the Scientific Research and Planning Department of the General Bureau of Statistics (ABS), was launched in November 2017. This publication is issued every two years, giving insight in gender-based statistics.

For instance, results show that in the period 2015-2017, more women enrolled for a Bachelor of Sciences in environmental-related studies at the AdeKUS: Agricultural Production (2016/2017: 78% female, 22% male), Mineral Production (2016/2017: 63% female, 37% male) and Environmental Sciences (2016/2017: 80% female, 20% male) respectively. Overall, an average graduation rate of 13% is observed, with women in the lead (period 2015-2016).

For Master of Sciences, period 2015-2017, in Petroleum Geology (2016/2017: 60% female, 40% male), Mineral Geoscience (2016/2017: 60% female, 40% male) and Sustainable Management of Natural Resources (2016/2017: 59% female, 41% male) respectively, also a higher rate of female enrollments is observed; with an overall average graduation rate of 24%, also spearheaded by women (period 2015-2016).

Noteworthy are the positions held by women in government (anno 2018), such as the Minister of RGB, the Director of RGB, Deputy Director of Forest Management at the Ministry of RGB, Deputy Director of NH, the Director of HI&T and Deputy Directors of Research, Animal Husbandry and Fisheries at the Ministry of LVV. At Coordination Environment, at the Cabinet of the President, the majority of the technical staff are women. At the NGOs, the Directors of ACT Suriname, GHFS and SCF are women. In addition, at various institutes and organizations, management positions are held by women, e.g. at CELOS and BBS.

In order to mainstream gender in Suriname, the benefits of integrating gender in this sector has to be demonstrated. First of all, awareness of gender has to be raised in relation to biodiversity among policymakers and people working in this field. Secondly, institutional capacity is a prerequisite. In stakeholder consultations, especially with ITPs, a gender-balance needs to be considered. Lastly, both women and men should have mandate for decision-making regarding the conservation and sustainable use of biodiversity.

### Relevant documents and web links:

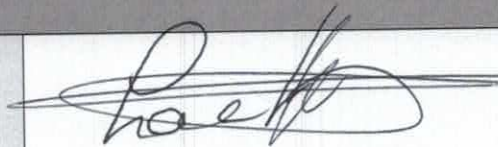
- Ontwikkelingsplan 2017-2021: <http://www.planningofficesuriname.com/wp-content/uploads/2017/05/OP-2017-2021-Ontwikkelingsprioriteiten-van-Suriname-1.pdf>  
Policy Development Plan 2017-2021: <http://www.planningofficesuriname.com/wp-content/uploads/2018/02/2017-2021-DEVELOPMENT-PLAN.pdf>
- Suriname National Health Sector Plan 2011-2018: [http://www.nationalplanningcycles.org/sites/default/files/country\\_docs/Suriname/nhs\\_p\\_2\\_011\\_2018.pdf](http://www.nationalplanningcycles.org/sites/default/files/country_docs/Suriname/nhs_p_2_011_2018.pdf)
- Gender werkplan 2013 (Gender Workplan 2013): [https://oig.cepal.org/sites/default/files/surinam\\_2013.pdf](https://oig.cepal.org/sites/default/files/surinam_2013.pdf)
- Gender Strategy for the FNS-CELAC Plan 2016: <http://www.fao.org/3/b-i6662e.pdf>
- Jaarplan 2015 (National Annual Plan 2015): <http://www.planningofficesuriname.com/wp-content/uploads/2017/03/JAARPLAN-2015.pdf>
- Jaarplan 2016 (National Annual Plan 2016): <http://www.planningofficesuriname.com/wp-content/uploads/2017/03/JAARPLAN-2016.pdf>
- Jaarplan 2017 (National Annual Plan 2017): <http://www.planningofficesuriname.com/wp-content/uploads/2016/11/Jaarplan-2017.pdf>
- Jaarplan 2018 (National Annual Plan 2018): [http://www.planningofficesuriname.com/fin-jaarplan\\_2018-v1\\_29\\_9\\_2017/](http://www.planningofficesuriname.com/fin-jaarplan_2018-v1_29_9_2017/)
- Selected statistics about women and men in Suriname 2017: <http://www.statistics-suriname.org/index.php/nieuws1/231-selected-statistics-about-women-and-men-in-suriname-2017>
- Desktop study and consultation sessions with stakeholders during the period July – November 2018

## Appendix I – Information on the reporting party

<b>Contracting Party</b>	<b>The Republic of Suriname</b>
<b>NATIONAL FOCAL POINT</b>	
Full name of the institution	Cabinet of the President of the Republic of Suriname – Coordination Environment
Name and title of contact officer	Ambassador Winston G. Lackin, Presidential Advisor Mrs. Marci Gompers-Small, Environmental Policy Officer
Mailing address	Swalmbergstraat no. 7
Telephone	+597 472917/ 471216
Email	<a href="mailto:co.environment@president.gov.sr">co.environment@president.gov.sr</a> ; <a href="mailto:marcigompers@gmail.com">marcigompers@gmail.com</a>
<b>CONTACT OFFICER FOR NATIONAL REPORT (IF DIFFERENT FROM ABOVE)</b>	
Full name of the institution	
Name and title of contact officer	
Mailing address	
Telephone	
Email	
<b>TEAM OF EXPERTS</b>	
6NR Project Manager	Joëlle Kartopawiro <a href="mailto:Joelle.Kartopawiro@uvs.edu">Joelle.Kartopawiro@uvs.edu</a> ; <a href="mailto:j.kartopawiro@hotmail.com">j.kartopawiro@hotmail.com</a>
Expert in Biodiversity	Gwendolyn Landburg <a href="mailto:gwendolyn.landburg@uvs.edu">gwendolyn.landburg@uvs.edu</a>
Expert in Environmental and Biodiversity Policy	Shelley Soetosenojo <a href="mailto:shelleysoeto@gmail.com">shelleysoeto@gmail.com</a>
Expert in Environmental Policy	Mariska Riedewald <a href="mailto:mariska.riedewald@gmail.com">mariska.riedewald@gmail.com</a>
Expert in Environmental Policy	Estrella Madngisa <a href="mailto:estrellamadngisa@gmail.com">estrellamadngisa@gmail.com</a>
Expert in Environmental Legislation	Nancy del Prado <a href="mailto:nancydel@yahoo.com">nancydel@yahoo.com</a>

**SUBMISSION**

Signature of officer responsible  
for submitting national report

A handwritten signature in black ink, appearing to be 'Rach', written over a horizontal line.

Date of submission

29 April 2019

## Appendix II – Important documents and links

---

*(In the order of appearance)*

### *Documents:*

- Coordination Environment, Cabinet of the President. Survey on Invasive Alien Species management and Aichi Target 9 – For Caribbean small island developing states towards achieving Aichi Biodiversity Target 9 (2017).
- Wet Dierenwelzijn SB 2017 no. 4 (Animal Welfare Act).
- Ministry of Spatial Planning, Land and Forest Management. Support for sound land use planning in Suriname (2015).
- Foundation for Forest Management and Production Control (SBB). Rapport Bosbouw Sector 2016 (2017) (Forestry Sector Report 2016).
- Foundation for Forest Management and Production Control (SBB). NFMS Roadmap – Status and plans for Suriname’s National Forest Monitoring System (2016).
- Amazon Cooperation Treaty Organization. International Course: Conservation of biodiversity through ecologically responsible forest management in the productive forests of the Amazon (2018).
- UNIQUE forestry and land use. Inception Report: Background study for REDD+ implementation: Multi-perspective analysis of drivers of deforestation, forest degradation and barriers to REDD+ activities (2016).
- Stichting Planbureau Suriname. Ontwikkelingsplan 2017-2021 (2017).
- Foundation Planning Office Suriname. Policy Development Plan 2017-2021 (2017).
- National Institute for Environment and Development in Suriname. National Biodiversity Strategy 2006-2020 (2006).
- Foundation for Forest Management and Production Control (SBB), Directorate: Forestry Economic Services, Dept. of Statistics. Bosbouwstatistieken: Productie, export en import van hout en houtproducten in 2017 (2018) (Forestry Statistics: production, export and import of wood and wood products in 2017).
- District Commissioners. District Plans Suriname (2015-2018).
- Marci Gompers-Small. Thesis: Assessment of international wildlife trade in Suriname - A focus on the live wild caught animal trade 2002-2009 (2013).
- General Bureau of Statistics. Milieustatistieken/ Environmental Statistics (2016).
- Ministry of Trade, Industry and Tourism. Nationaal Strategisch Toerisme Plan 2018-2030

(2017) (National Strategic Tourism Plan 2018-2030).

- Ministry of Agriculture, Animal Husbandry and Fisheries, Dept. of Fisheries. Visserij Management Plan voor Suriname 2014-2018 (2013) (Fisheries Management Plan 2014 – 2018).
- Ministry of Agriculture, Animal Husbandry and Fisheries, Dept. of Agriculture. The national masterplan for agricultural development in Suriname (2016).
- Ministry of Agriculture, Animal Husbandry and Fisheries. Plant Genetic Resources of Suriname (Country Report) 2012.
- CELOS, Cassava *ex situ* field gene banks, factsheet 1, May 2014.
- National Institute for Environment and Development in Suriname. Guidance Note NIMOS Environmental Assessment Process (2017).
- REDD+ Suriname. Final Draft Suriname REDD+ Vision and Strategy (2018).
- WWF Guianas. WWF Report on Marine Management in Suriname (2017).
- Suhel al-Janabi *et al.*, ABS Capacity Initiative. Concept for National ABS gap analysis and legislative review report (2016).
- FAO and Regional Fishery Body Secretariats' Network. COFI 33 Special edition. Newsletter no. 17 (2018).
- Pieter Meeremans *et al.*, Evaluating Trash-and-Turtle Excluder Devices (TTEDs) for bycatch reduction in Suriname's seabob shrimp trawl fishery (2017).
- Pieter Meeremans *et al.*, Bycatch and discards in Suriname trawl fisheries (2012 – 2017): a baseline Study (2017).
- Ministry of Agriculture, Animal Husbandry and Fisheries, Dept. of Fisheries. Visserij management plan voor Suriname: de seabob garnalen (*Xiphopenaeus kroyeri*) visserij 2016 – 2021 (Fisheries Management Plan of Suriname: Seabob shrimp (*Xiphopenaeus kroyeri*) fisheries 2016 - 2021).
- Foundation for Forest Management and Production Control (SBB). Assessment of the forest cover and the deforestation rate in Suriname (2015).
- Marci Gompers-Small, Coordination Environment at the Cabinet of the President. Vooronderzoek naar de status van 'Invasive Alien Species' in Suriname (2016) (Preliminary Research on the status of Invasive Alien Species in Suriname).
- Wet Maritieme Zones SB 2017 no. 41 (Act on Maritime Zones).
- Ontwerpwet Beschermd Kustgebied (2015) (Bill on Coastal Protection).
- Suriname National Health Sector Plan 2011-2018.

- Gender werkplan 2013 (Gender Workplan 2013).
- Gender Strategy for the FNS-CELAC Plan 2016.
- General Bureau of Statistics. Selected statistics about women and men in Suriname 2017.

*Web links:*

- ASGM: <https://www.thegef.org/project/artisanal-and-small-scale-gold-mining-asgm-national-action-plan-nap-suriname>
  - Gonini portal: <http://gonini.org/>
  - GEF/FAO REBYC-II-LAC project: <http://www.fao.org/in-action/rebyc-2/en/>
  - Green Heritage Fund Suriname: [www.greenfundsuriname.org/en/sloths/](http://www.greenfundsuriname.org/en/sloths/)
  - SuReSur: [www.suresur.org/over-suresur/](http://www.suresur.org/over-suresur/)
  - CI Suriname: [www.conservation.org/global/suriname/Pages/default.aspx](http://www.conservation.org/global/suriname/Pages/default.aspx)
  - CI Suriname programs: [www.conservation.org/global/suriname/programs](http://www.conservation.org/global/suriname/programs)
  - Facebook page Mangrove Action Project: <https://www.facebook.com/MangroveActionProject/>
  - LULC, deforestation maps and others: <http://www.gonini.org/>
  - SBB: [sbbsur.com](http://sbbsur.com)
  - Agreement on Port State Measures (PSMA): <http://www.fao.org/port-state-measures/en/>
  - General Bureau of Statistics – Environmental Statistics publications (<http://www.statistics-suriname.org/index.php/statistieken/downloads/category/34-milieu-publicatie-2012>)
  - The GIASI Partnership Gateway: <http://giasipartnership.myspecies.info/en/country/SR>
  - ISSG Global Invasive Species Database: <http://www.iucngisd.org/gisd/index.php>
  - Global Invasive Species Database: <http://issg.org/database/species/search.asp?st=sss&sn=&rn=Suriname&ri=21964&hci=1&ei=1&fr=1&sts=&lang=EN>
  - Green Peace: <https://www.greenpeace.org/international/story/16583/5-things-you-need-to-know-about-the-amazon-reef/>
- Annual Plans: <http://www.planningofficesuriname.com/jaarplan-ontwikkelingsplan/>



## **Appendix III – IGSR team**

---

1. Board and Management Team
2. Administrative staff
3. Ms. Joëlle Kartopawiro
4. Ms. Gwendolyn Landburg
5. Ms. Shelley Soetosenojo
6. Ms. Mariska Riedewald
7. Ms. Estrella Madngisa
8. Ms. Nancy del Prado
9. Ms. Erna Aviankoi (and team)
10. Mrs. Eurodis Pelswijk-Terlaan
11. Ms. Eufrazia Martin

## **Appendix IV – Overview of representatives in the Working Group**

---

1. Coordination Environment – Mrs. Marci Gompers-Small
2. UNDP – Mr. Bryan Drakenstein
3. UNDP – Ms. Anuradha Khoenkhoen
4. UNDP – Ms. Oetra Bihari
5. Ministry of LVV – Mr. Jerry Tjoe Awie
6. Ministry of LVV – Ms. Patricia Milton
7. Ministry of RO – Mr. Robbin Mussendijk
8. Ministry of RO – Mrs. Nathalie Pool-Steenberg
9. Ministry of RO – Ms. Manoushka Magotoe
10. CELOS – Ms. Verginia Wortel
11. CELOS – Mrs. Maria Barron-Callebaut
12. KAMPOS – Ms. Samunda Jabini
13. KAMPOS – Ms. Renatha Simson
14. VIDS – Ms. Marie-Josee Artist
15. VIDS – Mr. Arioene Vreedzaam
16. Ministry of RGB – Ms. Nesseley Louisville
17. Ministry of RGB – Ms. Kaminie Tajib
18. Ministry of RGB – Ms. Marie Djosetro
19. SBB – Ms. Consuela Paloeng
20. SBB – Mrs. Melinda Tanawara-Groenefelt
21. AdeKUS – Mr. Frank van der Lugt
22. AdeKUS – Mr. Max Huisden

## Appendix V – Overview of stakeholders

---

*(Validation workshop participants are underlined)*

1. ACT Suriname – Ms. M. Parahoe
2. ACT Suriname – Ms. K. Delvoye
3. AdeKUS, Faculty of Technological Sciences (Environmental Sciences) – Mr. F. Van der Lugt
4. AdeKUS, Faculty of Technological Sciences (Environmental Sciences) – Mr. M. Huisden
5. AdeKUS, Faculty of Medical Sciences (Pharmacology) – Mr. D. Mans
6. Attune – Ms. G. Smith
7. BBS – Ms. D. Traag
8. BBS – Ms. E. Zschuschen
9. BOG – Mr. V. Terborg
10. CELOS – Ms. I. Demon
11. CELOS – Ms. V. Wortel
12. CELOS – Mrs. M. Barron-Callebaut
13. CELOS – Ms. M. Playfair
14. CI Suriname – Mr. J. Goedschalk
15. CI Suriname – Ms. S. Marhe
16. Coordination Environment, Cab. of President – Mrs. M. Gompers-Small
17. Coordination Environment, Cab. of President – Ms. J. Kasandiredjo
18. Customs (Douane) – Ms. A. Tjung Agnie
19. EnviroART – Ms. C. Landburg
20. EnviroART – Mr. A. Vreedzaam
21. GEF/SGP (ICCA) – Ms. P. Tirtosentono
22. GCCA – Ms. H. Malone
23. GHFS – Ms. M. Pool
24. Grassalco – Ms. A. Lalta
25. Grassalco – Mr. B. Bonte
26. Iamgold – Ms. G. Nederbiel
27. KKF – Mr. R. Bunsee
28. KKF – Ms. M. Lew
29. Ministry of Finance – Ms. S. Sultan
30. Ministry of HI&T – Mr. J. Renfurm
31. Ministry of HI&T – Mr. D. Malone
32. Ministry of HI&T – Mr. S. Fannel
33. Ministry of BiZa – Ms. S. Saridjan
34. Ministry of JusPol – Ms. W. Dihal
35. Ministry of JusPol – Ms. E. Karijarana

36. Ministry of LVV, Plant Genetics Resources – Ms. P. Milton
37. Ministry of LVV, Fisheries Dept. – Ms. Y. Babb
38. Ministry of LVV, Fisheries Dept. – Mr. M. Yspol
39. Ministry of OWC – Mr. N. Koningsbloem
40. Ministry of NH – Ms. J. Caupain
41. Ministry of OWTC – Ms. A. Tewarie
42. Ministry of RGB – Ms. N. Louisville
43. Ministry of RGB – Ms. K. Tajib
44. Ministry of RGB – Ms. M. Djosetro
45. Ministry of RGB – Ms. D. Williams
46. Ministry of RO – Mr. W. Finisie
47. Ministry of RO – Ms. M. Pomba
48. Ministry of RO – Mr. R. Mussendijk
49. Ministry of RO – Ms. M. Magotoe
50. Ministry of RO – Mr. M. Abili
51. Ms. A. Tjon Sie Fat
52. NIMOS – Ms. G. Griffith
53. NIMOS – Mr. A. Pershad
54. NIMOS – Mr. D. Bogor
55. NZCS – Mr. P. Ouboter
56. REDD+ – Ms. S. Bihari
57. REDD+ – Ms. S. Mahabier
58. REDD+ – Ms. S. Svensson
59. SBB – Ms. C. Paloeng
60. SBB – Mrs. M. Tanawara-Groenefelt
61. SBB – Mr. R. Somopawiro
62. SBB – Ms. S. Crabbe
63. SNRI/ADRON – Mr. J. Tjoe Awie
64. SORTS – Ms. L. Trustfull
65. SSB – Ms. N. Hausil
66. SSB – Ms. V. Dihal
67. Staatsolie – Ms. J. Telgt
68. Stibula – Mr. W. Koster
69. Stibula – Mr. R. Nyman
70. Stibula – Ms. S. Edenburg
71. TBI – Mr. R. van Kantén
72. UNDP – Mr. B. Drakenstein

*Indigenous and Tribal Communities and Community-Based Organizations:*

73. Aluku – Captain Mr. Doea
74. Aluku – Ms. A. Walden
75. Apoera (Lokono) – Village head Mr. C. Lewis
76. Apoera (Lokono) – Ms. M. Jarmohamed
77. Casipora (Lokono) – Village head Ms. Muriel
78. ESAV Indigenous Platform – Ms. A. Christiaan
79. ESAV Indigenous Platform – Mr. A. Logorie
80. Galibi (Kari'na) – Captain Mr. R. Pané
81. KAMPOS – Ms. I. Soke
82. KAMPOS – Ms. R. Simson
83. Kawemhakan (Wayana) – Village head Mr. Ipomadi Pelenapin
84. Kawemhakan – Mr. A. Verhoogt
85. Kwamalasumutu (Trio) – Village head Mr. Wakoesha
86. Matawai – Ms. T. Henkie
87. Matawai – Ms. Salons
88. Matawai – Ms. Elmond
89. N'Djuka – Mr. H. Pai
90. OIS – Ms. J. Tokoe
91. Paamaka – Captain Mr. J. Asaiti
92. Paamaka – Mr. A. Margretha
93. Saamaka Brokopondo – Captain Mr. Petrusi
94. Saamaka Brokopondo – Captain Mr. Goedewacht
95. Tepu (Trio) – Village head Mr. Nola
96. VIDS – Ms. M-J Artist