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Updating the National Biodiversity Strategy and Action Plan Suriname (NBSAP Project)

Ministry of Spatial Planning and Environment

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Foreword

As the Minister of Spatial Planning and Environment, I am honored to present Suriname's updated National Biodiversity Strategy and Action Plan (NBSAP) for 2024-2035. This comprehensive framework reaffirms our unwavering commitment to safeguarding our nation's exceptional biodiversity, ensuring its sustainable use, and fostering equitable access and benefit-sharing for all Surinamese citizens.

Suriname, as the world's most forested nation, bears a unique responsibility to protect its diverse ecosystems and the invaluable services they provide. Our updated NBSAP is a testament to our dedication to fulfilling this responsibility. It outlines a clear roadmap for navigating the challenges and opportunities that lie ahead, ensuring that our rich natural heritage continues to thrive for generations to come.

This updated NBSAP is the result of extensive collaboration and consultation with a wide range of stakeholders, including government agencies, indigenous and tribal communities, civil society organizations, and the private sector. Their invaluable input has enriched this document, ensuring that it reflects the diverse perspectives and priorities of our nation.

The NBSAP is structured around four strategic pathways: Conservation of Biodiversity, Sustainable Use of Biodiversity, Fair and Equitable Benefit Sharing, and Mainstreaming and Enabling Conditions. Each pathway is further elaborated through specific targets and actions, providing a comprehensive framework for achieving our national biodiversity goals.

We recognize that the successful implementation of this NBSAP requires a concerted effort from all sectors of society. We call upon all stakeholders to join us in this endeavor, working together to protect and sustainably manage our nation's biodiversity for the benefit of present and future generations.

I am confident that this updated NBSAP will serve as a guiding light for Suriname's journey towards a sustainable and prosperous future, where biodiversity is valued, conserved, and sustainably utilized for the well-being of all.

Sincerely,

M. Dasai PhD.
Minister of Spatial Planning and Environment Suriname

Executive summary

As part of the Guiana Shield, the area roughly between the Orinoco and the Amazon Rivers in North-Eastern South America, Suriname's tropical rainforest is part of one of the few remaining large intact forest areas and part of the Amazon biome. Lying at the coast of North-East South America, Suriname also has a marine territory (Exclusive Economic Zone) extending up to 345 sea miles northward from the coast. Suriname is home to a diverse range of largely intact ecosystems, from the estuarine zone with mangroves and marine turtle nesting beaches along the coast, to the highland tropical rainforests. As such, Suriname boasts a rich diversity of species, with natural ecosystems still containing the various species that are essential for their functioning and maintenance. There is also very likely a high diversity in genetic resources due to the spread of populations across the bio-geographic region with its many isolated river systems, savannah's and forested hills and inselbergs. Suriname also has a rich cultural diversity as a consequence of the influx of people from various parts of the world during and after the colonial period. Even before this immigration, indigenous men and women were already living in different parts of the country, with their own local knowledge systems and worldviews. The important role that women in indigenous, tribal and other communities play in biodiversity stewardship, through agro-biodiversity innovation, experimentation and transfer of knowledge should not be underestimated.

Thanks to a small population compared to Suriname's surface area, limited industrialization and agriculture development, and the establishment of legislation for protected areas in the early 1960's-1990's, Suriname's terrestrial and marine ecosystems are still largely intact. Despite the relatively low pressures overall, there are impacts on and threats to biodiversity on (sub-)national level from the conversion and degradation of natural areas (habitats) and from overexploitation. Suriname ratified the United Nations Convention on Biological Diversity (UNCBD) in 1996 and developed its first NBSAP in 2006-2012. Suriname produced its first NBSAP in 2006 (NBS) and 2011 (NBAP) respectively. The main lessons learned from the first NBSAP are that the strategy was not well enough integrated in national planning and policies and that there was no adequate monitoring system in place to track progress. In addition, there was no clear gender mainstreaming, and a lack of ownership and collaboration resulted in a lack of collective efforts. In part due to limited financing and institutional capacity, the degree of implementation of the first NBSAP was generally low.

Recognizing the interdependency between society, economy and biodiversity, currently Suriname is at a turning point where an opportunity presents itself to integrate structural solutions to pressing social-economic development needs with the sustainable management, conservation and the fair and equitable sharing of the benefits from biodiversity. In the past 11-17 years, there have been considerable changes at national and international level. In the latter case, the most significant and recent change is the adoption of the GBF. At national level there have been changes in the legal, institutional and policy arrangements, and natural resource-based economic development has intensified (e.g. gold mining, timber extraction and fisheries) since the first NBSAP. The aim with updating the NBS was to revise it in such a way that it reflects the changed national and international context, the views of national rights- and stakeholders and aligns with the GBF. It is essential that the implementation of the NBS in the coming years provides clear entry points for mainstreaming biodiversity targets and national socio-economic priorities, responding to development needs.

The process of updating the NBSAP involved a desk review on changes in the national and international context since the previous NBS was developed. In addition, input of rights- and stakeholders was gathered through an inception workshop, technical workshops in a smaller setting and through virtual meetings with a broad group of stakeholders on, e.g., the strategic pathways and targets, the implementation status of the previous NBAP, ongoing or planned activities, and priority actions to include in the updated NBAP. The updated NBS is set within a 10-year framework: 2024-2035, consisting of four strategic pathways which are in turn elaborated through specific targets, and actions in the NBAP. The document is structured in 3 sections, providing the national context, 2035 vision and guiding principles (section 2), the strategic pathways and targets (section 3) and the implementation framework (section 4).

Reflecting Suriname's commitment to sustainably manage and conserve its rich and functionally intact biodiversity, acknowledging its interdependent relationship with nature and recognizing the diverse worldviews and knowledge systems:

By 2035, Suriname followed through on the national commitments, presented in its updated NBSAP to value and conserve its diverse natural and cultural heritage, including traditional knowledge, for present and future generations, by protecting, sustainably using and restoring Suriname's biodiversity in all sectors on land and in sea, and enhancing benefits from healthy ecosystems for all of society.
The principles that guide the effective and ethical implementation of actions that will contribute to realizing this vision are:

- Healthy and resilient ecosystems
- Ecosystem services and benefits
- Fair and equitable sharing of benefits
- Mainstreaming in national priorities
- Enabling conditions
- Human rights based approach
- Gender mainstreaming
- Inclusiveness
- Research and data collection
- Coherence with the nationally determined climate contributions and the UN sustainable development goals (SDGs

Four pathways lead to achieving Suriname's national biodiversity vision. The first three pathways are aligned with the first three goals of the previous NBS and the three UNCBD objectives: the i) conservation- and ii) sustainable use of biodiversity and iii) fair access and equitable benefit sharing from the utilization of genetic resources and associated traditional knowledge. The fourth pathway brings together the remaining five goals described in Suriname's previous NBS, which is cross-cutting and supportive in character toward the other three pathways. The pathways set out in the NBSAP comprise of strategic targets, for which actions to achieve the targets are formulated in the updated NBAP.

Strategic pathways	**Strategic targets**
1 Conservation of Biodiversity	1.1 Increased area % under protection
	1.2 Active ecological restoration and rehabilitation
	1.3 Protection of endangered species
	1.4 Reduced risks of invasive species
2 Sustainable use of Biodiversity	2.1 Sound spatial planning and land- and sea zoning
	2.2 Reduced pollution
	2.3 Sustainable land- and sea use practices
	2.4 Integrating ecosystem services and nature-based solutions
	2.5 Policies for sustainable business practices
3 Fair and equitable sharing of benefits from the use of genetic resources and traditional knowledge	3.1 Legal recognition of indigenous and tribal peoples knowledge and rights
	3.2 Self-protection of traditional knowledge
	3.3 Fair and equitable benefit sharing mechanisms
4 Mainstreaming and Implementation	4.1 Strengthened capacities
	4.2 Available financial resources
	4.3 Improved education and awareness
	4.4 Scientific research and data collection
	4.5 Climate change and biodiversity synergies

Strategic pathways	Strategic targets
	4.6 National biodiversity integration
	4.7 Inclusive participation and gender equality
	4.8 SDGs and biodiversity synergies

As the UN Agenda 2030 for Sustainable Development has a similar timeframe as the GBF and contains sustainable development goals that are relevant for biodiversity, it is important to consider the linkages between biodiversity and sustainable development in a holistic way

With regard to implementation of the updated NBSAP, a key starting point during the development and implementation of the updated NBSAP is mainstreaming: namely by putting emphasis on the integration of biodiversity and economic sectors from both sides. This implies that, while the NBSAP incorporates national socio-economic priorities as stated in national and sectoral policy documents, it is important that future development of national and sectoral policies also explicitly incorporate the relevant actions formulated in the NBSAP. The mobilization of financial resources, the assessment of capacity needs and the communication and outreach on the updated NBSAP is not included in the NBSAP at this stage, but is expected to be implemented in phase 2 of the Ministry of Spatial Planning and Environment's project for updating Suriname's NBSAP.

Glossary of terms

Access and benefit sharing – The way in which genetic resources may be accessed, and how users and providers, e.g. holders of traditional knowledge, reach agreement on the fair and equitable sharing of the benefits that might result from their use.

Biophysical environment – The biological (living) and physical (non-living) elements of the natural environment

Climate Change – A change in the interacting rainfall, temperature, wind and clouds (i.e. climate) system occurring over a long period of time, which is attributed directly or indirectly to human activity, that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.

Co-management (of protected areas) - The sharing of authority, responsibility, and benefits between government and local communities in the management of natural resources.

Conservation – The management of human use of nature so that it may yield the greatest sustainable benefit to current generations while maintaining its potential to meet the needs and aspirations of future generations.

Ecosystem – A dynamic complex of interacting plants, animals and micro-organisms and their non-living environment that form a functional unit.

Ecosystem diversity – The variety of habitats, biotic communities, and ecological processes, as well as the tremendous diversity present within ecosystems in terms of habitat differences and the variety of ecological processes.

Ecosystem services – The ecosystem and physical processes by which the environment produces direct (such as food provision) and indirect (such as maintenance of the water cycle by trees) benefits for humans.

El Niño/La Niña Southern Oscillation – El Niño and La Niña are the warm and cool phases of a recurring climate pattern across the tropical Pacific. The pattern shifts back and forth irregularly every two to seven years, bringing predictable shifts in ocean surface temperature and disrupting the wind and rainfall patterns across the tropics.

Free, prior and informed consent – Consent for projects or activities is free, given voluntarily and without coercion, intimidation or manipulation, through a self-determined process by the community. The consent is sought through culturally sensitive engagement and types of information provided sufficiently in advance of any authorization and unaffected by externally imposed timelines. Consent is given as a collective decision made by the right holders and reached through a customary decision-making processes.

Gender – The societal perception of the roles of men and women and the social construct of the differences between them. Differences and relationships depend on the place, the situation, the context and the period, and are influenced by cultural, ecological, historical and political factors.

Genetic diversity – The variety of genetic information contained in all of the individual plants, animals and micro-organisms. Genetic diversity occurs within and between populations of species as well as between species.

Greenhouse gasses – Gasses that absorb and re-emit infrared radiation, contributing to the atmospheric greenhouse effect of the Earth. Greenhouse gasses can originate from natural sources and human activities.

Grievance redress – Organizational systems and resources established by national government agencies (or, as appropriate, by other agencies) to receive and address concerns about the impact of policies, programs and activities on rights- and stakeholders. Grievance redress mechanisms act as recourse for

situations in which, despite proactive stakeholder engagement, some rights- or stakeholders have a concern about a project or program's potential impacts on them. Not all complaints should be handled through a grievance redress mechanism. For example, grievances that allege corruption, coercion, or major and systematic violations of rights and/or policies.

Habitat – The place or type of site where an organism or population naturally occurs.

Human Rights based approach – An approach to the development and implementation of programmes or projects that respects, protects and fulfills human rights, analyzing and addressing the inequalities, discriminatory practices and unjust power relations. Such an approach is based on standards and principles of human rights, such as the right to education, labor, free speech, access to justice and to information, and includes rights holders such as women, children and indigenous people as active agents of change.

Invasive species – Invasive species are those that are introduced—intentionally or unintentionally—to an ecosystem in which they do not naturally appear and which threaten habitats, ecosystems, or native species. These species become invasive due to their high reproduction rates and by competing with and displacing native species, that naturally appear in that ecosystem.

Overexploitation – Overexploitation occurs when harvesting of specimens of flora and fauna species from the wild is out of balance with reproduction patterns and, as a consequence, species may become extinct. Overexploitation is related to the maximum number of people, or individuals of a particular species, that a an ecosystem can maintain indefinitely.

Resilience of ecosystems – The capacity of ecosystems to absorb the impact of shocks or disturbances, e.g. from human activities, by maintaining or recovering critical ecosystem functions.

Restoration and rehabilitation – The return of an ecosystem or habitat to its original community structure, natural composition of species, and natural functions. Rehabilitation concerns the recovery of specific ecosystem services in a degraded ecosystem or habitat.

Rights and stakeholders – Stakeholders are persons, groups, or institutions with an interest in a project or the ability to influence the project outcomes, either positively or negatively. Stakeholders may also be directly or indirectly affected by a project or activity. Rights holders, in this context referring to indigenous and tribal communities, have particular entitlements, such as the right to their traditional living territory, in relation to duty bearers, such as the government.

Species diversity – The variety of living species.

Sustainable use - The use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.

Traditional (ecological) knowledge – The traditional knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity.

Trade-offs – In this context referring to situations when a perceived beneficial change for the economy is linked to a detrimental change for the environment, or when a beneficial change for the environment forgoes a perceived benefit or opportunity for the economy.

Transboundary – Referring to the movement or having effect across a boundary.

List of abbreviations

CSNR	Central Suriname Nature Reserve
EEZ	Exclusive Economic Zone
EITI	Extractive Industries Transparency Initiative
ENSO	El Niño/La Niña Southern Oscillation
FPIC	Free Prior and Informed Consent
GBF	Global Biodiversity Framework
MUMA	Multiple Use Management Area
NBS	National Biodiversity Strategy
NBAP	National Biodiversity Action Plan
NBSAP	National Biodiversity Strategy and Action Plan
REDD+	Reduced Emissions from Deforestation and forest Degradation, and the enhanced conservation, sustainable management and reforestation
SDGs	Sustainable Development Goals
UNCBD	United Nations Convention on Biological Diversity
VBGSS	Vereniging voor Biodiversiteit in het Guianaschild Suriname (Association for Biodiversity in the Guiana Shield Suriname)

Suriname updated National Biodiversity Strategy

2024 - 2035

1 Introduction

Based on its ratio of forest to population and land area, Suriname is the most forested country in the world, and as part of the Amazon biome has a rich, complex biodiversity. For conserving and sustainably using biodiversity, and accessing and sharing benefits from the utilization of genetic resources in an equitable way, Suriname ratified the United Nations Convention on Biological Diversity (UNCBD) in 1996. Suriname was already committed to protecting biodiversity through its national nature conservation legislation, well before ratifying the UNCDB. By developing a first National Biodiversity Strategy and National Biodiversity Action Plan (NBS and NBAP) in 2006-2011, Suriname further elaborated specific actions and measures to conserve and sustainably use biodiversity and manage its benefits, as well as made an attempt to mainstream this in the context of its national development. In the past five years, a long overdue breakthrough was the adoption of the Suriname Environmental Framework Act. The period after 2007-8, was a difficult one economically for Suriname[1]. Addressing the pressing social-economic circumstances in Suriname was reflected in the increased production and export of gold, granting of mining concessions and the production of roundwood during that time[2], with negative consequences for the environment, biodiversity and human health and security, especially of exposed indigenous and tribal peoples. The last 3-5 years are again marked by a dramatic deterioration of the country's national financial- and economic situation[1]. Recognizing the interdependency between society, economy and biodiversity, currently Suriname is at a turning point where an opportunity presents itself to integrate structural solutions to pressing social-economic development needs with the sustainable management, conservation and the fair and equitable sharing of the benefits from biodiversity. The present undertaking is to update Suriname's National Biodiversity Strategy and Action Plan (NBSAP), which establishes the national vision, strategic pathways and targets to be pursued in order to conserve the nation's biodiversity, ensure its sustainable use and fair access and equitable sharing of benefits from the utilization of genetic resources. The NBSAP also represents a commitment of Suriname to implement policies and actions that are mainstreamed with national sustainable development priorities and aligned with the Kunming-Montreal Global Biodiversity Framework (GBF).

1.1 Biodiversity

Biodiversity, short for biological diversity, refers to the variety of all forms of life in Suriname and the whole earth. This includes different plants, animals and micro-organisms and the ecosystems that they form through their complex interdependencies and interactive processes. Biodiversity also includes diversity within species through the different genes individuals or populations may contain. This grand diversity of life forms is the dynamic result of the continuous process of evolution. Biodiversity increases when new genetic variation is produced, new species develop, novel ecosystems are formed or existing ones become more complex. It decreases when genetic variation within a species decreases, species become extinct or ecosystem complexes are lost. Biodiversity can thus be considered at three different levels: genetic diversity, species diversity and ecosystem diversity. Biodiversity is what underlies the resilience of ecosystems: the capacity of ecosystems to absorb the impact of shocks or disturbances, e.g. from human activities, by maintaining or recovering critical ecosystem functions. The richer an ecosystem's biodiversity, the more complex interactions between the constituent species become, and the more resilient it becomes, in other words: the 'healthier' it is.

1.2 Our relationship with nature and biodiversity

Nature, the biophysical, non man-made world around us comprising of biodiversity, not only supports ecosystems' vital functions, but also our economies and wellbeing. It is undeniable that humans and nature are inseparably linked. Our quality of life highly depends on nature, ecosystems and the various ecosystem services they provide. Ecosystem services are contributions from nature helping humans to achieve food- and water security, support livelihoods at all levels, and stay healthy, both physically and mentally. Nature supplies:

i) Material ecosystem services such as food, water, fiber, energy, construction materials, medicinal resources; this is important for livelihoods and energy security.

[1] World Bank (2023). National accounts data Suriname. https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?locations=SR. Accessed 30 March 2023

[2] General Bureau of Statistics (2012). 5th Environmental Statistics publication. Paramaribo, Suriname

ii) Regulating ecosystem services such as soil quality maintenance, pollination and seed dispersal, regulation of the climate and hydrological systems; this strongly affects human health, food- and water security.

iii) Non-material ecosystem services, such as providing opportunities for learning-, inspiring-, recreational-, religious-, spiritual-, social cohesion- or healing experiences; this is important for maintaining local livelihoods, ways of life and mental health.

Biodiversity underpins nature and is thus embedded in ecosystem services that provide benefits to our wellbeing and quality of life. The perception of these benefits and how biodiversity is used and managed, depends on different worldviews, value- and knowledge systems from e.g. industry, governments and communities. Some worldviews show close connections with nature, sometimes perceiving it as an entity on its own, such as those of indigenous and tribal communities. Their worldviews enabled them to respect and learn from nature, and develop local ecological knowledge over the course of hundreds of years. In the Amazon for example, major indigenous knowledge systems and management practices have contributed for centuries to conserving and enhancing biodiversity.[3] Despite this history of biodiversity stewardship, indigenous and tribal peoples in the Amazon and elsewhere around the world are facing problems such as infringement of their land tenure rights and land-use change and degradation. In addition, the decoupling of traditional lifestyles and knowledge from nature as a consequence of the increasing influence of market economies and globalization threatens cultural continuity.
Perceptions of benefits and thus the importance and use of biodiversity also differs based on gender, which concerns women's and men's issues and the relationship between them. Women and men use the resources and interact with their environmental setting differently, and are also involved in nature management in different ways. The latter is also closely related to age, social class and culture. For example, when it comes to agriculture, livestock, fisheries or water management, women and men may carry out different activities, have unequal access to different resources or income generating opportunities, thus benefiting from their use in a non-equitable manner. Looking at biodiversity, ecosystem services and the benefits derived from them through a gender lens, it is necessary to understand the different relationships held by women and men in relation to their environment, resources and benefits. It also allows to distinguish the unique knowledge, skills and experiences women and men have that are important for conservation and sustainable use of biodiversity.

Men and women continuously interact with nature and biodiversity, e.g. through policy decisions on groundwater extraction, through business practices e.g. in the mining and agriculture sector, and through consumer choices, e.g. on packaged goods and cosmetic products. All of this directly or indirectly affects nature's ability to provide ecosystem services and could in turn lead to negative impacts on our health, livelihoods, economies and other dimensions of a good quality of life. However, the decisions we take as policy-makers, business owners and consumers can also help to sustainably use biodiversity and maintain ecosystem resilience, for example by protecting an upstream watershed, incorporating sustainable or regenerative agriculture practices and making nature-conscious consumption choices.

1.3 Updating Suriname's NBSAP

Suriname produced its first NBSAP in 2006 (NBS) and 2011 (NBAP) respectively. At the time of the first NBSAP formulation, the Aichi Biodiversity Targets were not yet adopted by the UNCBD Conference of the Parties. The main lessons learned from the first NBSAP are that the strategy was not well enough integrated in national planning and policies and there was no adequate monitoring system in place to track progress. In addition, there was no clear gender mainstreaming and a lack of ownership and collaboration resulted in a lack of collective efforts. In part due to limited financing and institutional capacity, the degree of implementation of the first NBSAP was generally low. Nevertheless, it provides a foothold to learn from and build-upon. Therefore, based on a brief evaluation done in 2018 [4], the main recommendations taken for updating the NBSAP include:

- Using a national approach, based on extensive stakeholder engagement, in particular the main national planning bodies

[3] IPBES, (2018).The IPBES regional assessment report on biodiversity and ecosystem services for the Americas. Rice, J., Seixas, C. S.,Zaccagnini, M. E., Bedoya-Gaitan, M., and Valderrama N. (eds.)

[4] Government of Suriname, (unknown date). Analyses and Recommendations for the Development of a Biodiversity Action Plan 2018-2020.

- Integrating NBSAP targets and national development priorities, including alignment in sectoral plans
- Incorporating the role that women and men play in conserving biodiversity and mainstreaming gender aspects
- Integrating or aligning the NBSAP targets and actions with those of the GBF.
- Developing an efficient monitoring and evaluation framework for the NBSAP implementation and reporting

A significant amount of time has passed since the previous NBSAP. In the past 11-17 years, there have been considerable changes at national and international level. In the latter case, the most significant and recent change is the adoption of the GBF. At national level there have been changes in the legal, institutional and policy arrangements, and natural resource-based economic development has intensified (e.g. gold mining, timber extraction and fisheries) since the first NBSAP. It is, for example, expected that the extractive industry will remain important and the offshore oil and gas sector will be further developed in the coming years. Given the country's dire financial- and economic situation at the time of updating the NBSAP, it can be expected that policies and nationally available resources will strongly focus on plans that will improve the social-economic situation[5], increasing potential risks for economy-biodiversity trade-offs. In this context, it was essential that the updated NBS provides clear entry points for mainstreaming biodiversity targets and national socio-economic priorities, responding to development needs. Furthermore, the aim with updating the NBS is to revise it in such a way that it reflects the changed national and international context, the views of national rights- and stakeholders and aligns with the GBF. This includes ensuring that practices carried out by women and men and biodiversity-related issues important to them do not fall beyond the scope of the actions in the NBAP. Mainstreaming gender in the NBSAP is necessary to ensure that, where women or men are in a disadvantaged position, strategies, actions and policies contribute to, and not negatively impact, gender equality and equity. It also provides an opportunity to include (biodiversity-related) gender issues at the national level.

The process of updating the NBSAP involved a desk review on changes in the national and international context since the previous NBS was developed. In addition, input of rights- and stakeholders was gathered through an inception workshop, technical workshops in a smaller setting and through virtual meetings with a broad group of stakeholders on, e.g., the strategic pathways and targets, the implementation status of the previous NBAP, ongoing or planned activities, and priority actions to include in the updated NBAP. The various meetings also facilitated the further incorporation of detailed information regarding the context, status and trends of biodiversity in Suriname.
Since the current documents are an update from the previous NBSAP, the core elements, such as the national vision, guiding principles, strategic pathways, targets and actions are updated taking the text from the previous NBSAP as a starting point. Updates are based on new insights from the changed national and international institutional- and biodiversity context, insights from recent literature and aspects important to incorporate (e.g. gender), changes in social-economic circumstances with implications for biodiversity related issues, and findings from evaluations such as in the sixth National Report to the UNCBD. Furthermore, another consideration when updating the NBSAP was to develop a workable and feasible document, avoiding unnecessary complexity as much as possible.

1.4 Structure and content of the strategy

The updated NBS is set within a 10-year framework consisting of four strategic pathways which are in turn elaborated through specific targets, and actions in the NBAP. The document is structured in 3 sections, providing the national context, 2035 vision and guiding principles (section 2), the strategic pathways and targets (section 3) and the implementation framework (section 4). Compared to the previous NBS, updates in each section of the current document relate to:

- **Section 2** – Additional information regarding the state and trends of biodiversity in Suriname, gender perspectives on biodiversity, linkages with climate change, and an overview of the relevant institutional context, an updated national vision and expansion of guiding principles.

[5] Republic of Suriname (2021). Herstelplan 2020-2022: De basis voor economische groei en institutionele versterking. Ministry of Finance and Planning, 10 May 2021

- **Section 3** – Transformation of eight 'goals' and over fifty 'strategic directions' from the previous NBS into four strategic pathways and twenty-two strategic targets. The previous NBS had seven goals and the 8th goal was added in the 2011 NBAP, where the description of the goals was also slightly adjusted as stated. The previous NBS contained strategic directions consisting of more than fifty bullet points, which were re-organized in the 2011 NBAP into 30 'subobjectives' and subsequent actions. Three of the eight goals in the previous NBSAP are aligned with the three goals of the UNCBD and are similarly represented in the updated NBS by the first three strategic pathways on biodiversity conservation, sustainable use of biodiversity, and for fair access and equitable sharing of benefits from the utilization of genetic resources. The other fiver goals, respectively on research and education, awareness raising, broad and inclusive participation, capacity building and adequate financing, which were slightly re-formulated in the previous NBAP, are currently brought together under the fourth strategic pathway in the updated NBS: 'mainstreaming and enabling conditions'. The strategic pathways describe the circumstances and interventions required to achieve certain strategic targets and realize the national vision. The pathways elaborate in total 22 strategic targets, which translate to subsequent actions in the updated NBAP. The targets are all based on the content of the previous NBSAP ('strategic directions' or 'subobjectives'), literature review and the new GBF. In particular the thirty subobjectives of the previous NBAP are all incorporated in the twenty-two strategic targets. In a few cases, a target has an overarching character of a certain issue that is covered by three separate, but related, subobjectives. In such cases, the specification is reflected on the actions level. Important considerations for the transformation of section 3 include the reorganization of many strategic directions in the previous NBS that were formulated as interventions, to the level of actions, rather than targets. Other considerations relate to specificity, measurability and feasibility of the 22 targets for monitoring, evaluation and reporting of implementation progress. Finally, it should be stated that careful consideration was given to ensure that the content from the previous NBS is included in the updated version, albeit perhaps at a different (sub)level.

- **Section 4** – Minor adjustments in the NBAP format based on the outline of section three, addition of a timeframe and highlighting of relevant synergies between targets, with climate action and the SDGs. Furthermore, a framework for monitoring and evaluation has been added, which was not included in the previous NBSAP.

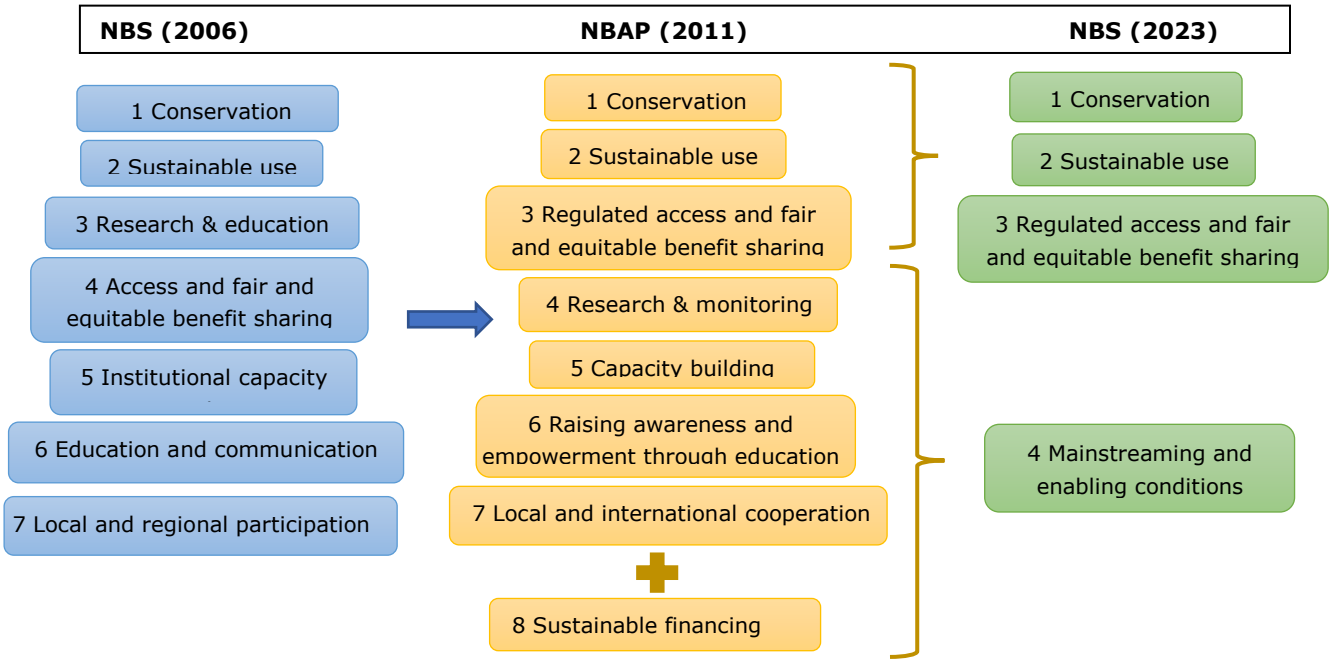

Figure 1. Overview of transformation from eight biodiversity goals to four strategic pathways

2 National context and vision

2.1 Biodiversity context in Suriname

As part of the Guiana Shield, the area roughly between the Orinoco and the Amazon rivers in North-East South America, Suriname's tropical rainforest is part of one of the few remaining large intact forest areas and part of the Amazon biome. Lying at the coast of North-East South America, Suriname also has a marine territory (Exclusive Economic Zone) extending up to 345 sea miles northward from the coast. Suriname is home to a diverse range of largely intact ecosystems (Box 1), from the estuarine zone with mangroves and marine turtle nesting beaches along the coast, to the highland tropical rainforests. As such, Suriname boasts a rich diversity of species, with natural ecosystems still containing the various species that are essential for their functioning and maintenance. There is also very likely a high diversity in genetic resources due to the spread of populations across the bio-geographic region with its many isolated river systems, savannah's and forested hills and inselbergs.

Box 1. Overview of Suriname's known biodiversity (sources: *General Statistics Bureau, 2022; Dijn (ed), 2018; Green Heritage Fund Suriname, 2021, 2022)*

Ecosystems

Marine zone (EEZ): marine ecosystems nearer and further from the shallow sea area, including possible coral reefs.

Estuarine zone (1% of total surface area): Brackish water ecosystems e.g.

- Shallow sea and mudflats
- River estuaries
- Mangrove forests
- Marshes, lakes and swamps (hypersaline and brackish)
- Sand and shell beaches

Coastal plain (13% of total surface area):

- Freshwater swamp (herbaceous and forested)
- Marsh forests (also found in the Zanderij belt and the interior)
- Clear water rivers (tidal lower reaches)

Zanderij (Savanna) belt (5% of total surface area):

- Riparian forests (also in interior)
- Lower freshwater rivers
- Savanna (whitesand, brownsand, clay)
  - Wet shrub savanna
  - Dry shrub savanna
  - Orchard savanna
  - Rock savanna
- Savanna forest and mountain savanna forest

Interior (82% of total surface area):

- Rain forests,
- Rain forest creeks,
- Clear water rivers,
- River rapids
- Upland ecosystems (up to 1250m)

Wildlife species (2021)

- Flora: +/- 7906 species, among which cacti, grasses, shrubs, trees, palms, lianas and vines, epiphytes, hemi-epiphytes, parasites and saprophytes
  - Over 5100 vascular plant species,
- Fauna: +/- 2020 species, among which 196 mammals.

- Known non-commercial marine species (limited data):
  - Dolphins, at least 5 species
  - Mantaray
  - Seaturtles, at least 5 species including the Leatherback turtle
  - Sharks, various species including the whale shark
  - Whales, e.g. sperm whale, false killer whale, Gervais beaked whale.
  - Sunfish
  - Various seabirds

- Fresh- and brackish water fish species: +/- 500
- Amphibians and reptiles: Over 200
- Birds: Over 700 (resident + migratory)
- Endangered species: 123, of which 12 critically endangered
- Near threatened/least endangered species: +/-3800
- Protected animal species: 189
- Tree species protected against logging (2021): 7
- Animal species requiring CITES license for export: 165 Number of animals exported with CITES license in 2016-2021: +/- 24,000 - 27,000 animals worth 6 million US dollars.

Protected areas

- 11 Nature reserves (11.5% of total surface area)
    - 4 in brackish-freshwater Coastal Zone
    - 4 in freshwater Coastal Zone
    - 3 in the Interior
- 2 Nature parks (public, private resp.) (0.09% of total surface area)
- 4 Multiple Use Management Areas in the brackish-freshwater Coastal Zone (1.5% of total surface area)

Suriname also has a rich cultural diversity as a consequence of the influx of people from various parts of the world during and after the colonial period. Even before this immigration, indigenous men and women were already living in different parts of the country, with their own local knowledge systems and worldviews. During the colonial period, part of these knowledge systems were shared and mixed with that of enslaved Africans and their descendants who escaped from the plantations and successfully established free communities deep in the forest interiors of Suriname. There are four indigenous tribes and six afro-descendent tribes in Suriname, each with their worldview, values and local ecological knowledge systems. Such knowledge systems have been used by them for centuries to wisely manage their territories and apply practices that have shaped landscapes. For example, indigenous and tribal knowledge systems play a key role in food production systems in the interior and conservation of domestic crop varieties. The traditional ecological knowledge and ways in which indigenous and tribal peoples manage their traditional territory is highly relevant for Suriname's biodiversity with regard to conservation of natural habitats and the reduction of forest loss.
The important role that women in indigenous, tribal and other communities play in biodiversity stewardship, through agro-biodiversity innovation, experimentation and transfer of knowledge should not be underestimated. At the local level, women are often in charge of the household and manage biodiversity to, for example, meet food and health needs, i.e. agriculture and traditional medicine. The traditional knowledge held by men and women differs, for example in the case of community midwives and male traditional healers. With the men in several local communities in the interior of Suriname increasingly needing to work away from the village to earn an income, and the slowly growing number of women in traditional leadership roles, it can be expected that women's influence in the management of the territory, local biodiversity, agriculture and continuity of traditional knowledge will become even more important. To this date, women's role in decision-making, conserving and sustainably managing biodiversity remains largely invisible due to the fact that, for example, women work in informal markets. Or due to the misconceptions that unpaid family- and household care related activities are not regarded as work, thereby not considering the contribution of related productive activities such as agriculture. At the national level, the socio-economic status of women is generally inferior to that of men, despite a ratio of close to one, of women to men in the Surinamese population and despite larger numbers of women than men enrolled in tertiary education.[6,7] Women are disproportionately affected by environmental hazards or disasters and crises situations. Contributing factors range from the labor-intensive and time consuming combination of productive (income related) and reproductive (family and household care related) responsibilities, to the structural inequalities in access to jobs, financial resources and social capital. Suriname's National Gender Vision Policy (2019) recognizes this and aims to reduce vulnerabilities of women, improve the visibility of women's knowledge and role in biodiversity protection at the local level and ensure the effective participation of women in decision-making and policy and action plans at all levels.

Thanks to a small population compared to Suriname's surface area, limited industrialization and agriculture development, and the establishment of legislation for protected areas in the early 1960's-1990's, Suriname's terrestrial and marine ecosystems are still largely intact. Despite the relatively low pressures overall, there are impacts on and threats to biodiversity on (sub-)national level from the conversion and degradation of natural areas (habitats) and from overexploitation. The main causes for this are mining, fishery in Suriname's marine territory, agriculture and urbanization (especially in the coastal area), infrastructure and forestry. While agriculture is done at relatively small scale, the lack of recognition and promotion of alternative forms of agriculture such as agroforestry in laws and regulations hamper the

[6] Ministry of Home Affairs, (2019). Gender Vision Policy Document 2021-2035. Bureau of Gender Affairs, June 2019, Paramaribo, Suriname
[7] General Bureau of Statistics (2021). Selected statistics about women and men in Suriname 2021. Paramaribo, Suriname

sustainable increase of agricultural production. Currently, granted concessions for exploration and exploitation activities in the mining and forestry sectors cover about a fourth of Suriname's land territory.[8] This is often a source of conflict when it concerns living areas of indigenous and tribal communities. Gold mining has been identified as the main driver of deforestation in Suriname.[9] Artisanal and small scale gold mining are particularly destructive to local ecosystems. The release of sediments due to mining in rivers and in creeks increases the turbidity of the water and disturbs the flow of water. The use of hazardous materials also presents threats to animal species and humans. Mining is thus a significant threat to the health of forest- and aquatic ecosystems.

Despite persisting inequalities between the situation of men and women, the living standard for both has generally increased in Suriname since the early 2000's, which, in combination with national economic growth, has led to increased consumption, and by extension: pollution. Pollution from various sources, e.g. solid waste dumping, the use of pesticides in agriculture and mercury from gold mining and processing, which are currently not regulated, poses a serious threat to ecosystem health on land as well as in aquatic, coastal and marine ecosystems. There is currently little data and no regular monitoring of sources and quantities of pollution from various sectors. There are some initiatives, such as research done in the South-East of Suriname on the effects of mercury on human and environmental health, which shows the gravity of impacts from mercury pollution in the gold mining sector. Furthermore, there are some pilot projects targeted at household waste piloting systems for bulky- and separated waste collection. However, a lack of data hampers the formulation of appropriate policies and subsequent integrated waste management plans, and keeps the extent of problems invisible. The use and consequences of fertilizer and pesticides in the agriculture sector, for example, requires more in-depth investigation and the development of alternatives.
Overfishing is another symptom of increased consumption and exploitation in Suriname, and is the main cause of declining fish stocks and pressure on marine biodiversity. The populations of Southern Brown Shrimp, for example, have been depleted and failed to recover due to overfishing[10]. Around half of the species on the IUCN Red list of threatened species in Suriname are fish. The number of fishing permits in certain fishing categories exceeds the amount that has previously been indicated as a sustainable number, and destruction of breeding grounds and large bycatch due to unsustainable techniques pose a serious problem. A lack of control and enforcement creates conditions under which illegal fishing can flourish. The Fisheries Management Plan 2021-2025 has listed a number of policies and measures to address several of these issues. The significant problems in the fisheries sector are a threat to marine biodiversity and the future existence of the third largest economic sector, which depends on sustainable management of fish stocks. The expected exploitation of off-shore oil in Suriname's Exclusive Economic Zone (EEZ) will increase the risks of marine biodiversity without appropriate protocols, standards and contingency capacities. Other current threats to biodiversity arise from poaching, illegal wildlife trade for aesthetic or medicinal purposes, and climate change. The hunting of jaguars and poaching of sea turtle eggs are a few of the issues receiving more national attention in recent years. Jaguars are illegally hunted for parts that are believed by some to have medicinal benefits. The number of Leatherback sea turtle nests has dropped drastically compared to twenty years ago (Figure 2). Habitat disturbance and destruction due to e.g. gold mining in the interior and sand mining in the coastal area, which can affect the dynamic geomorphology of the coast and thus the existence of nesting beaches, also contribute to these problems. While poaching mainly targets jaguars and sea turtles, wildlife trade for pets centers around birds, reptiles, monkeys and to some extent freshwater fish for aquaria. Foreign markets are supplied with a larger variety of animals than the local market.

[8] SBB (2023). Foundation for Forest Management and Production Control. www.gonini.org, accessed 30 March 2023
[9] NIMOS, SBB and UNIQUE (2017). Background study for REDD+ in Suriname: Multi-perspective analysis of drivers of deforestation, forest degradation and barriers to REDD+ activities. Paramaribo, Suriname.
[10] De Dijn, B., (ed), (2018). Natural History and Ecology of Suriname. Final ch. WWF Guianas. LM Publishers, Volendam, The Netherlands

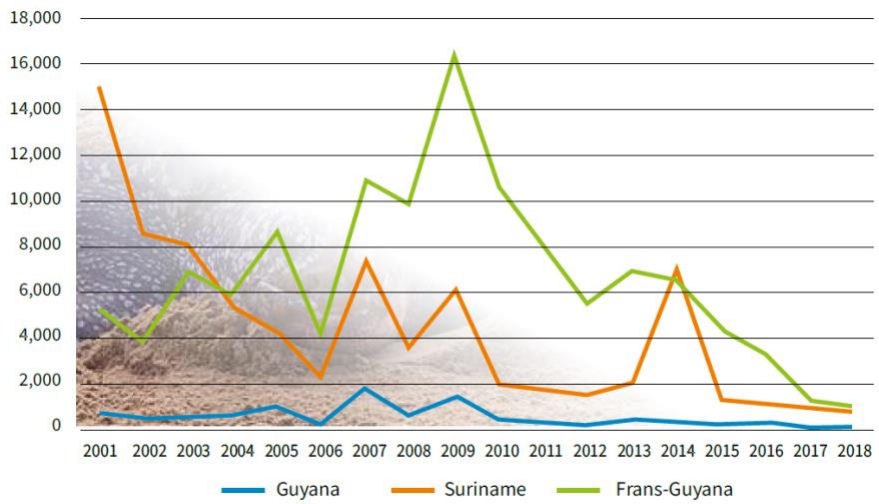

Figure 2. Number of Leatherback sea turtle (*Dermochelys coriacea)* nests (source: WWF, 2020a)

There are also uncertain and indirect threats to biodiversity in Suriname. Climate change is an increasingly significant threat to ecosystems. In Suriname, predicted climate change effects include sea-level rise, reduced annual average rainfall, more extreme rainfall events, and increases in atmospheric and sea surface temperatures. In the past and recent years, climate variability and extremes due to local effects of the El Niño/La Niña Southern Oscillation (ENSO) have indicated the vulnerability of ecosystems and associated social- and economic systems.
Along with issues such as a lack of human and technical capacity, financial resources, the availability of robust data, indirect threats to biodiversity also arise from outdated biodiversity-relevant national legislation and its enforcement. This is highly relevant when it comes to effective management of protected areas and the protection of endangered species, especially when activities such as logging and mining are encroaching protected areas. Another issue relates to the strong need for streamlining biodiversity policies and responsibilities among different institutions. Gathering insights for addressing such indirect threats and actively working on improved coordination can contribute to the mainstreaming of biodiversity in national social-economic development, e.g. for nature tourism, sound land-use planning, traditional and local ecological knowledge in the health sector, minimizing economy-ecosystem trade-offs and access and benefit sharing from the use of genetic resources.

Suriname has taken steps to address some of these threats. Biodiversity related actions taken since the first NBSAP relevant for the strategic objectives it specified contributed among others to the following results and institutional set up (table 1):

- Endorsement and drafting of new laws in favor of biodiversity, e.g. the Maritime Zones Act, the Environmental Framework Act, the draft renewed nature conservation law, and the draft Coastal Protection Law
- Updating of coastal management plans
- Establishment of a National Land Monitoring System, including near real-time forest monitoring, and biennial production of national land use and land cover maps
- Four areas indicated as potential new protected areas
- Suriname has committed to the Extractive Industries Transparency Initiative (EITI), which includes a environmental reporting requirement
- Implementation of the Stockholm Convention on Persistent Organic Pollutants
- Development of national sectoral plans related to biodiversity, e.g. the Fisheries Management Plan, the Jaguar Action Plan, the national REDD+ Strategy
- National Mangrove Inventory and Monitoring

In line with our status as the most forested country in the world, Suriname has an opportunity to pursue development that reflects interwoven biodiversity and socio-economic priorities. The transformation of land- and sea use sectors, such as agriculture, forestry and fisheries to be more sustainable can reduce their negative impacts on native-, especially endangered and protected, species while still contributing to social-economic prosperity. Traditional ecological knowledge of indigenous and tribal peoples will be important in the context of developing and upscaling lower-impact economic sectors, such as fair and

sustainable non-timber forest products value chains, including nature tourism. Finally, increasing serious talks about carbon credits for climate financing present new opportunities for biodiversity when climate-biodiversity co-benefits can be identified. Accessing biodiversity and other green financing through schemes such as payment for ecosystem services and biodiversity offsetting also present potential opportunities for Suriname.

Table 1. Overview of the current biodiversity-related institutional context in Suriname

Biodiversity-related thematic areas											
Wildlife	Forest Management	Land management and protected areas	Mineral resources	Nature tourism	Agriculture, livestock	Marine territory, fisheries	Gender, SDG's	Spatial planning and green infrastructure	Environmental health and climate change	Indigenous and Tribal Peoples; natural and cultural heritage	Crosscutting/ Data & research/ other
Institutes											
Min. Land and Forest Management - National Forest Service, Dep. of Nature Conservation - Game wardens - Foundation for Forest Production and Control			Min. Natural Resources -Bauxite Institute - Geological and Mining Service (GMD)	- Min. Transport, Communication and Tourism - National Tourism Authority	Min. Agriculture, Livestock and Fisheries		Min. Internal Affairs - Bureau Gender Affairs	Min. Spatial Planning and Environment - National Institute for Environment and Development Suriname // National Environmental Authority		- Min. Regional Development and Sports - District Commissioners - Min. Economic Affairs, Entrepreneurship, Tech. Innovation: - Bureau Intellectual Property - Min. Education, Science and Culture: - Dep. Culture Overlap with Min. GBB, Min. ROM, Min. NH	- National Planning Office - Anton de Kom University of Suriname: - CELOS - Nationaal Herbarium - Nationale Zoologische Collectie Suriname - Foundation National Rice Research Institute - National Statistics Bureau - Suriname Bureau for Standards
Min. Finance - Customs						Min. Home Affairs - National Coastguard - Min. International Affairs, Internaitonal Business Cooperation		Min. Public Works - Planning Service - Dep. Public Green Space			
Min. Justice and Police - Police force											
National Legislation											
- Wet Economische Delicten (1986…); - Besluit Negatieve Lijst (2003,…) - Jachtwet (1954, 2002)	Wet Bosbeheer (1992)	- Natuur-beschermingswet (1954) - Conceptwet Natuurbe-scherming (2018) - Conceptwet Bescherming kustgebied (2016)	- Mijnbouw Decreet (1986) -Conceptwet Mijnbouw (2018) - Concept Waterwetten (?)	Ontwerpwet Toerisme Raamwet (2022)	Wet Dieren-welzijn (2017)	-Visstand beschermings-wet (1961) -Zeevisserijwet (1980; 2017) -Viskeuringswet (2000) -Wet Maritieme Zones (2017)		-Steden-bouwkundige wet (1986) -Concept Wet Ruimtelijke Planning (2018-present)	Milieu Raamwet (2018)	Ontwerpwet Collectieve Rechten (2019-2022)	

Biodiversity-related thematic areas											
Wildlife	Forest Management	Land management and protected areas	Mineral resources	Nature tourism	Agriculture, livestock	Marine territory, fisheries	Gender, SDG's	Spatial planning and green infrastructure	Environmental health and climate change	Indigenous and Tribal Peoples; natural and cultural heritage	Crosscutting/ Data & research/ other
National Policies and Plans											
Jaguar Action Plan (2022)	- Interim Strategic Action Plan (2009-2013) - National Forest Policy (2006) - Draft Code of Practice for sustainable forestry (2011) - National REDD+ Strategy (2018)	- Integrated Coastal Zone Management Plan (2011) - Coastal Management Plans Bigi Pan, Noord Coronie, Noord Saramacca (2016-2019)	National Action Plan Artisanal and Small-Scale Gold Mining Nationaal Oil Spill Contingency Plan (2016)	- Nationaal Strategisch Toerisme Plan (2018-2030); - Concept Nationale standaard Toerisme (2018)	- Pre-inventory & Survey Invasive Alien Species (2016; 2017) - Nationaal Master-plan voor Agrarische Ontwikkeling Suriname (2016)	Fisheries Management Plan (2014-2018)	Gender Vision Policy Document 2021-2035 & addendum (2023)	- Draft zoning standards	- Nationally Appropriate Mitigation Actions (2019) - National Adaptation Plan (2019) - Suriname's Second Nationally Determined Contribution (2020) National Biosafety Framework (2004)		
International Conventions and Treaties											
Convention on International Trade in Endangered Species (CITES) (1981)	Amazon Cooperation Treaty (1980)	Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere (1985)	Minamata Convention on Mercury (2018)		International Plant Protection Convention (1977)	Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (1972)	Agenda 2030		United Nations Convention on Biological Diversity (UNCBD) (1996)	Convention for the Protection of the World Cultural & Natural Heritage (UNESCO)	
	International Tropical Timber Agreement (1998)	RAMSAR Convention on Wetlands of international importance, in particular as habitat for waterfowl (1985)				Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter			United Nations Convention to Combat Desertification (UNCCD) (2000)		
									United Nations Framework Convention on Climate Change (UNFCCC) (1997)		

Biodiversity-related thematic areas											
Wildlife	Forest Management	Land management and protected areas	Mineral resources	Nature tourism	Agriculture, livestock	Marine territory, fisheries	Gender, SDG's	Spatial planning and green infrastructure	Environmental health and climate change	Indigenous and Tribal Peoples; natural and cultural heritage	Crosscutting/ Data & research/ other
									Paris Agreement on Climate Change (2015)		
									Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposals (2011)		
									Stockholm Convention on Persistent Organic Pollutants (2011)		
									Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade (2000)		

2.2 Vision statement and guiding principles

Reflecting Suriname's commitment to sustainably manage and conserve its rich and functionally intact biodiversity, acknowledging its interdependent relationship with nature and recognizing the diverse worldviews and knowledge systems:

By 2035, Suriname followed through on the national commitments, presented in its updated NBSAP to value and conserve its diverse natural and cultural heritage, including traditional knowledge, for present and future generations, by protecting, sustainably using and restoring Suriname's biodiversity in all sectors on land and in sea, and enhancing benefits from healthy ecosystems for all of society.

Tegen 2035 heeft Suriname de in de updated NBSAP gepresenteerde nationale toezeggingen nagekomen om zijn diverse natuurlijke en culturele erfgoed, inclusief traditionele kennis, te waarderen en behouden voor huidige en toekomstige generaties, door de biodiversiteit van Suriname in alle sectoren op het land en in de zee te beschermen, duurzaam te gebruiken en te herstellen, en de voordelen van gezonde ecosystemen te bevorderen voor een ieder in de samenleving.

The principles that guide the effective and ethical implementation of actions that will contribute to realizing this vision are:

- **Healthy and resilient ecosystems** – Suriname's healthy, well-functioning marine, coastal and terrestrial ecosystems are vital to the health and wellbeing of society and have value in their own right as part of nationally and transboundary interconnected ecosystems. Maintaining healthy and resilient ecosystems will require addressing the causes and underlying drivers of biodiversity loss.

- **Ecosystem services and benefits** – Suriname's expansive natural and semi-natural areas deliver a wide range of ecosystem services and benefits, contributing to a good quality of life for the people of Suriname in a material and non-material way. Making it important that people are able to understand the interdependent relationship between humans and nature, experience nature and appreciate these benefits coming from all forms of biodiversity.

- **Fair and equitable sharing of benefits** – Suriname values the vast traditional and local ecological knowledge arising from its cultural diversity, especially from, but not limited to, indigenous and tribal communities. Recognizing the fair and equitable access to benefits from the use of such knowledge and of genetic resources from plants, animals and micro-organisms, as this can for example help enhance food security, human health and improve the living standard of society in general.

- **Mainstreaming in national priorities** – For ecosystem services to truly contribute to a good quality of life in Suriname, biodiversity needs to be linked to human development and social-economic progress. Conserving, sustainably managing and restoring biodiversity will only be successful when there is national and political commitment, biodiversity conservation is integrated in Suriname's national development plan and biophysical standards are integrated in legislation and policies across sectors and levels.

- **Enabling conditions** – Acknowledging the biodiversity milestones achieved so far in Suriname, it is crucial that financial- and human resources, political will and technology are mobilized to improve the circumstances for implementing biodiversity actions. Thereby combining efforts of all sectors of society and supporting the shared responsibility of science, policy, traditional knowledge and business innovation to achieve targets. Providing a solid legal basis for biodiversity conservation will help conserve Suriname's natural and cultural heritage for future generations.

- **Human rights based approach** – Suriname recognizes the importance of avoiding and addressing inequalities, discriminatory practices and unjust power relations in order to address social-economic development needs, including respecting the collective rights indigenous and tribal peoples, the reduction of poverty and gender inequalities. Indigenous and tribal peoples play a significant and irreplaceable role as stewards of the biodiversity in the territory they live in and from. Underlining the importance of preserving traditional cultural heritage. The implementation of the updated NBSAP must be based on principles of free, prior and informed consent and may not violate/lead to the violation of the human rights communities or individuals.

- **Gender mainstreaming** – Surinamese women and men (can) play a vital role in the conservation and sustainable use of biodiversity when ensuring their household's and families' basic needs, maintaining a livelihood, or filling in different positions in society that contribute to Suriname's development. To support women and men in their respective roles and ensure equitable development, women's and men's needs and interests, addressing inequalities concerning access to resources and benefits, and their full participation at all levels of strategy development and policy-making must be carefully integrated in biodiversity actions.

- **Inclusiveness** – The structural, culturally sensitive and meaningful participation of different rights- and stakeholders is essential for successful implementation of Suriname's NBSAP and beyond, in particular for vulnerable and minority groups, such as indigenous and tribal communities, women and youth. This includes the incorporation of principles of free, prior and informed consent (FPIC) and objective grievance redress mechanisms adhering to international standards.

- **Research and data collection** – Credible and legitimate knowledge, data and information, gathered through scientific and/or community-based research are vital to support evidence-based decision-making, policies and legislation on Suriname's biodiversity. Suriname recognizes that this starts with a robust monitoring and evaluation framework for the successful implementation of the NBSAP, and that scientific and traditional knowledge can make important contributions.

- **Coherence with the nationally determined climate contributions and the UN sustainable development goals (SDGs)** - Despite having a negligible contribution to the causes of climate change, Suriname is committed to implementing actions that contribute to the mitigation of greenhouse gasses and the adaptation to the impacts from climate change. Suriname is also committed to working toward achieving the UN Sustainable Development Goals. To be able to address the urgency of all these matters, achieve win-win outcomes and use resources efficiently, biodiversity actions should be coherent with climate and sustainable development actions.

3 Strategic pathways and targets

The Convention recognizes that biological diversity is about more than plants, animals and micro organisms and their ecosystems – it is about people and our need for food security, medicines, fresh air and water, shelter, and a clean and healthy environment. Suriname has according to the Charter of the United Nations and the Declarations of the International Law, the sovereign right to exploit her own natural resources based on its own environmental policy, as well as the responsibility to assure that activities that fall under its jurisdiction or under its supervision, cause no damage to the environment of other States or areas that are not part of any national jurisdiction. Given the national context described in section 2, it is important for Suriname to find an effective balance between the sustainable use of biodiversity and the conservation of biodiversity, recognizing that sustainable economic- and social development and eradication of poverty are the first priorities for Suriname. This implies that to achieve Suriname's national biodiversity vision, policies and regulations for the conservation of biodiversity as well as for the enforcement of sustainable practices in key economic sectors are key. This requires the promotion of and the development of new, low-environmental pressure sectors and sustainability innovations in 'traditional' economic sectors. To reduce poverty and enhance the benefits of healthy ecosystems for society, also mentioned in the national vision, a human rights based approach needs to be central in all biodiversity related plans, policies and actions. In addition, significant efforts are required to develop legal frameworks and mechanisms for fair access and equitable benefit sharing from the use of genetic resources. Suriname's updated NBS aims to be achievable and to do so builds on strengths and needs found within Suriname's natural-, social-, institutional- and economic contexts.

Four pathways lead to achieving Suriname's national biodiversity vision. The first three pathways are aligned with the first three goals of the previous NBS and the three UNCBD objectives: the i) conservation- and ii) sustainable use of biodiversity and iii) fair access and equitable benefit sharing from the utilization of genetic resources and associated traditional knowledge. The fourth pathway brings together the remaining five goals described in Suriname's previous NBS (see section 1.4), which is cross-cutting and supportive in character toward the other three pathways. The fourth pathway is also similar to goal D of the GBF, focused on improving the enabling conditions and capacities for structural biodiversity conservation, sustainable use and fair and equitable benefit sharing.

The four strategic pathways are:

1. **Conservation of biodiversity** – Suriname's ecosystems of high importance are safeguarded and their resilience maintained and restored.
2. **Sustainable use of biodiversity** – Pressures on and threats to Suriname's terrestrial, marine, coastal and freshwater ecosystems are reduced, so that the provision of ecosystem services is sustained and enhanced.
3. **Fair access and equitable benefit sharing** – A well-developed and functioning national access and benefit sharing (ABS) legal-, institutional- and administrative framework enables the equitable sharing of benefits from the utilization of Suriname's genetic resources and associated traditional knowledge between the Government of Suriname, the owners of these resources and traditional knowledge, the private- and research sectors.
4. **Mainstreaming and enabling conditions** – A national sense of nature stewardship is cultivated across sectors and levels, structurally supported by: credible and legitimate research, capable institutions, increased awareness, financing schemes and inclusive participation.

As the UN Agenda 2030 for Sustainable Development has a similar timeframe as the GBF and contains sustainable development goals that are relevant for biodiversity, it is important to consider the linkages between biodiversity and sustainable development in a holistic way (Table 2). Suriname recognizes these interlinkages and the strategic entry points for making progress toward implementing the NBSAP and achieving the SDGs. Recently, private sector companies have been actively promoting the SDG's, and in some cases are actively working toward specific SDG's. It is important for the implementation of the NBSAP to identify synergies with biodiversity in light of financing strategies and synergies.

The pathways set out in the NBSAP comprise of strategic targets (Table 3), for which actions to achieve the targets are formulated in the updated NBAP. The following sub-sections in this chapter describe each pathway narrative and associated targets. (see also Annex A)

Table 2. Overview of strategic pathways and targets formulated and prioritized with input from rights- and stakeholders

Holistic perspectives on biodiversity	**Linkages with SDG's**
Biodiversity conservation	SDG 14 – Life below Water SDG 15 – Life on Land
Sustainable use of biodiversity is important in land- and sea use sectors such as fisheries and agriculture, where aspects such as agrobiodiversity and genetic diversity are important to food security; and supports livelihoods of people across levels and sectors in many parts of the world.	SDG 1 – Poverty Reduction SDG 2 – Zero Hunger SDG 8 – Decent Work and Economic Growth
Conversion and pollution of natural habitats by industry and land-use change, threaten (unique) ecosystems and their functions that ensure the availability of potable water, and increase risks of exposure to zoonotic diseases (as outbreaks of deadly epidemics and most recent the Covid-19 pandemic have painfully laid bare).	SDG 3 – Good Health and wellbeing SDG 6 – Clean Water and Sanitation SDG 9 – Industry, Innovation and Infrastructure
Urban biodiversity and associated access to blue and green spaces in cities, will become more important for the wellbeing of urban dwellers, as almost 70% of the global population is expected to live in urban areas by 2050.	SDG 11 – Sustainable Cities and Communities
Anthropogenic climate change and biodiversity loss are currently two of the largest crises humanity faces, and the associated causes, impacts and potential solutions of either are often linked to each other.	SDG 7 – Affordable and Clean Energy SDG 13 – Climate Action
Actions taken toward achieving quality education, gender equality, sustainable consumption and production, strong institutions, increased cooperation, and reducing inequalities in general, can directly or indirectly benefit biodiversity and the fair access and benefit sharing of its utilization. Conversely, acknowledging the role women play in using and managing biodiversity can contribute to gender equality.	SDG 4 – Quality Education SDG 5 – Gender Equality SDG 10 – Reduced Inequalities SDG 12 – Responsible Consumption and Production SDG 16 – Peace, Justice and Strong Institutions SDG 17 – Partnerships for the Goals

Table 3. Overview of strategic pathways and targets formulated and prioritized with input from rights- and stakeholders

Strategic pathways	**Strategic targets**	**Link with GBF targets**
1 Conservation of Biodiversity	**1.1 Increased area % under protection** Terrestrial, marine and wetland protected areas in Suriname comprise 30% of the total area and are effectively managed, including in the EEZ, covering unique and vulnerable ecosystems in all parts of the country	GBF target 3 GBF target 8 GBF target 11
	1.2 Active ecological restoration and rehabilitation Suriname has initiated ecological restoration and rehabilitation of degraded, polluted or depleted terrestrial, marine and aquatic ecosystems using evidence-based procedures, norms and national guidelines	GBF target 2 GBF target 11
	1.3 Protection of endangered species Suriname effectively protects endangered animal and plant species through coordinated management and monitoring systems and has the required technical and financial capacity for the enforcement of wildlife trade regulations.	GBF target 4 GBF target 5

Strategic pathways	Strategic targets	Link with GBF targets
	1.4 Reduced risks of invasive species Suriname has increased awareness and developed early detection and management systems for preventing the introduction of exotic species and reducing the risks and impact from invasive species.	GBF target 6
2 Sustainable use of Bioversity	**2.1 Sound spatial planning and land- and sea zoning** Suriname has adopted terrestrial and marine spatial planning laws and regulations, including zoning and integrated management plans, to minimize unsustainable ecosystem conversion or degradation	GBF target 1
	2.2 Reduced pollution Suriname has reduced the risks of pollution of ecosystem from various sectors through established national environmental quality standards, integrated waste management- and monitoring systems in line with national legislation	GBF target 7
	2.3 Sustainable land- and sea use practices Suriname enforces the sustainable exploitation of biodiversity in land-, sea- and freshwater use economic sectors through responsible practices and technologies, in line with sound land use planning and zoning	GBF target 10 GBF target 11 GBF target 5
	2.4 Integrating ecosystem services and nature-based solutions Based on increased evidence-based understanding on ecosystem services, Suriname's public, private and societal organizations incorporate nature-based solutions in urban planning, climate resilience, food production systems and the development of sustainable livelihood options.	GBF target 11 GBF target 12
	2.5 Policies for sustainable business practices Suriname has set priorities and developed a plan for phasing out or reforming subsidies and incentives for the private sector that are harmful for biodiversity and for regulating incentives in favor of conservation and sustainable use of biodiversity including transparency and compliance.	GBF target 15 GBF target 16 GBF target 18
3 Fair and equitable sharing of benefits from the use of genetic resources and traditional knowledge	**3.1 Legal recognition of indigenous and tribal peoples knowledge and rights** The collective traditional knowledge and associated intellectual rights of indigenous and tribal communities are recognized in Suriname's legislation	GBF target 13 GBF target 21 GBF target 22
	3.2 Self-protection of traditional knowledge Indigenous, tribal and other local communities have capacities and respected structures for protecting their traditional knowledge and managing community territory biological resources	GBF target 13 GBF target 22
	3.3 Fair and equitable benefit sharing mechanisms The access and benefit sharing provisions of the UNCBD are incorporated in national legislation and transparent procedures for the protection of genetic resources, bioprospecting, and fair and equitable sharing of benefits, recognizing the rights, including intellectual property rights, of all Surinamese citizens	GBF target 13
4 Mainstreaming and Implementation	**4.1 Strengthened capacities** The capacity of Suriname's institutions and relevant groups are strengthened for effective management, monitoring and	GBF target 20

Strategic pathways	Strategic targets	Link with GBF targets
	evaluation, technical cooperation, fund mobilizing and science-policy communication of the NBSAP implementation.	
	4.2 Available financial resources Suriname has increased its national budget for biodiversity-related policy areas, and has improved knowledge of and access to international finance, including innovative schemes such as payment for ecosystem services and biodiversity offsetting, and synergies with climate financing.	GBF target 19
	4.3 Improved education and awareness The importance of biodiversity and the nature-human relationship are structurally integrated in Suriname's education curricula for elementary and middle school, and in awareness campaigns on related issues.	
	4.4 Scientific research and data collection Increased Surinamese scientific research, including community-based research, is published, linked to national databases, and contributes to credible and legitimate knowledge on Suriname's biodiversity in the broadest sense.	GBF target 21
	4.5 Climate change and biodiversity synergies There is increased understanding of the risks and impacts of climate change on terrestrial and marine biodiversity in Suriname and of how biodiversity can be integrated in climate adaptation strategies.	GBF target 8
	4.6 National biodiversity integration Suriname has harmonized environmental and economic policies and all relevant government-, civil society- and private sector organizations are involved in the NBSAP implementation.	GBF target 14
	4.7 Inclusive participation and gender equality Suriname's biodiversity policies include gender-responsive actions and these are implemented through inclusive participation mechanisms, considering intersectionality and outcomes that effectively improve the situation of vulnerable groups, including indigenous and tribal peoples, women and youth.	GBF target 22 GBF target 23
	4.8 SDGs and biodiversity synergies There is increased understanding of the synergies between biodiversity protection and achieving the SDG's in the Surinamese context, for efficient measures, monitoring and financing.	GBF section D

3.1 Pathway 1: Conservation of Biodiversity

The UNCBD refers to *in-situ* and *ex-situ* conservation. With in-site conservation the focus is on ecosystems and natural habitats and the maintenance and recovery of species populations in their natural surroundings. The focus in the ex-situ conservation is on the conservation of components of biodiversity outside of their natural habitat. For Suriname, this strategic pathway is to lead to maintaining healthy ecosystems and restoring degraded ones to increase their resilience.

Targets

1.1 Terrestrial, marine and wetland protected areas in Suriname comprise 30% of the total area and are effectively managed, including in the EEZ, covering unique and vulnerable ecosystems in all parts of the country

1.2 Suriname has initiated ecological restoration and rehabilitation of degraded, polluted or depleted terrestrial, marine and aquatic ecosystems using evidence-based procedures, norms and national guidelines

1.3 Suriname effectively protects endangered animal and plant species through coordinated management and monitoring systems and has the required technical and financial capacity for the enforcement of wildlife trade regulations.

1.4 Suriname has increased awareness and developed early detection and management systems for preventing the introduction of exotic species and reducing the risks and impact from invasive species.

Suriname's legislative framework provides the basis for its protected areas, which currently include only terrestrial ecosystems and to a lesser extent aquatic ecosystems in the coastal zone and the interior. The existing sixteen protected areas include nature reserves, Multiple Use Management Areas (MUMA's) and one nature park. The largest protected area, the Central Suriname Nature Reserve (CSNR), is also registered as an UNESCO World Heritage site for over twenty years. Due to its large size, the CSNR covers a range of ecosystems including upland and lowland forests and part of the Coppename River watershed. Another nature reserve, the Coppename-monding, is also registered as a RAMSAR site, or Wetland of International Importance. A key focus under this pathway will be to increase the natural areas under protection in covering a range of ecosystems in different parts of the country, as, for example, terrestrial ecosystems in Western parts differ from those in Eastern parts. Because there are currently no marine protected areas, a stronger emphasis will be placed on establishing marine and coastal protected areas. In doing so, areas will be considered of particular importance for marine life, such as fish breeding grounds, sea turtle nesting beaches, and in extension for supporting the tourism and fishing industry.

Protection, restoration and rehabilitation

Intensive fish exploitation and destructive land uses have already led to the depletion of certain species populations and degradation of ecosystems and their functions. While this situation may not seem obvious for Suriname as one of the most forested countries, and may not always be the case at the national level, it is certainly true in specific parts of the country and its EEZ. That is why specific attention to restoration and rehabilitation of ecosystems and wildlife is becoming more relevant in Suriname. Several sectoral policy plans (e.g. fisheries, agriculture) and legislation (e.g. coastal protection, tourism) will be up for revision or renewal, presenting opportunities to structurally incorporate aspects related to the conservation and restoration of biodiversity. Suriname recognizes the importance of monitoring and enforcement of legislation to effectively manage protected areas and reduce poaching, illegal wildlife trade and the introduction of invasive alien species. Priority will be given to strengthening of capacities, increasing awareness of all relevant authorities and streamlining cost-efficient monitoring and enforcement. The uncertainty and extent of climate change impacts on biodiversity, something that a carbon-negative country such as Suriname contributes very little to, is not yet extensively studied in Suriname. Projected increases in temperature, including of the ocean, extreme rainfall events and unpredictable seasonality present potential threats to ecosystems and the social-economic systems depending on them. This uncertainty underlines the importance of incorporating management actions that ensure the resilience of ecosystems (e.g. a wetland) and managed natural systems (e.g. agroforestry farms), as healthy ecosystems have the best chances of adapting to shocks and disturbances due to climate change.

3.2 Pathway 2: Sustainable use of biodiversity

In its definition of the sustainable use of biodiversity, the UNCBD highlights several key aspects, such as the utilization of biodiversity and its components, avoiding long-term decline, and meeting the needs and aspirations of present and future generations. Suriname recognizes these key aspects and that, as recent science points out, conservation and restoration efforts will be in vain as long as the intensifying pressures on terrestrial, marine and freshwater ecosystems leading to biodiversity loss are not reduced. Suriname underlines that the sustainable use of biodiversity and ecosystem services is essential to the wellbeing of its society. At the same time it is important to also acknowledge the rights to human- and social-economic development of developing countries, and thus meeting basic development needs of Suriname's men, women and youth. Yet, developing countries such as Suriname are often the countries that are still rich in biological and other natural resources. The current economic situation of Suriname has seen the ten-fold depreciation of its national currency compared to nine years ago[11] and a drastic increase in the population living below the poverty line. Suriname acknowledges that biodiversity policies, measures and actions may not be at the expense of basic developing needs. Therefore, this pathway, in line with Suriname's National Development Plan 2022-2026, pursues social-economic development where the pressures and threats to ecosystems are minimized and the supply of ecosystem services and benefits is sustained and enhanced. In that sense, biodiversity is perceived as an integrated contributor to social development and economic prosperity for current and future Surinamese men, women and youth.

Spatial planning and sustainable practices on land and in the sea

Suriname's economy is strongly driven by extractive industries both on land and in the sea, such as mining, agriculture, fishery and forestry, which operate in a fairly uncoordinated manner. An important focus for reducing pressures on the terrestrial, marine, coastal and freshwater ecosystems will be national legislation and policies for structural planning and management systems for land and sea use. A key component will be spatial planning legislation, which is currently still officially lacking but being prepared. Such terrestrial and marine spatial planning and management systems will help enable coordination between land- and sea use sectors. Another important component will be a technical overhaul of practices and policies to address the problem of overexploitation and biodiversity loss due to the conversion and degradation in sectors such as fisheries, urban housing development, agriculture and forestry. Responsible practices have been introduced or are being tested in some sectors, such as Turtle Excluder Devices, Reduced Impact Logging and environmental management in the small-scale and artisanal gold mining sector, but require upscaling based on stronger policies, lessons learned and barriers to resolve. In some cases, such as the Fisheries Management Plan 2021-2025, key policies and measures have already been outlined which will also be relevant for reaching biodiversity targets.

The sustainable use of biodiversity also entails the development of new or alternative biodiversity-based sectors which provide smaller impact-, wise use options while still contributing to social-economic development. (e.g nature- and agro-tourism, traditional medicines, beekeeping). The recently approved framework law on tourism provides an important milestone to build on toward defining and sustainably developing nature tourism. In this regard, Suriname recognizes that 'sustainable use of biodiversity' in the strictest sense refers to ecological sustainability. However, from the perspective of social-economic benefits received from the use of biological resources, sustainability is also tied to social justice aspects such as fairness and equal access.

Pollution

Another key component in reducing pressures on biodiversity involves addressing pollution, which is an increasing threat in Suriname. Pollution issues arise from solid waste, including e-waste, due to waste dumping and suboptimal waste management systems, in particular in remote areas. Pollution with chemicals such as from agriculture and mining is not regularly monitored, and the use of such chemicals is currently not regulated. As a consequence, natural habitats are polluted or eutrophied, and chemicals bio-accumulate through the food chain, eventually also presenting risks for food safety and human health. Of particular concern is the lack of information and regulation of the impact on marine and aquatic ecosystems from plastic pollution. The biennial environmental statistics published by the Statistics Bureau of Suriname make an attempt to create a quantitative overview of the situation surrounding waste and

[11] Central Bank of Suriname (2023). https://www.cbvs.sr/statistieken/financiele-markten-statistieken/dagelijkse-publicaties/89-wisselkoersnotering-cbvs. Accessed 30 March 2023

pollution, but the overview is incomplete due to a lack of data from various sources. It is for example unclear what the extent of the use of and thus pollution from pesticides and fertilizers. The problems surrounding pollution in Suriname require a cross-sectoral approach that improves the collection of data on pollution sources, leads to development of national environmental health standards, and enables the use of responsible production processes and waste management systems. The adoption of the Environmental Framework Act provides a good basis for further regulation of waste and pollution. The private sector has an important role to play when it comes to transparent sharing of data, objective risk assessments and compliance reporting.

Ecosystem services

Sustainable use of biodiversity is not just about reducing direct and indirect pressures, but can also target the enhancement of ecosystem services. Suriname has the benefit of having the majority of its ecosystems still intact, and enhancing ecosystem services presents an interesting aspect of sustainable biodiversity use. Interventions that enhance ecosystem services supply can be considered ecosystem-based approaches or nature-based solutions. For example, helping to enhance pollination by combining apiculture and agricultural systems, or the use of green-gray infrastructure to enhance land gain and coastal protection by mangroves. Or increasing the multi-functionality of green spaces in urban areas. Currently, initiatives are implemented on an ad-hoc basis in Suriname and on a relatively small scale. To systematize and scale-up, decision-makers need increased awareness on benefits from ecosystem services and a better understanding of how enhancing ecosystem services can contribute to addressing multiple societal needs. This would contribute to developing more structural approaches that lead to win-win situations. This is relevant in the coastal, urbanized areas of Suriname and in rural areas either in the coast or in the interior.

Legislation

All of the components that are important for reducing pressures on biodiversity and for enhancing benefits from ecosystem services will require a solid legal basis for modern times and complex problems. Suriname recognizes the need to update or reformulate its biodiversity related legislation, such as the Nature Conservation Act, the Mining Act and legislation related to fisheries. A key priority is also the adoption of new legislation which has thus far been lacking, such as on water resource management and climate change. This includes the further legislative and policy elaboration of the Environmental Framework Act.

Targets

2.1 Suriname has adopted terrestrial and marine spatial planning laws and regulations, including zoning and integrated management plans, to minimize unsustainable ecosystem conversion or degradation

2.2 Suriname has reduced the risks of pollution of ecosystem from various sectors through established national environmental quality standards, integrated waste management- and monitoring systems in line with national legislation

2.3 Suriname enforces the sustainable exploitation of biodiversity in land-, sea- and freshwater use economic sectors through responsible practices and technologies, in line with sound land use planning and zoning

2.4 Based on increased evidence-based understanding on ecosystem services, Suriname's public, private and societal organizations incorporate nature-based solutions in urban planning, climate resilience, food production systems and the development of sustainable livelihood options.

2.5 Suriname has set priorities and developed a plan for phasing out or reforming subsidies and incentives for the private sector that are harmful for biodiversity and for regulating incentives in favor of conservation and sustainable use of biodiversity including transparency and compliance.

3.3 Pathway 3: Fair and equitable benefit sharing

The UNCBD includes as one of its three main objectives the fair and equitable sharing of benefits arising from the utilization of genetic resources (Figure 3). With Suriname's ecosystems still largely intact, its biodiversity holds genetic resources that could be useful for human wellbeing, such as medicines, cosmetics, and resilience in e.g. agricultural practices. This provides potentially new alternative sectors for social-economic development in Suriname, however, only under conditions where the access to genetic resources is facilitated through proper regulations and the benefits resulting from their use are shared in an equitable way between the parties using the resources and those providing them. The latter refers to the government, which has the sovereign right over natural resources within their jurisdiction, and, often in the case of Suriname, indigenous and tribal peoples, who own the traditional knowledge associated with local ecology that is often needed to facilitate access to the genetic resources. Benefits from the utilization of genetic resources can be monetary, based on e.g. royalty payments or intellectual property rights, or non-monetary, as is the case with furthering research, training, education and technology transfer.

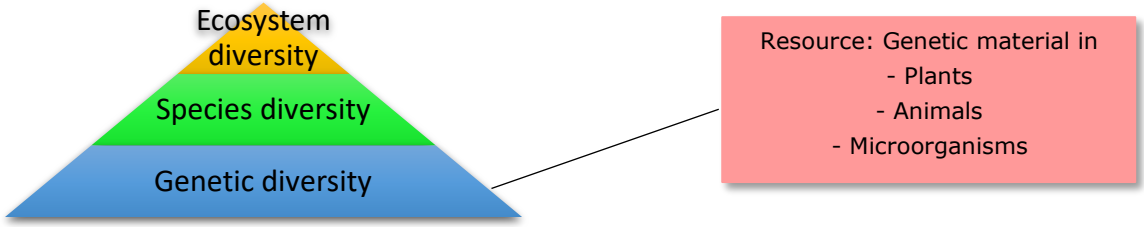

Figure 3. Genetic resources

Targets

3.1 The collective traditional knowledge and associated intellectual rights of indigenous and tribal communities are recognized in Suriname's legislation

3.2 Indigenous, tribal and other local communities have capacities and respected structures for protecting their traditional knowledge and managing community territory biological resources

3.3 The access and benefit sharing provisions of the UNCBD are incorporated in national legislation and transparent procedures for bioprospecting, and fair and equitable sharing of benefits, recognizing the rights, including intellectual property rights, of all Surinamese citizens

This pathway aims to ensure that national systems and legislation are in place to regulate access to and facilitate fair and equitable benefit sharing from the use of genetic resources and associated traditional knowledge. Effective national systems, regulations and mechanisms for access to and benefit sharing from the use of genetic resources can contribute to the conservation and sustainable use of biodiversity and enhancing equitable development opportunities.

Many of Suriname's intact ecosystems are located in remote areas that often overlap with living territories of indigenous and tribal communities. Given the notion that access to and the sharing of benefits from the utilization of genetic resources can potentially result in social, economic and environmental benefits, it is recognized that rights-based mechanisms based on principles of FPIC are an essential condition for achieving Suriname's envisioned green development path.[12].

Indigenous and tribal communities in Suriname have lifestyles that are closely and traditionally dependent on biodiversity and ecosystem services. Despite the increasing influence of market economies and globalization in their communities, the traditional ecological knowledge developed over centuries, the traditional practices and innovations are currently still present to more or less extent. Efforts to preserve traditional knowledge are important for cultural continuity and for its relevance to the conservation and sustainable use of biodiversity and its components. Hence, where applicable, accessing and using genetic resources, including associated traditional knowledge, can only be done with the involvement and approval

[12] Republic of Suriname (2021). Meerjaren Ontwikkelingsplan 2022-2026. (Multi-annual Development Plan 2022-2026) Paramaribo, Suriname

of the holders of such knowledge and with the sharing of arising benefits on mutually agreed terms. One of the key priorities for Suriname in that regard is the legal recognition of collective rights of indigenous and tribal communities, including land rights. Although legislation has already been drafted, the process of its debate and revision has been ongoing for several years, and its approval in parliament is still pending. Important components of this law that are also relevant for the fair and equitable sharing of benefits from the use of genetic resources and related traditional knowledge, include principles of free, prior and informed consent (FPIC), the right to self-determination, participation and traditional governance structures, and benefit sharing. Indigenous and tribal organisations in Suriname have a track record of supporting communities in demarcating their traditional territories, formulating community development plans and lobbying for collective rights and basic social-economic needs in remote areas. Their participation in effectively achieving the targets under this pathway is crucial. This includes when it comes to aspects relevant for achieving other NBSAP targets, such as strengthening capacities of indigenous and tribal communities for territorial management and to be able to protect their traditional knowledge.

Another key priority is setting up the legal provisions, assigning responsibilities and developing transparent mechanisms to enable access to and fair and equitable benefit sharing from the use of genetic resources and associated traditional knowledge. Currently, such mechanisms do not exist in Suriname. The rich biodiversity, in particular species and genetic diversity, in Suriname present opportunities for developing alternative economic industries based on sustainable use of biodiversity (e.g. natural cosmetics, traditional medicines, food and nutrition). Aside from indigenous and tribal communities, there traditional uses of genetic resources can also be found in other cultures in Suriname, such as with persons of Javanese and Indian descendance. Although there are small-medium enterprises in Suriname in e.g. the local cosmetics industry, there is still much space to develop these and new industries in a regulated and systematic way. Commercial and non-commercial industries (e.g. university research) can potentially benefit from legal provisions for intellectual property rights, to access genetic resources, to administer access and benefit sharing contracts in an equitable manner and regulate the development of industries based on derivatives from genetic resources. An important starting point for Suriname will be to update or develop new legislation by incorporating provisions from the Nagoya Protocol on Access to genetic resources and the fair and equitable Sharing of benefits arising from their utilization.

3.4 Pathway 4: Mainstreaming and enabling conditions

In order to pursue Suriname's envisioned development path that harmonizes the environment and the economy, mainstreaming biodiversity is key to the effective implementation of the NBSAP. Mainstreaming first requires cultivating a broad understanding of all the ways that biodiversity is linked to social-economic development, and, secondly, a national sense of nature stewardship across sectors and levels. An important focus for mainstreaming is ensuring that biodiversity is well-integrated in national priorities, policies and plans, including gender perspectives and explicit consideration of gender-responsive approaches. For mainstreaming biodiversity, enabling conditions for NBSAP implementation and beyond are key, among which access to financial resources, capable institutions, inclusive participation mechanisms, and credible and legitimate research. The GBF recognizes the need to make financial resources available in an equitable manner, in particular to developing countries and small island developing states, both categories to which Suriname belongs.

The implications of Suriname's current economic situation with limited government budgets allocated to biodiversity and the environment are far-reaching, e.g. for enforcement, and research, as academic institutions are formally on the civil service budget. Therefore, the availability of funding has a high priority, placing an essential early focus on increasing knowledge on financing options and acquiring experience for making full use of the funds, facilities and financing schemes. These include, but are not limited to, twinning facilities, public-private partnerships, payment for ecosystem services and biodiversity offsetting. Streamlining national priorities in this context, i.e. improving efficiency and effectiveness, and mainstreaming biodiversity will also be important for accessing the targeted funds. For example, by emphasizing links between climate change and vulnerable ecosystems and progress towards achieving the Sustainable Development Goals (SDG's). With increasing national attention for climate finance through carbon credits, it is worth identifying links and synergies between climate and biodiversity priorities. Several existing initiatives such as the national forest financing strategy and plans to develop a bio-economy approach e.g. for sustainably scaling up land- and sea-use sectors and develop value chains.
Capacity strengthening is another key focus for Suriname. With a relatively small population and consequences of the brain-drain effect due to the current economic crisis, the lack of human and technical capacity is a serious challenge. Capacity strengthening for achieving NBSAP targets is crosscutting and revolves around the interlinkages and -dependencies between targets. Such as research, data collection and compliance monitoring or enhancement of ecosystem services. And monitoring and effective management of protected areas and wildlife. The focus for capacity strengthening is on increasing knowledge and understanding, skills, available tools and resources on an individual- (e.g. training and education curricula), institutional- (e.g. clarifying mandates, enabling coordination) and systemic level (e.g. legislation, enforcement, platforms and mechanisms). This includes institutions from the government, civil society, such as Suriname's grassroots organizations and indigenous and tribal communities, and academia. This means that not just the environmental sector, but all sectors, in particular Suriname's land- and sea use sectors, must take responsibility for the conservation, sustainable use and fair and equitable benefit sharing of biodiversity, highlighting once again the importance of mainstreaming.

In Suriname, until recently, biodiversity has generally been perceived as something separate from or external to social and economic development, a responsibility solely for those concerned with or directly involved in biodiversity conservation. As a consequence, tradeoffs between economic development and the biophysical environment have often been in favor of the first, without incorporating the value or addressing the negative impacts on the latter. The fact that more than half of Suriname's population lives in and around the capital city Paramaribo, means that many people's daily lives occur largely separated from nature, which is reflected in the limited awareness and understanding of the multi-faceted relationship between humans and natural ecosystems. Therefore, a key focus in this pathway is on holistically integrating biodiversity and related issues in education systems and awareness raising activities. This is aimed at the curricula of all levels of education and at various decision-makers, creating a foundation for increased awareness and understanding of the general public and the next generation of leaders. An important consideration concerns the translation and use of appropriate communication channels for education and awareness raising targeted at immigrant populations that, through the sectors in which they earn an income or through their customs affect wildlife and natural habitats, and may have limited understanding of applicable national laws and regulations.

Increasing scientific research on biodiversity and developing robust and efficient monitoring systems for improving the availability of data and evidence-based information is a central enabling condition. Strengthening the academic curricula of the Anton de Kom University and other higher education facilities, and seeking out regional and international partnerships contribute to strengthening technical and scientific capacities of research institutions and improve opportunities for accessing research funds. Strengthened research institutions enable improved quality and management of collected data. An important aspect is setting up infrastructure for improved data accessibility for the benefit of policy- and decision making, awareness raising and education purposes. Efforts in recent years have led to initial results in that direction by developing the Suriname Environmental Information Network, for which planned activities include the development of institutional databases, infrastructure, workflows and protocols. Suriname has a national chapter of the Association for Biodiversity in the Guiana Shield (VBGSS), which can potentially serve as a platform for gathering and sharing the best available knowledge on biodiversity in Suriname.
Finally, the existence of knowledge systems other than scientific knowledge, such as traditional ecological knowledge, is recognized, along with the role that indigenous and tribal communities can play in contributing to evidence-based knowledge and monitoring. The focus on promoting scientific and community-based research is an important enabling factor for informed decision-making and thus supports many of the targets under the other strategic pathways, such as maintaining and restoring ecosystem resilience, promoting sustainable practices in land- and sea-use sectors, enhancing the benefits of ecosystem services and the synergies with climate action.

Suriname recognizes the vulnerability of ecosystems and the importance of maintaining and enhancing their resilience in light of the risks and impacts from climate change. As climate change adaptation and mitigation are national priorities and Suriname is currently working toward a National Climate Accord, this is a vital opportunity to align biodiversity and climate priorities and ensure that biodiversity related aspects are thoroughly included in national climate policies and plans. Examples of such aspects include the (potential) impact of climate change on biodiversity, but also the potential of ecosystem services and management of ecosystems as part of climate adaptation. This implies a need for increased scientific research and evidence-based knowledge on how changes in the climate affect ecosystems and wildlife, and on the functioning of ecosystems and its elements, so that benefits from ecosystem services can be enhanced. Recent publications such as the 'State of the Climate' report[13] contribute to the availability of climate change data and local projections. Early in 2023, Suriname has produced its third National Communication to the UNFCCC, which includes an update of the national greenhouse gas inventory and provides a comprehensive overview of available information related to climate change in Suriname. Thus for Suriname's NBSAP it is important to strengthen research and identify synergies between actions that help address interrelated climate and biodiversity issues.

The inclusion of various institutions and groups in society is crucial for achieving the NBSAP targets. This is only possible with appropriate and inclusive participation mechanisms and by ensuring equitable access to information and justice through grievance redress. Suriname acknowledges that inclusive participation mechanisms need to ensure transparency on the purpose of participation and should enable respectful, including free, prior, informed and meaningful participation without discriminating minority or vulnerable groups. This includes the use of gender-sensitive approaches in establishing structural platforms and mechanisms for engagement, which in turn enable decisions on policies, measures and actions that contribute to reducing gender inequality.

Targets

4.1 The capacity of Suriname's institutions and relevant groups are strengthened for effective management, monitoring and evaluation, technical cooperation, fund mobilizing and science-policy communication of the NBSAP implementation.

[13] Inter-American Development Bank (2021). State of the Climate Report: Suriname. Solaun K., Alleng G., Flores A., Resomardono C., Hess K., Antich H., Climate Change and Sustainable Development Sector, Climate Change Division. http://dx.doi.org/10.18235/0003398

4.2 Suriname has increased its national budget for biodiversity-related policy areas, and has improved knowledge of and access to international finance, including innovative schemes such as payment for ecosystem services and biodiversity offsetting, and synergies with climate financing.

4.3 The importance of biodiversity and the nature-human relationship are structurally integrated in Suriname's education curricula for elementary and middle school, and in awareness campaigns on related issues.

4.4 Increased Surinamese scientific research, including community-based research, is published, linked to national databases, and contributes to credible and legitimate knowledge on Suriname's biodiversity in the broadest sense.

4.5 There is increased understanding of the risks and impacts of climate change on terrestrial and marine biodiversity in Suriname and of how biodiversity can be integrated in climate adaptation strategies.

4.6 Suriname has harmonized environmental and economic policies and all relevant government-, civil society- and private sector organizations are involved in the NBSAP implementation.

4.7 Suriname's biodiversity policies include gender-responsive actions and these are implemented through inclusive participation mechanisms, considering intersectionality and outcomes that effectively improve the situation of vulnerable groups, including indigenous and tribal peoples, women and youth.

4.8 There is increased understanding of the synergies between biodiversity protection and achieving the SDG's in the Surinamese context, for efficient measures, monitoring and financing.

4 Implementation framework

The strategic pathways and targets in the NBS provide the framework for formulating the actions in the NBAP. The NBAP specifies actions and activities that contribute to achieving each strategic target. The actions are formulated based on an assessment of the previous NBSAP implementation status, priority issues identified by rights- and stakeholders in a broad consultation process. The NBAP is structured based on the previous version with a few adjustments (table 3).

Table 3 Proposed format for formulating the updated NBAP

Strategic target	Actions and interventions	Required capacity	Lead responsible agency	Timeframe based on priority	Estimated costs	Funding opportunities	Synergies

A key starting point during the development and implementation of the updated NBSAP is mainstreaming: namely by putting emphasis on the integration of biodiversity and economic sectors from both sides. This implies that, while the NBSAP incorporates national socio-economic priorities as stated in national and sectoral policy documents, it is important that future development of national and sectoral policies also explicitly incorporate the relevant actions formulated in the NBSAP.

The potential synergies mentioned in the NBS also translate into the monitoring and evaluation framework for efficient national reporting structures. For monitoring and evaluation of progress made in implementing the NBSAP and toward achieving the UNCBD and GBF goals, a framework is proposed based on concepts beyond that of actions undertaken, namely of outcomes: i.e. changes in policies or practices/behavior that actions have contributed to. The structure for the monitoring and evaluation framework takes the GBF monitoring framework and national reporting formats into consideration and includes the following inputs (with an example): see table 4 below.

The mobilization of financial resources, the assessment of capacity needs and the communication and outreach on the updated NBSAP is not included in the NBSAP at this stage, but is expected to be implemented in phase 2 of the Ministry of Spatial Planning and Environment's project for updating Suriname's NBSAP.

Table 4 Proposed framework for monitoring and evaluation of the NBSAP implementation

Strategic Pathway	**Strategic target**	**Contributing actions**	**Outcome: description of change**	**Level of significance**	**Obstacles/ Needs identified**	**Synergies**	**Remarks / Key actors**
[NBSAP pathway]	*[NBSAP target]*	*[List actions undertaken contributing to the target]*	*[Describe change in policy or practice compared to the baseline/previous situation]*	*[Assess the potential impact of the outcome]*	*[Describe any obstacles or needs encountered implementing the action]*	*[Describe links with other NBSAP targets, the SDGs and other relevant aspects]*	*[Add any other remarks]*
2 Sustainable use of biodiversity	2.4 Suriname enforces the sustainable exploitation of biodiversity in land- and sea use economic sectors through responsible practices and technologies, in line with environmental legislation, and sound spatial planning and zoning	a. The Ministry of LVV has developed a new fisheries management plan 2024-2030	A new management plan for the fisheries sector was adopted by the Surinamese government with incorporation of relevant NBSAP actions. There was a previous fisheries management plan but that was expired in 2018 and did not sufficiently incorporate biodiversity considerations	Medium. Its formal adoption provides a solid policy basis for the fisheries sector moving forward.	Awareness on the new policy among fishing license holders, in particular immigrant license holders is still needed Lack of enforcement needs to be addressed	NBSAP target 4.7 on national biodiversity integration SDG 14 Target 14.4 Gender MOP …..	-Min. LVV -Holders of fishing licences -…
		b. …..	…same as outcome a / other…	…	…	…	…

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Annex

A. Technical working group prioritization of targets

The proposed targets were discussed with a technical group of rights- and stakeholders during a workshop. Participants had the possibility to suggest adjustments to the targets, propose additional targets and consequently prioritize the targets. Several groups made a prioritized list through a scoring exercise, based on their perceptions of the national biodiversity context, priorities and feasibility of NBSAP implementation with the limited available means and resources. The final perceived prioritization was determined as average from all groups and is shown in figure 1. It is important to note that this prioritization is for the draft version and may be subject to slight adjustments based on further expert insights regarding e.g. the extent, urgency, state and potential impact of biodiversity-related issues (i.e. the target subject matter). For example, the NBS development team observes the perceived high priority targets to be mostly reflect the obvious reality in Suriname. However certain perceived medium priority targets, such as sustainable exploitation in economic sectors and sound spatial planning could require higher priority, either due to the extent of the problem (e.g. in the fisheries sector) or activities already being undertaken, making it a 'low-hanging fruit' (e.g. spatial planning legislation).

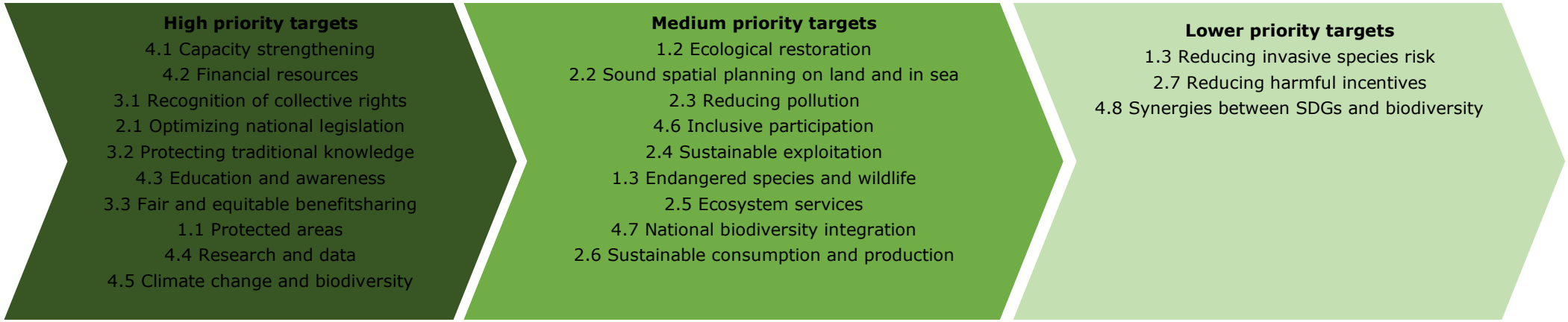

Figure 1. Perceived prioritization of strategic targets by rights- and stakeholders during the NBS technical

Suriname updated National Biodiversity Action Plan

2024 - 2030

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Executive summary

Suriname's updated National Biodiversity Strategy (NBS) and Action Plan (NBAP; the present document) for the period 2024-2035 was developed in line with the UNCBD Conference of the Parties decision 15/6, which requests Parties to revise and update their NBSAP in line with the Kunming-Montreal Global Biodiversity Framework (GBF) and its goals and targets before the 16th Conference of the Parties (see also annex 1). In doing so, Suriname re-commits itself to the United Nations Convention on Biodiversity (UNCBD) and all its articles. Four strategic pathways and 20 national targets form the framework for the present, updated NBSAP. Following article 9 in decision 15/6 of the COP, Suriname will make all necessary efforts to adopt this updated NBSAP as a policy instrument and to mainstream it (or elements thereof) with consecutive national development plans. The targets are set to be achieved by the end of the updated NBS time period, while the actions presented in this NBAP focus on the initial period of 2024 - 2030.

Strategic pathways	Strategic targets
1 Conservation of Biodiversity	1.1 Increased area % under protection
	1.2 Active ecological restoration and rehabilitation
	1.3 Protection of endangered species
	1.4 Reduced risks of invasive species
2 Sustainable use of Biodiversity	2.1 Sound spatial planning and land- and sea zoning
	2.2 Reduced pollution
	2.3 Sustainable land- and sea use practices
	2.4 Integrating ecosystem services and nature-based solutions
	2.5 Policies for sustainable business practices
3 Fair and equitable sharing of benefits from the use of genetic resources and traditional knowledge	3.1 Legal recognition of indigenous and tribal peoples knowledge and rights
	3.2 Self-protection of traditional knowledge
	3.3 Fair and equitable benefit sharing mechanisms
4 Mainstreaming and Implementation	4.1 Strengthened capacities
	4.2 Available financial resources
	4.3 Improved education and awareness
	4.4 Scientific research and data collection
	4.5 Climate change and biodiversity synergies
	4.6 National biodiversity integration
	4.7 Inclusive participation and gender equality
	4.8 SDGs and biodiversity synergies

Specific steps in the updating of the NBAP included:

- Updating the NBS through a desk review of the national and international context, a workshop with a technical stakeholder group (April 6th, 2023) and iterative feedback between the UNCBD focal point (Min. ROM) and stakeholders (see below)
- Identifying gaps between actions in the previous NBAP and current strategic targets
- Hold thematic stakeholder meetings to discuss the status quo with regard to implementation, challenges, ongoing activities, feedback on (additions/adjustments to) actions from the previous NBAP and specific points of attention to incorporate in the updated NBAP (June 2023)

- Draft updated actions and requesting feedback from stakeholders who participated in the thematic meetings
- Internal deliberation and revision of actions
- A meeting with the technical stakeholder group regarding the implementation framework of the updated NBAP (24 October 2023)
- A validation workshop for final feedback and adjustments to the updated NBSAP

The first pathway in the updated NBS, Biodiversity Conservation, is set toward safeguarding healthy ecosystems and maintaining or restoring their resilience in light of known and unexpected threats. Within the context of Suriname this entails improving the management and enforcement of protected areas and increasing the area under protection (Target 1.1), restoring or rehabilitating degraded, depleted or polluted ecosystems (Target 1.2), effectively protecting endangered species (Target 1.5) and managing the risks of invasive alien plant and animal species (Target 1.4).

The second pathway in Suriname's updated NBS, the sustainable use of biodiversity, is set toward comprehensively addressing the human drivers of threats (e.g. habitat loss, pollution and overexploitation) to biodiversity. These are: land conversion (Target 2.1), unsustainable economic exploitation of biological resources on land, in the sea and in aquatic ecosystems and pollution (Target 2.2, 2.3). This pathway is also set toward introducing policies and measures that support and enhance the sustainable use of biodiversity (Target 2.4, 2.5). The ultimate aim with this pathway is to reduce the pressures on and threats to Suriname's terrestrial, marine, coastal and freshwater ecosystems, so that the provision of ecosystem services is sustained and enhanced.

The third pathway in Suriname's updated NBS is focused on genetic resources, associated traditional knowledge, and regulating access and benefit sharing (ABS) in a fair and equitable manner. In order to explore the development of sectors in the context of genetic resources and associated traditional knowledge, the development of legal-, institutional- and administrative framework are required. In Suriname, since much of the tacit ecological knowledge* is knowledge of indigenous and tribal peoples (ITP), it is important that this knowledge and associated rights are legally recognized (Target 3.1). In addition, capacity building of ITP communities to be aware of their rights and be able to deal with commercial or non-commercial external interests in genetic resources within their living territory (Target 3.2). Furthermore the legal, administrative and institutional frameworks to ensure fair and equitable ABS between the Government of Suriname, the owners of these resources and traditional knowledge, the private- and research sectors need to be developed (Target 3.3).

The fourth pathway of Suriname's updated NBS is set on broad integration of biodiversity and establishing the enabling conditions for achieving the biodiversity targets. Crucial conditions include adequate capacity (Target 4.1) and financing (Target 4.2), and increased awareness (Target 4.3). Furthermore a crucial foundation for informed decision making regarding biodiversity are research and monitoring (Target 4.4). As this pathway aims to promote biodiversity mainstreaming and cultivating a national sense of nature stewardship across sectors and levels, it is important to identify linkages between biodiversity and climate change (Target 4.5), the SDG's (Target 4.8) and facilitating coordination (Target 4.6) and inclusive participation (Target 4.7).

For a swift and efficient implementation of the NBSAP, attention needs to be placed on the current enabling environment. This will entail an assessment of the existing capacities, an analysis of the financial flows, and an awareness and communication plan.

Abbreviations

ABS	Access and Benefit Sharing	**KAMPOS**	Organization of Kwinti, Aluku, Matawai, Paamaka, Okanisi and Saamaka
ABS	General Statistics Bureau (Algemeen Bureau voor de Statistiek)	**LVV**	Ministry of Agriculture, Animal Husbandry and Fisheries (Landbouw, Veeteelt en Visserij)
AdeKUS	Anton de Kom University of Suriname	**MAS**	Maritime Authority Suriname
ACTO	Amazon Cooperation Treaty Organization	**NBS**	National Biodiversity Strategy
BBS	National Herbarium Suriname	**NBAP**	National Biodiversity Action Plan
BGCI	Botanical Gardens Conservation International	**NBSAP**	National Biodiversity Strategy and Action Plan
BIBIS	Ministry of Foreign Affairs, International Business and Cooperation Suriname	**NCCR**	National Centre for Coordination of Disasters
BIZA	Ministry of Internal Affairs (Binnenlandse Zaken)	**NH**	Ministry of Natural Resources (Natuurlijke Hulpbronnen)
BOG	Bureau for Public Health (Bureau Openbare Gezondheid)	**NIMOS**	National Institute for Environment and Development in Suriname
CeDePesca	Centre for Development and Sustainable Fisheries (Centro Desarrollo y Pesca Sustentable)	**NMA**	National Environment Authority (Nationale Milieu Authoriteit)
CELOS	Centre for Agricultural Research in Suriname (Centrum voor Landbouwkundig Onderzoek Suriname)	**NTA**	National Tourism Authority
CITES	Convention on International Trade in Endangered Species	**NZCS**	National Zoological Collection Suriname
CMO	Centre for Environmental Research (Centrum voor Milieuonderzoek)	**OW**	Ministry of Public Works (Openbare Werken)
CRFM	Caribbean Regional Fisheries Mechanism	**OWC**	Ministry of Education, Science and Culture (Onderwijs, Wetenschap en Cultuur)
CSO	Civil society organisations	**ROM**	Ministry of Spatial Planning and Environment (Ruimteljke Ordening en Milieu)
DEF	Ministry of Defense	**ROS**	Ministry of Regional Development and Sport (Regoinale Ontwikkeling en Sport)
EEZ	Exclusive Economic Zone	**ROS-DOAS**	Department of Sustainable Development of Afro Surinamese Peoples
EU	European Union	**ROS-DOI**	Department of Sustainable Development of Indigenous Peoples
EZOTI	Ministry of Economic Affairs, Entrepreneurship and Technological Innovation (Economische Zaken, Ondernemerschap en Technologische Innovatie)	**SBB**	Foundation for Forest Management and Production Control (Stichting Bosbeheer en Bostoezicht)
FAO	Food and Agriculture Organization	**SCF**	Suriname Conservation Foundation
GBB	Ministry of Land and Forest Management (Grondbeleid en Bosbeheer)	**SDGs**	Sustainable Development Goals
GBB – NB	Department of Nature Management (Afdeling Natuurbeheer)	**SNRI-ADRON**	Stichting National Rice Research Institute - Anne van Dijk Rice Research Centre Nickerie
GBF	(Kunming-Montreal) Global Biodiversity Framework	**Stinasu**	Foundation for Nature Management Suriname (Stichting Natuurbeheer Suriname)
GBFF	Global Biodiversity Framework Fund	**Stidunal**	Foundation for Sustainable Nature Management in Alusiaka (stichting in Galibi)
GBIF	Global Biodiversity Information Facility	**TCT**	Ministry of Transport, Communication and Tourism
GEF	Global Environment Facility	**UNCBD**	United Nations Convention on Biological Diversity

GEF-SGP	Global Environment Facility Small Grants Program	**UNDP**	United Nations Development Program
IDB	Inter American Development Bank	**VIDS**	Association of Indigenous Leaders in Suriname
ITP	Indigenous and Tribal Peoples	**WB**	World Bank
IWGDS	Institute for Women, Gender and Development Studies (AdeKUS)	**WECAFC**	Western Central Atlantic Fishery Commission
JusPol	Ministry of Justice and Police		

1 Introduction

1.1 Suriname's updated Biodiversity Strategy

In 2023, Suriname updated its National Biodiversity Strategy (NBS) for a new period 2024-2035. This is in line with the UNCBD Conference of the Parties decision 15/6, which requests Parties to revise and update their NBSAP aligned with the Kunming-Montreal Global Biodiversity Framework (GBF) and its goals and targets before the 16th Conference of the Parties (see also annex 1). In doing so, Suriname re-commits itself to the United Nations Convention on Biodiversity (UNCBD) and all the articles it contains, and to working toward a future where its biodiversity is safeguarded and sustainably contributes to its development. The updated NBS envisions a future where Suriname follows through on the national commitments, presented in its updated National Biodiversity Strategy and Action Plan (NBSAP), to value and conserve its diverse natural and cultural heritage, including traditional knowledge, for present and future generations, by protecting, sustainably using and restoring Suriname's biodiversity in all sectors on land and in sea, and enhancing benefits from healthy ecosystems for all of society. The achieve this, the updated NBS outlines four pathways and associated targets which provide the framework for the updated National Biodiversity Action Plan (NBAP):

1. *Conservation of biodiversity* – Suriname's healthy ecosystems are safeguarded and their resilience maintained and restored.
2. Sustainable use of biodiversity – Pressures on and threats to Suriname's terrestrial, marine, coastal and freshwater ecosystems are reduced, so that the provision of ecosystem services is sustained and enhanced.
3. *Fair access and equitable benefit sharing* – A well-developed and functioning national access and benefit sharing (ABS) legal-, institutional- and administrative framework enables the equitable sharing of benefits from the utilization of Suriname's genetic resources and associated traditional knowledge between the Government of Suriname, the owners of these resources and traditional knowledge, the private- and research sectors.
4. *Mainstreaming and enabling conditions* – A national sense of nature stewardship is cultivated across sectors and levels, structurally supported by: credible and legitimate research, capable institutions, increased awareness, financing schemes and inclusive participation.

1.2 Objectives and rationale of the updated Biodiversity Action Plan

Following article 9 in decision 15/6 of the COP, Suriname will make all necessary efforts to adopt the updated NBSAP as a policy instrument and to mainstream it (or elements thereof) with consecutive national development plans, and other relevant national strategies and (cross-)sectoral plans. The updated NBAP follows the context and pathways in the updated NBS. The national context described and the priorities identified in the NBS highlight the issues and circumstances in Suriname requiring action and set the strategic framework for formulating these actions. The objectives of the NBAP are aligned with the strategic targets elaborated in the updated NBS.

Table 1 Links between Suriname's updated NBSAP targets and GBF targets

Strategic pathways	Strategic targets	Link with GBF
1 Conservation of Biodiversity	**1.1 Increased area % under protection** Terrestrial, marine and wetland protected areas in Suriname comprise 30% of the total area and are effectively managed, including in the EEZ, covering unique and vulnerable ecosystems in all parts of the country	GBF target 3 GBF target 8 GBF target 11
	1.2 Active ecological restoration and rehabilitation Suriname has initiated ecological restoration and rehabilitation of degraded, polluted or depleted terrestrial, marine and aquatic ecosystems using evidence-based procedures, norms and national guidelines	GBF target 2 GBF target 11
	1.3 Protection of endangered species Suriname effectively protects endangered animal and plant species through coordinated management and monitoring	GBF target 4 GBF target 5

Strategic pathways	Strategic targets	Link with GBF
	systems and has the required technical and financial capacity for the enforcement of wildlife trade regulations.	GBF target 9
	1.4 Reduced risks of invasive species Suriname has increased awareness and developed early detection and management systems for preventing the introduction of exotic species and reducing the risks and impact from invasive species.	GBF target 6
2 Sustainable use of Biodiversity	**2.1 Sound spatial planning and land- and sea zoning** Suriname has adopted terrestrial and marine spatial planning laws and regulations, including zoning and integrated management plans, to minimize unsustainable ecosystem conversion or degradation	GBF target 1 GBF target 10
	2.2 Reduced pollution Suriname has reduced the risks of pollution of ecosystem from various sectors through established national environmental quality standards, integrated waste management- and monitoring systems in line with national legislation	GBF target 7
	2.3 Sustainable land- and sea use practices Suriname enforces the sustainable exploitation of biodiversity in land-, sea- and freshwater use economic sectors through responsible practices and technologies, in line with sound land use planning and zoning	GBF target 10 GBF target 11 GBF target 5
	2.4 Integrating ecosystem services and nature-based solutions Based on increased evidence-based understanding on ecosystem services, Suriname's public, private and societal organizations incorporate nature-based solutions in urban planning, climate resilience, food production systems and the development of sustainable livelihood options.	GBF target 11 GBF target 12
	2.5 Policies for sustainable business practices Suriname has set priorities and developed a plan for phasing out or reforming subsidies and incentives for the private sector that are harmful for biodiversity and for regulating incentives in favour of conservation and sustainable use of biodiversity including transparency and compliance.	GBF target 15 GBF target 16 GBF target 18
3 Fair and equitable sharing of benefits from the use of genetic resources and traditional knowledge	**3.1 Legal recognition of indigenous and tribal peoples knowledge and rights** The collective traditional knowledge and associated intellectual rights of indigenous and tribal communities are recognized in Suriname's legislation	GBF target 13 GBF target 21 GBF target 22
	3.2 Self-protection of traditional knowledge Indigenous, tribal and other local communities have capacities and respected structures for protecting their traditional knowledge and managing community territory biological resources	GBF target 13 GBF target 21
	3.3 Fair and equitable benefit sharing mechanisms The access and benefit sharing provisions of the UNCBD are incorporated in national legislation and transparent procedures for the protection of genetic resources, bioprospecting, and fair and equitable sharing of benefits, recognizing the rights, including intellectual property rights, of all Surinamese citizens	GBF target 13

Strategic pathways	Strategic targets	Link with GBF
4 Mainstreaming and Implementation	**4.1 Strengthened capacities** The capacity of Suriname's institutions and relevant groups are strengthened for effective management, monitoring and evaluation, technical cooperation, fund mobilizing and science-policy communication of the NBSAP implementation.	GBF target 20
	4.2 Available financial resources Suriname has increased its national budget for biodiversity-related policy areas and has improved knowledge of and access to international finance, including innovative schemes such as payment for ecosystem services and biodiversity offsetting, and synergies with climate financing.	GBF target 19
	4.3 Improved education and awareness The importance of biodiversity and the nature-human relationship are structurally integrated in Suriname's education curricula for elementary and middle school, and in awareness campaigns on related issues.	
	4.4 Scientific research and data collection Increased Surinamese scientific research, including community-based research, is published, linked to national databases, and contributes to credible and legitimate knowledge on Suriname's biodiversity in the broadest sense.	GBF target 21
	4.5 Climate change and biodiversity synergies There is increased understanding of the risks and impacts of climate change on terrestrial and marine biodiversity in Suriname and of how biodiversity can be integrated in climate adaptation strategies.	GBF target 8
	4.6 National biodiversity integration Suriname has harmonized environmental and economic policies and all relevant government-, civil society- and private sector organizations are involved in the NBSAP implementation.	GBF target 14
	4.7 Inclusive participation and gender equality Suriname's biodiversity policies include gender-responsive actions and these are implemented through inclusive participation mechanisms, considering intersectionality and outcomes that effectively improve the situation of vulnerable groups, including indigenous and tribal peoples, women and youth.	GBF target 22 GBF target 23
	4.8 SDGs and biodiversity synergies There is increased understanding of the synergies between biodiversity protection and achieving the SDGs in the Surinamese context, for efficient measures, monitoring and financing.	GBF section D

The targets are set to be achieved by the end of the updated NBS time period, while the actions presented in this NBAP focus on the initial period of 2024 - 2030. The actions contribute to achieving the targets and were formulated mainly based on: i) the relevant actions in the previous NBAP 2012-2016, and ii) thematic meetings with stakeholders. The updated actions are formulated to provide an overarching, policy level direction with regard to biodiversity, and at the same time be as concrete as possible to enable practical implementation. This was done for several reasons, so the updated actions are:

- Aiming to address urgent or underlying issues in the changed national context since 2011
- Responding to existing or planned initiatives
- More concrete and easier to monitor during implementation
- Contributing to outcomes toward the target
- Reflecting focus areas indicated by stakeholders during the thematic meetings

Despite the distinct formulation, care was taken to ensure that the updated actions are in line with the previous 2012-2016 and incorporate their essence, as this remains relevant given the implementation status of the previous NBAP. The importance of this document being actionable, lead to formulation of actions per target to be coherent. As such, each target and associated actions, including synergetic targets (section 2) can be used to develop projects for securing financing. Lastly, the actions were developed to lead to intermediate outcomes toward the targets (which in turn can be perceived as 'end' outcomes). The monitoring and evaluation framework, described in section 3, provides the framework for observing and documenting progress of the NBSAP implementation and can provide input for national reporting obligations.

1.3 Applied methodology for updating the NBAP

The NBAP was updated following the drafting of the update NBS. This was done in a phased process consisting of a desk review of the changed national and international context, consulting a technical group of stakeholders and meeting with a broader group of stakeholders. Due to budget restrictions, it was not possible to conduct consultations in geographic areas outside of Paramaribo, and most stakeholder meetings were conducted in a virtual setting.
Specific steps in the updating of the NBAP included:

- Updating the NBS through a desk review of the national and international context, a workshop with a technical stakeholder group (April 6th, 2023) and iterative feedback between the UNCBD focal point (Min. ROM) and stakeholders (see below)
- Identifying gaps between actions in the previous NBAP and current strategic targets
- Hold thematic stakeholder meetings to discuss the status quo with regard to implementation, challenges, ongoing activities, feedback on (additions/adjustments to) actions from the previous NBAP and specific points of attention to incorporate in the updated NBAP (June 2023)
- Draft updated actions and requesting feedback from stakeholders who participated in the thematic meetings
- Internal deliberation and revision of actions
- A meeting with the technical stakeholder group regarding the implementation framework of the updated NBAP (24 October 2023)
- A validation workshop for final feedback and adjustments to the updated NBSAP

1.4 Assumptions and enabling conditions for implementation

The updated NBSAP was developed based on certain assumptions. To ensure timely and effective implementation of the updated NBSAP, significant efforts need to be put in acquiring funding from international and national sources. This involves writing of project and program financing proposals and requires ownership from the organization in charge of coordinating and monitoring NBSAP implementation, and the UNCBD focal point. Furthermore, the actions framework mentions key or lead responsible agencies and key partners for implementing actions, most, if not all, of whom were involved during the development of the updated NBSAP. It is assumed that these organizations recognize their role and important contribution in achieving Suriname's national biodiversity vision. The conservation and sustainable use of biodiversity concerns all of us, but the responsibility to kick-start action and coordinate for achieving outcomes lies within the mandates and competencies of relevant organizations. The targets of the NBSAP 2024-2035 can only be achieved when we are willing to expeditiously take actions and collaborate in an efficient manner.

1.5 The structure of this document

The remainder of the document following this section details the various actions for achieving each strategic target. Section 2 provides the actions framework per strategic pathway and target. Within each pathway, the strategic targets are elaborated in tables with associated actions contributing to the target. Above each table a brief introductory text is provided describing the relevant context and rationale behind the formulated actions for that target. Furthermore, each table consists of several components:

- **Strategic target**: Definition of the target as described in the updated NBS
- **Actions**: Various interventions to be implemented relevant for achieving the target
- **Timeline**: Timing of actions that i) short term - start within the first two years of implementation and under normal circumstances can be (largely) completed within the NBAP time period, ii) medium term – start between years 3 and 5 and may continue beyond the NBAP timeframe

- **Key required capacity**: Main capacity required for implementing the interventions. *Note that this does not refer to actual detailed capacity needs at the relevant organizations, as a national capacity assessment is yet to be implemented.*
- **Lead/key responsible agency**: An indication of the organization deemed most appropriate for and in charge of implementing the action. Being in charge refers to fulfilling a leading, coordinating role. *Note that Min. ROM generally has a coordinating and overall oversight responsibility when it comes to NBSAP implementation and will need to liaise regularly with lead responsible agencies.*
- **Key partners:** Main stakeholders expected to play an important role or contribute to the implementation of the action. *Note that this is not an exhaustive list, does not focus on organisations that are mainly to kept informed, and other partner stakeholders can be included at any time as deemed necessary for implementation.*
- **Estimated costs**: A rough estimation of the costs for the corresponding action, based on the 5-year implementation period.
- **Synergies**: The linkages and dependencies between actions and targets (i.e. which actions directly contribute to or are supported by achieving other targets), and with the SDG's or other relevant national plans.

The actions described in the following section are based on a distinction between made between actions important i) in the short term (start within year 1 or year 2 after finances have been secured), ii) in the medium term (start within years 3 to 5), and iii) in the long term (start after 5 years). Actions that would or could only start after 5 years, e.g. due to their extent or dependency on other actions basically are not a part of the present action framework. They are suggested as potential follow-up actions toward the end of section 2. Actions scheduled to be initiated in the period 2024-2030 period may however continue after 2030. Based on the above, it may be understood that this action plan has a limited lifespan, and that at a given moment (in principle prior to the end of 2030), a new action plan is to be prepared. It will therefore be useful to monitor and assess the NBAP 2024-2030 (section 3).

2 Strategic actions framework

2.1 Conservation of biodiversity

The first pathway in the updated NBS, Biodiversity Conservation, is set toward safeguarding healthy ecosystems and maintaining or restoring their resilience in light of known and unexpected threats. Within the context of Suriname this entails improving the management and enforcement of protected areas and increasing the area under protection (Target 1.1), restoring or rehabilitating degraded, depleted or polluted ecosystems (Target 1.2), effectively protecting endangered species (Target 1.5) and managing the risks of invasive alien plant and animal species (Target 1.4).

Target 1.1 Effective management of protected areas and increased areas under protection

Current protected areas account for 13% of the total area of Suriname and the country is set on maintaining its most forested status. However, this needs to be further solidified by significantly improving the effectiveness of protected areas and expanding the area under protection, e.g. to unique and crucial ecosystems. Currently, the Ministry of GBB-NB is tasked with management of protected areas and enforcement of relevant laws, but is in need of financial, technical and human capacity strengthening. Given the national context, management of protect areas would benefit from efficient coordination and collaboration within the government, including cost-wise. Effective protected area management would further benefit from the legal incorporation of innovative co-management models, with due consideration to gender aspects and the position of ITP communities. Furthermore, it is important to recognize the crucial ecological value of ecosystems other than forests which Suriname harbours, including marine and wetland ecosystems, and having these represented within the total area under protection. Lastly, to achieve this target it is necessary to update national legislation for protected areas and nature management. Planned adjustments to the Environmental Framework Act and the expected parliament discussion on the draft Nature Management Act imply that there will be a need to evaluate and streamline the main responsibilities and mandates of the Ministries of Spatial Planning and Environment, the Ministry of Land policy and Forest Management, the yet to be instated National Environmental Authority (currently NIMOS), the Nature Management Authority and Nature Protection Commission mentioned in the draft Nature Management Act, and the national Biodiversity Commission. The actions under this target are closely supported by actions related to biodiversity monitoring, protection of endangered species, and spatial planning to reduce encroachment and other threats to protected areas.

Table 2 Strategic actions framework – target 1.1

1.1 Increased area % under protection							
Strategic target	**Actions and interventions**	**Timeline**	**Key required capacity**	**Lead/key responsible agency**	**Key partners**	**Estimated costs**	**Synergies**
1.1. Terrestrial, marine and aquatic protected areas in Suriname comprise 30% of the total area and are effectively managed,	1.1.1. Identify with biodiversity-related scientists and stakeholders unique or vulnerable ecosystem areas, animal- and plant species in critical need of protection and monitoring	Short term	- Stakeholder engagement - Technical specialists in ecology, conservation or environmental science	Min. GBB – NB in partnership with other government research institutes	NZCS, BBS, CELOS, Consortium of NGO's, Min. LVV – Dir. Fisheries, Min ROM –Dir. Spatial Planning	$ 119,448	

including in the EEZ, covering unique and vulnerable ecosystems in all parts of the country	1.1.2 Critically evaluate co-management models for protected areas with stakeholders and rightsholders, and update legal provisions	Short-term	- Protected areas management specialist - Right- and stakeholder engagement specialist	Min. GBB - NB	ITP authority representatives (VIDS, KAMPOS, VSG, others) and organisations, Conservation NGO's, Min. BiZa – Gender Bureau	$ 119,448	Target 1.3 (Wildlife) Target 2.1 (Sound spatial planning and zoning) Target 4.4 (Research, monitoring) SDG 14 SDG 15
	1.1.3. Revisedraft Nature Management law and revise as needed with regard to protected areas, effective management and in relation to other recently approved environmental legislation, and re-submit for approval in Parliament	Short-term	- (Environmental) Legal expert(s)	Min. GBB in partnership with National Parliament Committee	Consortium of NGO's, SBB	$ 92,676	
	1.1.4. Establish by law new terrestrial protected areas, based on best available data, existing proposals, previous (baseline) studies, ESIA reports and agreed upon ecological criteria	Medium-term	- (Environmental/Nature) Legal expert(s)	Min. GBB – NB with National Parliament	ITP authority representatives (VIDS, KAMPOS, VSG, others) and organisations, Conservation NGO's, Min. ROM – Dir. Spatial Planning, NMA (NIMOS)	$ 231,690	
	1.1.5. Establish by law marine protected areas based on best available data, existing proposals and ESIA's	Short-term	- Marine protected areas specialist - Legal expert(s)	Min. LVV – Dir. Fisheries with Min. GBB-NB and National Parliament	Min. ROM – Dir. Spatial Planning, NMA (NIMOS), Conservation NGO's	$ 337,890	
	1.1.6. Update and implement the Integrated Coastal Zone Management Plan	Medium-term	- Integrated coastal zone management specialist	Min GBB – NB with Min. ROM	LV**V**	$ 76,968	
	1.1.7 Update protected area's management plans, incorporating strategies for addressing current and future threats, and options for co-management	Short-term	- Protected areas / Nature management specialist - Indigenous- and tribal peoples traditional governance & community engagement specialist	Min. GBB - NB	ITP authority representatives (VIDS, KAMPOS, VSG, others) and organisations, Stinasu, Stidunal	$ 356,820	
	1.1.8 Strengthen human, technical and financial capacity of LBB/NB for effective management of protected areas and efficient coordination with other relevant	Short-term	- Specialist in organisational management - Biodiversity and protected area monitoring specialist(s)	Min. GBB - NB	Stinasu, Stidunal	$ 968,640	

	government and non-government organisations		- Technical personnel tasked with biodiversity and protected area monitoring - Personnel tasked with management of various protected areas - Technical knowledge on specific ecosystem - Personnel tasked with overseeing restoration and rehabilitation procedures and initiatives - Increased personnel tasked with enforcement - Increased budget for LBB/NB				

Target 1.2 Active ecological restoration and rehabilitation

The concept of restoration and rehabilitation is fairly new to Suriname and not yet widely or structurally applied. However, in light of retaining ecological integrity and resilience of ecosystems and given (among others) the continued economic focus on extractive industries, it can be expected that restoration and rehabilitation will only become more relevant in the future. Even for sectors whose destructive or degrading impact is at times less visible than e.g. gold mining, such as fisheries and agriculture, restoration and rehabilitation are relevant for issues such as depleted fish stocks and soil fertility. It is thus important to gather information on the state of Suriname's ecosystems. The nature of this target is anticipatory, focused on preparing systematic procedures and (sectoral) policies to restoration and rehabilitation in general, and in particular to highly destructive activities such as gold mining.

Table 3 Strategic actions framework – target 1.2

1.2 Active ecological restoration and rehabilitation							
Strategic target	**Actions and interventions**	**Timeline**	**Key required capacity**	**Lead responsible agency**	**Key partners**	**Estimated costs**	**Synergies**
1.2 Suriname has initiated ecological restoration and rehabilitation of degraded, polluted or depleted terrestrial, marine and aquatic ecosystems using evidence-based procedures,	1.2.1. Assess the state of ecosystems with regard to degradation, pollution and depletion, identifying causes, opportunities and challenges	Short – Medium-term	- Technical specialists in ecology, wildlife and environmental quality	Min. GBB – NB in partnership with Min. ROM	Min. NH, Min. LVV, AdeKUS	$ 451,620	Target 2.2 (Pollution)
	1.2.2 Set priorities for mitigation of negative impacts, ecological restoration and rehabilitation of degraded, polluted or depleted ecosystems	Short-term	- Ecological restoration and rehabilitation specialist(s) - Stakeholder engagement specialist	Min. GBB – NB in partnership with Min. ROM	Min. NH, Min. LVV, SBB, AdeKUS, ITP organisations	$ 119,448	

norms and national guidelines	1.2.3. Develop and adopt general procedures for initiating ecological restoration and rehabilitation processes of terrestrial, marine and aquatic ecosystems, in consultation with relevant stakeholders	Short-term	- Stakeholder engagement - Ecological restoration and rehabilitation specialist(s)	Min. GBB – NB	Min. NH, Min. LVV, SBB, Min. ROM, AdeKUS, NMA (NIMOS), ITP organisations	$ 119,448	Target 2.3 (Sustainable land- and sea use practices) Target 2.5 (Policies and incentives for businesses) Target 4.4 (Research) SDG 13 SDG 14 SDG 15
	1.2.4. Develop or adapt scientific rehabilitation and restoration protocols for specific cases of degraded, polluted, and depleted ecosystems and key species following destructive activities, e.g. mining	Medium-term	- Sectoral and/or ecosystem-specialists - Ecological restoration and rehabilitation specialist - Wildlife specialists	Min. GBB – NB in partnership with AdeKUS	NGO's, NMA (NIMOS), relevant NGO's, AdeKUS scientific institutes, ITP organisations	$ 161,928	
	1.2.5. Preliminary adjustment land-, sea- and aquatic use sectoral policies and regulations to incorporate ecological restoration and rehabilitation	Medium-term	- Ecological restoration and rehabilitation specialists - (Sectoral) policy makers	Min. GBB – NB	Min. ROM, Min. NH, Min. LVV, SBB, NMA	$ 268,290	
	1.2.6. Finalize draft mining law in light of responsible practices and rehabilitation, reducing negative impact on biodiversity and the environment, and submit for approval in Parliament	Short-term	- Mining rehabilitation specialist - Environmental technologists - Responsible mining specialist - Legal experts	Min. NH	Min. GBB – NB, Min. ROM, NMA (NIMOS), ITP organisations, Suriname Extractive Industries Transparency Initiative Multi-Stakeholder Group (SEITI)	$ 246,888	
	1.2.7. Initiate restoration and/or rehabilitation of prioritized areas, ecosystems or species	Medium-term	- Sectoral and/or ecosystem-specific ecological restoration and rehabilitation specialists - Wildlife specialists - Environmental technologists	Min. GBB – NB	Min. ROM, Min. NH, Min. LVV, SBB, NMA, AdeKUS scientific institutes, NGO's	$ 1,202,400	

Target 1.3 Protection of endangered species and effective wildlife management

In Suriname, wildlife is important as food and they are hunted, collected alive and cultivated to be domestic animals. In large parts of the coastal zone, game species have become scarce for long, as well as in the more densely populated areas of the interior. Effectively protecting species that have an endangered status

given by organizations such as IUCN and CITES, requires upgrading relevant legislation that directly and indirectly impacts the protection of wild animals and plants species. In order to do so, taking an evidence-based approach, data and best estimates of e.g. population numbers and pressures are required. This is highly relevant for adjusting the open seasons for specific species for effective protection. It is also highly relevant in areas where known threats exist, but also in more remote areas where communities depend on wildlife for food, data and control are especially scarce and threats may not be known yet. To this end and following global trends in wildlife status, it is relevant to carefully evaluate the wildlife trade and measures to address poaching.

Table 4 Strategic actions framework – target 1.3

1.3 Protection of endangered species							
Strategic target	**Actions and interventions**	**Timeline**	**Required capacity**	**Lead responsible agency**	**Key partners**	**Estimated costs**	**Synergies**
1.3 Suriname effectively protects endangered animal and plant species through coordinated management and monitoring systems and has the required technical and financial capacity for the enforcement of wildlife trade regulations.	1.3.1. Evaluate and revise the Game Law, Forest Management Law and other regulations for the protection, sustainable harvest and trade of wild animals and plants for approval	Short – medium-term	- (Environment/ nature) Legal experts - Stakeholder engagement	Min. GBB - NB	NZCS, BBS, CELOS, other relevant AdeKUS institutes, relevant NGO's	$ 135,156	Target 1.1 (Protected areas) Target 4.4 (Research, monitoring) SDG 15
	1.3.2. Support assessments of the state of and (external) pressures on biodiversity in indigenous and tribal community territories on which communities depend	Medium-term	- Ecologists/ wildlife / aquatic ecosystems specialists	Indigenous and tribal peoples authority representatives (VIDS, KAMPOS, VSG, others) and organisations in partnership with Min. GBB - NB	Min. ROS DOAS, DOI, District Commissioners, NGO's	$ 345,420	
	1.3.3 Assess threats to endangered and vulnerable species and identify management actions for addressing threats	Short-term	- Ecologists/ wildlife / aquatic ecosystems specialists	Min. GBB - NB	NZCS, BBS, CELOS, other relevant AdeKUS institutes, ITP organisations, NGO's	$ 345,420	
	1.3.4 Assess the impact of the licensed wildlife trade, including spin-off effects, on biodiversity and endangered species	Short-term	- (Illegal) Wildlife trade specialists - Ecologists/ wildlife / aquatic ecosystems specialists	Min. GBB - NB	NGO's, CITES scientific bodies, Nature Protection Commission	$ 119,448	

	1.3.5. Evaluate and update sanctions for poaching and illegal wildlife trade	Short-term	- (Illegal) Wildlife trade specialists - Policy makers	Min. GBB - NB	National Customs, National Prosecution's Office, Licensed wildlife traders	$ 92,676	
	1.3.6. Strengthen capacity of LBB/NB and other relevant stakeholders and establish cooperative structures for effective enforcement of relevant wildlife laws and illegal trade	Short-term	- Knowledge on poaching and illegal wildlife trade in Suriname - Safety and security protocols	Min. GBB – NB, in partnership with ITP authority representatives (VIDS, KAMPOS, VSG, others) and organisations	Min. JusPol, National Customs, US Embassy, ITP organisations	$ 717,240	

Target 1.4 Reduced risk of invasive alien species

Invasive alien species are biological species (plants, animals, and micro-organisms) that mostly do not occur naturally in Suriname, but have been intentionally or accidentally introduced by people, and have consequently dispersed and reproduced in nature, often at the expense of indigenous species, and possibly with adverse consequences for humans and the environment in Suriname. Uncontrolled introduction and spread of dangerous objects or substances (toxic substances such as mercury, cyanide, biocides) and organisms (so-called invasive species) can cause grave damage to the environment and biodiversity, especially in protected areas where nature conservation is the first priority. This can also present risks to human health, which is also linked to the health of the environment. Up to date and field-based data is needed to support the development of measures and regulations that aim to reduce the risks and impact of invasive alien species. The import of dangerous objects, substances and organisms should be carefully regulated and controlled; in case of risks, measures need to be taken to prevent or limit damage. Effectively reducing the risks of invasive alien species requires structural collaboration between different types of stakeholders and implies dependencies with actions concerning e.g. monitoring, sustainable land-, sea- and freshwater use practices, and rehabilitation.

Table 5 Strategic actions framework – target 1.4

1.4 Reduced risks of invasive species							
Strategic target	**Actions and interventions**	**Timeline**	**Required capacity**	**Lead responsible agency**	**Key partners**	**Estimated costs**	**Synergies**
1.4 Suriname has increased awareness and developed early detection and	1.4.1. Assess the extent of risks, challenges and opportunities of the introduction, spread and impact of invasive alien plant and animal species	Short-term	- Ecologist/ invasive species specialist	Min. LVV in partnership with Min. GBB	NZCS, BBS, CELOS, Medical Scientific Institute (MWI), other relevant AdeKUS institutes,	$ 308,820	Target 1.2 (Restoration and rehabilitation)

management systems for preventing the introduction of exotic species and reducing the risks and impact from invasive species.	on local ecosystem- and human health and update existing inventory				BOG, ITP organisations		Target 1.3 (Wildlife) Target 2.3 (Sustainable land- and sea use practices) Target 4.4 (Research, monitoring) SDG 14 SDG 15
	1.4.2. Develop and approve laws to register, monitor and control the introduction of invasive alien species and associated risks	Short-term	- Legal experts	Min. LVV in partnership with Min. GBB	NZCS, BBS, CELOS, MWI, other relevant AdeKUS institutes, National Customs, BOG, private sector	$ 92,676	
	1.4.3. Develop policies and measures for managing risks to local ecosystem and human health and addressing negative impacts from invasive alien species	Medium-term	- Ecologists/ invasive species specialist - Policy makers	Min. LVV in partnership with Min. GBB	NZCS, BBS, CELOS, MWI, other relevant AdeKUS institutes, NMA (NIMOS), BOG, ITP organisations	$ 222,090	
	1.4.4. Engage with relevant stakeholders to upgrade existing policies and systems for early detection and monitoring of invasive alien species	Short-term	- Stakeholder engagement - Ecologists/ invasive species specialists	Min. LVV in partnership with Min. GBB	NZCS, BBS, CELOS, other relevant AdeKUS institutes, NGO's, ITP organisations	$ 675,780	
	1.4.5 Establish a structural network of stakeholders to collaborate on reducing risks and addressing negative impact from invasive alien species	Short-term	- Stakeholder engagement - Ecologists/ invasive species specialists	Min. LVV in partnership with Min. GBB	NMA (NIMOS), National Customs, AdeKUS scientific institutes, BOG, NGO's, ITP organisations	$ 389,760	

2.2 Sustainable use of biodiversity

The second pathway in Suriname's updated NBS, the sustainable use of biodiversity, is set toward comprehensively addressing the human drivers of threats (e.g. habitat loss, pollution and overexploitation) to biodiversity. These are: land conversion (Target 2.1), unsustainable economic exploitation of biological resources on land, in the sea and in aquatic ecosystems and pollution (Target 2.2, 2.3). This pathway is also set toward introducing policies and measures that support and enhance the sustainable use of biodiversity (Target 2.4, 2.5). The ultimate aim with this pathway is to reduce the pressures on and threats to Suriname's terrestrial, marine, coastal and freshwater ecosystems, so that the provision of ecosystem services is sustained and enhanced.

Target 2.1 Sound spatial planning and land- and sea use zoning

Land- and sea use are the main drivers behind habitat loss and fragmentation worldwide, and this is no different in Suriname. Conversion of land for agriculture, urban expansion, mining and infrastructure is necessary for Suriname social-economic development, and with an abundance of surface area, its impact may be underestimated. Calling upon the precautionary principle, in any case land conversion cannot be allowed to lead to excessive damage to vulnerable ecosystems and

species. To minimize unsustainable conversion of land and enhance efficient land- and sea area use allocation, sound spatial planning is essential. Although this has been lacking and leading to uncoordinated and unsustainable land use planning for a long time in Suriname, recent efforts toward national spatial planning both on land and in marine areas, if persistent, will contribute to addressing existing threats to biodiversity. It is important to seize the opportunity, making use of current momentum, for incorporating biodiversity-related aspects into draft laws and zoning policies, and increasing capacities on that front. E.g. areas of high or vulnerable biodiversity, natural buffer areas and integrated approaches making use of nature-based solutions.

Table 6 Strategic actions framework – target 2.1

2.1 Sound spatial planning and land- and sea zoning							
Strategic target	**Actions and interventions**	**Timeline**	**Required capacity**	**Lead responsible agency**	**Key partners**	**Estimated costs**	**Synergies**
2.1 Suriname has adopted terrestrial and marine spatial planning laws and regulations, including zoning and integrated management plans, to minimize unsustainable ecosystem conversion or degradation	2.1.1. Increase capacities of government- and semi-governmental bodies for (marine) biodiversity-inclusive, integrated spatial planning, sustainable land- and sea use zoning	Short-term	- Biodiversity specialist(s) - Increased personnel tasked with spatial planning and related processes at national and subnational level	Min. ROM – Dir. Spatial Planning in partnership with the National Planning Office	Min. ROM – Dir. Environment, other Ministry sub-departments relevant for spatial planning	$ 648,120	Target 1.1 (Protected areas) Target 2.3 (Sustainable land- and sea use practices) Target 2.4 (Ecosystem services and nature-based solutions) Target 3.1 (Recognition of ITP knowledge and associated rights) SDG 6 SDG 9 SDG 11 SDG 14 SDG 15
	2.1.2. With input from relevant stakeholders, finalize, submit and approve a biodiversity-inclusive national Spatial Planning Law that supports integrated land and water-resource management	Short-term	- Legal experts - Biodiversity specialists - Spatial planning specialists	Min. ROM – Dir. Spatial Planning in partnership with the National Planning Office	Min. ROM – Dir. Environment, other Ministry sub-departments relevant for spatial planning	$ 177,636	
	2.1.3. Develop and approve implementing decrees for national law on spatial planning, taking into account areas of high/unique biodiversity importance and principles of integrated water resource management	Short-term	- Legal experts - Biodiversity specialists - Spatial planning specialists	Min. ROM – Dir. Spatial Planning in partnership with the National Planning Office	Min. ROM – Dir. Environment, other Ministry sub-departments relevant for spatial planning	$ 177,636	
	2.1.4. Finalize and enact land zoning policy and standards, incorporating intact critical biodiversity areas, healthy living environments and controlling the agriculture frontier	Medium-term	- Policy makers - Spatial planning specialists - Biodiversity/ Environmental specialist	Min. ROM – Dir. Spatial Planning in partnership with the National Planning Office	Min. ROM – Dir. Environment, other Ministry sub-departments relevant for spatial planning	$ 444,090	

	2.1.5 Evaluate Law on Maritime Zoning (Wet Maritieme Zones) and develop marine spatial planning policies	Short-term	- Legal experts - Marine biodiversity specialist - Fishery specialist	Min. LVV in partnership with Min. ROM	Other Ministry sub-departments relevant for spatial planning	$ 161,928	National REDD+ Strategy

Target 2.2 Reducing risks of pollution

Pollution is recognized as a significant threat to biodiversity loss as it affects the health of entire ecosystems. Pollution is particularly devastating for marine and freshwater ecosystems. The context of Suriname still requires a lot of progress to be made for controlling environmental quality as there is little quantitative information on the state of ecosystems with regard to pollution, and probable point and non-point sources of pollution (e.g. daily household activities, industrial or manufacturing activities) are largely unmonitored and untreated. The recent approval of the Environmental Framework Law is an important milestone in that light. As there is little data available, pollution risks in various sectors need to be assessed and the extent of their impact documented. These risks relate to, for example heavy metals in mining, fertilizer and pesticides in agriculture, plastic, persistent organic pollutants and other contaminants or forms of pollution from manufacturing processes and consumption. Moreover, the institutional framework for integrated waste management, the regulation of import and use of harmful substances, and adequate monitoring, needs to be further developed and streamlined. The actions under this target are closely linked with actions related to sustainable land- and sea use, policies and incentives for businesses, restoration and rehabilitation efforts, and increasing awareness and education on the risks and impacts.

Table 7 Strategic actions framework – target 2.2

2.2 Reduced pollution							
Strategic target	**Actions and interventions**	**Timeline**	**Required capacity**	**Lead responsible agency**	**Key partners**	**Estimated costs**	**Synergies**
2.2 Suriname has reduced the risks of pollution of ecosystem from various sectors through established national environmental quality standards, integrated waste management- and monitoring systems in line with national legislation	2.2.1. Streamline national policies and responsibilities for waste- and pollution management and set-up an inter-ministerial, interdisciplinary pollution taskforce	Short-term	- Legal experts - Policy makers - Technical advisors	Min. ROM/NMA in partnership with Min. OW	Min. LVV – Dir. Agriculture, Min. NH, Min. EZOTI	$ 76,968	Target 1.2 (Restoration and rehabilitation) Target 2.3 (Sustainable land- and sea use practices) Target 2.5 (Policies and incentives for businesses) Target 4.3 (Education and
	2.2.2 Initiate the quantification of the nationwide state of polluted and contaminated ecosystems and identify point- and non-point sources of pollution to be addressed	Medium-term	- Technical specialists in environmental quality and toxicology - Pollution management specialists	Min. ROM/ NMA	Min. LVV, Min. OW, Min. NH, Min. EZOTI, Min. ROS, AdeKUS scientific institutes, NGO's	$ 158,360	
	2.2.3. Develop an integrated waste management plan, based on the identification of priorities for ecosystem remediation and reduction of pollution risks together with relevant stakeholders	Medium-term	- Integrated waste management - Stakeholder engagement	Min. ROM, NMA in partnership with Min. OW	Min. EZOTI, AdeKUS scientific institutes, NGO's	$ 135,156	

	2.2.4. Develop and approve coordinated regulations for managing plastic waste and its impact on marine and aquatic ecosystems	Short-term	- Plastic pollution/waste specialist - Marine biologist	Min. ROM with NMA	Min. LVV – Dir. Fisheries, Min. OW, Min. EZOTI, NGO's	$ 337,890	awareness; 4.3.6, 4.3.7) SDG 3 SDG 6 SDG 12 SDG 14 SDG 15 Minamata Convention
	2.2.5. Revise import list of hazardous objects, substances and develop national safety standards for their use	Short-term	- Chemical waste specialist/ Environmental technologists	Min. ROM with NMA	National Standards Bureau, Min. EZOTI, Min. NH, Min. LVV	$ 92,676	
	2.2.6. Increase capacity for enforcement of allowed import and use of hazardous objects, substances and organisms.	Short-term	- Personnel at various organisations tasked with enforcement	Min. ROM with NMA	Min. EZOTI, Min. LVV, Min. NH, Customs, NCCR	$ 662,640	
	2.2.7. Prepare emergency response plan for oil spills and hazardous contamination in terrestrial and marine ecosystems	Medium-term	- Chemical waste specialists - Environmental technologists - Toxicologists	Min. ROM with NMA	NCCR, BOG, Min. Def, AdeKUS scientific institutes, Min. NH, Min. OWA, District Commissioners	$ 810,840	

Target 2.3 Sustainable land-, sea- and freshwater use practices

Suriname's main economic sectors such as forestry, fishery, agriculture and tourism are all sectors that benefit from ecosystem services provided by nature. At the same time, land use and the use of marine and freshwater resources are known as some of the main pressures on biodiversity, due to habitat loss and overexploitation. In principle, the range of ecosystem products that humans use can be produced in a sustainable manner. However, the land-, sea- and freshwater use sectors in Suriname need evaluation with regard to sustainability and impact on biodiversity. The catch of among other things shrimp off the coast of Suriname has reached a plateau, which indicates that a transition is urgently needed to sustain offshore fishing, based on sustainable harvest and a general mitigation of damage to the biodiversity of the sea and of the coastal area. In the rivers and swamps of parts of the coastal zone and the interior, the commercially interesting and bigger freshwater fish such as Kwie-Kwie (Hoplosternum littorale) and Anjumara (Hoplias aimara) have become scarce, which indicates that also in this respect there is a need to proceed to sustainable fisheries. The effective application of measures for sustainable timber- and plant NTFP harvest requires some adjustment of policies and regulation, particularly by formalizing reduced impact logging and working in the direction of certification of sustainable forestry operations. There is also a need for restoration of forest areas that were damaged by clear cutting or overexploitation. For the past 7 years agriculture has been based on the Agriculture National Master Plan, but the integration of biodiversity aspects has been limited. Biodiversity aspects in agriculture are not just based on enhancing agrobiodiversity on farms, but also associated with enhancing healthy living soils through regenerative and agro-ecological practices, not to mention controlling the agriculture (-forest) frontier when it comes to large scale agricultural activities. Other relevant aspects include better regulating the use of chemicals and addressing the growing concern about genetically modified organisms (GMO's). The risks of increased use of GMOs such as contamination of local cultivars and loss of native agro-

biodiversity, is becoming relevant in Suriname, requiring adequate regulation, including renewed attention for the National Biosafety Framework. Finally, when it comes to sustainable land use, tourism is always turned to in Suriname when talking about sustainable economic sectors and maintaining the country's most forested status. However, more structural actions are needed to realize (e.g. in laws, standards, capacity) the true interconnections between tourism as an economic sector and sustainable use of biodiversity and ecosystem services. Thus, when it comes to the sustainability of land-, sea- and freshwater use in light of biodiversity, the current reality in Suriname requires a significant amount of forward-looking policies that enhance more sustainable practices and the enforcement capacity to go along with it. Note that any actions related to mining are not included under this target and pathway, as mining does not align with sustainable use of biodiversity. Relevant actions related to mining are therefore incorporated under target 1.2 related to restoration and rehabilitation.

Table 8 Strategic actions framework – target 2.3

2.3 Sustainable land-, sea- and freshwater use practices							
Strategic target	**Actions and interventions**	**Timeline**	**Required capacity**	**Lead responsible agency**	**Key partners**	**Estimated costs**	**Synergies**
2.3 Suriname enforces the sustainable exploitation of biodiversity in land-,sea- and freshwater use economic sectors through responsible practices and technologies, in line with sound land use planning and zoning	***Forestry***						
	2.3.1. Update the Code of Practice for the forestry sector, incorporating biodiversity aspects into reduced-impact logging, the production of minor and non-timber forest products, and tree diversity restoration	Short-term	- Various sustainable forestry-related technical specialists - Legal experts	SBB with Min. GBB	CELOS, NGO's, AdeKUS scientific institutes, ITP organisations	$ 135,156	Target 1.2 (Restoration and rehabilitation) Target 2.1 (Sound spatial planning and zoning) Target 3.1 (Recognition of ITP knowledge and associated rights) Target 4.3 (Education and awareness; 4.3.5, 4.3.7) Target 4.4 (Research, monitoring, science-policy communication) Target 4.5 (Climate change and biodiversity)
	2.3.2 Critically evaluate the system of community forest concessions in light of negative impact on regeneration and tree species diversity	Short-term	- Sustainable forestry and ntfp production specialists - Legal experts - ITP communities collective rights - Stakeholder engagement	SBB, Min. GBB in partnership with Min. ROS	CELOS, NGO's, AdeKUS scientific institutes, ITP authority representatives (VIDS, KAMPOS, VSG, others) and organisations	$ 627,420	
	2.3.3. Consult with stakeholders and revise Forest Management Law (1992), including with regard to community forest concessions, for approval, incorporating the Code of Practice, NTFP production, sustainability incentives, restoration and certification	Short-term	- Legal experts - Biodiversity specialist - Restoration specialist - Stakeholder engagement	Min. GBB, SBB	Min. ROM, Min. ROS, Min. EZOTI, NGO's, NMA (NIMOS)	$ 550,290	
	2.3.4. Assess the extent of negative impact of illegal logging and non-	Medium-term	- Forestry sector specialists	SBB in partnership with Min. GBB - NB	AdeKUS scientific institutes,	$ 346,980	

2.3 Sustainable land-, sea- and freshwater use practices							
Strategic target	**Actions and interventions**	**Timeline**	**Required capacity**	**Lead responsible agency**	**Key partners**	**Estimated costs**	**Synergies**
2.3 Suriname enforces the sustainable exploitation of biodiversity in land-, sea- and freshwater use economic sectors through responsible practices and technologies, in line with sound land use planning and zoning	compliance on degradation of habitat quality for biodiversity		- Personnel tasked with enforcement		NGO's, ITP organisations		SDG 13 SDG 15 National REDD+ Strategy NDC
	2.3.5. Engage with the private sector to develop national capacity building programs regarding the impact of the Roundwood value chain on biodiversity, in light of transitioning from roundwood export to sustainable timber and ntfp value chains	Medium-term	- Sustainable forest value chain specialists - Ecologist - Stakeholder engagement	SBB, Min GBB	Min. EZOTI, Private sector platforms, NGO's, ITP organisations	$ 298,620	
	Fisheries						
	2.3.6. Implement policies in Fisheries Management Plan 2021-2025 to regulate risks of overexploitation and negative impacts on marine biodiversity (i.e. licensing, bycatch, fishing techniques, vessel monitoring systems)	Short-term	- Policy makers - Marine biologists - Marine ecosystems specialists	Min. LVV – Dir. Fisheries	NGO's, Coast Guard, AdeKUS scientific institutes, ITP organisations	$1,028,580	Target 1.2 (Restoration and rehabilitation) Target 2.1 (Sound spatial planning and zoning) Target 2.2 (Pollution) Target 2.5 (Policies and incentives for businesses) Target 4.3 (Education and awareness; 4.3.6, 4.3.7) Target 4.4 (Research, monitoring,
	2.3.7. Evaluate classification and licensing conditions of artisanal fishery in light of sector impact and sustainable exploitation levels	Short-term	- Policy makers - Marine biologists	Min. LVV – Dir. Fisheries	NGO's, Fisheries Associations	$ 123,528	
	2.3.8. Increase capacity of Min. LVV Fisheries Department for data collection, modelling and analysing of fish stocks and breeding/spawning grounds to determine sustainable harvesting quota's, and support rehabilitation and zoning policies	Short-term	- Personnel tasked with data and statistical analyses - Personnel with marine biology or ecology background - Personnel with marine spatial planning specialization	Min. LVV – Dir. Fisheries	AdeKUS scientific institutes, NGO's	$ 508,920	

2.3 Sustainable land-, sea- and freshwater use practices							
Strategic target	**Actions and interventions**	**Timeline**	**Required capacity**	**Lead responsible agency**	**Key partners**	**Estimated costs**	**Synergies**
2.3 Suriname enforces the sustainable exploitation of biodiversity in land-,sea- and freshwater use economic sectors through responsible practices and technologies, in line with sound land use planning and zoning	2.3.9. Evaluate fisheries zoning and update licensing regulations in light of conflicts and measures against overexploitation of marine biodiversity	Short-term	- Legal experts - Marine biologist	Min. LVV – Dir. Fisheries	NGO's, Fisheries Associations, MAS, Coast Guard, ITP organisations	$ 337,890	science-policy communication) SDG 2 SDG 14 National Fisheries Management Plan 2021-2025
	2.3.10. Increase capacity of government organisations for monitoring, enforcement and control in marine and aquatic fisheries	Medium-term	- Personnel tasked with enforcement - Personnel tasked with monitoring - Technical monitoring facilities	Min. LVV – Dir. Fisheries	MAS, Coast Guard, NGO's	$ 427,920	
	Agriculture						
	2.3.11. Revise agriculture policies, based on an evaluation of the effectiveness of the Agriculture Master Plan in light of environmental and native biodiversity impact	Short-term	- Policy makers - Sustainable agriculture specialists - Agro-biodiversity specialist	Min. LVV – Dir. Agriculture	CELOS, NGO's, SNRI-ADRON, IICA	$ 119,448	Target 1.2 (Restoration and rehabilitation) Target 2.1 (Sound spatial planning and zoning) Target 2.2 (Pollution) Target 2.5 (Policies and incentives for businesses) Target 4.3 (Education and awareness; 4.3.5 - 4.3.7) Target 4.4 (Research, monitoring,
	2.3.12. Develop and approve legislation to enhance sustainable agriculture, agroforestry, agro-ecological principles, and standards for pesticide use	Medium-term	- Legal experts - Agroecology specialists - Agroforestry specialists	Min. LVV – Dir. Agriculture	CELOS, NGO's, SNRI-ADRON, NMA (NIMOS), Farmer's Cooperatives, ITP organisations	$ 444,090	
	2.3.13. Strengthen and scale-up institutionalized information sharing and extension programs on sustainable agriculture practices and agrobiodiversity in all districts	Short-term	- Personnel tasked with education and information sharing - Sustainable agriculture specialists	Min. LVV – Dir. Agriculture	Min. ROS, CELOS, Agriculture Cooperatives, ITP organisations	$ 739,260	

2.3 Sustainable land-, sea- and freshwater use practices							
Strategic target	**Actions and interventions**	**Timeline**	**Required capacity**	**Lead responsible agency**	**Key partners**	**Estimated costs**	**Synergies**
	2.3.14. Assess the state of use of GMO's and exotic varieties, and the risks to (agro)biodiversity	Short-term	- GMO specialists - Communication specialists	Min. LVV – Dir. Agriculture	CELOS, SNRI-ADRON, NMA (NIMOS)	$ 454,290	science-policy communication) SDG 2 SDG 14 SDG 13 SDG 15 Agriculture Master Plan 2016-2030 NDC
	2.3.15. Create coordinated governance structure for the registration, monitoring and enforcement of responsible use of GMO's and the introduction of exotic varieties	Short-term	- Policy makers - GMO specialists - Personnel tasked with monitoring and enforcement	Min. LVV – Dir. Agriculture	Min. GBB- NB, Min. ROM, NMA (NIMOS), Min. EZOTI, National Customs	$ 860,520	
	2.3.16. Revise laws and regulations on i) the import and use of GMO's protecting native genetic resources, and ii) the import and use of pesticides and submit for approval	Medium-term	- Legal experts - GMO specialists - Toxicologist	Min. LVV – Dir. Agriculture	CELOS, Min. GBB- NB, Min. ROM, NMA (NIMOS), Min. EZOTI,	$ 298,620	
	Tourism						
	2.3.17. Conduct strategic environmental and social assessment for (nature) tourism policies, considering negative bio- and cultural diversity impact from nature tourism development	Short-term	- Policy makers - Legal experts - Responsible nature tourism specialists - Biodiversity specialist	Min. TCT/ NTA	Min. ROM, NMA (NIMOS), NGO's	$ 161,928	Target 2.1 (Sound spatial planning and zoning) Target 2.2 (Pollution) Target 2.5 (Policies and incentives for businesses) Target 4.3 (Education and awareness; 4.3.5-4.3.7) Target 4.4 (Research, monitoring,
	2.3.18. Incorporate provisions on responsible nature tourism and the reduction of biodiversity risks in the implementation decrees for Tourism Framework Law and the Tourism Authority Law	Short-term	- Policy makers - Legal experts - Responsible nature tourism specialist - Biodiversity specialist	Min. TCT/ NTA	NMA (NIMOS), Min. ROM, Min. GBB – NB, NGO's, ITP organisations	$ 119,448	
	2.3.19 Consult with stakeholders on national definition of nature tourism and on nature tourism sustainability standards to protect biodiversity and ecological integrity	Short-term	- Legal experts - Responsible nature tourism specialists - Biodiversity specialist - Stakeholder engagement	Min. TCT/ NTA	NMA (NIMOS), Min. ROM, National Standards Bureau, NGO's	$ 161,928	

2.3 Sustainable land-, sea- and freshwater use practices							
Strategic target	**Actions and interventions**	**Timeline**	**Required capacity**	**Lead responsible agency**	**Key partners**	**Estimated costs**	**Synergies**
	2.3.20. Develop and incorporate nature tourism sustainability standards in technical regulations and develop incentives for training and certification	Medium-term	- Responsible nature tourism specialists - Biodiversity specialist - Sustainability specialist	Min. TCT/ NTA	Min. GBB – NB, NMA (NIMOS), National Standards Bureau, NGO's	$ 444,090	science-policy communication) SDG 12 SDG 14 SDG 15

Target 2.4 Integrating ecosystem services and nature-based solutions

Biodiversity is the foundation for the supply of ecosystem services from which humans benefit in various ways. It is important that this concept of ecosystem services or nature's contributions to people, which exists and has evolved for almost twenty years, is better integrated in national policies and plans. Ecosystems do not only provide a wide range of products on which Suriname's economy depends, they also provide services which regulate and maintain healthy and safe environments for people. Suriname's forests supply invaluable services by balancing climate both in carbon and in hydrological terms. In the context of the updated NBAP, it is important to go beyond carbon sequestration and climate regulation. The integration of ecosystem services into policies, and the operationalisation of enhancing the benefits that ecosystems provide, present an important opportunity for a country such as Suriname that strives to brand itself as the most forested country. Not at the least as a potential source of income, but more importantly as a relatively cost-efficient and 'pro-nature' approach to addressing challenges Surinamese society faces or will face in the future, such as related to flood risk due to high storm water run-off and increase of temperatures during extreme weather, fragmentation of coastal forests due to urban and infrastructure sprawl and. Opportunities to integrate ecosystem services and enhance benefits could for example include policies and measures for managing urban ecosystems (i.e. urban green and blue spaces) in light of extreme weather, for conserving native fruit trees in light of food security, adequate coastal zone management in light of risks from sea-level rise and loss of land, or green infrastructure planning (e.g. through corridors) in light of fragmentation. Utilizing such opportunities, however, requires upgrading data and information on ecosystem services, increasing awareness and strengthening capacity on the subject matter, and the cross-cutting institutionalization in various national policies and planning processes. The actions under this target are relevant in light of sustainable land and sea use practices, spatial planning and actions related to the enabling conditions under pathway 4.

Table 9 Strategic actions framework – target 2.4

2.4 Integrating ecosystem services and nature-based solutions							
Strategic target	**Actions and interventions**	**Timeline**	**Required capacity**	**Lead responsible agency**	**Key partners**	**Estimated costs**	**Synergies**
2.4 Based on increased evidence-based understanding on ecosystem services, Suriname's public, private and societal organizations incorporate	2.4.1. Review and update (existing) national ecosystem services assessment and valuation in light of international financing mechanisms	Short-term	- Ecosystem services specialist - Social and economic valuation specialists	NMA with SBB	Min. ROM, Min. GBB, Min. FIN,, NGO's, CELOS and other relevant (AdeKUS)	$ 119,448	Target 2.2 (Sound spatial planning and zoning) Target 2.3

nature-based solutions in urban planning, climate resilience, food production systems and the development of sustainable livelihood options.					scientific institutes		(Sustainable land- and sea use practices) Target 4.3 (Awareness and education) Target 4.5 (Climate change and biodiversity) SDG 6, SDG 9, SDG 11, SDG 13, SDG 14, SDG 15, NAP, NDC
	2.4.2. Develop a system for natural capital accounting based on (existing) national ecosystem services assessment and valuation	Medium-term	- Natural capital specialists - Accounting specialists	Min. ROM with Min. GBB	Min. FIN, SBB, NGO's, NMA (NIMOS), AdeKUS	$ 159,156	
	2.4.3. Assess and provide recommendations on how relevant ecosystem services and nature-based solutions can be incorporated in policies for urban planning, infrastructure development, pollution management, climate adaptation and other relevant planning processes	Short-term	- Ecosystem services / Nature-based solutions specialist - Various sectoral specialist	Min. ROM	NMA (NIMOS), Min. GBB, SBB, NGO's, CELOS and other relevant (AdeKUS) scientific institutes	$1,008,180	

Target 2.5 Policies and incentives for sustainable business practices

There is a global agreement regarding the role that the private sector has to fulfil in achieving biodiversity targets. The Intergovernmental Panel on Biodiversity and Ecosystem Services is currently preparing a business and biodiversity assessment to better inform this role. In Suriname, the recent Environment Framework Act is an important step in enforcing regulations to enhance compliance and environmentally responsible business practices. There is room for policies and incentives specifically targeting biodiversity-related issues. Subsidies for private sector activities that lead to negative biodiversity impact need to be re-evaluated and phased out. Policies that provide positive incentives for the private sector, leading to more sustainable use and conservation of biodiversity should be promoted. The private sector needs to develop and use its capacity for sustainable use and management of biodiversity, particularly in sectors that Suriname is promoting as sustainable development sectors, such as the tourism sector and the exploitation of NTFPs.

Table 10 Strategic actions framework – target 2.5

2.5 Policies for sustainable business practices							
Strategic target	**Actions and interventions**	**Timeline**	**Required capacity**	**Lead responsible agency**	**Key partners**	**Estimated costs**	**Synergies**
2.5 Suriname has set priorities for phasing out or reforming subsidies and	2.5.1. Strengthen the capacity of local companies to improve their HSE corporate standards and fulfil their role in ESIA's with	Short-term	- Business and biodiversity specialist - Communication specialist	NMA (NIMOS)	Business platforms, Min.	$ 119,448	Target 1.2 (Restoration and rehabilitation)

incentives for the private sector that are harmful for biodiversity and for regulating incentives in favor of conservation and sustainable use of biodiversity including transparency and compliance.	regard to the business practices' dependency or impact on biodiversity				ROM, Min. GBB-NB		Target 2.2 (Pollution) Target 2.3 (Sustainable land- and sea use practices) Target 4.1 (Capacity building, 4.1.2, 4.1.5) Target 4.3 (Education and awareness; 4.3.5, 4.3.7)
	2.5.2. Assess existing private sector incentives, including subsidies, that are harmful for biodiversity and identify opportunities for biodiversity-positive incentives	Short-term	- Legal/Financial experts - Biodiversity experts	NMA (NIMOS) in partnership with Min. EZOTI	Business platforms, Min. ROM, Min. GBB-NB	$ 91,608	
	2.5.3. Develop and approve legal, policy and tax incentives for the private sector to minimize their negative impact on biodiversity and environment	Medium-term	- Environmental tax specialist / Environmental economists - Legal experts - Stakeholder engagement	Min. EZOTI in partnership with NMA (NIMOS)	Business platforms, Min. ROM, Min. GBB-NB, Min. LVV, Min. NH	$ 177,636	
	2.5.4. Develop national standards and associated institutional structure, for 'green labelling' of biodiversity responsible products	Medium-term	- Environmental standards/ certification specialist - Policy makers - Personnel tasked with environmental labelling and certification, and monitoring	Min. EZOTI	NMA (NIMOS), Min. ROM, Min. GBB, Min. LVV, Min. NH, National Standards Bureau	$ 812,760	
	2.5.5. Strengthen the capacity of companies to integrate green/ sustainability principles and promote sustainable consumption through short courses on biodiversity and ecosystem services (concepts, relevance, impact, dependence, role of private sector)	Medium-term	- Environmental standards/ certification specialist - Business and biodiversity specialist - Education and communication specialists	Min. EZOTI	Training institutes, NMA (NIMOS), AdeKUS and other higher education institutes	$ 177,636	

2.3 Fair and equitable benefit sharing

The third pathway in Suriname's updated NBS is focused on genetic resources, associated traditional knowledge, and regulating access and benefit sharing (ABS) in a fair and equitable manner. In order to explore the development of sectors in the context of genetic resources and associated traditional knowledge, the development of legal-, institutional- and administrative framework are required. In Suriname, since much of the tacit ecological knowledge* is knowledge of indigenous and tribal people communities, it is important that this knowledge and associated rights are legally recognized (Target 3.1). In addition, capacity building of ITP communities to be aware of their rights and be able to deal with commercial or non-commercial external interests in genetic resources within their living territory (Target 3.2). Furthermore the legal, administrative and institutional frameworks to ensure fair and equitable ABS between the Government of Suriname, the owners of these resources and traditional knowledge, the private- and research sectors need to be developed (Target 3.3).
*Tacit knowledge is knowledge and abilities gained through experience and often not documented and difficult to transfer through writing.

Target 3.1 Legal recognition of indigenous and tribal peoples' knowledge and associated rights

In Suriname there is no formal definition of what constitutes traditional knowledge. Defining this and discussing associated rights are important for protecting traditional knowledge. The laws and required governance and enforcement structures for recognizing traditional knowledge and associated rights (e.g. intellectual property rights) need to be developed as well. Adequate laws and regulations based on FPIC principles that protect traditional knowledge are required as classical intellectual property rights legislation offers insufficient protection to collective rights, especially in case of transfer of such knowledge to third parties and the further use thereof. The actions under this target are closely linked to actions on communities being aware of and protecting their rights, and on fair and equitable access and benefit sharing.

Table 11 Strategic actions framework – target 3.1

3.1 Legal recognition of indigenous and tribal peoples knowledge and associated rights							
Strategic target	**Actions and interventions**	**Timeline**	**Required capacity**	**Lead/key responsible agency**	**Key partners**	**Estimated costs**	**Synergies**
3.1 The collective traditional knowledge and associated intellectual rights of indigenous and tribal communities are recognized in Suriname's legislation	3.1.1. Engage with rightsholders to arrive at a national definition of traditional knowledge and the necessary conditions for its protection in light of using biodiversity and genetic resources	Short-term	- Indigenous and tribal people's cultural specialist/ anthropologists - Traditional knowledge specialists - Stakeholder engagement	Min. EZOTI in partnership with ITP authority representatives (VIDS, KAMPOS, VSG, others) and organisations	Cultural CSO's, NGO's, Min. ROS – DOAS, Min. ROS DOI, Bureau Intellectual Properties	$ 521,220	Target 3.2 (Self-protection of traditional knowledge and rights) Target 3.3 (Fair and equitable access and benefit sharing)
	3.1.2. Develop and approve laws and regulations to protect traditional knowledge and intellectual property rights in light of using biodiversity and genetic resources	Medium-term	- Indigenous and tribal peoples rights specialists - Traditional knowledge specialists - Intellectual property rights specialist - Legal experts	Min. EZOTI in partnership with ITP authority representatives (VIDS, KAMPOS,	Cultural CSO's, NGO's, Min. ROS – DOAS, Min. ROS DOI, Bureau	$ 220,116	

				VSG, others) and organisations	Intellectual Properties		Target 4.1 (Capacity building, 4.1.3) Target 4.4 (Research, monitoring) SDG 10 SDG 15

Target 3.2 Self-protection of indigenous and tribal peoples' knowledge and associated rights

In Suriname ITP communities regularly deal with organisations or other actors external to the community who are interested in doing projects, assessments or research. The capacity within communities is generally insufficient for dealing themselves with such 'external' stakes in a way that benefits and in the least does not negatively impact them in any way, in particular when it comes to strong commercially motivated interests. Aspects such as being aware of their rights and relevant laws, local visions on territorial development and strong local governance are important when it comes to ITP's capacity for protecting their traditional ecological knowledge. Under this target it is important that actions are implemented from the perspective of ITP's. This target has linkages with other targets concerned with the use or exploitation of forest resources, with fair and equitable ABS and with research, education and awareness.

Table 12 Strategic actions framework – target 3.2

3.2 Self-protection of traditional knowledge							
Strategic target	**Actions and interventions**	**Timeline**	**Required capacity**	**Lead responsible agency**	**Key partners**	**Estimated costs**	**Synergies**
3.2 Indigenous, tribal and other local communities have capacities and respected structures for protecting their traditional knowledge and managing community territory biological resources	3.2.1. Support the development and implementation of capacity strengthening programs in local communities on topics such as FPIC, rights, protecting traditional knowledge against exploitative and commercial biodiversity research and data collection in indigenous and tribal territories	Short-term	- Indigenous and tribal peoples cultural specialist/ anthropologists - Indigenous and tribal peoples rights specialists - Traditional knowledge specialists - Intellectual property rights specialist	ITP authority representatives (VIDS, KAMPOS, VSG, others) and organisations in partnership with other organisations deemed relevant	Min. ROS, Min. ROM, NGO's	$ 657,090	Target 1.3 (Wildlife, 1.3.2) Target 3.1 (Recognition of ITP knowledge and associated rights) Target 3.3 (Fair and equitable access and benefit sharing) Target 4.3 (Education and awareness, 4.3.2, 4.3.4)
	3.2.2. Support indigenous and tribal community organisations on local governance and territorial management for enhancing	Short-term	- Indigenous and tribal communities cultural specialist/ anthropologists - Indigenous and tribal peoples	ITP authority representatives (VIDS, KAMPOS, VSG, others) and organisations in partnership with	Min. ROS, NGO's	$1,042,440	

	biodiversity conservation and sustainable use.		rights specialists - Biodiversity specialists	other organisations deemed relevant			Target 4.4 (Research, monitoring) SDG 5 SDG 10 SDG 15

Target 3.3 Institutional and legal framework for fair and equitable ABS

There is a need for a fair and equitable sharing of the benefits derived from the use of genetic material and associated knowledge present in Suriname. Such knowledge is often embedded in the culture and traditions of local, and in particular ITP communities. There is a need for laws and regulations that protect genetic biological resources, and that regulate the fair access to those resources and the sharing of benefits derived from their direct use and innovation. This legal framework must constitute the basis for research (such as bioprospecting) and technological development, linked to the transfer of technology. The benefits that ensue from the use of genetic resources and associated traditional knowledge by third parties should be shared in a fair and just manner, particularly among the collective owners of such knowledge. Traditional knowledge about biodiversity is emphatically present among ITP's, but not solely among them; such knowledge is also present among other cultures in Suriname.

Table 13 Strategic actions framework – target 3.3

	3.3 Fair and equitable access and benefit sharing						
Strategic target	**Actions and interventions**	**Timeline**	**Required capacity**	**Lead responsible agency**	**Key Partners**	**Estimated costs**	**Synergies**
3.3 The access and benefit sharing provisions of the UNCBD are incorporated in national legislation and transparent procedures for the protection of genetic resources, bioprospecting, and fair and equitable sharing of benefits, recognizing the rights, including intellectual property rights, of all Surinamese citizens	3.3.1. Engage with rightsholders based on their FPIC principles to develop (new) laws / regulations with regard to the protection of genetic resources, bioprospecting, access to and use of genetic material and submit for approval	Medium-term	- Indigenous and tribal peoples rights specialists - Biological resources specialist - Bioprospecting specialists - Benefit sharing specialists	Min. ROM in partnership with Min. EZOTI	ITP organizations, cultural CSO's, Min. ROS, Min. GBB – NB, Min. LVV, NMA (NIMOS), AdeKUS	$ 560,490	Target 3.1 (Recognition of ITP knowledge and associated rights) Target 3.2 (Self-protection of traditional knowledge and rights) Target 4.1 (Capacity building, 4.1.3)
	3.3.2. Co-Develop and approve fair procedures and regulations with respect to benefit sharing from the use of genetic resources and associated traditional knowledge	Short-term	- Indigenous and tribal peoples rights specialists - Traditional knowledge specialists - Benefit sharing specialists - Legal experts	Min. ROM in partnership with Min. EZOTI	ITP organizations, cultural CSO's, Min. ROS, Min. GBB – NB, Min. LVV, NMA (NIMOS), AdeKUS	$ 1,333,380	

	3.3.3. Strengthen capacity of government, private and civil society organisations on bioprospecting, FPIC, and fair access and equitable benefit sharing mechanisms	Short-term	- Indigenous and tribal peoples rights specialists - Bioprospecting specialists - Benefit sharing specialists	Min. ROM in partnership with Min. EZOTI	ITP organizations, cultural CSO's, Min. ROS, Min. GBB – NB, Min. LVV, NMA (NIMOS), AdeKUS	$ 603,870	SDG 10

2.4 Integration and enabling conditions

The fourth pathway of Suriname's updated NBS is set on broad integration of biodiversity and establishing the enabling conditions for achieving the biodiversity targets. Crucial conditions include adequate capacity (Target 4.1) and financing (Target 4.2), and increased awareness (Target 4.3). Furthermore a crucial foundation for informed decision making regarding biodiversity are research and monitoring (Target 4.4). As this pathway aims to promote biodiversity mainstreaming and cultivating a national sense of nature stewardship across sectors and levels, it is important to identify linkages between biodiversity and climate change (Target 4.5), the SDG's (Target 4.8) and facilitating coordination (Target 4.6) and inclusive participation (Target 4.7).

Target 4.1 Strengthened capacities for biodiversity

While actions relating to specific technical capacities are included under other targets, this target refers to more general actions related to capacity strengthening. Given the time that has elapsed since Suriname's previous NBSAP, a national capacity assessment for biodiversity is necessary. This capacity assessment can inform further capacity strengthening programs to mainstream biodiversity in organisations and sectors which are not typically involved with biodiversity. Relevant topics include for example biodiversity basics, ecosystem services, sustainability, and are aimed at establishing sufficient basic understanding within organisations to be able to fulfil their role in NBSAP implementation. In addition, more specific, in-depth topics can be included as needed for technical staff. Involving educational institutes in executing training programs can contribute to overall continuity of capacity strengthening.

Table 14 Strategic actions framework – target 4.1

4.1 Strengthening capacities							
Strategic target	**Actions and interventions**	**Timeline**	**Required capacity**	**Lead responsible agency**	**Key Partners**	**Estimated costs**	**Synergies**
4.1 The capacity of Suriname's institutions and relevant groups are strengthened for effective management, monitoring and evaluation, technical cooperation, fund mobilizing and science-policy communication of	4.1.1. Conduct a general capacity needs assessment among government, private sector and civil society organisations based on the updated NBSAP	Short-term	- Capacity building specialist - Biodiversity specialist - Organization management	Min. ROM		$ 134,088	Cross-cutting enabling conditions for pathway 1-3 Target 4.2 (Financing) Target 4.6 (Mainstreaming)
	4.1.2. Develop general training programs on conservation planning, ecosystem services, nature-based solutions and natural capital accounting for policy makers and planners	Short-term	- Technical specialists on conservation, ecosystem services, nature-based solutions, natural capital - Educational and capacity building specialists	Min. ROM	Min. GBB- NB, Private sector specialists, higher education institutes, NGO's	$ 149,796	

the NBSAP implementation.	4.1.3. Develop in-depth training on a variety of specific technical topics based on capacity needs assessment, including updated or new biodiversity-related laws	Short-term	- Capacity building and educational specialists (private sector, NGO's, academia)	Min. ROM in partnership with (private sector, NGO's)	Min. GBB – NB, Private sector specialists, higher education institutes	$ 204,408	Target 4.7 (Participation) Target 4.8 (SDG's and biodiversity)
	4.1.4. Collaborate with trainers to offer regular (technical) biodiversity-related training to relevant policy makers, technical staff and other relevant private sector and civil society organisations	Short-term	- Capacity building and educational specialists (private sector, NGO's, academia)	Min. ROM	Private sector specialists, higher education institutes, NGO's, NMA (NIMOS)	$ 262,830	
	4.1.5. Improve the capability of government and other relevant organisations for communicating their needs to potential donors and mobilizing funds for biodiversity	Short-term	- Fundraising and financial resources specialist - Capacity building specialist	Min. FIN, Min. BIBIS in partnership with Min. ROM	Min. GBB – NB, Min. LVV, Min. ROS, AdeKUS scientific institutes	$ 346,380	

Target 4.2 Available biodiversity financial resources

In order to implement the actions in the NBAP and work towards achieving the targets, it is necessary to secure sufficient financial resources. These resources can come from multiple sources, both through international or bi- or multilateral financing (such as carbon credits, payment for ecosystem services and other financing mechanisms) or through national budget allocation. While incidental financing via donors helps to implement project-based actions, it is important to also focus on continuous financing. Funds of particularly the GEF and other big donors are important for incidental financing, which can be seen as investments. Such investments ought to be made based on plans, such as this updated NBAP, when they are completed and accepted by the government. It is important to consider that in order to obtain the money from big multilateral donors such as GEF, a long project cycle needs to be started; that means that there are often years between submitting draft projects and obtaining funds. It can be expected that this will also be the case with the recently launched Global Biodiversity Framework Fund, which is designed to mobilize and accelerate investment in the conservation and sustainability of wild species and ecosystems, whose health is under threat from wildfires, flooding, extreme weather, and human activity. To successfully obtain sustainable international financing, investments have to be made in a team that operates at international fora, lobbies for Suriname and develops national proposals. In practice, it may take many years before such a team is successful; the team will probably also need to be supported by international consultants. Alternatively, funds derived from production in the various sectors (e.g. as mentioned in the second strategic pathway), will be important for continuous financing, which would mainly serve to cover running costs and depreciations. It is therefore also important to encourage sustainable use of biodiversity and responsible use of other resources to prevent that important actions cannot be undertaken due to a lack of funds. There is furthermore a need for allocation of more national funds to biodiversity-related activities. Given the current financial and economic context in Suriname, a helpful step in that direction is to actively coordinate across government for efficient allocation of financial resources for implementing biodiversity-related activities.

Table 15 Strategic actions framework – target 4.2

4.2 Available financial resources							
Strategic target	**Actions and interventions**	**Timeline**	**Required capacity**	**Lead responsible agency**	**Key partners**	**Estimated costs**	**Synergies**
4.2 Suriname has increased its national budget for biodiversity-related policy areas and has improved knowledge of and access to international finance, including innovative schemes such as payment for ecosystem services and biodiversity offsetting, and synergies with climate financing.	4.2.1. Identify needs and strengthen human and technical capacity of government and other relevant organisations for efficient fund allocation and international biodiversity funds mobilization	Short-term	- Capacity building specialist - Organizational management specialist - Fundraising and financial resources specialist	Min. ROM in partnership with Min. FIN and Min. BIBIS	National Planning Office, Min. GBB - NB	$ 134,088	Cross-cutting enabling conditions for pathway 1-3 Target 4.1 (Capacity strengthening) Target 4.6 (Mainstreaming) Target 4.7 (Participation) Target 4.8 (SDG's and biodiversity) SDG 13 SDG 14 SDG 15 SDG 17
	4.2.2. Increase capacity of scientific institutes for accessing funding and financial resources for biodiversity research	Short-term	- Capacity building specialist - Fundraising and financial resources specialist - Personnel tasked with networking, mobilizing and accessing research funds	ADEKUS in partnership with Min. ROM	Min. OWC, Min. Fin, Min. BIBIS.	$ 129,000	
	4.2.3. Consult with stakeholders for developing national legislation on international climate and forest financing and benefit sharing mechanisms	Short-term	- Climate finance specialist - Benefit sharing specialist - Legal experts - Stakeholder engagement	Min. ROM	Min. GBB, Min. BIBIS, Min. Fin, National Planning Office, NMA (NIMOS), SDG Fund	$ 204,408	
	4.2.4. Coordinate across government to communicate policy priorities and efficiently allocate funds in annual budgets for biodiversity related activities	Short-term	- Fundraising and financial resources specialist - Personnel tasked with financial resource management	Min. ROM in partnership with Min. GBB	Min. Fin, National Planning Office, Min. LVV, Min. NH	$ 230,580	
	4.2.5. Develop regulations that designate a portion of extractive industries revenues to a national nature and environment fund	Short-term	- Legal experts - Stakeholder engagement - Fundraising and financial resources specialist	Min. ROM in partnership with Min. Fin	Min. NH, Min. GBB	$ 467,970	
	4.2.6. Actively seek out synergies with biodiversity when negotiating and applying for forest, climate, SDG and other environmental international financing mechanisms	Short-term	- International environmental policy specialist - International environmental finance specialist	Min. ROM	Min. BIBIS, Min. Fin, Min. GBB-NB, SBB, Min. LVV, SDG Platform,	$ 91,608	

Target 4.3 Increased awareness and education on biodiversity

In Suriname, increasing awareness regarding biodiversity is important for mainstreaming biodiversity across sectors and levels. This includes targeting the general public and youth through education. In terms of education it is important to evaluate the current curricula with regard to nature education and biodiversity related topics. To avoid reinventing the wheel, lessons learned from past projects need to be taken into account, and collaborations can be sought nationally and regionally, for upgrading education curricula with regard to nature and biodiversity. Particular attention should be given to the local world of experience and language of children going to school in indigenous and tribal community villages in the interior. While there may be general awareness among the general public of the fact that Suriname has high biodiversity, further awareness and knowledgeability regarding various aspects of biodiversity are needed. In particular with regard to biodiversity impact from consumptive behavior and impacts which are not always directly visible. For example, the impact of activities on land on aquatic and marine biodiversity. In order to avoid confusion or fatigue regarding the various separate, but linked campaigns, it is important to highlight these linkages (e.g. between biodiversity conservation/sustainable use and the SDG's/human wellbeing, or between climate adaptation and biodiversity). That way, awareness campaigns can stimulate more integrated understanding of biodiversity issues and may make those issues easier to relate to for people.

Table 16 Strategic actions framework – target 4.3

4.3 Increased awareness and education on biodiversity							
Strategic target	**Actions and interventions**	**Timeline**	**Required capacity**	**Lead responsible agency**	**Key partners**	**Estimated costs**	**Synergies**
4.3 The importance of biodiversity and the nature-human relationship are structurally integrated in Suriname's education curricula for elementary and middle school, and in awareness campaigns on related issues.	4.3.1. Collaborate with regional/international organisations to professionalize local institutes' capacity for nature education and information sharing	Short-term	- Capacity building specialist - Pedagogical specialists - Biodiversity specialists	Min. OWC in partnership with higher education institutes	Education representative organisations, AdeKUS	$ 185,928	Cross-cutting enabling conditions for pathway 1-3 Target 4.6 (Mainstreaming) Target 4.7 (Participation) Target 4.8 (SDG's and biodiversity) SDG 14 SDG 15 SDG 17
	4.3.2. Incorporate biodiversity and related cultural diversity in educational curricula in local languages, including for communities in the interior	Short-term	- Biodiversity and other relevant technical specialists - Pedagogical specialists - Educators, teachers	Min. OWC in partnership with ITP authority representatives (VIDS, KAMPOS, VSG, others) and organisations	Education representative organisations, teachers from schools in the interior	$ 161,928	
	4.3.3. Develop or update education material integrating lessons on biodiversity and environment for elementary and middle school, including in local languages	Short-term	- Pedagogical specialists - Educators - Biodiversity specialists	Min. OWC in partnership with Min. ROM	Education representative organisations	$ 504,090	

	4.3.4. Develop and implement multi-lingual information campaigns on the impact of terrestrial activities on marine ecosystems	Short-term	- Communication specialists - Marine biodiversity specialists - Plastic pollution specialists	Min. ROM in partnership with Min. LVV	NGO's, AdeKUS scientific institutes, Min. GBB, Min. NH, ITP organisations	$ 149,796	
	4.3.5. Develop multi-lingual awareness campaigns on the ecological footprint and impact of human's consumption and production choices on biodiversity, highlighting the linkages with conservation, human wellbeing, the SDG's and climate adaptation	Short-term	- Communication specialists - Sustainability specialists - Biodiversity specialists	Min. ROM in partnership with Min. GBB	NGO's, AdeKUS scientific institutes, private sector platforms	$ 374,490	
	4.3.6 Disseminate national biodiversity assessment results (see 4.4.19) through various channels and in appropriate formats for indigenous and tribal communities	Medium-term	- Communication specialists - ITP community specialists - Linguists	Min. OWC, in partnership with Min. ROM, ITP authority representatives (VIDS, KAMPOS, VSG, others) and organisations	Min. ROS, AdeKUS scientific institutes	$ 268,290	

Target 4.4 Increased research and accessible data

Scientific research is intended to expand human knowledge and be socially relevant by providing and evidence-base for informed decision-making. As e.g. the IPBES assesses and summarizes the most recent science on biodiversity and ecosystem services for policy makers on a global and regional level, it is important that the availability of biodiversity (related) data and information is improved for informed-decision-making in Suriname. Currently the challenges for executing objective scientific research on biodiversity are numerous in Suriname. Identifying the needs and priorities for such research from various angles on a national level can help to focus efforts and resources and use the available resources more efficiently. It can also stimulate increased knowledge generation on specific topics in a relatively shorter amount of time. Furthermore, basic scientific information regarding Suriname's ecosystems can be further expanded if not upgraded through research. In light of plans for development based on extractive economic sectors, it is also vital to have better evidence-based understanding of the threats to and pressures on biodiversity. Fairly underexplored areas of research in Suriname should receive particular attention, e.g. invasive alien species and more social science research on biodiversity.

In line with increased research on biodiversity, gathered data and information should be made accessible in order to enhance informed decision-making and avoid unnecessary repetition. With biodiversity (related) data becoming available and research supporting decision-making, monitoring systems are needed for evaluating decisions, policies and plans over time. Besides, the temporal continuity of monitoring systems compared to research projects, provides benefits for long term data collection and possibly better understanding of initial scientific observations. Finally, to stimulate informed decision-making on biodiversity, it is important to actively improve science-policy communication: communication on the interface between science and policy, in order to enhance the utilization of best available knowledge in policy-making. With this target, a distinction is made between research and monitoring, where research refers to systematic data collection, analysis and

interpretation activities to fill knowledge gaps in science, and monitoring refers to structural collection and organisation of information in direct response to policy- and decision-making needs. While scientific institutes are the lead responsible agencies when it comes to scientific research, other organisations can also be lead responsible agencies. In addition, there may be a specific, practical need or request for information indicated by policymakers which (scientific) research institutions can respond to and support. Furthermore, the implementation of research actions is not limited to western scientific methods, but can also include participatory, community-based and citizen science approaches. The actions under this target support other targets in the first three pathways of the NBAP in various ways and may at times be useful to plan within similar timeframes as other actions.

Table 17 Strategic actions framework – target 4.4

4.4 Scientific research and data collection							
Strategic target	**Actions and interventions**	**Timeline**	**Required capacity**	**Lead responsible agency**	**Key partners**	**Estimated costs**	**Synergies**
	Research						
4.4 Increased Surinamese scientific research, including community-based research, is published, linked to national databases, and contributes to credible and legitimate knowledge on Suriname's biodiversity in the broadest sense.	4.4.1. Set a national forestry scientific research & innovation agenda based on knowledge gaps with regard to species populations, climate and biodiversity impact, and wood- and ntfp species for processing	Short-term	- Forest ecology and management scientists	AdeKUS technical faculty in partnership with CELOS, BBS, NZCS	SBB, NGO's, Min. GBB, Min. OWC, Min. ROM	$ 60,638	Target 1.1 (Protected areas) Target 1.2 (Restoration and rehabilitation) Target 1.3 (Wildlife) Target 1.4 (Invasive species) Target 2.3 (Sustainable land- and sea use) Target 2.4 (Ecosystem services and nature-based solutions) Target 3.2 (Self protection of ITP traditional knowledge and rights)
	4.4.2. Set a future-oriented national agriculture & agronomy scientific research and innovation agenda based on knowledge gaps with regard to agroforestry, agroecology, agrobiodiversity and genetic diversity	Medium-term	- Agroforestry, agronomy and agriculture scientists	CELOS in partnership with other relevant scientific institutes	NGO's, Min. LVV, Farmer Cooperatives, Min. OWC	$ 60,638	
	4.4.3. Set responsible nature tourism scientific research agenda based on knowledge gaps with regard to tourism impact on and carrying capacity of natural areas, in particular protected areas, unique and vulnerable ecosystems	Short-term	- Tourism, Leisure and Environment specialists - Sustainability scientists	AdeKUS IMWO in partnership with other relevant scientific institutes	NTA, NGO's, Min. TCT, Tourism and Tour Guide Associations, Min. OWC	$ 60,638	
	4.4.4 Set a holistic, interdisciplinary biodiversity scientific research agenda with regard to description, pressures, sensitivity and impact on biodiversity, taking long term green development strategies into account	Short-term	- Biologists - Ecologists - Marine biologists - Social scientists - Climate scientists	NZCS, BBS in partnership with AdeKUS- and other relevant scientific institutes	NGO's, ITP authority representatives (VIDS, KAMPOS, VSG, others) and organisations, Min. GBB-NB, Min. ROM, Min. LVV, SBB, Min. OWC	$ 60,638	

4.4 Increased Suriname's scientific research, including community-based research, is published, linked to national databases, and contributes to credible and legitimate knowledge on Suriname's biodiversity in the broadest sense	4.4.5. Conduct scientific studies to describe marine and terrestrial ecosystems and assess biodiversity of Suriname	Medium-term	- Biologists and a variety of natural scientists	NZCS, BBS in partnership with relevant scientific institutes	NGO's, international scientific organisations, Min. LVV, Min. OWC	$ 704,400	Target 3.3 (Access and benefit sharing) SDG 14 SDG 15
	4.4.6. Conduct national rapid assessment of pressures, sensitivity and impact on biodiversity	Medium-term	- Ecologists - Environmental scientists	NZCS, CMO, BBS in partnership with other relevant scientific institutes	NGO's, international scientific organisations, Min. GBB-NB, Min. ROM, Min. LVV, Min. OWC	$1,333,380	
	4.4.7 Identify plant and animal species exploited commercially in land- and sea use sectors	Short-term	- Botanists - Biologists	Min. LVV, Min. GBB- NB,	NZCS, BBS and CELOS, other relevant scientific institutes, NGO's, SBB, Min. ROM,	$ 91,608	
	4.4.8. Conduct research on the spread and impact of invasive plant and animal species on local ecosystems	Medium-term	- Ecologists - Botanists - Animal species specialist	NZCS, BBS in partnership with relevant scientific institutes	NGO's, Mn. LVV, Min. GBB-NB	$ 521,220	
	4.4.9. Set-up and maintain a national biodiversity database, and develop policies allowing data sharing	Short-term	- Biodiversity specialist - Data scientist - IT specialist	NMA (NIMOS) in partnership with BBS, NZCS with other relevant scientific institutes	Min. GBB – NB, Min. ROM, Min. LVV, SBB, NGO's, ABS	$ 211,188	
	4.4.10. Conduct social science studies looking into the roles and knowledge of women and men in biodiversity management, use and protection, and the gender-specific impact of biodiversity changes	Short-term	- Gender specialist - Biodiversity/social scientist	AdeKUS IMWO and IWGDS in partnership with relevant scientific institutes	Min. BiZa – Gender Bureau, ITP organisations	$ 138,168	
	Monitoring						
	4.4.11. Agree with relevant stakeholders on priorities and standardized scientific protocols for data collection and monitoring of biodiversity	Short-term	- Stakeholder engagement - Biodiversity specialists	NMA (NIMOS) in partnership with NZCS and BBS	Relevant scientific institutes, Min. GBB-NB, NGO's, ,	$ 119,448	Target 1.1 (Protected areas)

					SBB, ABS, Min. ROM		Target 1.2 (Restoration and rehabilitation) Target 1.3 (Wildlife) Target 1.4 (Invasive species) Target 2.2 (Pollution) Target 2.3 (Sustainable land- and sea use) SDG 14 SDG 15
	4.4.12. Develop scientific protocols for monitoring biodiversity in relation to ecosystems state and populations of wild animals and plants, based on critical, threatened or vulnerable species	Medium-term	- Population ecology specialists - Monitoring technology - Personnel tasked with monitoring	Min.GBB – NB in partnership with NMA (NIMOS)	NGO's, NZCS, BBS, SBB, other relevant scientific institutes, ABS	$ 693,960	
	4.4.13. Monitor terrestrial and marine key biodiversity systematically in relation to sensitivity to changes from economic activities and harvest of wild plants and animals, including permanent sample plots in forests and mangroves	Short-term	- Biodiversity specialists - Personnel tasked with monitoring and inspection	Min.GBB – NB in partnership with NMA (NIMOS)	CELOS, SBB, Min. LVV, Min. NH, Min. ROM ABS	$ 429,300	
	4.4.14. Support the evidence-based establishment of sustainable harvesting levels in various land- , sea- and freshwater use sectors	Medium-term	- Various natural scientists and technical specialists in different sectors	Min. GBB in partnership with Min. LVV	CELOS, NZCS, other relevant scientific institutes, SBB, NGO's	$ 550,290	
	Cooperation and science-policy communication						
	4.4.15. Collaborate with regional leading organisations to strengthen and professionalize local institutes' capacity for scientific research, data sharing, monitoring and publishing on biodiversity	Short-term	- Science communication / science journalism specialists - Communication specialists - Policy specialists - Biodiversity monitoring specialists - International specialists cooperation	NZCS, CELOS, BBS, with relevant scientific institutes	Other relevant academic institutes, Min. LVV, Min. GBB-NB, SBB Min. ROM, NMA (NIMOS), ABS, existing international scientific partners (e.g. GBIF, ACTO Observatory), NGO's	$ 270,888	Cross-cutting enabling conditions for pathway 1-3
	4.4.16. Seek out and actively participate in specific international organizations / networks	Short-term	- Biodiversity-related scientific researchers and traditional knowledge	NZCS, CELOS, BBS, with relevant scientific institutes	Other relevant academic institutes, existing	$ 94,320	

	for exchange of knowledge and skills on biodiversity research		holders - International scientific networks and cooperation		international scientific partners (e.g. GBIF, ACTO Observatory, BGCI), ABS, ITP organisations		
	4.4.17. Increase capacity for genetic analysis and registration (barcoding) of organisms	Short-term	- Laboratory analysists - Genetic diversity specialists	BBS, NZCS, CELOS	Other relevant scientific institutes, SNRI-ADRON, research and data departments at Min. LVV and Min. GBB- NB	$ 206,700	
	4.4.18. Improve science-policy communication on biodiversity through documented regular national assessments of knowledge, status, trends and policy effectiveness of biodiversity and ecosystem services	Medium-term	- Science communication - Scientific publication specialists	NZCS, CELOS, BBS, with other relevant scientific institutes	Other relevant academic institutes, NGO's, ABS, National Planning Office	$ 268,290	

Target 4.5 Understanding linkages between biodiversity and climate change

As two of the main global crises humanity faces, it is important to understand the linkages between biodiversity loss and climate change in order to enhance synergies between policies and measures addressing those issues. Also in Suriname there is a need for better understanding of how climate change affects biodiversity, but also the importance and various ways in which rich and healthy biodiversity can support climate adaptation and resilience. From a global level perspective, this would entail the synergies between commitments under the UNCBD and the Paris Agreement. To translate this understanding into adequate policies and possibly efficient, synergetic funding, it is important to effectively coordinate at the higher policy level. The actions under this target focus on gaining a better understanding of the impact from climate change on biodiversity and identify potential synergies with actions related to financing, research and national mainstreaming of biodiversity.

Table 18 Strategic actions framework – target 4.5

4.5 Climate change and biodiversity synergies							
Strategic target	**Actions and interventions**	**Timeline**	**Required capacity**	**Lead responsible agency**	**Key partners**	**Estimated costs**	**Synergies**
4.5 There is increased understanding of the risks and impacts of climate change on terrestrial and	4.5.1. Conduct research into potential indicator species and ecosystems vulnerable to climatic change	Medium-term	- Ecology / species specialists - Climate scientists	NZCS, BBS, CELOS with Min. ROM	Other relevance AdeKUS institutes, research and data departments at	$ 159,360	Target 4.2 (Financing) Target 4.4 (Research,

marine biodiversity in Suriname and of how biodiversity can be integrated in climate adaptation strategies.					relevant Ministries, SBB, NGO's		monitoring, science-policy communication)
	4.5.2. Assess possible climate change related impacts on biodiversity with implications for wildlife harvesting and breeding season regulation adjustments	Medium-term	- Biodiversity specialists - Climate scientists	Min. GBB - NB	Min. LVV, Min. ROM, Min. NH, AdeKUS scientific institutes,	$ 337,890	Target 4.6 (Mainstreaming)
	4.5.3. Set up an interdisciplinary team to develop interventions integrating biodiversity conservation and climate adaptation strategies, and identify potential international financing mechanisms	Short-term	- Biodiversity policy specialists - Climate adaptation policy specialists - International environmental finance specialists	Min. ROM	Min. GBB, NGO's, NMA (NIMOS)	$ 161,928	SDG 13 SDG 14 SDG 15 NAP NDC

Target 4.6 Promoting national biodiversity integration and streamlining

The successful implementation of the updated NBAP requires stronger coordination across sectors and levels (streamlining) and general integration of biodiversity in various sectors outside of the environment and sustainability domain. This will be generally beneficial to the actions in the other pathways. In the current institutional context in Suriname, it is relevant e.g. to streamline between forest, nature and environmental policy and legal frameworks. This would not only benefit clarity of responsibilities, but also stimulate awareness of linkages between issues, efficient allocation of human and financial resources and more effective capacity strengthening (including institutional memory). To ensure successful implementation of the updated NBAP, it is essential to have a dedicated team in place tasked with monitoring and evaluating the implementation and liaising with the various key responsible agencies.

Table 19 Strategic actions framework – target 4.6

	4.6 National biodiversity integration						
Strategic target	**Actions and interventions**	**Timeline**	**Required capacity**	**Lead responsible agency**	**Key partners**	**Estimated costs**	**Synergies**
4.6 Suriname has harmonized environmental and economic policies and all	4.6.1. Engage with relevant government organisations to efficiently streamline nature and environmental management mandates and responsibilities in policy making	Short-term	- Environmental and Nature management policy specialist - Legal experts	Min. ROM in partnership with Min. GBB	NMA (NIMOS), Min. LVV, Min. NH National Planning Office	$ 58,680	Cross-cutting enabling conditions for pathway 1-3

relevant government-, civil society- and private sector organizations are involved in the NBSAP implementation.	4.6.2. Set up a coordinating government structure to: identify and streamline different international treaty obligations, responsibilities and national integration related to biodiversity and environment	Short-term	- International environmental policy specialists - Legal experts	Min. ROM	Min. GBB, Min. LVV, Min. NH, Min. BIBIS, Min Fin, NMA (NIMOS),	$ 336,780	Target 4.1 (Capacity strengthening) Target 4.2 (Financing) Target 4.3 (Awareness and education) Target (4.5) (Climate and biodiversity) Target 4.8 (SDG's and biodiversity) SDG 13 SDG 14 SDG 15 SDG 17
	4.6.3. Facilitate regular coordination between national climate change and biodiversity focal points to enhance synergies	Short-term	- Biodiversity policy specialists - Climate change policy specialists	Min. ROM in partnership with Min. GBB	NMA (NIMOS), Min. BIBIS, Min. Fin	$ 91,608	
	4.6.4. Set-up a dedicated unit for monitoring, evaluating and coordinating the implementation of the updated NBSAP	Short-term	- Planning, monitoring, evaluation and learning specialists - Personnel tasked with monitoring NBSAP implementation	Min. ROM	NMA, National Planning Office	$ 1,240,980	

Target 4.7 Enhancing inclusive participation and gender-responsive actions

Key to the large endeavour of implementing the updated NBAP is inclusive participation and the incorporation of gender aspects. Structural participation processes or platforms are more beneficial than one-time or occasional engagement. Particular attention should be paid to the participation of indigenous and tribal communities due to the high direct relevance of many of the issues included in the NBAP for their living territory and way of life. Furthermore, it is also important to ensure fair participation of women and include grass root organisations and private sector companies as they are important for, respectively, designing and implementing effective policies and addressing threats to biodiversity. Lessons learned from existing initiatives such as the Inclusive Joint SDG program can be useful for informing the implementation of actions under this target. Furthermore, it is important to note that a gender-sensitive and ideally, a gender-responsive approach should be taken across all actions and targets (e.g. gender differences when examining sustainable use practices, promotion of gender equality and equity during capacity strengthening and fund mobilization actions, and the incorporation of relevant gender sensitive aspects when updating or formulating laws).

Table 20 Strategic actions framework – target 4.7

	4.7 Inclusive participation and gender equality						
Strategic target	**Actions and interventions**	**Timeline**	**Required capacity**	**Lead responsible agency**	**Key partners**	**Estimated costs**	**Synergies**

4.7 Suriname's biodiversity policies include gender-responsive actions and these are implemented through inclusive participation mechanisms, considering intersectionality and outcomes that effectively improve the situation of vulnerable groups, including indigenous and tribal peoples, women and youth.	4.7.1. Co-develop a structural, inclusive public-ITP partnership for participation of ITP communities in biodiversity-related decision-making concerning their territories and communities, based on FPIC principles	Short-term	- Stakeholder engagement - Participation specialist - ITP communities specialist - Gender specialist	Min. ROS in partnership with ITP authority representatives (VIDS, KAMPOS, VSG, others) and organisations	Min. ROM, Min. GBB, Min. NH, SBB	$ 617,550	Cross-cutting enabling conditions for pathway 1-3 SDG 5 SDG 14 SDG 15
	4.7.2. Set up a flexible, structural platform for public-private-civil society cooperation on environmental and biodiversity related issues	Short-term	- Stakeholder engagement specialists - Communication specialist	Min. ROM	Min. GBB, Min. LVV, Min. BiZa – Gender Bureau, ITP authority representatives (VIDS, KAMPOS, VSG, others) and organisations, NGO's, Business Platforms	$ 144,708	
	4.7.3. Discuss the incorporation of relevant questions on gender and biodiversity in the national census to gather gender-specific data	Short-term	- Gender specialist - Biodiversity specialist	Min. BiZA – Gender Bureau in partnership with Min. ROM	ABS, AdeKUS-IWGDS	$ 45,034	
	4.7.4 Compile existing information (reports, assessments) related to gender and biodiversity access, use and management	Short-term	- Gender specialist - Biodiversity specialist	Min. BiZa- Gender Bureau in partnership with ABS	Min. ROM, AdeKUS-IWGDS, NGO's	$ 91,608	
	4.7.5. Facilitate gender-specific assessments of ecosystem services access, use and management	Medium - term	- Gender specialist - Ecosystem services specialist	Min. BiZa – Gender Bureau in partnership with Min. ROM	AdeKUS- IWGDS	$ 415,020	

Target 4.8 Promoting synergies between biodiversity and the SDG's

The timeframe for achieving the SDGs and the GBF targets are more or less similar: 2030. Aside from that, there are many important benefits between biodiversity and various aspects of human and environmental wellbeing as reflected in the SDG's. The updated NBS highlights the different ways in which biodiversity is relevant to the SDGs. Promoting synergies between biodiversity and the SDG's can also be beneficial for funding sources.

Table 21 Strategic actions framework – target 4.8

	4.8 SDGs and biodiversity synergies						
Strategic target	**Actions and interventions**	**Timeline**	**Required capacity**	**Lead responsible agency**	**Key partners**	**Estimated costs**	**Synergies**
4.8 There is increased understanding of the synergies between biodiversity protection and achieving the SDG's in the Surinamese context, for efficient measures, monitoring and financing.	4.8.1. Formalize collaboration of UNCBD national focal point with SDG Country Commission (SDG National Commission + National SDG Platform) to enhance synergies in achieving targets and accessing finance	Short-term	- SDG specialist - Biodiversity specialist - Personnel tasked with coordinating between the SDGs and biodiversity	National SDG Committee in partnership with Min. ROM	Min. Fin, Min. BIBIS, NGO's, private sector platforms	$ 144,708	Cross-cutting enabling conditions for pathway 1-3 Target 4.2 (Financing)

2.5 Financial overview and funding opportunities

Table 22 Estimated costs per target and potential funding sources

Target		Estimated Cost	Potential funding sources
Strategic pathway 1		**$ 8,318,088.00**	
1.1.	Terrestrial, marine and wetland protected areas in Suriname comprise 30% of the total area and are effectively managed, including in the EEZ, covering unique and vulnerable ecosystems in all parts of the country	$ 2,303,580.00	Government of Suriname, SCF, GEF, NGO network, Caribbean Biodiversity Fund, Global Biodiversity Framework Fund (GBFF), EU
1.2	Suriname has initiated ecological restoration and rehabilitation of degraded, polluted or depleted terrestrial, marine and aquatic ecosystems using evidence-based procedures, norms and national guidelines	$ 2,570,022.00	Government of Suriname, SCF, Private sector funds, NGO network, Global Biodiversity Framework Fund (GBFF)
1.3	Suriname effectively protects endangered animal and plant species through coordinated management and monitoring systems and has the required technical and financial capacity for the enforcement of wildlife trade regulations.	$ 1,755,360.00	Government of Suriname, NGO network, US Embassy, Global Biodiversity Framework Fund (GBFF), EU
1.4	Suriname has increased awareness and developed early detection and management systems for preventing the introduction of exotic species and reducing the risks and impact from invasive species.	$ 1,689,126.00	Government of Suriname, Caribbean Biodiversity Fund, Global Biodiversity Framework Fund (GBFF)
Strategic pathway 2		**$ 15,738,738.00**	
2.1	Suriname has adopted terrestrial and marine spatial planning laws and regulations, including zoning and integrated management plans, to minimize unsustainable ecosystem conversion or degradation	$ 1,609,410.00	Government of Suriname, IDB, World Bank
2.2	Suriname has reduced the risks of pollution of ecosystem from various sectors through established national environmental quality standards, integrated waste management- and monitoring systems in line with national legislation	$ 3,274,530.00	GEF, UNDP, Government of Suriname, Private sector, WB
2.3	Suriname enforces the sustainable exploitation of biodiversity in land-,sea- and freshwater use economic sectors through responsible practices and technologies, in line with sound land use planning and zoning	$ 8,188,926.00	Government of Suriname, GEF, NGO network, FAO/WECAFC, CRFM, CeDePesca, IDB, UNDP, ACTO, (climate) Adaptation Fund
2.4	Based on increased evidence-based understanding on ecosystem services, Suriname's public, private and societal organizations incorporate nature-based solutions in urban planning, climate resilience, food production systems and the development of sustainable livelihood options.	$ 1,286,784.00	NGO network, IDB, GEF, EU, WB,
2.5	Suriname has set priorities and developed a plan for phasing out or reforming subsidies and incentives for the private sector that are harmful for biodiversity and for regulating incentives in favor of conservation and sustainable use of biodiversity including transparency and compliance.	$ 1,379,088.00	Government of Suriname, Private sector, UNDP
Strategic pathway 3		**$ 4,938,606.00**	
3.1	The collective traditional knowledge and associated intellectual rights of indigenous and tribal communities are recognized in Suriname's legislation	$ 741,336.00	Government of Suriname, UNDP, Network of ITP organisation funders, NGO network, Global Biodiversity Framework Fund (GBFF)
3.2	Indigenous, tribal and other local communities have capacities and respected structures for protecting their traditional knowledge and managing community territory biological resources	$ 1,699,530.00	UNDP, Network of ITP organisation funders, NGO network, Global Biodiversity Framework Fund (GBFF)

3.3	The access and benefit sharing provisions of the UNCBD are incorporated in national legislation and transparent procedures for bioprospecting, and fair and equitable sharing of benefits, recognizing the rights, including intellectual property rights, of all Surinamese citizens	$ 2,497,740.00	Government of Suriname, UNDP, Network of ITP organisation funders, NGO network, Global Biodiversity Framework Fund (GBFF)
Strategic pathway 4		**$14,012,332.00**	
4.1	The capacity of Suriname's institutions and relevant groups are strengthened for effective management, monitoring and evaluation, technical cooperation, fund mobilizing and science-policy communication of the NBSAP implementation.	$ 1,097,502.00	Government of Suriname, SCF, UNDP, GEF,
4.2	Suriname has increased its national budget for biodiversity-related policy areas, and has improved knowledge of and access to international finance, including innovative schemes such as payment for ecosystem services and biodiversity offsetting, and synergies with climate financing.	$ 1,257,654.00	Government of Suriname, UNDP, GCF, GEF,
4.3	The importance of biodiversity and the nature-human relationship are structurally integrated in Suriname's education curricula for elementary and middle school, and in awareness campaigns on related issues.	$1,644,522.00	Government of Suriname, GEF-SGP, Caribbean Biodiversity Fund
4.4	Increased Surinamese scientific research, including community-based research, is published, linked to national databases, and contributes to credible and legitimate knowledge on Suriname's biodiversity in the broadest sense.	$ 6,435,090.00	GEF, UNDP, Global Biodiversity Framework Fund (GBFF), Network of academic institutions and funding partners, EU
4.5	There is increased understanding of the risks and impacts of climate change on terrestrial and marine biodiversity in Suriname and of how biodiversity can be integrated in climate adaptation strategies.	$ 659,178.00	UNDP, GCF, Network of academic institutions and funding partners, EU
4.6	Suriname has harmonized environmental and economic policies and all relevant government-, civil society- and private sector organizations are involved in the NBSAP implementation.	$ 1,728,048.00	Government of Suriname, SCF, UNDP, Global Biodiversity Framework Fund (GBFF)
4.7	Suriname's biodiversity policies include gender-responsive actions and these are implemented through inclusive participation mechanisms, considering intersectionality and outcomes that effectively improve the situation of vulnerable groups, including indigenous and tribal peoples, women and youth.	$ 1,313,920.00	UNDP, Network of ITP organisation funders, NGO network, Private sector,
4.8	There is increased understanding of the synergies between biodiversity protection and achieving the SDG's in the Surinamese context, for efficient measures, monitoring and financing.	$ 144,708.00	Government of Suriname, SDG Fund, Private Sector, UNDP
	TOTAL	**$14,280,622.00**	

2.6 Implementation of NBSAP

The immediate implementation of the NBSAP relies strongly on the existing enabling conditions to achieve the biodiversity targets, especially the existing capacities, financial resources and awareness of key implementing bodies. A self-assessment of the existing resources in relation to the resources needed to implement the actions, is necessary for a swift implementation of the NBAP. This will not only finetune the timeline, but also highlight early projects and quick achievements. Having the key implementing partners sufficiently engaged from the start, mean they must be aware the priorities of the NBSAP and understand their respective roles. This will kickstarts the coordinated implementation and will require the development of an awareness and communication plan.

Looking at the financial resources, it is not only important to identify the budgets available for direct implementation. It will also be crucial to assess the interlinkages to be as efficient and effective as possible in the use of resources for the implementation of actions in achieving results. For this, a comprehensive analysis of financial flows is necessary, looking at the integration of different funding sources (government, non-government and private) and the linkages of different actions.

Furthermore, during the overall implementation of the NBSAP, it will be useful to for partnerships that systematically support the implementation. Programs such as the NBSAP Accelerator Partnership provides access to technical and financial support, by supporting the NBSAP process, technical and institutional capacities, access to finance, aligning financial flows, knowledge management and raising the NBSAP profile.

3 Monitoring and Evaluation

The monitoring and evaluation framework for the updated NBSAP is based on achieving progress toward the targets; it does not specify detailed indicators for each individual action. That level of detail can be added during NBSAP implementation through multiple financed projects and programs. The presented framework below does provide a structure for monitoring overall NBSAP implementation. A few assumptions when creating the framework are that monitoring and evaluation will occur on an annual basis during the full implementation period of the updated NBAP; and that the information structure will also help provide relevant information for reporting obligations. The components in the monitoring framework are as follows:

1. **Strategic target** – Targets as detailed in the updated NBS under each strategic pathway and elaborated with actions in section 2 of the NBAP
2. **Baseline description** – A (brief) description of the current situation with regard to the target
3. **Progress indicators** – Intermediate outcomes indicating progress toward achieving the target. Note that there is no column for providing verification of indicators, such as reports, legal documents etc. Such means of verification are assumed to be inherent to the indicator and added e.g. as annexes in monitoring or progress reports.
4. **Achieved outcomes in year x** – A brief description, yet as precise as possible of the outcomes achieved during the implementation year being evaluated (in terms of what or who has changed, when and where). Note that this does not refer to activities implemented (see #6) rather than the impacts as a result of those activities
5. **Level of significance** – Referring to the achieved outcomes (#4), a brief explanation of the significance of the achieved outcomes in relation to the strategic target (i.e. to what extent does the achieved outcome bring the country closer toward reaching the target).
6. **Contributing activities** – List in short the activities or interventions that were implemented that contributed to the achieved outcomes**.** Note that more than one activity can lead to an outcome and activities can contribute to more than one outcome.
7. **Obstacles encountered / needs identified** – A brief description of any challenges or obstacles encountered and additional needs identified during implementation.
8. **Key actors involved** – A listing of the main key actors involved for the achieved outcomes
9. **Headline, component and complementary indicators** - the various GBF monitoring indicators which may be relevant for national reports and submission of the updated NBSAP in the context of Suriname, in line with Conference of the Parties decision CBD/COP/15/5 regarding the GBF Monitoring Framework. (see also annex 1). Some targets do not yet have headline or other GBF indicators, but may still be added at a later stage as the Technical Expert Group on Indicators for the GBF develops additional indicators. In some cases in this column, alternative indicators were added based on other existing frameworks, such as the SDGs. This was indicated between brackets behind the indicator.

The monitoring and evaluation framework below provides only a basis for monitoring and evaluating the implementation of the updated NBAP. During actual implementation it is probable that individual targets or even actions are funded through separate projects or are part of a larger project. It can be relevant, also in light of national reporting, to, for example:

- Add further details to the baseline description
- Specify more smaller progress indicators of change, e.g. stakeholders have met, priorities have been listed, plans have been drawn up
- Include means of verification, e.g. outcome documents, provisions in updated laws, formally adopted policies, ministry budgets, meeting reports etc.
- Add information regarding how encountered obstacles were or are recommended to address
- Add any other remarks deemed necessary for learning and adaptive management of NBAP implementation

Table 23 Monitoring and evaluation framework for the updated NBSAP

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
Strategic Pathway 1 - Conservation of Biodiversity							
Strategic target 1.1 Terrestrial, marine and wetland protected areas in Suriname comprise 30% of the total area and are effectively managed, including in the EEZ, covering unique and vulnerable ecosystems in all parts of the country.							
Currently, protected areas in Suriname comprise 13% of the total surface area. There are currently no marine protected areas. The Nature Conservation Law (1954) and various management plans for protected areas require updating. The draft updated Nature Management Law (2018) is not yet approved. Financial resources and technical as well as field capacity for relevant institutions such as LBB/NB are not enough for adequate monitoring and enforcement.	1. Unique and vulnerable ecosystems needing protection have been prioritized by all relevant stakeholders						Main relevant GBF targets 3, 8, 11 *Relevant headline indicators* - 3.1 Coverage of protected areas and other effective conversation measures (OECMs) - B.1 Services provided by ecosystems *Relevant component indicators* - Protected area coverage of key biodiversity areas - Protected Area Management Effectiveness (PAME) - The number of protected areas that have completed a site-level assessment of governance and equity (SAGE) - Species Protection Index *Relevant complementary indicators* - Status of key biodiversity areas - IUCN Green List of Protected and Conserved Areas, Red List of Ecosystems - Extent to which protected areas and other effective area based conservation measures cover key biodiversity areas that are important for migratory species - Coverage of protected areas and other effective area based conservation
	2. Co-management models for protected areas, after having been reviewed and revised by right- and stakeholders, are broadly supported.						
	3. The new Nature Management Law is revised, incorporating broadly supported co-management models						
	4. The updated Nature Management Law and its implementation decrees are approved by Parliament						
	5. Legislation establishing new protected areas, terrestrial and marine, has been approved						
	6. The Integrated Coastal Zone Management plan has been updated and a program management unit for its implementation has been established.						
	7. Management plans for protected areas (old and new) have been updated.						
	8. Budget (financial resources) of NB has increased						

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
	9. Required additional personnel, skills and materials for monitoring and enforcement of protected areas legislation are present in NB.						measures and traditional territories (by governance type) - National legislation, policies or other measures regarding free, prior and informed consent related to conservation - Proportion of bodies of water with good ambient water quality
Strategic target 1.2 Suriname has initiated ecological restoration and rehabilitation of degraded, polluted or depleted terrestrial, marine and aquatic ecosystems using evidence-based procedures, norms and national guidelines							
There are no legal or policy requirements for restoration or rehabilitation of ecosystems following harmful activities. There are no public led pilot projects targeting restoration or rehabilitation. It is unclear whether there is any research done regarding restoration of damaged, depleted or degraded ecosystems.	1. Locations and extent of degraded, polluted or depleted ecosystems are identified and prioritized according to agreed upon criteria.						*Main relevant GBF targets 2, 11* *Relevant headline indicators* - 2.2 Area under restoration - B.1 Services provided by ecosystems *Relevant component indicators* Maintenance and restoration of connectivity of natural ecosystems *Relevant complementary indicators* - Proportion of bodies of water with good ambient water quality - Change in the quality of inland water ecosystems over time - Increase in secondary natural forest cover - Percentage of cropped landscapes with at least 10 per cent of natural land - Priority retention of intact/ wilderness areas - Status of key biodiversity areas
	2. A general policy framework has been adopted for procedures on restoration and rehabilitation of terrestrial, marine and aquatic ecosystems.						
	3. Develop science-based specific rehabilitation protocols for degraded, polluted, and depleted ecosystems and key species following destructive activities, e.g. mining						
	4. Adjust land-, and sea- and aquatic use sectoral policies and regulations to incorporate ecological restoration and rehabilitation						
	5. Finalize draft mining law in light of responsible practices, reducing negative impact on biodiversity and the environment, and destruction and pollution rehabilitation, and submit for approval						

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
	6. Restore and/or rehabilitate prioritized areas, ecosystems or species						
Strategic target: 1.3. Suriname effectively protects endangered animal and plant species through coordinated management and monitoring systems and has the required technical and financial capacity for the enforcement of wildlife trade regulations.							
Wild animal and plant species in Suriname are under threat of habitat destruction (e.g. by mining, logging, urbanisation) and overexploitation. The extent of these threats is not always quantified and data on population numbers are often lacking. The legal framework for protecting endangered species is outdated, and collaborations between various public organisations such as law enforcement, forest officers, game wardens, and customs require more investments to function optimally.	1. Legal framework for protecting, sustainably harvesting and trading of wild animals and plants has been evaluated and recommendations for updates provided 2. Various laws and regulations for protecting, sustainably harvesting and trading of wild animals and plants have been updated and approved by Parliament.						*Main relevant GBF targets 4,5* *Relevant headline indicators* - A.3 Red List Index - A.5 Proportion of population within species with an effective size>500 - 5.1 Proportion of fish stocks within biologically sustainable levels *Relevant component indicators* *- Living Planet index for used species* - Species habitat index - Biodiversity habitat index - Red List Index for used species - Sustainable use of wild species - Trends in effective and sustainable management of human-wildlife conflict and coexistence *Relevant complementary indicators* - Number of threatened species by species group - Marine/Species richness - Mean Species Abundance (MSA) - Species Protection Index - Species Status Index - Proportion of populations maintained within species - Proportion of legal and illegal wildlife trade consisting of species threatened with extinction
	3. The collaborative assessment of the state of and (external) pressures on biodiversity in indigenous and tribal community territories on which communities depend is complete						
	4. The extent of threats to endangered and vulnerable species has been quantified 5. Management actions for addressing threats to endangered and vulnerable species are incorporated in policies						
	6. The assessment of the impact of the wildlife trade, including spin-off effects, on biodiversity and endangered species is complete						
	7. Sanctions for poaching and illegal wildlife trade have been revised after evaluation						

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
	8. Human, financial, technical and material capacity of LBB/NB has been strengthened						- Illegal trade by CITES species classification - Implementation of measures designed to minimize the impacts of fisheries and hunting on migratory species and their habitats
	9. Cooperative structures between organisations have been established for effective enforcement of relevant laws and illegal trade						
	10. Potential risks and benefits, feasibility and required conditions for captive breeding programs of endangered or threatened wildlife have been systematically identified						
Strategic target 1.4 Suriname has increased awareness and developed early detection and management systems for preventing the introduction of exotic species and reducing the risks and impact from invasive species							
According to the 6th national report to the CBD, Existing information regarding invasive alien species in Suriname dates back more than five years. It is unclear to what extent the Plant Protection Act (1965) contains sufficient provisions to address current and prevent potential risks from invasive alien species. Adequate institutional structure and division of responsibilities for regulating risks and impacts from invasive alien species is lacking.	1. Assessment on the introduction, spread and impact of invasive alien plant and animal species on local ecosystems is complete, including the extent, challenges and opportunities						*Main relevant GBF target 6* *Relevant headline indicator* 6.1 Rate of invasive alien species establishment *Relevant component indicator* - Rate of invasive species impact and rate of impact - Rate of invasive alien species spread - Number of invasive alien species introduction events *Relevant complementary indicator* - Number of invasive alien species in national lists as per the Global - Register of Introduced and Invasive Species - Trends in abundance, temporal
	2. Inventory on invasive alien species and risks in Suriname is up to date						
	3. Legislation has been updated or developed to adequately regulate registration, monitoring and control of invasive alien species and associated risks						
	4. Policies and measures are in place for managing risks and addressing negative impacts from invasive alien species on local ecosystems						

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
	5. Systems are in place for early detection and monitoring of invasive alien species and associated risks						occurrence, and spatial distribution of non-indigenous species, particularly invasive, non-indigenous species, notably in risk areas - Red List Index (for invasive species)
	6. A structural network is established to coordinate and collaborate for reducing risks and addressing negative impact from invasive alien species						
Strategic Pathway 2 – Sustainable use of biodiversity							
Strategic target 2.1 Suriname has adopted terrestrial and marine spatial planning laws and regulations, including zoning and integrated management plans, to minimize unsustainable ecosystem conversion or degradation.							
Spatial planning legislation is being prepared, and an accompanying stakeholder consultation process is expected to be implemented. The law and associated legal documents are yet to be submitted to Parliament and formalized. Data to inform the formalization of marine spatial planning is available to some extent from previous projects on the subject. Existing legislation contains provisions for marine/fisheries zoning, but the legal framework might require expansion/updating to enable integrated marine spatial	1. Human and technical capacity at the dedicated institutions has been expanded for the integration of biodiversity-related aspects in spatial planning and zoning on land and in the sea.						*Main relevant GBF targets 1* *Relevant headline indicator* 1.1 Percent of land and sea area covered by biodiversity-inclusive spatial plans A.1 Red List of Ecosystems A.2 Extent of natural ecosystems *Relevant component indicators* Priority retention of intact/ wilderness areas *Relevant complementary indicators* - Percentage of spatial plans utilizing information on key biodiversity areas - Habitat patches located within marine protected areas or integrated coastal zone management (ICZM)
	2. The law on spatial planning is submitted to Parliament and its approval forthcoming.						
	3. Implementation decrees for the national law on spatial planning contain provisions related to areas of high/unique biodiversity importance and principles of integrated water resource management and are approved.						

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
planning. There is currently no explicit link between spatial planning, important biodiversity aspects (e.g. high biodiversity zones, corridors and buffer zones).	4. Final land zoning policy, based on zoning standards incorporate aspects related to intact critical biodiversity areas healthy living environments and controlling the agriculture frontier.						- Other spatial management plans (not captured as ICZM or marine spatial planning) - Proportion of transboundary basin area with an operational arrangement for water cooperation - Ecosystem integrity index - Proportion (extent) of natural ecosystems by type
	5. Recommendations for legislation on marine spatial planning are provided based on available data and evaluation of the Law on Maritime Zoning (Wet Maritieme Zones) 6. Marine spatial planning law and policies are developed						
Strategic target 2.2 Suriname has reduced the risks of pollution of ecosystem from various sectors through established national environmental quality standards, integrated waste management- and monitoring systems in line with national legislation							
The Environmental Framework Act mentions environmental quality and contamination, but environmental quality requirements and safety standards are yet to be established and formalized in legal orders. The lack of such benchmarks is a challenge for enforcement and for controlling pollution and contamination risks. There is no comprehensive overview of the various sources of pollution (risk). Available data on the state of ecosystems with	1. The range of relevant policies and responsibilities with regard to waste- and pollution management are identified and streamlined between institutions 2. Inter-ministerial, interdisciplinary pollution taskforce is set up						*GBF target 7* *Relevant headline indicator* 7.2 Pesticide environment concentration *Relevant component indicators* - Fertilizer use - Floating plastic debris density (by micro and macro plastics) *Relevant complementary indicators* - Hazardous waste generation - Trends in the amount of litter, including microplastics, in the water column and on the seafloor - Plastic debris density
	3. The nationwide state of polluted and contaminated ecosystems has been systematically and quantitatively assessed. 4. Point- and non-point sources of pollution and contamination risks to ecosystems have been identified.						

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
regard to pollution and contamination differs per pollutant (e.g. mercury, cyanide, plastic and solid waste, pesticides). Integrated plans for managing waste, preventing and addressing pollution risks are yet to be developed.	5. Priorities for ecosystem remediation and reduction of pollution risks have been set.						- Underwater noise pollution - Name, amount/ volume/ concentration of highly hazardous pesticides by type (per land/marine area) - Pesticide use per area of cropland
	6. An integrated waste management and pollution remediation plan(s) has been developed.						
	7. Regulations are developed and approved for the coordinated management of plastic pollution impact on marine and aquatic ecosystems.						
	8. Evidence-based national environmental quality standards are adopted and regularly monitored for high-risk pollutants.						
	9. The import list of hazardous objects, substances are evaluated and revised 10. National safety standards for the use of hazardous objects, substances and organisms are developed.						
	11. Human/financial/technical (as needed) capacity is increased for enforcement of allowed import and use of hazardous objects, substances and organisms.						
	12. Contamination with hazardous substances and organisms in						

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
	protected areas is inspected and remediated.						
	13. The national biosafety framework has been updated 14. A regional response (plan/system) to transboundary pollution on land and sea has been developed						
Strategic target 2.3 Suriname enforces the sustainable exploitation of biodiversity in land-, sea- and freshwater use economic sectors through responsible practices and technologies, in line with sound land use planning and zoning							
Forestry In recent years the forestry institutions have been actively working on developing and upgrading systems for improving the sustainability of the forest sector. The Code of Practice (2011) is not yet formalized by law (1992) and requires updates in light of new logging techniques that minimize CO_2 emissions, impact on biodiversity and forest degradation. There are no local studies or policies with regard to active restoration of degraded forest landscapes. The current system of community forest concessions leaves room for unsustainable practices and is in conflict with the pending law on	1. The Code of Practice for the forestry sector has been updated, incorporating biodiversity aspects into reduced-impact logging, the production of minor and non-timber forest products, and tree diversity restoration						*Main relevant GBF targets 10, 11* *Relevant headline indicators* - 10.1 Proportion of agricultural area under productive and sustainable agriculture (in the context of agroforestry and plantations) - 10.2 Progress towards sustainable forest management - B.1 Services provided by (forest) ecosystems *Relevant component indicators* - Red List Index for used species - Area of forest under sustainable management: total forest management certification (*proportion of certified forest management area) - Average income of small-scale timber and non-timber forestry producers, by sex and indigenous status (non-GBF indicator)
	2. The system of community forest concessions has been critically evaluated in light of negative impact on regeneration and tree species diversity						
	3. The Forest Management Law (1992) has been revised with regard to community forest concessions, the updated Code of Practice, NTFP production, sustainability incentives, restoration and certification						

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
collective rights for ITP's. It is unclear to what extent the private sector is aware of the larger benefits from biodiversity-friendly value chains, and to what extent they are capable of implementing this.	4. The assessment of the negative impact of illegal logging and non-compliance on degradation of habitat quality for biodiversity is complete						- Living Planet Index for used species - Ecosystem services provided by forest ecosystems (non-GBF indicator) *Relevant complementary indicators* - Agrobiodiversity Index (in the context of swidden agriculture in forest landscapes) - Proportion of land that is degraded over total land area - Forestry Production & Trade (Wood Fuel) - Amount of carbon dioxide storage by forests of all types (non-GBF indicator)
	5. A national capacity building program targeting the private sector has been developed on the impact of the Roundwood value chain on biodiversity and transitioning to sustainable timber and ntfp value chains						
Fisheries The policy vision, status, and challenges with regard to the fisheries sector are elaborated in the fisheries management plan (2014-2018, 2021-2025). The link between these plans and the NBSAP has been established in the former, but can be better enacted upon. Some of the main challenges in the fisheries sector is controlling overexploitation and bycatch, and enforcement of regulations. Policies, licencing and monitoring systems have been evaluated and	6. Communication between focal points for the NBSAP and Fisheries Management Plan 2021-2025 has been established.						*Main relevant GBF targets 5, 11* *Relevant headline indicators* 5.1 Proportion of fish stocks within biologically sustainable levels - B.1 Services provided by (aquatic, marine and estuarine) ecosystems *Relevant component indicators* - Red List Index for utilizeed species - Average income of small-scale food producers, by sex and indigenous status - Living Planet Index for used species *Relevant complementary indicators*
	7. Relevant policies are adopted with regard to licensing, bycatch, fishing techniques and vessel monitoring systems, in light of risks of overexploitation and negative impacts on marine biodiversity						
	8. The classification of artisanal fishery has been evaluated in light of sector impact and sustainable exploitation levels						

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
recommendations provided are to be implemented. It is unclear whether	9. Technical capacity at the Ministry department has been increased for data collection, modelling and analysis of fish stocks and breeding/spawning grounds 10. The Ministry department is able to determine sustainable harvesting quotas, and rehabilitation and zoning policies, supported by data being collected.						- By-catch of vulnerable and non-target species (e.g. marine turtles in the context of Suriname) - Degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing - Proportion of local breeds classified as being at risk of extinction - Maximum fish catch potential - Proportion of fish stocks within biologically sustainable levels (SDG indicator 14.4.1) - Combatting illegal, unreported and unregulated (IUU) fishing (SDG indicator 14.6.1) - Proportion of annual catch relative to maximum annual allowable catch, based on sustainable harvest potential (non-GBF indicator)
	11. Fisheries zoning and licensing regulations have been updated in light of conflicts and overexploitation						
	12. Capacity of government organisations for monitoring, enforcement and control in marine and aquatic fisheries has been increased						
Agriculture The agriculture sector in Suriname is seen as a promising sector for economic development in Suriname. The Agriculture Master Plan 2016-2030 sets out basic lines for agriculture development, but has so far not resulted in concrete steps or policies toward policies and actions that enhance sustainable agriculture.	13. The effectiveness of the Agriculture Master Plan in light of environmental and native biodiversity impact has been evaluated						*Main relevant GBF targets 10, 11* *Relevant headline indicators* - 10.1 Proportion of agricultural area under productive and sustainable agriculture - 10.2 Progress towards sustainable forest management - B.1 Services provided by ecosystems *Relevant component indicators* - Red List Index for used species
	14. Policies have been developed with regard to environmentally and biodiversity friendly practices						
	15. Laws that define and enhance sustainable agriculture, agroforestry, agro-ecological						

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
Current legislation does not provide incentives for practices such as permaculture and agroforestry. In addition, structural extension programs that could help amplify such practices are lacking. It is unclear to what extent laws on the introduction and use of pesticides, GMO's and exotic varieties are enforced. A 10-year project, started in 2021, in which SNRI-ADRON is participating: Biodiversity for Opportunities, Livelihoods and Development.	principles have been formulated and submitted for approval 16. A law that regulates standards for the use of pesticides has been formulated and submitted for approval						- Area of forest under sustainable management: total forest management certification - Average income of small-scale food producers, by sex and indigenous status - Plant genetic resources for food and agriculture (SDG indicator 2.5.1.a) - Animal genetic resources for food and agriculture (SDG indicator 2.5.1.b) *Relevant complementary indicators* - Agrobiodiversity Index - Proportion of local breeds classified as being at risk of extinction - Proportion of land that is degraded over total land area - Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale - Green status index (pollinators) - Proportion of agricultural area under productive and sustainable agriculture (SDG indicator 2.4.1)
	17. Structural information sharing and extension programs on sustainable agriculture practices and agrobiodiversity are developed/ strengthened and running in all districts						
	18. The state of use of GMO's and exotic varieties, and the risks to (agro)biodiversity have been assessed						
	19. A coordinated governance structure has been set up for the registration, monitoring and enforcement of responsible use of GMO's and the introduction of exotic varieties						
	20. Laws and regulations on the import and use of GMO's have been revised and approved to protect native genetic resources						
Tourism Tourism is a sector still considered central to sustainable economic development in Suriname, utilizing the products	21. A strategic environmental and social assessment for nature tourism development have been conducted in light of negative bio- and cultural diversity impact						*Main relevant GBF targets 10, 11* *Relevant headline indicators* - 10.2 Progress towards sustainable forest management (in light of

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
and services provided by biodiversity for promoting nature tourism. In 2023 the Tourism Law has been approved and the National Tourism Authority has been established to regulate and develop the sector. The National Strategic Tourism Plan 2018-2030 provides the direction for developing tourism in general, but substantial aspects for sustainably developing nature tourism specifically are yet to be further elaborated in definitions, policies, and national standards among others.	22. Provisions on responsible nature tourism and the reduction of biodiversity risks have been incorporated in the implementation decrees for Tourism Framework Law and the Tourism Authority Law						sustainable nature tourism)- B.1 Services provided by ecosystems *Relevant component indicators* - Red List Index for used species - Average income of small-scale food producers, by sex and indigenous status - Immaterial ecosystem services provided by natural areas for tourism (non-GBF indicator) *Relevant complementary indicators* - Ecological Footprint - Visitor management assessment - Willingness to pay for certified/responsible nature tourism activities (non-GBF indicator)
	23. A national definition of nature tourism has been adopted						
	24. The process has started for developing nature tourism sustainability standards to protect biodiversity and ecological integrity 25. Nature tourism sustainability standards have been incorporated in technical regulations						
	26. The development of plans and incentives has started with regard to training and certification based on nature tourism sustainability standards						
Strategic target 2.4 Based on increased evidence-based understanding on ecosystem services, Suriname's public, private and societal organizations incorporate nature-based solutions in urban planning, climate resilience, food production systems and the development of sustainable livelihood options.							
An general ecosystem services assessment was conducted in Suriname in 2020-2022 as part of the Ecosystem Services Observatory project. Natural capital accounting is a novel concept in Suriname but is becoming more relevant with	1. A national ecosystem services assessment and valuation has been reviewed and updated in light of international financing mechanisms						*GBF targets 11, 12* *Relevant headline indicators* - B.1 Services provided by ecosystems - 12.1 Average share of builtup area in cities that is green/blue space for public use by all
	2. A preliminary system for natural capital accounting has been developed as part of a pilot						

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
increasing talks commodification of ecosystem services and natural resources, in particular carbon sequestration. There are ad hoc or independent initiatives focused on showing the importance of certain ecosystem services or exploring ways to incorporate these, e.g. coastal protection by mangroves, urban heat and stormflow mitigation through urban green spaces. But there is no compilation or synthesis of such initiatives that provides clear and concrete input for incorporation into planning processes and policies.	3. An assessment has been completed on how relevant ecosystem services and nature-based solutions can be incorporated in policies for urban planning, infrastructure development, pollution management, climate adaptation and other relevant planning processes 4. Recommendations are provided for practically integrating ecosystem services and nature-based solutions in e.g. urban planning, infrastructure development, flood risk management, climate adaptation.						*Relevant component indicators* - Number of directly affected persons by natural disasters per 100,000 population - Recreational and cultural ecosystem services provided *Relevant complementary indicators* Natural capital accounts used in planning processes
2.5 Suriname has set priorities and developed a plan for phasing out or reforming subsidies and incentives for the private sector that are harmful for biodiversity and for regulating incentives in favour of conservation and sustainable use of biodiversity including transparency and compliance.							
To be assessed during implementation.	1. Local companies have built the capacity to fulfil their role in ESIA's with regard to biodiversity dependency and impact						*GBF targets 15, 16, 18* *Relevant headline indicators* - 15.1 Number of companies reporting on disclosures of risks, dependencies and impacts on biodiversity - 18.1 Positive incentives in place to promote biodiversity conservation and sustainable use - 18.2 Value of subsidies and other incentives harmful to biodiversity that have been eliminated, phased our or reformed
	2. Existing incentives that are harmful for biodiversity and opportunities for positive incentives have been assessed						
	3. Legal, policy and tax incentives developed for the private sector to minimize their negative impact on biodiversity and environment						

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
	4. National standards for 'green labelling' of biodiversity responsible products have been developed						*Relevant component indicators* - Value of subsidies or other incentives harmful to biodiversity, that are redirected, repurposed or eliminated *Relevant complementary indicators* - Number of companies publishing sustainability reports - Biodiversity-relevant taxes, charges and fees
	5. Short courses on biodiversity and ecosystem services topics have been developed for companies to promote green/ sustainability principles and sustainable consumption						
Strategic Pathway 3 – Fair and equitable ABS							
Strategic target 3.1 The collective traditional knowledge and associated intellectual rights of indigenous and tribal communities are recognized in Suriname's legislation							
There is currently no legislation protecting intellectual property rights and collective rights of ITP communities are not recognized, including their traditional knowledge that is closely associated with local ecology. Ad hoc initiatives in an attempt to define traditional knowledge and take further steps toward legislation, but no further developments were noted.	1. A national definition of traditional knowledge has been adopted following engagement with rights holders and stakeholders 2. Agreement has been reached on the necessary conditions for protecting traditional knowledge in light of using biodiversity and genetic resources						*Main relevant GBF targets 13, 21, 22* *Relevant headline indicators* - C.1 (monetary benefits received) - C.2 (non-monetary benefits) - 21.1 Indicator on biodiversity information for the monitoring the global biodiversity framework Relevant component indicators - Number of permits or their equivalents for genetic resources (including those related to traditional knowledge) by type of permit - Species Status Index - Proportion of total adult population with secure tenure rights to land, (a) with legally recognized documentation, and (b) who perceive their rights to land as secure, by sex and type of tenure *Relevant complementary indicators*
	3. Laws and regulations have been developed to protect traditional knowledge and intellectual property rights in light of using biodiversity and genetic resources						

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
							- Policy/legislation requiring free, prior and informed consent - Estimated percentage of monetary and non-monetary benefits directed towards conservation and sustainable use of biodiversity - Growth in species occurrence records accessible through the Global Biodiversity Information Facility - Land tenure [in the traditional territories] of indigenous peoples and local communities [by sex and type of tenure]
Strategic target 3.2 Indigenous, tribal and other local communities have capacities and respected structures for protecting their traditional knowledge and managing community territory biological resources							
Information sharing is suboptimal in ITP communities and general awareness regarding their rights and how to deal with external organisations can benefit from additional efforts to increase awareness, understanding and skills. ITP representative organisations are the main channel of support to communities from their worldview.	1. Capacity strengthening programs for local communities have been developed on topics such as rights, protecting traditional knowledge against exploitative and commercial biodiversity research, and data collection in indigenous and tribal territories 2. ITP authority representatives (VIDS, KAMPOS, VSG, others) and organisations have the resources and means to implement capacity strengthening activities in local communities.						*Main relevant GBF targets 13, 22* *Relevant headline indicators* - C.1 (monetary benefits received) - C.2 (non-monetary benefits) *Relevant component indicators* - Proportion of total adult population with secure tenure rights to land, (a) with legally recognized documentation, and (b) who perceive their rights to land as secure, by sex and type of tenure *Relevant complementary indicators* Land tenure [in the traditional territories] of indigenous peoples and local communities [by sex and type of tenure]
	3. ITP authority representatives (VIDS, KAMPOS, VSG, others) and organisations have the means and resources to work in communities on local governance and territorial						

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
	management in light of biodiversity conservation and sustainable use.						
Strategic target 3.3 The access and benefit sharing provisions of the UNCBD are incorporated in national legislation and transparent procedures for bioprospecting, and fair and equitable sharing of benefits, recognizing the rights, including intellectual property rights, of all Surinamese citizens							
There is no legislation with regard to bioprospecting, and it is unclear what the priority or plans are for developing this sector.	1. A plausible vision has been developed with regard to bioprospecting in Suriname as part of economic development. 2. The process of developing new laws on bioprospecting, access to and use of genetic resources has been initiated.						*GBF target 13* *Relevant headline indicators* - C.1 (monetary benefits received) - C.2 (non-monetary benefits) *Relevant component indicator* - Number of permits or their equivalents for genetic resources (including those related to traditional knowledge) by type of permit *Relevant complementary indicators* - Policy/legislation require prior informed consent that have published legislative, administrative or policy measures on access and benefit-sharing in the ABS - Published information on access and benefit-sharing procedures
	3. A dialogue has been started with regard to fair procedures and regulations for benefit sharing from the use of genetic material and associated traditional knowledge						
	4. Knowledge and awareness of government, private and civil society organisations on bioprospecting, fair access and equitable benefit sharing mechanisms has been increased						
Strategic Pathway 4 – Mainstreaming and enabling conditions							
4.1 The capacity of Suriname's institutions and relevant groups are strengthened for effective management, monitoring and evaluation, technical cooperation, fund mobilizing and science-policy communication of the NBSAP implementation.							
A national capacity assessment in light of biodiversity conservation and sustainable use, and the implementation of the NBSAP has not been done. A national capacity assessment was done in 2008 in more general nature-related	1. A biodiversity/NBSAP capacity needs assessment among government, private sector and civil society organisations has been completed						*GBF target 20* *Relevant headline indicator* No GBF headline indicator *Relevant component indicator*
	2. A general training program on conservation planning, ecosystem						

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
terms. In the current context (see NBS national context section) there is a need for capacity (re-)building.	services, nature-based solutions and natural capital accounting has been developed targeting policy makers and planners						*Relevant complementary indicators* Finance mobilized for capacity
	3. In-depth training on specific technical topics, based on capacity needs assessment has been developed for technical personnel						
	4. A collaboration has been established with trainers to regularly offer training to relevant policy makers, technical staff and other relevant private sector and civil society organisations						
	5. Government and other relevant organisations have the capabilities identifying and communicating their biodiversity-related needs to potential donors						
Strategic target 4.2 Suriname has increased its national budget for biodiversity-related policy areas, and has improved knowledge of and access to international finance, including innovative schemes such as payment for ecosystem services and biodiversity offsetting, and synergies with climate financing.							
There are no systems in place yet to directly distinguish which funds of the Ministry budget were allocated to biodiversity related activities. Steps are being taken to make it possible to earmark national budget lines and make it easier to report on thematic government expenditures. Accessing international finances is in some cases successful but too fragmented in terms of sharing	1. Human and technical capacity of government and other relevant organisations for efficient fund allocation and international biodiversity funds mobilization have been increased						*GBF target 19* *Relevant headline indicator* - D.1 International public funding, including official development assistance (ODA) for conservation and sustainable use of biodiversity and ecosystems - D.2 Domestic public funding on conservation and sustainable use of biodiversity and ecosystems - D.3 Private funding (domestic and international) on conservation and
	2. The capacity of scientific institutes for accessing international funding and financial resources for biodiversity research has been increased						
	3. Responsible actors and stakeholders are able to identify and						

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
capacities for accessing funds and efficiently mobilizing finances.	emphasize synergies between climate- and forest and biodiversity related issues for efficient financing and benefit sharing						sustainable use of biodiversity and ecosystems *Relevant component indicator* No GBF Relevant component indicator available *Relevant complementary indicator* - Financial and technical assistance provided in dollars - Volume of official development assistance flows for scholarships by sector and type of study
	4. A structural system or procedure has been created to coordinate across government for sharing policy priorities and efficiently allocating funds for biodiversity in annual budgets						
	5. A national nature and environment fund has been established with regulations designating a portion of extractive industries revenues to the fund						
	6. Concrete, strategic synergies have been formulated between biodiversity, forest, climate and SDGs when negotiating and applying for international financing mechanisms						
Strategic target 4.3 The importance of biodiversity and the nature-human relationship are structurally integrated in Suriname's education curricula for elementary and middle school, and in awareness campaigns on related issues.							
Topics related to nature are incorporated in elementary education during the 'nature lessons', with biodiversity incorporated under the topic environmental management. The curriculum is being revised with a focus on the broader scope of the SDGs, which includes aspects of nature and	1. Collaboration(s) with regional/ international organisations have been established to professionalize local institutes' capacity for nature education and information sharing						*Main relevant GBF targets 21* *Relevant headline indicator* 21.1 Indicator on biodiversity information for the monitoring the global biodiversity framework *Relevant component indicator* Extent to which (i) global citizenship education and (ii) education for
	2. Biodiversity and related cultural diversity are explicitly incorporated in educational curricula in local languages						
	3. Education material integrating lessons on biodiversity and						

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
biodiversity. Some aspects are also included in the basic life skills curriculum. In higher education and university level education, biodiversity is integrated in the curriculum on different levels, albeit implicitly (from the genetic to the ecological level). Awareness campaigns are ad hoc and may result in an overload of varying information, as a probable consequence creating noise and failing to sink in with audiences.	environment for elementary and middle school has been developed						sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (a) national education policies, (b) curricula, (c) teacher education and (d) student assessments *Relevant complementary indicator* - Biodiversity and sustainability lessons integrated in elementary, middle, and higher education curricula (Non-GBF indicator) - Teachers training in nature education (Non-GBF indicator) - Nature education policies (Non-GBF indicator)
	4. Environmental education is included in schools in the interior						
	5. Information campaigns on the impact of terrestrial activities on marine ecosystems have been developed, with resources and a plan for execution						
	6. Linkages between human consumption and production, conservation, human wellbeing, the SDGs and climate adaption important to educate the general public have been described 7. Holistic awareness campaigns on the ecological footprint and impact of humans' consumption and production choices on biodiversity have been launched.						
Strategic target 4.4 Increased Surinamese scientific research, including community-based research, is published, linked to national databases, and contributes to credible and legitimate knowledge on Suriname's biodiversity in the broadest sense.							
The scientific institutes linked to the Anton de Kom University of Suriname implement various research projects related to or relevant for biodiversity. In some cases, institutes are also approached by the government or civil society organisations to collaborate in projects containing a research component. A big	1. The whole of scientific institutes in Suriname have set national research agenda's for a) forestry research & innovation, b) agriculture & agronomy, c) marine biodiversity, d) nature tourism						*Main relevant GBF target 21* *Relevant headline indicator* No GBF headline indicator *Relevant component indicator* *Relevant complementary indicator (Non-GBF indicator)* - Growth in number of records and species in the Living Planet Index database
	2. Suriname's marine and terrestrial ecosystems and biodiversity are further described and assessed, building on existing knowledge						

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
challenge for the scientific institutes is access to funding, which is partly addressed by partnering with international scientific organisations in projects. There are also other organisations, mainly civil society organisations or research foundations that conduct research (e.g. environmental NGO's, or organisations such as Nikos). In light of enhancing knowledge, the number of scientific publications on Suriname's biodiversity and related issues is still limited. A biodiversity database is being developed, but it is not clear how existing challenges will be addressed to populate the database with legitimate, credible and salient data. In general, and partly as a consequence of this context, there is no clear scientific research agenda when it comes to biodiversity and related issues. This in turn makes it difficult to e.g. prioritize conservation action, establish sustainable use quota's, and develop (new) biodiversity-dependent sectors.	3. The pressures and impact on biodiversity and the sensitivity to these pressures are mapped on a national level						- Growth in species occurrence records accessible through the Global Biodiversity Information Facility - Growth in marine species occurrence records accessible through OBIS - Proportion of known species assessed through The IUCN Red List of Threatened Species - Number of assessments on The IUCN Red List of Threatened Species
	4. Overview of plant and animal species that are exploited commercially in the land- and sea use sectors						
	5. The spread and impact of invasive plant and animal species on local ecosystems have been mapped and assessed						
	6. A national biodiversity database is accessible, maintained and regularly updated						
	7. Studies are completed and published on the role and knowledge of women in biodiversity management, use and protection in Suriname and the gender specific impact of biodiversity changes						
	8. Scientific protocols for data collection and monitoring of biodiversity are developed and agreed upon by relevant stakeholders						
	9. Monitoring systems for biodiversity are in place for priority issues in relation to i) ecosystem state and impact from economic activities, and ii) wildlife species populations						
	10. A monitoring system is functioning for the use and risks of						

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
	exotic strains and varieties in agriculture and industry						
	11. Sustainable harvesting levels in the main land-, sea- and freshwater use sectors have been evaluated and established.						
	12. The capacity for genetic analysis and registration (barcoding) of organisms by local institutes has increased						
	13. Collaboration with leading regional or international scientific organisations have been established by local scientific institutes 14. Local institutes are better able to conduce scientific research, data sharing, monitoring and publishing on biodiversity						
	15. Participation of local researchers in international scientific networks and events on biodiversity has increased						
	16. A national assessment on the knowledge, status, trends and policy effectiveness of biodiversity and ecosystem services has been published targeting policy makers						
Strategic target 4.5 There is increased understanding of the risks and impacts of climate change on terrestrial and marine biodiversity in Suriname and of how biodiversity can be integrated in climate adaptation strategies.							
A lot of attention has gone out to climate change effects, impact, mitigation and adaptation in	1. Potential indicator species and ecosystems vulnerable to climate change have been identified						*Main relevant GBF target 8*

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
Suriname, with the development in recent years of the National Adaptation Plan, Nationally Appropriate Mitigation Actions (in the energy sector), the second Nationally Determined Contribution, and the Third National Communication. The international call to streamline efforts toward addressing the climate and biodiversity crises in a synergetic way has not yet translated to the national level in Suriname. Research on the linkages between climate, climate change and biodiversity is limited.	2. Climate change related impacts on biodiversity in Suriname have been assessed 3. Regulations on wildlife harvesting and breeding season indications are updated by incorporating climate change impact						*Relevant headline indicator* No GBF headline indicator *Relevant component indicator* - Number of countries that adopt and implement national disaster risk reduction strategies in line with the Sendai Framework for Disaster Risk Reduction 2015–2030 that include biodiversity *Relevant complementary indicator* *- Above-ground biomass stock in forests (tonnes/ha)* *- National greenhouse inventories from land use and land use change* *- Proportion of local governments that adopt and implement local disaster risk reduction strategies in line with national disaster risk reduction strategies* *- Number of least developed countries and small island developing States with nationally determined contributions, long-term strategies, national adaptation plans, strategies as reported in adaptation communications and national communications*
	3. An interdisciplinary team has been established to integrate biodiversity and climate change strategies 4. The interdisciplinary team has identified, discussed and recommended specific interventions to integrate biodiversity conservation and climate adaptation strategies, and efficiently use potential international financing						
Strategic target 4.6 Suriname has harmonized environmental and economic policies and all relevant government-, civil society- and private sector organizations are involved in the NBSAP implementation.							
There are various government institutes and organisations with	1. Nature and environmental management mandates and responsibilities in policy making have						*Main relevant GBF target 14*

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
mandates for environmental and nature management, but overlapping or lacking clarity regarding distinct responsibilities. The effective implementation of the NBSAP and mainstreaming of biodiversity in other sectors, there is a need for efficient use of human, technical and financial resources, and thus streamlining of these responsibilities in a structural way. Biodiversity is generally perceived as something separate from economic activities.	been streamlined between government bodies						*Relevant headline indicator* *No GBF headline indicator* *Relevant component indicator* *Relevant complementary indicator* - Number of countries that have adopted legislative, administrative and policy frameworks to ensure fair and equitable sharing of benefits (SDG indicator 15.6.1)
	2. A coordinating government structure has been set up to identify and streamline different international treaty obligations, responsibilities and national integration related to biodiversity and environment 3. Synergies have been identified between different international treaty obligations, responsibilities and national legal integration related to biodiversity and environment						
	4. Regular coordination between national climate change and biodiversity focal points takes place to enhance synergies						
	5. A dedicated unit for monitoring, evaluating and coordinating the implementation of the updated NBSAP has been set up						
Strategic target 4.7 Suriname's biodiversity policies include gender-responsive actions and these are implemented through inclusive participation mechanisms, considering intersectionality and outcomes that effectively improve the situation of vulnerable groups, including indigenous and tribal peoples, women and youth.							
There are currently no effectively functioning or structural platforms/ mechanism or none at all that enable participation by ITP's, civil society and the private sector. Inclusivity is pursued, but participation occurs mainly on an ad hoc, one-sided when needed	1. A structural and inclusive public-ITP partnership is established in light of ITP participation in biodiversity-related decision-making concerning their territories and communities						*GBF targets 22, 23* *Relevant headline indicators* *No GBF headline indicator* *Relevant component indicators* *Relevant complementary indicators* - Percentage of positions in national and local institutions, including: (a)
	2. A flexible, structural platform is established for public-private-civil society cooperation on environmental and biodiversity related issues						

Baseline description	Progress indicators (intermediate outcomes)	Achieved outcomes in year x	Level of signifi-cance	Contributing activities	Obstacles encountered/ lesson learned	Key actors involved	Relevant headline, component and complementary indicators
basis. The National Gender Vision Policy Document has been extended with an addendum regarding climate change and environment.	3. Relevant questions on gender and biodiversity are proposed and incorporated in the national census 4. Gender-sensitive data related to biodiversity has been collected through the national census						the legislatures; (b) the public service; and (c) the judiciary, compared to national distributions, by sex, age, persons with disabilities and population groups. - Systems to track and make public allocations for gender equality and women's empowerment
	5. Existing information (reports, assessments) related to gender and biodiversity access, use and management has been compiled and reviewed 6. Gender specific assessments of ecosystem services access, use and management have been conducted						
Strategic target 4.8 There is increased understanding of the synergies between biodiversity protection and achieving the SDG's in the Surinamese context, for efficient measures, monitoring and financing.							
An ongoing movement for supporting or working toward the SDG's is evident in the private sector. A national SDG platform and commission has been established, that published the first voluntary national report on the SDG's. There are still benefits to be explored from combining biodiversity and relevant SDG efforts.	1. A collaboration between the UNCBD national focal point and the SDG Country Commission (SDG National Commission + National SDG Platform) has been formalized 2. Synergies between SDG and biodiversity efforts, reporting and financing mechanisms have been identified						*GBF section D* *Relevant headline indicators* - D.1 International public funding, including official development assistance (ODA) for conservation and sustainable use of biodiversity and ecosystems - D.2 Domestic public funding on conservation and sustainable use of biodiversity and ecosystems - D.3 Private funding (domestic and international) on conservation and sustainable use of biodiversity and ecosystems

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Annex 1

TEMPLATE FOR SUBMISSION OF NATIONAL TARGETS AS PART OF NATIONAL BIODIVERSITY STRATEGIES AND ACTION PLANS[3] TOWARDS THE IMPLEMENTATION OF THE KUNMING-MONTREAL GLOBAL BIODIVERSITY FRAMEWORK

[3] This information will be collected through the online reporting tool and it will also be utilized in the national reporting template.

NATIONAL TARGETS

National target 1 **Full name/title of national target**	**Alignment with global goals and targets** ☐ Goal A ☐ Goal B ☐ Goal C ☐ Goal D ☐ Global target 1 ☐ Global target 2 … ☐ … ☐ Enabling conditions and/or other non-target elements of the Kunming-Montreal Global Biodiversity Framework *(Please specify)*	**Degree of alignment** ☐ High ☐ Medium ☐ Low ☐ High ☐ Medium ☐ Low ☐ … Explanation, including which aspects of the goal or target are covered *(optional)* _____ _____ _____	**Notes** *This table is to be repeated for each of the national targets.* *Please check all relevant national targets and indicate their degree of alignment with the global targets.* High = covers all elements of the global target; Medium = covers most elements of the global target; Low = covers at least one element of the global target
		Please outline the main policy measures or actions that will be taken to achieve this national target. *(optional)* _____ _____	
		Indicators to be used to monitor this national target Headline indicators *(drop-down menu of headline indicators for the global targets indicated above)* ☐ ☐ ☐ Component indicators *(drop-down menu of component indicators for the global targets indicated above)* ☐ ☐ ☐ Complementary indicators *(drop-down menu of complementary indicators for the global targets indicated above)* ☐ ☐	

	☐ Other national indicators ☐ _____ ☐ _____ ☐ _____ …	
	Non-State actor commitments *(optional)* List the non-state commitments towards this national Target: Are there any overlaps or links between this national target and targets or commitments submitted as non-State actor commitments to the Kunming-Montreal Global Biodiversity Framework? If "Yes", please indicate which commitment(s) and which actor(s).	*It is important to describe in this entry how the initiative involves the national Government and others. This box would be used to reduce double counting.*

GLOBAL GOALS/TARGETS

Global goals and targets	**National target(s) contributing to this global target**	**Elements of the global targets addressed by national targets**	**Notes**
Global goal or target (full name/title)	*(Automatically generated list from Party's input in the national targets table)*	*(Free text)*	*This table is to be repeated for each global goal and target* *Response is required for each of the global targets*
	Indicators used to assess the global goal or target *(Pre-populated from the indicators listed in the Party's input in the national targets table)* **Is there a reference period and national target which relates to the headline indicator? If yes, Explanation *(optional)*** _____		*Note that the headline indicator for each goal or target should be included in the list of indicators and associated with a relevant national target.*