

A photograph of a man and a woman in swimwear standing on a rocky waterfall in a lush forest. The man is on the left, wearing blue patterned shorts, and the woman is on the right, wearing a red bikini. They are holding hands and looking towards the camera. The waterfall is cascading over large, dark rocks. The background is filled with dense green foliage and trees.

BELIZE NATIONAL BIODIVERSITY STRATEGY

2.1 THE NATIONAL VISION

2.2 GUIDING PRINCIPLES

2.3 NATIONAL PRIORITIES AND TARGETS

**2.4 NBSAP AND THE NATIONAL SUSTAINABLE
DEVELOPMENT GOALS**

2.1 THE NATIONAL VISION

“COLLABORATION”

“WISE
MANAGEMENT”

“RESILIENCE”

“CULTURAL
HERITAGE”

“SOCIAL BENEFIT”

“ECONOMIC
GROWTH”

“PARTICIPATION”

“SUSTAINABLE”

“RESTORATION”

“QUALITY OF
LIFE”

VISION

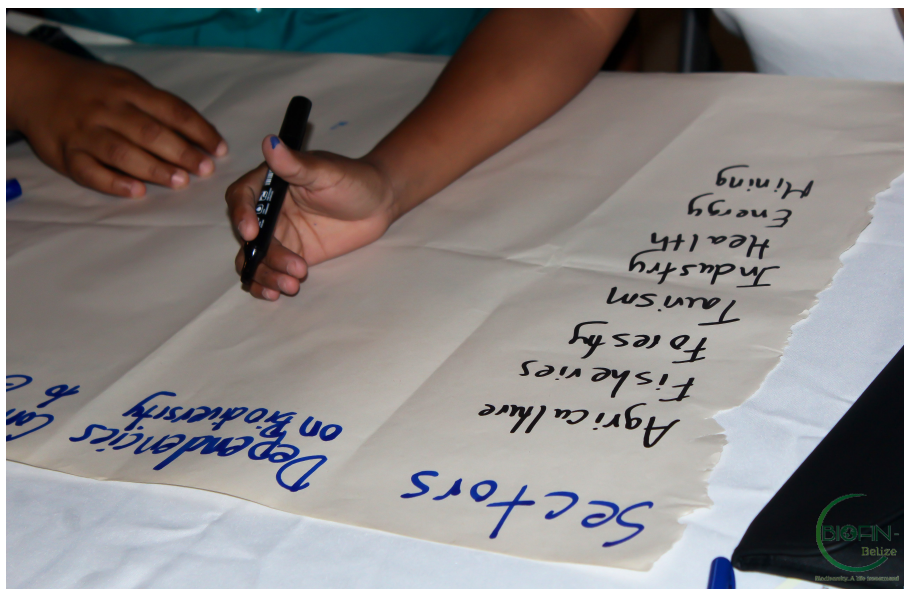
Belize’s natural environment is valued, enhanced and enjoyed by all, and contributes to improving the quality of life of its people.

Development of the Vision for the National Biodiversity Strategy and Action Plan (NBSAP) was considered a key starting point for the process, ensuring extensive stakeholders participation in the preparation of the Plan were united in working towards a clear, national outcome. The Vision itself was developed through participatory input during a series of district and national workshops, and finalized with input from the NBSAP Task Force. The discussions in the development of the vision were focused on concepts such as wise management, sustainability, resilience, social benefit, economic growth, and collaboration.

The NBSAP Vision is to be achieved through strategies and activities linked to each of the five thematic areas:

- A. MAINSTREAMING
- B. REDUCING PRESSURES
- C. PROTECTION
- D. BENEFITS
- E. IMPLEMENTATION

Left: values considered important by participants during the development of the NBSAP



2.2 THE GUIDING PRINCIPLES

The National Biodiversity Strategy and Action Plan is based on Belize's commitment to the conservation and sustainable development of national biological diversity, and is based on the following principles:

Respect

- Belize's biodiversity is of national and global importance both for its intrinsic value and the benefits it provides
- Belize's terrestrial and marine heritage is our national patrimony, to be conserved in-situ by everyone
- The well-being of Belizeans is intrinsically linked to environmental health, and both should be addressed together

Responsibility

- Effective management of Belize's biodiversity requires the combined efforts of all sectors of society
- We are all dependent on the socio-economic benefits from Belize's marine and terrestrial resources and have the duty to be responsible stewards, with fair and equitable sharing of the costs to conserve it
- Biodiversity management and benefits to Belize's people are strengthened through integration and collaboration at local, regional and global levels
- Science, technology, and the knowledge, innovations and practices of indigenous and local communities have shared roles in the management of biodiversity

Environment and Context

- Use, management and solutions to the conservation of Belize's biodiversity take place in a diverse and multicultural context
- Biodiversity conservation is best addressed through an integrated landscape / seascape approach
- Robust ecosystems housing rich biodiversity increase resilience to impending threats of a changing climate
- There are multiple escalating threats to Belize's natural heritage that warrant immediate measures to conserve, protect and manage.

Commitment

- The conservation of biodiversity is mainstreamed across all sectors through education, awareness raising and stakeholder engagement
- The involvement of local users in decision making and management planning ensures that access to and benefits from biodiversity resources are wisely managed and equitably shared
- Transparency, accountability, adequate financing and good governance are critical to the effective and efficient use and management of Belize's biodiversity
- Biodiversity conservation and sustainable use can be achieved when socio-economic needs are addressed through an integrated and holistic approach

2.3 NATIONAL PRIORITIES AND TARGETS

MAINSTREAMING

GOAL A: Improved environmental stewardship is demonstrated across all society in Belize, as is an understanding and appreciation of marine, freshwater and terrestrial biodiversity, their benefits and values.

Mainstreaming is key to effective implementation of the NBSAP. It is recognized that positive behaviour change can only be achieved through fostering an understanding and appreciation of biodiversity, its benefits and values at all levels of society.

The targets focus on increasing awareness and good stewardship at all levels from primary schools to upper Government decision makers. Improved integration of the importance of Belize's biodiversity and ecosystem services into the primary and secondary school science Programs will provide a foundation for increased awareness in the next generation of leaders and the general public. They also call for creating and strengthening synergies between Government departments to harmonize sectoral policies and legislation designed to protect biodiversity, and for setting legislative frameworks and standards in public and private sector that improve the balance between national development and the need to protect ecosystem services and the environment.

To date the conservation and sustainable use of natural resources in Belize is perceived by politicians and the general public as being the responsibility of the conservation community. All too often, conservation is viewed as the domain of special interest groups. The reality – that biodiversity conservation is a cornerstone of Belize's economic and social development, essential for the health and wellbeing of all Belizeans – is not broadly understood. With the future of all sectors intimately entwined with the health of the natural resources of Belize, their conservation and sustainable use is the responsibility of all, for all. All economic and developmental sectors must take responsibility for the integration of maintenance of natural resources,

TARGETS: MAINSTREAMING

TARGET A1. By 2020, a framework has been designed and adopted to guide the harmonization of policies that positively impact biodiversity, across all Government departments.

TARGET A2. By 2020, Belize has legislated and implemented a national harmonized system of environmental standards and incentives that promote environmental responsibility and sustainability.

TARGET A3. By 2020, 100% of relevant national development decisions in Belize take into consideration ecosystem services and biodiversity relevance to the national economy.

TARGET A4. By 2020, 100% of relevant Government, 75% of civil society and 50% of the general public in Belize have increased awareness and appreciation of biodiversity and demonstrate active good stewardship.

ecosystem services and climate change adaptation into their policies and actions, work together to reduce negative impacts on the environment, and ensure increased sustainability of resource use – ensuring continued natural resources for all generations to come. Policies based on short-term

gains with long-term costs need to be considered in the context of policies that are based on planning for long term sustainability and increased resilience to climate change.

“... there is a critical need to strengthen the level of engagement of Government in actively making decisions that reflect the connection between the environment, and poverty alleviation, disaster risk management, climate change adaptation and the tourism industry.

National Stocktaking Report, 2015

With 46% percent of the population of Belize living in urban areas (22% primarily in the old and new capitals of Belize City and Belmopan; CSO, 2016), there is the recognition that many people are to all intents and purposes separated from the natural environment, with little knowledge of how impacts to the environment can affect them – the links between maintenance of forest cover and the provision of clean drinking water, for example. Recognition of the importance of the maintenance of ecosystem services will become even more critical as the impacts of climate change are heightened. In Belize, ecosystem services and more importantly ecosystem management are key approaches to climate change adaptation.

Also important is the recognition that immigration is fast changing the cultural landscape in Belize. 15% of the population is now estimated to be composed of immigrants, the majority of them from Central America, and establishing new communities in rural areas. With low income and limited English skills, many of these immigrants make the most of the

relatively abundant wildlife, hunting and fishing with little knowledge of the laws that have been put in place to ensure sustainable natural resource use. A smaller number of immigrants also come from China, Europe and North America. Each sector brings its own cultural outlook on the environment – some not as environmentally sensitive as those who are Belize-born and raised with a basic knowledge of the laws and protected areas of Belize. It is important that awareness and engagement activities are also adapted to target these immigrant sectors.

“Public and political awareness of the importance of the National Protected Areas System’s contribution to the national economy, in watershed protection, and water security, natural disaster mitigation, and climate change buffering, is considered inadequate, threatening the long-term security of Belize’s social and financial investments in its protected areas.”

Status of Protected Areas report (2010)

Limited awareness is identified as a critical threat. This transcribes to an unwillingness to adequately defend the National Protected Areas System, the natural and cultural resources it protects, and the environmental services provided, even though this is for the benefit of the nation. A key component of the NBSAP is therefore engagement, participation and advocacy – providing opportunities that not only educate people across all levels of society, but also lead to their support and advocacy for protection of the environment and wise use of national resources. One of the highest priorities is the integration of environmental education throughout the school curricula, to create and nurture environmental youth leaders with the potential to become decision makers later in life.

REDUCING PRESSURES / SUSTAINABLE USE

GOAL B: Direct and indirect pressures on Belize's marine, freshwater and terrestrial ecosystems are reduced to sustain and enhance national biodiversity and ecosystem services.

Belize recognizes the importance of maintaining and improving the status of existing biodiversity through reducing direct and indirect pressures on terrestrial, freshwater and marine ecosystems. Strategies such as the strengthening of environmental standards, compliance to reduce pollution, improved identification and protection of critical ecosystems located in development areas, and effective fire management, are key to ensuring balanced, sustainable development. This is highlighted in national legislative, policy and planning documents such as the Growth and Sustainable Development Strategy, Integrated Land Use Planning Framework, the Integrated Coastal Zone Management Plan, and National Climate Change Policy, Strategy and Action Plan.

Priorities include the need to improve sustainable management of primary industries such as agriculture, fisheries and forestry through strengthened mechanisms such as the implementation of a national rights-based, managed fisheries areas Program and long term sustainable forest management. These will ensure maintained and improved natural resource sustainability, continued ecosystem services and improved long term viability of livelihoods directly linked to the natural resources. Addressing the direct threat of fires through collaborative fire management initiatives is also a priority, as is maintaining flood control services provided by wetlands such as Crooked Tree Wildlife Sanctuary.

The need to strengthen the national response to marine and terrestrial threats is also prioritised, supported by appropriate legislative policies and standards for the maintenance of biological diversity by reducing the rate of land use change, the level of land-based pollution and the increasing transboundary incursions for extraction of Belize's natural resources, both in the terrestrial and marine

TARGETS: REDUCING PRESSURES

TARGET B1. By 2020 primary extractive natural resource use in terrestrial, freshwater and marine environments is guided by sustainable management plans, with improved biodiversity sustainability.

TARGET B2. By 2020, 80% of businesses monitored in Belize are compliant with environmental standards.

TARGET B3. Between 2016 and 2020, Belize has limited its net rate of land use change for prioritised natural ecosystems / areas to no more than 0.6% per year.

TARGET B4. BY 2020, Belize is restoring 30% of degraded ecosystems to maintain and improve the status of ecosystems and ecosystem services essential for increasing Belize's resilience to climate change impacts.

TARGET B5. By 2025, Belize is addressing its trans-boundary issues, with 20% reduction in terrestrial impacts and 50% reduction in illegal fishing from trans-boundary incursions.

TARGET B6. By 2018, Belize has a strengthened system in place for early detection and effective management of invasive species.

environments.

As the sea temperature and acidification increase, the health of the coral reefs, the basis of both the tourism and fishing economies in Belize, are being significantly impacted. Over a forty year period, Belize has seen a reduction of average coral cover from 55+% in the 1970's (Jackson et al., 2013) to between 16% and 18% in 2015. Whilst Belize is not in a position to make a significant contribution to the global reduction of carbon emissions, it is in a position to increase reef resilience, by reducing land based and other anthropogenic threats on the marine environment. This is becoming more urgent if Belize is going to be effective at increasing the resilience of this important ecosystem and the services it provides to predicted climate change impacts.

National planning calls for a significant increase in renewable energy generation, focused primarily on solar, wind, hydro and biofuels, moving towards reducing Belize's level of dependency on fossil fuels. Developing large scale renewable energy sources can come with an environmental cost, footprint and impacts that need to be taken into account and balanced with the energy production benefits. Integration of biodiversity values into planning of

“Despite the statements on the importance of the environment in Horizon 2030, there is a critical need to strengthen the level of engagement of Government in actively making decisions that reflect the connection between the environment, and poverty alleviation, disaster risk management, climate change adaptation and the tourism industry.

National Stocktaking Report, 2015

large-scale contributors in this sector is critical if Belize is to successfully “go-green” in its power generation. The siting of biofuel production and hydro-electricity developments, if selected as options, needs to take into consideration their impacts on critical ecosystem services, vulnerable ecosystems, the roles and values of the watersheds being impacted, cost effectiveness, and long term viability in the context of predicted climate change impacts. Solar power systems for home or industrial use should be encouraged through the removal of tariffs and permit requirements for the importation of battery banks.

BUILDING CORAL REEF RESILIENCE

Fragments of Hope is a community-based not-for-profit organization registered in Belize, that works closely with the Belize Fisheries Department. It identifies resilient corals those that are tolerant of rapidly changing water temperatures and collects fragments, which are cultured on ceramic discs, ropes or steel rods in the clear, sheltered waters of selected nursery areas across Belize.

The coral fragments are allowed to grow until they are ready to plant out, when they are transplanted to sites where they building resilience to climate change. Resilient corals planted out in 2010 are already spawning, providing the parent stock that has the potential to assist in the future recovery of reefs throughout Belize.



PROTECTION

GOAL C: Functional ecosystems and viable populations of Belize’s biodiversity are maintained and strengthened.

Belize has an enviable record of maintaining its natural resources – with forests that form 25% of one of the last remaining regionally important expanses of forest and a World Heritage Site that encompasses one of the world’s best examples of coral reef, supporting an important community-based fishing industry. Natural vistas and plentiful wildlife, both terrestrial and marine, provide the foundation for a tourism industry that is critical in supporting the national economy. The increasing rate of land use change, however, is threatening functionality of ecosystems and reducing the viability of species. This has significant implications not only for Belize, but also for regional initiatives towards biodiversity protection.

Compounding this threat is the uncertainty associated with climate change, which is going to have a significant impact on ecosystems and species.. Belize is projected to experience an increase in atmospheric and sea temperatures, a rising sea level and changes in rainfall patterns - all of which will impact biodiversity. What is uncertain at this point is the level of impact it will have as climatic conditions change over time. It is therefore critical for Belize to institute management actions that will provide ecosystems with the best possible chance of adapting to those changes. This requires extensive research and monitoring, the protection of areas most resilient to climate change and ensuring connectivity, supported by a strong legislative framework and close collaboration between the Biodiversity Office (to be established) and the National Climate Change Office.

Key legislative revisions, including the Wildlife Protection Act and Fisheries Resources Bill and the development of a Biosafety Policy will strengthen actions to ensure continued viability of both terrestrial and marine species. However, strategies for protection shouldn’t focus only on strengthening

TARGETS

TARGET C1. By 2030, Belize’s natural landscapes and seascapes are all functional and build biodiversity resilience to climate change.

TARGET C2. By 2020, three key corridors identified under the National Protected Areas Policy and System Plan are physically and legally established, and effectively managed.

TARGET C3. Between 2016 and 2030, no species will become functionally extinct in Belize.

TARGET C4. By 2020, average management effectiveness of the National Protected Areas System has increased to 80%.

TARGET C5. By 2020, Belize is implementing a biosafety policy that safeguards against large-scale loss of biological integrity.

the national protected areas system and species protection, but also look beyond, at the role and importance of natural ecosystems in the larger landscapes and seascapes. They should take into account the need to build Belize’s climate change resilience to ensure ecosystems and species are able to adapt to the changing climate, the need to retain forest cover and connectivity across the landscape for maintenance of water catchment and other environmental services, and long term ecosystem and species viability. Strengthening of species-specific strategies is also considered important, particularly for threatened, ecologically and

economically important species, with the development of national Species Conservation Plans and the strengthening of multi-agency enforcement,

national species working groups and endangered species, rescue and rehabilitation Programs.

BENEFITS

GOAL D: Strengthened provision of ecosystem services, ecosystem-based management and the equitable sharing of benefits from biodiversity.

Belize has the benefit of still having approximately 60% of its terrestrial natural ecosystems intact, providing ecosystem services such as water, clean air, flood control and inspirational natural beauty. The Maya Mountains Massif, 1.2 million acres of forested wilderness, is a critical source of water for urban communities in both Belize and Guatemala. For many rural communities, ecosystem services are provided at a local level, with water supply and flood control coming from upstream watersheds, for example. In the marine environment, the coastal waters have supported local traditional fishers for generations, and the marine protected areas provide an important destination for tourism – Belize’s number one foreign exchange earner. The importance of pollinators for agriculture, of sweeping natural vistas, rich wildlife and vibrant coral reefs for tourism, of medicinal plant use for traditional cultures – all these benefits and ecosystem services need to be safeguarded, with equitable benefit to all stakeholders.

With an increasing rate of deforestation and an expanding human footprint, there is recognition that informed land use planning at national level is required for development to be sustainable. As a country at high risk from climate change impacts – increasing air and sea temperatures, a rising sea level and increasing droughts and floods - climate change resilience for ecosystems and their services also has to be planned for. The NBSAP strategies identify the need to support implementation of the Integrated Land Use Planning Framework and Integrated Coastal Zone Management Plan, both of which focus on balancing development needs whilst maintaining ecosystem services.

TARGETS

TARGET D1. By 2025, key ecosystem services are sustainably managed and resilient to threats.

TARGET D2. By 2025, access to genetic resources and associated traditional knowledge is regulated and benefits arising from utilization are shared in a fair and equitable manner.

Integration of local and traditional knowledge for protected area management planning is required under the National Protected Areas System policy, with management strategies being developed in collaboration with community stakeholders. Management planning requires that traditional knowledge through stakeholder consultation and participation be incorporated into the management planning process, and that managers identify ways of incorporating community customs and traditions into protected area management. Traditional knowledge in Belize is focused primarily on medicinal plants and need to preserve knowledge of medicinal plant use. Whilst a strong traditional healer movement existed in the 1980’s, the lack of structured implementation of NBSAP strategies supporting this 1998 Thematic Area faltered. More recently, the traditional healer sector has strengthened again as community capacity increases, and as this sector becomes integrated into the strategic plans of the Institute for Social and

Cultural Research (ISCR), a unit under the National Institute of Culture and History (NICH). Ix Chel Research Centre is active in promotion of knowledge of medicinal plants in young people. The Belize Indigenous Training Institute / Q'eqchi' Healer's Association has been working closely with Cleveland University to improve knowledge of medicinal plants

in southern Belize. This partnership also looked at identifying regions where medicinal plant species are located in the Maya Mountains Massif, and providing prioritization and identification and application of in situ and ex situ conservation strategies to ensure long term viability of medicinal plants and the ecosystems in which they live.



IMPLEMENTATION

GOAL E: The NBSAP is implemented effectively through capacity building, informed strategic decision making and integrated public participation.

The NBSAP needs to be owned by the people of Belize, with a collective responsibility for implementation. Cross-sectoral and multi-agency implementation is key, with strategies aligned to ongoing and planned efforts throughout relevant Ministries, and across the NGO and private sector. Coordination of this effort will be through the establishment of a Biodiversity Office, tasked with the implementation of the plan and coordination with partner Ministries, civil society and general public actions. Effective implementation of the NBSAP requires a national effort – the responsibility lies not just with Government, but also private sector and the general public. This is to be achieved through increased awareness, investment and capacity building, and the establishment of effective mechanisms for integrated public participation and informed decision making.

There is currently very little accounting of the economic value of Belize’s natural resources, of the status of the ecosystems that provide services, and of the value of those services. Information is also limited on the status of biodiversity generally, and more specifically, on threatened species. This lack of information for informing decisions has led to limited prioritization on the part of the Government, and limited investment in biodiversity management. This revised NBSAP recognizes the limitations of current available information, and the need to assess the status of Belize’s ecosystems and species to develop an improved understanding of their functionality and relationship, for strengthened landscape / seascape and species management. Information strategies also focus on the strengthening of the National Biodiversity

TARGETS

TARGET E1. By 2020, all relevant government Ministries, 75% of relevant civil society, and 25% of the private sector and general public are effectively involved in the implementation of the NBSAP.

TARGET E2. By 2020, accurate and current data on Belize's natural resources and environmental services informs relevant national development decisions.

TARGET E3. By 2020, Belize's NBSAP is being implemented effectively, monitored and evaluated, and achieving desired outcomes.

Monitoring Program to ensure efforts are effectively prioritized with cost effective investment, improved data management and information dissemination through the establishment of an effective clearing house mechanism, and the establishment of biodiversity reporting systems.

Effective monitoring and evaluation of NBSAP implementation and outputs is considered critical if Belize is to achieve the outcomes it desires, with a rapid annual review of implementation, a mid-term review and evaluation of implementation and outputs, repeated at the end of the five year life of the plan to guide its revision.

2.4 ALIGNING THE NBSAP TARGETS WITH GLOBAL SUSTAINABLE DEVELOPMENT GOALS

NBSAP TARGET	SUSTAINABLE DEVELOPMENT GOALS
<p>TARGET A1. By 2020, a framework has been designed and adopted to guide the harmonization of policies that positively impact biodiversity, across all Government departments.</p>	<p>SDG 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development</p> <p>SDG 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss</p> <p>15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts</p>
<p>TARGET A2. By 2020 Belize has legislated and implemented a national harmonized system of environmental standards and incentives that promote environmental responsibility and sustainability.</p>	<p>SDG 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</p> <p>9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities</p>
<p>TARGET A3. By 2020, all relevant national development decisions in Belize take into consideration ecosystem services and biodiversity relevance to the national economy</p>	<p>SDG 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development</p> <p>17.14 Enhance policy coherence for sustainable development</p>
<p>TARGET A4. By 2020, 100% of relevant Government, 75% of civil society and 50% of the general public in Belize have increased awareness and appreciation of biodiversity and demonstrate active good stewardship</p>	<p>SDG 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</p> <p>4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development</p> <p>SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable</p> <p>11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities</p> <p>SDG 12. Ensure sustainable consumption and production patterns</p> <p>12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle</p> <p>12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities</p> <p>12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature</p>

TARGET B1. By 2020 primary extractive natural resource use in terrestrial, freshwater and marine environments is guided by sustainable management plans, with improved biodiversity sustainability

SDG 12: Ensure sustainable consumption and production patterns

12.2 By 2030, achieve the sustainable management and efficient use of natural resources

12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development

14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics

14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation

14.7 By 2030, increase the economic benefits to Small Island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism

SDG 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally





BELIZE'S NATIONAL BIODIVERSITY ACTION PLAN

3.1 NBSAP ACTION PLAN

- A. MAINSTREAMING**
- B. REDUCING PRESSURES**
- C. PROTECTION**
- D. BENEFITS**
- E. IMPLEMENTATION**

3.2 NBSAP AND NATIONAL DEVELOPMENT GOALS

3.1 NATIONAL ACTION PLAN

The following Action Plan is formatted to provide guidance in critical areas through the following information, presented in the tables as follows:

CONTENTS	
GOAL	Identification of the Goal being addressed: Goal A: Mainstreaming Goal B: Reducing Pressures Goal C: Protection Goal D: Benefits Goal E: Implementation
TARGET	The higher level target, or objective, for each of the strategic areas
ACTION	The strategic actions required to achieve the Target
ACTIVITIES	The activities required to achieve the Strategic Actions
INDICATOR	Relevant indicators for measuring success of output and outcomes. Where these are linked to the National Biodiversity Monitoring Program, the indicators are followed by (NBMP)
LEAD AGENCY	Identification of the Lead Agency / Agencies and supporting agencies
SYNERGIES	Identification of synergies with other national legislation, policies and plans with similar objectives, for effective mainstreaming implementation of the NBSAP. Synergies also include alignment with SDG goals and Aichi Targets.
TIME FRAME	The time frame suggested for implementation

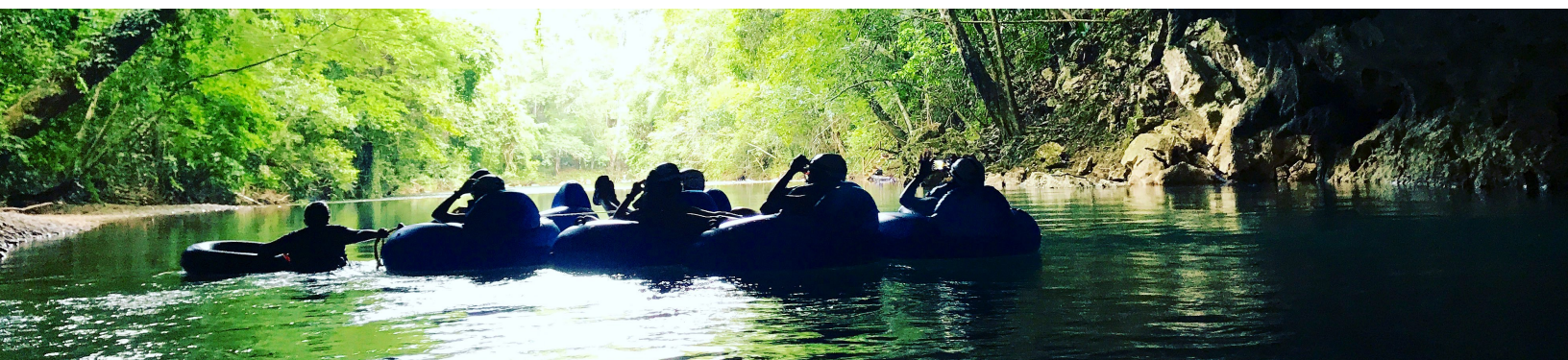
The priority of the Action is indicated to the left hand side of the table:

HIGH	
MEDIUM	
LOW	

GOAL A: MAINSTREAMING: Improved environmental stewardship is demonstrated across all society in Belize, as is an understanding and appreciation of marine, freshwater and terrestrial biodiversity, their benefits and values

TARGET A1. By 2020, a framework has been designed and adopted to guide the harmonization of policies that positively impact biodiversity, across all Government departments.						
Action	Activities	Indicator	Lead Agency	Synergies	Timeframe	
HIGH	A1.1 Develop the framework to guide the harmonization of policies that positively impact biodiversity, across all Government departments	<ul style="list-style-type: none"> Policy review to identify areas of synergy for harmonization Identify guiding principles to ensure harmonization of new and existing policies Develop and implement proposed integrated coordinating mechanism 	<ul style="list-style-type: none"> Report on the policy recommendations and proposed framework for coordinating mechanism (yes / no) Adoption of the policy recommendations and proposed framework for integrated coordinating mechanism (yes / no) Trends in integration of biodiversity and ecosystem service values into sectoral and development policies 	Biodiversity Office National Climate Change Office Sustainable Development Unit Other Forest Department NIWRA Lands Department DoE	Integrated Land Use Planning Framework BIOFIN ICZMP NEAP NEAP 3.1.1 (3) NEAP Target 12.1.1 NEAP 12.1.1 (1) IWRMP KBA Output 2.2a KBA Output 3.1a EPA Act SDG 15 SDG 19	2017 - 2018
TARGET A2: By 2020 Belize has legislated and implemented a national harmonized system of environmental standards and incentives that promote environmental responsibility and sustainability.						
Action	Activities	Indicator	Lead Agency	Synergies	Timeframe	
HIGH	A2.1 Strengthen national environmental standards / adopt international standards where necessary and develop new standards where gaps exist	<ul style="list-style-type: none"> Nationally adopted environmental standards and incentives (yes / no) Trends in compliance to environmental standards - number of fines, level of fines 	Lead Department of the Environment Other Forest Dept Wildlife Program BTB	GSDS NC1.5: Action 12 GSDS NC1.5: Action 13 NEAP 4.1.3 (3) EPA Forest Policy FD Wildlife Strategy (draft) STDP SDG 9	2017 -2018	
HIGH	A2.2 Identify incentives that promote environmental responsibility and sustainability	<ul style="list-style-type: none"> Legislative review with identification of potential incentives Identify additional incentives for increased environmental responsibility and integrate into legislation Integrate commitment to environmental sustainability into financial incentives proposed under the Agricultural Policy for private sector investment in agriculture 	<ul style="list-style-type: none"> Number of positive incentives Number of initiatives using positive incentives Government incentives for conservation and sustainable business (Eco-Audit) 	Lead Ministry of Finance and Economic Development Department of the Environment Other Solicitor General's Office Dept. of Agriculture Dept. of Lands Hydrology PCB BTB	GSDS NC1.5: Action 12 GSDS NC1.5: Action 13 NEAP 4.1.3 (3) SDG 9	2017 - 2020

HIGH	A 2.3 Remove significant disincentives that prevent environmental responsibility and sustainability	<ul style="list-style-type: none"> Address issue of productive land concession rate through legislative amendment Address other disincentives 	<ul style="list-style-type: none"> Removal/ amendment of productive land concession rate (yes / no) % of disincentives identified that have been addressed Trends in the number and value of incentives, including subsidies harmful to biodiversity, removed, reformed or phased out (NBMP) 	<p>Lead Ministry of Finance and Economic Development Department of the Environment</p> <p>Other Solicitor General's Office Dept. of Agriculture Dept. of Lands Hydrology PCB BTB</p>	<p>GSDS NC1.5: Action 12</p> <p>GSDS NC1.5: Action 13</p> <p>NEAP 4.1.3 (3) SDG 9</p>	2017-2018
	TARGET A3: By 2020, all relevant national development decisions in Belize take into consideration ecosystem services and biodiversity relevance to the national economy					
	Action	Activities	Indicator	Lead Agency	Synergies	Timeframe
HIGH	A 3.1 Improve information on the value of ecosystem services and assess best resource use for decision making at national level	<ul style="list-style-type: none"> Conduct key ecosystem services valuation Assess best use for long term sustainability based on cost benefit analysis of ecosystem services and development Socialisation of ecosystem services and values across Ministries, civil society and the general public 	<ul style="list-style-type: none"> Report on valuation of key ecosystem services (yes / no) % of national development decisions that reflect ecosystem service values and their maintenance / restoration 	<p>Lead Forest Department Belize Fisheries Department, NIWRA, Dept. of Environment</p> <p>Other Lands, BWSL, CZMAI, ERI, Ministry of Finance; Ministry of Economic Development</p>	<p>Integrated Land Use Planning Framework NEAP Target 12.1.4 Horizon 2030 GSDS BIOFIN</p>	2017 - 2019
	A3.2 Integration of ecosystem services into land use and coastal zone planning decisions	<ul style="list-style-type: none"> Implementation of BIOFIN (Biodiversity Finance Initiative) 	<ul style="list-style-type: none"> % of national development decisions that reflect ecosystem service values Trends in integration of biodiversity and ecosystem service values into sectoral and development policies. (NBMP) 	<p>Lead Department of the Environment</p>	<p>SDG 15.9 Integrated Land Use Planning Framework BIOFIN</p>	2016 - 2018
	A3.3 Integration of natural capital (including ecosystem services) into national accounting	<ul style="list-style-type: none"> Implementation of BIOFIN (Biodiversity Finance Initiative) 	<ul style="list-style-type: none"> Indication of integration of total estimated value of natural capital in the national budget 	<p>Lead Ministry of Finance</p>	<p>BIOFIN REDD+</p>	2016 - 2018



TARGET A4: By 2020, 100% of relevant Government, 75% of civil society and 50% of the general public in Belize have increased awareness and appreciation of biodiversity and demonstrate active good stewardship

Action	Activities	Indicators	Agencies	Synergies	Timeframe
H I G H A4.1 Develop and implement a National Public Awareness and Engagement Strategy to improve understanding of the role and importance of biodiversity and increase active good stewardship	<ul style="list-style-type: none"> ■ Develop and implement awareness and engagement strategies targeted at key stakeholder groups identified as potential advocates / champions for biodiversity ■ Initiate education awareness Programs focussing on the impacts of Climate Change, targeted at relevant sectors and measures to adapt and mitigate those anticipated impacts. 	<ul style="list-style-type: none"> ■ % of Government Ministers engaged in NBSAP implementation ■ Number of identified youth leaders engaged in NBSAP implementation ■ % of PA co-management partners engaged in NBSAP implementation ■ Trends in awareness, attitudes and public engagement in support of biological diversity and ecosystem service (NBMP) ■ Trends in public engagement with biodiversity (NBMP) ■ Trends in number of community based conservation initiatives (NBMP) 	<p>Lead Forest Department Fisheries Department NPAS Department of the Environment Belize Tourism Board</p>	<p>GSDS NC1.5: Action 12</p> <p>GSDS NC1.5: Action 13</p> <p>NEAP 4.1.3 (3) National Wildlife Awareness Strategy (draft)</p> <p>NPAS Communication Strategy NCCPSAP SDG 4 SDG 11 SDG 12</p>	2017 – 2020
H I G H A4.2 Improved integration of environmental education into classroom activities	<ul style="list-style-type: none"> ■ Engage Ministry of Education for effective integration of environmental education at all levels ■ Develop materials and lesson plans in collaboration with Ministry of Education to support improved integration of environmental education into classroom activities ■ Training and support of teachers in integrating environmental education in the classroom ■ Engagement of PA NGOs for synergised education in local communities 	<ul style="list-style-type: none"> ■ Number of schools / colleges with active environmental groups ■ Number of schools integrating outdoor environmental activities into the school year ■ Trends in awareness and attitudes to biodiversity (NBMP) ■ Trends in public engagement with biodiversity (NBMP) ■ Trends in awareness and attitudes to biodiversity (NBMP) ■ Number of schools / colleges with active environmental groups 	<p>Lead Ministry of Education</p> <p>Others Forest Department Belize Fisheries Department NGOs</p>	<p>GSDS NC1.5: Action 12</p> <p>GSDS NC1.5: Action 13</p> <p>NEAP 4.1.3 (3) Draft National Wildlife Awareness Strategy NPAS Communication Strategy</p>	2017 – 2020

<p>H I G H</p> <p>A4.3 Develop and implement national communication strategies for key components of the NBSAP</p>	<ul style="list-style-type: none"> ■ Endorsement and implementation of National Wildlife Awareness Strategy ■ Implementation of National Protected Areas Communication Strategy and Implementation Plan ■ Develop and implement other key communication plans (e.g. re. climate change, ICZMP) 	<ul style="list-style-type: none"> ■ National Wildlife Awareness Strategy is endorsed and is being implemented (yes / no) ■ National Protected Areas Communication Strategy and Implementation Plan is being actively implemented (yes/no) ■ Trends in awareness and attitudes to biodiversity (NBMP) 	<p>Lead Forest Department, Belize Fisheries Dept. NCCO, CZMAI</p> <p>Others Belize Tourism Board NGOs</p>	<p>National Wildlife Awareness Strategy (draft) NPAS Communication Strategy</p>	<p>2017 – 2020</p>
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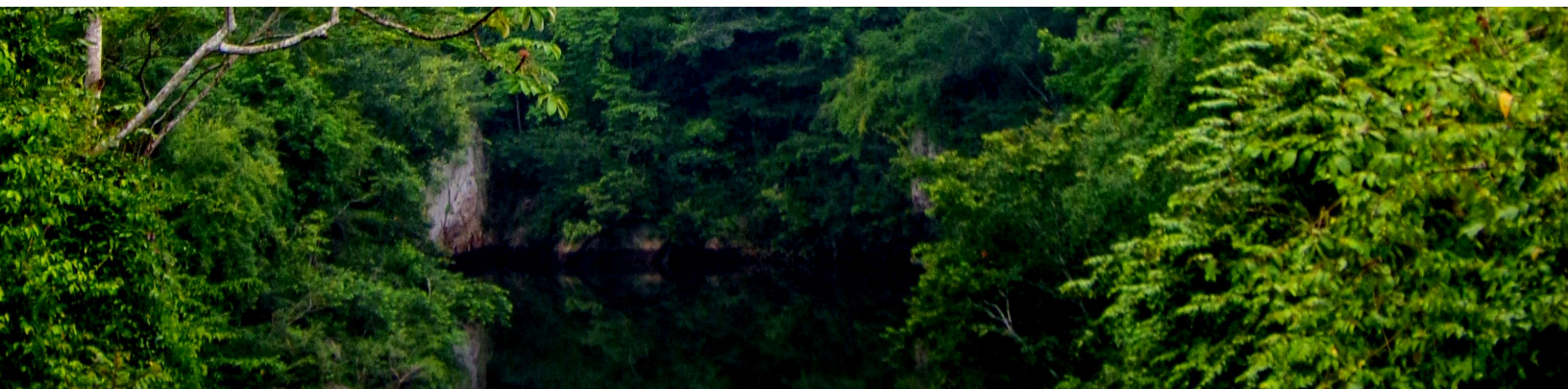


GOAL B: REDUCING PRESSURES: Direct and indirect pressures on Belize’s marine, freshwater and terrestrial ecosystems are reduced to sustain and enhance national biodiversity and ecosystem services.

TARGET B1. By 2020 primary extractive natural resource use in terrestrial, freshwater and marine environments is guided by sustainable management plans, with improved biodiversity sustainability						
Action	Activities	Indicator	Lead Agency	Synergies	Timeframe	
H I G H	B 1.1 Strengthen effective management and monitoring of natural resource extraction in the terrestrial, freshwater and marine environments by the regulatory agencies	<ul style="list-style-type: none"> Strengthen the capacity of the Forest and Fisheries Departments for effective monitoring of natural resource extraction Strengthen partnerships between enforcement agencies for collaborative management and monitoring of natural resource extraction 	<ul style="list-style-type: none"> % gap between actual and critical funding required for effective annual monitoring of natural resource extraction 	<p>Lead Forest Department Fisheries Department Department of the Environment</p> <p>Other Belize Coast Guard Police Department Belize Defense Force Institute of Archaeology PA management partners Ministry of Finance</p>	<p>SDG 12.3 SDG 14.3 NEAP 1.1.1. (1)</p>	2016 – 2020
	B 1.2 Strengthen enforcement of natural resource extraction legislation and regulation	<ul style="list-style-type: none"> Amend natural resource extraction legislation and regulations for increased, more punitive penalties for lack of compliance Finalise and endorse Fisheries Resource Bill Trends in population and extinction risk of utilized species, including species in trade (NBMP) 	<ul style="list-style-type: none"> Number of illegal extraction incidents reported per year % of illegal extraction incidents taken to court that are effectively prosecuted 	<p>Lead Forest Department Belize Fisheries Department Department of the Environment</p> <p>Other Belize Coast Guard Police Department Belize Defense Force Institute of Archaeology PA management partners</p>	KBA	2017 – 2018
	B 1.3 Develop / strengthen and implement sustainable natural resource use management plans and permitting systems	<ul style="list-style-type: none"> Strengthen and update natural resource management plans, and develop new plans, where needed, incorporating climate change considerations based on projected impacts and vulnerability Ensure effective monitoring and enforcement of natural resource management plans 	<ul style="list-style-type: none"> % of natural resource management plans required that are updated and being actively implemented % natural resource use plans that include climate change considerations Trends in status of biodiversity subjected to extractive use Trends in pressures from unsustainable agriculture, forestry, fisheries and aquaculture (NBMP) 	<p>Lead Forest Department Fisheries Department NIWRA</p> <p>Other PA management partners Environmental Research Institute</p>	<p>Managed Access Belize Fisheries Dept. species-specific sustainable use plans for conch, lobster, sea cucumber Sustainable Forestry Plans e.g. Rosewood SDG 12 SDG 14 SDG 15</p>	2016 – 2017

M E D I U M	B1.4 Develop / promote and monitor national and international environmental certification of key extractive industries	<ul style="list-style-type: none"> Assess and review existing national and international certification for key extractive industries, and strengthen where necessary Develop additional certification for key extractive industries where necessary Ensure effective monitoring and reporting of compliance to standards 	<ul style="list-style-type: none"> % of key extractive industries with valid environmental certification % of agricultural lands under certified sustainable management % of aquaculture initiatives recognized by international certification (ASC) 	<p>Lead Agriculture Department Forest Department Fisheries Department</p> <p>Other Timber concessionaires and licensees Environmental Defence Fund PA management partners Belize Shrimp Growers Association</p>	Forestry Stewardship Council certification BTB Sustainable Tourism and Responsible Practices for Small Hotels (draft) Aquaculture Stewardship Council	2016 - 2020
	TARGET B2. By 2020, 80% of businesses monitored in Belize are compliant with environmental standards					
	Action	Activities	Indicator	Lead Agency	Synergies	Timeframe
H I G H	B2.1 Extension of requirement for Environmental Impact Assessments (EIAs), Compliance Plans (ECPs) and environmental standards to lands of 100 acres and above, coastal and cays, with protection of sensitive / priority ecosystems	<ul style="list-style-type: none"> Amend EIA SI and regulations to include lands of 100 acres and more Strengthen DoE human resource and operation capacity for increased level of work required 	<ul style="list-style-type: none"> % of identified impacting businesses and industries covered by ECPs % of identified impacting businesses and industries compliant with ECP 	<p>Lead Department of the Environment</p> <p>Others Forest Department Fisheries Department Lands Department Department of Agriculture CZMAI</p>	KBA Project EPA	2017 - 2018
	B2.2 Incorporate climate change considerations into the EIA process	<ul style="list-style-type: none"> Review and revise the EIA framework to include climate change vulnerability assessment and recommendations 	<ul style="list-style-type: none"> EIAs are required to include a climate change component (yes / no) 	<p>Lead Department of the Environment National Climate Change Office</p> <p>Others Forest Department Fisheries Department University of Belize-ERI</p>	NEAP: 11.1.1. (4)	2017 - 2018
H I G H	B2.3 Strengthening monitoring of environmental impacts (particularly key areas (key ecosystems, biological corridors))	<ul style="list-style-type: none"> Strengthen DoE resources for effective monitoring of ECP compliance Strengthen DoE partnerships with other Departments, PA managers and civil society in monitoring ECPs and other environmental issues 	<ul style="list-style-type: none"> % of identified impacting businesses and industries compliant with ECP 	<p>Lead Department of the Environment</p> <p>Others Forest Department Fisheries Department PA co-managers Civil Society Organizations</p>	KBA NEAP: 11.1.1. (4)	2016 - 2020

H I G H	B2.4 Strengthen enforcement of ECPs and other environmental regulations with appropriate penalties for lack of compliance	<ul style="list-style-type: none"> Amend EPA for higher fines for non compliance with ECP Strengthen DoE for more effective prosecution of environmental offences Strengthen enforcement of existing and proposed policies and legislation protecting key ecosystems and ecosystem services 	<ul style="list-style-type: none"> Increased fines in amended environmental regulations % DoE non-compliance cases successfully prosecuted 	<p>Lead Department of the Environment</p> <p>Others LIC</p>	Revision of Mangrove Regulations	2017 - 2018
	B2.5 Strengthen solid and liquid waste management	<ul style="list-style-type: none"> Improve best practices in solid and liquid waste in the private sector Extend solid waste management Program nationally 	<ul style="list-style-type: none"> % communities considered to have adequate solid waste management % communities considered to have adequate liquid waste management Trends in water quality in aquatic ecosystems (NBMP) 	<p>Lead Department of the Environment</p>	SDG 6	2016 - 2020
TARGET B3. Between 2016 and 2020, Belize has limited its net rate of land use change for natural ecosystems / areas to no more than 0.6% per year						
Action	Activities	Indicator	Lead Agency	Synergies	Timeframe	
H I G H	B3.1 Implementation of the National Land Use Policy and Integrated Planning Framework across all relevant Ministries	<ul style="list-style-type: none"> Finalize, endorse and socialize National Land Use Plan across Ministries 	<ul style="list-style-type: none"> National Land Use Policy and Framework is endorsed (yes / no) % technical staff at relevant Ministries aware of and using the National Land Use Policy and Framework Trends in policies considering ecosystem services in environmental impact assessment and strategic environmental assessment (NBMP) 	<p>Lead Lands Department Policy Unit</p>	GSDS NCCPSAP NIWRA ICZMP	2017



HIGH	<p>B3.2 Support prioritized natural ecosystem maintenance through incentives for private landowners</p>	<ul style="list-style-type: none"> ■ Identify and map priority ecosystems, and lodge shapefile with LIC ■ Identify and implement positive incentives for maintenance of prioritized natural ecosystem ■ Amend Land Tax Act to include incentives for the long term commitment of land to conservation / maintenance of environmental services 	<ul style="list-style-type: none"> ■ Priority ecosystems mapped and integrated into LIC datasets (yes / no) ■ Incentive scheme for maintaining prioritized natural ecosystems has been created (yes / no) ■ % change in land use in prioritized areas ■ Land Tax Act is amended (yes / no) ■ Trends in extent of selected biomes, ecosystems and habitats (NBMP) ■ Trends in fragmentation of natural habitat (NBMP) 	<p>Lead Ministry of Finance National Protected Areas Secretariat</p> <p>Other Forest Department Fisheries Department BAPPA</p>	<p>BIOFIN REDD+ Green Climate Fund</p>	<p>2017 - 2018</p>
HIGH	<p>B3.2 Support prioritized natural ecosystem maintenance through strengthened enforcement</p>	<ul style="list-style-type: none"> ■ Strengthen enforcement of existing and proposed policies and legislation protecting key ecosystems and key ecosystem services 	<ul style="list-style-type: none"> ■ Priority ecosystems mapped and integrated into LIC datasets (yes / no) ■ % change in land use of prioritized ecosystems ■ Trends in extent of selected biomes, ecosystems and habitats (NBMP) 	<p>Lead Forest Department Lands Department Dept. of Environment</p> <p>Others National Protected Areas Secretariat National Security</p>	<p>National Protected Areas System Act NPAS Rationalization report Integrated Coastal Zone Management Plan National Integrated Water Resources Act</p>	<p>2017 - 2020</p>
MEDIUM	<p>B3.3 Integrate environmental change limits into land conveyances for prioritised ecosystems</p>	<ul style="list-style-type: none"> ■ Establish environmental change limits to be integrated into conveyances ■ Develop legislative framework for integration of environmental conditions into the land conveyance process for lands of 100 acres and above ■ Socialise environmental change limits across Lands Department, Association of Real Estate Brokers, attorneys, BELTRADE and other key stakeholders 	<ul style="list-style-type: none"> ■ Identified environmental change limits incorporated into legislation ■ Conveyances include environmental change limits ■ % change in land use in prioritized areas ■ Trends in policies considering ecosystem services in environmental impact assessment and strategic environmental assessment (NBMP) 		<p>Integrated Coastal Zone Management Plan National Integrated Water Resources Act NPAS Rationalization report</p>	<p>2017 - 2020</p>

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">M E D I U M</p>	<p>B3.4 Incentivise location of new developments on degraded lands rather than removing natural ecosystems critical for climate change resilience</p>	<ul style="list-style-type: none"> ■ Identify and implement positive incentives for development on degraded lands ■ Identify and map degraded lands eligible for development incentives, and lodge with LIC ■ Socialise incentives for use of degraded lands through BELTRAIDE and other key stakeholders 	<ul style="list-style-type: none"> ■ Incentives available for development on degraded lands ■ Map of degraded lands eligible for incentives, lodged with LIC ■ Rate and extent of natural habitat conversion (NBMP) ■ Trends in proportion of degraded / threatened habitats (NBMP) ■ Extent and distribution of large scale development (NBMP) 	<p style="text-align: center;">Lead</p> <p>Ministry of Finance Lands Department Department of Environment</p> <p style="text-align: center;">Other</p> <p>National Climate Change Office Department of Agriculture Forest Department BELTRAIDE</p>	<p style="text-align: center;">NCCPSAP NEAP 1.1.1 (5) NEAP 3.1.1.(6)</p>	<p style="text-align: center;">2017 - 2020</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">H I G H</p>	<p>B3.5 Promote shift to more environmentally sustainable agriculture, reducing rate of deforestation</p>	<ul style="list-style-type: none"> ■ Improve zoning of land according to its suitability for agriculture ■ Promote environmentally sustainable management systems 	<ul style="list-style-type: none"> ■ Revise and socialize map of land zoning according to suitability for agriculture / development, lodged with LIC ■ Rate of deforestation ■ % large agricultural areas using environmental sustainable management systems ■ Agricultural expansion rate (NBMP) 	<p style="text-align: center;">Lead</p> <p>Department of Agriculture</p> <p style="text-align: center;">Other</p> <p>National Climate Change Office</p>	<p style="text-align: center;">National Land Use Plan and Integrated Framework NAFP PE4 (draft) NCCPSAP</p>	<p style="text-align: center;">2016 - 2020</p>



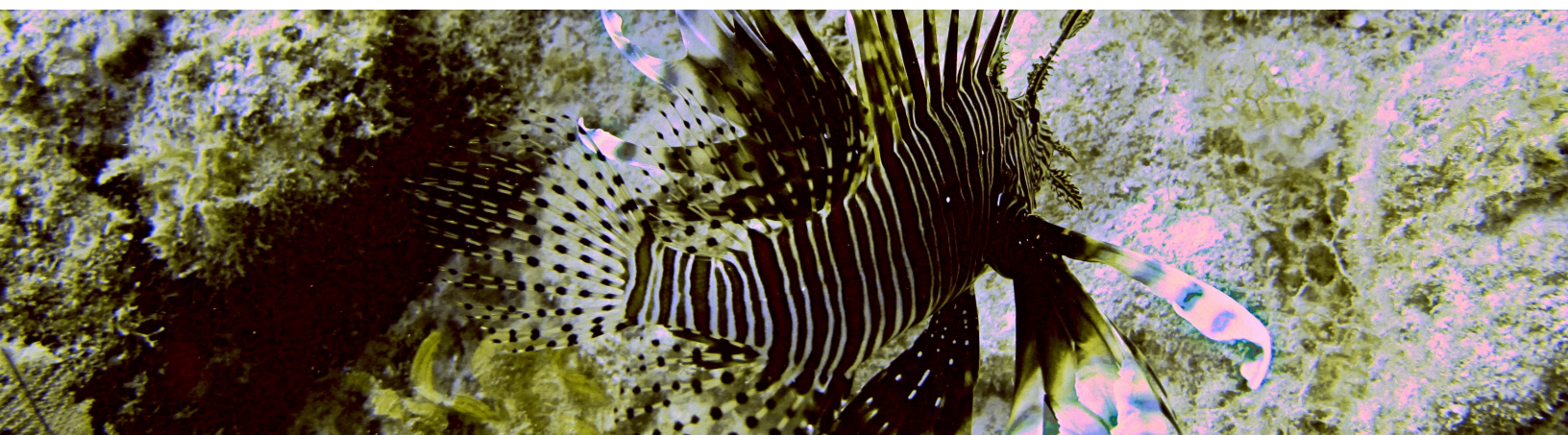
H I G H	B3.5 Encourage shift to increased environmental sustainability of agriculture, reducing rate of deforestation	<ul style="list-style-type: none"> Promote reduced deforestation through intensification and increased productivity in areas under cultivation Promote integrated management of the environment in agricultural production systems. Develop national cropping, livestock, and fisheries plans taking into account climate change consideration and agro-ecological conditions Develop and implement soil and water conservation measures for agricultural Develop and implement action plans to enhance watershed management and reduce land degradation 	<ul style="list-style-type: none"> Rate of deforestation / Rate and extent of natural habitat conversion (NBMP) % large agricultural areas using environmental sustainable management systems Agricultural expansion rate (NBMP) 	Lead Department of Agriculture	Land Use Plan and Integrated Framework NAFP PM4 (draft) NCCPSAP	2016 – 2020
	M E D I U M	B3.6 Implement effective fire management across Belize	<ul style="list-style-type: none"> Coordinated implementation of National Wildland Fire Management Policy and Strategy Develop, socialise and implement best practices for the management of fires related to agricultural land clearing 	<ul style="list-style-type: none"> Number of agencies that actively respond to large-scale fires Trends in proportion of degraded / threatened habitats (NBMP) Frequency, distribution and extent of fires by land use type (NBMP) 	Lead Forest Department TIDE Other Department of Agriculture Department of Environment	National Wildland Fire Management Policy and Strategy NAFP PM4 (draft)
TARGET B4. BY 2020, Belize is restoring 30% of degraded ecosystems to maintain and improve the status of ecosystems and ecosystem services essential for increasing Belize's resilience to climate change impacts						
	Action	Activities	Indicator	Lead Agency	Synergies	Timeframe
M E D I U M	B4.1 Develop and implement a restoration plan for identified priority ecosystems and ecosystem services essential for increasing Belize's resilience to climate change	<ul style="list-style-type: none"> Identify and map degraded ecosystems / ecosystem services and prioritise for restoration Develop, build capacity for, and implement restoration plans to re-establish priority ecosystems / ecosystem services and to prevent future degradation 	<ul style="list-style-type: none"> Restoration plans for priority ecosystems (Yes / no) Trends in extent of selected biomes, ecosystems and habitats (NBMP) Trends in proportion of degraded / threatened habitats (NBMP) 	Lead Forest Department Fisheries Department Other National Climate Change Office Department of the Environment	Activities under B3.3 NCCPSAP NBMP SDG 15.3 SDG 15.3 UNCCD	2017 - 2018

TARGET B5. By 2025, Belize is addressing its trans-boundary issues, with 20% reduction in terrestrial impacts and 50% reduction in illegal fishing from trans-boundary incursions

Action	Activities	Indicator	Lead Agency	Synergies	Timeframe
<p>H I G H</p> <p>B5.1 Strengthen protection of natural resources from transboundary pressures</p>	<ul style="list-style-type: none"> Strengthen transboundary cooperation agreements Improve national investment in demarcation, surveillance and enforcement of national borders (terrestrial and marine) 	<ul style="list-style-type: none"> Annual national investment in addressing illegal natural resource from transboundary incursions Area of new / active illegal farms as a result of transboundary incursions Number of arrests for illegal natural resource extraction as a result of transboundary incursions 	<p>Lead Ministry of Foreign Affairs National Security Council</p> <p>Others Enforcement agencies (Police Dept., BDF, Coastguard, Dept. of Immigration, Customs Dept.) Relevant NGOs (FCD, SATIIM, SACD)</p>	<p>GSDS NC3.1.1a GSDS NC4.5 (1) Environmental Agreement between Belize and Guatemala (November 2014) Transboundary Agreement with Mexico</p>	<p>2016 - 2020</p>

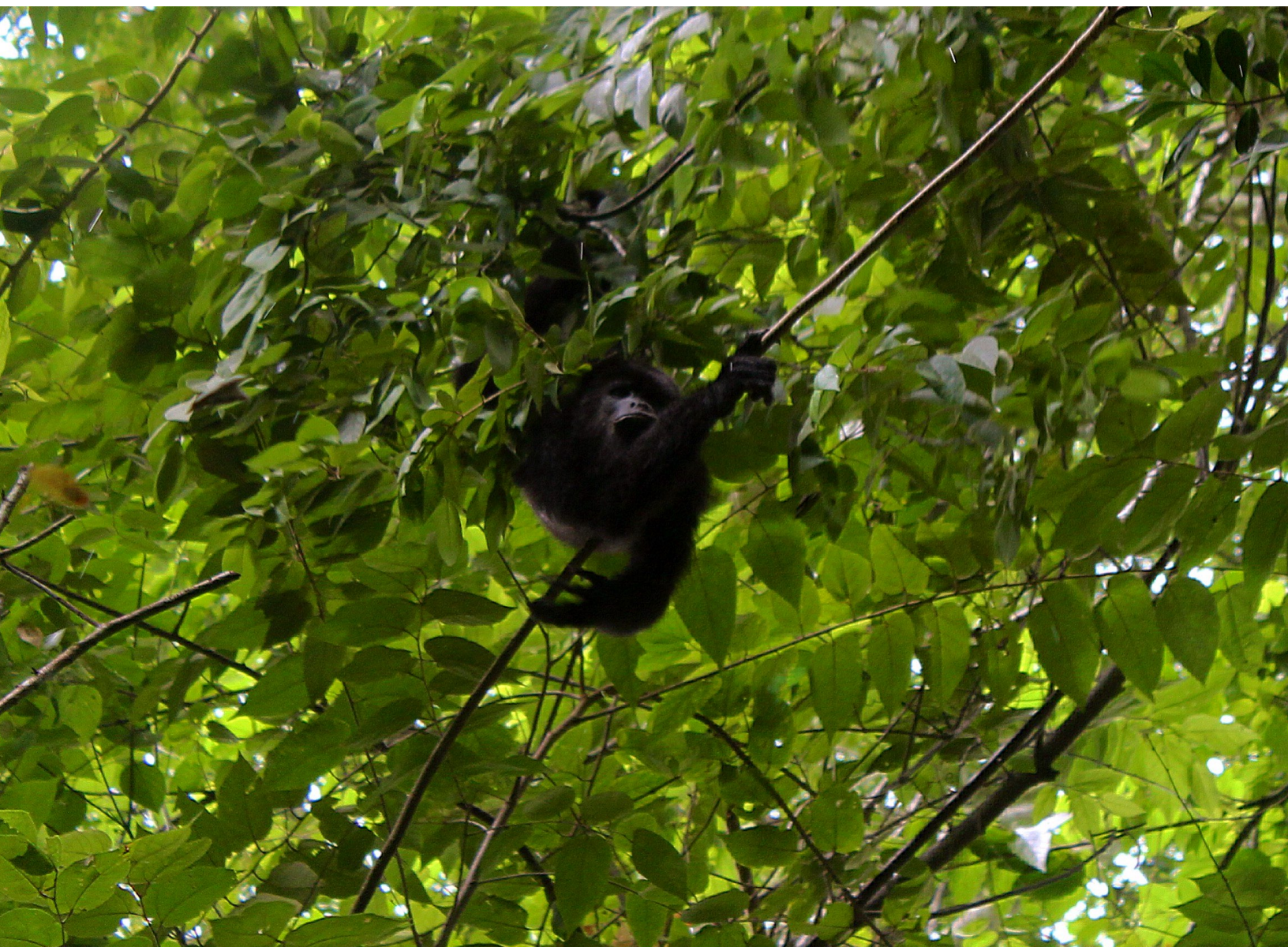
TARGET B6. By 2018, Belize has a strengthened system in place for early detection and effective management of invasive species

Action	Activities	Indicator	Lead Agency	Synergies	Timeframe
<p>H I G H</p> <p>B6.1 Develop and implement an action plan to identify and address prevention and / or management of invasive species</p>	<ul style="list-style-type: none"> Identify, assess and map current and potential invasive species impacts and species entry pathways Develop and implement Action Plans (control and eradication strategies) to address issues of priority invasive species Build capacity of Customs, Agriculture and BAHA officers to recognise invasive species Strengthen policies and implementation re. importation of exotic species Strengthen public awareness of the issue of invasive species 	<ul style="list-style-type: none"> Invasive Species Action Plans (yes / no) Number of new invasive species per year Trends in number and distribution of invasive species (NBMP) 	<p>Lead Belize Agricultural Health Authority Department of Agriculture Fisheries Department</p> <p>Others Forest Department Customs Department Ministry of Health Citrus Growers Association</p>	<p>Citrus Growers Association</p>	<p>2017 - 2020</p>



GOAL C: PROTECTION: Functional ecosystems and viable populations of Belize’s biodiversity are maintained and strengthened

TARGET C1. By 2030, Belize’s natural landscapes and seascapes are all functional and build biodiversity resilience to climate change					
Action	Activities	Indicator	Lead Agency	Synergies	Timeframe
HIGH C1.1 Institute national research and monitoring to guide management and sustainable use for strengthening ecosystem resilience	<ul style="list-style-type: none"> Finalize and implement the National Biodiversity Monitoring Program with integration of monitoring for climate change and climate change impacts and revision to align with the NBSAP Conduct research on the vulnerability and sustainability of terrestrial, freshwater and marine resources to climate change. 	<ul style="list-style-type: none"> Finalized National Biodiversity Monitoring Program that fully integrates monitoring for climate change and climate change impacts 	<p>Lead Biodiversity Office National Climate Change Office</p> <p>Other University of Belize-ERI Department of the Environment Healthy Reefs NGO partners</p>	<p>NBMP NCCPSAP Healthy Reefs Report Card Healthy Reefs Eco-audit National Coral Reef Monitoring Network</p>	2016 - 2020



<p style="text-align: center;">H I G H</p>	<p>C1.2 Identify and implement improved adaptive management regimes for critical landscape / seascape ecosystems based on anthropogenic threats and climate change vulnerability</p>	<ul style="list-style-type: none"> ■ Socialise and implement the National Climate Change Policy, Strategy and Action Plan ■ Promote the development of institutional mechanisms that enhance Belize's planning and response capacity to climate change ■ Ensure close collaboration between the NCCO, NPAS and BiO offices ■ Integrate recommendations for planning for future ecosystem functionality and climate change resilience into NPAS and key national development plans strategies, laws, regulations and budgeting ■ Collaborative broad stakeholder implementation of landscape / seascape climate change adaptation measures 	<ul style="list-style-type: none"> ■ Proportion of national territory under protected area status (terrestrial and marine) ■ % of identified resilient reef sites protected ■ % of KBA area under protection ■ Ecosystem extent ■ Distribution trends of terrestrial species indicative of drier climates: e.g. Yucatan tree species, Yucatan jay ■ Proportion of key ecosystems lost ■ Trends in proportion of degraded / threatened habitats (NBMP) ■ Proportion of national territory under protected area status (terrestrial and marine) ■ % of identified resilient reef sites protected ■ % of KBA area under protection ■ Ecosystem extent ■ Distribution trends of terrestrial species indicative of drier climates: e.g. Yucatan tree species, Yucatan jay ■ Proportion of key ecosystems lost ■ Trends in proportion of degraded / threatened habitats (NBMP) 	<p style="text-align: center;">Lead National Climate Change Office</p> <p style="text-align: center;">Other Sustainable Development Unit Forest Department Fisheries Department NIWRA, Department of Agriculture, Department of the Environment, Lands Planning Unit NGO partners</p>	<p style="text-align: center;">NCCSPAP SDG 13.2 GSDS NC3.1.1b Water Authority Project: Activity 1A.5 Integrated Land Use Planning Framework and NAFF (draft) NPAPSP Goal 4: National Climate Change Policy: Fisheries Sector NPAS Rationalization report (includes projected impacts per protected area)</p>	<p style="text-align: center;">2016 – 2020</p>
<p style="text-align: center;">H I G H</p>	<p>C1.3 Provide positive incentives for best practices that ensure the maintenance and restoration of ecosystem functionality, vulnerable ecosystems and high biodiversity value areas</p>	<ul style="list-style-type: none"> ■ Identify, implement and socialise incentives for maintenance and restoration of critical ecosystems on private lands 	<ul style="list-style-type: none"> ■ Incentives available for maintenance of critical ecosystems ■ Trends in integration of biodiversity, ecosystem services and benefits sharing into planning, policy formulation and implementation, and incentives (NBMP) 	<p style="text-align: center;">Lead Ministry of Finance</p> <p style="text-align: center;">Other National Protected Areas Secretariat BAPPA</p>		<p style="text-align: center;">2017 - 2018</p>

H I G H	<p>C1.4 Lobby for implementation of legislative policies identified in the Growth and Sustainable Development Strategies (CSF3) and the institutionalization of the National Climate Change Office</p>	<ul style="list-style-type: none"> ■ Meetings with key decision makers and through office of the PM and relevant CEOs 	<ul style="list-style-type: none"> ■ Endorsement / implementation of: <ul style="list-style-type: none"> ■ National Land Use Policy and Integrated Planning Framework ■ Sustainable Forest Management ■ Integrated Coastal Zone Management Plan ■ NPASP ■ NEAP ■ NCCPSAP ■ Solid Waste Management Project ■ Institutionalization of the National Climate Change Office ■ Trends in integration of biodiversity, ecosystem services and benefits sharing into planning, policy formulation and implementation, and incentives (NBMP) 	<p>Lead MAFFESD</p> <p>Other Relevant Ministries NGO partners</p>	<p>GSDS priorities</p>	<p>2016 - 2017</p>
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TARGET C2. By 2020, three key corridors identified under the NPAPSP are physically and legally established, and effectively managed effectively

Action	Activities	Indicator	Lead Agency	Synergies	Timeframe
<p>C2.1 Assess the current legal framework for biological corridors and strengthen if necessary</p>	<ul style="list-style-type: none"> ■ Legal assessment of biological corridor content of NPAS Act – amendment if necessary to strengthen 	<ul style="list-style-type: none"> ■ Number of legally established corridors ■ Number of physically established corridors ■ % corridors with current CAP plans 	<p>Lead Solicitor General's Office National Protected Areas Secretariat Lands Department</p> <p>Other Forest Department NGO partners</p>	<p>NPAS Act NPAS Policy (revised) NPAS Rationalization report National Land Use Plan and Integrated Framework</p>	<p>2016 - 2017</p>



H I G H	C2.2 Define the 3 key biological corridors (Northern, Central and Southern) legally and physically, and implement management	<ul style="list-style-type: none"> ■ CAP planning with communities and private land owners for corridor agreements ■ Define the area and boundaries of the three corridors in an NPAS Act Schedule ■ Survey and demarcation of corridors ■ Implement CAP actions for establishment and management of the Central Belize Corridor ■ Develop and implement Conservation Action Plan North East Biological Corridor (Section 1) ■ Develop and implement Conservation Action Plan for North East Biological Corridor (Section 2) (Freshwater Creek FR to Rio Bravo) ■ Update and Implement Southern Conservation Action Plan 	<ul style="list-style-type: none"> ■ % effectiveness of corridor management per corridor ■ Level of forest / natural vegetation connectivity within each corridor ■ Trends in connectivity of PAs and other area- based approached integrated into landscapes and seascapes (NBMP) ■ Trends in distribution and abundance of species requiring high connectivity ■ Trends in fragmentation of natural habitats (NBMP) ■ Number of legally established corridors ■ Number of physically established corridors ■ % corridors with current CAP plans ■ % effectiveness of corridor management per corridor ■ Level of forest / natural vegetation connectivity within each corridor ■ Trends in connectivity of PAs ■ Trends in distribution and abundance of species requiring high connectivity 	<p>Lead National Protected Areas Secretariat Forest Department - Biodiversity Office</p> <p>Other Lands Department NGO partners</p>	Integrated Land Use Planning Framework. NPAS Act Central Corridor CAP	2016 - 2020
		TARGET C3. Between 2016 and 2030, no species will become functionally extinct in Belize				
	Action	Activities	Indicator	Lead Agency	Synergies	Timeframe
H I G H	C3.1 Update and approve Belize's National Threatened Species List	<ul style="list-style-type: none"> ■ Produce updated, prioritised National Threatened Species List and socialise ■ Integration of National Threatened Species List into EIA process, national planning and decision making 	<ul style="list-style-type: none"> ■ National Threatened Species List (yes / no) ■ Number of species that are considered to have become functionally extinct in Belize over the time frame of the NBSAP ■ Trends in abundance, distribution and level of risk of extinction of priority species (NBMP) 	<p>Lead Forest Department Fisheries Department Biodiversity Office</p> <p>Other University of Belize – ERI NGO partners Wildlife stakeholders</p>	National Threatened Species List (draft, 2005) 2010 Status of Protected Areas NBMP SDG 15.5	2016 - 2017
						2017 - 2020

HIGH	C3.2 Strengthen enforcement of the Wildlife Protection Act, and prosecution of wildlife crimes	<ul style="list-style-type: none"> Revise and strengthen the Wildlife Protection Act and other relevant legislation Build capacity of enforcement and prosecution personnel Build collaborative partnerships and capacity of other enforcement agencies in recognition and reporting / enforcement of wildlife legislation 	<ul style="list-style-type: none"> Revised Wildlife Protection Act (yes / no) % of SOPA indicator species considered to be decreasing % of wildlife crimes reported that are responded to successfully % of wildlife crime reports originating from general public % of wildlife crime reports originating from non FD enforcement agencies 	<p>Lead Forest Department Fisheries Department Biodiversity Office</p> <p>Other University of Belize – ERI NGO partners Wildlife stakeholders PA managers</p>	KBA project	2016 - 2017
					FD USFWS Project	2016 - 2020
HIGH	C3.3 Strengthen direct management and conservation of species	<ul style="list-style-type: none"> Strengthen national working groups 	<ul style="list-style-type: none"> Number of active working groups (meeting quarterly with quorum) Number of valid recommendations to Gov. from Working Groups Trends in abundance, distribution and extinction risk of selected species (NBMP) 	<p>Lead Forest Department Fisheries Department</p> <p>Other University of Belize – ERI NGO partners Wildlife stakeholders PA managers</p>	Hicatee Working Group National Manatee Working Group Coral Monitoring Network SPAG Working Group Bird Working Group Turtle Working Group	2016 - 2020
		<ul style="list-style-type: none"> Support and strengthen mandated wildlife rehabilitation centres for threatened species 	<ul style="list-style-type: none"> % of rehabilitation centres with effective post-release success % of rehabilitation centres meeting site assessment standards and MoU conditions Trends in abundance, distribution and extinction risk of selected species (NBMP) 	<p>Lead Forest Department Fisheries Department</p> <p>Other Wildlife Rehabilitation stakeholders</p>	Manatee and Primate Rehabilitation Centres (Wildtracks) Belize Bird Rescue American Crocodile Education Sanctuary	2016 - 2020
		<ul style="list-style-type: none"> Develop and implement national species management / recovery plans 	<ul style="list-style-type: none"> Number of national species recovery plans accepted and being implemented Trends in abundance, distribution and extinction risk of selected species (NBMP) 	<p>Lead Forest Department Fisheries Department</p> <p>Other NGO partners Wildlife stakeholders PA managers</p>	NMWWG - manatees	2016 - 2020
		<ul style="list-style-type: none"> Ratify the Convention on Migratory Species 	<ul style="list-style-type: none"> Ratification of the Convention on Migratory Species 	<p>Lead Forest Department</p>	<p>Lead Forest Department Fisheries Department</p> <p>Other Bird Working Group ECOMAR MARFund</p>	2016 - 2018

H I G H	C3.4 Improve sensitization of the general public to wildlife and the environment	<ul style="list-style-type: none"> Finalize and implement the National Wildlife Awareness Strategy 	<ul style="list-style-type: none"> Finalized and approved National Wildlife Awareness Strategy Trends in awareness and attitudes to biodiversity (NBMP) 	<p>Lead Biodiversity Office</p> <p>Other Forest Department Fisheries Department NGO partners Belize Tourism Board</p>	National Wildlife Awareness Strategy (draft)	2016 - 2020
	TARGET C4. By 2020, average management effectiveness of the National Protected Areas System has increased to 80%					
	Action	Activities	Indicator	Lead Agency	Synergies	Timeframe
H I G H	C4.1 Implement the revised National Protected Area System Plan (NPAS) and supporting NPAS Rationalization report	<ul style="list-style-type: none"> Strengthen the National Protected Areas Secretariat for effective implementation of the NPASP 	<ul style="list-style-type: none"> 2016 and 2020 Management Effectiveness reports (yes / no) 	<p>Lead National Protected Areas Secretariat</p> <p>Other Biodiversity Office Forest Department Fisheries Department PA managers BAPPA Private landowners Land Information Centre</p> <p>Lead National Protected Areas Secretariat</p> <p>Other Biodiversity Office Forest Department Fisheries Department PA managers</p>	NPASP: Goal 1: 1.3.1 NPASP: Goal 1.1.2	2016 - 2020
		<ul style="list-style-type: none"> Strengthen operational capacity of PA regulatory agencies Effectively integrate private protected areas into the National Protected Areas System Ensure that the NPAS protects representative examples of all ecosystems as per the NPASP 2005 targets Implement the NPAS communication strategy Re-assess and amend inaccurate protected area SI's / boundaries where necessary Assess implementation and output success of NPASP in 2020 and revise and update to inform management decisions from 2020 onwards Conduct a legal assessment of the co-management 	<ul style="list-style-type: none"> Mean PA management effectiveness Averaged score of Status of Protected Areas % of SOPA indicator species considered to be decreasing % of outputs of the NPASP successfully implemented Updated ecosystem map for Belize (yes / no) Trend in ecosystem coverage inside and outside NPAS % of ecosystems not meeting NPASP 2005 ecosystem minimum coverage criteria Trends in coverage, condition, representativeness and effectiveness of PA and other area-based approaches (NBMP) % of recommendations of the NPAS Rationalization report successfully implemented CAP plan per system level unit (yes / no) % of recommendations of CAP plans successfully implemented 		NPAS Rationalization report. NPASP Activity 1.4.2 and 4.1.3	2016 - 2018

H I G H		<p>framework of NPAS Act for strengthening if necessary</p> <ul style="list-style-type: none"> Strengthen system level management units through effective development and implementation of system level CAPs Training and capacity building for improved protected area management 	<ul style="list-style-type: none"> Trends in coverage of NPAS (NBMP) Trends in representative coverage of PAs and other area-based approaches (NBMP) Trends in connectivity of PAs and other area-based approaches integrated into landscapes and seascapes (NBMP) 	<p>National Protected Areas Secretariat</p> <p>Lead National Protected Areas Secretariat Solicitor General's Office</p> <p>Other APAMO</p> <p>Lead National Protected Areas Secretariat</p> <p>Other Forest Department Fisheries Department PA managers</p> <p>Lead National Protected Areas Secretariat</p> <p>Other University of Belize – ERI</p>	<p>University of Belize-ERI Protected Areas Training Program</p>	2016 - 2020
	C4.2 Improve financial sustainability mechanisms for the NPAS	<ul style="list-style-type: none"> Strengthen legal, regulatory and policy support for improved revenue generation Increase investment for management presence, infrastructure and equipment for Protected Areas Implement Sustainable Financing Strategy and Plan Training of PA partners in business planning, financial sustainability opportunities 	<ul style="list-style-type: none"> % of recommendations of Sustainable Financing Strategy and Plan successfully implemented % of annual GoB budget invested in management of protected areas Trends in total NPAS funding – both Governmental and non-governmental 	<p>Lead Ministry of Finance National Protected Areas Secretariat</p> <p>Other Biodiversity Office Forest Department Fisheries Department</p>	<p>PACT BIOFIN NPASP Goal 3: 3.2.1 and 3.2.2. BIOFIN; NPASP Goal 3: 3.1 Recommendations from: Development of Strategies and Guidelines for investing in Protected Areas in Belize Sustainable Financing Strategy and Plan;</p>	2016 - 2020
	C4.3 Conduct 2016 and 2020 Assessments of management	<ul style="list-style-type: none"> Regional workshops, validation workshop 	<ul style="list-style-type: none"> Mean PA management effectiveness Averaged score of Status of Protected Areas indicators for benefits % of SOPA indicator species considered to be decreasing 	<p>Lead National Protected Areas Secretariat</p> <p>Other Forest Department Fisheries Department Wildtracks</p>	<p>Status of Protected Areas reports</p>	2016, 2020

HIGH	effectiveness of protected areas and implement recommendations	<ul style="list-style-type: none"> Implement recommendations of 2016 national management effectiveness assessment 	<ul style="list-style-type: none"> % recommendations that have been successfully implemented Trends in PA condition / management effectiveness including more equitable management (NBMP) 	<p>Lead National Protected Areas Secretariat</p> <p>Other Forest Department Fisheries Department</p>	Areas reports 2006, 2010	2017 - 2020
	HIGH	C4.4 10% of PAs have demonstrated economic value and direct livelihood support through PA / ecosystem services	<ul style="list-style-type: none"> Conduct a pilot economic evaluation of ecosystem services of a protected area as a pilot study Provide capacity building and resources for protected area managers for replication of pilot study in other protected areas 	<ul style="list-style-type: none"> PA valuation pilot study (yes / no) % of targeted pas with completed valuations 	<p>Lead National Protected Areas Secretariat</p> <p>Other Biodiversity Office Forest Department Fisheries Department PA managers</p>	BIOFIN
HIGH		C4.5 Engage buffer communities for collaborative stewardship of the NPAS	<ul style="list-style-type: none"> Ensure protected area management mechanisms for participation of local communities in collaborative stewardship 	<ul style="list-style-type: none"> % of protected areas that have mechanisms that promote participation of local communities in collaborative stewardship 	<p>Lead National Protected Areas Secretariat</p> <p>Other PA managers</p>	GSDS NC2.5: 4 GSDS NC3.1.1a Managed Access KBA MCCAP
	<ul style="list-style-type: none"> Identify and implement economic alternatives and / or opportunities for buffer communities 		<ul style="list-style-type: none"> % of alternative livelihood projects considered successful Number of people benefitting from PA-related alternative livelihood projects 	<p>Lead National Protected Areas Secretariat</p> <p>Other Ministry of Rural Development Department of Agriculture PA managers</p>		
TARGET C5. By 2020, Belize is implementing a biosafety policy that safeguards against large-scale loss of biological integrity						
	Action	Activities	Indicator	Lead Agency	Synergies	Timeframe
MEDIUM	C5.1 Revise and implement the Biosafety policy	<ul style="list-style-type: none"> Raise awareness of biosafety issues among policy and decision makers, public Legal drafting, submission and enactment of Biosafety Policy 	<ul style="list-style-type: none"> Approved Biosafety Policy (yes / no) 	<p>Lead Belize Agricultural Health Authority</p> <p>Other Dept. of Agriculture</p>		2016 – 2017
		<ul style="list-style-type: none"> Implement Biosafety legislation 				2018 - 2020

GOAL D: BENEFITS: The provision of ecosystem services, ecosystem-based management, and the equitable sharing of benefits from biodiversity is strengthened.

TARGET D1. By 2025, key ecosystem services are sustainably managed and resilient to threats					
Action	Activities	Indicator	Lead Agency	Synergies	Timeframe
H I G H D1.1 Identify and prioritise maintenance of key ecosystem services and integrate into national development planning	<ul style="list-style-type: none"> ■ Identification and mapping of priority ecosystems ■ Integration of priority ecosystems into development decisions 	<ul style="list-style-type: none"> ■ List of priority ecosystems (yes / no) ■ Awareness of and use of priority list in LIC, by DoE, Lands Dept., Dept. of Agriculture, Ministry of Works 	<p>Lead NIWRA NPAS NCCO</p> <p>Other CZMAI Forest Department Fisheries Department BiO DoE NGO partners</p>	NEAP 1.1.1. (1)	2016 - 2017



<p style="text-align: center; font-weight: bold;">H I G H</p>	<p>D1.2 Review, develop / update and operationalize national management strategies for each key ecosystem service</p>	<ul style="list-style-type: none"> ■ Update / develop ecosystem services management strategies ■ Assess ecosystem services and evaluate value and integration into national economy ■ Sensitize the Belize population, at all levels, to the importance of ecosystem services and the management strategies for their protection ■ Legislative review and strengthening of ecosystem services legislative framework ■ Review / develop the institutional framework for effective management of ecosystem services ■ Operationalise management strategies for effective sustainable management of ecosystem services, with monitoring of ecosystem condition ■ Build capacity for management of key ecosystem services ■ Strengthen integration of ecosystem service management into Integrated Land Use Planning Framework, National Integrated Water Resource Act, EIAs and PA management plans ■ Identify and prioritise site-specific ecosystem services "essential" to vulnerable communities, and gaps in management ■ Develop and implement local community environmental services strategies and plans 	<ul style="list-style-type: none"> ■ % identified environmental services that have approved management strategies ■ % identified environmental services that have been evaluated ■ % general public that recognizes ecosystem values and link to human well-being ■ Trends in value of ecosystem service being managed ■ Legislative framework protecting and managing ecosystem services (yes / no) ■ % management strategies that are being effectively implemented ■ Status and trends in extent and condition of habitats that provide carbon storage (NBMP) ■ Trends in distribution, condition and sustainability of ecosystem services for equitable human well-being (NBMP) ■ Clear institutional framework for ecosystem management (yes / no) ■ Monitoring Program to assess ecosystem health (yes / no) ■ Trends in condition of ecosystem services ■ Trends in distribution, condition and sustainability of ecosystem services for equitable human well-being (NBMP) ■ % communities with community development plans that integrate ecosystem services ■ Trends in well-being of communities who depend directly on local ecosystem goods and services (NBMP) 	<p style="text-align: center;">Lead NIWRA NPAS NCCO CZMAI Forest Department Fisheries Department</p> <p style="text-align: center;">Other BiO DoE WWF</p> <p style="text-align: center;">Lead Rural Development NIWRA</p> <p style="text-align: center;">Other BiO NPAS NCCO CZMAI PA managers</p>	<p>GSDS NC3.1.2 GSDS NC3.1.2 KBA project, BIOFIN, MCCAP, CC policy, NEAP, NESAP, Ag CC resilience, NIWRA NEAP 1.1.1 (6) NEAP 1.1.1 (7) Healthy Reefs</p>	<p style="text-align: center;">2016 - 2020</p>
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TARGET D2. By 2025, access to genetic resources and associated traditional knowledge is regulated and benefits arising from utilization are shared in a fair and equitable manner

	Action	Activities	Indicators	Agencies	Synergies	Timeframe
M E D I U M	D2.1 Develop and implement a national framework for bioprospecting, including sharing of benefits	<ul style="list-style-type: none"> Develop a national legislative framework for bioprospecting that defines mandates, roles and responsibilities for management of genetic resources 	<ul style="list-style-type: none"> National legislative framework for bioprospecting (yes / no) 	<p>Lead BiO Forest Department Fisheries Department</p>	<p>Fisheries Resource Bill (draft)</p>	
		<ul style="list-style-type: none"> Determine whether Belize will sign Nagoya Protocol, and if so, align national framework 	<ul style="list-style-type: none"> National decision on signing of Nagoya Protocol 	<p>Lead Forest Department</p>		<p>2016 - 2017</p>



GOAL E: IMPLEMENTATION: The National Biodiversity Strategy and Action Plan is implemented effectively through capacity building, informed strategic decision making and integrated public participation

TARGET E1. By 2018, all relevant government Ministries, 75% of relevant civil society, and 25% of the private sector and general public are effectively involved in the implementation of the NBSAP						
Action	Activities	Indicators	Agencies	Synergies	Timeframe	
HIGH	E1.1 Establish the Biodiversity Office to lead implementation of the NBSAP	<ul style="list-style-type: none"> Establish, institutionalise and operationalise the Biodiversity Office (BiO) under the Ministry responsible for Forestry, Fisheries and Protected Areas 	<ul style="list-style-type: none"> Biodiversity Office is operational with adequate staff and resources (yes / no) 	<p>Lead Forest Department</p>	<p>NPAS NCCO PACT</p>	2016 - 2017
		<ul style="list-style-type: none"> Ensure effective communication and collaboration between BiO, NPAS, NCCO, Forestry and Fisheries Depts. and DoE 				2016 - 2020
HIGH	E1.2 Sustainable biodiversity financing is identified and invested in the implementation of the NBSAP	<ul style="list-style-type: none"> Develop and implement Belize's BIOFIN Biodiversity Financing and Resource Mobilisation Plan 	<ul style="list-style-type: none"> Belize has a Biodiversity Financing and Resource Mobilisation Plan (yes / no) Trends in level of financial support for implementation of the NBSAP generated by the BIOFIN plan implementation 	<p>Lead Biodiversity Office Forest Department</p>	BIOFIN	2016 - 2020
HIGH	E1.3 Socialize the NBSAP at all levels	<ul style="list-style-type: none"> Develop and implement communication and engagement plan for reaching target groups Identify and engage Ministries and private sectors, key synergies, lines of responsibility, and benefits of alignment 	<ul style="list-style-type: none"> NBSAP Communication Plan developed and being implemented (yes/no) Number of Ministries actively engaged in NBSAP implementation 	<p>Lead Biodiversity Office Forest Department</p>	<p>NPAS Communication Plan</p>	2016 - 2020
HIGH	E1.4 Identify and implement mechanisms for civil society and the general public's effective involvement in the implementation of the NBSAP	<ul style="list-style-type: none"> Develop and implement communication and engagement plan for reaching target groups Resources and capacity needs assessment of target groups for NBSAP Implementation Provide support to key target groups in implementation of the NBSAP 	<ul style="list-style-type: none"> % population surveyed that are aware of the NBSAP and know what it is Number of groups actively implementing the NBSAP Trends in public engagement with biodiversity (NBMP) Trends in number of community-based conservation initiatives (NBMP) 	<p>Lead Biodiversity Office Forest Department</p>		

TARGET E2. By 2020, accurate and current data on Belize's natural resources and environmental services informs relevant national development decisions

Action	Activities	Indicators	Agencies	Synergies	Timeframe	
HIGH	E2.1 Centralize information on status of biodiversity and ecosystems and valuations of biodiversity and ecosystem services	<ul style="list-style-type: none"> Identify existing and required data needs Establish the Clearing House Mechanism - a data management platform 	<ul style="list-style-type: none"> Effective Clearing House Mechanism is accessible on line (Yes / No) 	<p>Lead Forest Department Biodiversity Office</p> <p>Other University of Belize - ERI</p>	KBA NBMP	2016 - 2018
	E2.2 Establish reporting framework for tracking biodiversity and NBSAP implementation and disseminate outputs to relevant Ministries and sectors	<ul style="list-style-type: none"> Develop, disseminate and utilise summary indices (adopt Healthy Reefs Index and develop Terrestrial, Freshwater and Environmental Health) for biennial scorecards Utilise and disseminate data on natural capital accounting 	<ul style="list-style-type: none"> Reporting framework developed for tracking NBSAP progress Summary indices available for disseminating information on biodiversity health 	<p>Lead Biodiversity Office Clearing House Mechanism</p> <p>Other University of Belize - ERI Healthy Reefs Statistics Institute of Belize</p>	BIOFIN NBMP	2016 - 2020
Target E3: By 2020, Belize's NBSAP is being implemented effectively, monitored and evaluated, and achieving desired outcomes.						
Action	Activities	Indicators	Agencies	Synergies	Timeframe	
E3.1 Assess implementation and measure success of outcomes / results of the NBSAP	<ul style="list-style-type: none"> Implement the NBSAP Monitoring and Evaluation framework on a biennial basis Disseminate report on status of NBSAP implementation and recommendations Revise NBSAP based on recommendations 	<ul style="list-style-type: none"> Trend in NBSAP implementation success Trend in NBSAP outcome success 	<p>Lead Biodiversity Office</p>		2018, 2020	



3.2 MAINSTREAMING INTO NATIONAL DEVELOPMENT GOALS

To be effective in mainstreaming the NBSAP it is important to link the NBSAP targets with the national development framework and sectoral plans and policies.

MAINSTREAMING – LINKS TO NATIONAL STRATEGIES AND FRAMEWORKS			
National Strategy / Framework	Link to Biodiversity	Relevant NBSAP Target(s)	Recommendations
Growth and Sustainable Development Strategy (2016) (Horizon 2030)	The NBSAP is aligned to fully integrate and support Horizon 2030 and GSDS goals and objectives, strengthening the links between biodiversity, ecosystem services and national development	<p>All NBSAP targets are relevant to CSF3: Sustained or Improved Health of Natural, Environmental, Historical and Cultural Assets.</p> <p>Of particular relevance :</p> <p>TARGET A1: By 2020, a framework has been designed and adopted to guide the harmonization of policies that positively impact biodiversity, across all Government departments.</p>	<ul style="list-style-type: none"> Strengthen integration of ecosystem services management in the landscape into the Integrated Land Use Planning Framework, National Integrated Water Resource Act and national, system and site level PA management plans.



<p>National Poverty Elimination Strategy and Action Plan, 2009-2013 (NPESAP)</p>	<p>The NPESAP promotes strengthened land and natural resource management, including water resources</p>	<p>Most NBSAP targets are relevant to NPESAP. Of particular relevance to water resources and risk-mitigating environmental services:</p> <p>TARGET A3. By 2020, all relevant national development decisions in Belize take into consideration ecosystem services and biodiversity relevance to the national economy</p> <p>TARGET B1. By 2020 primary extractive natural resource use in terrestrial, freshwater and marine environments is guided by sustainable management plans, with improved biodiversity sustainability</p> <p>TARGET B4. BY 2020 Belize is restoring 30% of degraded ecosystems to maintain and improve the status of ecosystems and ecosystem services essential for increasing Belize's resilience to climate change impacts</p> <p>TARGET C1. By 2030 Belize's natural landscapes and seascapes are all functional and build biodiversity resilience to climate change</p> <p>TARGET D1. By 2025, key ecosystem services are sustainably managed and resilient to threats.</p>	<ul style="list-style-type: none"> ■ Clear articulation of the critical role of natural resources and ecosystem services in poverty alleviation and disaster risk-mitigation in any revision and implementation of the NPESAP.
<p>National Land Use Policy and Integrated Planning Framework (2011)</p>	<p>Identifies best land-use for planned, balanced management of development and maintenance of ecosystem services, also taking into account natural ecosystems and species requirements</p>	<p>TARGET A1. By 2020, a framework has been designed and adopted to guide the harmonization of policies that positively impact biodiversity, across all Government departments.</p> <p>TARGET B3. Between 2016 and 2020, Belize has limited its net rate of land use change for prioritized natural ecosystems / areas to no more than 0.6% per year</p>	<ul style="list-style-type: none"> ■ Effective implementation of the National Land Use Policy and Integrated Planning Framework across all relevant Ministries, coordinated with NBSAP, National Integrated Water Resource Act, ICZMP ■ Review of mechanisms /feasibility for changes required for implementation of Activity B2.1: Extension of use of Environmental Compliance Plans, and environmental standards to lands of 100 acres and above, coastal and cayes, with protection of sensitive / priority ecosystems

National Land Use Policy and Integrated Planning Framework (2011) (continued)	Building ecosystem resilience and adaptation to climate change impacts	TARGET C1. By 2030 Belize's natural landscapes and seascapes are all functional and build climate change resilience for national biodiversity	<ul style="list-style-type: none"> Integration of recommendations for planning for future ecosystem functionality and climate change resilience into National Land Use Policy and Integrated Planning Framework Integrate climate change adaptation considerations for biodiversity into NPAS and national development planning
	Recognizes the need to ensure maintenance and effective, sustainable management of ecosystem services and timber / non-timber resources	<p>TARGET D1. By 2025, key ecosystem services are sustainably managed and resilient to threats</p> <p>TARGET B1. By 2020 primary extractive natural resource use in terrestrial, freshwater and marine environments is guided by sustainable management plans, with improved biodiversity sustainability</p>	<ul style="list-style-type: none"> Strengthened integration of ecosystem services into National Land Use Planning Policy and Integrated Planning Framework, the National Integrated Water Resources Act and PA management plans Legislative review and strengthening of ecosystem services legislation – 66' coastal and riparian ecosystems, protection of 25° slopes
	Recommends that provision of environmental services be considered in land valuation for taxation	TARGET A2. By 2020 Belize has legislated and implemented a national harmonized system of environmental standards and incentives that promote environmental responsibility and sustainability.	<ul style="list-style-type: none"> Amend Land Tax Act to support incentives for maintenance of environmental services, and remove significant disincentives
	Recognizes the importance of the National Protected Areas System and need for integration into national land use planning as "sacrosanct"	TARGET C4. Between 2016 and 2020, the National Protected Areas System is further strengthened, and effectively fulfils its roles in providing ecosystem services, ecosystem and species protection	<ul style="list-style-type: none"> Evaluate current legislation for strengthening and implementation of this recommendations of the National Land Use Plan
National Climate Change Policy, Strategy and Action Plan	Improving resilience of natural ecosystems	TARGET C1. By 2030 Belize's natural landscapes and seascapes are all functional and build climate change resilience for national biodiversity	<ul style="list-style-type: none"> Implement legislative policies identified in the Growth and Sustainable Development Strategies (CSF3) Institutionalize the National Climate Change Office
Sustainable Tourism Development Plan	Recognizes the importance of biodiversity and natural ecosystems to the tourism industry	TARGET A2: By 2020 Belize has legislated and implemented a national harmonized system of environmental standards and incentives that promote environmental responsibility and sustainability.	<ul style="list-style-type: none"> Strengthen strategies for support of improved natural resource management – the National Protected Areas System, wildlife regulations and guidelines for low-impact development outside the NPAS
Bioprospecting Framework	Protection of genetic resources and benefits to traditional users	TARGET D3. By 2025, access to genetic resources and associated traditional knowledge is regulated and benefits arising from utilization are shared in a fair and equitable manner.	<ul style="list-style-type: none"> Develop and implement a national framework for bioprospecting, including sharing of benefits

Forest Act Fisheries Act Wildlife Protection Act	Regulation of extractive use - addressing the loss / degradation of natural ecosystems and species populations	TARGET B1. By 2020 primary extractive natural resource use in terrestrial, freshwater and marine environments is guided by sustainable management plans, with improved biodiversity sustainability	<ul style="list-style-type: none"> ▪ Strengthen permitting systems and enforcement of natural resource extraction legislation and regulation ▪ Review and strengthen Mangrove Protection Act ▪ Amend natural resource extraction legislation and regulations for increased penalties ▪ Endorsement of Fisheries Resource Bill
	Regulation of extractive use - addressing the loss / degradation of natural ecosystems and species populations	TARGET C3. Between 2016 and 2030, no species in Belize becomes functionally extinct nationally	<ul style="list-style-type: none"> ▪ Revise and strengthen the Wildlife Protection Act and other relevant legislation, with increased fines
Environmental Protection Act and regulations	Protection of the environment from development impacts, pollution	TARGET B2. By 2020, 80% of businesses monitored in Belize are compliant with environmental standards	<ul style="list-style-type: none"> ▪ Extend requirement for environmental plans and standards to lands of 100 acres and above, coastal and cayes, with protection of sensitive / priority ecosystems ▪ Incorporate climate change considerations into the EIA process ▪ Strengthen enforcement of ECPs and other environmental regulations with increased fines
		TARGET C3. Between 2016 and 2030, no species in Belize becomes functionally extinct nationally	<ul style="list-style-type: none"> ▪ Integration of National Threatened Species List into EIA process, national planning and decision making
National Protected Areas System Act	Effective management of Belize protected areas for biodiversity protection, ecosystem services and community benefits	TARGET C1. By 2030 Belize's natural landscapes and seascapes are all functional and build climate change resilience for national biodiversity	<ul style="list-style-type: none"> ▪ Identify positive incentives for best practices that ensure maintenance and restoration of ecosystem functionality, vulnerable ecosystems and high biodiversity value areas
		TARGET C2. By 2020, three key corridors identified under the NPAPSP are established physically and legally, and effectively managed	<ul style="list-style-type: none"> ▪ Assess the current legal framework for biological corridors and strengthen if necessary
			<ul style="list-style-type: none"> ▪ Legally define the 3 key biological corridors (Northern, Central and Southern) through georeferenced Statutory Instruments

National Protected Areas System Act	Effective management of Belize protected areas for biodiversity protection, ecosystem services and community benefits	TARGET C4. Between 2016 and 2020, the National Protected Areas System is further strengthened, and effectively fulfils its roles in providing ecosystem services, ecosystem and species protection	<ul style="list-style-type: none"> Implement the revised National Protected Area System Plan (NPASP) and supporting NPAS Rationalization report Re-assess and amend inaccurate protected area SI's / boundaries where necessary Legal assessment of co-management framework of NPAS Act and integration of privately protected areas for strengthening if necessary
		TARGET D1. By 2025, key ecosystem services are sustainably managed and resilient to threats	<ul style="list-style-type: none"> Legislative review and strengthening of ecosystem services legislation Integrate into Land Use Planning Framework and National Integrated Water Resources Act and PA management plans
National Integrated Water Resources Act	Maintenance of intact watersheds for continued water catchment and supply	TARGET D1. By 2025, key ecosystem services are sustainably managed and resilient to threats	<ul style="list-style-type: none"> Legislative review drafting, submission and enactment of ecosystem services legislation aligned and integrated into Land Use Planning Framework and National Integrated Water Resources Act and PA management plans
National Lands Act Land Tax Act	Addressing large scale clearance of land and land degradation	TARGET B3. Between 2016 and 2020, Belize has limited its net rate of land use change for prioritized natural ecosystems / areas to no more than 0.6% per year	Amend Land Tax Act to include incentives for the long term commitment of land to conservation / maintenance of environmental services
	Addressing large scale clearance of land and land degradation	TARGET B3. Between 2016 and 2020, Belize has limited its net rate of land use change for prioritized natural ecosystems / areas to no more than 0.6% per year	<ul style="list-style-type: none"> Amend legislation for integration of environmental conditions into the land conveyance process for lands of 100 acres and above Incentivise location of new developments on degraded lands rather than removing natural ecosystems critical for climate change resilience
National Climate Change Policy, Strategy and Action Plan	Improving resilience of natural ecosystems	TARGET C1. By 2030 Belize's natural landscapes and seascapes are all functional and build climate change resilience for national biodiversity	<ul style="list-style-type: none"> Institutionalize the National Climate Change Office
Ministry of Finance	Incentives for maintenance of biodiversity, ecosystems and ecosystem services	TARGET B3. Between 2016 and 2020, Belize has limited its net rate of land use change for prioritized natural ecosystems / areas to no more than 0.6% per year	<ul style="list-style-type: none"> Identify incentives for private landowners Strengthen penalties for environmental infractions Incentivise location of new developments on degraded lands rather than removing natural ecosystems critical for climate change resilience
		TARGET C1. By 2030 Belize's natural landscapes and seascapes are all functional and build climate change resilience for national biodiversity	<ul style="list-style-type: none"> Amend legislation for positive incentives for best practices that ensure maintenance and restoration of ecosystem functionality, vulnerable ecosystems and high biodiversity value areas

<p>National Climate Change Policy, Strategy and Action Plan</p>	<p>Improving resilience of natural ecosystems</p>	<p>TARGET C1. By 2030 Belize's natural landscapes and seascapes are all functional and build climate change resilience for national biodiversity</p>	<ul style="list-style-type: none"> ▪ Implement legislative policies identified in the Growth and Sustainable Development Strategies (CSF3) ▪ Institutionalize the National Climate Change Office
<p>Belize Tourism Board Act</p>		<p>TARGET C3. Between 2016 and 2030, no species in Belize becomes functionally extinct nationally</p>	<ul style="list-style-type: none"> ▪ Strengthen regulations for tour guide and tourism operations legislation against wildlife crimes ▪ Strengthen regulations for tourism operations relevant to compliance with environmental standards
<p>BAHA Forest Department - CITES</p>	<p>Addressing invasive species</p>	<p>TARGET B6. By 2018, Belize has in place a strengthened system for early detection and effective management of invasive species</p>	<ul style="list-style-type: none"> ▪ Strengthen policies and their implementation re. importation of exotic species
	<p>Addressing biosafety</p>	<p>TARGET C6. By 2020, Belize is implementing a bio safety policy that safeguards against large-scale loss of biological integrity</p>	<ul style="list-style-type: none"> ▪ Legal drafting, submission and enactment of Biosafety Policy





IMPLEMENTATION PLAN

4.1 CAPACITY DEVELOPMENT

4.2 COMMUNICATION AND OUTREACH

4.3 RESOURCE MOBILIZATION

4.1 CAPACITY DEVELOPMENT

Since the development of the first NBSAP, in 1998, Belize has been gradually building capacity - improving the management framework for natural resource management, increasing the number and capacity of technical staff, and strengthening collaborative partnerships between government departments and Ministries, private sector and civil society. It is recognised that the implementation of the updated NBSAP will require coordinated action by a broad spectrum of these agencies, working at a range of scales (Table 5).

AGENCY	ROLES AND RESPONSIBILITIES
Forest Department (MAFFESD)	The FD oversees the sustainable management of Belize's terrestrial resources through implementation of the Forest Act, and the Wildlife Protection Act. It fulfils its duties, in part, through the coordinated delegation to a range of government, and non-governmental partner agencies. The CBD National Focal Point sits within this department. The FD serves as co-chair of the National Protected Areas Committee, which serves to advise the GOB on all issues related to the National Protected Area System, and the Protected Areas Conservation Trust is responsible for financial sustainability
Fisheries Department (MAFFESD)	The Fisheries Department is mandated through national legislation to manage Belize's fisheries, and to provide for the establishment and marine reserves within the system. The BFD also serves as co-chair of the NPAC, the entity which serves to advise the GOB on all issues related to the NPAS and PACT.
Department of the Environment (MAFFESD)	The DoE is responsible for fostering prudent use and proper management of the natural resources of Belize, the preservation, protection and improvement of the environment, and the control of pollution.
National Climate Change Office (MAFFESD)	The National Climate Change Office is responsible for coordinating the implementation of Belize's National Climate Change Policy and Strategic Action Plan and climate change Programs, and advises the GoB on matters related to climate change.
Ministry of Natural Resources and Immigration (MNRI)	The MNRI undertakes to foster an integrated approach of coordination, protection and sustainable management of Belize's natural resources. The GEF Operational Focal Point is embedded in this Ministry.
Department of Agriculture (MAFFESD)	The Department of Agriculture seeks sustainable rural development through the agricultural sector, providing the economic base for enhanced economic growth of the Country and addressing poverty alleviation, and to ensure food security, generate income and foreign exchange, create employment, and conserve natural resources.
Ministry of Finance	The MoF is required to advise on, coordinate and implement the government's economic and fiscal policies and Programs including the generation and allocation of financial resources to provide appropriate public services and to contribute to the overall development of Belize.
Ministry of Economic Development	The Ministry of Economic Development has recently been separated from the Ministry of Finance, and focuses on public and private sector investment in Belize's development.
Ministry of Tourism and Culture	The MTC holds overall responsibility for the development of tourism in Belize, including leading implementation of the National Sustainable Tourism Master Plan (NSTMP), and the preservation of Belize's cultural heritage. The Belize Tourism Board (BTB) and the National Institute of Culture and History (NICH) are statutory bodies within the Ministry of Tourism and Culture.
Ministry of Energy, Science and Technology and Public Utilities	The MESTPU aims to strategically integrate energy, science and technology into national development planning and decision making and improve policy and regulatory framework for public utilities to improve service delivery.
Coastal Zone Management Authority and Institute (CZMAI)	The CZMAI is a quasi-governmental entity established to advise on the sustainable use and planned development of Belize's coastal resources through increased knowledge, planning and the building of alliances for the benefit of the Belizean people and the global community.

Institute of Archaeology (IoA)	The IoA is a quasi-governmental agency established in 2003, which replaced the Department of Archaeology. The IoA is dedicated to the research, protection, preservation, and sustainable management of Belize's cultural and archaeological resources. It has among its objectives the sustainable development and effective management of all public archaeological reserves and parks.
Protected Areas Conservation Trust (PACT)	PACT is a national trust established to provide financial support to the NPAS. PACT has significant roles in park financing, and as such, in the financial sustainability of the system.
APAMO	APAMO is Belize's network of environmental non-governmental organizations (both NGOs and CBOs), and provides representation of co-managed protected area management organizations in national planning initiatives, particularly for PA management. Members of APAMO co-manage as much as 30% of the NPAS.
National NGOs	Several national conservation NGOs co-manage protected areas, mandated by FD or BFD, and are active in national planning initiatives, particularly for protected area management.
International NGOs	International NGOs with a presence in Belize work directly by supporting interventions to ensure sustainable management of the natural resource base, financial sustainability of PAs, and improved management effectiveness of PAs.
University of Belize - Environmental Research Institute (ERI)	ERI builds national capacity for the effective management, sustainable use and conservation of Belize's natural resources. It provides a mechanism for research that meets the natural resource management needs of Belize as identified in relevant national plans and policies, and provides training for effective protected area management.

Table 5: Roles and responsibilities of primary NBSAP implementation agencies

Government is faced with rapid, often unplanned development in agriculture and tourism, threatening Belize's critical natural resources. The primary Government departments are challenged by excessive responsibilities, insufficient staff for the tasks at hand, lack of appropriate equipment and transportation, and operational budgets that are being cut rather than expanded. A capacity development needs assessment was conducted during the development of the national Growth and Sustainable Development Plan (GSDS; GoB, 2014), to identify capacity building needs across Ministries and government departments. Through the NBSAP planning process, it was also recognized that Belize needs to build in-country capacities at multiple levels for the effective implementation of the NBSAP:

- **Individual Level**

- the general Belize public is not effectively engaged in the process of biodiversity and ecosystem conservation, and the sustainable use of natural resources, and has only a limited understanding of its importance.
- nationally, at the technical level, the number of individuals that have the skills required for technical positions is limited, but increasing.

- **Institutional Level**

- Government agencies, NGOs and CBOs are often limited by availability of human resources, and hold responsibilities that stretch over the entire country, with few staff and significant logistical challenges to address these responsibilities.
- mainstreaming across Government is limited, with only recent recognition of the importance of the environment to national development, and integration into national development planning.
- Government agencies not directly involved in biodiversity and the environment are not effectively engaged in the process of biodiversity conservation.

- **Systemic Level**

- there is limited mainstreaming of environmental ethics permeating through national decisions making and actions.

GOVERNMENTAL UNIT	CAPACITY DEVELOPMENT NEEDS LINKED TO THE GSDS
<p>All Ministries</p>	<ul style="list-style-type: none"> ■ General skills-needs include: strategic planning and critical analysis; Program budgeting; monitoring and evaluation; project preparation and management; report and proposal writing; leadership; and change management ■ Need for effective frameworks for improved collaboration between Ministries and departments towards achieving the NBSAP and the GSDS / Horizon 2030
<p>Ministry of Energy, Science, Technology and Public Utilities</p>	<ul style="list-style-type: none"> ■ More technically-trained staff, with a focus on key areas of prioritized need such as energy efficiency in the transport and industrial sectors ■ Development of an extension structure to support diffusion and new technologies (including green technologies) ■ Understanding of Belize’s climate change commitments in relation to energy
<p>Ministry of Finance Ministry of Economic Development</p>	<ul style="list-style-type: none"> ■ Policy formulation and strategic planning, including, integrated economic, social, and ecological development policy, taxation policy, expenditure policy and industrial relations policy. ■ Macroeconomic forecasting, including revenue and expenditure forecasting ■ Research including that in relation to, economic, social and sustainable development policy; financing instruments; development financing; and governance institutions ■ Monitoring and evaluation, including that with respect to capital projects ■ Project preparation and management
<p>Forest Department (MAFFESD)</p>	<ul style="list-style-type: none"> ■ Additional, technically-trained staff with a focus on key areas of prioritized need – e.g. conducting natural resource valuation ■ Knowledge of the natural resources being managed ■ Skills in presenting clear justifications for improved investment in natural resource management and protected areas ■ Strategic planning, monitoring and evaluation of outputs and outcomes and integration into decision making ■ Established functional communications network that assists in coordination of activities among natural resource management professionals. ■ Technical capacity to be able to provide capacity building and technical support to co-management partners, to ensure co-management agreements are successful ■ Improved mechanisms and technology for cross-agency collaboration for effective enforcement of natural resource-related crimes
<p>Fisheries Department (MAFFESD)</p>	<ul style="list-style-type: none"> ■ Strategic planning, monitoring and evaluation of outputs and outcomes and integration into decision making ■ Mechanisms for improved integration of partners and stakeholders into management of marine protected areas
<p>Department of Sustainable Development (MAFFESD)</p>	<ul style="list-style-type: none"> ■ Tracking and monitoring of Belize’s commitments under international agreements ■ IT staff to support knowledge management and diffusion ■ Communication (e.g. keeping Ministries and stakeholders informed of relevant developments in SD)

Department of Agriculture (MAFFESD)	<ul style="list-style-type: none"> ■ Agricultural statistician ■ Knowledge of climate change, implications on agriculture in Belize, and technological solutions for climate-smart adaptation ■ Training of District-based Agricultural Extension Officers for improved ability to assist farmers and diffusion of climate-smart technology and methods
Ministry of Natural Resources	<ul style="list-style-type: none"> ■ Senior qualified hydrologists (several sub-specialties) ■ Improved collaboration with other stakeholders (particularly Forest Department)
Ministry of Tourism and Culture	<ul style="list-style-type: none"> ■ Program budgeting, planning, project management, writing ■ Understanding of climate change, implications on tourism in Belize, and technological solutions for climate-smart adaptation
Statistical Institute of Belize	<ul style="list-style-type: none"> ■ Additional qualified staff (statisticians, demographers, etc.) to support the Monitoring and Evaluation process of the NBSAP and GSDS ■ Capacity to gather and manage data in a centralized location

(Adapted from GSDS, 2014)

A more specific needs assessment was also conducted by UB-ERI in 2011 to design a national capacity building course targeted at the NPAS management partners, which covers the critical knowledge areas, skill sets, and attitudes required by effective PA professionals, and profile the roles and responsibilities associated with effective PA management. Priorities were identified as Research and Monitoring for PA Management, Institutional Capacity and Strengthening, Ranger Training, and Conservation/ Protected Area Sustainable financing (ERI, 2011). A targeted training Program in 2013 / 2014 addressed many of these gaps, building capacity across the National Protected Areas System. The results are now being further developed to propose a national register of competences for the different protected area management and staff levels, aligned with the global register of protected areas competencies (IUCN/WCPA, 2015).

The targets with specific capacity building or training needs in their related actions have been identified through the NBSAP revision process (Table 6):

NATIONAL TARGETS WITH IDENTIFIED CAPACITY BUILDING REQUIREMENTS	
Strategy	
A2	By 2020 Belize has legislated and implemented a national harmonized system of environmental standards and incentives that promote environmental responsibility and sustainability
A4	By 2020, 100% of relevant Government, 75% civil society and 50% of the general public in Belize have increased awareness and appreciation of biodiversity and demonstrate active good stewardship
B1	By 2020 primary extractive natural resource use in terrestrial, freshwater and marine environments is guided by sustainable management plans, with improved biodiversity sustainability
B2	By 2020, 80% of businesses monitored in Belize are compliant with environmental standards
B4	By 2020 Belize is restoring 30% of degraded ecosystems to maintain priority ecosystems and ecosystem services essential for increasing Belize's resilience to climate change impacts
B5	By 2025, Belize is addressing its trans-boundary issues, with 20% reduction in terrestrial impacts and 50% reduction in illegal fishing from trans-boundary incursions
C1	By 2030, Belize's natural landscapes and seascapes are all functional and build biodiversity resilience to climate change

C3	Between 2016 and 2030, no species becomes functionally extinct in Belize
C4	By 2020, average management effectiveness of the NPAS has improved to 80%
D1	By 2025, key ecosystem services are sustainably managed and resilient to threats
E1	By 2018, all relevant government Ministries, 75% of relevant civil society, and 25% of the private sector and general public are effectively involved in the implementation of the NBSAP
E2	By 2020, accurate and current data on Belize's natural resources and environmental services informs relevant national development decisions

Table 6: National targets with identified capacity building needs

A review of the actions identified for each of the targets demonstrates a specific range of skills that will need to be employed in order for implementation to be effective, with a range of technical experts required (Table 7). The chart does not include experts on species, habitats or individual threats (e.g., invasive species and climate change), or as those focused on policy development or implementation, as these are universal to varying degrees across all targets.

Capacity Requirements for NBSAP Implementation											
	Legal experts	GIS technicians	Database technicians	Educators & trainers	Environmental economists	Spatial planners	Agronomists	Outreach & media experts	Industry advisors	M&E experts & statisticians	Sustainable development specialists
A1.1											
A2.1											
A2.2											
A2.3											
A3.1											
A3.2											
A3.3											
A4.1											
A4.2											
A4.3											
B1.1											
B1.2											
B1.3											
B1.4											
B2.1											
B2.2											
B2.3											
B2.4											
B2.5											
B3.1											
B3.2											
B3.3											

Capacity Requirements for NBSAP Implementation											
	Legal experts	GIS technicians	Database technicians	Educators & trainers	Environmental economists	Spatial planners	Agronomists	Outreach & media experts	Industry advisors	M&E experts & statisticians	Sustainable development specialists
B3.4	■	■				■			■		
B3.5		■				■	■				
B3.6							■				
B4.1		■		■							
B5.1									■		
B6.1				■				■			
C1.1			■							■	
C1.2									■		■
C1.3					■						
C1.4	■										■
C2.1	■										
C2.2	■	■				■				■	
C3.1			■							■	
C3.2	■			■							
C3.3				■							
C3.4								■			
C4.1		■		■		■					
C4.2	■	■		■							
C4.3	■			■	■						
C4.4				■	■						
C4.5				■							■
C5.1	■			■							
D1.1		■									
D1.2	■			■	■						■
D2.1	■				■				■		
E1.1				■				■			
E1.2					■						
E1.3				■				■			
E1.4				■				■			
E2.1			■							■	
E2.2			■		■					■	
E3.1			■							■	

Table 7: Capacity Requirements for NBSAP Implementation

4.2 COMMUNICATION AND OUTREACH

Communication and outreach is critical if NBSAP implementation is to be mainstreamed throughout public and private sector, and across the general public in Belize. It is key for engaging stakeholder support and partnerships for the implementation of activities towards the sustainable use of biodiversity, and a requirement under Article 13 of the CBD (Figure 3), and supported by the Convention's Communication, Education and Public Awareness (CEPA) Program. The NBSAP itself identifies the need for an effective communication and outreach plan as one of the highest priority supporting strategies in achieving many of the NBSAP objectives (NBSAP Strategy A4.1; Figure 4), and it is integrated into objectives and strategies. One of the first activities to be conducted on approval of the NBSAP is the development of the NBSAP Communication and Outreach Strategy, providing a framework to guide the development and delivery of communication activities.

Building awareness and engagement is critical at all levels if NBSAP implementation is going to succeed – with the CBD Secretariat, with regional partners, across departments within the Ministry of Agriculture, Forestry, Fisheries, the Environment and Sustainable Development, across other Government Ministries, with non-government, private sector partners, local decision makers and leaders, the general Belize public, and across national borders. Targeted outreach strategies developed within the NBSAP framework will strengthen NBSAP implementation, promoting collaborative partnerships, shifts in attitudes and behavioural change – and ultimately, mainstreaming and nurturing widespread stakeholder ownership of the NBSAP and support of national biodiversity conservation.

The low level of national awareness of biodiversity and the link between biodiversity health, human health, and achieving national development goals has been flagged as a major barrier to the successful implementation of the NBSAP, with a need to

Article 13 of the Convention on Biological Diversity (CBD) calls for each Contracting Party:

“to promote and encourage understanding of the importance of, and the measures required for, the conservation of biological diversity, as well as its propagation through media, and the inclusion of these topics in the education programs ...”

strengthen environment, conservation and biodiversity within the school curriculum at all levels to ensure future generations are better informed and demonstrate improved environmental stewardship. National investment in coordinated, collaborative, sustained outreach campaigns is considered important, to replace short-term, project-based initiatives.

Many organizations have implemented successful individual initiatives to increase awareness, improve best practices and reduce pressure on biodiversity. There is recognition that there is a need to be more strategic in awareness and communication activities - through collaborative partnerships that improve sustainability, reach and effectiveness of the messages being transferred.

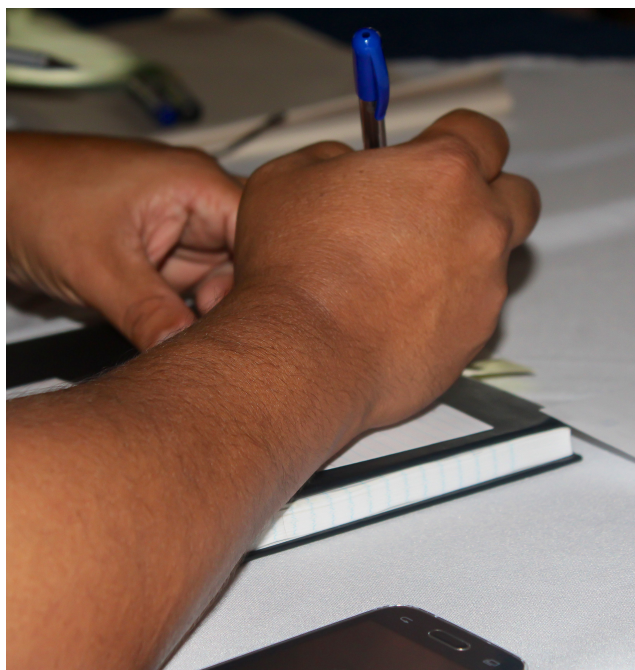
Key areas of work for communication and outreach have been identified based on situation assessments of threats to and drivers of biodiversity loss during the development of the NBSAP. These include the need to build an awareness and understanding of:

- Role and relevance of the NBSAP
- Role and relevance of biodiversity
- Biodiversity
- Ecosystem services
- Climate change
- National Protected Areas System

- Sustainable land use and natural resource management
- Land-based pollution
- Protecting threatened species

Whilst these may stand alone as individual communication strategies or plans (there is already a Communication Strategy for the National Protected Areas System, for example, and a draft strategy in preparation for wildlife), they need to be couched within a single strategic framework, with targeted messages at multiple levels, to ensure effective mainstreaming – from national decision makers to primary school students.

Once developed, the Communication and Outreach Strategy Framework, (NBSAP Strategy A4.1) will be a living document, to be modified and updated at regular intervals throughout the implementation period (2016 - 2020). A number of other NBSAP strategies are also supported by specific communication, outreach and education activities, designed to build awareness, and will need to be integrated into the Communication and Outreach Strategy Framework as it is being developed (Table 8). One of these is the re-establishment of the national Clearing House Mechanism (CHM) through which information can be accumulated, organized and disseminated to the stakeholder community and the general public.



KEY COMPONENTS CONTRIBUTING TOWARDS THE NBSAP COMMUNICATION AND OUTREACH PLAN

GOAL A: MAINSTREAMING: Improved environmental stewardship is demonstrated across all society in Belize, as is an understanding and appreciation of marine, freshwater and terrestrial biodiversity, its benefits and values

TARGET A4: By 2020, 100% of relevant Government, 75% of civil society and 50% of the general public in Belize have increased awareness and appreciation of biodiversity and demonstrate active good stewardship

A4.1 Develop and implement a National Communication, Outreach and Engagement Framework to improve understanding of the role and importance of biodiversity and increase active good stewardship

- Identify key stakeholder groups to be engaged as advocates/champions for biodiversity
- Develop and implement Awareness and Engagement Strategies targeted at key stakeholder groups
- Initiate education awareness programmes to draw attention to the impacts of Climate Change on the sectors and measures to adapt and mitigate those anticipated impacts.

A4.2 Improved integration of environmental education into classroom activities

- Develop materials and lesson plans in collaboration with Ministry of Education to support improved integration of environmental education into classroom activities
- Engage principles for effective integration of environmental education at all levels
- Training and support of teachers in integrating environmental education in the classroom

A4.3 Develop and implement national communication strategies for key components of the NBSAP

Table 8: NBSAP STRATEGIC ACTIONS AND ACTIVITIES RELEVANT TO THE COMMUNICATION AND OUTREACH STRATEGY

A: MAINSTREAMING: Improved environmental stewardship is demonstrated across all society in Belize, as is an understanding and appreciation of marine, freshwater and terrestrial biodiversity, their benefits and values

TARGET	STRATEGIC ACTION	ACTIVITY	PRIORITY AREA
A3: By 2020, all relevant national development decisions in Belize take into consideration ecosystem services and biodiversity relevance to the national economy	A3.1 Improve information on the value of ecosystem services and assess best resource use for decision making at national level	Socialisation of ecosystem services and values across Ministries, civil society and the general public	Ecosystem Services

B: REDUCING PRESSURES: Direct and indirect pressures on Belize’s marine, freshwater and terrestrial ecosystems are reduced to sustain and enhance national biodiversity and ecosystem services

B3. Between 2016 and 2020, Belize has limited its net rate of land use change for natural ecosystems / areas to no more than 0.6% per year	B3.1 Implementation of the National Land Use Policy and Integrated Planning Framework across all relevant Ministries	Socialisation and adoption of National Land Use Plan across Ministries	Sustainable land use and natural resource management
	B3.3 Integrate environmental change limits into land conveyances for prioritised ecosystems	Socialise environmental change limits across Lands Department, Association of Real Estate Brokers, attorneys, BELTRADE and other key stakeholders	
	B3.4 Incentivise location of new developments on degraded lands rather than removing natural ecosystems critical for climate change resilience	Socialise incentives for use of degraded lands through BELTRAIDE and other key stakeholders	
	B3.5 Promote shift to more environmentally sustainable agriculture, reducing rate of deforestation	Promote environmentally sustainable management systems	
	B3.6 Implement effective fire management across Belize	Develop, socialise and implement best practices for the management of fires related to agricultural land clearing	
B6. By 2018, Belize has in place a strengthened system for early detection and effective management of invasive species	B6.1 Develop and implement an action plan to identify and address prevention and / or management of invasive species	Strengthen public awareness of the issue of invasive species	Invasive species



C: Protection: Functional ecosystems and viable populations of Belize's biodiversity are maintained and strengthened

TARGET	STRATEGIC ACTION	ACTIVITY	PRIORITY AREA
C1. By 2030 Belize's natural landscapes and seascapes are all functional and build biodiversity resilience to climate change	C1.2 Identify and implement improved adaptive management regimes for critical landscape / seascape ecosystems based on climate change vulnerability	Socialise and implement the National Climate Change Policy, Strategy and Action Plan Promote the development of institutional mechanisms that will enhance Belize's planning and response capacity to Climate Change	Climate change
	C1.3 Provide positive incentives for best practices that ensure the maintenance and restoration of ecosystem functionality, vulnerable ecosystems and high biodiversity value areas	Identify, implement and socialise incentives for maintenance and restoration of critical ecosystems on private lands	Sustainable land use and natural resource management Climate change
C3. Between 2016 and 2030, no species becomes functionally extinct in Belize	C3.1 Update and approve Belize's National Threatened Species List	Produce updated, endorsed, prioritised National Threatened Species List and socialise	Protecting threatened species
	C3.4 Improve sensitization of the general public to wildlife and the environment	Finalize and implement the National Wildlife Awareness Strategy	
C4. By 2020, average management effectiveness of the National Protected Areas System has increased to 80%	C4.1 Implement the revised National Protected Area System Plan (NPAS) and supporting NPAS Rationalization report	Implement the NPAS communication strategy	National Protected Areas System
C5. By 2020, Belize is implementing a biosafety policy that safeguards against large-scale loss of biological integrity	C5.1 Revise and implement the Biosafety Policy	Raise awareness of biosafety issues among policy and decision makers, public	Biodiversity



D: BENEFITS: Strengthened provision of ecosystem services, ecosystem-based management, and the equitable sharing of benefits from biodiversity			
TARGET	STRATEGIC ACTION	ACTIVITY	PRIORITY AREA
D1. By 2025, key ecosystem services are sustainably managed and resilient to threats	D1.2 Review, develop /update and operationalize national management strategies for each key ecosystem service	Sensitize the Belize population at all levels to the importance of ecosystem services and the management strategies for their protection	Ecosystem Services
E: IMPLEMENTATION: Effective implementation of the National Biodiversity Strategy and Action Plan through capacity building, strategic decision making and integrated public participation			
E1. By 2018, all relevant government Ministries, 75% of relevant civil society, and 25% of the private sector and general public are effectively involved in the implementation of the NBSAP	E1.3 Socialize the NBSAP at all levels	Develop and implement NBSAP Communication and Engagement Strategy	Role and relevance of the NBSAP
	E1.4 Identify and implement mechanisms for civil society and the general public's effective involvement in the implementation of the NBSAP	Develop and implement Communication and Engagement Strategy to socialise the NBSAP	Role and relevance of the NBSAP
E2. By 2020, accurate and current data on Belize's natural resources and environmental services informs relevant national development decisions	E2.1 Centralize information on status of biodiversity and ecosystems and valuations of biodiversity and ecosystem services	Establish the Clearing House Mechanism - a data management platform	Ecosystem services Biodiversity

Table 8: NBSAP Strategic Actions and Activities Relevant to the Communication and Outreach Strategy



4.3 RESOURCE MOBILIZATION

4.3.1 REVIEW OF EXISTING FINANCIAL MECHANISMS

The following section details the current biodiversity conservation financial mechanisms in use in Belize, and potentially available for implementation of the NBSAP. Whilst these mechanisms provide an indication of some of the necessary funding, there will still be a significant funding gap that will need to be met. The National Protected Areas System is the primary mechanism used by Belize for biodiversity conservation, and is supported through a variety of funding mechanisms including national allocations towards Ministries responsible for natural resource management, grants from the Protected Areas Conservation Trust (PACT), Debt-for-Nature agreement, revenue generated directly by the protected areas themselves, and funds leveraged by protected area co-management agencies. There is a strong reliance on international funding.

Bilateral and Multi-lateral Funding

Global Environment Facility (GEF): The GEF, established in 1991, is the financial mechanism for implementation of both the CBD and the UNFCCC. It has invested in Belize since 1991, with eleven of nineteen national projects focused on biodiversity and four in multi-focal areas. The GEF Focal Point is housed in the Ministry of Natural Resources. Belize has been a participant in twenty-four regional and global projects financed by the GEF - eight investing in biodiversity and two in multifocal area projects. Most recently, GEF has partnered with the Central American Commission on Environment and Development (CCAD) to implement a US\$10M regional project focused on the connected reefs of Belize, Guatemala, Honduras and Mexico. This project, the Integrated Transboundary Ridges-to-Reef Management of the Mesoamerican Reef (MAR2R), is scheduled to invest in strengthening regional collaboration for the ecological integrity of the Mesoamerican Reef, with an increased focus on the ridge to reef approach to its management (GEF, 2016; Table 9).

GEF Agency	Project	GEF Funding	Co-Financing
WWF-US	Integrated Transboundary Ridges-to-Reef Management of the Mesoamerican Reef	9,018,349	69,457,826
UNIDO	Development and Implementation of a Sustainable Management Mechanism for POPs in the Caribbean	8,839,000	19,040,000
UNEP	Support to Preparation of the Third National Biosafety Reports to the Cartagena Protocol on Biosafety - GRULAC and CEE REGIONS	1,152,950	1,025,000

Table 9: Regional GEF projects, 2010 – 2016

The GEF has continued to commit funding for Belize’s national biodiversity conservation, climate change adaptation, and land degradation mitigation projects through a number of GEF agencies, including the United Nations Development Programme (UNDP), United Nations Environmental Programme (UNEP), the Food and Agricultural Organization (FAO) of the United Nations, the Inter-American Development Bank (IDB), the World Bank and World Wildlife Fund-US (WWF-US). For the GEF-6 replenishment (July 2014 to June 2018), US\$2,860,000 has been committed to biodiversity, of a total US\$5,740,000 across the three focal areas (GEF, 2016; Table 10).

GEF AGENCY	Project	GEF Funding	Co-Financing
UNDP	Strengthening National Capacities for the Consolidation, Operationalization and Sustainability of Belize's Protected Areas System	975,000	1,031,000
World Bank	Management and protection of Key Biodiversity Areas (KBAs)	6,085,600	16,000,000
UNDP	National Biodiversity Planning to Support the implementation of the CBD 2011-2020 Strategic Plan	220,000	102,000
UNDP	Capacity-building for the strategic planning and management of natural resources in Belize	759,000	914,000
UNDP	Belize Chemicals and Waste Management Project	990,000	6,500,000
World Bank	Energy Resilience for Climate Adaptation	8,000,000	4,800,000

Table 10: National GEF projects, 2010 – 2016

Whilst these projects are focused at national level, the GEF also provides funding at site-level project level through the **GEF Small Grants Programme**, established in Belize in 1993, and focused on empowering and supporting grassroots initiatives and community-level action, investing in community stewardship. Belize has received financial support from the SGP since 1993 totalling just under US\$5.8 million, leveraging over US\$6.4 million in co-financing resources for 226 projects executed by civil society and community based organizations. Of these projects, over 85% (192) are biodiversity-related. The GEF SGP at the Program level has managed to leverage significant financial resources to support community initiatives in territories and areas conserved by indigenous and local communities (ICCAs, from Oak Foundation, AusAid, and the German Ministry of Environment, among others.

An important component of the GEF SGP Program in Belize is the **Community Management of Protected Areas for Conservation Programme (COMPACT)**, targeted at projects that are associated with improving community stewardship of Belize's World Heritage Site – The Belize Barrier Reef Reserve

The GEF Small Grants Programme embodies the very essence of sustainable development by "Community Action Global Impact". By providing financial and technical support to projects that conserve and restore the environment while enhancing people's well-being and livelihoods, SGP demonstrates that community action can maintain the fine balance between human needs and environmental imperatives.

GEF-SGP, 2010

System. The SGP also manages investment funding from other agencies, such as the Australia Aid (AusAid) climate change mitigation initiative. As a small country, this investment in coastal communities is considered a significant contribution towards engaging these coastal stakeholders.

The Inter-American Development Bank (IDB) has supported improved solid waste management, planning for waste water and sanitation for the Placencia Peninsula, land management Programs,

improving agricultural health systems, the support of green power through Belcogen, supporting cacao growers, disaster risk management and upgrading tourism infrastructure. Building capacity for disaster preparedness and emergency response has also been the focus of **United Nations Development Programme (UNDP)** support, as has improved water resource management, through the development of the National Integrated Water Resource Management Act (2011).

Belize has benefited over the last ten years from a number of bilateral funding partners, both at the national and regional level. Australia has invested in community-based climate change adaptation projects through the **Australian Agency for International Development (AusAID)** managed through the GEF Small Grants Programme. Germany is investing in regional projects through the **Federal Ministry for Economic Cooperation and Development (BMZ)** and **Kreditanstalt fuer Wiederaufbau (KfW)**. The **BMZ** is investing in a regional Program focused on the conservation and sustainable use of the Selva Maya, the largest tropical rainforest block north of the Amazon Basin, and including portions of Belize's northern forests. The project supports work to develop common strategies fostering local and transnational cooperation between Belize, Guatemala and Mexico, through the GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit), managed through CCAD, the environmental arm of the Central American Integration System (SICA). The United Kingdom has financed a number of biodiversity studies through the **Department for International Development (DFID)**, generally based on collaborative partnerships between UK and Belize institutions. Much of this aid is focused on climate change adaptation. The **European Union** is supporting the Global Climate Change Alliance

(GCCA) regional Program, under the 10th EDF Intra-African Caribbean and Pacific financial framework in the Caribbean.

Japan, too, has invested in Belize for many years through the **Japan International Cooperation Agency (JICA)**, and has focused on "disaster risk reduction and environmental conservation" and "disparity reduction" in order to tackle the country's external and internal vulnerabilities.

NGO / Private Sector

Grant funding is critical for the management of the National Protected Areas System, with investment sought by co-management partners, with the support of the Government, for implementation of many of the management strategies and activities in co-managed protected areas as well as for wildlife rehabilitation and management. Funding agencies include international funders, including The Nature Conservancy, Wildlife Conservation Society, World Wildlife Fund, and Fauna and Flora International, and philanthropic agencies such as OAK Foundation and Summit Foundation. Smaller funders are also very important, with a focus on species, building capacity for community conservation, building natural-resource based resilience for communities and other specific project based activities and funders.

The **United States Fish and Wildlife Service** works directly with agencies in Belize (both Government and non-Government), and has provided funding for conservation projects through its **Wildlife Without Borders** Program, focusing on conserving "priority species and ecosystems across high-biodiversity value landscapes in the Mesoamerican Biological Corridor while simultaneously benefiting local communities" (Table 11).

YEAR	PROJECT	IMPLEMENTING AGENCIES
2015	Increasing wildlife security through development of a landscape-wide compliance strategy for the Southern Maya Mountains.	Ya'axché Conservation Trust.
	Prevention and control of agricultural incursions in the Chiquibul National Park.	Friends for Conservation and Development
	5 Year cooperative agreement for the conservation of Mesoamerica's last wild places (Multiple Countries)	Wildlife Conservation Society
2014	Promoting conservation and sustainable land-use in the Maya Golden landscape, southern Belize.	Fauna and Flora International / Ya'axché Conservation Trust
	Human-jaguar conflict mitigation in the Southern Biological Corridor, Belize.	Ya'axché Conservation Trust / Panthera

Table 11: USFWS Investment in Belize

National Funding for Biodiversity

The **Protected Areas Conservation Trust (PACT)** is the primary national financial sustainability mechanism for support of the National Protected Areas System. The Protected Areas Conservation Trust Act was passed in 1995 (Act 15 of 1995), and PACT was established as a statutory body in 1996. Over its 20 years of existence, PACT has assisted local conservation organizations with millions of dollars in funding for projects assisting in the maintenance of effective protected areas and providing leverage for funding from external sources. PACT's investments are aligned to the operational framework of the National Protected Areas Policy and System Plan (NPAPSP), focused on building management effectiveness of the NPAS, and strengthening biodiversity conservation in Belize.

In the financial year April 2014 – March 2015, PACT's revenue exceeded Bz\$5.6 million, and originated from a variety of sources (PACT, 2016). The two largest contributions were from financial sustainability mechanisms focused on fees associated with tourism. 45% was received from a Conservation Fee, levied on departing visitors to Belize and 49% from the commission levied on cruise ship passengers. The remaining 6% is through interest and other income sources (including

The functions of PACT are

“...to contribute to the sustainable management and development of Belize's natural and cultural assets for the benefit of Belizeans and the global community, both now and for future generations.”

Protected Areas Conservation Trust (Amendment) Act, 2015

investments and donations from agencies, corporations and interested individuals). PACT has a well-established Endowment Fund of over Bz\$5.5 million, receiving a minimum of 5% of the total revenue of the Trust each fiscal year. It also provides fiduciary and grant management services for external funding sources such as the MARFund and the Belize Nature Conservation Foundation (Debt for Nature Swap) (Figure 7), and is accredited to receive funds to carry out approved projects and Programs.

PACT has traditionally funnelled these funds through small, medium and large grants to eligible organizations for conservation-based projects in or around protected areas, and therefore has played a significant role in park financing and contributing towards the financial sustainability of the National Protected Areas System. For the 2012 –2013 financial year, PACT awarded a total of almost Bz\$2 million under 12 grant types, for protected area-associated project and capacity-building activities. The revision of the PACT Act in 2015 brought a significant shift in financing priorities, with an improved ability to invest in operational costs (including critical staff) – identified as a significant financing gap for the majority of the protected areas. In the 2016 fiscal year, PACT has set a portfolio of Bz\$1.2 million dollars, to be invested in in three main areas:

- Institutional and governance strengthening
- Financial sustainability and resource mobilization
- Protected areas management functions.

Grants are awarded to recipients based on the criteria developed by the Board to achieve the goals and objectives of the Trust through “strategic partnerships, assessments and management plans, linked to the implementation of the National Protected Areas System Plan; subject to the recipients meeting the criteria required by the PACT Board; or based on a procedure identified by a specific funding source” (PACT (Amended) Act, 2015).

PACT funds provide leverage for protected area management agencies to seek external funds – Belize is fortunate in having consistent support for biodiversity and protected area management from a number of multi-lateral / bilateral aid agencies, international grant giving NGOs and philanthropic organizations and international inter-governmental organizations.

DEBT FOR NATURE SWAP

In August 2001, the governments of the U.S. and Belize, in conjunction with The Nature Conservancy, announced a debt swap. The \$5.5 million in appropriated funds were combined with \$1.3 million in private funds raised by The Nature Conservancy to reduce Belize’s official debt to the U.S. by half. Under the agreement, the Government of Belize issued new obligations that will generate approximately \$9 million in local currency payments to help a consortium of four local non-governmental organizations (NGOs) administer conservation activities in protected areas.

Three different major legal instruments were created to govern the Belize debt-for-nature swap. The “Swap Fee Agreement” between TNC and the US Government set out the procedure for the Conservancy to contribute \$800,000 toward the reduction of Belize’s debt. A second agreement between the governments of the US and Belize set out the requirements for the GOB to make payments into accounts for local NGOs, and deliver title of 11,000 acres of land to TIDE. In return the USG agreed to cancel approximately \$8.6 million (net present value) of debt. The final instrument, the “Forest Conservation Agreement”, is among the Conservancy, the GOB, TIDE, PFB, BAS, and PACT, and sets out the obligations of each party under the debt-swap, including how money is paid into the accounts for each organization from the GOB, and how the organizations may use that money.

Figure 7: Debt-for-nature swaps in Belize

Climate Change Associated Options

A number of climate change funding opportunities associated with the UNFCCC funding lines are being considered, including access to REDD+ and the Green Climate Fund. UNDP is also an active partner, with a portfolio of climate change initiatives, developed within the European Union funded Global Climate Change Alliance (GCCA) framework, and implemented under the National Climate Change Office within the Ministry of Fisheries, Forestry, the Environment and Sustainable Development, including:

- Enhancing Belize's Resilience to Adapt to the Effects of Climate Change,
- Enabling Activities for the Preparation of Belize's Third National Communication to the UNFCCC, including updating inventories of greenhouse gases and development of a comprehensive climate change adaptation strategy

Reducing Emissions from Deforestation and Forest Degradation (REDD+),

a global initiative designed to provide financial assistance to groups or countries for protecting their forests, reducing emissions of greenhouse gas pollutants, with the target of reducing net emissions on a global scale. The REDD+ agenda has been identified as supporting Belize's efforts to achieve inclusive and sustainable natural resource-based growth and enhanced climate resilience, as well as being consistent with the objectives of the World Bank Country Partnership Strategy (FY12-15). Belize has been building its capacity towards utilization of REDD+, with the acceptance of the REDD Readiness Preparation Proposal by the World Bank's Forest Carbon Partnership Facility (FCPF) in March 2015, and subsequent allocation of anticipated grant funding of US\$ 3.8 million. PACT was identified as the agency tasked with developing a funding strategy for the implementation phase of REDD+.

The **Green Climate Fund (GCF)** is another key multilateral financing mechanism to support climate action in developing countries, under the UNFCCC.

BELIZE'S NATURAL CAPITAL

Belize's stocks of natural assets, including geology, soil, air, water and all living things. Belize's people derive a wide range of services from its Natural Capital.

GCF is currently preparing Belize and other Small Island Developing States in the region towards the development of readiness requests, enabling application for financial support from the Fund. The Caribbean Community Climate Change Centre (CCCCC), headquartered in Belize, has been accredited as the regional implementing entity by the board of the Green Climate Fund.

Natural Capital

Belize is wealthy in terms of its natural capital – the value of its biodiversity and ecosystem services. There have been several non-Government initiatives to value ecosystem services, but these have not been integrated into national accounting and reporting, and ecosystem services, generally, are not fully taken into consideration when decisions are being made at national level. "National accounting systems that treat nature as a free, unlimited resource fail to account for the vital goods and services nature provides to people" (Conservation International, 2016)

National level valuations include the "Coastal Capital: Belize - The Economic Contribution of Belize's Coral Reefs" (WRI, 2009). However, whilst this was a world-leading output, it had only limited national impact at Government level. Similar initiatives have focused on the Maya Mountains Massif (Hammond et al., 2011) and sport fishing (Fedler et al., 2008).

Coral Reefs and Mangroves: Coral reefs provide a wide range of ecosystem goods and services which are of high value and of critical importance to the local and national economies in Belize. Despite this high value, the extent and health of coral reef systems have declined in recent decades and continue to be threatened by human activities that include both direct anthropogenic pressures

(including land based pollution, unsustainable fishing, and poor tourism practices) and climate change (increasing surface temperatures, ocean acidification and increased intensity of tropical storm events). The total value of these services was estimated to be between US\$395-559 million per year (Table 12) - as a reference point, Belize's GDP totalled US\$1.3 billion in in that same year.

	CORAL REEF	MANGROVES	COMBINED CONTRIBUTION
Tourism	\$ US 0.1 – 0.12	US\$0.15 – 0.18	-
Fisheries	US\$0.01	US\$0.01	-
Shoreline protection	US\$0.08 – 0.13	US\$0.28 – 0.39	-
Total per km ² /year	US\$0.19 – 0.26	US\$0.44 – 1.02	-
Total for all Belize/year	US\$268 – 370	US\$174 – 249	US\$395 - 559

Notes: Mangrove and reef fisheries and tourism values are not additional, as they include revenues that rely on both habitats.
 Values are expressed in million US\$/km²/year unless indicated differently (US\$/2007).
 Based on 1400 km² of coral reef and 400-420 km² of mangroves
Source: Burke, L., Cooper, E. and Bood N. 2008. Coastal Capital: Belize – The Economic Contribution of Belize's Coral Reefs and Mangroves.

Table 12: Estimated coral reef and mangroves contribution to the Belizean economy

A number of **forest based** assessments have been completed in recent years on valuation of ecosystem services for specific areas including for the Rio Bravo Conservation and Management Area (Eade et al., 1994) and Maya Mountains Massif (Hammond et al., 2011). An assessment of the Maya Mountains Massif and the Maya Mountain Marine Corridor (Hammond et al. 2011) demonstrated that the value of forest cover is very high relative to other ecosystem services (Table 13).



CATEGORY	VALUE ESTIMATES (MILLION BZ\$)		BASIS	IMPACT OF LAND USE CHANGE [A]
	Low	High		
Coastal Tourism and Fisheries	24.4	39.8	Present Value	Potentially major
Tourism and Recreation Lodging Activities and Other Taxes	13.7 4.9 7.4 1.4	30.3 8.0 19.1 3.2	Present Value	Potentially major
Hydrological Services Hydropower – current facilities [b] Hydropower – future development Potable water	54.5 - 54.5	84.8 - 84.8	Net Present Value	Minor Unknown Major [c]
Forests [d] Timber Carbon	31.0 22.4 8.6	416.0 250.9 165.1	Net Present Value	Major Major
Non-Timber Forest Products Xate [e] Bayleaf/Botan palm [f]	29.6 25.7 3.9	91.8 83.7 8.1	Net Present Value	Major Major
Ecosystem Goods and Services	153.2	662.7		
Wind Resources	-	[g]		None
Minerals [h]	30.0	100.0	Net Smaller Return	None
Total Natural Capital	183.2	762.7		
<p>[a] Valuation of the impact of land use change was not possible in all cases. For some ecosystem services, including fisheries, tourism and future hydropower developments, it is virtually impossible to value impacts with any precision. Due to this uncertainty, the impacts are described qualitatively. In all cases, impacts are expected to be proportional to land use.</p> <p>[b] The value of the ecosystem service of sediment reduction is estimated at zero due to negligible impacts on current hydropower production. The annual value of hydropower generated is \$17.5 million.</p> <p>[c] Value estimates are based on increased costs under various Land Use Change scenarios. Implicitly, Land Use Change scenarios reduce the Net Present Value to zero.</p> <p>[d] It is not likely that all ecosystem service values are jointly realizable, so these totals are at the upper end of the value spectrum.</p> <p>[e] Estimated market values. Harvest values were estimates at \$1.7-6.7 million.</p> <p>[f] Estimated market values. Harvest values were estimates at \$0.09-0.32 million.</p> <p>[g] Net Present Value estimates not possible due to extreme uncertainty around project costs. If project costs are so large as to thwart investments, the value will be zero.</p> <p>[h] Includes estimated value of gold deposits. Excludes granite value due to lack of reliable data.</p>				

Table 13: Estimate of Natural Capital of the Maya Mountains of Belize (Hammond et al. 2011)

4.3.2 ASSESSMENT OF FINANCE GAPS AND NEEDS

The NBSAP will require focused and broad-reaching financial mechanisms in order to allow effective implementation of the actions and the achievement of the targets. Aichi Target 20 calls for countries to assess the financial resource needs and to mobilize financial resources for effectively implementing the CBD Strategic Plan at a national level. A comprehensive review of financial needs and current expenditure in Belize is being carried out through the BIOFIN Initiative (Figure 6), being implemented in Belize from 2016 – 2017. This provides a structure for estimation of the full costs of implementing each of the biodiversity strategies within the revised NBSAP. It also identifies biodiversity finance actors, (individuals, groups or other entities that could potentially provide funding for biodiversity objectives) and finance mechanisms (instruments or tools that enable potential revenue to be captured).

Financial resources for the effective implementation of the NBSAP are expected to come from a range of sources, including national budgetary allocations and the associated country-level mechanisms listed above, official direct assistance and project-based fundraising. While predictions on financial flows are challenging, there are a number that seem more promising at this stage. These would include climate-related funding streams, additional Debt for Nature Swaps, and more efficient use of national allocations, including those to other Ministries, through the adoption of ecosystem-based strategies to effectively tackle wider societal issues such as disaster risk reduction, food and water security, and health.

The CBD also recommends investigating the use of "innovative financial mechanisms" for scaling up finance for biodiversity. Six of such mechanisms are:

- environmental fiscal reform
- payments for ecosystem services
- biodiversity offsets
- markets for green products
- biodiversity in climate change funding

BIOFIN

BIOFIN is a global partnership led by the UNDP Ecosystems and Biodiversity Programme, in partnership with the European Union and the Governments of Germany, Switzerland, Norway and Belgium. It seeks to address the biodiversity finance challenge in a comprehensive manner – to define biodiversity finance needs and gaps with greater precision through detailed national-level assessments, to determine challenges and opportunities for resource mobilisation, and to build a sound business case for increased biodiversity investment.

BIOFIN works along two main axes:

1. Globally-led development of a new methodological framework: An entirely new methodological framework has been developed to assess the national context for biodiversity finance and provide recommendations for countries to adopt.
2. Adaptation and implementation of this new methodological framework at national level: To help countries increase the importance attributed to biodiversity and in consequence bridge the financing gap, the work at national level is being led by relevant Ministries through the following components:
 - a. Analyse the integration of biodiversity and ecosystem services in sectoral and development policy, planning and budgeting.
 - b. Assess future financing flows, needs and gaps for managing and conserving biodiversity and ecosystem services
 - c. Develop comprehensive national Resource Mobilisation Strategies to meet the biodiversity finance gap
 - d. Initiate implementation of the Resource Mobilisation Strategy at national level

For more information:
www.biodiversityfinance.net

Figure 6: The Biodiversity Finance Initiative (BIOFIN) – Mobilising Resources for Biodiversity and Sustainable Development

- biodiversity in international development finance

Protected Areas

An assessment of the Belize National Protected Areas System estimated that the NPAS received funding equivalent to about 2.6% of the Government of Belize’s 2010 annual budget (US\$8.9 million) or about US\$8 per hectare (Drumm et al., 2011) - though it is important to recognize that the majority of this funding was largely external to the annual budget. By contrast, Costa Rica spends about US\$24 per hectare on its protected area system. A significant funding gap was identified between current investments and funding needed to operate at a level that sustains the health of the protected areas - of between US\$10.2 million (for a basic scenario, (the level of funding required to operate key Programs to sustain the maintenance of ecosystem functions) and US\$19.4 million for an optimal scenario (the ideal level of funding required to operate all the Programs to reach and sustain optimal ecosystem functions) (Drumm et al., 2011).

Resource Mobilization Planning

Belize has not, to date, submitted a financial report to the CBD. A Resource Mobilization Plan was developed in 1998, based on the first NBSAP, but was not implemented, and has not been revised

Summary of Financial Status of National Protected Areas System, 2010

US\$8.9M – 2010 Government expenditure on national protected areas (approximately US\$8 per hectare)

US\$2.6M – 2010 estimated grant funding for protected areas in the NPAS

US\$9.7M – Financial shortfall for basic level management of the NPAS

US\$19.4M – Financial shortfall for optimum level management of the NPAS

Drumm et. al., 2011

since then. In its Fifth National Report, it was noted that “the Belize Government has, to a certain degree, developed a reliance on external funding and local partners in the management of its natural resources that has allowed it to consistently cut national budgets and human resources in those departments associated with the environment, impacting effective implementation of existing legislation.”





INSTITUTIONAL MONITORING AND REPORTING

5.1 NATIONAL COORDINATION STRUCTURE

5.2 CLEARING HOUSE MECHANISM

5.3 MONITORING AND EVALUATION

5.1 NATIONAL COORDINATION STRUCTURE

Implementation of the National Biodiversity Strategy and Action Plan will be through the establishment of the Biodiversity Office (BiO), to be housed in the Forest Department, to provide the coordination required to implement the NBSAP, working in close communication and collaboration with the Belize Fisheries Department, the National Climate Change Office and PACT and the National Protected Areas Technical Committee (Table 14).

TARGET E1. By 2018, all relevant government Ministries, 75% of relevant civil society, and 25% of the private sector and general public are effectively involved in the implementation of the NBSAP			
Action	Activities	Agencies	Synergies
HIGH	E 1.1 Establish the Biodiversity Office to lead implementation of the NBSAP	Lead Forest Department	NPAS Act NCCPSAP PACT Act
	<ul style="list-style-type: none"> Establish, institutionalise and operationalise the Biodiversity Office (BiO) under the ministry responsible for Forestry, Fisheries and Protected Areas Ensure effective communication and collaboration between BiO, NPAS, NCCO, Forestry and Fisheries Depts. and DoE 		

Table 14: Target E1: Establishment of the Biodiversity Office

Implementation of the NBSAP is the joint responsibility of all people in Belize, from the Government of Belize to private sector, research institutions, education institutions and civil society. The NBSAP forms a road map to be followed by all partners – but for implementation to be effective, significant coordination between all actors will be required. Over the last five years, there has been an increasing recognition that there needs to be greater coordination and collaboration between Government departments, with the development of a number of overarching frameworks to ensure effective mainstreaming, including:

- Integrated Land Use Planning Framework
- Integrated Coastal Zone Management Plan
- National Climate Change Strategy and Action Plan
- National Environmental Action Plan

This need for coordination and collaboration extends to the implementation of the NBSAP. Whilst management of biodiversity falls largely under the Ministry of Agriculture, Fisheries, Forestry, the Environment and Sustainable Development, it is critical that the implementation of the NBSAP is mainstreamed across both Government and non-Government sectors. Where possible, links with these and other national initiatives have been identified to facilitate integration with existing frameworks.

The need for the harmonization of policies is recognized in the priority action A1. Develop the framework to guide the harmonization of policies that positively impact biodiversity, across all Government departments. The National Biodiversity Action Plan (NBAP) identifies the key Government and non-Government agencies that need to be engaged as participatory partners in the implementation of NBSAP actions, and the key synergies already available for effective integration into existing strategies and frameworks (Table 15).

TARGET A1. By 2020, a framework has been designed and adopted to guide the harmonization of policies that positively impact biodiversity, across all Government departments.

Action	Activities	Agencies	Synergies
A1.1 Develop the framework to guide the harmonization of policies that positively impact biodiversity, across all Government departments	<ul style="list-style-type: none"> ■ Policy review to identify areas for harmonization (synergies) ■ Identify guiding principles to ensure harmonization of new and existing policies ■ Develop and implement proposed integrated coordinating mechanism 	Forest Department (Biodiversity Office / Sustainable Development Unit) National Climate Change Office	Integrated Land Use Planning Framework BIOFIN ICZMP NEAP 3.1.1 (3) NEAP Target 12.1.1 NEAP 12.1.1 (1) IWRMP KBA Output 2.2a KBA Output 3.1a EPA Act

Table 15: Linking the NBSAP with other policies and plans

Recently, the PACT Act has been revised to better fulfil its role in Belize (Protected Areas Conservation Trust (Amendment) Act, 2015), the amendments to the Act expand PACT’s role to one of oversight and coordination of the National Protected Areas System including “to further strengthen the provisions of the Act in order to enhance the operations of the Trust in achieving its mission of promoting the sustainable management of Belize’s protected areas; to make better provisions relating to the exemption from payment of the conservation fee”

Improving National Commitment

A review of barriers to the implementation of the first NBSAP (1998) led to a series of recommendations:

- Strengthen awareness at Cabinet level of the importance of the environment for national development, building support for the implementation of the NBSAP and NPAPSP.
- Increase communication at CEO level between key Ministries involved in natural resource management for improved cross-sectoral coordination and collaboration.
- Invest time and effort to strengthen cross-ministerial collaboration, coordination and commitment for improved natural resource management – use of cross-sectoral, nationally focused, significant, externally funded projects (e.g. KBA project, climate change adaptation projects) may be the most effective way of approaching this.
- Ensure engagement of main political parties to ensure cross-party buy-in and medium-term continuity across political regimes.
- Effective oversight of implementation through the Biodiversity Office, based on cross-sectoral representation, composition and expertise, with the guidance of a Technical Committee, to ensure transparency and active commitment to implementation of the NBSAP, and to avoid duplication of effort.
- Strengthen the long term collaboration and coordination achieved with relevant natural resource management departments now being under the same Ministry, and avoid division in the future.
- Build in mechanisms for external monitoring of Government implementation of the revised NBSAP by a multi-sectoral committee, including conservation community stakeholders.

5.2 CLEARING HOUSE MECHANISM

Belize is in the first stages of re-establishing its web-based national Clearing-House Mechanism (CHM) as a mechanism to support implementation of Belize's responsibilities under the CBD, and to increase accessibility to Belize's information network of electronic and non-electronic biodiversity-related media. The CHM is being established under the CHM Focal Point, the Forest Department, and based on an understanding of the needs of collaborating Ministries, NGO and CBO partners and special interest-groups. The CHM will serve as the information exchange platform for biodiversity information in Belize, facilitating and supporting the implementation of the National Biodiversity Strategies and Action Plan. It will also provide a mechanism for linking with institutions at the regional level, and with the central CBD CHM.

The key roles of the CHM will be:

- Centralised collation of biodiversity information, legislation and reports
- A national mechanism for the exchange of information on biodiversity, invasive species and biosafety
- Facilitation of national reporting
- Improving scientific and technical co-operation between partners
- Network development – both within Belize and regionally
- Transparency – providing reliable national, regional, and local data
- Increasing public awareness and education, and access to training Programs and funding opportunities

Effective information management, access and dissemination is critical for NBSAP implementation, in its role in providing information for NBSAP and biodiversity management decision making. The ability to consistently and continuously disseminate reliable content, with updating will require a constant effort, and functional and appealing content that is easy to find, up-to-date and useful.

Biodiversity-related information will include:

- Biodiversity
- NBSAP and national reports
- Other national biodiversity-related documents
- Information by Program areas relevant to the country

What is a Clearing House Mechanism?

An agency that brings together seekers and providers of goods, services or information, thus matching demand with supply.

5.3 MONITORING AND EVALUATION

For NBSAP implementation to be effective, it is important that progress towards the targets is tracked through robust, integrated and regular monitoring and evaluation. Measures of success have been built into the NBSAP framework, with indicators for both outputs and outcomes identified for each target (Table 16).

TARGET	INDICATORS
<p>TARGET A1. By 2020, a framework has been designed and adopted to guide the harmonization of policies that positively impact biodiversity, across all Government departments.</p>	<ul style="list-style-type: none"> ■ Report on the policy recommendations and proposed framework for coordinating mechanism (yes / no) ■ Adoption of the policy recommendations and proposed framework for integrated coordinating mechanism (yes / no)
<p>TARGET A2. By 2020 Belize has legislated and implemented a national harmonized system of environmental standards and incentives that promote environmental responsibility and sustainability.</p>	<ul style="list-style-type: none"> ■ Government incentives for conservation and sustainable business (Eco-Audit) ■ Trends in compliance to environmental standards - number of fines, level of fines ■ Number of positive incentives ■ Number of initiatives using positive incentives ■ Removal/ amendment of productive land concession rate (yes / no) ■ % of identified disincentives that have been addressed

Table 16: Measuring success of outputs

Monitoring and evaluation will be ongoing, with a rapid yearly review of implementation, a review of outcomes and outputs conducted by the Biodiversity Office in the second year, and a full, formal review starting at the beginning of the fifth year - the last year of the NBSAP cycle - in preparation for NBSAP revision. When necessary, the Biodiversity Office may request interim reports and independent reviews to identify critical barriers to implementation, or seek recommendations on improving effective implementation.

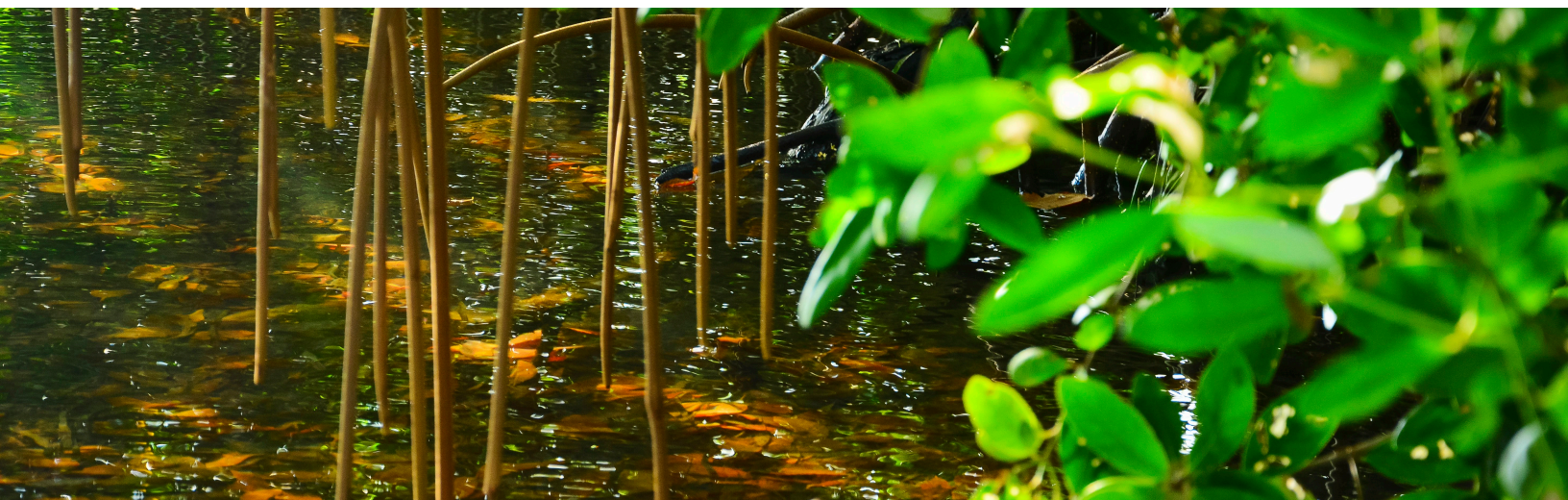
Progress will be reported on a national platform to ensure continued engagement of all stakeholders in NBSAP implementation. Success in implementation of the plan is not always reflected in success of outcomes – are we fulfilling our national commitments to maintaining our ecosystems, ecosystem services and species? Are we fulfilling our international commitments under the CBD?

Over the past ten years, national agencies, research institutions and NGO partners in Belize have been developing Programs for measuring the health of the environment. The University of Belize Environmental Research Institute has worked with its partners on the development of the National Biodiversity Monitoring Program (ERI, 2016), including standardized and systematic monitoring of biodiversity indicators by partners across Belize, focused on measuring progress towards the Aichi Targets. It builds on indicators from established monitoring Programs such as The Healthy Reefs Initiative, which reports on standardised indicators of reef health (the Healthy Reef Report Card) and environmental health (Healthy Reef Eco-Audit) every two years (Table 17).

NATIONAL BIODIVERSITY MONITORING PROGRAM			
Aichi Target 4: By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impact of use of natural resources well within safe ecological limits.			
Headline Indicator: Trends in pressures from unsustainable agriculture, forestry, fisheries and aquaculture			
Operational Indicator: Trends in population and extinction risk of utilized species, including species in trade			
Specific Indicator	Source	Implementing Partner(s)	Frequency
Hunting frequency and amount of harvest	Social surveys (hunters)	UB-ERI, FD, CSFI, Pfb, FCD, BAS, Ya'axche, TIDE	Every three years
Trends in contribution of wild meat in diet	Social surveys (households)	UB-ERI, FD, CSFI, Pfb, FCD, BAS, Ya'axche, TIDE	Every three years
Aichi Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced			
Headline Indicator: Trends in extent, condition and vulnerability of ecosystems, biomes and habitats			
Operational Indicator: Trends in extent of selected biomes, ecosystems and habitats			
Specific Indicator	Source	Implementing Partner(s)	Frequency
Forest Cover <ul style="list-style-type: none"> ▪ Broadleaf ▪ Mangrove ▪ Littoral ▪ Savannah 	Remote Sensing	UB-ERI, FD	Annually
Seagrass Cover	SeagrassNet, Remote Sensing	UB-ERI, BAS, SEA, HRI, Fisheries, SACD	Biannually
Coral Cover	MBRS	UB-ERI, HRI, NCRMN	Annually
Macroalgae Cover	MBRS	UB-ERI, HRI, NCRMN	Annually

Table 17: Example of National Biodiversity Monitoring Program Framework

Whilst the NBMP was developed to provide Belize with indicators on biodiversity health, using the Aichi Target framework, the framework will also provide a solid foundation for the development of a monitoring program for outcome success for the NBSAP. Targets and actions have been linked with NBMP indicators (Table 18). Goals and targets have also been linked to the CBD Aichi Targets (Table 19).



LINKING NBSAP TARGETS TO THE NBMP FRAMEWORK

GOAL A: MAINSTREAMING: Improved environmental stewardship is demonstrated across all society in Belize, as is an understanding and appreciation of marine, freshwater and terrestrial biodiversity, their benefits and values

NBSAP TARGET	NATIONAL BIODIVERSITY MONITORING PROGRAM INDICATOR
TARGET A1. By 2020, a framework has been designed and adopted to guide the harmonization of policies that positively impact biodiversity, across all Government departments.	<ul style="list-style-type: none"> ■ Trends in integration of biodiversity and ecosystem service values into sectoral and development policies
TARGET A2: By 2020 Belize has legislated and implemented a national harmonized system of environmental standards and incentives that promote environmental responsibility and sustainability.	<ul style="list-style-type: none"> ■ Trends in number and value of incentives, including subsidies harmful to biodiversity, removed, reformed or phased out
TARGET A3: By 2020, all relevant national development decisions in Belize take into consideration ecosystem services and biodiversity relevance to the national economy	<ul style="list-style-type: none"> ■ Trends in local recognition of biodiversity, protected areas and environmental benefits
TARGET A4: By 2020, 100% of relevant Government, 75% of civil society and 50% of the general public in Belize have increased awareness and appreciation of biodiversity and demonstrate active good stewardship	<ul style="list-style-type: none"> ■ Trends in awareness, attitudes and public engagement in support of biological diversity and ecosystem service ■ Trends in public engagement with biodiversity ■ Trends in number of community based conservation initiatives

GOAL B: REDUCING PRESSURES: Direct and indirect pressures on Belize's marine, freshwater and terrestrial ecosystems are reduced to sustain and enhance national biodiversity and ecosystem services

NBSAP TARGET	NATIONAL BIODIVERSITY MONITORING PROGRAM INDICATOR
TARGET B1. By 2020 primary extractive natural resource use in terrestrial, freshwater and marine environments is guided by sustainable management plans, with improved biodiversity sustainability	<ul style="list-style-type: none"> ■ Trends in pressures from unsustainable agriculture, forestry fisheries and aquaculture
TARGET B2. By 2020, 80% of businesses monitored in Belize are compliant with environmental standards	<ul style="list-style-type: none"> ■ Trends in proportion of degraded / threatened habitats ■ Trends in policies considering ecosystem services in environmental impact assessment and strategic environmental assessment ■ Trends in water quality in aquatic ecosystems ■ Trends in extent of selected biomes, ecosystems and habitats ■ Trends in fragmentation of natural habitat
TARGET B3. Between 2016 and 2020, Belize has limited its net rate of land use change for natural ecosystems / areas to no more than 0.6% per year (continued)	<ul style="list-style-type: none"> ■ Trends in extent of selected biomes, ecosystems and habitats ■ Trends in policies considering ecosystem services in environmental impact assessment and strategic environmental assessment ■ Agricultural expansion rate ■ Trends in proportion of degraded / threatened habitats
TARGET B4. BY 2020, Belize is restoring 30% of degraded ecosystems to maintain and improve the status of ecosystems and ecosystem services essential for increasing Belize's resilience to climate change impacts	<ul style="list-style-type: none"> ■ Trends in extent of selected biomes, ecosystems and habitats ■ Trends in proportion of degraded / threatened habitats ■ Frequency, distribution and extent of fires by land use type
TARGET B5. By 2025, Belize is addressing its trans-boundary issues, with 20% reduction in terrestrial impacts and 50% reduction in illegal fishing from trans-boundary incursions	

<p>TARGET B6. By 2018, Belize has a strengthened system in place for early detection and effective management of invasive species</p>	<ul style="list-style-type: none"> ■ Trends in number and distribution of invasive species
<p>GOAL C: PROTECTION: Functional ecosystems and viable populations of Belize’s biodiversity are maintained and strengthened</p>	
<p>NBSAP TARGET</p>	<p>NATIONAL BIODIVERSITY MONITORING PROGRAM INDICATOR</p>
<p>TARGET C1. By 2030, Belize’s natural landscapes and seascapes are all functional and build biodiversity resilience to climate change</p>	<ul style="list-style-type: none"> ■ Trends in proportion of degraded / threatened habitats ■ Trends in integration of biodiversity, ecosystem services and benefits sharing into planning, policy formulation and implementation, and incentives ■ Trends in integration of biodiversity, ecosystem services and benefits sharing into planning, policy formulation and implementation, and incentives
<p>TARGET C2. By 2020, three key corridors identified under the NPAPSP are physically and legally established, and effectively managed effectively</p>	<ul style="list-style-type: none"> ■ Trends in fragmentation of natural habitats ■ Trends in connectivity of PAs and other area- based approached integrated into landscapes and seascapes
<p>TARGET C3. Between 2016 and 2030, no species will become functionally extinct in Belize</p>	<ul style="list-style-type: none"> ■ Trends in abundance, distribution and level of risk of extinction of priority species ■ Trends in awareness and attitudes to biodiversity
<p>TARGET C4. By 2020, average management effectiveness of the National Protected Areas System has increased to 80%</p>	<ul style="list-style-type: none"> ■ Trends in coverage, condition, representativeness and effectiveness of PA and other area-based approached ■ Trends in coverage of NPAS ■ Trends in representative coverage of PAs and other area-based approaches ■ Trends in connectivity of PAs ad other area-based approaches integrated into landscapes and seascapes ■ Trends in PA condition / management effectiveness including more equitable management
<p>TARGET C5. By 2020, Belize is implementing a biosafety policy that safeguards against large-scale loss of biological integrity</p>	
<p>GOAL D: BENEFITS: The provision of ecosystem services, ecosystem-based management, and the equitable sharing of benefits from biodiversity is strengthened.</p>	
<p>NBSAP TARGET</p>	<p>NATIONAL BIODIVERSITY MONITORING PROGRAM INDICATOR</p>
<p>TARGET D1. By 2025, key ecosystem services are sustainably managed and resilient to threats</p>	<ul style="list-style-type: none"> ■ Status and trends in extent and condition of habitats that provide carbon storage ■ Trends in distribution, condition and sustainability of ecosystem services for equitable human well-being ■ Trends in well-being of communities who depend directly on local ecosystem goods and services
<p>TARGET D2. By 2025, access to genetic resources and associated traditional knowledge is regulated and benefits arising from utilization are shared in a fair and equitable manner</p>	

GOAL E: IMPLEMENTATION: The National Biodiversity Strategy and Action Plan is implemented effectively through capacity building, informed strategic decision making and integrated public participation

NBSAP TARGET	NATIONAL BIODIVERSITY MONITORING PROGRAM INDICATOR
<p>TARGET E1. By 2018, all relevant government Ministries, 75% of relevant civil society, and 25% of the private sector and general public are effectively involved in the implementation of the NBSAP</p>	<ul style="list-style-type: none"> ■ Trends in public engagement with biodiversity ■ Trends in number of community-based conservation initiatives
<p>TARGET E2. By 2020, accurate and current data on Belize's natural resources and environmental services informs relevant national development decisions</p>	

Table 18: Alignment of National Goals and Targets with the NBMP Indicators



AICHI GOALS AND TARGETS	NBSAP GOALS AND TARGETS
<p>Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society.</p>	<p>GOAL A: Improved environmental stewardship is demonstrated across all society in Belize, as is an understanding and appreciation of marine, freshwater and terrestrial biodiversity, their benefits and values.</p>
<p>Target 1: By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.</p>	<p>TARGET A4. By 2020, 100% of relevant Government, 75% of civil society and 50% of the general public in Belize have increased awareness and appreciation of biodiversity and demonstrate active good stewardship.</p>
<p>Target 2: By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.</p>	<p>TARGET A1. By 2020, a framework has been designed and adopted to guide the harmonization of policies that positively impact biodiversity, across all Government departments.</p> <p>TARGET A3. By 2020, 100% of relevant national development decisions in Belize take into consideration ecosystem services and biodiversity relevance to the national economy.</p> <p>TARGET E1. By 2020, all relevant government Ministries, 75% of relevant civil society, and 25% of the private sector and general public are effectively involved in the implementation of the NBSAP.</p>
<p>Target 3: By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention and other relevant international obligations, taking into account national socio economic conditions.</p>	<p>TARGET A2. By 2020, Belize has legislated and implemented a national harmonized system of environmental standards and incentives that promote environmental responsibility and sustainability.</p>
<p>Target 4: By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.</p>	<p>TARGET A3. By 2020, 100% of relevant national development decisions in Belize take into consideration ecosystem services and biodiversity relevance to the national economy.</p>
<p>Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use</p>	<p>GOAL B: Direct and indirect pressures on Belize’s marine, freshwater and terrestrial ecosystems are reduced to sustain and enhance national biodiversity and ecosystem services</p>
<p>Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.</p>	<p>TARGET B3. Between 2016 and 2020, Belize has limited its net rate of land use change for prioritised natural ecosystems / areas to no more than 0.6% per year.</p> <p>TARGET B4. BY 2020, Belize is restoring 30% of degraded ecosystems to maintain and improve the status of ecosystems and ecosystem services essential for increasing Belize’s resilience to climate change impacts.</p> <p>TARGET B5. By 2025, Belize is addressing its trans-boundary issues, with 20% reduction in terrestrial impacts and 50% reduction in illegal fishing from trans-boundary incursions.</p>

<p>Target 6: By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.</p>	<p>TARGET B1. By 2020 primary extractive natural resource use in terrestrial, freshwater and marine environments is guided by sustainable management plans, with improved biodiversity sustainability.</p>
<p>Target 7: By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.</p>	<p>TARGET B5. By 2025, Belize is addressing its trans-boundary issues, with 20% reduction in terrestrial impacts and 50% reduction in illegal fishing from trans-boundary incursions.</p>
<p>Target 8: By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.</p>	<p>TARGET B2. By 2020, 80% of businesses monitored in Belize are compliant with environmental standards.</p>
<p>Target 9: By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.</p>	<p>TARGET B6. By 2018, Belize has a strengthened system in place for early detection and effective management of invasive species.</p>
<p>Target 10: By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.</p>	<p>TARGET B4. BY 2020, Belize is restoring 30% of degraded ecosystems to maintain and improve the status of ecosystems and ecosystem services essential for increasing Belize's resilience to climate change impacts.</p> <p>TARGET B5. By 2025, Belize is addressing its trans-boundary issues, with 20% reduction in terrestrial impacts and 50% reduction in illegal fishing from trans-boundary incursions.</p>
<p>Strategic Goal C: Improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity</p>	<p>GOAL C: Functional ecosystems and viable populations of Belize's biodiversity are maintained and strengthened</p>
<p>Target 11: By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscape and seascapes.</p>	<p>TARGET C1. By 2030, Belize's natural landscapes and seascapes are all functional and build biodiversity resilience to climate change.</p> <p>TARGET C2. By 2020, three key corridors identified under the National Protected Areas Policy and System Plan are physically and legally established, and effectively managed.</p> <p>TARGET C4. By 2020, average management effectiveness of the National Protected Areas System has increased to 80%.</p>
<p>Target 12: By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.</p>	<p>TARGET C2. By 2020, three key corridors identified under the National Protected Areas Policy and System Plan are physically and legally established, and effectively managed.</p> <p>TARGET C3. Between 2016 and 2030, no species will become functionally extinct in Belize.</p>
<p>Target 13: By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.</p>	<p>TARGET C5. By 2020, Belize is implementing a biosafety policy that safeguards against large-scale loss of biological integrity.</p>
<p>Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services.</p>	<p>GOAL D: Strengthened provision of ecosystem services, ecosystem-based management and the equitable sharing of benefits from biodiversity</p>

<p>Target 14: By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.</p>	<p>TARGET D1. By 2025, key ecosystem services are sustainably managed and resilient to threats.</p>
<p>Target 15: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15 per cent of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.</p>	<p>TARGET B4. BY 2020, Belize is restoring 30% of degraded ecosystems to maintain and improve the status of ecosystems and ecosystem services essential for increasing Belize's resilience to climate change impacts.</p> <p>TARGET C1. By 2030, Belize's natural landscapes and seascapes are all functional and build biodiversity resilience to climate change.</p>
<p>Target 16: By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.</p>	<p>TARGET D2. By 2025, access to genetic resources and associated traditional knowledge is regulated and benefits arising from utilization are shared in a fair and equitable manner.</p>
<p>Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building</p>	<p>GOAL E: The NBSAP is implemented effectively through capacity building, informed strategic decision making and integrated public participation</p>
<p>Target 17: By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.</p>	<p>TARGET E1. By 2020, all relevant government Ministries, 75% of relevant civil society, and 25% of the private sector and general public are effectively involved in the implementation of the NBSAP.</p>
<p>Target 18: By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.</p>	<p>TARGET E1. By 2020, all relevant government Ministries, 75% of relevant civil society, and 25% of the private sector and general public are effectively involved in the implementation of the NBSAP.</p> <p>TARGET D2. By 2025, access to genetic resources and associated traditional knowledge is regulated and benefits arising from utilization are shared in a fair and equitable manner.</p>
<p>Target 19: By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.</p>	<p>TARGET E2. By 2020, accurate and current data on Belize's natural resources and environmental services informs relevant national development decisions.</p> <p>TARGET E3. By 2020, Belize's NBSAP is being implemented effectively, monitored and evaluated, and achieving desired outcomes.</p>
<p>Target 20: By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan 2011- 2020 from all sources and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization should increase substantially from the current levels. This target will be subject to changes contingent to resources needs assessments to be developed and reported by Parties.</p>	<p>TARGET E1. By 2020, all relevant government Ministries, 75% of relevant civil society, and 25% of the private sector and general public are effectively involved in the implementation of the NBSAP.</p> <p>TARGET A3. By 2020, 100% of relevant national development decisions in Belize take into consideration ecosystem services and biodiversity relevance to the national economy.</p>

Table 19: Alignment of National Goals and Targets with the CBD Aichi Targets

A photograph of a hummingbird perched on a thin branch, surrounded by dense green foliage. The background is a soft-focus bokeh of sunlight filtering through the leaves. A white rectangular box is overlaid on the bottom half of the image, containing the title and navigation text.

BELIZE'S NATIONAL BIODIVERSITY ACTION PLAN

GLOSSARY

REFERENCES

GLOSSARY

Adapted from NCCPSAP, 2016

Biodiversity: The numbers and relative abundance of different species and ecosystems of a region

Adaptation: Adjustment in natural or human systems to a new or changing environment. Adaptation to climate change refers to adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.

Adaptive capacity: Adaptive capacity of communities depends on economic and ecological well-being, the extent of dependency on natural resources, infrastructure (human-built or natural), effectiveness of institutions and governance systems, insurance, secure land tenure and mediation measures, and information and communication systems. A community with the capacity to adapt is likely to be more resistant to impacts or able to recover from stressful events and conditions.

Biofuels: Gas or liquid fuel made from plant material (biomass). Includes wood, wood waste, wood liquors, peat, railroad ties, wood sludge, spent sulfite liquors, agricultural waste, straw, tires, fish oils, tall oil, sludge waste, waste alcohol, municipal solid waste, landfill gases, other waste, and ethanol blended into motor gasoline

Climate Change: Climate change refers to any significant change in measures of climate (such as temperature, precipitation, or wind) lasting for an extended period (decades or longer). Climate change may result from:

- natural factors, such as changes in the sun's intensity or slow changes in the Earth's orbit around the sun;
- natural processes within the climate system (e.g. changes in ocean circulation);
- human activities that change the atmosphere's composition (e.g. through burning fossil fuels) and the land surface (e.g. deforestation, reforestation, urbanization, desertification, etc.)

Climate Change Adaption: Climate change adaptation refers to the ability of society to plan for and respond to change in a way that makes it better equipped to manage its exposure and sensitivity to climate change. IPCC definition: "Adjustment in natural or human system in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities."

Ecosystem: Any natural unit or entity including living and non-living parts that interact to produce a stable system through cyclic exchange of materials

Ecosystem-based adaptation: The use of biodiversity and ecosystem services as part of an overall adaptation strategy to help people to adapt to the adverse effects of climate change.

Ecosystem Based Management: An integrated approach that considers the entire ecosystem (including humans), and aims to maintain an ecosystem in a healthy, productive and resilient condition so that it can provide the services humans require.

Ecosystem services (also ecosystem goods and services): the benefits people obtain from ecosystems. These include provisioning services such as food, water, timber, and fibre; regulating services such as the regulation of climate, floods, disease, wastes, and water quality; cultural services such as recreation, aesthetic enjoyment, and spiritual fulfilment; and supporting services such as soil formation, photosynthesis, and nutrient cycling.

Emissions: The release of a substance (usually a gas when referring to the subject of Climate Change) into the atmosphere

Erosion: The process where soil or rock is moved or weathered by the action of streams, glaciers, waves, winds, or underground water

Global Warming: Global warming is an average increase in the temperature of the atmosphere near the Earth's surface and in the troposphere, which can contribute to changes in global climate patterns.

Global warming can occur from a variety of causes, both natural and human induced. In common usage, "global warming" often refers to the warming that can occur as a result of increased emissions of greenhouse gases from human activities.

Inundation: The submergence of land by water, particularly in a coastal setting

Maladaptation practices: Action taken ostensibly to avoid or reduce vulnerability to climate change that impacts adversely on, or increases the vulnerability of other systems, sectors or social groups

Mitigation: Mitigation of climate change refers to those response strategies that reduce the sources of greenhouse gases or enhance their sinks, to reduce the probability of reaching a given level of climate change. Mitigation reduced the likelihood of exceeding the adaptive capacity of natural systems and human societies.

Ocean Acidification: Occurs when CO₂ in the atmosphere reacts with water to create carbonic acid, decreasing both ocean pH and the concentration of the carbonate ion, which is essential for calcification by marine organisms such as corals (Green et al., 2012).

Resilience: The amount of change a system can undergo without changing state. Resilience is a

tendency to maintain integrity when subject to disturbance.

Social vulnerability: A function of exposure (the extent to which a community comes into contact with climate events or specific climate impacts), sensitivity (the degree to which a community is negatively affected by changes in climate), and adaptive capacity (the potential or capability of a community to adjust to impacts of changing climate) (Wongbusarakum et al., 2011).

Saltwater Intrusion: The process by which saltwater enters a coastal aquifer, leading to contamination of groundwater

Sea Level Rise: An increase in the mean level of the ocean. Relative sea level rise considers the mean level of the ocean relative to the land

Storm Surge: A rising of the sea as a result of wind and atmospheric pressure changes associated with a storm.

Vulnerability: The degree to which a system is susceptible to, and unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate change and variation to which a system is exposed, its sensitivity, and its adaptive capacity.

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