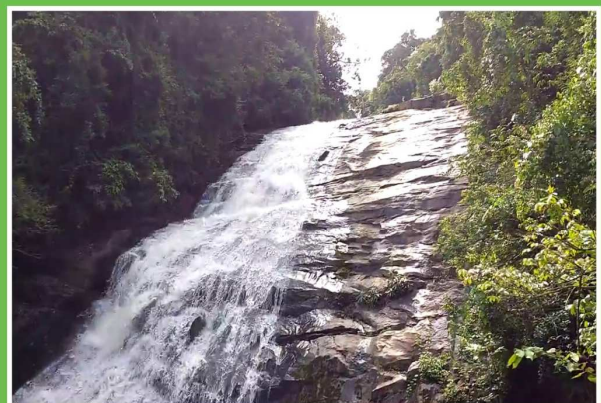




SIX NATIONAL REPORT

REPUBLIC OF LIBERIA



Convention on
Biological Diversity



United Nations
Environment
Program



Global
Environment
Facility

February 15, 2019

www.epa.gov.lr

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J.S. Datuama Cammue

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Executive Summary

This Sixth National Report of Liberia to the CBD is organized into 7 sections, excluding the introduction. Section I presents and discusses the 20 National Targets that are being pursued, as embodied in the Revised National Biodiversity Strategy and Action Plan (NBSAP 2017). It also defines the rationale for each National Target, matches each National Target with its most relevant Aichi Biodiversity Target, and lists pertinent websites, web links and files, as among the key deliverables.

Section II outlines and describes the measures taken to implement the National Targets, including the assessment of the effectiveness of such measures and related challenges, and the scientific and technical needs to achieve these National Targets. Strengthening ecological connectivity of the Tai-Grebo-Sapo (TGS) complex, the largest contiguous tropical rainforest ecosystem in the Upper Guinean forest ecosystem, is among the key implementation measures taken. The German Development Ministry (BMZ) provides 12 Million Euro for this program, but the major challenge this conservation initiative faces is the competition between conservation on one hand, and logging and agricultural interests on the other. These competing interests result in partial effectivity of the measures so far taken. However, concerted and determined actions are being brought to bear on this and related challenges in these respects.

Section III assesses the progress made towards each of the National Targets, including the selection and brief description of the indicators used in support of the assessment made. Much more remains to be done, however, in terms of monitoring and defining accurate and effective indicators for assessing progress. Section IV details the national contribution to the achievement of each global Aichi Biodiversity Target in the face of debilitating challenges that include the need to feed and create jobs for a growing population whose rate of dependence on forests is quite high while, at the same time, protecting such forests to serve the interest of biodiversity conservation and to tackle the threats that global climate change imposes. A laundry list of other excellent examples of successful national contribution to actualizing each Global Aichi Biodiversity Target is further examined.

Section V elaborates on the national contribution to the achievement of the targets of the Global Strategy for Plant Conservation (GSPC). A relatively detailed account is given about how much of the country's flora of all plants is placed on line. It is easy to see that of the 16 GSPC Targets, on average, a measured progress has been made.

Section VI provides additional information on the various ways local peoples and local communities contribute to the achievement of the Aichi Biodiversity Targets. Poro and Sande are traditional societies who have, from time immemorial, contributed significantly to the achievement of the Aichi Biodiversity Targets or have made "Contributions to the Implementation of the Strategic Plan for Biodiversity 2011-2020", even before the advent of

these Targets in this region of the world of conservation science. Of recent, a growing number of published experiences on this subject devote few sentences to define what these secret societies do, and who their leaders and members are and why.

Lesser attention is often paid to learning more about the role(s) these societies play in protecting and conserving biodiversity .A current participatory land use planning project (PLUP), a pilot endeavor in Foya District, Lofa County, has documented and assessed over 50 sacred forests established across the District's grassland-dominated landscape of rolling hills and rugged terrain by local people and communities .This conservation outcome is bred out of and effected by the imperatives of cultural and traditional norms and rules. A sacred forest is one of the major land uses in Foya which is a subject of research of the participatory land use project of note. Lessons learned are that these scattered patches of primary forests are not only natural breeding grounds for a variety of faunal and floral species, but also serve as protected areas (e.g. National parks, Nature reserves).

Section VII updates Liberia's biodiversity profile. It is a comprehensive narrative on the status and trends of biodiversity across terrestrial and aquatic ecosystems (freshwater, marine), as well as covers dryland, mountain, savannah and other ecosystems. This section is quite an important one for Liberia as it touches on the issues where this country's biodiversity conservation attempts have their greatest strength. It also is essential to add that new species of animals and plants are often found in protected and proposed protected forest ecosystems and mention of this must be made an integral part of the biodiversity updates. The next CBD Report will address the issue of new species that are added to science in Liberia's determined efforts to conserve biodiversity.

ACRONYM

BNF	Bureau of National Fisheries
CAADP	Comprehensive African Agricultural Development Program
CARI	Agriculture Research Institute
CFMA	Community Forest Management Agreement
CI	Conservation International
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMA	Collaborative Management Association
CME	Coastal and Marine Ecosystem
CMS	Convention on Migratory Species
DEPN	Department for Ecology and Nature Conservation
DFID	Department for International Development
EBA	Endemic Bird Area
ECOWAS	Economic Communication of West African States
EPA	Environmental Protection Agency of Liberia
EMPL	Environmental Management and Protection Law
ESIA	Environmental and Social Impact Assessment
EU	European Union
FAPS	Food Agriculture Policy and Strategy
FDA	Forestry Development Authority
FED	Food and Enterprise Development
FFI	Fauna and Flora International
FMC	Forest Management Contract
FPRCI	Foundation for National Parks and Reserves

GoL	Government of Liberia
GSPC	Global Strategy for Plant Conservation
IBA	Important Bird Area
IFC	International Finance Corporation
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for Conservation of Nature
IUU	illegal, unreported and unregulated
IWRM	Mano River Ecosystem Conservation and International Water Resources
LASIP	The Liberia Agriculture Sector Investment Program
LCF	Liberia Conservation Fund
LDCs	Least developed countries
LEAD	Liberia Entrepreneurial and Asset Development
LFSP	Liberia Forest Sector Project
MEAs	Multilateral Environmental Agreements
MFDP	Ministry of Finance and Development Planning
MoA	Ministry of Agriculture
MSC	Monitoring, Surveillance and Control
NaFAA	National Fisheries and Aquaculture Authority
NBSAP	National Biodiversity Strategy and Action Plan
NFAA	National Fisheries and Aquaculture Authority
NAP	National Adaptation Plan
NDC	Nationally Determined Contribution
NGO	Non-governmental Organization

NFPL	National Forestry Reform Law
PPP	Public- Private Partnership
PUP	Private Use Permit
REDD+)	Reducing Emissions from Deforestation and Forest Degradation
R-PP	Readiness Preparation Proposal
SDGs	Sustainable Development Goals
SFM	Sustainable Forest Management
SLM	Sustainable Land Management
<i>SNC</i>	<i>Second National Communication</i>
TEEB	The Economics of Ecosystem and Biodiversity
TGS	Tai-Grebo-Sapo
TSC	Timber Sale Contract
UNDP	UN Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNEP	United Nations Environmental Programme
UII	unregulated, unreported and illegal
VPA	Voluntary Partnership Agreement
WAAPP	West Africa Comprehensive African Agricultural Development Program Agriculture Productivity Program
WABiCC	West Africa Biodiversity and Climate Change Project
WCF	Wild Chimpanzee Foundation

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Introduction

Liberia has successfully emerged from several years of political and economic upheavals and in 2014, a fratricidal health pandemic; and has now entered a period of transition towards economic transformation, social welfare and environmental protection. At the heart of Liberia's agenda, sustainable growth and development is of high priority; and off course biodiversity conservation.

In March 2017, Liberia completed the revision of her National Biodiversity Strategy and Action Plan (NBSAP) with a long-term vision to have a society that lives in harmony with its natural environment. The mission of the revised NBSAP is to develop education and information programs to raise the level of awareness of the population about the importance of biodiversity and place values on ecosystem goods and services through assessment and evaluation. To develop a framework for mainstreaming biodiversity into national accounting systems, development of policies, plans and programs. The NBSAP contained five strategic goals: address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society; reduce the direct pressures on biodiversity and promote sustainable use; improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity; enhance the benefits to all from biodiversity and ecosystem services; and enhance implementation through participatory planning, knowledge management and capacity building.

This Sixth National Report is consistent with CBD/COP/DEC/XIII/27 which invites Parties to facilitate, as appropriate, the full and effective participation of local peoples and communities and relevant stakeholders, including focal points for other biodiversity-related conventions and Rio conventions, to ensure that national reports reflect national implementation, and to increase alignment and coordination in reporting to the Convention and its Protocols and synergies in reporting among related conventions;

In accordance with the CBD COP decision, the Sixth National Reports proceeded along seven sections: (a) information on the targets being pursued at the national level; (b) implementation measures taken, assessment of their effectiveness, associated obstacles and scientific and technical needs to achieve national targets; (c) assessment of progress towards each national target; (d) description of the national contribution to the achievement of each global Aichi Biodiversity Target; (e) description of the national contribution to the achievement of the targets of the Global Strategy for Plant Conservation (completion of this section is optional); (f) additional information on the contribution of local peoples and communities to the achievement of the Aichi Biodiversity Targets if not captured in the sections above (completion of this section is optional); and (g) updated biodiversity country profiles.

SECTION I. Information on the targets being pursued at the national level

Liberia Target 1.1: By 2019, at least 60 per cent of surveyed key target groups know the meaning and importance of biodiversity and its sustainable utilization.

Actions planned in the Revised NBSAP to achieve Liberia Target 1.1 include:

- Conduct national survey to gauge knowledge gaps about biodiversity and conduct public education and awareness campaigns.

- Organize a series of national workshops to define, describe biodiversity and explore its importance in detail.

- Develop and introduce a biodiversity training module for Liberian schools, colleges and for training in rural communities.

Rationale for the national target

Liberia Target 1.1: A heightened sense of awareness and appreciation of the diverse values (intrinsic, extrinsic) and multiple uses of biodiversity are pivotal to its sustainable management. For Liberia the knowledge base of biodiversity is at the lowest at this point in the Country's history.

Relevance of the national target

Liberia Target 1.1 is related to the following Aichi Target(s):

Aichi 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.

Aichi 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

Relevant websites, web links, and files

The Revised NBSAP for Liberia: <https://www.cbd.int/doc/world/lr/lr-nbsap-v2-en.pdf>

Liberia Target 1.2: By 2020, biodiversity values and prioritized ecosystem services are quantified, monitored and mainstreamed to support national and sectoral policy-making, planning, budgeting and decision-making frameworks.

Actions planned in the Revised NBSAP to achieve Liberia Target 1.2 include:

- Measure and map out representative samples of prioritized ecosystems.

- Identify and estimate various goods and services ecosystem provides.

- Identify and assess the forest, agricultural and biodiversity and quantitative values in monetary terms.

- Develop a sectoral policy-making, planning, budgeting and decision-making frameworks

on biodiversity values.

Rationale for the national target

Liberia Target 1.2: Making the values and myriad uses of biodiversity an integral part of local and national development planning can give it (biodiversity) a platform for recognition among policy makers. This outcome would strengthen biodiversity conservation proponents in attempts to assess the consequences of biodiversity loss and possible trade-offs.

Relevance of the national targets to the Aichi Biodiversity Targets

Liberia Target 1.2 is related to the following Aichi Target(s):

Aichi 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.

Aichi 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.

Other relevant information

Relevant websites, web links, and files

The Revised NBSAP for Liberia

<http://www.cbd.int/doc/world/lr/lr-nbsap-v2-en.pdf>

The Economics of Ecosystem Biodiversity (TEEB) project in Liberia

[www. HYPERLINK "http://www.teebweb.org/areas-of-work/teeb-country-studies/liberia"](http://www.teebweb.org/areas-of-work/teeb-country-studies/liberia)
[HYPERLINK "http://www.teebweb.org/areas-of-work/teeb-country-studies/liberia"](http://www.teebweb.org/areas-of-work/teeb-country-studies/liberia)

[Strengthening ecological connectivity in the Tai-Grebo-Sapo complex HYPERLINK "https://ambero.de/en/projekte-slug/strengthening-ecological-connectivity-in-the-tai-grebo-sapo-complex-liberia-cote-divoire/"](https://ambero.de/en/projekte-slug/strengthening-ecological-connectivity-in-the-tai-grebo-sapo-complex-liberia-cote-divoire/) HYPERLINK "https://ambero.de/en/projekte-slug/strengthening-ecological-connectivity-in-the-tai-grebo-sapo-complex-liberia-cote-divoire/" Project description. The forests of **Tai**, **Grebo** and **Sapo** are the most important remaining tropical rainforest in the Upper Guinean forest ecosystem, covering

Threatened Species Find Lasting Home in Liberia-Guinea Forest

<https://frontpageafricaonline.com/news/2016news/threatened-species-find-lasting-home-in-liberia-guinea-forest/>

Liberia Target 1.3: By 2020, selected incentives for biodiversity conservation and sustainable use are in place and applied, and the most harmful subsidies are identified and their phase out

initiated.

Actions planned in the Revised NBSAP to achieve Liberia Target 1.3 include:

Define and list set of selected incentives that support the conservation and sustainable use of biodiversity.

Craft a legal and regulatory framework to govern harmful incentive system for conservation and sustainable use of biodiversity.

Rationale for the national target

Liberia Target 1.3: Interdicting or at least reducing the impact of activities that are an existential threat to biodiversity is vital to achieving broader net socio-economic benefits in support of biodiversity conservation.

Relevance of the national targets to the Aichi Biodiversity Targets

Liberia Target 1.3 is related to the following Aichi Target(s):

Aichi 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.

Other relevant information

Relevant websites, web links, and files

Liberia Conservation Fund (LCF)

<https://www.liberianobserver.com/news/conservation-international-commits-us1m-for-liberia-protected-areas/>

Liberia Target 1.4: By 2020, mobilization of financial resources from all sources will be increased compared to the period 2008-2012 to allow for the effective implementation of this strategy and action plan.

Actions planned in the Revised NBSAP to achieve Liberia Target 1.4 include:

Convene a series of national workshops to develop management strategy to identify and assess indicators of sustainable production and use of resources.

Ensure mainstreaming of biodiversity conservation into relevant sectoral plans and policies.

Rationale for the national target

Increased and sustained sources of financial support are a vital pivot for the effective and efficient implementation of activities the National Biodiversity Strategy and Action Plan proposes. But while financial resources are being sought, safe ecological limits within which

resource use is possible must also be set to regulate the unprecedented loss of animals, plants and other organisms due to forest loss. It also will take as much financial resources as a series of dialogues among multiple stakeholders on the national, local and community levels to implement the NBSAP.

Relevance of the national targets to the Aichi Biodiversity Targets

Liberia Target 1.3 is related to the following Aichi Target(s):

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.

Other relevant information

Relevant websites, web links, and files

Liberia Target 2.1: By 2024, the rate of loss and degradation of natural habitats outside protected areas serving ecological corridors or containing key biodiversity areas or providing important ecosystem services is minimized by 3% through integrated land use planning.

Actions planned in the Revised NBSAP to achieve this target include:

- Ensure establishment of community forests and provide incentives to communities for ecosystem services.

- Carry out reforestation and afforestation projects; establish woodlots.

- Ensure SLM practices.

- Invest in the establishment and management of hydro and biogas technologies to reduce the over-dependence on wood fuel.

- Promote use of eco-stoves.

- Ensure sustainable forestry, agriculture and fishery.

Rationale for the national target

Reducing the rate of loss of natural habitats, forests in particular, is the single most important approach to biodiversity conservation in Liberia and is the principal underlying reason for this target. What is emphasized in the delivery on this target is to prevent the loss of high-biodiversity value - such as primary forests and wetlands, by declaring or setting them aside as National Parks and Nature Reserves.

Relevance of the national targets to the Aichi Biodiversity Targets

Liberia Target 2.1 is related to the following Aichi Target(s):

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.

Other relevant information

Relevant websites, web links, and files

Liberia Forest Sector Project (LFSP)

<http://projects.worldbank.org/P154114?lang=en>

West Africa Biodiversity and Climate Change Project – Tetra Tech

<https://www.usaid.gov/west-africa-regional/fact-sheets/west-africa-biodiversity-and-climate-change-wa-bicc>

Mano River Ecosystem Conservation and International Water Resources Management Project

<https://www.thegef.org/project/mano-river-union-ecosystem-conservation-and-international-water-resources-management-iwrm>

Strengthening ecological connectivity in the Tai-Grebo-Sapo complex HYPERLINK
"<https://ambero.de/en/projekte-slug/strengthening-ecological-connectivity-in-the-tai-grebo-sapo-complex-liberia-cote-divoire/>" "<https://ambero.de/en/projekte-slug/strengthening-ecological-connectivity-in-the-tai-grebo-sapo-complex-liberia-cote-divoire/>"

Threatened Species Find Lasting Home in Liberia-Guinea Forest

<https://frontpageafricaonline.com/news/2016news/threatened-species-find-lasting-home-in-liberia-guinea-forest/>

Liberia Conservation Fund (LCF)

<https://www.liberianobserver.com/news/conservation-international-commits-us1m-for-liberia-protected-areas/>

Liberia Target 2.2: By 2023, at least 20-25 per cent of living marine and aquatic resources are managed sustainably and guided by the ecosystem approach.

Actions planned in the Revised NBSAP to achieve this target include:

Establish at least 2 marine protected areas.

Enforce fishery regulations on illegal fishing practices.

Ensure restoration of at least 30 % of degraded wetlands.

Ensure protection of mangrove forests of global importance through community participation.

Finalize National Wetlands Policy.

Rationale for the national target

The World Bank estimates that over-exploitation of fish stocks represents a lost profitability of about \$50 billion per year and this puts at risk some 27 million jobs and the well-being of more than one billion people. Determined action is needed to reverse this dire trend through the

increased use of ecosystems-based approaches and the establishment of recovery plans for depleted species.

Relevance of the national targets to the Aichi Biodiversity Targets

Liberia Target 2.2 is related to the following Aichi Target(s):

Aichi 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.

Other relevant information

Relevant websites, web links, and files

Liberia to Tap into Aquaculture potential

<https://thefishsite.com/articles/liberia-to-tap-into-aquaculture-potential>

National Fisheries and Aquaculture Authority

https://web.facebook.com/pg/National-Fisheries-and-Aquaculture-Authority-NAFAA-1641396189274852/about/?ref=page_internal

West Africa Regional Fisheries Project (WARFP)

<https://www.liberianobserver.com/news/warfp-us-1-7-million-fisheries-project-makes-progress-in-robertsport/>

Liberia Target 2.3: By 2022, principles of sound rangeland and sustainable forest management, and good environmental practices in agriculture and forestry are applied on at least 50 per cent of all relevant areas.

Actions planned in the Revised NBSAP to achieve this target include:

Carry out a desk study on the expanse of rangeland and their management regimes.

Review current legal and regulatory frameworks in forestry and agriculture and amend, where necessary, to ensure adherence to sustainable practices.

Ensure development and enforcement of appropriate environmental regulations relative to chemicals and modern biotechnology/biosafety.

Rationale for the national target

As population increases so will the demand for food, fibre and fuel, ultimately resulting in increased loss of biodiversity. It is therefore out of necessity that management systems become sustainable in the agriculture, aquaculture and forest sector.

Relevance of the national targets to the Aichi Biodiversity Targets

Liberia Target 2.3 is related to the following Aichi Target(s):

Aichi Target 7: By 2020, areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.

Other relevant information

Relevant websites, web links, and files

Liberia Conservation Fund (LCF)

<https://www.liberianobserver.com/news/conservation-international-commits-us1m-for-liberia-protected-areas/>

Liberia Target 2.4: By 2022, pollution, including from excess nutrients, has been brought to levels that are not detrimental to biodiversity and ecosystem health and functioning.

Actions planned in the Revised NBSAP to achieve this target include:

Conduct a number of studies to identify the various types of pollution associated with prioritized ecosystems.

Conduct baseline studies to determine levels of pollution.

Examine, upgrade and implement existing legislations on pollution and monitor enforcement.

Provide guidelines on use of agro chemicals.

Rationale for the national target

Eutrophication and other forms of pollution are a major and increasing causes of biodiversity loss and a breakdown in ecosystem health, wetland, coastal, marine and dryland areas in particular. This target calls for a better control of sources of pollution, including efficiency in fertilizer use and the better management of animal waste (including human waste).

Relevance of the national targets to the Aichi Biodiversity Targets

Liberia Target 2.4 is related to the following Aichi Target(s):

Aichi Target 8: By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.

Other relevant information

Relevant websites, web links, and files

Mano River Ecosystem Conservation and International Water Resources Management Project

<https://www.thegef.org/project/mano-river-union-ecosystem-conservation-and-international-water-resources-management-iwrm>

Liberia Target 2.5: By 2018, National compendium on invasive alien species in Liberia is prepared and by 2020, priority measures are in place to control and manage their spread and impact.

Actions planned in the Revised NBSAP to achieve this target include:

- Identify and document alien species in prioritized ecosystems and determine various means by which enter the country and sources.

- Promote integrated management of invasive alien species.

- Undertake research into effective control of IAS.

- Put in place robust monitoring system of IAS

Rationale for the national target

The number of invasive alien species in Liberia is increasing and these are a major threat to biodiversity. Concerted and determined efforts are critical if the multiple pathways for invasive species are to be identified and controlled through improved border controls and quarantine, including through better coordination with national and regional bodies for plant and animal health.

Relevance of the national targets to the Aichi Biodiversity Targets

Liberia Target 2.5 is related to the following Aichi Target(s):

Aichi 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.

Other relevant information

Relevant websites, web links, and files

Liberia Target 2.6: By 2018, ecosystems most vulnerable to climate change and their anthropogenic pressures are identified and assessed, and by 2020 appropriate adaptation measures are developed and implemented in priority areas.

Actions planned in the Revised NBSAP to achieve this target include:

- Conduct studies on prioritized ecosystems vulnerable to climate and take appropriate to reduce/avoid/ threats.

- Conduct studies in agriculture, fisheries and forestry practices on felt or potential negative impact on the natural environment.

Rationale for the national target

The deleterious effects of climate change are increasingly exerting pressure on ecosystems that

are already burdened with other negative, largely human-induced forces. Such fragile ecosystems include wetlands and coral reefs which urgently need and must be given time to cope with the pressures of climate change. Reducing pollution and unsustainable harvesting practices, that have negative impacts on ecosystems, are among the credible solutions that must be sought and applied to deal with the impact of climate change.

Relevance of the national targets to the Aichi Biodiversity Targets

Liberia Target 2.6 is related to the following Aichi Target(s):

Aichi 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.

Other relevant information

Relevant websites, web links, and files

The Economics of Ecosystem Biodiversity (TEEB) project in Liberia

[www.teebweb.org/areas-of-work/teeb-country-studies/liberia"](http://www.teebweb.org/areas-of-work/teeb-country-studies/liberia)

Mano River Ecosystem Conservation and International Water Resources Management Project

<https://www.thegef.org/project/mano-river-union-ecosystem-conservation-and-international-water-resources-management-iwrm>

National Fisheries and Aquaculture Authority

https://web.facebook.com/pg/National-Fisheries-and-Aquaculture-Authority-1641396189274852/about/?ref=page_internal NAFAA-

Liberia Conservation Fund (LCF)

<https://www.liberianobserver.com/news/conservation-international-commits-us1m-for-liberia-protected-areas/>

Liberia Target 3.1: By 2020, at least 4 per cent existing terrestrial protected areas (national parks, nature reserves, conservation areas set aside in community forests, etc.) are conserved, effectively and equitably managed, within an ecologically representative and well-connected system, and by 2022, at least 5% of coastal and marine areas of particular importance to biodiversity and ecosystem services, are identified, assessed and measures taken for their protection.

Actions planned in the Revised NBSAP to achieve this target include:

Conduct baseline surveys of terrestrial and aquatic (freshwater, marine) protected ecosystems to determine their current conservation status and threats they face.

Establish additional ecologically representative protected areas.

Update/develop management plans for the PAs.
Conduct economic valuation of the PAs.
Promote REDD+ program.

Rationale for the national target

It is estimated that 13 per cent of terrestrial areas and 5 per cent of coastal areas are currently protected. Achieving this target suggests that more should be done to increase terrestrial and marine protected areas. An ecosystem approach to this expansion is key, taking into account ecological connectivity and the concept of ecological networks. Liberia is committed to conserving 30 per cent

Relevance of the national targets

Liberia Target 3.1 is related to the following Aichi Target(s):

Aichi Target 11: By 2020, at least 17 per cent of terrestrial and inland water, and 10 percent 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 wide landscape and seascapes.

Other relevant information

Relevant websites, web links, and files

The Economics of Ecosystem Biodiversity (TEEB) project in Liberia

[www. **HYPERLINK** "http://www.teebweb.org/areas-of-work/teeb-country-studies/liberia"](http://www.teebweb.org/areas-of-work/teeb-country-studies/liberia) **HYPERLINK** ["http://www.teebweb.org/areas-of-work/teeb-](http://www.teebweb.org/areas-of-work/teeb-country-)

Liberia Forest Sector Project (LFSP)

<http://projects.worldbank.org/P154114?lang=en>

West Africa Biodiversity and Climate Change Project – Tetra Tech

<https://www.usaid.gov/west-africa-regional/fact-sheets/west-africa-biodiversity-and-climate-change-wa-bicc>

Mano River Ecosystem Conservation and International Water Resources Management Project

<https://www.thegef.org/project/mano-river-union-ecosystem-conservation-and-international-water-resources-management-iwrm>

National Fisheries and Aquaculture Authority

https://web.facebook.com/pg/National-Fisheries-and-Aquaculture-Authority-NAFAA-1641396189274852/about/?ref=page_internal

Protected Area research in Liberia
<http://www.liberianfaunaflora.org/research>

A History of Liberian Conservation

["http://www.liberianfaunaflora.org/research/sapo-conservation"](http://www.liberianfaunaflora.org/research/sapo-conservation)

Liberia Conservation Fund (LCF)

<https://www.liberianobserver.com/news/conservation-international-commits-us1m-for-liberia-protected-areas/>

Protected areas / fauna & flora of Liberia

[www. HYPERLINK "http://www.liberianfaunaflora.org/protected-areas"](http://www.liberianfaunaflora.org/protected-areas)
HYPERLINK "http://www.liberianfaunaflora.org/protected-areas"

[Strengthening ecological connectivity in the Tai-Grebo-Sapo complex](https://amboero.de/en/projekte-slug/strengthening-ecological-connectivity-in-the-tai-grebo-sapo-complex-liberia-cote-divoire/)
HYPERLINK "https://amboero.de/en/projekte-slug/strengthening-ecological-connectivity-in-the-tai-grebo-sapo-complex-liberia-cote-divoire/" HYPERLINK
["https://amboero.de/en/projekte-slug/strengthening-ecological-connectivity-in-the-tai-grebo-sapo-complex-liberia-cote-divoire/"](https://amboero.de/en/projekte-slug/strengthening-ecological-connectivity-in-the-tai-grebo-sapo-complex-liberia-cote-divoire/) HYPERLINK "https://amboero.de/en/projekte-slug/strengthening-ecological-connectivity-in-the-tai-grebo-sapo-complex-liberia-cote-divoire/" HYPERLINK "https://amboero.de/en/projekte

Liberia Target 3.2: By 2018, threatened and vulnerable species lists are updated and measures effected by 2019 to improve their conservation status.

Actions planned in the Revised NBSAP to achieve this target include:

Assemble and review documents on threatened vulnerable species.

Carry out ecosystem surveys to collect baseline information on the status of endangered/threatened animals and plants.

Upgrade the IUCN RED list on both animals and plants.

Ensure robust enforcement of regulations to protect endangered or threatened species

Rationale for the national target

As the war against human-induced extinction of animal and plant species is waged, it is imperative to take preventive measures against further extinction by protecting the sites of threatened species and by tackling particular threats through *ex situ* conservation. Other activities against extinction include implementation of species recovery and conservation programs and the re-introduction of species to habitats from which they have been completely wiped out in the past.

Relevance of the national targets to the Aichi Biodiversity Targets

Liberia Target 3.2 is related to the following Aichi Target(s):

Aichi 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.

Other relevant information

Relevant websites, web links, and files

Threatened Species Find Lasting Home in Liberia-Guinea Forest

<https://frontpageafricaonline.com/news/2016news/threatened-species-find-lasting-home-in-liberia-guinea-forest/>

[New National Park Offers Protection for Forest Elephants in Liberia](https://www.rainforesttrust.org/gola/)

<https://www.rainforesttrust.org/gola/>

Ecosystem Biodiversity (TEEB) project in Liberia

[www. HYPERLINK "http://www.teebweb.org/areas-of-work/teeb-country-studies/liberia"](http://www.teebweb.org/areas-of-work/teeb-country-studies/liberia) HYPERLINK "http://www.teebweb.org/areas-of-work/teeb-country-studies/liberia" HYPERLINK "http://www.teebweb.org/areas-of-work/teeb-country-studies/liberia" HYPERLINK "http://www.teebweb.org/areas-of-work/teeb-country-studies/liberia"

Liberia Forest Sector Project (LFSP)

<http://projects.worldbank.org/P154114?lang=en>

West Africa Biodiversity and Climate Change Project – Tetra Tech

<https://www.usaid.gov/west-africa-regional/fact-sheets/west-africa-biodiversity-and-climate-change-wa-bicc>

Mano River Ecosystem Conservation and International Water Resources Management Project

<https://www.thegef.org/project/mano-river-union-ecosystem-conservation-and-international-water-resources-management-iwrm>

National Fisheries and Aquaculture Authority

https://web.facebook.com/pg/National-Fisheries-and-Aquaculture-Authority-NAFAA-1641396189274852/about/?ref=page_internal

Protected Area research in Liberia

<http://www.liberianfaunaflora.org/research>

A History of Liberian Conservation

[www. HYPERLINK "http://www.liberianfaunaflora.org/research/sapo-conservation"](http://www.liberianfaunaflora.org/research/sapo-conservation) HYPERLINK "http://www.liberianfaunaflora.org/research/sapo-conservation" HYPERLINK "http://www.liberianfaunaflora.org/research/sapo-conservation" HYPERLINK "http://www.liberianfaunaflora.org/research/sapo-conservation"

Liberia Conservation Fund (LCF)

<https://www.liberianobserver.com/news/conservation-international-commits-us1m-for-liberia-protected-areas/>

Liberia Target 3.3: By 2020, Genetic diversity of cultivated plants and farmed animals is maintained and enhanced.

Actions planned in the Revised NBSAP to achieve this target include:

- Carry out a national germplasm collection activity.

- Establish and maintain gene banks for both agricultural crops (forestry included) and domestic animals.

- Characterize and evaluate germplasm in gene-banks.

- Strengthen Biosafety Risk Assessment for GMOs that may be introduced into the country.

- Conduct national surveys to document Traditional Knowledge on conservation of agro-biodiversity.

Rationale for the national target

Genetic diversity is in decline, be it of cultivated plants and farmed animals and their wild relatives. Strategies are needed to minimize and eventually interdict the current rate of erosion of genetic diversity. There is a recognized progress in safeguarding many varieties and breeds through ex situ storage in gene-banks; worldwide, less progress has been in situ conservation.

Relevance of the national targets to the Aichi Biodiversity Targets

Liberia Target 3.3 is related to the following Aichi Target(s):

Aichi Target 13: By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild varieties, 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.

Other relevant information

Liberia Target 4.1: By 2022, ecosystems that provide essential services and contribute to health, livelihoods and well-being, are safeguarded, and restoration programmes have been initiated for degraded ecosystems covering at least 15 per cent of the priority areas.

Actions planned in the Revised NBSAP to achieve this target include:

- Identify and map out the country 's terrestrial and aquatic ecosystems, document the essential services they provide.

- Determine threatened ecosystems and the extent of such threats.

- Develop and initiate implementation of measures to restore and/or rehabilitate at least 2% of these ecosystems.

- Identify and monitor threats to all ecosystems.

Rationale for the national target

Ecosystems provide provisioning (freshwater, food, etc), regulating (purification of air and water, soil renewal) and cultural (aesthetic values, social relations and values, language and local knowledge systems) services. Priority should be given to safeguarding or restoring ecosystems and to ensure people have adequate access to the services they provide.

Relevance of the national targets to the Aichi Biodiversity Targets

Liberia Target 4.1 is related to the following Aichi Target(s):

Aichi 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.

Other relevant information**Relevant websites, web links, and files**

Ecosystem Biodiversity (TEEB) project in Liberia

["http://www.teebweb.org/areas-of-work/teeb-country"](http://www.teebweb.org/areas-of-work/teeb-country)

Liberia Forest Sector Project (LFSP)

<http://projects.worldbank.org/P154114?lang=en>

West Africa Biodiversity and Climate Change Project – Tetra Tech

<https://www.usaid.gov/west-africa-regional/fact-sheets/west-africa-biodiversity-and-climate-change-wa-bicc>

Mano River Ecosystem Conservation and International Water Resources Management Project

<https://www.thegef.org/project/mano-river-union-ecosystem-conservation-and-international-water-resources-management-iwrm>

Liberia Conservation Fund (LCF)

<https://www.liberianobserver.com/news/conservation-international-commits-us1m-for-liberia-protected-areas/>

National Fisheries and Aquaculture Authority

https://web.facebook.com/pg/National-Fisheries-and-Aquaculture-Authority-NAFAA-1641396189274852/about/?ref=page_internal

Protected Area research in Liberia

<http://www.liberianfaunaflora.org/research>

HYPERLINK

["http://www.liberianfaunaflora.org/researchA"](http://www.liberianfaunaflora.org/researchA)

["http://www.liberianfaunaflora.org/research"](http://www.liberianfaunaflora.org/research)

HYPERLINK

["http://www.liberianfaunaflora.org/researchA"](http://www.liberianfaunaflora.org/researchA)

["http://www.liberianfaunaflora.org/research"](http://www.liberianfaunaflora.org/research)

- **The IDH-funded Participatory Land Use Planning Project for Foya District , Lofa County**

Liberia Target 4.2: By 2018, ecosystem resilience and the contribution of biodiversity to carbon stocks will be enhanced through the protection of additional forest ecosystems which Liberia 's current REDD+ project will create, in addition to the project 's enhancement of the mitigation of climate change and restoration of degraded grasslands through reforestation by 2023.

Actions planned in the Revised NBSAP to achieve this target include:

Promote and support community-based forest management programs.

Support reforestation and afforestation.

Establish woodlots in degraded landscapes.

Put in place program to provide incentives to forest dependent communities for ecosystem services under the REDD+ Project.

Rationale for the national target

As landscapes and lifescapes are restored, resilience can be improved, including adaptive capacity of ecosystems and societies, contributing to climate change adaptation and generation of additional benefits for people, in particular, indigenous and local communities and the rural poor. Appropriate incentive schemes (such as REDD+) could reduce or even reverse, negative land use changes and, with appropriate safeguards, include livelihoods.

Relevance of the national targets to the Aichi Biodiversity Targets

Liberia Target 4.2 is related to the following Aichi Target(s):

Aichi Target 15: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks have 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.

Other relevant information

Relevant websites, web links, and files

Liberia Forest Sector Project (LFSP)

<http://projects.worldbank.org/P154114?lang=en>

West Africa Biodiversity and Climate Change Project – Tetra Tech

<https://www.usaid.gov/west-africa-regional/fact-sheets/west-africa-biodiversity-and-climate-change-wa-bicc>

Mano River Ecosystem Conservation and International Water Resources

Management Project

<https://www.thegef.org/project/mano-river-union-ecosystem-conservation-and-international-water-resources-management-iwrm>

Strengthening ecological connectivity in the Tai-Grebo-Sapo complex
HYPERLINK "https://ambero.de/en/projekte-slug/strengthening-ecological-connectivity-in-the-tai-grebo-sapo-complex-liberia-cote-divoire/"
"https://ambero.de/en/projekte-slug/strengthening-ecological-connectivity-in-the-tai-grebo-sapo-complex-liberia-cote-divoire/"

Liberia Conservation Fund (LCF)

<https://www.liberianobserver.com/news/conservation-international-commits-us1m-for-liberia-protected-areas/>

Ecosystem Biodiversity (TEEB) project in Liberia

www. **HYPERLINK** "http://www.teebweb.org/areas-of-work/teeb-country-studies/liberia""http://www.teebweb.org/areas-of-work/teeb-country-studies/liberia"

Liberia Target 4.3: By 2018, national legislation giving effect to the Nagoya Protocol is in force and by 2020, fully operational to ensure that benefits are fair and equitably shared from the conservation and sustainable use of biodiversity.

Actions planned in the Revised NBSAP to achieve this target include:

Accede to/ratify the Nagoya Protocol on Access and Benefit Sharing.

Ensure enactment of the draft ABS legislations and develop implementing regulations and guidelines.

Strengthen ABS Unit to effectively handle and process application for permits.

Build capacity for use of ABS Clearing House

Rationale for the national target

The third objective of the CBD provides for "the fair and equitable sharing of the benefit arising out of the utilization of genetic resources" The COP's tenth meeting adopted the Nagoya Protocol on Access to Genetic Resources, and the Fair and Equitable Sharing of Benefits, and all of this is a legally-binding regime. If access to genetic resources and their sharing is fair and equitable, we could make our world a better place for us all as poverty will not be pervasive as it is today.

Relevance of the national targets

Liberia Target 4.3 is related to the following Aichi Target(s):

Aichi 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.

Other relevant information

Relevant websites, web links, and files

Liberia Land Rights and Community Forest Program

<https://land-links.org/project/land-rights-and-community-forest-program-liberia>

Pursuing community forestry in Liberia

https://liberiafti.files.wordpress.com/2013/08/lamb_pursuing-community-forestry-in-liberia.pdf

Liberia Forest Sector Project (LFSP)

<https://projects.worldbank.org/P154114?lang=en>

West Africa Biodiversity and Climate Change Project – Tetra Tech

<https://www.usaid.gov/west-africa-regional/fact-sheets/west-africa-biodiversity-and-climate-change-wa-bicc>

Mano River Ecosystem Conservation and International Water Resources Management Project

<https://www.thegef.org/project/mano-river-union-ecosystem-conservation-and-international-water-resources-management-iwrm>

[Strengthening ecological connectivity in the Tai-Grebo-Sapo complex](https://www.ambero.de/en/projekte-slug/strengthening-ecological-connectivity-in-the-tai-grebo-sapo-complex-liberia-cote-divoire/)
HYPERLINK

"<https://www.ambero.de/en/projekte-slug/strengthening-ecological-connectivity-in-the-tai-grebo-sapo-complex-liberia-cote-divoire/>"
"<https://www.ambero.de/en/projekte-slug/strengthening-ecological-connectivity-in-the-tai-grebo-sapo-complex-liberia-cote-divoire/>"

Liberia Conservation Fund (LCF)

<https://www.liberianobserver.com/news/conservation-international-commits-us1m-for-liberia-protected-areas/>

Ecosystem Biodiversity (TEEB) project in Liberia

[www. HYPERLINK "http://www.teebweb.org/areas-of-work/teeb-country-studies/liberia"](http://www.teebweb.org/areas-of-work/teeb-country-studies/liberia)
["http://www.teebweb.org/areas-of-work/teeb-country-studies/liberia"](http://www.teebweb.org/areas-of-work/teeb-country-studies/liberia)

Liberia Target 5.1: By 2017, Liberia would have developed and adopted as a policy instrument, and has commenced implementing an effective, participatory and updated its NBSAP.

Actions planned in the Revised NBSAP to achieve this target include:

Review the first NBSAP.

Collect additional information to revise and update draft NBSAP.

Conduct national consultations with stakeholders to validate the revised NBSAP, and seek political support for implementation.

Rationale for the national target

National biodiversity strategies and action plans are the instrument for putting the Convention and decisions of the Conference of the Parties into practice. It is therefore essential for parties to have developed, adopted as a policy instrument and commenced implementing an updated NBSAP which is in line with the goals and targets set out in this Strategic Plan by 2015. Participatory stakeholder involvement throughout the design, planning and implementation of an NBSAP is fundamental in ensuring that the plans will be effective.

Relevance of the national targets to the Aichi Biodiversity Targets

Liberia Target 5.1 is related to the following Aichi Target(s):

Aichi 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.

Other relevant information

Relevant websites, web links, and files

The Revised NBSAP for Liberia

<https://www.cbd.int/doc/world/lr/lr-nbsap-v2-en.pdf>

Liberia Target 5.2: By 2020, Traditional knowledge and the innovations and practices of indigenous and local communities relevant to the conservation and sustainable use of biodiversity are recognized, respected, documented and promoted.

Actions planned in the Revised NBSAP to achieve this target include:

- Conduct a series of case studies on indigenous knowledge systems.

- Document indigenous knowledge system and local languages through which it is channeled.

- Mainstream indigenous knowledge into the planning and implementation of biodiversity conservation interventions.

- Institutionalize the use of indigenous knowledge into the management of natural resources

Rationale for the national target

Article 7(i) of the Convention mandates that traditional knowledge, innovations and practices be respected, protected, maintained, promoted and used in local ecosystem management, drawing upon experiences of customary use, with the approval of relevant communities. Also, in line

with Article 10(c), customary use of biological resources that is compatible with conservation and sustainable use should be protected and encouraged.

Relevance of the national targets to the Aichi Biodiversity Targets

Liberia Target 5.1 is related to the following Aichi Target(s):

Aichi 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.

Other relevant information

Relevant websites, web links, and files

The Revised NBSAP for Liberia

<https://www.cbd.int/doc/world/lr/lr-nbsap-v2-en.pdf>

Liberia Target 5.3: By 2025, knowledge, science base and technologies relating to biodiversity and ecosystem management are improved and made relevant to political decision makers.

Actions planned in the Revised NBSAP to achieve this target include:

Collect, collate and analyze information about biodiversity, the reason(s) for its conservation and the significance of managing ecosystems.

Convene a series of workshops with relevant political decision makers to discuss importance of biodiversity and ecosystem in terms of the values, functions and the consequences of their loss.

Promote and support research into biodiversity and ecosystem conservation

Rationale for the national target

Credible information is critical to any efforts to identify threats (direct, indirect) to biodiversity and to determine priorities for conservation and sustainable use

Relevance of the national targets to the Aichi Biodiversity Targets

Liberia Target 5.3 is related to the following Aichi Target(s):

Aichi 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.

Other relevant information

Relevant websites, web links, and files

The Revised NBSAP for Liberia

<https://www.cbd.int/doc/world/lr/lr-nbsap-v2-en.pdf>

Liberia Land Rights and Community Forest Program

<https://land-links.org/project/land-rights-and-community-forest-program-liberia>

Pursuing community forestry in Liberia

https://liberiafti.files.wordpress.com/2013/08/lamb_pursuing-community-forestry-in-liberia.pdf

Liberia Forest Sector Project (LFSP)

<http://projects.worldbank.org/P154114?lang=en>

West Africa Biodiversity and Climate Change Project – Tetra Tech

<https://www.usaid.gov/west-africa-regional/fact-sheets/west-africa-biodiversity-and-climate-change-wa-bicc>

Mano River Ecosystem Conservation and International Water Resources Management Project

<https://www.thegef.org/project/mano-river-union-ecosystem-conservation-and-international-water-resources-management-iwrm>

Ecosystem Biodiversity (TEEB) project in Liberia

[www. HYPERLINK "http://www.teebweb.org/areas-of-work/teeb-country-studies/liberia" "http://www.teebweb.org/areas-of-work/teeb-country-studies/liberia"](http://www.hyperlinkhttp://www.teebweb.org/areas-of-work/teeb-country-studies/liberiahttp://www.teebweb.org/areas-of-work/teeb-country-studies/liberia)
decision makers.

Liberia Target 5.4: By 2020, mobilization of financial resources from all sources will be increased compared to the period 2008-2012 to allow for the effective implementation of this strategy and action plan.

Actions planned in the Revised NBSAP to achieve this target include:

Organize financial resource mobilization committee.

Establish a biodiversity conservation Trust fund.

Lobby national and international support for financial resources to implement the NBSAP,

Rationale for the national target

Trained staff and financial resources in most countries that are signatories to the Convention are limited, especially in developing countries, in particular the least developed countries and small island developing States, as well as countries with economies in transition. The current capacity in most of these countries must be further built so that it can substantially be increased from

current levels and in line with the process laid out in the Strategy for Research Mobilization, in order to meet the challenges of implementing this Strategic Plan.

Relevance of the national targets to the Aichi Biodiversity Targets

Liberia Target 5.4 is related to the following Aichi Target(s):

Aichi 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.

Other relevant information

Relevant websites, web links, and files

Ecosystem Biodiversity (TEEB) project in Liberia
[www. HYPERLINK "http://www.teebweb.org/areas-of-work/teeb-country-studies/liberia" "http://www.teebweb.org/areas-of-work/teeb-country-studies/liberia"](http://www.teebweb.org/areas-of-work/teeb-country-studies/liberia)

Liberia Forest Sector Project (LFSP)
<http://projects.worldbank.org/P154114?lang=en>

West Africa Biodiversity and Climate Change Project – Tetra Tech
<https://www.usaid.gov/west-africa-regional/fact-sheets/west-africa-biodiversity-and-climate-change-wa-bicc>

Mano River Ecosystem Conservation and International Water Resources Management Project
<https://www.thegef.org/project/mano-river-union-ecosystem-conservation-and-international-water-resources-management-iwrm>

Liberia Conservation Fund (LCF)
<https://www.liberianobserver.com/news/conservation-international-commits-us1m-for-liberia-protected-areas/>

National Fisheries and Aquaculture Authority
https://web.facebook.com/pg/National-Fisheries-and-Aquaculture-Authority-NAFAA-1641396189274852/about/?ref=page_internal

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

Describe a measure taken to contribute to the implementation of your country's National Biodiversity Strategy and Action Plan

Strengthening of Ecological Connectivity in the Tai-Grebo-Sapo Region

The initiative to connect the Tai-Grebo- Sapo (TGS) complex through various corridors and semi-natural woodlands commenced in December, 2015 with the official project introductions with the Forestry Development Authority (FDA) and the Environmental Protection Agency (EPA); and, other relevant government agencies in Liberia. The total amount available for this program is 12 Million Euro, and is being provided by the German Development Ministry (BMZ).

The Tai-Grebo-Sapo forest complex represents the largest contiguous tropical rainforest area in the Upper Guinean forest ecosystem. It provides habitat for more than a quarter of African mammals, including 12 species of primates and rare endemic species such as pygmy hippopotamus and forest elephants. In la Côte d'Ivoire, the project area includes the Tai National Park and three adjacent protected forests (Cavally, Goin - Dèbé, Haute Dodo). In Liberia the Tai-Grebo-Sapo (TGS) forest includes the Sapo National Park, the Grebo-Krahn National Park and several major forest concessions.

The ecological connection of the Tai-Grebo-Sapo complex is currently interrupted by a strip of land, which is populated and used for agricultural purposes, running from north to south. This zone represents the western limitation of Tai National Park and the eastern border of the Grebo Forest and is mainly located on the territory of Côte d'Ivoire. Only if this area becomes traversable for wildlife, particularly large mammals, a genetic exchange with the rainforests of Liberia is possible.

The project aims to strengthen the capacity for the joint management of natural resources and biodiversity and hence improve sustainably the connectivity of ecosystems and protected areas; i.e. the creation of a political and legal frameworks for the protection of biodiversity and the integration of ecosystems through the establishment of ecological corridor, and local management implementation capacity focusing on local level capacity in both jurisdictions, knowledge sharing, ongoing initiatives, learning, and adoption of best practices.

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

Liberia Targets 2.1, 3.1
Aichi Targets 11

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

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

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

Before 2009, there was intensification of agriculture, deforestation and hunting, coupled with economic migration from surrounding countries, as well as weak statehood and the unclear land use rights of the region; also communication and cooperation between the responsible authorities for protected areas and forests was either absent or weak. But, today, a joint Ivorian-Liberian effort to establish the TGS corridor is ongoing; a Steering Committee was established by the two West African nations. Under this collaboration, a number of programs were put underway including land use and land tenure assessment; socio-economic, legal and institutional review as well as communication strategies to keep all stakeholders engaged.

Relevant websites, web links and files

<https://ambero.de/en/projekte-slug/strengthening-ecological-connectivity-in-the-tai-grebo-sapo-complex-liberia-cote-divoire/>

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

Since the commencement of this program, a number of constraints have been identified including but not limited to (a) conflicting interest between local people and authorities in commercial agricultural activities against possible ecological corridors (b) inadequate socio-economic information and land use options facing communities, and of underlying agricultural dynamics and demographics.

There are also challenges on availability of data on human population, farms, livelihoods (including illegal); the human and agricultural dynamics driving change in the possible corridor areas, and low capacity to peacefully manage protected areas and ecological corridors at local cross-border level.

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

Liberia National Forestry Policy and Implementation Strategy

This strategy was carved in 2006, and is woven around eight (8) objectives including (a) to ensure that commercial forestry, community forestry and forest conservation activities are integrated and balanced to optimize the economic, social and environmental benefits from the forest resource. (b) to conserve a representative sample of forest ecosystems so that important environmental functions are maintained (c) to contribute to the national development goals of poverty alleviation and increased food security by increasing the opportunities for forest-based income generating activities (d) To grant more equitable access to forest resources so that the potential for future conflict is reduced and the benefits from forestry development are shared throughout Liberian society (e) to ensure that all stakeholders participate in the formulation of forestry policies and in the conservation and management of the forest resource (f) to maximize the contribution of the sector to income, employment and trade through the development of appropriate processing activities (g) to ensure that forestry development contributes to national development goals and international commitments (including regional cooperation and trans-boundary issues) and is coordinated with other relevant branches of government (h) to ensure that activities in the forestry sector (including forest management, plantation development, harvesting, conservation and industrial development) are based on sound scientific and technical

principles.

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

Liberia Targets 3.1, 4.1

Aichi Targets 7, 11, 17

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

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

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

There is no national methodology to tract the effectiveness of policies and strategies effectiveness in achieving desired outcomes.

Relevant websites, web links and files

<http://www.fao.org/forestry/16167-0dd77b0af6b1e94481d519ab979fd40db.pdf>

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

The main constraints in the implementation of policies and strategies are lack of both institutional and human capacities as well as financial resources in operationalizing said policies or strategies.

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

The Establishment of Gola Forest National Park and the Grebo-Krahn National Park

The government of Liberia recently created two (2) new national parks, the Gola Forest National Park in September, 2016 and the Grebo-Krahn National Park in August, 2017. The opening of the two parks, aims to expand national network of protected areas and biodiversity hotspots in the southeast and northwest, a move which will encourage sustainable forestry management. The two parks, are part of the country's proud natural heritage, which makes her the most forested country in the sub-region.

The Gola Forest National Park is largely in Gbarpolu County and covers 88,000 hectares, while the Grebo-Krahn National Forest is 97,136 hectares has three zones across Grand Gedeh and River Gee Counties.

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

Liberia Targets 3.1

Aichi Targets 11

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

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

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

The establishment of the two (2) new protected areas brings to the five (5) the total number of protected areas nationwide. The first three (3) are (a) Sapo National Park (b) Lake Piso Multiple Use Reserve (c) East Nimba Nature Reserve. This represents an obvious increment in the spatial coverage of high biodiversity areas under full protection.

Relevant websites, web links and files

<https://www.liberianobserver.com/news/grebo-krahn-and-gola-national-parks-open-officially-today/>

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

Since the establishment of the two (2) protected areas, their management plans and investment plans are yet to be prepared. This requirement is consistent with national legislations, obliging the Forestry Development Authority (FDA) to prepare and publish as soon as practicable after the establishment of a Protected Area a General Management Plan in accordance with internationally accepted standards.

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

TEEB Liberia

The TEEB Liberia study aims to reduce the pressures and threats on coastal mangroves by mainstreaming the value of biodiversity and ecosystem services into coastal and marine planning policies. The project will provide evidence of the benefits of community-based coastal and marine management, the introduction of alternative livelihood options, and the establishment of marine protected areas.

TEEB Liberia compares alternative scenarios for coastal mangrove management in Liberia and the resulting differences in the provisioning of ecosystem services and biodiversity impacts. The study consists of five study sites:

1. Lake Piso Multiple Nature Reserve
2. Marshall Wetland
3. Montserrado Wetland
4. Baculin, Grand Bassa County – sea turtle nesting site
5. Bafo Bay, Sinoe County – fishing ground and sea turtle nesting site

Ecosystem Services Focus

The degradation of mangroves has both direct and indirect impacts on the provisioning of ecosystem services and biodiversity, which in turn affects the livelihoods of Liberian communities. During a scoping workshop, participants identified services that may be valued as part of **TEEB Liberia**, including the provision of food, regulation of extreme events, cultural values and carbon sequestration and storage.

Provision of food: Mangroves provide nursery grounds for juvenile fish, which is important for fish stocks in both marine and freshwater ecosystems.

Regulation of extreme events: Mangroves serve as shields from storms and floods, which are increasing in frequency and intensity because of climate change. Coastal areas in Liberia are highly vulnerable to climate-induced weather events.

Cultural values: The study will document the cultural value of these ecosystem services, particularly for Lake Piso.

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

Liberia Targets 2.2
Aichi Targets 6

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

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

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

Stakeholders across the country are expressing interest in TEEB especially mainstreaming the values of biodiversity and ecosystem services into decision-making; approaches in valuation and demonstrating their values in economic terms.

Relevant websites, web links and files

<http://www.teebweb.org/teeb-study-to-demonstrate-the-value-of-mangroves-for-liberia/>

Other relevant information, including case studies to illustrate how the measure taken has

resulted in (or is expected to result in) outcomes that contribute to the implementation of the NBSAP

Obstacles and scientific and technical needs related to the measure taken: (Please describe what obstacles have been encountered and any scientific and technical needs for addressing these, including technical and scientific cooperation, capacity development activities or the need for guidance materials).

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

The Development of the National REDD+ Strategy

A national REDD+ Strategy was developed in October, 2016. It is a key output from the readiness phase. The purpose of this document is to guide Liberia in its efforts to reduce emissions from deforestation and forest degradation. The strategy proceeded with describing the main causes of deforestation identified through analysis of forest cover and land use trends; description of the priorities and strategy options to address the drivers of deforestation; an explanation of how the REDD+ Strategy contributes to national development goals and local communities; and a comprehensive description of the approach to implementation of the strategy.

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

Liberia Targets 3.1, 4.1
Aichi Targets 17

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

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

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

The strategy is not yet being implemented.

Relevant websites, web links and files

<https://www.ltsi.co.uk/wp-content/uploads/2015/01/Technical-Annex-A-REDD-Strategy-final.pdf>

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

Food and Agriculture Policy and Strategy (FAPS- 2008)

The Food and Agriculture Policy and Strategy (FAPS) was developed in July, 2008 to address the superfluity of problems that have historically affected agriculture and its linkages to the other sectors in a coherent, consistent and forward-looking manner. The strategy was informed by research and consultations, including international best practices. It presents a pro-poor and pro-growth framework to transform the sector from perennial state of subsistence to one of sufficiency.

The FAPS is developed toward three fundamental orientations: (i) Improving national food and nutrition security; (ii) Enhancing agricultural productivity, competitiveness, and linkages to markets; and (iii) Strengthening human and institutional capacities.

The FAPS provides the following policies and related strategies:

Policy 1: Improved Food and Nutrition Security: Safe and nutritious foods are available in sufficient quantity and quality at all times to satisfy the nutritional needs for optimal health of all Liberians, throughout their life cycles.

Strategies:

- Improving food availability;
- Enhancing accessibility of the population to nutritious food;
- Promoting improved food utilization;
- Contributing to resettlement and reintegration programs; and
- Supporting rural employment and self-reliant wage work to spur local economic development.

Policy 2: Enhancing Competitiveness and Linkages to Markets: Enhanced, inclusive and pro-poor growth in agricultural production, productivity, competitiveness, value addition, diversification and linkages to markets.

Strategies:

- Enhancing the efficiency, competitiveness and sustainability of the food and agriculture supply chains, particularly those of small holders, and linking of chains to markets;
- Creating more and better opportunities for much greater involvement of the private sector in the agriculture sector; and
- Increasing public investments and creating an enabling environment for agricultural and agribusiness development.

Policy 3: Strengthening Human and Institutional Capacities: Strong and efficient human and institutional capacities of the public sector, civil society organizations and the private sector carrying out effective planning, delivery of services, coordination and monitoring activities in the sector, as well as sustaining natural resources, mitigating risks to producers, mainstreaming gender and youth considerations in planning and implementation of activities in the sector.

Strategies:

- Instituting improved governance, promoting civil society organizations, and facilitating decentralized and demand-driven service delivery;
- Establishing functional, effective and efficient public sector support framework in agriculture for planning, coordinating, service delivery, monitoring and evaluation;
- Reducing risks and improving coping mechanisms;
- Mainstreaming gender and youth in agriculture and rural development; and
- Ensuring sustainable use of natural resources.

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

Liberia Targets 3.1, 4.1
Aichi Targets 7, 17

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

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

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

There is no national methodology to tract the effectiveness of policies and strategies effectiveness in achieving desired outcomes.

Relevant websites, web links and files

<http://www.moci.gov.lr/doc/Food%20and%20Agriculture%20Policy%20and%20Strategy.pdf>

Other relevant information, including case studies to illustrate how the measure taken has resulted in (or is expected to result in) outcomes that contribute to the implementation of the NBSAP

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

The main constraints in the implementation of policies and strategies are lack of both institutional and human capacities as well as financial resources in operationalizing said policies or strategies.

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

National Food Security and Nutrition Strategy

The National Food Security and Nutrition Strategy (FSNS) was drawn up in 2009. The key objective of the FSNS is to make certain that “all Liberians have reliable access to the food they

need to live active and healthy lives”. Although the strategy encompasses the food security and nutrition needs of all Liberians, it prioritizes the needs of food for insecure and nutritionally vulnerable groups in the society, including the elderly who have little support, female-headed households, orphans, and HIV-affected individuals. The FSNS addresses four separate dimensions of food security, namely, food availability, access to food, utilization and vulnerability.

To enhance food availability, the FSNS calls for the formulation of a policy statement on food self-sufficiency; exploiting all opportunities for food production by addressing the production constraints farmers face; diversifying food production; improving post-harvest processing; safeguarding of communal resources that are important food sources; maintaining predictable and stable food imports; strengthening of Liberia’s strategic food reserve mechanisms; and making appropriate use of international food assistance.

To improve access to food, factors of production are to be secured; markets for both food and non-food produce improved; and safety net programs strengthened. To promote better food utilization and improved nutritional status, the strategy calls for the promotion of child growth; taking of essential nutrition actions; making efforts to save acutely undernourished children; addressing the food and nutrition needs of those affected by HIV; improving nutritional caring practices; fortifying foods with micronutrients; enforcing food standards; diversifying diet; and increasing access to safe water, sanitation and proper housing.

In addressing the needs of nutritionally vulnerable households and working to safeguard the food security and good nutritional status of others, two demographic groups are targeted – (i) infants and children under 5 years of age and (ii) pregnant and lactating women.

Thus, the central outcome measures of whether this strategy can be judged successful are those that establish whether the food and nutrition needs of young children in Liberia are being met.

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

Liberia Targets 3.1, 4.1
Aichi Targets 7, 17

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

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

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

There is no national methodology to tract the effectiveness of policies and strategies effectiveness in achieving desired outcomes.

Other relevant information, including case studies to illustrate how the measure taken has resulted in (or is expected to result in) outcomes that contribute to the implementation of the NBSAP

Relevant websites, web links and files

http://www.foodsecurityportal.org/sites/default/files/National%20Food%20Security%20and%20Nutrition%20Strategy_Mar08_0.pdf

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

The main constraints in the implementation of policies and strategies are lack of both institutional and human capacities as well as financial resources in operationalizing said policies or strategies.

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

Public Education and Awareness

In Liberia, since 2015, rural communities, civil society actors, the private sector and the government, in efforts to reduce or eradicate the pressures on existing natural resources and particularly biodiversity loss have accelerated awareness mechanisms in the country. Key among them are:

- **Biodiversity Specific Communication Strategy at the Environmental Protection Agency of Liberia (EPA)**

This communication strategy considered the inadequacies attributed to the low level of information, education and public awareness on natural resources management and biodiversity in particular. The lack of a well-designed communication strategy to promote the NBSAP of 2004 is cited as being one of causes for the under-implementation of many of its actions, the limited information available to both state actors and local people.

The Communication Strategy therefore was carved to add new dimension to the implementation of the revised NBSAP. It will present the action plan, activities and the pathways to deliver information, education and public awareness messages to various stakeholders promoting specific line of actions to achieve special goals and objectives.

The overall objective of the strategy is to promote the conservation and sustenance of Liberia's rich biological diversity resources and culture as mandated by the country's NBSAP with identified targets using specific communication tools or mechanisms so that present and future generations of Liberia will enjoy the benefits of and appreciate their rich biological resources and culture.

- **Natural Resources and Environment Communication Strategy at the EPA**

This communication and public awareness Strategy for Environmental Education and

Training presents the required strategic elements and the associated actions necessary for the EPA to play its role. The strategy is to guide our actions, and further paves the way for EPA's active engagement in the Implementation of its strategic plan not only to green and make national development sustainable; but also empower stakeholders, especially local communities and other resource users, make informed decisions on the utilization of natural and environmental resources based on scientific evidence and the letter of the law.

The principal aim of the Communication and Awareness Strategy is to promote increased information and education/knowledge among policy/decision makers, the rural population at the fringes of natural resources, including the rainforest, subsistence farmer communities, urban dwellers, concessionaires, industrial and artisanal mining interests, municipal governments, local government actors, civil society and the media. The strategy implementation will provide public space for wider debate and dialogue among stakeholders regarding the contribution sustainable resource and environmental management can contribute to national development objectives and its implication to meeting local, national and global environmental benefits.

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

Liberia Targets: 1.1

Aichi Targets: 1

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

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

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

There has been an increase in the number of communities and localities now prioritizing the protection of biodiversity in their communities.

Relevant websites, web links and files

<https://www.epa.gov.lr>

Other relevant information, including case studies to illustrate how the measure taken has resulted in (or is expected to result in) outcomes that contribute to the implementation of the NBSAP

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

The main drawback to biodiversity conservation is bordered around incentives especially in alternative livelihoods for local communities and forest dwellers. The lack of appropriate

approaches or methods to practically demonstrate the benefits from biodiversity accrued to communities compared to other traditional land uses.

SECTION III: Assessment of progress towards each national target

National Target 1.1: By 2019, at least 60 per cent of surveyed key target groups know the meaning and importance of biodiversity and its sustainable utilization.

Category of progress towards the implementation of the selected target:

- ☐ On track to exceed target
☒ On track to achieve target

Progress towards target but at an insufficient rate

- ☒ No significant change
☐ Moving away from target

Unknown

Date the assessment was done: August 5-November10, 2018

Additional information (Please provide information on the evidence used in the assessment of this target, drawing upon relevant information provided in section II, including obstacles in undertaking the assessment).

Since 2015, in an effort to reduce or eradicate the pressures on existing natural resources and particularly biodiversity loss, national actors, including civil society, communities, the private sector and the government, have accelerated awareness mechanisms in the country. Notable among them are biodiversity specific communication strategy, REDD + under the Liberia Forest Sector Project communication strategy and MEAs National Resources and Environment Management Communication and Public Awareness Strategy fully developed by the Environmental Protection Agency of Liberia. Most of the awareness. Education and information dissemination activities have already been rolled out. There is noticeable change of attitudes toward the environment and resource utilization.

Indicators used in this assessment

Please describe any other tools or means used for assessing progress

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to this assessment can be found).

Level of confidence of the above assessment

- ☐ Based on comprehensive evidence
☐ Based on partial evidence

☒ Based on limited evidence

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

The confidence level is more than 5 %

Adequacy of monitoring information to support assessment

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

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

Park rangers in collaboration with conservation organizations, community dwellers, The Department of Intersectoral Coordination, Environmental Protection Agency of Liberia.

Relevant websites, web links and files

www.fda.gov.lr

www.epa.gov.lr

National Target 1.2: By 2020, biodiversity values and prioritized ecosystem services are quantified, monitored and mainstreamed to support national and sectoral policy-making, planning, budgeting and decision-making frameworks.

Category of progress towards the implementation of the selected target:

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

Date the assessment was done: August 5-November10, 2018

Additional information (Please provide information on the evidence used in the assessment of this target, drawing upon relevant information provided in section II, including obstacles in undertaking the assessment).

Indicators used in this assessment

Indicator(s) used in this assessment

or:

No indicator used

- Number of line ministries and agencies including concessionaires are mainstreaming environmental and sustainable natural resource management concerns into their policies, programmes and activities.

Please describe any other tools or means used for assessing progress

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to this assessment can be found).

www.epa.gov.lr

Level of confidence of the above assessment

- ☐ Based on comprehensive evidence
- ☒ Based on partial evidence
- ☐ Based on limited evidence

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

The level of confidence is below 5%.

Adequacy of monitoring information to support assessment

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

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

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to the monitoring system can be found)

National Target 1.3: By 2020, selected incentives for biodiversity conservation and sustainable use are in place and applied, and the most harmful subsidies are identified and their phase out initiated.

Category of progress towards the implementation of the selected target:

- ☐ On track to exceed target
- ☒ On track to achieve target

Progress towards target but at an insufficient rate

- ☒ No significant change
- ☐ Moving away from target
- ☐ Unknown

Date the assessment was done: December 22, 2018

Additional information (Please provide information on the evidence used in the assessment of this target, drawing upon relevant information provided in section II, including obstacles in

undertaking the assessment).

The involvement of numerous Conservation partners providing incentives around protected areas. i.e CI, FFI, SCNL,FACE, etc. Obstacles include donor fatigue, compliance of community dwellers, lack of regular monitoring regime, etc

Indicators used in this assessment

Indicator(s) used in this assessment

or:

Presence of Conservation NGOs, community willingness and cooperation, billboards, etc.

No indicator used

Please describe any other tools or means used for assessing progress

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to this assessment can be found).

Level of confidence of the above assessment

☐ Based on comprehensive evidence

☒ Based on partial evidence

☐ Based on limited evidence

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

The level of confidence is 50 %.

Adequacy of monitoring information to support assessment

☐ Monitoring related to this target is adequate

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

☐ No monitoring system in place

☐ Monitoring is not needed

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

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to the monitoring system can be found)

National Target 1.4: By 2020, at the latest, Governments, business and stakeholders have drafted a management strategy that defines the indicators of sustainable production and use of natural resources as a first step towards keeping resources management and use within safe ecological limits.

Category of progress towards the implementation of the selected target:

☐ On track to exceed target

☐ On track to achieve target

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

Date the assessment was done: August 5-November10, 2018

Additional information (Please provide information on the evidence used in the assessment of this target, drawing upon relevant information provided in section II, including obstacles in undertaking the assessment).

Indicators used in this assessment

Indicator(s) used in this assessment

or:

- ☒ No indicator used

Please describe any other tools or means used for assessing progress

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to this assessment can be found).

Level of confidence of the above assessment

- ☐ Based on comprehensive evidence
- ☐ Based on partial evidence
- ☒ Based on limited evidence

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

At a minimum level, probably less than 5%.

Adequacy of monitoring information to support assessment

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

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

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to the monitoring system can be found)

National Target 2.1: By 2024, the rate of loss and degradation of natural habitats outside protected areas serving ecological corridors or containing key biodiversity areas or providing important ecosystem services is minimized by 3% through integrated land use planning.

Category of progress towards the implementation of the selected target:

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

Date the assessment was done: August 5-November10, 2018

Additional information (Please provide information on the evidence used in the assessment of this target, drawing upon relevant information provided in section II, including obstacles in undertaking the assessment).

The progress in achieving this target is at very slow pace, and there is a limited monitoring regime outside of protected areas, therefore, the duration, 2020 is not realistic.

Indicators used in this assessment

Indicator(s) used in this assessment

or:

- No indicator used

Please describe any other tools or means used for assessing progress

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to this assessment can be found).

Level of confidence of the above assessment

- ☐ Based on comprehensive evidence
☐ Based on partial evidence
☒ Based on limited evidence

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

Level of confidence is 20%.

Adequacy of monitoring information to support assessment

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

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

Relevant websites, web links and files (Please use this field to indicate any relevant websites,

web links or documents where additional information related to the monitoring system can be found)

National Target 2.2: By 2020, all living marine and aquatic resources are managed sustainably and guided by the ecosystem approach.

Category of progress towards the implementation of the selected target:

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

Date the assessment was done: August 5-November10, 2018

Additional information (Please provide information on the evidence used in the assessment of this target, drawing upon relevant information provided in section II, including obstacles in undertaking the assessment).

Indicators used in this assessment

Indicator(s) used in this assessment

or:

- ☒ No indicator used

Please describe any other tools or means used for assessing progress

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to this assessment can be found).

Level of confidence of the above assessment

- ☐ Based on comprehensive evidence
- ☐ Based on partial evidence
- ☒ Based on limited evidence

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

Adequacy of monitoring information to support assessment

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

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

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to the monitoring system can be found)

National Target 2.3: By 2022, principles of sound rangeland and sustainable forest management, and good environmental practices in agriculture and forestry are applied on at least 50 per cent of all relevant areas.

Category of progress towards the implementation of the selected target:

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

Date the assessment was done: August 5-November10, 2018

Additional information (Please provide information on the evidence used in the assessment of this target, drawing upon relevant information provided in section II, including obstacles in undertaking the assessment).

The level of work with the FDA, MOA, EPA and other relevant partners in these sectors. Obstacles include Overlapped of policy, logistics etc.

Indicators used in this assessment

Indicator(s) used in this assessment

- NFRL 2006
- EMPL2003
- Agency Act 2003
- Code of forest Harvesting Practices
- MOA Policies

or:

No indicator used

Please describe any other tools or means used for assessing progress

Reports, erection of environmental billboards.

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to this assessment can be found).

fda.gov.lr

epa.gov.lr

Level of confidence of the above assessment

- ☐ Based on comprehensive evidence

- ☒ Based on partial evidence
☐ Based on limited evidence

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

Based on these documents listed the level of confidence is above 50%.

Adequacy of monitoring information to support assessment

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

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

Periodic Field Compliance (FDA, EPA), Monitoring and evaluation (MOA)

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to the monitoring system can be found)

National Target 2.4: By 2022, pollution, including from excess nutrients, has been brought to levels that are not detrimental to biodiversity and ecosystem health and functioning.

Category of progress towards the implementation of the selected target:

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

Date the assessment was done: August 5-November10, 2018

Additional information (Please provide information on the evidence used in the assessment of this target, drawing upon relevant information provided in section II, including obstacles in undertaking the assessment).

The rate of pollution is high and time interval for achieving this target is not reasonable.

Indicators used in this assessment

Indicator(s) used in this assessment

or:

- No indicator used

Please describe any other tools or means used for assessing progress

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to this assessment can be found).

Level of confidence of the above assessment

- ☐ Based on comprehensive evidence
☐ Based on partial evidence
☒ Based on limited evidence

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

Adequacy of monitoring information to support assessment

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

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

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to the monitoring system can be found)

National Target 2.5: By 2018, National compendium on invasive alien species in Liberia is prepared and by 2018, priority measures are in place to control and manage their spread and impact.

Category of progress towards the implementation of the selected target:

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

Date the assessment was done:

Additional information (Please provide information on the evidence used in the assessment of this target, drawing upon relevant information provided in section II, including obstacles in undertaking the assessment).

Indicators used in this assessment

Indicator(s) used in this assessment

or:

- ☒ No indicator used

Please describe any other tools or means used for assessing progress

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to this assessment can be found).

Level of confidence of the above assessment

- ☐ Based on comprehensive evidence
- ☐ Based on partial evidence
- ☒ Based on limited evidence

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

Adequacy of monitoring information to support assessment

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

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

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to the monitoring system can be found)

National Target 2.6: By 2018, ecosystems most vulnerable to climate change and their anthropogenic pressures are identified and assessed, and by 2018 appropriate adaptation measures are developed and implemented in priority areas.

Category of progress towards the implementation of the selected target:

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

Date the assessment was done: August 5-November10, 2018

Additional information (Please provide information on the evidence used in the assessment of this target, drawing upon relevant information provided in section II, including obstacles in undertaking the assessment).

National Adaptation Plan, REDD+ program etc.

Indicators used in this assessment

Indicator(s) used in this assessment

- or: Number of workshops,
- Articles
- Research papers
- Etc.

No indicator used

Please describe any other tools or means used for assessing progress

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to this assessment can be found).

www.fda.gov.lr

Level of confidence of the above assessment

- ☐ Based on comprehensive evidence
☒ Based on partial evidence
☐ Based on limited evidence

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

Adequacy of monitoring information to support assessment

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

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

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to the monitoring system can be found)

National Target 3.1: By 2020, at least 4% of existing terrestrial protected areas (national parks, nature reserves, conservation areas set aside in community forests, etc.) are conserved, effectively and equitably managed, within an ecologically representative and well-connected system, and by 2020, at least 5% of coastal and marine areas of particular importance to biodiversity and ecosystem services, are identified, assessed and measures taken for their protection.

Category of progress towards the implementation of the selected target:

- ☐ On track to exceed target

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

Date the assessment was done: August 5-November10, 2018

Additional information (Please provide information on the evidence used in the assessment of this target, drawing upon relevant information provided in section II, including obstacles in undertaking the assessment).

Establishment of Community forest, protected areas amongst other.

Indicators used in this assessment

Indicator(s) used in this assessment

or:

No indicator used

Please describe any other tools or means used for assessing progress

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to this assessment can be found).

Level of confidence of the above assessment

- ☐ Based on comprehensive evidence
- ☒ Based on partial evidence
- ☐ Based on limited evidence

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

Adequacy of monitoring information to support assessment

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

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

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to the monitoring system can be found)

National Target 3.2: By 2018, threatened and vulnerable species lists are updated and measures effected by 2019 to improve their conservation status.

Category of progress towards the implementation of the selected target:

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

Date the assessment was done: August 5-November10, 2018

Additional information (Please provide information on the evidence used in the assessment of this target, drawing upon relevant information provided in section II, including obstacles in undertaking the assessment).

Ongoing National Forest Inventory.

Indicators used in this assessment

Indicator(s) used in this assessment

or:

No indicator used

Please describe any other tools or means used for assessing progress

CITES report.

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to this assessment can be found).

Level of confidence of the above assessment

- ☐ Based on comprehensive evidence
- ☒ Based on partial evidence
- ☐ Based on limited evidence

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

Adequacy of monitoring information to support assessment

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

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

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to the monitoring system can be

found)

National Target 3.3: By 2020, Genetic diversity of cultivated plants and farmed animals is maintained and enhanced.

Category of progress towards the implementation of the selected target:

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

Date the assessment was done: August 5-November10, 2018

Additional information (Please provide information on the evidence used in the assessment of this target, drawing upon relevant information provided in section II, including obstacles in undertaking the assessment).

With the limited or scattered information, we don't see significant change on the targets.

Indicators used in this assessment

Indicator(s) used in this assessment

or:

No indicator used

Please describe any other tools or means used for assessing progress

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to this assessment can be found).

Level of confidence of the above assessment

Based on comprehensive evidence

Based on partial evidence

- Based on limited evidence

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

Adequacy of monitoring information to support assessment

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

Please describe how the target is monitored and indicate whether there is a monitoring

system in place

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to the monitoring system can be found)

National Target 4.1: By 2022, ecosystems that provide essential services and contribute to health, livelihoods and well-being, are safeguarded, and restoration programmes have been initiated for degraded ecosystems covering at least 15 per cent of the priority areas.

Category of progress towards the implementation of the selected target:

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

Date the assessment was done:

Additional information (Please provide information on the evidence used in the assessment of this target, drawing upon relevant information provided in section II, including obstacles in undertaking the assessment).

Indicators used in this assessment

Indicator(s) used in this assessment

or:

No indicator used

Please describe any other tools or means used for assessing progress

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to this assessment can be found).

Level of confidence of the above assessment

- ☐ Based on comprehensive evidence
- ☐ Based on partial evidence
- ☒ Based on limited evidence

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

Adequacy of monitoring information to support assessment

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

- ☒ No monitoring system in place
☐ Monitoring is not needed

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

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to the monitoring system can be found)

National Target 4.2: By 2018, ecosystem resilience and the contribution of biodiversity to carbon stocks will be enhanced through the protection of additional forest ecosystems which Liberia's current REDD+ project will create, in addition to the project's enhancement of the mitigation of climate change and restoration of degraded grasslands through reforestation by 2023.

Category of progress towards the implementation of the selected target:

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

Date the assessment was done:

Additional information (Please provide information on the evidence used in the assessment of this target, drawing upon relevant information provided in section II, including obstacles in undertaking the assessment).

Indicators used in this assessment

Indicator(s) used in this assessment

or:

No indicator used

Please describe any other tools or means used for assessing progress

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to this assessment can be found).

Level of confidence of the above assessment

Based on comprehensive evidence

- Based on partial evidence

Based on limited evidence

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

Adequacy of monitoring information to support assessment

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

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

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to the monitoring system can be found)

Target 4.3: By 2018, national legislation giving effect to the Nagoya Protocol is in force by 2018, fully operational to ensure that benefits are fair and equitably shared from the conservation and sustainable use of biodiversity.

Category of progress towards the implementation of the selected target:

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

Date the assessment was done:

Additional information (Please provide information on the evidence used in the assessment of this target, drawing upon relevant information provided in section II, including obstacles in undertaking the assessment). Liberia began party to the Nagoya Protocol August, 2015. An ABS Legislation was developed since 2011 but yet to be passed into law by the National Legislature. The EPA and Partners are actively lobbying members of the National legislature and other stakeholders involve through sustained public awareness initiative.

Indicators used in this assessment

Indicator(s) used in this assessment

or:

No indicator used

Please describe any other tools or means used for assessing progress

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to this assessment can be found).

www.epa.gov.lr

Level of confidence of the above assessment

- ☐ Based on comprehensive evidence
- ☒ Based on partial evidence
- ☐ Based on limited evidence

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

Adequacy of monitoring information to support assessment

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

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

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to the monitoring system can be found)

National Target 5.1: By 2017, Liberia would have developed and adopted as a policy instrument, and has commenced implementing an effective, participatory and updated its NBSAP.

Category of progress towards the implementation of the selected target:

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

Date the assessment was done:

Additional information (Please provide information on the evidence used in the assessment of this target, drawing upon relevant information provided in section II, including obstacles in undertaking the assessment). Liberia completed her revised NBSAP March,2017 and implementation is already in progress. Schedule of implementation runs from 2017-2025.

Indicators used in this assessment

Indicator(s) used in this assessment

or:

No indicator used

Please describe any other tools or means used for assessing progress

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to this assessment can be found).

Level of confidence of the above assessment

☐ Based on comprehensive evidence

☒ Based on partial evidence

☐ Based on limited evidence

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

Adequacy of monitoring information to support assessment

☒ Monitoring related to this target is adequate

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

☐ No monitoring system in place

☐ Monitoring is not needed

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

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to the monitoring system can be found) www.epa.gov.lr www.fda.gov.lr

National Target 5.2: By 2020, Traditional knowledge and the innovations and practices of indigenous and local communities relevant to the conservation and sustainable use of biodiversity are recognized, respected, documented and promoted.

Category of progress towards the implementation of the selected target:

☐ On track to exceed target

☐ On track to achieve target

☐ Progress towards target but at an insufficient rate

☒ No significant change

☐ Moving away from target

☐ Unknown

Date the assessment was done: August 5-November10,2018

Additional information (Please provide information on the evidence used in the assessment of

this target, drawing upon relevant information provided in section II, including obstacles in undertaking the assessment).

Indicators used in this assessment

Indicator(s) used in this assessment

or:

- No indicator used

Please describe any other tools or means used for assessing progress

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to this assessment can be found).

Level of confidence of the above assessment

- ☐ Based on comprehensive evidence
☐ Based on partial evidence
☒ Based on limited evidence

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

Adequacy of monitoring information to support assessment

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

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

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to the monitoring system can be found)

National Target 5.3: By 2025, knowledge, science base and technologies relating to biodiversity and ecosystem management are improved and made relevant to political decision makers.

Category of progress towards the implementation of the selected target:

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

Date the assessment was done: August 5-November10

Additional information (Please provide information on the evidence used in the assessment of this target, drawing upon relevant information provided in section II, including obstacles in undertaking the assessment). Liberia was one of the five pilot countries for The Economic of Ecosystem and Biodiversity (TEEB) undertaken by UNEP between 2014-2017.

Indicators used in this assessment

Indicator(s) used in this assessment

or:

No indicator used

Please describe any other tools or means used for assessing progress

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to this assessment can be found).

www.teebweb.org/areas-of-work/teeb-country-studies/liberia

Level of confidence of the above assessment

- ☐ Based on comprehensive evidence
- ☒ Based on partial evidence
- ☐ Based on limited evidence

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

Adequacy of monitoring information to support assessment

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

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

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to the monitoring system can be found)

National Target 5.4: By 2022, mobilization of financial resources from all sources will be increased compared to the period 2008-2012 to allow for the effective implementation of this strategy and action plan.

Category of progress towards the implementation of the selected target:

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

Date the assessment was done: August 5-November10

Additional information (Please provide information on the evidence used in the assessment of this target, drawing upon relevant information provided in section II, including obstacles in undertaking the assessment). Resource mobilization and financial mechanism were developed during the revision of the NBSAP; these instruments point to the National Budget principal source of funding the implementation of the Revised to be completed by donor resources and smart sources of funding. These instruments are however instruments are yet to be implemented.

Indicators used in this assessment

Indicator(s) used in this assessment

or:

No indicator used

Please describe any other tools or means used for assessing progress

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to this assessment can be found).

Level of confidence of the above assessment

- ☐ Based on comprehensive evidence
- ☒ Based on partial evidence
- ☐ Based on limited evidence

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

Adequacy of monitoring information to support assessment

Monitoring related to this target is adequate

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

No monitoring system in place

- Monitoring is not needed

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

Relevant websites, web links and files (Please use this field to indicate any relevant websites, web links or documents where additional information related to the monitoring system can be found)

SECTION IV. Description of the national contribution to the achievement of each global Aichi Biodiversity Target

Aichi Biodiversity Target 1: By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.

Please describe how and to what extent Liberia has contributed to the achievement of this Aichi Biodiversity Target and summarize the evidence used to support this description:

Below are some contributions Liberia has made to the achievement of Aichi Target 1.

ArcelorMittal, an iron ore mining company operating in northern Liberia, has supported the production of several documents describing the company's conservation initiatives that contribute to awareness creation and knowledge sharing about biodiversity conservation in Liberia. The list of these documents is available on the below website.

<https://liberia.arcelormittal.com/~media/Files/A/ArcelorMittal-Liberia/reports-and-presentations/list-of-biodiversity-documents-supported-by-aml-april-2015.pdf>

Other awareness mechanisms in the country include the following:

The Initial National Communication Report of Liberia to the United Nations Framework Convention on Climate Change (UNFCCC) in fulfilling its reporting commitments under Articles 4.1 and 12.1 of the Convention was submitted to the UNFCCC Secretariat in 2013. This National Report covers thematic areas including national Greenhouse Gas Inventories, Impacts, Vulnerability and Adaptation Assessment, and Greenhouse Gas Mitigation Analysis. The report was prepared by a team of national and international experts with financial assistance from the Global Environmental Facility (GEF) and technical and project management support from United Nations Environmental Program (UNEP). The report, which focuses mainly on four key economic sectors (Energy, Forestry, Agriculture and Waste) has not only contributed to a better understanding of the sources emissions of greenhouse gases within Liberia, but also identified some important sectors of the national economy that could be adversely affected by climate impacts such as coastal zones and agriculture. The report is truly a synthesis of the outcomes of several sensitization conferences and technical workshops organized by the Climate Change Office of the Multilateral Environmental Unit of the Environmental Protection Agency of Liberia (EPA). The draft report produced out of the validation workshop has been reviewed by imminent national experts whose comments are highly considered. The report serves a useful resource material to provide the needed information and data for a wide range of stakeholders, including policy-makers, academics, civil society, non-governmental organizations and private entities working generally on climate change and climate related issues.

<http://www.epa.gov.lr/sites/default/files/INITIAL%20NATIONAL%20COMMUNICATION%20LIBERIA.pdf>

<https://unfccc.int/sites/default/files/resource/lbrnc1.pdf>

The EPA is currently preparing *Liberia's Second National Communication (SNC)* as required by Article 12 of the United Nations Framework Convention on Climate Change (UNFCCC). The

SNC will provide a national plan of action in addressing Climate Change at the national level. The Main components of the SNC will include:

- a) Description of National Circumstances;
- b) The National inventory of the greenhouse gases for the year 2003-2012 utilizing the 2006 IPCC guidelines and 2000 Good Practice Guidance;
- c) Integrated vulnerability and adaptation assessment of the impacts of climate change and adaptation measures for certain development and environment sectors utilizing updates/ detailed country specific climate scenarios;
- d) Support to the elaboration of a comprehensive Climate Change Adaptation Strategy;
- e) Socialization of climate change mitigation and adaptation issues;

Please describe other activities contributing to the achievement of the Aichi Biodiversity Target at the global level (optional)

Liberia faces great challenges to lift incomes and create jobs for a rapidly growing human population, whilst at the same time conserving some of its forest for future generations. The country's forest is being depleted at an increasing rate. An estimated 20% of Liberia's forested area was lost between 2000 and 2014. Those who depend most on the forest will suffer most from its loss. To prevent the loss of the forest, the country has worked with national and international partners to reform the forestry sector so that it can deliver community, conservation and commercial benefits. Since 2007, Liberia has been engaging in Reducing Emissions from Deforestation and Forest Degradation (REDD+) readiness processes by developing a Readiness Preparation Proposal (R-PP). Support for reform is coming increasingly from international agreements on climate change and voluntary partnership agreements that provide funds for reducing emissions from the loss of forests. Liberia is party to the United Nations Framework Convention on Climate Change and is committed to REDD+. REDD+ aims to create a financial value for the carbon stored in forests, offering incentives for developing countries to reduce emissions from forested lands and invest in low-carbon paths to development. Liberia is a potential beneficiary for this incentive.

Going forward, the Liberian Government (GoL) decided to put in place a national strategy to ensure that REDD+ activities are implemented in a coherent manner that complies with REDD+ requirements at UNFCCC level. This has been described in SECTION III.

Also, on August 15, 2018, the EPA, supported by the UN Development Programme (UNDP), launched a National Policy and Response Strategy on Climate Change. The Policy and Response Strategy aims to ensure an effective and coherent climate change adaptation process and serves as the pillar for comprehensive sectoral strategies and action plans. The instrument seeks to enable better coordination of climate change work in Liberia, provide cooperation and collaboration opportunities between the government and stakeholders, and enhance ongoing efforts related to Liberia's National Adaptation Plan (NAP) and Nationally Determined Contribution (NDC). The launch took place during an event in Monrovia, Liberia, and was attended by representatives from government, donor agencies, international and local non-

governmental organizations (NGOs), women and youth groups, and research and academic institutions.

<http://www.ltsi.co.uk/project/liberia-national-redd-strategy-consultation>

<http://sdg.iisd.org/news/liberia-launches-climate-change-policy-and-response-strategy/>

Based on the description of Liberia's contributions to the achievement of the Aichi Biodiversity Targets, please describe how and to what extent these contributions support the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals:

No assessment has been conducted to determine how and to what extent awareness creation in Liberia supports the implementation of international protocols / programs. However, it is important to note that, there are signs of changes in people's attitudes towards nature in some communities as a result of awareness creation events and increased community/stakeholder participation in biodiversity management activities, including protected area management, observation of international days (e.g. World Environment Day, Earth Day, Wetland Day etc) and community forest establishment and management etc.

The below listed SDGs are which the above mentioned contributions support and how the contributions are made:

SDG 1: End poverty in all its forms everywhere: Some Liberians in the Arcelor mining concession area are beginning to understand that the loss of forest and forest resources they depend on for their survival will lead them to much more abject poverty.

SDG 2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture: Many Liberians are becoming increasingly aware that the traditional farming system (shifting agriculture) is degrading their landscapes, which may reduce the agricultural potential of their land and subsequently impact food security.

SDG 3: Ensure healthy lives and promote well-being for all at all ages: The above mentioned contributions to Aichi Target 1, if maintained and sustained by the attitudes of Liberians especially towards nature and natural resources, will help to improve the lives of people and sustain their well-being.

SDG 5: Achieve gender equality and empower all women and girls: Awareness creation activities in Liberia are gender and age inclusive; people of all community groups are targeted.

SDG 13: Take urgent action to combat climate change and its impacts (in line with the United Nations Framework Convention on Climate Change): Currently, REDD+ and other external supported biodiversity-related interventions are taking place throughout Liberia. Awareness creation on climate change and its impact on biodiversity as well as mankind is one of the focused activities of these interventions.

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. Also, the above interventions are creating awareness on sustainable use of ecosystems and biological resources as well as the dangers of landscape degradation to human survival.

SDG 17: Strengthen the means of implementation and revitalize the global partnership for

sustainable development: All the above-mentioned contributions have been realized through partnership supports which, if sustained, can contribute to sustaining national development in Liberia.
Aichi Biodiversity Target 2: By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.
Please describe how and to what extent Liberia has contributed to the achievement of this Aichi Biodiversity Target and summarize the evidence used to support this description: Various environmental and conservation related instruments in Liberia recognize the diverse values of biodiversity such as timber for local construction and foreign exchange earnings, non-timber forest products for various uses, wildlife as important source of protein in Liberian diet, water for various uses/purposes, soils for food production and other biodiversity conservation incentives for the livelihood of forest-dependent people. Liberia has developed a wide range of instruments (policies, laws and strategies etc) in which these concerns are addressed. Specifically, these concerns are reflected at various levels and extent in the Forest and Wildlife Law of 1986, the 2006 Forest Reform Policy and Law, the Code of Timber Harvesting Practices and the Community Rights Law of Liberia. These and other regulations are available on the website below. https://www.nepcon.org/sites/default/files/library/2017-08/NEPCon-TIMBER-Liberia-List-of-App-Legislation-EN-V1_1.pdf.pdf Tourism can help promote development in a country. Liberia has great opportunities for this industry which is still underdeveloped. Located on the Atlantic Ocean with hundreds of miles of beaches, coupled with abundant lakes and rivers in addition to hosting a vast virgin rainforest containing a variety of plant and animal species, Liberia would seem to be an ideal tourist destination. However, the country receives very little tourism despite its potential. There are public concerns for this underdevelopment. For intense, on the commemoration of World Tourism Day in Liberia in September 2017, stakeholders within the tourism sector advanced new concepts to improve the sector and make it sustainable for development. At this event, owners of tourism businesses joined others with interest in the sector to discuss how tourism can place Liberia on the map and contribute to development. https://www.bushchicken.com/stakeholders-advance-ideas-to-improve-tourism-in-liberia/
Please describe other activities contributing to the achievement of the Aichi Biodiversity Target at the global level (optional) Nearly 58% of the population of Liberia lives within 40 miles of the coast, dotted with mangroves, forests and reeds that extend up to 25 miles inland. Local coastal communities in particular depend on mangroves for fish, fuelwood and as a buffer against coastal flooding that negatively affects their villages. The Economics of Ecosystem Biodiversity (TEEB) project, initiated in 2016-2017 through financial and technical supports from the UNDP, focused on the key concept that “services and benefits derived from ecosystems are integrated within

development planning and accounting particularly in relation to wider landscapes and seascapes and in the implementation of biodiversity and ecosystem related Multilateral Environmental Agreements (MEAs). In a scoping workshop in Monrovia in June 2014, it was decided that TEEB would inform coastal and marine planning policies, with a particular focus on mangrove ecosystems. Any degradation of mangroves will have direct and indirect impacts on the provisioning of ecosystem services and on biodiversity in mangrove communities, and therein affect the livelihoods of Liberian coastal communities. A study was conducted in five sites on the coastal belt of the country (including Lake Piso Multiple Nature Reserve - Ramsar site, Marshall Wetland - Ramsar site), Montserrado Wetland - Ramsar site, Baculin, Grand - sea turtle nesting site and Bafu Bay - fishing ground and sea turtle nesting site) to determine the ecosystem service potential of those sites. Local communities in those areas in particular depend on mangroves for fish, fuelwood and as a buffer against coastal flooding. The TEEB study for Liberia focused on revealing the economic and cultural benefits gained from conservation or restoration of wetlands in the five study sites along the coast of the country. The study revealed increasing recognition of the values of natural infrastructure and ecosystem services in the respective communities. It was envisaged that the findings of the scoping would identify policy questions to be mainstreamed in national development instruments.

<http://www.teebweb.org/teeb-study-to-demonstrate-the-value-of-mangroves-for-liberia/>

The Convention on Wetlands (Ramsar Convention) was entered into force in Liberia on 2 November 2003. Liberia currently has 5 sites designated as Wetlands of International Importance (Ramsar Sites), with a surface area of 95,879 hectares. These include:

Lake Piso. Designated on 02/07/03 with a size of 76,091 ha, the site is an open coastal lagoon, the largest in Liberia, surrounded by forested hillsides (including one of the rarest tropical rainforests in the West Africa) and fed by a number of creeks and rivers. The site is chiefly a mangrove habitat important both as a nursery and spawning ground for fish and as feeding and roosting places for large numbers of shore and sea birds. The very large stands of mangroves, high fish population and wildlife are valuable natural resources for inhabitants in the area. It is a breeding ground for sea turtles. The site also hosts the vulnerable African dwarf crocodile, the Nile crocodile and the African sharp-nosed crocodile, plays an important role in shoreline stabilization and is also an Important Bird Area (IBA).

Gbedin Wetlands. Designated on 24/08/06 with a size of 25 ha; the area is largely a swamp, also including a man-made wetland with irrigation system that includes channels, ditches, dams and drainages. The paddy fields provide a good feeding ground for many bird species including migratory and local birds.

Kpatawee Wetlands. Designated on 24/08/06 with a size of 835 ha; the area major feature is a waterfall known locally as 'Kpatawee' which is a branch of the St. John River (one of the six major rivers in the country) and lies within the rainforest zone of Liberia. The area provides wintering grounds for large numbers of migratory birds. The endangered Three-crested Pangolin and Water Chevrotain occur at the site too. The villagers value this area as a picnic ground, for hosting meetings, workshops and retreats, but the area and its resources are also used for palm wine production, hunting, fishing, basket making, bathing and other domestic uses. The site is also an Important Bird Area (IBA).

Marshall Wetlands. Designated on 24/08/06 with a size of 12,168 ha, the area is chiefly a

mangrove site. In addition to the Red Colobus monkey, a number of bird species listed by the CMS appear in the area. The very large stands of mangroves, high fish population and wildlife are valuable resources for inhabitants in the area. Research on chimpanzees for human vaccines against hepatitis A, B and C was carried out at the site, with the animals released on islets in the mangroves afterwards. The site is also an IBA.

Mesurado Wetlands. 24 Designated on 24/08/06 with a size of 6,760 ha, the site is located in the largest administrative region of the country with over 1 million people and is important for the protection of three mangrove species (*Rhizophora harrisonii*, *R. mangle* and *Avicennia Africana*), which are threatened by intense charcoal burning and fuel wood collection. It provides a favorable habitat and feeding ground for several species of migratory and local. The site also hosts the vulnerable African dwarf crocodile, the Nile crocodile and the African sharp-nosed crocodile and plays an important role in shoreline stabilization and sediment trapping. The site is also IBA.

<https://www.ramsar.org/wetland/liberia>

Based on the description of your country's contributions to the achievement of the Aichi Biodiversity Targets, please describe how and to what extent these contributions support the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals:

Liberia is listed among the least developed countries (LDCs) and currently the fourth poorest country of the world. The huge Liberian populations living in the terrestrial forest and mangrove communities depend substantially on the services and benefits provided by the ecosystems of those areas for their survival. Thus, maintaining the efficient functions of those ecosystems will contribute to enhancing the lives of the affected people. Also, deforestation has been considered one of the greatest challenges to mankind (including the people of Liberia) today in the struggle to improve life on planet earth. Sustaining vibrant ecosystems and landscapes can make great impact on the health and well-being of people. Liberia is committed in many ways to this struggle to ensure the health and well-being of the people of the country.

The contributions mentioned above support the following Sustainable Development Goals:

SDG Goal 1. End poverty in all its forms everywhere. They support Liberia's Agenda for Transformation, Pro Poor Agenda for Prosperity and Development, Conservation Trust Fund and Forest Resources Benefit Sharing.

SDG Goal 2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture. Again, they support Liberia's Agenda for Transformation, Pro Poor Agenda for Prosperity and Development, Conservation Trust Fund and Forest Resources Benefit Sharing.

SDG Goal 13. Take urgent action to combat climate change and its impacts (in line with the United Nations Framework Convention on Climate Change). The TEEB project in particular support national coastal defense objectives, national environmental management initiatives and the communication strategy of Liberia.

SDG Goal 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: The various environmental and conservation related instruments in Liberia recognize the diverse values of biodiversity and ecosystem services. Although these values are

not yet quantified, there are ongoing activities that would monitor and mainstream them to support national and sectoral policy-making, planning, budgeting and decision-making frameworks.

Aichi Biodiversity Target 3: By 2020, at the least, 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.

Please describe how and to what extent Liberia has contributed to the achievement of this Aichi Biodiversity Target and summarize the evidence used to support this description:

The Government of Liberia is committed to the mandate of the National Forestry Reform Law of 2006 by conserving 30% of country's forest. Although there are great challenges to meet up with this commitment, the operationalization of the policy framework for biodiversity conservation in the country is being established gradually.

Until now, no incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimize or avoid negative impacts. But positive incentives for the conservation and sustainable use of biodiversity are applied to some significant levels, consistent and in harmony with the Convention on Biodiversity and other relevant international obligations, taking into account national socio-economic conditions.

Also, on a local level, ArcelorMittal continues to be engaged in a lot of conservation-related activities in its concession areas, including running a biodiversity conservation program, protecting the environment, preserving the forest and building the capacity of communities fringing its concession areas to engage in biodiversity conservation actions. ArcelorMittal is an iron ore mining company operating in northern Liberia. It has implemented a biodiversity compensation program at its new iron ore mining operation site in Liberia's remote Nimba mountain range, one of the few remaining West African wet-zone forests and home to many unique species of flora and fauna.

<https://liberia.arcelormittal.com/corporate-responsibility.aspx>

<https://liberia.arcelormittal.com/~media/Files/A/ArcelorMittal-Liberia/reports-and-presentations/arcelormittal-mining-in-liberia-conserving-biodiversity.pdf>

Liberia is taking the progressive step of legally requiring mining companies to implement biodiversity offsets to address the residual impacts of their activities on biodiversity after the application of the mitigation hierarchy. This step includes current provisions contained in some Mineral Development Agreements and the draft Mining Act (2014), which requires compliance with the International Finance Corporation's (IFC's) Performance Standards. However, this approach could result in a number of small ad hoc offsets that do not necessarily respond to conservation priorities in Liberia and lack the necessary protection to ensure their long-term sustainability. In addition, the capacity of resource developers to effectively implement offsets is limited and constrained by numerous external factors.

In 2015, Liberia developed ‘A National Biodiversity Offset Scheme’ which serves as a road Map for Liberia’s mining sector. Two iron ore mining companies operating in the country, ArcelorMittal and BHP Billiton, have been making great effort even before this scheme was developed to engage in biodiversity conservation related practices and got more involved in operating within the framework of the scheme.

<http://documents.worldbank.org/curated/en/183611467991015452/pdf/95959-WP-PUBLIC-Box391432B-Liberia-1512662-FinalWeb-PUBLIC.pdf>

Please describe other activities contributing to the achievement of the Aichi Biodiversity Target at the global level (optional)

On May 22, 2018, Conservation International (CI) and the Government of Liberia (GoL) launched the Liberia Conservation Fund’(LCF), the first of its kind in the country aimed at providing sustainable, long term financing for Liberia’s protected areas on the national level. The fund was launched with an initial commitment of US\$1 million, provided by CI’s Global Conservation Fund, with pledges made by the GoL through the FDA. The fund will be directed to a range of conservation finance sources and set up multiple endowments to support individual protected areas throughout the country.

<https://www.liberianobserver.com/news/conservation-international-commits-us1m-for-liberia-protected-areas/>

Based on the description of your country’s contributions to the achievement of the Aichi Biodiversity Targets, please describe how and to what extent these contributions support the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals:

The above-mentioned contributions support the following SDGs:

SDG 1. End poverty in all its forms everywhere: The LCF launched by CI in collaboration with the GoL will also support the motivation of local communities to contribute to the protection and management of PAs and proposed PAs in Liberia. Also, ArcelorMittal’s support to building the capacity of local communities in its concession areas can be considered incentives for the communities’ conservation actions.

SDG 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all: The LCF and ArcelorMittal’s support to communities in its concession areas, if managed properly can be income generation sources for local community members.

SDG 13. Take urgent action to combat climate change and its impacts (in line with the United Nations Framework Convention on Climate Change): The two incentive opportunities mention above will help to sustainably manage the forested landscapes of the respective sites, thus

contributing to combating climate change to some extent.

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: Same rationale as under SDG 13 above.

SDG 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development: CI and ArcelorMittal are foreign partners to the GoL. Improving and sustaining their partnership locally can contribute to global partnership for sustainable development.

Aichi Biodiversity Target 4: By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits

Please describe how and to what extent Liberia has contributed to the achievement of this Aichi Biodiversity Target and summarize the evidence used to support this description:

Forestry

Liberia is endowed with extensive forest resources that provide important environmental, social and economic benefits to its people. The wise use of these resources is essential if their multiple values are to be maintained for the benefit of present and future generations.

The country has adopted sustainable forest management (SFM) practices through which conservation of the nation's forests and sustainable harvesting (production) of the forest resources is ensured. Currently, the 2006 Forest Reform Policy and the Code of Timber Harvest Practices are the guiding instruments for sustainable forest management in the country.

Forest harvesting can generate many economic and social benefits for Liberia. However, poor practices can lead to serious environmental degradation and adverse impacts on forest dependent communities in the country.

The FDA published their first Liberian Code of Practice for Timber Harvesting (referred to as the "Code" hereafter) in September 2007. The FDA developed this Code to provide a clear set of guidelines to help foresters and logging companies select practices to be followed when carrying out harvesting operations. The second edition of the Code of Forest Harvesting Practices as amended on the 31st of May 2017 was produced in consultation with stakeholders within the forest sector in Liberia and with technical and financial assistance from the Liberian Voluntary Partnership Agreement (VPA) Support Unit funded by the European Union (EU) and the United Kingdom Department for International Development (DFID). The Code applies to all-natural forest areas in Liberia and its objectives are:

To provide forest operators (FMCs, TSCs, PUPs, and CFMAs) with a set of guidelines and standards for improved forest harvesting practices that improve standards of logging/utilization and reduce environmental impacts, and so contributing to the conservation of forests. This is achieved primarily by giving guidance in mitigating intolerable risks in logging operations; and To provide a sound foundation to comply with Liberian legality requirements related to forestry.

<https://www.informea.org/en/legislation/national-forestry-reform-law-2006>

<http://www.fao.org/forestry/16151-05fd47b845599b5d3a594a9b0240dacff.pdf>

<https://www.documents.clientearth.org/wp-content/uploads/library/2017-05-21-code-2017-code-of-forest-harvesting-practices-liberia-ext-en.pdf>

Agriculture

African governments, in recognition of the relationship between agriculture and economic growth and development of their respective countries, adopted the Comprehensive African Agricultural Development Program (CAADP) in 2003 in Maputo, Mozambique. CAADP is an integrated, continent wide framework that seeks to restore agricultural growth, facilitate rural development and ensure food and nutrition security in Africa. It is based on four main pillars: (i) extending the area under sustainable land management and reliable water control systems; (ii) improving rural infrastructures and trade related capacities for market access; (iii) increasing food supply and reducing hunger; and (iv) strengthening agricultural research, technology dissemination and adoption.

Liberia's population currently stands at about 3.5 million. The country recognizes agriculture as a strategic sector because approximately 70% of its population depends on agriculture for its livelihood. Also, agriculture is a significant net contributor to the country's economy in terms of employment and foreign exchange earnings and a primary determinant of nutrition, education, poverty reduction, and rural transformation.

Major challenges in the agriculture sector of Liberia include weak land management and water control systems, limited market access due to limited network of roads; limited scope for crop diversification and rudimentary production techniques; poor food value chains including storage, processing, and marketing channels; lack of agriculture credit; and low institutional capacity. Value chains are undeveloped and markets are inaccessible in Liberia. Rural infrastructure, including roads, is limited and deplorable. Storage, drying, and processing facilities are rare. Food safety and quality control system remain a great challenge. Linkages between producers and markets are poor and farmers lack appropriate information to enable them make prudent marketing decisions. There is a severe limitation of agricultural credit; in 2008, agriculture accounted for only 5% of all commercial bank credit. Financial services are particularly limited in rural communities. Agriculture continues to be undertaken by simple hand tools, and Liberian farmers lack skills and knowledge needed to operate and maintain labor-saving technologies.

There is very low national and sector capacity for the efficient utilization of new technology and management of agricultural innovations and machinery. As a result of these challenges, incentives to produce marketable surpluses are limited.

The Liberia Agriculture Sector Investment Program (LASIP) is put in place to address these challenges. Actualizing the alignment of national, continental, and global objectives through the implementation of the LASIP will require increased budgetary support and improvement in the absorptive capacity of core agricultural institutions.

LASIP identifies priority areas from which investment projects aligning national objectives and the CAADP will be developed. It will be a public- private partnership (PPPs) in which investment growth for the export sectors will be spearheaded by the private sector, while the public sector will concentrate in promoting small farmer growth and development. The Food

Agriculture Policy and Strategy (FAPS) recognizes the priority of the private sector in the productive sector while the government play the role of regulator and promoter for growth providing access to smallholders and women.

<http://www.moa.gov.lr/doc/LASIPJune1st.pdf>

<https://www.abghq.com/downloads/Liberia.pdf>

Fisheries

As part of efforts to further strengthen the fisheries sector in the Liberia, GoL through the Ministry of Finance and Development Planning (MFDP), the National Fisheries and Aquaculture Authority (NaFAA) and the Government of Iceland on 14th December 2017, signed a grant agreement of US\$3.1 million. This financial support is quite significant and will boost Liberia's profitability in the fisheries sector and a major achievement that will develop the country's first standardized laboratory for testing fish and other cold food products for exports. Even though the country exports about 200 metric tons of fish annually, substantial loss had been incurred because the fish had to be routed through Ivory Coast and Ghana as Liberia did not have access to markets of the European EU and the USA. The lack of a standardized testing laboratory for fish meant that the Liberia could not certify fish harvested within its waters and neither could it be accredited to have direct access to those Western markets. Other benefits the sector will experience from the project will be improved processing and preservation using modern fish-oven technology, provision of microfinance opportunities to about 2,000 fishermen and fishmongers, as well as supporting water and sanitation projects in Montserrado, Grand Bassa and Grand Cape Mount Counties.

Also a US\$1.7 million fisheries project in Robertsport, Grand Cape Mount County under the auspices of the West Africa Regional Fisheries Project (WARFP) construction works is being funded by the World Bank in direct response to improving the socio-economic conditions of fishermen and women in Liberia. Fisheries authorities say when this project is completed, it would pave the way for other projects in other fishing communities around Liberia, mainly the coastal cities of Buchanan, Greenville, Cestos City and Barclayville. WARFP aims to protect Liberia's seacoast and regulate all fishing activities in the country.

<https://bonbonlifestylewebazine.com/2018/12/19/liberia-iceland-boosts-liberias-fisheries-sector/>
<https://www.liberianobserver.com/news/warfp-us1-7-million-fisheries-project-makes-progress-in-robertsport/>

Please describe other activities contributing to the achievement of the Aichi Biodiversity Target at the global level (optional)

<Text entry>

Based on the description of your country's contributions to the achievement of the Aichi Biodiversity Targets, please describe how and to what extent these contributions support the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals:

The above-mentioned contributions support the following SDGs:

SDG 1. End poverty in all its forms everywhere: The majority of the Liberian populations live in the rural areas of Liberia where the forestry, agriculture and fisheries activities are based. Improvement in production in these areas will improve the economy of the rural areas, thus make significant improvement in the poverty level there.

SDG 2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture: The LASIP initiative of the Liberia agriculture policy, if it succeeds, will make significant in reducing hunger (if not completely ending it) in Liberia.

SDG 3. Ensure healthy lives and promote well-being for all at all ages: When the poverty situation in the rural sector of Liberia is improved and hunger is reduced to a significant level in country, the Liberian people will live healthily and happily.

SDG 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all: Currently, there is food insecurity in the country and employment rate continues to decrease nationally. The agriculture and forestry sectors of the country are basically great opportunities for economic growth. Improvement in these sectors will make a positive impact on economic growth and employment.

SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development: Improvement in management of the fisheries sector of the country in terms of preservation and marketing will contribute to sustainable use of the fisheries produce of Liberia.

Aichi Biodiversity Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.

Please describe how and to what extent Liberia has contributed to the achievement of this Aichi Biodiversity Target and summarize the evidence used to support this description:

Forest

Liberia hosts more than 40% of the forest in West Africa where the Upper Guinean Rain Forest is situated. Deforestation, which is occurring in Liberia at the rate of 2.2% annually, may inflict further reduction on Liberia's and cause the country to lose its status as the country with the largest remaining forest in the Upper Guinea Region. The main drivers of the deforestation are the traditional method of farming referred to as 'shifting agriculture' and chain-saw logging. Currently there is no forest replenishment program to artificially augment forest cover losses in the country. However, there are foreign assistance initiatives helping to induce regeneration of deforested / degraded landscapes. These activities (see under other activities below) would facilitate and support forest and landscape restoration with the potential to minimize or revert deforestation and for regaining ecological functionality in deforested or degraded forest landscapes. Below are ongoing initiatives that recognize the importance ecosystem benefits and services provided by the forest, which rural dwellers in particular depend on for their survival.

Birds

Almost the whole of Liberia falls within the Upper Guinea forests Endemic Bird Area (EBA) and all 15 of the region's endemic bird species are found here. It also lies entirely within the

Guinea-Congo Forest biome and 184 species characteristics of this biome have been found herein. Liberian Greenbul (*Phyllastrephus leucolepis*) has only been recorded from a limited area in the east of the country, while Gola Malimbe (*Malimbus ballmanni*) is almost entirely confined to Liberia. This serves to highlight the importance of Liberia's high forests which, a few years ago, still covered some 40% of the land area. Much more is still covered with secondary forests which also host a rich avifauna. Liberia's coastal wetlands on the other hand are relatively unimportant ornithologically by comparison with Sierra Leone and Guinea (Gatter 1988a, b). Most of the lagoons, especially in the central coast are still surrounded by heavy forest which leaves little room for mudflats and sandspits. Water levels are high, due to annual precipitation between 2,000 mm in the north and 3,000 - 5,000 mm along the coast. Actions taken under 'other activities below.

Please describe other activities contributing to the achievement of the Aichi Biodiversity Target at the global level (optional)

Forest

The Forest Sector Project (LFSP)

Through a \$150 million grant for a Forests REDD+ program between Liberia and Norway, Liberia and Norway will work together to improve the framework for forest governance, strengthen law enforcement and support efforts to reduce greenhouse gas emissions from deforestation and forest degradation in Liberia.

This foreign assistance has been addressed in SECTION III above.

West Africa Biodiversity and Climate Change Project (WABiCC):

Many of West Africa's 340 million residents are facing serious risks due to a rapidly changing climate. A series of interconnected direct and indirect drivers of resource degradation—illegal and unsustainable logging, wildlife poaching and trafficking, poverty, population growth, and weak governance—threaten the sustainability of key transboundary resources; undermine the ability of the region's human and natural systems to respond and adapt to anthropogenic shocks and stressors; and in turn, compromise sustained and broad-based economic growth. To address these challenges, Tetra Tech is supporting the U.S. Agency for International Development (USAID) by implementing the West Africa Biodiversity and Climate Change (WA-BiCC) program. Tetra Tech's approach is based on the premise that systematic change to improve conservation and foster climate-resilient, low emissions growth in West Africa requires a critical mass of diverse actors working together across geographic scales to achieve common goals. WA-BiCC's three main development challenges are combating wildlife trafficking, improving coastal resilience in West Africa, and reducing deforestation, degradation, and biodiversity loss in key forests. To effectively address these challenges, Tetra Tech is using an integrated approach that cuts across all three program components.

To effectively address direct transboundary threats, natural resources, and biodiversity, Tetra Tech is brokering partnerships between governmental institutions, non-governmental organizations, and communities and the private sector. These partnerships aim to identify conservation incentives and investment opportunities; improve social and environmental. Tetra Tech is enabling the WA-BiCC team to combat corruption and make informed, science-based decisions that reduce wildlife trafficking and poaching, enhance coastal resilience, and reduce

deforestation. Across all three program components, Tetra Tech is improving the understanding of the economic value and contributions of ecosystem goods and services from wildlife, coastal resources, and upland forests to local, national, and regional economies. The WA-BiCC team is educating audiences on a local-level by developing and executing regional media campaigns that focus on anti-trafficking and conservation solutions. These campaigns are led by local organizations and include radio dramas, radio call-in shows, and pop music campaigns. WA-BiCC has facilitated the training of 36 judges and prosecutors and 12 law students to better enforce and prosecute wildlife crime. In addition, WA-BiCC has supported the Abidjan Convention Secretariat to develop two management protocols for coastal areas and organize two expert meetings on invasive coastal species, bringing together regional partners to implement best practices. WA-BiCC also held stakeholder consultations to assess the policy needs of selected Economic Community of West African States (ECOWAS) member states. Tetra Tech's efforts have allowed ECOWAS member states to understand and implement best-practice adaptation measures by integrating and demonstrating concrete activities that build climate resilient coastal systems, and as a result benefit the people who depend on those systems for their livelihoods. Liberia is a major beneficiary of the WABiCC project,
<http://www.tetrattech.com/en/projects/west-africa-biodiversity-and-climate-change-project>

Liberia, will address Strengthening ecological connectivity in the Tai-Grebo-Sapo forest complex between Côte d'Ivoire and Liberia

Côte d'Ivoire and Liberia are rich in terms of biodiversity and raw materials. The exploitation of natural resources and expanding agricultural activities are increasing the pressure on natural forests and biodiversity hot spots, i.e. regions with a large number of endemic and potentially endangered plant and animal species. The project, Strengthening ecological connectivity in the Tai-Grebo-Sapo forest complex between Côte d'Ivoire and these and other critical challenges in the corridor between Tai National Park in Cote d'Ivoire and Sapo National Park in Liberia. The project area contains the largest remaining rainforest in West Africa. Most of the forested areas have protected status. They are uniquely biodiverse and home to many endemic species. However, efforts to preserve this biodiversity are threatened by insufficient organisational capacity and personnel resources, weak governmental structures, rapid population growth and the exploitation of raw materials. These factors also make it harder to maintain connectivity between protected areas. Until this project, neither state institutions nor local actors have worked together to link the forest ecosystems in the Tai-Grebo-Sapo border region.

Project objective: Government institutions and local actors in Côte d'Ivoire and Liberia are working together to connect the forest ecosystems in the Tai-Grebo-Sapo border region.

Project approach: The project aims to strengthen local expertise and capacity for the joint management of natural resources and biodiversity and in this way to help bring about a lasting improvement in connectivity between the region's ecosystems and protected areas. It operates in the border area between Liberia and Côte d'Ivoire and focuses on promoting cross-border cooperation and dialogue between local and national actors and on the participation of women in decision-making processes.

The four priority areas of activity are:

Informing local people in the Tai-Grebo corridor region about land-use planning decisions and ensuring that they are involved.

Incorporating collaborative decisions in regional land-use development plans which can be used

in the medium term to direct the sustainable management of the area.

Developing the skills and capacity of all the actors involved so that they can participate competently in the planning and implementation of national and cross-border measures.

Supporting the efforts of the Liberian Forestry Development Authority (FDA) to establish national park status for the Grebo-Krahn Forest.

The project forms part of a wider strategy together with a KfW Development Bank project to preserve biodiversity in the Taï-Grebo-Sapo rainforest complex.

The project's implementation partners in Côte d'Ivoire are the Parks Authority (OIPR) and the Department for Ecology and Nature Conservation (DEPN) in the Environment Ministry. Other organisations involved are the Foundation for National Parks and Reserves (FPRCI) and the international non-governmental organisation Wild Chimpanzee Foundation (WCF). The project's implementation partners in Liberia are the Forest Development Authority (FDA), specifically the Conservation Department. The international NGO Wild Chimpanzee Foundation (WCF) is involved here as well. A road map was developed and implemented for the declaration and management of the Grebo Forest as the Grebo-Krahn National Park which was established in Liberia in mid.

<https://www.giz.de/en/worldwide/32026.html>

Mano River Ecosystem Conservation and International Water Resources Management (IWRM) Project

IWRM is a GEF-funded project which will be implemented by the International Union for Conservation of

Nature (IUCN). It targets the conservation and sustainable use of the transboundary water basins and their biodiversity resources within the Mano River Union member states. These resources are of

highest importance for the sub-region, seriously affected by socio-political problems with displaced and suffering populations, and demand support under these very difficult contexts. The project seeks to promote holistic approaches to integrated ecosystem management and to design participatory and community-based strategies, which will lead to in-situ conservation and sustainable use of soil, water and biota in the river basins and on their watersheds. The project will be implemented in the Upper Guinea forest covering Sierra Leone, Guinea, Liberia

and Cote d'Ivoire with the objective of strengthening the management of transboundary natural resources for sustained ecological benefits and improved livelihoods for the forest adjacent communities. Therefore, the project will play a transformational role in the livelihoods of the communities living in the forest area covered by the project, enabling them to benefit from the ecosystem while not threatening it.

The project is consistent with GEF 5 focal area strategies for biodiversity, land degradation, and international waters as it will contribute to the conservation of the Upper Guinea Forest ecosystem through the sustainable management of transboundary water basins. The Upper Guinea Forest is degrading and disappearing at an alarming rate, with adverse consequences for the quantity and quality of linked ecosystem services that underpin productivity of the land, forests and water resources. This has a direct impact on human well-being. As a consequence of the degradation, forest-dependent people struggle to sustain their livelihoods, often using non-

sustainable techniques (including poaching, logging, slash and burn agriculture, and illegal mining). The project will support local communities in developing alternative means of income generation, which will lead to an increase in forest coverage and its related benefits both at the local (ecosystem services) and global (biodiversity, enhanced carbon sinks) levels. It will enhance local stakeholders' involvement in the management of transboundary ecosystem. The project will also reinforce regional coordination among countries with a particular focus on selected ecosystems. Thus strengthening the regional regulatory framework on management of transboundary natural resources under the auspice of the Mano River Union. Through its international waters component, the project will support foundational capacity building and institutional reinforcement for regional ecosystem management of transboundary water systems. National inter-ministry committees would contribute to the development of a regional Transboundary Diagnostic Analysis and subsequently to the preparation of a preliminary Strategic Action Plan. Benefits of collaboration on transboundary basin and adoption by cooperating states in a Transboundary Water Resource Management approach contribute to improve community livelihoods, targeted in component 1, and to address environmental issues. Results will lead to a net gain in forest area (including the recovery of degraded forests) as well as increased transboundary water consideration and management in regional policies. The transboundary nature of the water resources will also entail regional collaboration resulting in enhanced regional cooperation and community interactions.

<https://www.gwp.org/en/GWP-West-Africa/WE-ACT/News--Events/mano-river-union-ecosystem-conservation-and-international-water-resources-management-project/>

GoL, with the support of BirdLife International, has designated nine sites as Important Bird Areas (IBAs) throughout the country. These cover about 5,800 km² or 6% of the land area of the country. All the sites comprise substantial areas of forest being representative of the Guinea-Congo Forests biome. The sites are listed below.

Wologizi mountains are an isolated upland area in the north-west of the country and include Liberia's highest peak, Mount Wuteve.

Wonegizi mountains are also in the north-west of the country adjacent to the Guinea border and are an extension of a large and long mountain range stretching from Guinea into Liberia.

Lofa-Mano is a proposed National Park in western Liberia which includes part of the Liberian Gola National Forest. It is contiguous with the Gola Forest Reserves IBA in Sierra Leone and is the least researched of the Liberian IBAs.

Nimba mountains in the north-east of the country are shared with Guinea and Côte d'Ivoire and have contiguous IBAs with both countries. The forest avifauna seems to be extremely rich compared to other IBAs but this is mainly due to the large amount of research which has been carried out there (see Zwedru Forest).

Lake Piso Multiple Use Reserve is on the coast in the extreme west of the country lying at a large flat ocean bay with a neighbouring large lagoon called Lake Piso. Between Lake Piso and the ocean lies the Cape Mount Peninsula, one of the most beautiful landscapes along the West African coast.

Zwedru forest is a fragmented forest located in east central Liberia, north-west of the town of Zwedru. The Cavalla River which is the frontier with Côte d'Ivoire forms the northern boundary of this IBA. The forests of the area are being destroyed by slash and burn agriculture. This is the

only known site for the Liberian Greenbul (*Phyllastrephus leucolepis*) and holds a large population of Gola Malimbe (*Malimbus ballmanni*).

Cestos-Senkwehn, a proposed protected area, lies in the lowly populated coastal centre of Liberia between the towns of Buchanan and Greenville and stretches inland from the coast for some 70 km.

Sapo National Park is located in south-east Liberia some 70 km inland from the coastal town of Greenville.

Cavalla River in Grebo National Forest is enclosed on three sides by the Cavalla River and is on the international border with Côte d'Ivoire in the far east of the country.

So far the total number of bird species recoded in Liberia is 537 including 14 globally threatened bird species over the 9 IBAs with a total land area of about 630,267 ha.

<https://www.africanbirdclub.org/countries/Liberia/ibas>

Wetlands

Liberia is a signatory to the RAMSAR Convention. According to the RAMSAR Convention, “Wetlands are vital for human survival. They are among the world’s most productive environments; cradles of biological diversity that provide the water and productivity upon which countless species of plants and animals depend for survival. Wetlands are indispensable for the countless benefits or ‘ecosystem services’ that they provide humanity, ranging from freshwater supply, food and building materials, and biodiversity, to flood control, groundwater recharge, and climate change mitigation. The Convention uses a broad definition of wetlands. This includes all lakes and rivers, underground aquifers, swamps and marshes, wet grasslands, peatlands, oases, estuaries, deltas and tidal flats, mangroves and swamps. The convention entered into force in Liberia on 2 November 2003.

Often ignored by policymakers and wittingly or unwittingly subjected to abuse by the public at large, wetlands are under grave threat of degradation in Liberia. The most serious threats to wetlands in the country are rampant waste disposal (including but not limited to plastic wastes, medical waste, human feces and used fuel), reclaiming wetlands for infrastructural construction, harvesting of fuelwood particularly in mangroves, hunting of wildlife and over fishing as well as use of unsustainable methods for fishing including the use of dynamite and small sieve fishing nets. Waste in particular in wetlands, including but not limited to plastic bags, medical waste, human feces and dirty or used fuel, threatens marine species in the various wetlands. Environmentalists and other concerned stakeholders have consistently called for urgent and practical action aimed at protecting wetlands from abuse.

The Liberia Environmental Protection Agency (EPA), for the past 12 years, has conducted several professional and technical workshops geared towards enhancing the protection of wetlands in Liberia. In spite of support from partners and stakeholders, wetlands including mangrove swamps continue to come under pressure from uncontrolled human activities. Legal experts point out that environmental laws and regulations are weak and enforcement mechanisms are not robust to safeguard and protect the Liberian environment especially wetlands.

The most successful aspects of the implementation of the Ramsar Convention in Liberia between 2013 and 2018 were:

- 1) The drafting and subsequent validation of the National Wetland Policy document
- 2) Continuous awareness at national and local (community) levels on the importance and protection of Ramsar Wetlands.

- 3) Mapping of one Ramsar site (Lake Piso Wetlands).
- 4) Demonstration of political will through Presidential Executive Order for the protection of all wetlands.
- 5) Straight compliance of the Environmental and Social Impact Assessment in the agricultural and extractive industries for sustainable use of wetlands.

The difficulties encountered during implementation of the Convention between 2013 and 2018 were:

Inability to control waste disposal and construction of infrastructure in wetlands due to migration into and increasing human population growth in wetland communities.

2) Financial constraints to:

- a) sustain awareness campaign for wetlands protection throughout Liberia.
- b) develop the institutional and human capacities for wetland management.
- c) enforce wetland protection, especially at the five Ramsar Sites.

3) Approving and implementing projects within the proximity of wetlands.

4) Uncontrollable agricultural and mining activities in wetlands by locals.

5) Delay in approving and adopting the National Wetlands Policy.

Future priorities for implementation of the Convention in Liberia will focus on:

Enforcement of the Environmental Protection Agency (EPA) Strategic Plan, which deals with the sustainable use of wetlands and the conservation of protected areas.

Working with concessions in the country to protect all wetlands within their areas of operation, especially the agriculture and mining sectors, using the Environmental and Social Impact Assessment (ESIA) as a key tool.

Enhance collaboration with other government institutions as well as community-based organizations for the management of all wetlands in the country.

Development of wetlands regulations and strategic plan to implement the national wetland policy.

Creation of wetlands management fund and development of strategies to source funding from public and the private sectors to support the fund.

<https://www.liberianobserver.com/news/liberia-wetlands-under-grave-threat/>

<https://www.ramsar.org/wetland/liberia>

https://www.ramsar.org/sites/default/files/documents/importftp/COP13NR_Liberia_e.pdf

<https://www.ramsar.org/news/liberias-additions-to-the-ramsar-list>

<https://www.ramsar.org/wetland/liberia>

Based on the description of Liberia's contributions to the achievement of the Aichi Biodiversity Targets, please describe how and to what extent these contributions support the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals

The key and common aim of all the forest sector initiatives described above is the restoration and improvement of their respective project landscapes to ensure sustainable production of

ecosystem services and improved human livelihood.

These initiatives will

- contribute to climate mitigation mechanism through carbon storage
- reverse environmental degradation
- increase the resilience of communities and landscapes
- optimize ecosystem goods and services to meet the changing needs of society
- improve land management and governance

Specifically, they will contribute to the following Sustainable development Goals:

SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all: The initiatives seek to improve the forest conditions for sustainable biodiversity management and will contribute to economic growth in all forest-dependent communities.

SDG 13: Take urgent action to combat climate change and its impacts (in line with the United Nations Framework Convention on Climate Change): The initiatives will apply strategies to reduce deforestation and land degradation to various extents in an effort to combat climate change.

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: The initiatives also aim to improve sites by ensuring landscape restoration to ensure function ecosystems that will provide the needed benefits for ecological sustainability.

SDG 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development. The initiatives are supported by international partners who recognize the importance of global partnership for sustainable development.

Aichi Biodiversity Target 6: By 2020, all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem-based approaches, so that overfishing is avoided, recovery plans and measures are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.

Please describe how and to what extent your country has contributed to the achievement of this Aichi Biodiversity Target and summarize the evidence used to support this description:

Liberia has an Atlantic coastline spanning about 580 kilometers endowed with abundant marine fish stocks. The coastline and abundant freshwater resources provide breeding grounds for varieties of aquatic fauna species including crab, lobster, shrimp, tilapia, tuna, shark, croaker and barracuda.

Liberia's 2012-2017 development strategy (Agenda for Transformation), emphasizes the

importance of the fisheries sector in meeting the country's long-term socioeconomic goals. Specifically, the Agenda identifies community-based fisheries management to increase production, and participation in ongoing efforts to reduce illegal fishing and improve regulatory frameworks as national priorities. The Agenda also prioritizes strengthening women's participation in income generation and employment opportunities within the fisheries sector.

Fisheries in Liberia contribute about 10% to the country's Gross Domestic Product (GDP), and the sector provides full- or part-time employment for 37,000 people. Small-scale fisheries provide employment for 33,000 people, 60% of whom are women. A 2009 analysis found that coastal fishing communities were highly vulnerable to poverty, but emphasized that the fisheries sector has large potential to contribute to socio-economic development if barriers such as weak institutional capacity, an unfavorable political environment, conflicts with industrial fishing and migrant fishers, and lack of fisheries infrastructure are effectively addressed. Fish is a primary source of protein for many Liberians and is second only to rice as the most purchased food commodity. Small-scale fishers provide the majority of the domestic fish supply, while the industrial sector is primarily operated by foreign companies that export their catch. Women who live in coastal communities often engage in subsistence fishing for their households. Annual per capita fish consumption is among the lowest in the region and has decreased over time due to damage to fisheries infrastructure during the civil war, over-exploitation of fisheries resources in some areas, and a shift from subsistence to trade-based fisheries. While models differ on their predictions about the impacts of climate change on West Africa's coastal fisheries, a recent study found that climate change may increase their productivity, but benefits for local fishing communities will only be realized if threats such as poor governance and overfishing by other nations are effectively addressed.

The government's capacity to manage and regulate fisheries collapsed during the civil war, leading to widespread illegal, unreported, and unregulated (IUU) fishing in Liberian waters during this period. Since the end of the civil war, the Liberian Bureau of National Fisheries (now National Fisheries and Aquaculture Authority or NFAA) has continued to grapple with issues of law enforcement capacity, inadequate infrastructure, and lack of resources to properly survey fisheries. A recent analysis estimates that IUU catches in Liberia are worth about \$75 million per year. This study also found small-scale catches are "grossly under-estimated" and that exploitable fish biomass "could generate a sustainable catch sufficient to meet Liberians' need for animal protein". https://www.agrilinks.org/sites/default/files/resource/files/liberia_file.pdf

As part of efforts to further strengthen the fisheries sector in the country, the GoL through the Ministry of Finance and Development Planning (MFDP), the National Fisheries and Aquaculture Authority (NFAA) and the Government of Iceland signed a grant agreement of US\$3.1 million. This financial support is quite significant and will boost Liberia's profitability in the fisheries sector and a major achievement that will develop the country's first standardized laboratory for testing fish and other cold food products for exports.

<https://bonbonlifestylewebazine.com/2018/12/19/liberia-iceland-boosts-liberias-fisheries-sector/>

The Bureau of National Fisheries (BNF) of Liberia became NFAA in 2017. The Bureau of Fisheries has been under the Ministry of Agriculture, until it was recently transferred to the Liberia Maritime Authority under an Executive Order. NaFAA is the agency of government

responsible for managing and developing Liberia's fishery resources.
<https://www.liberianobserver.com/news/senate-receives-national-fisheries-and-aquaculture-authority-bill>

The Government of Liberia, through NFAA, and the fishery industry have agreed to work together to abolish illegal fishing in Liberian waters. The agreement titled, Collaborative Management Association (CMA), calls for all fishermen to be registered with the government before putting their boats on the waters. They warned that anyone not part of this agreement will not be allowed legally to do fishing in Liberia. The purpose of the agreement is also intended to give legal recognition, to negotiate responsibilities for sustainable management and good governance of the fishery resources and to also ensure a) a sustainable source of livelihood for coastal communities, b) provision of voice and platform for fishing community participation in decision making in fisheries administration and governance; and c) establishment of a framework for coordination, planning and implementation of interventions for socio-economic advancement of the fishing communities. To achieve these purposes, the agreement provides for cooperation between NFAA Management and members of the CMA in all the nine coastal counties to implement the fisheries co-management plan prepared for the CMA.

Please describe other activities contributing to the achievement of the Aichi Biodiversity Target at the global level (optional)

In 2010 the West Africa Regional Fisheries Project in Liberia introduced fishing rights through a system of co-management in Robert sport, Grand Cape Mount County, on a pilot basis. While in 2011, a national framework and a strategy document for establishment of Co-Management Associations were prepared for guidance of the Bureau of National Fisheries (now NaFAA) in its work towards promotion of the co-management system. In 2012 a constitution and by-laws were drafted as legal instruments for operation of the Pilot Robertsport CMA, which came into effect by acclamation by the General Assembly the same year.

The World Bank and the GEF are providing support to six West African countries aimed at buttressing efforts to protect the precious marine resources of coastal-line states. These countries include Liberia, Ghana, Guinea Bissau, Senegal, Cape Verde and Sierra Leone. Reports from a World Bank supported project of the West African Fisheries Program (WARFP) has ranked Liberia as a top performer in the implementation of Monitoring, Surveillance and Control (MSC) of unregulated, unreported and illegal (UUI) fishing activities in West African waters. However, owing to the serious lack of appropriate equipment, illegal fishing activities at high sea continue to cost the Liberian Government millions. As a result of the World Bank's technical and financial support and GEF efforts, special tracking devices are to be installed on any vessels that intend to carry out fishing activities in Liberian territorial waters.

<https://www.fcwc-fish.org/publications/news-from-the-region/1816-liberia-government,-fishing-industry-agree-to-end-illegal-fishing.html>

<https://www.liberianobserver.com/columns/environment/liberias-fisheries-sector-tops-seven-west-african-countries-on-msc-mechanisms/>

<http://projects.worldbank.org/P106063/west-africa-regional-fisheries-program?lang=en>

Based on the description of your country's contributions to the achievement of the Aichi

Biodiversity Targets, please describe how and to what extent these contributions support the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals:

Based on the description of your country's contributions to the achievement of the Aichi Biodiversity Targets, please describe how and to what extent these contributions support the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals:

The above contributions to the achievement of Aichi Target 6 by the fisheries sector of Liberia support the implementation of the following SDGs:

SDG 1: End poverty in all its forms everywhere: An aim of the WARFP is to improve the income of people in the fishing industry in Liberia.

SDG 2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture: Improvement in the economy of fishing communities by creating opportunities to increase fish production and generate sustainable income from fishing will contribute to reducing, if not ending, hunger in coastal communities in Liberia.

SDG 3: Ensure healthy lives and promote well-being for all at all ages: Increased and sustainable income in fishing communities resulting from improvement in the fishing industry of Liberia can ensure contribution in improving the health and well-being of the people in those communities.

SDG 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development: All the interventions mentioned under Aichi Target 6 are intended to conserve and sustainably manage and use the aquatic resources of the coastal region of Liberia..

Aichi Biodiversity Target 7: By 2020, areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.

Please describe how and to what extent your country has contributed to the achievement of this Aichi Biodiversity Target and summarize the evidence used to support this description:

Agriculture

Agriculture is the primary livelihood source for more than 60 percent of Liberia's population and provides sustenance for many households who engage in farming with rubber, rice, oil palm, cocoa, and sugarcane as major cultivated crops. However, low agricultural productivity results in Liberia importing more than 80 percent of its staple food (rice), making the country vulnerable to global food price volatility. Poorly integrated, the sector lacks basic infrastructure such as machines, farming equipment/tools, good farm-to-market roads, fertilizers and pesticides, and food storage capacity. The main cash crops and foreign exchange earners are rubber, cocoa, and timber. Rubber is the most important cash crop for households and one of the dominant generators of state revenues accounting for nearly 34.6 percent of the total export receipts in 2016. An estimated 30,000 people are employed by commercial rubber farms and up to 60,000 smallholder households are involved in growing of rubber trees. Firestone Rubber Plantation, covering almost 200 square miles, is the largest single natural rubber operation in the world and the biggest private sector employer in Liberia.

Another significant cash crop is oil palm, which has traditionally been produced for the domestic

market. Recently, there has been considerable interest from both smallholders and large investors in expanding export production. However, uncertainty with regard to land tenure is a significant challenge for potential oil palm farmers and investors. Stakeholders in the oilpalm sector include smallholder farmer cooperatives, individual farmers, large multinational corporations and concessionaires, as well as individuals playing various intermediation roles and support services.

The country has favorable climate and fertile soil for cocoa production and there is increased investment in the rehabilitation of cooperative and smallholder farms in the country. Although cocoa production is small scale, it is expected to increase as farmers continue to reclaim and rehabilitate their farms. As with the agriculture sector in general, smallholder cocoa farmers and local cooperatives are challenged by inadequate farm-to-market roads, lack of familiarity with measurement and quality standards, lack of storage facilities, and limited access to updated price and market information.

Beside the cash crops, there are market opportunities and potential for agribusiness investment, which focuses on developing the value chain of the available food crops such as rice, cassava, vegetables, fruits, poultry and fish. Liberia has suitable climate for horticulture such as production of peppers, okra, onions, tomatoes, bitter balls, etc., which are in high demand throughout the country all year round. Lowland cultivation and low-cost irrigation would give smallholders an opportunity to increase productivity and expand market share of these valuable crops. Because local farmers lack the basic capacities (innovative farming knowledge, appropriate/improved farming equipment, value-chain improvement potential etc), they continue to engage in shifting their farming sites every year in search of fertile soil for higher production. This farming system inflicts biodiversity degradation at the landscape level everywhere in the country.

<https://www.export.gov/article?id=Liberia-Agricultural-Sectors>

Although growth in Liberia's agricultural sector remained stagnant as the result of limited funding, the Ebola crisis, which began early 2014 seriously, stalled every effort by government and its partners to boost agriculture. With a population of about 3.5 million people that still depends on food imports, despite much promise by the Liberian Government to make agriculture a priority to ensure food security and also reduce poverty in the lives of rural citizens, the crisis contributed to more challenges as farmers abandoned farms for fear of contracting the virus. Also, all attention was placed on fighting the Ebola disease by government and partners. The Liberian government struggled to secure food supplies in the wake of quarantines and border closures which were aimed at containing the Ebola outbreak that disrupted farming. It mounted pressure on food imports.

Agricultural Financing

Farmers in Liberia often lack access to credit due to a lack of credit worthiness required by traditional banks and also inadequate or no business records. The lack of collateral also serves as another barrier in getting loans. Many commercial banks thus consider it a risky venture to lend to farmers because of the misconception that farmers will not pay back these loans. To improve access to credit for Liberian farmers, United States Agency for International Development Food

and Enterprise Development Program for Liberia (USAID FED), and the Liberia Entrepreneurial and Asset Development (LEAD) partnered to provide loans worth US\$40,000 to nine farming organizations from Lofa County in December 2014. The farmers received loans ranging from US\$1,750.00 USD to US\$10,000 USD which they are expected to invest in improving existing farm projects. Those are some of the farmers who demonstrating strong resilience in the midst of Ebola in Lofa which was heavily hit by the virus. In order to further boost agricultural financing, President Ellen Johnson in her 2014 Annual Message announced US\$ 9.8 million as a loan in the National Budget for Liberian farmers. However, not much is known on how Liberian farmers were able to access the loan due to the crisis.

In 2014, before the outbreak of Ebola, the Government of Liberia, through the Ministry of Agriculture (MoA) and its partners, introduced some agricultural projects aimed at giving local farmers the opportunity to improve productivity and generate income. Such projects included the West Africa Agriculture Productivity Program (WAAPP- Liberia), the revamping of the Central Agriculture Research Institute (CARI), quarantine livestock facility, and the initial production of foreign breed of chicks by Obassanjo farms for poultry farmers.

In March 2014, WAAP- Liberia's ten-year agricultural project of the MoA with funding from the World Bank to increase rice and cassava production was introduced in eight of Liberia's fifteen counties, including Gbarpolu, Margibi, Bomi, Bong, Sinoe, River-Gee, Grand Gedeh and Maryland counties.

According to the World Bank assessment, "WAAPP- Liberia" shows some significant gains amidst the Ebola crisis where 270 metric tons of improved seed rice was produced and distributed to more than 46,500 farmers and 12,100 hectares of cassava cultivated in the targeted counties. However, farmers in some of the counties affected by the virus abandoned farm land because of fear to contract the virus which lowers production.

Livestock Development -As part of effort to revamp livestock production, the USAID FED, in partnership with the Liberian Government, in 2014 revamped the CARI's animals quarantine facility in Suakoko, Bong County. The facility has the capacity to house 500 animals but only 23 goats were initially supplied by Land O' Lake, another partner under the livestock program, and distributed to local farmers in Bong, Lofa, Grand Bassa and Nimba Counties. Because of the Ebola technical support to animal producers in some of the counties, farmers were limited in raising livestock, as some of the partners scaled down.

Poultry Production -For the first time after the war in 2014, Liberian poultry farmers gained access to the initial production of exotic breeds of chicks produced by Obassanjo Farm, reducing the burden on imported chicks.

Obssanjo farm is a multi-million-dollar private investment established in 2013 in Grand Cape Mount by former President of Nigeria, Olusegun Obassajo. The aim is to revamp poultry production in Liberia for the improvement of food security. The marketing of poultry products from the Obassajo farm became a serious challenge as the three countries; Sierra Leone, Guinea and Liberia identified mainly for the markets, were affected of the Ebola outbreak.

<https://www.liberianobserver.com/columns/agriculture/liberias-2014-agriculture-sector-review-underscoring-achievements-challenges/>.

Liberia's Fisheries and Aquaculture Policy and Strategy (2014) aims to increase aquaculture production to 15,000 tonnes by 2030. But recent pronouncements and projections by government officials indicate a desire to achieve a higher figure, before that date. Current aquaculture production is very low, approaching 1,000 tonnes a year. Nearly all of this output is down to the country's 300 or so micro-scale fish farmers, who work on a total of 1,700 ponds, covering a total of 114 hectares. But aquaculture is seen as having the capacity to help increase domestic production in the next few years, and to help achieve a substantial rise in annual fish consumption from the current 5kg per capita. Among the natural conditions that favour aquaculture production in Liberia is the abundance of water all year round and the compact texture of the soil, with a 75 percent latosol content which enhances water retention.

Following a request to the Israeli Government and the signing of an aquaculture cooperation programme, two Israeli aquaculture experts have conducted a survey of Liberia's aquaculture sector, under the umbrella of Israeli Government Development Agency MASHAV, which is expected to guide further activities. They also have run a training programme for fish farmers, aquaculture technicians and extension workers.

<https://thefishsite.com/articles/liberia-to-tap-into-aquaculture-potential>

Forestry-While Liberia's brutal civil war delayed the commercial exploitation of its rainforests during the 1990s, "conflict timber" was a key source of revenue for warring factions. The harvesting of conflict timber, combined with collateral damage from military operations and wildlife poaching, took a heavy toll on Liberia's forests. With the end of the war, Liberia's new government, which took power at end of the war in 1998, immediately established forestry as a national priority and instituted a five-year tax holiday on timber industries. This policy, combined with the return of commercial interests to the country, repopulation, and reconstruction efforts, put pressure on Liberia's remaining forest resources. Since the close of the 1990s, deforestation rates have increased by 17 percent, and primary forest cover in the country has fallen to just over 1.3 percent of the total land area (or 4.1 percent of the forest cover). After granting large concessions to timber firms, the Liberian Government essentially lost control over logging in much of the country. In June 2005, the director of the Food and Agriculture Organization of the United Nations in Liberia warned that the forest and its associated resources were at a very "high risk of facing depletion" from illegal logging and land invasions by gold miners.

Since the United Nations Security imposed strict sanctions on Liberia in 2003, the government has not legitimately earned any revenue from the timber sector. As such, virtually all logging in Liberia has been illegal and will continue to be until the country is able to meet conditions set forth by the UN which include: increased transparency in timber transactions, government control over the forestry sector, and the banishment of the use of militias by logging firms. Until the government is able to rein in illicit activities in the country's forests, illegal logging will continue to take a heavy toll on Liberia's natural resources. Further pressure from subsistence

activities—about 98% of the country's energy needs are met by fuelwood and charcoal according to the **ITTO**—will not help the situation.

Despite these challenges, things may be looking up for Liberia's forests. After announcing the expansion of Sapo National Park and the creation of the Nimba Nature Reserve in 2003, the government has worked with international NGOs to monitor and address illegal activities in the country's national park. In November 2005, Conservation International (CI) led a survey to assess Liberia's remaining biodiversity. At last count, the country was home to 2,200 species of plants, 193 mammals, and 576 bird species.

<https://rainforests.mongabay.com/20liberia.htm>

Protected Area Network—The protected area network of Liberia has grown considerably since its start in 1983 with Sapo National Park. The number of proposed areas has been growing in bursts since then, and the actual protected areas have grown at a slower pace, with 5 areas protected so far, and 11 others proposed. The gazettelement of additional national protected areas is an essential part of conservation initiatives in Liberia, with various NGOs and GOs working towards the approval of lobbied proposed protected area Acts.

The use of wildlife corridors in the country has been proposed as a means of expanding the Protected Area Network of the country. To this effect, two new forested regions were recently protected in Liberia, the Gola National Forest and the Grebo-Krahn National Forest. These are close to other protected areas, some of which are in neighboring countries, thus promoting regionally coordinated conservation.

The five protected areas established to date are Sapo National Park, East Nimba Nature Reserve, Lake Piso Multiple-Use Reserve, Gola National Forest Park and Grebo-Krahn National Park.

Eleven sites proposed for protection are Bong Mountains, Cestos-Senkwehn, Foya National Forest, Gbi National Forest, Grand Kru-River Gee Forest, Kpo Mountains, Margibi Mangrove, West Nimba National Forest, Wologizi Forest, Wonegezi Forest and Zwedru Forest.

Community forests collectively make up a fair percentage of Liberia's forests, and while unprotected by conventional law, are sometimes protected by tradition and associated practices.

<http://www.liberianfaunaflora.org/where-we-work>

<https://drive.google.com/drive/u/1/folders/1aZyfkK7OimtrwjPioJAECiND2rcDCNXG>

In August 2018, illegal miners cleared from Sapo National Park peacefully. Efforts by the government of Liberia (the Forestry Development Authority and Liberia National Police) and Fauna and Flora International have resulted in the peaceful clearance of illegal miners from the park. Illegal miners disturb river ecosystems, which are important for many of the endangered species which the park shelters. The presence of miners in the park also invited hunters who view the community of miners as a new market for bush meat. Endangered species often suffer along with all others. Additionally, in 2017, a ranger was killed in a confrontation with such a

group, leading to all conservation and law enforcement bodies taking them more seriously, with positive effect.

The two most recently gazetted protected areas were officially launched by the Forestry Development Authority (FDA). Although these parks were gazetted in 2017 and 2016, the official launch ceremonies took place in early 2018. NGOs and GOs have been assigned to work with the FDA in each of these areas, for successful management and community relations to the benefit of all. Below are the links to the events in April and May respectively of 2018:

Grebo-Krahn National Park and

Gola National Forest Park

<http://www.liberianfaunaflora.org/links/conservation>

Please describe other activities contributing to the achievement of the Aichi Biodiversity Target at the global level (optional)

Aquaculture-Along with many of its West African neighbours, Liberia's fish production is a fraction of what it could be. A recent World Bank-led programme aims to change that – harnessing Liberia's ambition to create a thriving aquaculture industry. The World Bank-sponsored West Africa Regional Fisheries Project (WARFP) aims to inspire nine countries, from Mauritania to Ghana, to recover from the drastic over-exploitation of their rich fisheries resources, and to enhance food security by optimizing fish production. The bulk of the US\$14 million obtained by Liberia under the project has gone into strengthening fisheries governance institutions, but the government has been collaborating with other partners to promote aquaculture production too. Like the other countries covered by WARFP, fish resources along Liberia's 570km coastline have been drastically reduced by illegal, unreported and unregulated (IUU) fishing, mostly by large foreign vessels. Current IUU catches are estimated at \$75 million per year. In spite of her rich fisheries endowments, Liberia imports 50,000 tonnes of fish annually. The WARFP project is expected to enable the country restore fish production over the long term

Based on the description of your country's contributions to the achievement of the Aichi Biodiversity Targets, please describe how and to what extent these contributions support the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals:

The above contributions to the achievement of Aichi Target 7 support the implementation of the following SDGs:

SDG 1: End poverty in all its forms everywhere: Providing and effecting huge employment opportunities in the forestry and agricultural sectors of Liberia can help to reducing the income gaps in the nation's population.

SDG 2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture: Ensuring food security in Liberia through support to the agricultural sector can assure great reducing hunger, if not entirely ending it, in the country.

SDG 3: Ensure healthy lives and promote well-being for all at all ages: Ensuring food security in Liberia will contribute significantly to the improvement of the well-being of the country's human population. SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all: Agriculture is key to the Liberian economy in terms of food security, employment and foreign exchange generation, thus improvement in the agricultural sector of the country will contribute to national economic growth. Also, the management programmes for old and new parks create great opportunity for employing a significant percentage of the Liberian population into the forest sector of Liberia.
Aichi Biodiversity Target 8: : By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.
Please describe how and to what extent your country has contributed to the achievement of this Aichi Biodiversity Target and summarize the evidence used to support this description: No available information
Please describe other activities contributing to the achievement of the Aichi Biodiversity Target at the global level (optional) <na>
Based on the description of Liberia's contributions to the achievement of the Aichi Biodiversity Targets, please describe how and to what extent these contributions support the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals: <na>
Aichi Biodiversity Target 9: By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.
Please describe how and to what extent your country has contributed to the achievement of this Aichi Biodiversity Target and summarize the evidence used to support this description: There are many floral and fauna species that invaded Liberia over the last several decades. Invasion here means accidental and unplanned introduction of plant and animal species (NBSAP 2004). Some of these invasive species are: <i>Eichhornia crassipes</i> (water hyacinth), <i>Leucaena leucocephala</i> <i>Achatina spp.</i> (giant land snails) <i>Aleurodicus dispersus</i> (spiralling whitefly) <i>Pistia stratiotes</i> (water lettuce) <i>Chromolaena odorata</i> (known as Doe leaf in Liberia) The most aggressive of these invasive species that is highly problematic for the forest and agricultural sectors in Liberia is <i>Chromolaena odorata</i>. <i>C. odorata</i> is a very widely distributed tropical shrub that is still expanding its range and is considered one of the world's worst weeds. It continues to spread due to its effective short- and long-distance dispersal. It can form pure stands where established, often in disturbed areas, grasslands, fallow areas and forestry

plantations, and is highly competitive. It is viewed as a major environmental weed, but is appreciated by some agriculturalists as it shortens fallow time in shifting cultivation. The presence of <i>Chromolaena odorata</i> in West Africa was first recorded in a forestry plantation near Enugu, in south-eastern Nigeria in 1942 and is thought to have resulted from contaminated seeds of the forest tree <i>G. arborea</i> imported from southeast Asia in 1937. The weed has since then spread to other west African countries, including Liberia. No measure is currently in place to control or eradicate this species from Liberia or to manage its pathways. http://researchspace.ukzn.ac.za/xmlui/bitstream/handle/10413/12814/Omokhua_Aitebiremen_Gift https://www.cbd.int/doc/world/lr/lr-nbsap-v2-en.pdf
Please describe other activities contributing to the achievement of the Aichi Biodiversity Target at the global level (optional) Na
Based on the description of Liberia's contributions to the achievement of the Aichi Biodiversity Targets, please describe how and to what extent these contributions support the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals: The only contribution made thus far to the achievement of Aichi Target 9 partially supports the below SDG: SDG15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss: the pathway of <i>C. odorata</i>, an alien invasive species recorded in Liberia since the 1980s, has been identified. However, Liberia does not have the capacity to control or eradicate the species from the country, and measures are not in place to manage its pathway. At least, the pathway identified supports SDG 15 to some extent.
Aichi Biodiversity Target 10: By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning. Na
Please describe how and to what extent your country has contributed to the achievement of this Aichi Biodiversity Target and summarize the evidence used to support this description: Na
Please describe other activities contributing to the achievement of the Aichi Biodiversity Target at the global level (optional) Na
Based on the description of your country's contributions to the achievement of the Aichi Biodiversity Targets, please describe how and to what extent these contributions support the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals: Na
Aichi Biodiversity Target 11: By 2020, at least 17 per cent of terrestrial and inland water, and 10 percent 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 wide landscape and seascapes.

Please describe how and to what extent your country has contributed to the achievement of this Aichi Biodiversity Target and summarize the evidence used to support this description:

The five protected areas established to date (Sapo National Park, East Nimba Nature Reserve, Lake Piso Multiple-Use Reserve, Gola National Forest Park and Grebo-Krahn National Park) provide shelter and protection for the water catchment areas in them by virtue of the management plans for those sites. The plan for each protected area requires the conservation and sustainable management landscapes all the natural resources the site contains.

More water resources will be under conservation scheme in the future when some or all of the eleven proposed for protection (Bong Mountains, Cestos-Senkwehn, Foya National Forest, Gbi National Forest, Grand Kru-River Gee Forest, Kpo Mountains, Margibi Mangrove, West Nimba National Forest, Wologizi Forest, Wonegezi Forest and Zwedru Forest) are gazetted.

Also, water resources in community forest sites are expected to be conserved as required by the community forest management strategy plan.

<http://www.liberianfaunaflora.org/where-we-work>

Please describe other activities contributing to the achievement of the Aichi Biodiversity Target at the global level (optional)

Other activities contributing to the achievement of Aichi Biodiversity Target 11 are:

The Forest Sector Project (LFSP)

This project aims to avoid illegal logging and unsustainable agricultural practices in Liberia. The partnership to this project holds promise to reduce carbon emissions related to deforestation and forest degradation, facilitate green growth and enhance livelihoods.

<http://www.fao.org/wairdocs/i3564e/i3564e.pdf>
<http://www.fao.org/wairdocs/i3564e/i3564e.pdf>
<http://blogs.worldbank.org/voices/liberia-norway-and-world-bank-partner-sustainable-forest-management>

West Africa Biodiversity and Climate Change Project (WABiCC)

The main challenges to this project are combating wildlife trafficking, improving coastal resilience in West Africa, and reducing deforestation, degradation, and biodiversity loss in key forests. To effectively address these challenges, an integrated approach that cuts across all three program components will be applied.

<http://www.tetrattech.com/en/projects/west-africa-biodiversity-and-climate-change-project>

Strengthening ecological connectivity in the Tai-Grebo-Sapo forest complex between Côte d'Ivoire and Liberia

The objective of this project is to ensure that the government institutions and local actors in Côte d'Ivoire and Liberia are working together to connect the forest ecosystems in the Tai-Grebo-Sapo border region. Thus the project aims to strengthen local expertise and capacity for the joint management of natural resources and biodiversity and in this way to help bring about a lasting

improvement in connectivity between the region's ecosystems and protected areas.
<https://www.giz.de/en/worldwide/32026.html>

Mano River Ecosystem Conservation and International Water Resources Management (IWRM)

Project

The IWRM project targets the conservation and sustainable use of the transboundary water basins and their biodiversity resources within the Mano River Union member states, one of which is Liberia. These resources are of highest importance for the sub-region but are seriously affected by socio-political problems with displaced and suffering populations, and demand support under these very difficult contexts. The project seeks to promote holistic approaches to integrated ecosystem management and to design participatory and community-based strategies, which will lead to in-situ conservation and sustainable use of soil, water and biota in the river basins and on their watersheds.

<https://www.gwp.org/en/GWP-West-Africa/WE-ACT/News--Events/mano-river-union-ecosystem-conservation-and-international-water-resources-management-project/>

Wetlands management initiatives

Wetlands are vital for human survival. They are among the world's most productive environments; cradles of biological diversity that provide the water and productivity upon which countless species of plants and animals depend for survival. However, the Liberia Environmental Protection Agency (EPA), for the past 12 years, has conducted several awareness activities geared towards enhancing the protection of wetlands in Liberia. Also, Liberia is signatory to the Ramsar Convention. The most successful aspects of the implementation of the Ramsar Convention in the country between 2013 and 2018 were:

- 1) The drafting and subsequent validation of the National Wetland Policy document
- 2) Continuous awareness at national and local (community) levels on the importance and protection of Ramsar Wetlands.
- 3) Mapping of one Ramsar site (Lake Piso Wetlands).
- 4) Demonstration of political will through Presidential Executive Order for the protection of all wetlands.
- 5) Straight compliance of the Environmental and Social Impact Assessment in the agricultural and extractive industries for sustainable use of wetlands.

<https://www.liberianobserver.com/news/liberia-wetlands-under-grave-threat/>

<https://www.ramsar.org/wetland/liberia>

https://www.ramsar.org/sites/default/files/documents/importftp/COP13NR_Liberia_e.pdf

<https://www.ramsar.org/news/liberias-additions-to-the-ramsar-list>

Based on the description of Liberia's contributions to the achievement of the Aichi Biodiversity Targets, please describe how and to what extent these contributions support the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals:

The above contributions support the following SDGs:

SDG 6. Ensure availability and sustainable management of water and sanitation for all: Common

to all the above-mentioned interventions is their intent to conserve water resources.

SDG 13. Take urgent action to combat climate change and its impacts (in line with the United Nations Framework Convention on Climate Change): The ultimate aim of all the above-mentioned interventions is to combat climate change in order to ensure sustainable availability of water and water resources in the project areas.

SDG 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development: In particular, implementation of the Ramsar Convention in Liberia is intended to conserve all wetlands and their resources in the country.

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: The objectives and aims of the following initiatives support SDG 15. They include The Forest Sector Project (LFSP), West Africa Biodiversity and Climate Change Project (WABiCC), Strengthening ecological connectivity in the Tai-Grebo-Sapo forest complex between Côte d'Ivoire and Liberia and Mano River Ecosystem Conservation and International Water Resources Management (IWRM) Project in that they all prioritize landscape management, natural resource (including biodiversity) conservation and combating climate change to some extent.

SDG 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development: Those interventions also use partnership participatory approach in the implementation.

Aichi Biodiversity Target 12: By 2020, the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.

Please describe how and to what extent your country has contributed to the achievement of this Aichi Biodiversity Target and summarize the evidence used to support this description:

The area of Liberia contains many habitats and ecosystems, including marine and freshwater habitats, both of which contains island ecosystems, as well as the many forests for which the country is known. The country has a high species diversity and is a part of the Upper Guinea Forest Hotspot. As seen around the world, the native plants and animals found in Liberia are threatened by habitat degradation and conversion, fragmentation, pollution, competition for resources, and climate change, among others. Liberia has a list of protected wild animals but no list of threatened flora has been developed. The Wildlife Conservation Law is currently being reviewed.

<http://www.liberianfaunaflora.org/protected-liberian-biodiversity>

Below is a list of threatened wild animal species of Liberia.

Endangered animals include:

- Chimpanzee (*Pan troglodytes*).
- Diana Monkey (*Cercopithecus diana*).

- Liberian Mongoose (*Liberiictis kuhni*)
- Nimba Otter Shrew (*Micropotamogale lamottei*)
- Red Colobus (*Procolobus badius*).

Vulnerable animals include:

- Aellen's Roundleaf Bat (*Hipposideros marisae*)
- African Elephant (*Loxodonta africana*)
- African Golden Cat (*Profelis aurata*).
- Buettikofer's Epauletted Fruit Bat (*Epomops buettikoferi*)
- Jentink's Duiker (*Cephalophus jentinki*).
- Pygmy Hippopotamus (*Hexaprotodon liberiensis*).
- Sperm Whale (*Physeter catodon*).
- Spotted-necked Otter (*Lutra maculicollis*).
- West African Manatee (*Trichechus senegalensis*).
- Zebra Duiker (*Cephalophus zebra*).

<http://www.animalinfo.org/country/liberia.htm>

<http://earthsendangered.com/search-regions3.asp>

Liberia has a Protected Area Management and Wildlife Law which is currently being amended to consider CITES instruments for threatened species.

Please describe other activities contributing to the achievement of the Aichi Biodiversity Target at the global level (optional)

Na

Based on the description of your country's contributions to the achievement of the Aichi Biodiversity Targets, please describe how and to what extent these contributions support the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals:

Na

Aichi Biodiversity Target 13: By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild varieties, including other socio-economically as well as culturally valuable species is maintained, and strategies have been developed and implemented for minimizing genetic

Please describe how and to what extent your country has contributed to the achievement of this Aichi Biodiversity Target and summarize the evidence used to support this description:

Some research works were initiated on the genetics of cultivated plants in Liberia at the Central Agriculture Research Institute (CARI). Unfortunately, all information got lost during the civil crisis which lasted from 1990 to 2013. The scientific research capacity of Liberia agricultural sectors has not been recovered since the end of the crisis.

Please describe other activities contributing to the achievement of the Aichi Biodiversity Target at the global level (optional)

Na

Based on the description of your country's contributions to the achievement of the Aichi Biodiversity Targets, please describe how and to what extent these contributions support

the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals:

Na

Aichi Biodiversity Target 14: By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.

Please describe how and to what extent your country has contributed to the achievement of this Aichi Biodiversity Target and summarize the evidence used to support this description:

Currently, there is no national-specific action for the achievement of this target. However, there are ongoing initiatives that will contribute to the achievement of the target (see under 'other activities' below).

Please describe other activities contributing to the achievement of the Aichi Biodiversity Target at the global level (optional)

The following ongoing initiatives (already described in SECTION III above), if implemented successfully, will contribute to ecosystem restoration and improving the potential of those ecosystems to provide essential services in their respective landscapes

a) The Forest Sector Project (LFSP)

This project aims to avoid illegal logging and unsustainable agricultural practices in Liberia. The partnership to this project holds promise to reduce carbon emissions related to deforestation and forest degradation, facilitate green growth and enhance livelihoods. <http://www.fao.org/wairdocs/i3564e/i3564e.pdf><http://www.fao.org/wairdocs/i3564e/i3564e.pdf>
<http://blogs.worldbank.org/voices/liberia-norway-and-world-bank-partner-sustainable-forest-management>

b) West Africa Biodiversity and Climate Change Project (WABiCC)

The main challenges to this project are combating wildlife trafficking, improving coastal resilience in West Africa, and reducing deforestation, degradation, and biodiversity loss in key forests. To effectively address these challenges, an integrated approach that cuts across all three program components will be applied. At the end, the project may result to ecosystem restoration at some significant level. <http://www.tetrattech.com/en/projects/west-africa-biodiversity-and-climate-change-project>

c) Strengthening ecological connectivity in the Tai-Grebo-Sapo forest complex between Côte d'Ivoire and Liberia

The project aims to strengthen local expertise and capacity for the joint management of natural resources and biodiversity and in this way to help bring about a lasting improvement in connectivity between the region's ecosystems and protected areas. <https://www.giz.de/en/worldwide/32026.html>

d) Mano River Ecosystem Conservation and International Water Resources

Management (IWRM) Project The IWRM project seeks to promote holistic approaches to integrated ecosystem management and to design participatory and community-based strategies, which will lead to in-situ conservation and sustainable use of soil, water and biota in the river basins and on their watersheds. https://www.gwp.org/en/GWP-West-Africa/WE-ACT/News--Events/mano-river-union-ecosystem-conservation-and-international-water-resources-management-project/
Based on the description of your country's contributions to the achievement of the Aichi Biodiversity Targets, please describe how and to what extent these contributions support the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals: The above contributions will support the below SDG to a large extent because their main focus is the restore their respective landscapes and improve the functions of the ecosystems on those landscapes. 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.
Aichi Biodiversity Target 15: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks have 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. Please describe how and to what extent your country has contributed to the achievement of this Aichi Biodiversity Target and summarize the evidence There has been no national-specific action towards achieving the target.
Please describe other activities contributing to the achievement of the Aichi Biodiversity Target at the global level (optional) Other activities contributing to the achievement of Aichi Biodiversity Target 15 are the same as under Aichi Biodiversity Target 14. They include: • The Forest Sector Project (LFSP) http://www.fao.org/wairdocs/i3564e/i3564e.pdf http://www.fao.org/wairdocs/i3564e/i3564e.pdf http://blogs.worldbank.org/voices/liberia-norway-and-world-bank-partner-sustainable-forest-management • West Africa Biodiversity and Climate Change Project (WABiCC) http://www.tetrattech.com/en/projects/west-africa-biodiversity-and-climate-change-project • Strengthening ecological connectivity in the Tai-Grebo-Sapo forest complex between

Côte d'Ivoire and Liberia https://www.giz.de/en/worldwide/32026.html • Mano River Ecosystem Conservation and International Water Resources Management (IWRM) Project. https://www.gwp.org/en/GWP-West-Africa/WE-ACT/News--Events/mano-river-union-ecosystem-conservation-and-international-water-resources-management-project/ • Wetlands management initiatives https://www.liberianobserver.com/news/liberia-wetlands-under-grave-threat/ https://www.ramsar.org/wetland/liberia https://www.ramsar.org/sites/default/files/documents/importftp/COP13NR_Liberia_e.pdf https://www.ramsar.org/news/liberias-additions-to-the-ramsar-list Also, the TEEB project contributes to the achievement of this target: The Economics of Ecosystem Biodiversity (TEEB) project in Liberia www.teebweb.org/areas-of-work/teeb-country-studies/liberia
Based on the description of your country's contributions to the achievement of the Aichi Biodiversity Targets, please describe how and to what extent these contributions support the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals: The above contributions will support the below SDG to a large extent because their main focus is the restoration of their respective landscapes and improve the resilience of the ecosystems on those landscapes. 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
Aichi Biodiversity Target 16: By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.
Please describe how and to what extent your country has contributed to the achievement of this Aichi Biodiversity Target and summarize the evidence used to support this description: Na
Please describe other activities contributing to the achievement of the Aichi Biodiversity Target at the global level (optional) Na

Based on the description of your country's contributions to the achievement of the Aichi Biodiversity Targets, please describe how and to what extent these contributions support the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals: Na
Aichi Biodiversity Target 17: By 2015, each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.
Please describe how and to what extent your country has contributed to the achievement of this Aichi Biodiversity Target and summarize the evidence used to support this description: Liberia revised the country's National Biodiversity and Action Plan (NBSAP) in March 2017 and submitted it to the Secretariat of the CBD. https://www.cbd.int/doc/world/lr/lr-nbsap-v2-en.pdf
Please describe other activities contributing to the achievement of the Aichi Biodiversity Target at the global level (optional) Na
Based on the description of your country's contributions to the achievement of the Aichi Biodiversity Targets, please describe how and to what extent these contributions support the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals: SDG 13. Take urgent action to combat climate change and its impacts (in line with the United Nations Framework Convention on Climate Change) 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 SDG 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development
Aichi Biodiversity Target 18: By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.
Please describe how and to what extent your country has contributed to the achievement of this Aichi Biodiversity Target and summarize the evidence used to support this description: There has been no national specific action.
Please describe other activities contributing to the achievement of the Aichi Biodiversity Target at the global level (optional) Report on a study conducted on cultural value in conservation by Fauna and Flora International (FFI) confirms that cultural values protect forest in Liberia, In November 2011, with a small grant from the Arcus Foundation, Fauna & Flora International undertook a mission to the newly

gazetted Lake Piso Multiple Use Reserve in Liberia to investigate cultural connections between people and nature that support the Reserve's conservation objectives. During four intensive days visiting the villages of Vai and Gola Ethnic Groups, the team, accompanied by the Reserve's Chief Warden, heard numerous descriptions of often profound connections between the people, their place and species and habitats. The stories included magical ponds full of treasures that could never be found, forest areas protected for cultural training, and trees that protect the villages and the Sambolah clan's special relationship with the Nile crocodile. When an all-woman group learned that one of our party was the Chief Warden they told him 'We need you to help us protect our crocodiles. People are killing them and they are our friends'. In August 2012 Fauna & Flora International assessed cultural connections to nature in 20 communities in the Reserve, using participatory methods. Communities reported that they protect forests, the banks of rivers and creeks, and certain animals and plants. Perhaps the most significant finding was that communities are protecting numerous forests—not to protect natural resources in a material sense but for cultural reasons. Every village surveyed protects at least one forest as a graveyard. A third of villages protect forests for rituals and ceremonies or because they are associated with historical or mythological events. Twenty per cent of villages have set aside forest to supply materials required for the continuation of cultural practices, such as collecting certain plants for cooking their highly valued traditional dishes or to make rattan seats for the elders. Every village protected one or more forest as 'bush schools. The training of young people in the ways of their society and culture must be done in secret and must be done in the forest. Extrapolated across the Reserve, these results suggest that culturally conserved forests account for c. 36% of remaining forest cover. The clear mutual interest in protecting these forests presents opportunities for collaborations between communities and the Reserve authorities. Other synergies identified between cultural needs and conservation objectives create further opportunities for collaboration. These are formally recognised in the Reserve's new management plan. In addition, the Forestry Development Authority has requested that guidance on integrating cultural values into protected area planning is included in the draft Liberian Protected Area Framework. https://www.cambridge.org/core/services/aop-cambridge-core/content/view/8C3BC67D4C190548ECD60BC1FC08DD4C/S003060531300118Xa.pdf/cultural_values_protect_forest_in_liberia.pdf

Based on the description of your country's contributions to the achievement of the Aichi Biodiversity Targets, please describe how and to what extent these contributions support the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals:

The above study supports SDGs 9 & 15.

SDG 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

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

Aichi Biodiversity Target 19: By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are

improved, widely shared and transferred, and applied.

Please describe how and to what extent your country has contributed to the achievement of this Aichi Biodiversity Target and summarize the evidence used to support this description:

There has been no national specific action.

Please describe other activities contributing to the achievement of the Aichi Biodiversity Target at the global level (optional)

The below initiatives, which are already mentioned earlier, will certainly contribute to Aichi Biodiversity Target 19:

- **The Forest Sector Project (LFSP)**
<http://www.fao.org/wairdocs/i3564e/i3564e.pdf>
<http://www.fao.org/wairdocs/i3564e/i3564e.pdf>

<http://blogs.worldbank.org/voices/liberia-norway-and-world-bank-partner-sustainable-forest-management>

<http://www.tetrattech.com/en/projects/west-africa-biodiversity-and-climate-change-project>

- **Strengthening ecological connectivity in the Tai-Grebo-Sapo forest**
<https://www.giz.de/en/worldwide/32026.html>

- **Mano River Ecosystem Conservation and International Water Resources Management (IWRM) Project**

<https://www.gwp.org/en/GWP-West-Africa/WE-ACT/News--Events/mano-river-union-ecosystem-conservation-and-international-water-resources-management-project/>

Based on the description of your country's contributions to the achievement of the Aichi Biodiversity Targets, please describe how and to what extent these contributions support the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals:

SDG 6. Ensure availability and sustainable management of water and sanitation for all: *Common to all the above mentioned interventions is their intent to conserve water resources.*

SDG 13. Take urgent action to combat climate change and its impacts (in line with the United Nations Framework Convention on Climate Change): *The ultimate aim of all the above mentioned interventions is to combat climate change in order to ensure sustainable availability of water and water resources in the project areas.*

SDG 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development: *In particular, implementation of the Ramsar Convention in Liberia is intended to conserve all wetlands and their resources in the country.*

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: *The objectives and aims of the following initiatives support SDG 15. They*

include *The Forest Sector Project (LFSP)*, *West Africa Biodiversity and Climate Change Project (WABiCC)*, *Strengthening ecological connectivity in the Tai-Grebo-Sapo forest complex between Côte d'Ivoire and Liberia* and *Mano River Ecosystem Conservation and International Water Resources Management (IWRM) Project* in that they all prioritize landscape management, natural resource (including biodiversity) conservation and combating climate change to some extent.

SDG 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development: *Those interventions also use partnership participatory approach in the implementation.*

Aichi Biodiversity 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.

Please describe other activities contributing to the achievement of the Aichi Biodiversity Target at the global level (optional)

The below initiatives, which are already described earlier, will certainly contribute to **Aichi Biodiversity Target 19:**

- **The Forest Sector Project (LFSP)**
<http://www.fao.org/wairdocs/i3564e/i3564e.pdf>
<http://www.fao.org/wairdocs/i3564e/i3564e.pdf>
<http://blogs.worldbank.org/voices/liberia-norway-and-world-bank-partner-sustainable-forest-management>
<http://www.tetrattech.com/en/projects/west-africa-biodiversity-and-climate-change-project>
- **Strengthening ecological connectivity in the Tai-Grebo-Sapo forest**
<https://www.giz.de/en/worldwide/32026.html>
- **Mano River Ecosystem Conservation and International Water Resources Management (IWRM) Project**
<https://www.gwp.org/en/GWP-West-Africa/WE-ACT/News--Events/mano-river-union-ecosystem-conservation-and-international-water-resources-management-project/>

Please describe how and to what extent your country has contributed to the achievement of this Aichi Biodiversity Target and summarize the evidence used to support this description:

Based on the description of Liberia's contributions to the achievement of the Aichi Biodiversity Targets, please describe how and to what extent these contributions support the implementation of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals:

The above contributions support the following SDGs:

SDG 6. Ensure availability and sustainable management of water and sanitation for all: *Common to all the above mentioned interventions is their intent to conserve water resources.*

SDG 13. Take urgent action to combat climate change and its impacts (in line with the United Nations Framework Convention on Climate Change): *The ultimate aim of all the above mentioned interventions is to combat climate change in order to ensure sustainable availability of water and water resources in the project areas.*

SDG 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development: *In particular, implementation of the Ramsar Convention in Liberia is intended to conserve all wetlands and their resources in the country.*

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: *The objectives and aims of the following initiatives support SDG 15. They include The Forest Sector Project (LFSP), West Africa Biodiversity and Climate Change Project (WABiCC), Strengthening ecological connectivity in the Tai-Grebo-Sapo forest complex between Côte d'Ivoire and Liberia and Mano River Ecosystem Conservation and International Water Resources Management (IWRM) Project in that they all prioritize landscape management, natural resource (including biodiversity) conservation and combating climate change to some extent.*

SDG 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development: *Those interventions also use partnership participatory approach in the implementation.*

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

Using the template below, please describe your country's contribution towards the achievement of the targets of the Global Strategy for Plant Conservation. This template should be replicated for each of the 16 targets of the Global Strategy for Plant Conservation.

GSPC Target 1:

An online flora of all known plants

- ☐ On track to achieve target at national level
- ☒ Progress towards target at national level but at an insufficient rate
- ☐ No significant change at national level
- ☐ No change at all

Some online information of flora of Liberia include:

- Fauna and Flora International (FFI) has a Plant Atlas of Liberia. This Plant Atlas is a list of documented tree, brush, bush, shrub, and liana species in the forests of Liberia. It is shown as a list by genus name and includes photos of the plants from Liberian forests, local information on the plant, including common names and daily uses, and more.
<http://www.liberianfaunaflora.org/plant-atlas-of-liberia>
- 1. The FAO also produced a document on the Timber Trees of Liberia
<http://www.fao.org/3/a-ae893e>
- 2. A Liberia high forest trees by A. G. Voorhoeve
<http://edepot.wur.nl/187074>
- 3. An information on the Category of Flora of Liberia
https://en.wikipedia.org/wiki/Category:Flora_of_Liberia

The IUCN REDLIST and CITES list also contain information on flora species on regional level (including West Africa where Liberia is located).

GSPC Target 2:

An assessment of the conservation status of all known plant species, as far as Possible, to guide conservation action

- ☐ On track to achieve target at national level
- ☐ Progress towards target at national level but at an insufficient rate
- ☐ significant change at national level
- ☒ No change at all

There is currently no information on the conservation status of known plant species in Liberia. The Plant and Animal Sub-committee of the Species Working Group Of Liberia envisages developing a criteria for determining threatened species in the country.

GSPC Target 3:

Information, research and associated outputs, and methods necessary to implement the strategy developed and shared.

- ☐ On track to achieve target at national level
- ☒

Progress towards target at national level but at an insufficient rate

☐ No significant change at national level

☐ No change at all

The FFI financed project called 'Tree Atlas for Liberia' which was developed by Dr. A.G. Voorhove (no online information available)

Fauna & Flora International (FFI) has some information on plants of Liberia

<http://www.liberianfaunaflora.org/plant-atlas-of-liberia>

GSPC Target 4:

At least 15 per cent of each ecological region or vegetation type secured through effective management and/or restoration.

☒ On track to achieve target at national level

☐ Progress towards target at national level but at an insufficient rate

☐ No significant change at national level

☐ No change at all

Liberia has a forest area of 4.5 million hectares found in two large forest blocks that contain the forested regions of the country. The Government of Liberia is committed to the mandate of the National Forestry Reform Law of 2006 to conserve 30 per cent of Liberia's forest.

The protected area network of Liberia has grown considerably since its start in 1983 with Sapo National Park. Five protected areas have been established so far and 11 others still remained proposed. There are five protected areas in the country; they include: the Sapo National Park, the East Nimba Nature Reserve, the Lake Piso Multiple Use Reserve, the Gola National Forest Park, and the Grebo-Krahn Forest Park. These are located respectively in the south east, north east, southwest, north west, and south east of the country. The protected areas of Liberia cover in total an area of 4,548 square kilometres, which represents 4.1 % of the country's area. The gazettement of additional national protected areas is a priority for conservation initiatives in Liberia, with various NGOs and GOs working towards the approval of lobbied proposed protected area Acts. Also, community forests collectively make up a fair percentage of Liberia's forests, and while unprotected by conventional law, are sometimes protected by tradition and associated practices.

<http://www.liberianfaunaflora.org/where-we-work>
<http://www.liberianfaunaflora.org/protected-areas>
<https://www.liberianobserver.com/news/conservation-international-commits-us1m-for-liberia-protected-areas/>
<https://frontpageafricaonline.com/news/conservation-international-launches-liberias-first-sustainable-conservation-fund/>
<http://extwprlegs1.fao.org/docs/pdf/lbr61868.pdf>

The use of wildlife corridors in the country has been proposed as a means of expanding the Protected Area Network of the country. To this effect, two new forested regions were recently protected in Liberia, the Gola National Forest and the Grebo-Krahn National Forest. These are close to other protected areas, some of which are in neighbouring countries, thus promoting regionally coordinated conservation.

GSPC Target 5:

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

- ☐ On track to achieve target at national level
☒ Progress towards target at national level but at an insufficient rate
☐ No significant change at national level
☐ No change

GSPC Target 6:

At least 75 per cent of production lands in each sector managed sustainably, consistent with the conservation of plant diversity.

- ☐ On track to achieve target at national level
☐ Progress towards target at national level but at an insufficient rate
☒ No significant change at national level
☐ No change at all

GSPC Target 7:

At least 75 per cent of known threatened plant species conserved *in situ*

- ☐ On track to achieve target at national level
- ☐ Progress towards target at national level but at an insufficient rate
- ☒ No significant change at national level
- ☐ No change at all

GSPC Target 8:

At least 75 per cent of threatened plant species in *ex situ* collections, preferably in the country of origin, and at least 20 per cent available for recovery and restoration programmes.

- ☐ On track to achieve target at national level
- ☐ Progress towards target at national level but at an insufficient rate
- ☐ No significant change at national level
- ☒ No change at all

GSPC Target 9:

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

- ☐ On track to achieve target at national level
- ☐ Progress towards target at national level but at an insufficient rate
- ☐ No significant change at national level
- ☒ No change at all

GSPC Target 10:

Effective management plans in place to prevent new biological invasions and to manage important areas for plant diversity that are invaded.

- ☐ On track to achieve target at national level
- ☐ Progress towards target at national level but at an insufficient rate
- ☐

No significant change at national level

☒ No change at all

GSPC Target 11:

No species of wild flora endangered by international trade.

- ☐ On track to achieve target at national level
- ☐ Progress towards target at national level but at an insufficient rate
- ☒ No significant change at national level
- ☐ No change at all

Garcinia afzellei (Chewing stick) is being smuggled from southeastern Liberia through Cote d'Ivoire to Ghana Liberia.

<https://www.wabicc.org/cote-divoire-liberia-form-new-law-enforcement-committee-to-protect-the-transboundary-tai-grebo-krahn-sapo-forest/>

Also *Baphia nitida* (Camwood, known also as African sandalwood) is reportedly exported out of Liberia (no online information available).

GSPC Target 12:

All wild harvested plant-based products sourced sustainably.

- ☐ On track to achieve target at national level
- ☐ Progress towards target at national level but at an insufficient rate
- ☐ No significant change at national level
- ☒ No change at all

GSPC Target 13:

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

- ☐ On track to achieve target at national level
- ☒ Progress towards target at national level but at an insufficient rate
- ☐ No significant change at national level
- ☐ No change at all

GSPC Target 14:

The importance of plant diversity and the need for its conservation incorporated into communication, education and public awareness programmes

- ☐ On track to achieve target at national level
- ☒ Progress towards target at national level but at an insufficient rate
- ☐ No significant change at national level
- ☐ No change at all

GSPC Target 15:

The number of trained people working with appropriate facilities sufficient according to national needs to achieve the targets of this Strategy

- ☐ On track to achieve target at national level
- ☒ Progress towards target at national level but at an insufficient rate
- ☐ No significant change at national level
- ☐ No change at all

Currently two trained professional botanists and one technical botanist in service with the Forestry Development Authority.

GSPC Target 16:

Institutions, networks and partnerships for plant conservation established or strengthened at national, regional and international levels to achieve the targets of this Strategy

- ☐ On track to achieve target at national level
- ☒ Progress towards target at national level but at an insufficient rate
- ☐ No significant change at national level
- ☐ No change at all

The Species Working Group of Liberia (SWGL) established in 2016. Species working groups are also being established in the West African Subregion.

SECTION VI. Additional information on the contribution of indigenous peoples and local communities (completion of this section is optional)

Using the template below, please provide any additional information on the contribution of indigenous peoples and local communities to the achievement of the Aichi Biodiversity Targets if not captured in the sections above

Additional information on the contribution of indigenous peoples and local communities to the achievement of the Aichi Biodiversity Targets if not captured in the sections above

Please provide any additional information on the contribution of indigenous peoples and local communities to the achievement of the Aichi Biodiversity Targets if not captured in the sections above.

Additional Information on the Contribution of Local People and Communities

In 2003, the Forestry Development Authority (FDA) signed the Act for the Establishment of a Protected Forest Areas Network (AEPFAN), which committed the Liberian government to set aside “a biologically representative network of protected areas covering about 30% of the existing forests (densest forests of over 80% canopy cover) (CI 2017). In 2014, 11 years after signing the AEPFAN, the Liberian government signed an agreement with the Norwegian government, the LOI (Letter of Intent) (2014), a partnership whose purpose and focus are to:

- Support development and implementation of Liberia’s REDD+ strategy to ensure significant net reductions in greenhouse gas emissions from deforestation and forest degradation.
- Contribute to sustainable development in Liberia through protecting natural forests, restoring degraded lands, and developing Liberia’s agricultural sector through enhancing sustainable agricultural management, and greening supply chains.
- Work together to support progress on global efforts, regarding climate change and

sustainable development in general, and REDD+ in particular.

In a determined attempt to make the government's commitment real, 2 additional parks had been created and 12 more had been recently proposed. But given Liberia's current annual rate of deforestation of 0.31% (CI 2017), there is no doubt that these state-created, state-proposed protected areas will eventually fall far short of the 30% forest conservation commitment because of the damaging drivers and underlying causes of deforestation and forest degradation, including the establishment of industrial oil palm plantations in areas once forested, expansion of rubber plantations, destructive and uncontrolled logging and mining, wasteful and unregulated charcoal production and swidden farming.

But with this seemingly hopeless state of affairs of Liberia's forests, there is a glimpse of hope in the leadership of traditional societies in Liberia's indigenous peoples and local communities – Poro and Sande – that the country is capable of meeting the 30% conservation commitment and could in fact achieve even more. The Poro is an all-male institution that imparts traditional knowledge about culture, traditions and customs of the society. It is both a political and religious institution, as well as a no-appeal court system. Poro initiates are taught the sacredness of the environment and the need for conservation. Sande, an all-female institution, gives instructions to young women in the customs and traditions of the local community and the role of women in society and their duties, responsibilities and rights.

The Sande's support to the country's conservation endeavors, as is the case with the Poro, begins with initiation during which knowledge on fauna and flora are imparted to initiates (see Brandolini & Tigani 2006, SOER 2006). At least a report speaks of both institutions- Poro and Sande- as non-political and non-religious (IRBC 2017), and there are other publications that characterized them as a bastion of hope for cultural stability, communal harmony and inculcators of values and skills (Rudenburg et al 2012, Brandolini & Robinson 2006).

In addition to state-created, state-proposed protected forests and other landscapes such as wildlife corridors, thousands and possibly tens of thousands of scattered patches of primary (and secondary) forests of varying ages, sizes and integrity, have been set aside and are being protected by the Poro and Sande societies at least a century before the government's realization of the importance of forest conservation that began in 1938 (See Ramsey & Robinson 2015). Poro and Sande societies have made significant contributions to the cause of conservation and are often mentioned and briefly discussed in reports and publications (IRBC 2017, Brandolini & Robinson 2006, and SOER 2006), hence this is not the first mention of them. However, their outstanding forest conservation efforts have yet to be recognized fully by government, assessed and further documented meticulously. Now such recognition has just begun in earnest under the aegis of the Participatory Land Use Planning (PLUP) project of Foya District, Lofa County, funded by IDH, a Dutch Firm headquartered in Hertogenbosch, the Netherlands (IDH 2018).

For 2 weeks in November, followed by another 3 in December 2018, a data and information

collection campaign was launched on land ownership and land use issues with over 140 stakeholders in Foya District as key participants on the district and clan levels. Through participatory mapping exercises, among a number of other PRA methods and techniques, more than 50 scattered patches of sacred forests were documented. Participatory land use planning has recently been identified as pivotal to effective development planning in the country. The Liberian government, through the Liberia Land Authority, has expressed its full support for a nation-wide land use planning, now beginning with Foya District as the first pilot undertaking.

Poro and Sande societies' contribution to forest conservation is a clear manifestation of the value of traditional knowledge which, as defined (CBD 1997), refers to the knowledge, innovation and practices of indigenous peoples and local communities around the world. The CBD, to which Liberia is a signatory, requires member parties to respect, preserve and maintain the biodiversity-related knowledge systems, innovations and practices of indigenous peoples and local communities. It also establishes that the wider application of this knowledge should be promoted with the approval and involvement of the holders of such knowledge. The CBD also encourages the equitable sharing of benefits derived from the use of traditional knowledge, innovations and practices related to the conservation or sustainable use of biodiversity (CBD 1997) as demonstrated, unequivocally, by the Poro and Sande traditional societies.

Generally, sacred areas are associated with cultural rituals such as rainmaking, sacrifices to totems, earth spirits and burial grounds. They may cover a single or grove of trees, special hills, water points, and other unusual landscapes (Niamir 1990). In Foya District, members of the community are prohibited from performing certain activities in sacred areas, including hunting, gathering of any products, cutting down trees, cultivating crops and grazing. The PLUP focuses on sacred forests because they are among the major land uses of the District's grassland-dominated landscape of rolling hills and rugged terrain. The extent of the 50 or more sacred forests documented in Foya District is actually small in relation to the total landscape, but there is a strong possibility that their cumulative area can be quite significant. It is highly likely that these sacred forests can serve as in-situ gene banks for some of the local animal and plant species of Foya District as well as protected areas (e.g. National parks, Nature reserves).

A series of brief brainstorming sessions was held with some farmers in Foya who have established sacred groves on their land, to learn about the types of trees that populate their forests and why such species are preferred. Preliminary results suggest that many tree species are preferred because of some spiritual value. What is most interesting about these findings is that trees are preferred not because of their monetary value but for their non-monetary value such as mentioned. This brings to this discussion the concept of "key stone species" first coined by Paine (1969, 1995) and supported by a growing body of published experiences (e.g. Cristancho & Vining 2004) in which some animal and plant species have been attributed tremendous spiritual or symbolic value by different cultures. In a phrase, such species are termed "culturally defined keystone species" (CKS) because their existence and symbolic or spiritual value are essential to

the stability of a culture over time.

Sacred forests are among the landscapes around the world which do not have formal protection status but do perform similar functions (See Rodenburg et al 2012). Clearly, local communities for time immemorial have made outstanding strides in support of the Contributions to the Implementation of the Strategic Plan for Biodiversity 2011-2020 and the time is about now to recognize their invaluable services. A plan is underway to carry out a study on sacred forests in Liberia as a whole, and this is expected to focus on their history, location, size, governance structures, the types of tree species protected in each and why, among others. Unquestionably, research to identify CKS in “culturally established” forests would improve conservation efforts in Liberia.

SECTION VII: Updated Biodiversity Country Profile

Biodiversity facts Status and trends of biodiversity, including benefits from biodiversity and ecosystem services

Liberia is exceptionally diverse with high rates of endemism and one of the 14 centers of plant endemism globally. The country lies in the heart of the Upper Guinea Rainforest (UGF) in Western Africa. Its ecosystems are typically the ecosystems of this forest region and are associated with the topography and various types of landscapes of the country. At the close of the millennium, Liberia harbored the largest remaining proportion of the UGF, with 42%, followed by the Ivory Coast (28%), Ghana (16%), Sierra Leone (5%) and Togo (1%). It has been documented that in 1959, 90% of Liberia’s terrestrial landscape was covered with rigorous, robust and thriving tropical lowland forest ecosystem. In 1963, the first consignment of export logs was shipped out of Liberia. By 2009, in about 50 years later, Liberia forest cover shrunk to 31.6%.

Liberia possesses over 2,900 different vascular plants (including 225 tree species), 600 bird species, 150 mammal species, and 75 reptile species. The country has one of the largest protected area networks in the region covering about 1.4 million hectares of forestland which is estimated to be 30% of the land area of the country.

Currently, the total forested landscape covered by protected areas is about 449,861 hectares, which is about 10.5% of the total forested area of the country. For proposed protected areas, the estimate is 746,417 hectares or about 17.2% of the total forested area of the country. If the proposed protected areas are declared as protected area, a total of 1,130,497 hectares or 26.1% of the forested area of Liberia would be under protection. Up to date, there are five (5) protected areas in Liberia including the Sapo National Park, Lake Piso Multiple Use Reserve, the East Nimba Strict Nature Reserve, the Gola Forest National Park and the Grebo-Krahn National Park.

Aquatic Ecosystems

The aquatic ecosystem in Liberia are mainly coastal/marine and the freshwaters ecosystems.

Because of the great importance of coastal and marine ecosystem to the fishing industry, which contributes greatly to Liberia's national economy, it has been classified as a major ecosystem for the country. Some other examples of aquatic ecosystems are the Inland wet lands (rivers, creeks, lakes, ponds etc.).

Coastal and Marine Ecosystems (CMEs): Liberia has a coastline of about 560 km (350 miles) and about 58% of the country 's population live along the coast. With an area of continental shelf of about 14, 894 square kilometers and territorial seas of up to about 159,200 square kilometers, this coastline annually produces about 7616 metric tons of fish and about 126 metric tons of molluscs and crustaceans.

Aquaculture and fisheries: Marine and inland fisheries and aquaculture are the two main components of the Liberian fishery system. Marine fishery accounts for most of the fish catch of the country. The continental shelf provides habitat for various species of fish and crustaceans such as tuna, mackerel, shrimp and lobsters. The continental shelf covers 70,000 sq. miles, but it is of irregular shape. Artisanal fisheries cover about 20,000 km² of fishing grounds. The pelagic and some demersal fish species that are being exploited are *Sardinella maderenensis* and *Sardinella aurita*, Chub or Spanish mackerel (*Scomberja ponicus*), Bonga (*Ethmalosa fimbriata*) and Anchovy (*Engraulis encrasicolus*). Species of the Carangidae and Thunidae Families are also recorded. Other important demersal fish group exploited by marine artisanal fishers belongs to the Sparidae, Pomadasidae, Scienidae and Serranidae Families. Large quantities of crustaceans, particularly shrimps and lobsters, are also exploited.

Fish farming in Liberia is largely subsistence and about 3,561 fish farmers nationwide are engaged in some form of fish culture on a part-time basis. Four hundred and forty nine (449) fish ponds of various sizes with a total area of 17.47 hectares are operating in 159 communities around the country. Most of these ponds have been dormant since 1990 and are now being rehabilitated. A total of 704 women are participating in aquaculture.

Freshwater bodies, wetlands and lakes: Liberia possesses abundant surface water and six principal rivers (including Cavalla, Cestos, Lofa, Mano, Saint John and St Paul). Together, these river basins drain approximately 65.5% of the country. The Mano and Cavalla rivers are shared basins between Sierra Leone and Cote d'Ivoire respectively, while the Lofa, Saint John and Saint Paul drain part of Guinea. These ecosystems differ from the coastal/ marine ecosystems in that they do not contain salt, that's why they are sometimes referred to as freshwater.

In Liberia, these ecosystems are habitats for various species of reptiles, amphibians, fish, mollusks, worms, protozoa and other fauna species that cannot adapt to salinity environments. Three basic kinds of freshwater ecosystems exist in the country. They are (i) Slow-flowing or still water (such as pools, ponds and lakes); (ii) Fast-flowing water (such as streams and rivers); and (III) Stagnant and inundated/saturated inland wetlands (such as marshland, swamp, and ground water) in which the soil is flooded temporarily or drenched either temporarily or permanently throughout the year.

Most rural communities benefit directly or indirectly from freshwater ecosystems for various services including provision of drinking water, water for irrigation, water for other home uses

and water for food production/processing. Freshwater ecosystems also provide services such as hydroelectric power generation, water purification and waste removal, nutrient cycling, transportation, recreation, flood control and climate regulation. Inland wetland landscapes are very important for food production, especially in communities where fertile terrestrial soils have become infertile due to overuse and mismanagement. Inland swamps are particularly used for rice cultivation, referred to as paddy farming.

As of 2002, a total of eight (8) wetlands had been identified for conservation actions. They are Lake Piso, Marshall, Mesurado, Lake Shepherd, Bafu Bay, Cestos-Senkwehn, Gbedin, and Kpatawee. Some of these lakes have waterfalls, Kpatawee, for example.

The four (4) wetland types that have so far been identified are inland riverine, inland swamp, and coastal and coastal lacustrine.

Mangrove Ecosystems: Mangroves cover discontinued blocks along the coast – from Cape Mesurado to Cape Palmas at the edges of lagoons, river banks and river estuaries and in widespread areas of swamps. *There are several types of mangroves found in the country including: Avicenia germinans, Rhizophora racemosa, Rhizophora harrisonii, Rhizophora mangle and Conocarpus erectus.* Mangroves in Liberia were known only for fuelwood production and poles for hut construction. Hundreds of floral and faunal species dominate most of the coastal areas, including seaweeds. The coastal ecosystems also provide many economic benefits to society by supporting industries ranging from fisheries to recreation and ecotourism.

Terrestrial Ecosystems

The evergreen forest ecosystems receive a very high rainfall and are characterized by dense vegetation which comprises tall trees at different heights and are mostly found in the southeast of Liberia. The moist semi-deciduous forest ecosystems also receive high rainfall but not as high as the evergreen forest ecosystem, and are found in the northwest of the country. The evergreen and moist semi-deciduous forest ecosystems constitute the two main forest blocks in the country.

Expansion of oil palm concession areas in the rolling hills relief zone of the country is depleting vast forested areas in the country.

Currently, no intervention has been recorded towards regeneration of the forest (since the late 80s). The accurate expanse of what remains of Liberia's forests is not exactly known. It must be said here that of the diverse terrestrial ecosystems in Liberia, the forest domain is the largest in terms of spread, species and ecosystem diversity. Liberia's forests are among the world's most exceptionally diverse forest ecosystems now harboring many of those species that fled the scourge of deforestation and are at the verge of extinction in other countries in the Upper Guinean Forest ecoregion.

The Mountain Ecosystems: Mountains ecosystems are actually associated with the terrestrial ecosystems because they are found on highlands. They provide an array of habitats where a large number of animals and plants can be found. Like other ecosystems such as those described above, the mountain ecosystems host plant and animal species that can adapt to the influence of elevation and climate of the area. Mountain ecosystems are home to a wide variety of animal and plants species. The ecological richness and beautiful sceneries of Liberia's mountainous

landscapes make for attractive tourist destinations. The 10 mountains and mountain ranges of Liberia are Bong Range, Gibi Mountain, Kpo Range, Bomi Mountain, have been exploited for iron ore.

Drylands and Savannah Ecosystems: Dryland ecosystems in Liberia mainly consist of savanna ecosystems. The Liberian savanna ecosystems are highly specialized places for certain plants and animals and are perfect habitat for birds of prey. Generally, many bird species in the country love the savanna ecosystems and most savanna sites are designated Important Bird Areas (IBA). A lot of grazing and browsing animals (e.g. duiker/antelopes), insectivores (e.g. iguana) and various species of birds inhabit the grasslands. They support a large number of predators and grazers. Many grass species are typical of the dry and humid ecosystems of Liberia.

Two main types of savanna ecosystems are found in the country; they are (i) Open savanna and (ii) Savanna woodland.

Other Ecosystems

(a) Island ecosystems with aquatic and terrestrial characteristics: Liberia's island ecosystems are relatively small in size. They however do have key characteristics that distinguish them from other ecosystems because of their dual nature: terrestrial-aquatic characteristics. They are actually terrestrial in nature but surrounded by aquatic environment. Those that are well-known because of their historical significance are Providence and Bushrod Islands in Montserrado and Wetlands and Massa Island (Massatin) in Lake Piso. There are other islands in the country that have not been identified.

(b) Agricultural ecosystems with aquatic and terrestrial characteristics: These agricultural ecosystems could have entirely been considered as a part of terrestrial ecosystems but this is not possible because of their dual ecosystem characteristics. In these particular types of agricultural ecosystems, both terrestrial upland crop and cattle production on one hand and aquaculture fishery production on the other, are possible.

(c) Pastoral ecosystems: There are fifteen or more pastoral ecosystems in Liberia. They are used to raise large ruminants (cattle) and small ruminants (goats and sheep). Permanent pastures account for two (2) million hectares in terms of land use for 1998 (FAO, 2001). The government of Liberia has established four (4) major pasturelands intended to enhance and maximize livestock production.

Main pressures on and drivers of change to biodiversity (direct and indirect)

The main threats to biodiversity comprise illegal and quasi-illegal logging, shifting cultivation, mining, expansion of agro-industrial crop production and alien invasive species. Coastal ecosystems are threatened by the overexploitation of demersal fish species and other species (e.g. sea turtles), beach sand mining, beach erosion and mangrove loss. Less is known about the threats to and values of freshwater ecosystems however overfishing is regarded as a potential threat to inland fisheries. Water hyacinth occurs in several waterways however no data exists on its extent and/or its impact on the ecosystem.

Other pressures are linked to: lack of alternative financing; lack of capacity; weak enforcement

of existing laws, with policies and legislation being far removed from the realities they are trying to influence; a low level of community awareness of policies and legislation; and the absence of a law enforcement division. Also, there is a lack of an holistic approach to environment/natural resource management, as well as barriers to alternative livelihoods and insecure land and resource tenure. Furthermore, a strategy is required to address the compromises between environment and economic development and land use planning. If the latter is neglected, massive direct foreign investment in various sectors of natural resources, including forestry, monoculture in agriculture, mining and river sand dredging, oil exploration, oil palm, among others, will continue to take precedence over the environment, thereby contributing to biodiversity loss.

Measures to Enhance Implementation of the Convention

Implementation of the NBSAP

Liberia's NBSAP, completed in March 2017, contained five strategic goals: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society; reduce the direct pressures on biodiversity and promote sustainable use; improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity; enhance the benefits to all from biodiversity and ecosystem services; and enhance implementation through participatory planning, knowledge management and capacity building.

The Revised NBSAP will require key strategic capacities to ensure its effective and efficient implementation. The Implementation plan defines the resource needs (systemic, institutional, human, and technological) and the required strategies that should be in place to expedite effective execution of deliverables as outlined in the Revised NBSAP. The following are four components of the Implementation Plan:

1. Capacity development plan and technical capacity needs assessment detailing (systemic, institutional, human capacity);
2. Communication strategy which delivers processed education, information and awareness messages, on biodiversity conservation, sustainable use of its components, access to genetic materials and equitable sharing of benefits arising thereafter;
3. Resource mobilization strategy and financial mechanism; the strategy will analyze the financial resources required to implement the Revised NBSAP and how it can be mobilized. The financial mechanism on the other hand, is an innovative financial action plan/mechanism for generation of finances for the implementation of the programs of the Revised NBSAP; and
4. Appropriate technology transfer plan.

Mobilization Plan to support the implementation of actions.

The implementation period of revised NBSAP to up 2025. There realistic and achievable national targets and indicators, with consideration being given to the Strategic Plan for Biodiversity 2011-2020 and its Aichi Targets. The mission of the new NBSAP is to promote biodiversity mainstreaming in sectoral, cross-sectoral planning, and national accounting systems, through development policies, plans and programs.

Actions taken to achieve the 2020 Aichi Biodiversity Targets

The goal of the Gbedin Swamp Rice project, begun in the mid-1960s, was to provide local farmers with new alternatives for growing rice to increase yield, as well as to discourage shifting cultivation. The site is still being used today for rice cultivation by the local communities.

The Government of Liberia has established a food security monitoring system to observe food security and nutrition indicators and provide early warning of potential emergency. The Ministry of Agriculture has also developed a food security and monitoring strategy and programme. It has also established a national food security task force to implement the food security programme and monitor food security and nutrition. The implementation of the strategy and programme nationwide remains to be done.

The Environmental Protection Agency has recently established a Gender Desk in the Division of Multilateral Environmental Agreements which works towards mainstreaming gender considerations into sectoral and cross-sectoral planning. Also, a Final Draft Strategy for Mainstreaming Gender Issues into Agriculture in Liberia was prepared in April 2012.

In 2011, the Ministry of Agriculture reviewed and implemented incentive measures for private sector investment consistent with the investment code and tax and revenue laws. Further, in 2013, the Ministry of Agriculture developed a private sector implementation strategy and programme in the agriculture sector. Implementation is the next challenge anticipated to commence in the near future.

As a result of the Forest Reformed Law (2006), community forestry (forests set aside for the exclusive socioeconomic benefit of the local communities) is being taken more seriously today. To date, the Forestry Development Authority (FDA) has demarcated 7 community forests and developed policy, regulations and guidelines for their management. The FDA Strategic Plan includes the establishment of 10 additional community forests by 2018.

The national regulatory agency for farmer cooperatives (Cooperative Development Agency) has been revitalized to carry out its mandate. The Ministry of Agriculture has trained and deployed agriculture extension agents in 15 counties to advise farmers on modern methods of farming. The Central Agriculture Research Institute (CARI) has commenced distribution of improved seeds and other planting materials to increase food production and ensure food security.

Support mechanisms for national implementation (legislation, funding, capacity-building, coordination, mainstreaming, etc.)

In 2018, the government of Liberia carved the *Pro-Poor Agenda for Prosperity and Development 2018 to 2023 (PAPD)*. This development plan is the second in the series of 5-year National Development Plans (NDP) anticipated under the Liberia Vision 2030 framework. It follows the Agenda for Transformation 2012-2017 (AfT) and is informed by lessons learned from the implementation of the Interim Poverty Reduction Strategy 2007 (iPRS) and the Poverty Reduction Strategy (2008-2011). This National Agenda focuses on strengthen the capacities of the people to thrive and further draws all Liberians into the national development process. The PAPD which is a five-year national development plan, intends to address the basic needs of Liberians for income security, better access to basic services, and greater opportunities for self-improvement in an enabling environment that is inclusive and stable with the long-term aim of raising per capita income levels and economic status of Liberia to a middle-income country as outlined under the Vision 2030 framework.

The goals of the PADP are: 1. To build a stable, resilient, and inclusive nation embracing

Liberia's triple heritage and anchored on the people's identity as Africans and 2. To lift an additional one million Liberians out of absolute poverty over the next six years through sustained and inclusive growth driven by scaled-up investments in agriculture, in infrastructure, and in human capital development. These goals are expected to be achieved through four key pillars which form the pathways for the next five years: Power to the People— To reduce developmental inequalities so the people can prosper; Economy and Jobs— Economic stability and job creation through effective resource mobilization and prudent management of economic inclusion; Sustaining the Peace—Promoting a cohesive society for sustainable development and; Governance and Transparency—An inclusive and accountable public sector for shared prosperity and sustainable development.

Each pillar has a goal and a set of development outcomes to be produced over the next five years in support of the two high level national goals.

Regarding climate change and carbon financing, the Government of Liberia through the Forestry Development Authority received US\$2,000,000 in funding in 2010 from the Forest Carbon Partnership Facility (FCPF) to assist in the development of Liberia's Readiness Preparation Proposal, the establishment of an international mechanism to compensate countries for reducing greenhouse gas emissions from deforestation and forest degradation (REDD+). Liberia received a further US\$3.6m grant from the FCPF to implement the Readiness Preparation Activities. The grant agreement was signed on 29 June 2012 and will conclude on 30 May 2015.

The Forest Reformed Law (2006) requires a national forest management strategy as a pre-requisite for forestland use in the country. The Forestry Development Authority (FDA) conducted a forest management suitability study from 2005 to 2006 to identify the most suitable area for the three categories of forestry which the new law mandates forest practices in the country should be based on (commercial, conservation and community forestry). The study identified a total of 5,705,559 hectares which is equal to 59% of the total land mass of the country.

The Ministry of Lands, Mines and Energy is completing the revision of its legislation, policy, regulations and guidelines to improve management and enforcement of environmental and social impact assessment concerns in the mining sector.

Liberia intends to ratify the Nagoya Protocol by 2014 and has developed a draft ABS Law.

Mechanisms for monitoring and reviewing implementation

The National Report is used as a monitoring and evaluation component of the national blueprint for the implementation of the Convention on Biological Diversity at national level.