CRITICAL ECOSYSTEM PARTNERSHIP FUND

Ecosystem Profile

Guinean Forests of West Africa Biodiversity Hotspot 2025 Update

Final Version Submitted to CEPF Donor Council
April 2025

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Acronyms

AfCFTA	African Continental Free Trade Area Agreement
AFD	Agence Française de Développement
AfDB	African Development Bank
AFOLU	Agriculture, Forestry, and Other Land Uses
AJESH	Ajemalebu Self-help (civil society organization, Cameroon)
ASGM	Artisanal Small-scale Gold Mining
AZE	Alliance for Zero Extinction
BaU	Business as usual (in the context of climate models)
BCE	Before the common era (equivalent to 'BC, before Christ')
BIOPAMA	Biodiversity and Protected Areas Management Program (EU)
CBD	Convention on Biological Diversity
CBO	Community-based Organization
CD	Capacity development
CE	common era (equivalent to 'AD, Anno Domini')
CEPF	Critical Ecosystem Partnership Fund
CI	Conservation International
CIFOR-ICRAF	International Centre for Forestry Research – World Agroforestry
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COMIFAC	Central African Forest Commission
CR	Critically endangered (status in the IUCN Red List)
CREMA	Community Resource Management Area (Ghana)
CSO	Civil society organization
CSR	Corporate social responsibility
CSTT	CEPF civil society tracking tool
DAC	Development Assistance Committee
DEFRA	United Kingdom Department for Environment, Food & Rural Affairs
DRC	Democratic Republic of Congo
EBA	Endemic Bird Area
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
EIA	Environmental Impact Assessment
EN	Endangered (status in the IUCN Red List)
EU	European Union
EUDR	European Union regulation on deforestation-free products
FFEM	Fonds Français pour l'Environnement Mondial
PPI	Programme petites initiatives of FFEM
FLEGT	Forest law enforcement, governance and trade (EU initiative)
FOLUR	Food Systems, Land Use, and Restoration
FPRCI	Foundation for Parks and Reserves of Côte d'Ivoire
FSC	Forest Stewardship Council
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environment Facility
GEF SGP	GEF Small grants program

GFIP	Guinea Forests Integrated Programme (GEF)
GFWA	Guinean Forests of West Africa Biodiversity Hotspot
GHG	Greenhouse Gas
GIZ	Gesellschaft für Internationale Zusammenarbeit, German Development Agency
GNI	Gross national income
GWS	Ghana Wildlife Society
HBD	Here Be Dragons, ecotourism initiative, Principe
HDI	Human Development Index
IBA	Important Bird and Biodiversity Area
IBAT	Integrated Biodiversity Assessment Tool
IBRD	International Bank for Reconstruction & Development (World Bank group)
IDA	International Development Association (World Bank group)
IFAD	International Fund for Agricultural Development
IMET	Integrated Management Effectiveness Tool for PAs
IPCC	Intergovernmental Panel on Climate Change
IsDB	Islamic Development Bank
IUCN	International Union for Conservation of Nature
KBA	Key Biodiversity Area
KfW	German Development Bank
KLCDs	Key landscapes for conservation and development (EU)
LULUCF	Land use, land use change, and forestry
MRU	Mano River Union
NBSAP	National Biodiversity Strategy and Action Plan
NCF	Nigerian Conservation Foundation
NCG	National Coordination Group (for KBAs)
NDC	Nationally Determined Contribution
NEPAD	New Partnership for Africa's Development
NGO	Non-governmental Organization
NICFI	Norwegian International Climate and Forest Initiative
NTFP	Non-timber forest product
OD	Organizational development
ODA	Official Development Assistance
OECMs	Other Effective area-based Conservation Measures
OIPR	Ivorian Office of Parks and Reserves, Côte d'Ivoire
PA	Protected Area
PES	Payment for ecosystem services
PIKE	Proportion of Illegally Killed Elephants
REDD+	Reducing Emissions from Deforestation and Forest Degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries
RIT	Regional Implementation Team (of CEPF)
SA	Secondary Area (see EBA)
SIDA	Swedish International Development Cooperation Agency
SNCL	Society for the Conservation of Nature in Liberia
SSC	Species Survival Commission (of IUCN)

STAR	System for Transparent Allocation of Resources (in the context of GEF funding) or Species Threat Abatement and Restoration (site prioritization tool)
TBA	Tropical Biology Association
TBD	To be determined
UAE	United Arab Emirates
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNEP-WCMC	UNEP – World Conservation Monitoring Centre
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNFPA	United Nations Population Fund
UNHCR	Office of the United Nations High Commissioner for Refugees
UNIDO	United Nations Industrial Development Organization
USA	United States of America
USAID	United States Agency for International Development
VPA	Voluntary Partnership Agreements (signed under the FLEGT initiative)
VU	Vulnerable (globally threatened status in the IUCN Red List)
WACSI	West Africa Civil Society Institute
WANTI	West Africa Nature Transformation Initiative
WCF	Wild Chimpanzee Foundation
WCPA	World Commission on Protected Areas
WDKBA	World Database of Key Biodiversity Areas
WDPA	World Database of Protected areas and OECMs
WWF	World Wide Fund for Nature

EXECUTIVE SUMMARY

The Critical Ecosystem Partnership Fund (CEPF) is designed to safeguard the world's biologically richest and most threatened regions, known as biodiversity hotspots. Thirty-six biodiversity hotspots have been identified globally, defined as regions that have at least 1,500 endemic plant species and have lost more than 70% of their original natural vegetation. Remaining natural ecosystems within these hotspots cover only 2.3% of the Earth's surface but contain a disproportionately high number of endemic species, many of which are threatened with extinction. Hotspots, therefore, are global priorities for conservation.

CEPF is a joint initiative of l'Agence Française de Développement, Conservation International, the European Union (EU), Fondation Hans Wilsdorf, the Global Environment Facility (GEF), the Government of Canada, the Government of Japan and the World Bank. A fundamental purpose of CEPF is to engage civil society, such as community groups, non-governmental organizations (NGOs), academic institutions and private enterprises, in biodiversity conservation in the hotspots. To guarantee their success, these efforts must complement existing strategies and programs of national governments and other conservation funders. To this end, CEPF promotes working alliances among diverse groups, combining unique capacities and reducing duplication of effort for a comprehensive, coordinated approach to conservation. One way in which CEPF does this is through preparation of *ecosystem profiles*: shared strategies, developed in consultation with local stakeholders, that articulate a multi-year investment strategy for CEPF, informed by a detailed situational analysis.

The Guinean Forests of West Africa (GFWA) Biodiversity Hotspot extends across the southern part of West Africa and into Central Africa north of the Congo Wilderness Area. The hotspot covers 617,719 km^2, and can be divided into two subregions, the upper and lower Guinea forests. The upper Guinea forest stretches from Guinea in the west, through Sierra Leone, Liberia, Côte d'Ivoire, Ghana, Togo and, marginally, into Benin. The lower Guinea forest covers much of southern Nigeria, extends into southwestern Cameroon, and also includes São Tomé and Príncipe and the islands of Annobon and Bioko in Equatorial Guinea. These two subregions are separated by the Dahomey Gap, in Benin and Togo, which is a climatically induced dry region originating from the late Holocene Epoch. The Guinean Forests are one of eight biodiversity hotspots in Africa.

The ecosystem profile consultation and writing took place from from March 2024 to March 2025. The process built on an updated an earlier ecosystem profile for the hotspot, prepared in 2015. The process was launched through a press announcement which was circulated to CSOs active in the region and was included in communications materials distributed at the IUCN Africa Conservation Forum in June 2024. The process was supported by input from an advisory committee, chaired by the BirdLife International Africa Division, with representatives of Fondation Hans Wilsdorf, the Programme de Petites Initiatives of the Fonds Français pour l'Environnement Mondial (FFEM PPI), the GEF, IUCN and the West African Civil Society Institute (WACSI), plus an independent expert. The committee met three times, virtually. The second and third meetings of the advisory committee focused, successively, on organizational development and priority setting.

In-person stakeholder consultation workshops took place in Liberia, Ghana, Côte d'Ivoire and Nigeria, each hosted by a leading national CSO. Each of the workshops identified data gaps, which were filled through follow-up by the organizers with individual informants. In addition, data on Key Biodiversity Areas (KBAs), threats, conservation efforts and stakeholders were collected through email and online consultations.

Taxonomic and geographic priorities for CEPF investment are defined in terms of conservation outcomes: 'extinctions avoided' (species outcomes), 'areas protected' (site

outcomes) and 'corridors consolidated' (corridor outcomes). For this analysis, the conservation outcomes defined in the 2015 ecosystem profile were updated with reference to the latest version of the IUCN Red List, the latest version of the World Database on KBAs, species and site data gathered during and since the previous CEPF program in the hotspot, especially on freshwater sites, and new approaches to analyzing species and site data.

Species outcomes were based on the IUCN Red List of Threatened Species. The IUCN Red List contains assessments for 6,273 species that occur in the hotspot, of which 1,084 (17%) are globally threatened (i.e., classified as Critically Endangered (CE), Endangered (EN) or Vulnerable (VU)). This number is likely to increase in the future as more species are assessed, particularly in groups such as plants, invertebrates and fungi. The globally threatened species include 216 species assessed as Critically Endangered, the highest category of threat.

Site outcomes were based on the World Database of KBAs. As of November 2024, there are 135 confirmed KBAs in the hotspot. Thirty-six are meet global KBA criteria, a further seven are classified as 'regional' and 92 are classified as 'global/regional to be determined'. This represents a net increase of 10 KBAs over the list of site outcomes in the 2015 ecosystem profile. The countries with the greatest number of site outcomes are Ghana, with 33, Cameroon, with 22, and Liberia, with 20.

Conservation corridors are landscape (or seascape) scale conservation units, delineated to link KBAs, secure ecological connectivity (such as within river catchments), and maintain ecosystem function and services for long-term species survival. Corridor outcomes were based on the list of conservation corridors in the 2015 ecosystem profile, expanded through the definition of a new corridor to cover the Gulf of Guinea islands. This brought the total number of corridor outcomes to 10, covering a total area of 102,000 km^2. The 10 corridors cover 112 of the 135 site outcomes.

The countries of the hotspot lost 6% of their forest cover between 2010 and 2020. The overall level of threat to the biodiversity and ecosystems of the hotspot is increasing. Economic and demographic data support the prediction that pressure on the natural environment will increase in future.

The causes of ecosystem loss and degradation are unchanged from those identified in the 2015 ecosystem profile: small-scale but expansive subsistence and smallholder agriculture; direct exploitation of animals and plants for consumption and trade; and large-scale clearance for plantations and other commercial investments. Key drivers include poverty (including the dimensions of lack of secure access to productive resources, lack of access to education, healthcare, migration), and policies which prioritize economic growth through the expansion of primary resource industries (mining, agroindustry, etc.).

All the countries of the hotspot have an active and diverse civil society sector. The capacity of these organizations to deliver effective conservation on the ground for the benefit of biodiversity and people is variable but there appears to be a strong appetite to learn and grow. CSOs in the hotspot suffer from a lack of secure long-term financing, high staff turnover and the organizational challenges of adapting to a dynamic political and social environment. CSO networking and collaboration is generally weak, meaning the opportunities to achieve collective impact on policies are missed. In many countries, conservation remains heavily reliant on international CSOs. These organizations are increasingly investing in building the capacity of local community groups and CSOs, a trend which needs to be encouraged and strengthened.

While all the evidence suggests that CSOs can be more effective when they work together, especially across sectors, the reality is that competition for funding and

influence makes this challenging. A key part of developing resilient CSOs will be enabling them to network and collaborate more effectively.

In this context, CEPF's aim of building resilient civil society is critical. The journey towards becoming a resilient organization will be different for every CSO but can be accelerated through some combination of capacity development (the delivery of specific knowledge and skills needed to enhance the performance of the CSO) and organizational development (the delivery of a package of support that addresses core institutional needs, usually over a long timeframe, and with the involvement of the whole organization). CEPF and the RIT will need to plan this support carefully, involving specialist organizations with relevant expertise where necessary, and recognizing that, for effective organizational development, it is critical that the CSO remains in control of its own process.

Recent years have seen increasing conservation investment in the hotspot from multilateral funds (e.g., GEF, GCF and World Bank programs), bilateral donors (e.g., AFD, EU, USAID), and philanthropic trusts (e.g., Rainforest Trust, Arcus Foundation). Not all these funds are available to CSOs, however, and those that are tend to be accessed by international (and a few national) NGOs that have the profile and capacity to meet donor requirements. These larger NGOs may play an important role in partnering with local organizations, providing funding and capacity support. Direct funding for smaller, local CSOs is largely restricted to CEPF, the GEF SGP, and FFEM-PPI. Innovative financing mechanisms show potential to provide funding streams beyond normal project cycles, by creating partnerships that can sustain conservation efforts in the face of funding variability.

Nevertheless, significant funding gaps and challenges persist, particularly in underfunded landscapes and lesser-known ecosystems. KBAs and conservation corridors that do not receive adequate attention or financial support risk losing habitat connectivity, undermining long-term conservation goals in the region. In this context, CEPF and other funders have demonstrated that aligning financial strategies with both local needs and regional priorities is essential. Understanding and aligning strategies for conservation finance is key to making the most effective use of the funds available, and to defining CEPF's niche within the hotspot.

With 222 Critically Endangered species, 31 of them only recorded from a single KBA, the need for conservation action at priority sites remains high. A significant proportion of the KBAs in the hotspot are within protected areas, and so the quality of management of protected areas is a key factor in conservation of biodiversity. Government funding for protected area management is inadequate, however, leaving these areas vulnerable to incompatible activities. Outside protected areas, land tenure arrangements discourage sustainable practices in some cases, while, in others, customary and community initiatives have been recognized by law and provide a strong basis for community-led resource management. CSOs are in a strategic position to contribute by bringing together communities, governments and other stakeholders.

Between 2001 and 2022, CEPF invested US$18.4 million through two phases of grant-making in the GFWA hotspot. Lessons learned from these investments inform the investment strategy for the new phase. Key lessons include the importance of: (i) defining a longer list of priority KBAs for site-based investments, to allow for flexibility in selecting sites where conservation is feasible, high-capacity partners are present, and there is a need for additional funding; (ii) maintaining continuity of funding over several years, to allow grantees sufficient time to consolidate or build on success; and (iii) focusing attention on sites that have already received support from the fund, in order to build on past successes.

At the heart of the delivery of CEPF's mission is the sustainable conservation management of sites, protecting threatened species and contributing to more secure livelihoods for local communities. CEPF will continue to focus on the conservation of priority terrestrial and freshwater ecosystems, including coastal areas. Following a biological prioritization exercise, 33 priority sites for CEPF investment were selected, representing 24% of all confirmed KBAs in the hotspot. The priority sites comprise 13 in Cameroon, seven in Liberia, three in Equatorial Guinea, and two each in Côte d'Ivoire, Ghana, Guinea, Nigeria, and São Tomé and Príncipe. Sierra Leone, Benin and Togo do not have any KBAs on the priority list but there will be opportunities for CEPF to support work in these countries (on civil society capacity building, species conservation, etc.).

Priority Sites for CEPF Investment

Map code	KBA Code	Country	KBA name	Single site CR species	High STAR score
CMR1	6125	Cameroon	Bakossi mountains	x	x
CMR10	26329	Cameroon	Mont Nganha	x	
CMR11	6126	Cameroon	Mont Nlonako		x
CMR12	6130	Cameroon	Mount Cameroon and Mokoko-Onge	x	x
CMR13	29690	Cameroon	Mount Lefo	x	
CMR15	6115	Cameroon	Mount Oku	x	x
CMR16	6127	Cameroon	Mount Rata and Rumpi Hills Forest Reserve	x	x
CMR18	6112	Cameroon	Tchabal-Mbabo		x
CMR19	6129	Cameroon	Yabassi		x
CMR20	47084	Cameroon	Eastern Bamenda highlands and associated hydrobasin		x
CMR3	29689	Cameroon	Bamboutos Mountains	x	
CMR5	6122	Cameroon	Korup National Park		x
CMR9	6124	Cameroon	Mont Manengouba	x	x
CIV11	6100	Côte d'Ivoire	Taï National Park and Nzo Faunal Reserve		x
CIV8	6092	Côte d'Ivoire	Mount Nimba Strict Nature Reserve	x	x
GNQ1	6378	Equatorial Guinea	Annobón	x	
GNQ2	6380	Equatorial Guinea	Luba Caldera Scientific Reserve	x	
GNQ3	6379	Equatorial Guinea	Basilé Peak National Park	x	x
GHA2	6311	Ghana	Ankasa Resource Reserve - Nini-Sushien National Park	x	x
GHA3	6312	Ghana	Atewa Range Forest Reserve	x	
GIN8	6375	Guinea	Massif du Ziama		x
GIN9	6376	Guinea	Monts Nimba (part of Mount Nimba transboundary AZE)	x	x
fw12	47038	Liberia	Weeni creek and associated hydrobasin	x	
LBR1	6461	Liberia	Cestos - Senkwen		x
LBR11	6457	Liberia	Lofa-Gola-Mano Complex		x
LBR12	6458	Liberia	Nimba mountains	x	x
LBR14	6462	Liberia	Sapo		x
LBR2	22308	Liberia	Cestos Gbi		x

Map code	KBA Code	Country	KBA name	Single site CR species	High STAR score
LBR7	6463	Liberia	Grebo		x
NGA14	100504	Nigeria	Idanre Hills	x	x
NGA4	6740	Nigeria	Cross River National Park (Oban Division)		x
STP1	45720	São Tomé-Príncipe	Parque Natural Obô de São Tomé e Zona Tampão	x	x
STP2	6884	São Tomé-Príncipe	Príncipe forests	x	x

Species are the fundamental unit of biodiversity conservation. Because most species are threatened by habitat loss and over-exploitation, their conservation needs will be effectively addressed in many cases, if the KBAs they occur at are conserved. However, some species cannot be conserved through site-based measures alone, because they occur at very low densities, or engage in long-distance movements seasonally or at different stages in their life history. Others may occur at KBAs but be under intense threat because they are targets for illegal exploitation or persecution. Finally, for some species, the small size of their population makes them vulnerable to disease or chance events, such as fires, and they, therefore, require specific conservation attention. Based on these considerations, 84 priority species for CEPF investment were identified. These comprise 25 amphibians, 24 bony fishes, nine mammals, seven mollusks, six birds, four plants, three reptiles, three freshwater crabs and shrimp, one ray, and one insect.

The thematic priorities for conservation investment in the Guinean Forests of West Africa Hotspot were defined through the stakeholder consultation process, based upon an analysis of the main threats to biodiversity in the hotspot, patterns of conservation investment, and needs and opportunities to support CSOs (especially local CSOs) to engage effectively in biodiversity conservation. A five-year investment strategy was developed, with an indicative budget of US$10 million. The strategy comprises 10 investment priorities, grouped into five strategic directions. The first four strategic directions guide CEPF grantmaking to CSOs, while the fifth provides for a grant to an organization or consortium to serve as the Regional Implementation Team (RIT).

GFWA Strategic Directions and Investment Priorities, 2025-2030

Strategic Direction	Investment Priority
1. Support local partnerships for conservation of globally important biodiversity in priority sites and ecological corridors	1.1. Advance the protection and conservation management of priority sites and the ecological corridors that connect them
	1.2. Strengthen the long-term financial sustainability of conservation efforts for priority sites
2. Safeguard priority globally threatened species and ecosystems by identifying and addressing major threats and information gaps	2.1. Consolidate and improve critical data on threatened species and ecosystems
	2.2. Promote action for the conservation of threatened species and ecosystems
3. Mainstream biodiversity conservation into public policy and private sector practice	3.1. Update the Key Biodiversity Area (KBA) analysis for the hotspot and strengthen national mechanisms for KBA recognition and promotion, including National Coordination Groups
	3.2. Compile data and communicate the need and opportunities for conservation of KBAs and threatened species to the public, policy-makers and private sector

Strategic Direction	Investment Priority
4. Facilitate the development of a robust and resilient community of conservation Civil Society Organizations	4.1. Ensure that CEPF grantees have the technical capacity to plan, implement and sustain effective conservation projects
	4.2. Provide support to targeted conservation organizations engaged in a process of organizational development
	4.3. Enhance the collective strength and ability of conservation CSOs at national and regional levels
5. Provide strategic leadership and effective coordination of conservation investment through a regional implementation team	5.1 Support a broad constituency of civil society groups working across institutional and political boundaries towards achieving the shared conservation goals described in the ecosystem profile

1. INTRODUCTION

The Critical Ecosystem Partnership Fund (CEPF) is designed to safeguard the world's biologically richest and most threatened regions, known as biodiversity hotspots. It is a joint initiative of l'Agence Française de Développement, Conservation International (CI), the European Union, Fondation Hans Wilsdorf, the Global Environment Facility, the Government of Canada, the Government of Japan and the World Bank.

A fundamental purpose of CEPF is to engage civil society, such as community groups, nongovernmental organizations (NGOs), academic institutions and private enterprises, in biodiversity conservation in the biodiversity hotspots. To guarantee their success, these efforts must complement existing strategies and programs of national governments and other conservation funders. To this end, CEPF promotes working alliances among diverse groups, combining unique capacities and reducing duplication of efforts for a comprehensive, coordinated approach to conservation. One way in which CEPF does this is through preparation of "ecosystem profiles," shared strategies, developed in consultation with local stakeholders, which articulate a multi-year investment strategy informed by a detailed situational analysis.

CEPF has two distinct features as a grant-making program. First, its focus is on biological, rather than political, boundaries and units. This allows CEPF to support strategies that are expected to be more effective with a regional, rather than national, approach, including actions and alliances that span the boundaries of one or more countries or territories. Second, CEPF's focus is on civil society organizations (CSOs). By supporting and facilitating civil society participation in nature conservation, and by aiding collaboration and alliances among groups, CEPF aims to encourage the development of new and innovative ideas and solutions to the challenges of biodiversity conservation, for the benefit of local and global stakeholders.

The Guinean Forests of West Africa Biodiversity Hotspot (hereafter, the Guinean Forests Hotspot or GFWA), as defined by Mittermeier *et al.* (2004), extends across the southern part of West Africa and into Central Africa north of the Congo Wilderness Area (Figure 1.1). The hotspot covers 617,719 km^2, and can be divided into two subregions, the upper and lower Guinea forests. The upper Guinea forest stretches from Guinea in the west, through Sierra Leone, Liberia, Côte d'Ivoire, Ghana, Togo and, marginally, into Benin. The lower Guinea forest covers much of southern Nigeria, extends into southwestern Cameroon, and also includes São Tomé and Príncipe and the islands of Annobon and Bioko in Equatorial Guinea. These two subregions are separated by the Dahomey Gap, in Benin and Togo, which is a climatically induced dry region originating from the late Holocene Epoch. The Guinean Forests are one of eight biodiversity hotspots in Africa.

The hotspot boundary is defined by the habitats occurring within it, in particular by the presence of forested or formerly forested areas. As a result, the hotspot cuts across political boundaries, but can be sub-divided with reference to terrestrial, freshwater and marine ecosystems (Burgess *et al.* 2004).

The hotspot is divided unequally among countries. For example, Côte d'Ivoire contains the largest proportion of the hotspot (24.1%), while Benin contains the lowest proportion (0.2%). São Tomé and Príncipe, and Liberia are the countries with the greatest proportions of their area inside the hotspot (just under 100% and 98.5%, respectively), while Benin is again the lowest (1.2%). These figures are summarized in Table 1.1, and it is important to be aware of these values when reading the later chapters of this profile, particularly Chapters 4 and 5, where much of the information is presented at the country level, as data for the portion of each country within the hotspot was generally not available.

Figure 1.1. Boundaries of the Guinean Forests of West Africa Hotspot

Table 1.1. Area of Country in the Hotspot

Country	Country Area (km^2)	Area GFWA in the Country (km^2)*	Percent of GFWA in Country	Percent of Country in GFWA
Benin	117,650	1,441	0.2	1.2
Cameroon	469,784	63,780	10.3	13.7
Côte d'Ivoire	325,990	148,739	24.1	46.1
Equatorial Guinea	28,051	1,961	0.3	7
Ghana	242,178	79,348	12.8	33
Guinea	249,691	47,661	7.8	19.4
Liberia	96,861	94,307	15.3	98.5
Nigeria	926,744	126,366	20.4	13.8
São Tomé and Príncipe	1,001	1,032	0.2	100
Sierra Leone	73,316	46,857	7.6	64.6
Togo	57,637	6,227	1	11
Total	**2,588,903**	617,719	**100**	**24.1**

*The area of the hotspot in the 2015 ecosystem profile is given as 621,705 km^2. The figure used here is revised after minor boundary corrections and re-measurement.

This ecosystem profile and intended investment program continues CEPF's long engagement in the region, as described below.

Table 1.2. Past CEPF Investment in the GFWA

Period	Investment strategy	Total Investment (USD)
2001-2006	Ecosystem profile, December 2000	$5,967,918
2008-2012	Consolidation program, June 2008	$1,907,209
2016-2022	Ecosystem profile, December 2015	$10,043,672

As this profile was written, CEPF's donors approved the allocation of an additional $800,000 for grants from 2024-2025 to serve as a "bridge" until the inception of a new program, as defined by the strategy here.

2. BACKGROUND

The ecosystem profile consultation and writing took place from March to November 2024. The process was launched through a press announcement which was circulated to CSOs active in the region and was included in communications materials distributed at the IUCN Africa Conservation Forum in June 2024. The process was supported by input from an advisory committee, chaired by the BirdLife International Africa Division, with representatives of Fondation Hans Wilsdorf, the Programme de Petites Initiatives of the Fonds Français pour l'Environnement Mondial (FFEM PPI), the GEF, IUCN and the West African Civil Society Institute (WACSI), plus an independent expert. The committee met three times, virtually. The second and third meetings of the advisory committee focused, successively, on organizational development and priority setting.

In-person stakeholder consultation workshops took place in Liberia, Ghana, Côte d'Ivoire and Nigeria, each hosted by a leading national CSO (Table 2.1)

Table 2.1. Stakeholder Consultations

Country	Dates	Organizer	Participants						
			CSO	Government	Donor	INGO	Research Institute	Private Sector	Total
Côte d'Ivoire	17 July2024	SOS-Forêts	12	8	1	3	5	2	**31**
Nigeria	12-13 Aug 2024	NCF	12	3	2	2	7	1	**27**
Ghana	27-28 Aug 202	GWS	13	6	0	3	4	0	**26**
Liberia	29-30 Aug 2024	SNCL	5	7	4	6	1	1	**24**
		Total	**42**	**24**	**7**	**14**	**17**	**4**	**108**

Each of the workshops identified data gaps, which were filled through follow-up by the organizers with individual informants. In addition, information on key biodiversity areas (KBAs), threats, conservation efforts and stakeholders was collected through email and online consultation.

Summaries of all the data available on each KBA were uploaded to the BirdLife International Hatch website, and the link was distributed to over 210 civil society, academic, private sector and government stakeholders active in the hotspot. Key informants in each country were approached directly. Detailed information was received from active local CSOs in Benin, Cameroon, Guinea, Sierra Leone, São Tomé and Príncipe.

Organizational development (OD) for CSOs was a strong focus of this update, and the team consulted with CSOs and with OD providers in the process of developing the CEPF strategy including:

- One-to-one calls OD experts at IUCN-PPI, WACSI, Beautiful Soul, Well Grounded, Maliasili to understand their operations and approach.
- An organizational development questionnaire was emailed to 109 national CSOs in the region, yielding 38 responses.
- A draft of the OD sections of this document was circulated to advisory committee members and to the OD providers, yielding extensive comments.

Compilation of data for the chapter on current conservation investment involved sending a questionnaire and follow-up communication with contacts in each of the hotspot

countries, as well as interviews with participants at a multi-stakeholder workshop organized by the West Africa Nature Transformation Initiative (WANTI) project (See Section 11).

The draft strategic directions and investment priorities were shared with 74 representatives of 63 national and international CSOs which were past grantees of CEPF in the hotspot, as well as the members of the advisory committee.

A high-level consultation was conducted at the end of the process. The draft ecosystem profile was circulated to:

- GEF operational focal points for the 11 hotspot countries.
- EU delegation for the 11 hotspot countries.
- Members of the advisory committee from Fondation Hans Wilsdorf, the GEF, IUCN and WACSI.
- Organizational development specialists from Fondation Hans Wilsdorf, FFEM-PPI, Well Grounded, Beautiful Soul and Maliasili.
- CSOs and conservation experts active in the region: Fauna & Flora, BirdLife São Tomé and Príncipe program, Conservation Society of Sierra Leone, Guinee Ecologie, Society for the conservation of Nature in Liberia, SOS Foret, Ghana Wildlife Society, Nigerian Conservation Foundation, AJESH, Wild Chimpanzee Foundation and Fourah Bay College (University of Sierra Leone).

Recipients of the draft ecosystem profile were invited to respond in writing or participate in one of two online feedback sessions (one for French speakers, one for English speakers).

3. LESSONS FROM THE PREVIOUS INVESTMENT PHASE

The 2016-2022 phase of investment concluded having made 76 grants to 64 unique organizations. Three summary documents from this period were critical to this profile.

- The final assessment of the 2016-2022 investment phase, July 2022 (CEPF 2022a).
- The Long-Term Vision for CEPF investment in the hotspot, December 2022 (CEPF 2022b).
- The evaluation of lessons learned in relation to the Regional Implementation Team (RIT) for the hotspot, October 2022 (Cynosure 2022).

Among the achievements of the investment, 27 KBAs benefitted, with four new protected areas created; and, thepopulations of 23 globally threatened species were stable or increasing. Projects also addressed community livelihoods: 53 local communities were supported to initiate and advocate for land tenure and forestry reforms; and 174 communities benefitted from sustainable livelihood and employment or benefit-sharing mechanisms, bee farming for the sale of premium honey, domestication and sales of non-timber forest products (NTFPs), and payment to community eco-guards for patrolling community forests and adjacent protected areas. Further, 7,827 men and 6,171 women received structured training in sustainable fishing techniques, assessment of ecosystem services, soil fertility management, sustainable non-timber forest products harvesting methods, and organizational administration and management, while 2,986 men and 3,519 women received increased income and/or other cash benefits due to activities such as ecotourism, solar salt production, handicraft production, non-timber forest product harvesting and increased yields of cacao.

The final assessment (CEPF 2022a) provides details on implementation of the program, grants by strategic direction and country, and results in terms of biodiversity conservation, strengthening of civil society, human well-being, and enabling conditions, as well as achievements in relation to the portfolio results framework similar to that seen in Chapter 14 of this document. Readers are directed to final assessment for a more thorough review of this information. The final assessment also summarized lessons as described here.

- The CEPF funding modality is flexible, allowing for consideration of grantmaking in areas of post-conflict or low CSO capacity.
- A narrow list of priority KBAs, or a notion that "priority" circumscribes where grants can be made, artificially limits investment options, particularly as threats and donor landscape evolve over the period of a five-year investment period.
- Given the scope of need to effect change, with costs and time certainly beyond the typical $125,000, 18–24-month grant, re-investment in successful programs from the 2016-2022 portfolio merits consideration.
- Local or low-capacity CSOs benefit from being placed in a mentorship relationship with international or high-capacity CSOs. Similarly, "clusters" of grants – with multiple organizations with different skillsets or geographic areas of focus, all receiving grants around the same KBA – were successful. Further, grants that allowed for a continuity of investment, with multiple phases or amendments, were successful. Together, the lesson is to formulate a technical or geographic strategy that builds in these approaches of mentorship, clustering, and continuity.
- Grantees benefited from peer-to-peer learning as a means for capacity building.
- With poverty as the core issue in many KBAs, there is further need for support to literacy programs, livelihood efforts, micro-enterprise, and micro-finance.
- Support is still needed for community resource management areas, traditional and customary land management structures, as well as community rights to resources.

- CEPF should support grants that facilitate links between conservation-oriented CSOs and those working in health, education, food security, family planning, and women and youth.
- Success was more prevalent at a local level than at attempts to influence national policy.
- There was limited engagement between grantees and the private sector, at least as envisioned in the 2015 ecosystem profile. Private sector engagement is still possible – at the local level, with inputs into value chains, to inform investment decisions, for cash and in-kind contributions – but might not be a primary focus of a future profile.
- There is a need for consistent monitoring across the hotspot and over the length of the portfolio, or even beyond, particularly for various ecological, social, and economic data that might be outside the capacity of typical grantees to measure.
- Landscape-level collaboration between governments, facilitated by CSOs, must be established to enable a regional harmonized approach to achieve substantial conservation results.

The Long-term Vision (CEPF 2022b) documents the results of a facilitated process where stakeholders identified the conditions when CEPF donors could withdraw support. These conditions are phrased in terms of (1) conservation priorities and best practices, (2) strong civil society, (3) adequate financial resources for conservation, (4) an institutional framework, policies, enforcement, and private sector supportive of conservation, and (5) monitoring systems to measure impact and support an adaptive approach. Then, for each of these conditions, the Long-term Vision sets milestones in five-year increments: 2027, 2032, and 2037. The milestones in the Long-term Vision for 2027 are not the same as those proposed by the results framework in Chapter 14 – the milestones cover the entire hotspot and assume extraordinary resources – but informed the direction of this strategy.

The Long-term Vision process also identified lessons for future CEPF investment. Beyond those already identified by the five-year assessment, above, these include.

- Facilitation of cooperative efforts by CSOs, not necessarily defaulting to competitive bidding processes.
- Tailor-made medium and long-term support for grassroots organizations.
- Use of creative media to change behavior.
- Facilitation of government and CSO partnerships.
- Facilitation of hotspot-level collaboration between governments.
- Facilitation of CSO access to funds for grassroots support, science-based evidence generation, networking, and knowledge sharing.
- Promotion of other effective area-based conservation measures (OECMs).

The lessons and recommendations in the review of the RIT (Cynosure 2022) are geared more toward management of the program, but point to certain directions for this new strategy. These include:

- A timeline that allows for an explicit entry and communications strategy to prepare CSOs as better partners.
- A timeline that allows for more mentorship between the RIT and CSOs, whether prior to applications, as applicants, or as grantees.
- Given the geographic vastness of the region, and its socio-political and linguistic diversity, a possible narrowing of geographic focus for investment.
- Greater focus on capacity building for grantees, ideally avoiding a scenario where this comes at the expense of conservation.

4. BIOLOGICAL IMPORTANCE OF THE HOTSPOT

4.1 Introduction

The Guinean Forests Hotspot supports impressive levels of biodiversity, including numerous endemic species, making it a conservation priority at the global scale. With 48 primate species, the hotspot is one of the top global priorities for primate conservation.

The hotspot contains many other ecological features that render it globally unique. The Niger Delta swamp forests, for instance, are the second largest swamp forest on the continent, while the Central African Mangroves (which are partially within the hotspot) are the largest mangrove stands in Africa and the third largest in the world. The hotspot's offshore volcanic islands support high levels of endemism. One of the largest rivers in West Africa, the Volta, and the delta of the longest and largest river in West Africa, the Niger, occur within the hotspot boundary. The Western Equatorial Crater Lakes ecoregion is among several that are listed as globally outstanding.

This chapter describes the geographical, geological, climatological, biogeographical, biological and ecological importance of the Guinean Forests of West Africa Hotspot. It also outlines the importance of the hotspot in terms of the ecosystem services it provides to its human population.

A key source of information for all stakeholders interested in biodiversity is the Integrated Biodiversity Assessment Tool (IBAT). The tool integrates information from the IUCN Red List (species level threat assessments); the Key Biodiversity Area database (priority sites for conservation) and the protected planet database (information on protected areas and other area-based conservation measures (OECMs)). Individual country profiles can be located at https://app.ibat-alliance.org/country_profiles.

4.2 Geography and geology

Situated in West Africa and northwestern Central Africa, and including several oceanic islands, the Guinean Forests of West Africa Hotspot is underlain by ancient Precambrian rocks that have been eroded over many millions of years. In some areas, these ancient rocks have been uplifted into mountains and hills, for example in the Fouta Djallon in Guinea, the Loma Hills in Sierra Leone, the Mount Nimba area of Liberia/Guinea/Côte d'Ivoire, the Togo Hills in Togo, and the Jos Plateau in Nigeria. These rocks are typically nutrient poor, making the soils derived from them similarly poor in nutrients and often challenging to farm continuously.

Along the border between Nigeria and Cameroon is a mountain range formed by volcanic activity, the Cameroon Volcanic Line, which includes the volcanic islands of Bioko, Príncipe, São Tomé, and Annobón in the Gulf of Guinea, and stretches northeast through Cameroon and beyond the hotspot as far as Lake Chad. The range includes Mount Cameroon, which at 4,040 m is the highest point and the only active volcano in the hotspot. Several other dormant volcanoes still producing quantities of carbon dioxide and other gases from below their crater lakes. These volcanic rocks weather to form much more productive soils, for example on Mount Cameroon.

There are also sedimentary deposits associated with river deltas and coastal shelves within the hotspot. There are significant deposits of oil and gas in these areas, especially associated with the ancient delta of the Niger River in Nigeria.

The hotspot is drained by three of the 13 major river basins in Africa: the Niger; the Senegal; and the Volta. The Senegal River basin spans four countries: Guinea; Mali; Mauritania; and Senegal. Its three main tributaries, the Bafing, Bakoye and Faleme, all

originate from the Fouta Djallon Massif in Guinea within the hotspot. The Niger River is the longest and largest river in West Africa, and spans 10 countries, including, Benin, Cameroon, Côte d'Ivoire, Guinea, and Nigeria in the hotspot. The Niger River originates in the Loma Mountains of Sierra Leone, situated within the hotspot in the Guinea Montane Forests ecoregion, and has numerous tributaries joining it. One of the major tributaries of Niger River is the Benue, which merges with the Niger at Lokoya in Nigeria. The Volta River basin spans six countries: Benin, Burkina Faso, Côte d'Ivoire, Ghana, Togo, and Mali. The three major tributaries of the Volta River are: the White Volta, the Black Volta (both of which originate in Ghana) and the Oti (originating in Burkina Faso), which together drain the plateau in the north, the Atakora Mountains in the east, and several highland areas in the west.

Additional large rivers draining the countries of the hotspot include the Gambia River, which stems from the Fouta Djallon Massif of Guinea, the Sewa River of Sierra Leone, which has many of its tributaries arising from the Loma Mountains and Tingi Hills, the Cross River which is the main river of southeastern Nigeria, and the Sanaga River in Cameroon.

4.3 Climate

The prevailing climate in the hotspot is tropical and humid, with annual maximum temperatures ranging from around 30 to 36°C. The climate is somewhat cooler in the coastal areas, hotter further north. The stability of climatic conditions over the millennia has allowed exceptionally diverse, complex ecosystems to develop, including the lowland tropical moist forests for which the hotspot is identified.

The hotspot shows little seasonality in terms of temperature, with maxima and minima remaining similar throughout the year at any given location but differing, rather, in terms of level of precipitation, which is governed by the annual movements of the inter-tropical convergence zone, and results in monsoon conditions (often referred to as the 'rainy season'), stating from March or April on the coast and moving inland to around 10°N. From September to November the rain-band retreats southward once again (Le Barbé *et al.* 2002). The result of this phenomenon is that more southerly locations experience two rainfall peaks in a year, while those further north experience only one. As with temperature, the seasonality in rainfall has a major impact on the biodiversity of the region.

Typical annual rainfall near the coast is around 3,000-3,500 mm, and decreases to around 1,500-2,000 mm further inland. Many of the forested areas in the hotspot have an average annual precipitation of around 2,000-2,500 mm inland, rising to nearly 4,000 mm in the coastal areas (Cole 1968, Barbour *et al.* 1982). In the Mount Cameroon area, annual rainfall can reach 10,000 mm locally. The Guinean Montane Forest ecoregion, the Nigerian Lowland Forest ecoregion and the Cross-Niger Transition Forests ecoregion are relatively less wet, with annual precipitation decreasing from 2,000-2,500 mm near the coast to 1,500-2,000 mm further inland.

4.4 Biological history

Over the past million years or more, the vegetation zones of West Africa have migrated north and south depending on the prevailing climate. Ice ages in the Northern and Southern Hemispheres caused a general drying across Africa, and at the height of these colder glacial periods, forest cover shrank and may have become confined to refugia located in the centers of diversity in the present-day Upper and Lower Guinean Forests subregions. During interglacial periods the forest would have expanded again, as the climate of the region became wetter. This climatic oscillation over periods of thousands of years, and the associated expansion and contraction of forest cover, is probably the

most important factor contributing to the diversity and patterns of the biota seen in the lowland forests.

The mountain chain of Nigeria-Cameroon and the offshore islands have a different history. Here, evolution has driven speciation among populations isolated on oceanic islands or 'islands' of montane forest. Isolated uplands elsewhere in the hotspot are also home to endemic species. Patterns of endemism follow an elevation gradient, with highland areas hosting the largest concentrations of endemics (Cronin *et al.* 2014). There are differences between the island which reflect their geological history, however. Bioko lies on the continental shelf and has been connected to African mainland, while Annobón and São Tomé and Príncipe are truly oceanic and have never been connected with each other or with the mainland. Consequently, Bioko supports a much more diverse flora and fauna with relatively low levels of endemism, whereas the other islands have low species richness, but exceptionally high rates of endemism.

4.5 Biogeographical zonation and ecoregions

4.5.1 Larger scale bioregions

The hotspot represents the Guinean portion of the Guinea-Congolian forests, and comprises two main subregions: the Upper Guinean Forests and the Lower Guinean Forests. These two subregions are separated by the Dahomey Gap, in Benin and Togo, which is a climatically induced dry region originating from the late Holocene Epoch.

4.5.2 Ecoregions

The hotspot is within the Afrotropic realm and is defined by one main biome: the tropical and sub-tropical moist broadleaf forests. Across the hotspot, the forests are divided into eleven terrestrial ecoregions (including one for mangrove), and freshwater systems are divided into fourteen ecoregions. Offshore (outside the hotspot), marine ecosystem are represented by four ecoregions.

Terrestrial ecoregions

The forests of the Upper Guinea region are divided into three forest ecoregions: Western Guinean lowland Forests, Eastern Guinean forests, and the Guinean montane forests. The Lower Guinea section of the hotspot is divided into Cameroonian Highlands Forests, Cross-Sanaga-Bioko Coastal Forests, Nigerian Lowland Forests, and smaller areas of Niger Delta Swamp Forests, Cross-Niger Transition Forests, Mount Cameroon and Bioko Montane Forests, and São Tomé, Príncipe and Annobón Moist Lowland Forest ecoregions all have smaller overall areas within the hotspot mangroves are represented by the Central African Mangroves ecoregion (Olsen *et al.* 2001). Table 4.1 gives more details.

Table 4.1. Special Features of the Terrestrial Ecoregions in the Hotspot

Ecoregion	Characteristics
Cameroonian Highlands Forests (Nigeria, Cameroon)	Classified as Globally Outstanding, this ecoregion is characterized by high endemism, including at least 50 species and three families of plants; nearly 40 amphibians; numerous birds (e.g. green longtail (*Urolais epichlora*), white-tailed warbler (*Poliolais lopezi*), Mount Cameroon francolin (*Francolinus camerunensis*), Fernando Po batis (*Batis poensis*) and Bannerman's turaco (*Tauraco bannermani*); reptiles (e.g. *Chamaeleo montium*, *C. quadricornis*, *Hydraethiops laevis*, *Leptosiaphosi anthinoxantha*); and mammals such as Preuss's monkey (*Cercopithecus preussi*) and northern needle-clawed bushbaby (*Euoticus pallidus*), plus 11 further small mammal species. The ecoregion is also important for primates, including drill (*Mandrillus leucophaeus*), chimpanzee (*Pan troglodytes*), western gorilla (*Gorilla gorilla*) and African forest elephant (*Loxodonta cyclotis*).

Ecoregion	Characteristics
Central African Mangroves	Classified as Locally Important, this mangrove ecoregion does not contain any endemic species but it does support several threatened species, and a diverse pelagic fish community. The ecoregion is important for many species that depend on mangroves for parts of their life cycle, including the soft-skinned turtle (*Trionyx triunguis*) and four species of Endangered and Critically Endangered marine turtles. These mangrove habitats are important for large concentrations of birds during migration, and also provide spawning and nursery areas for the fisheries in the Gulf of Guinea. The pelagic fish community found here has a high diversity, with 48 species in 38 families.
Cross-Niger Transition Forests (Nigeria)	Classified as Locally Important, this ecoregion harbors species typical of the Upper Guinean Forests subregion to the west and the Cross-Sanaga-Bioko Coastal Forests to the east, and can, therefore, be considered as transitional between the two. The ecoregion displays extremely low rates of endemism for a tropical forest ecoregion, with only two near-endemic species, the Vulnerable Scalter's guenon (*Cercopithecus sclateri*) and crested chameleon (*Chamaeleo cristatus*).
Cross-Sanaga-Bioko Coastal Forests (Nigeria, Cameroon, Equatorial Guinea)	Classified as Globally Outstanding, this ecoregion has very high species richness, including among butterflies, plants and all terrestrial vertebrates. This area is thought to contain the highest numbers of forest-restricted birds and mammals in Africa (Burgess *et al.* 2000). Primates are particularly notable, and include Preuss's red colobus (*Procolobus preussi*), red-eared monkey (*Cercopithecus erythrotis*), crowned guenon (*C. pogonias*), drill (*Mandrillus leucophaeus*), pallid needleclawed galago (*Euoticus pallidus*), Pennant's red colobus (*Procolobus pennantii*), the Cross River subspecies of western gorilla (*Gorilla pennant diehli*), and the Nigeria- Cameroon subspecies of chimpanzee (*Pan troglodytes ellioti*). Endemic small mammals include Bibundi bat (*Chalinolo busegeria*) and Cameroonian shrew (*Crocidura picea*). Endemic amphibians include Schneider's banana frog (*Afrixalus schneideri*), Dizangue reed frog (*Hyperolius bopeleti*) and Werner's river frog (*Phrynobatrachus werneri*). Endemic reptiles include forest chameleon (*Chamaeleo camerunensis*) and a species of worm lizard, *Cynisca schaeferi*.
Guinean Montane Forests (Guinea, northern Sierra Leone, and eastern Côte d'Ivoire)	Classified as Regionally Outstanding, the diversity and endemism of many parts of this ecoregion are not well known, with the exception of Mount Nimba. Thirty-five endemic plants have been recorded in the ecoregion. Four mammals found in the ecoregion are either endemic or near-endemic. The Critically Endangered West African subspecies of chimpanzee (*Pan troglodytes verus*) is found in high densities around Mount Loma (Lebbie 2015).
Mount Cameroon and Bioko Montane Forests (Cameroon, Equatorial Guinea)	Classified as Globally Outstanding, this ecoregion falls into the Afromontane archipelago-like regional center of endemism. Exceptional levels of species diversity and endemism are found in both the flora and fauna of this ecoregion. At least 42 plant species and three genera are strictly endemic to Mount Cameroon, and another 50 species are near endemic. Twenty-nine of these near-endemic species are also found on Bioko. Over 370 bird species have been recorded here, including several endemics and two strictly endemic species. Mammals display moderate levels of diversity and endemism.
Niger Delta Swamp Forests (Nigeria)	Classified as Locally Important, very little is known about the species composition of this ecoregion, as the first wildlife surveys were only conducted as recently as the late 1980s. Species that were not known from the delta or even from Nigeria as a whole were still being discovered in the 1990s. A subspecies of the Critically Endangered Pennant's red colobus (*Procolobus pennantii epieni*) is endemic to this ecoregion.
Nigerian Lowland Forests (Benin, Nigeria)	Classified as Bioregionally Outstanding, levels of endemism within this ecoregion are low, despite the biogeographic boundaries created by the Niger River and the Dahomey Gap. The ecoregion contains few strictly endemic plant species, although five strictly endemic animal species are found here.

Ecoregion	Characteristics
São Tomé, Príncipe and Annobón Moist Lowland Forests (Equatorial Guinea, São Tomé and Príncipe)	Classified as Globally Outstanding, this ecoregion supports exceptionally high levels of endemism at the generic, specific and subspecific levels. Around 37 endemic angiosperm plant species are found on Príncipe, 95 on São Tomé, and 20 on Annobón. Also, São Tomé is known to support 13 endemic bryophytes, one endemic gymnosperm and 10 endemic ferns and lycophytes, while Príncipe is known to support two endemic bryophytes and three endemic ferns and lycophytes. Twenty-eight endemic bird species are found on São Tomé and Príncipe, making these islands highly important for bird conservation. There are at least six mammal species endemic to São Tomé and Príncipe: two shrews and four bats. Eighteen of the 24 reptiles found on the islands are endemic, and rates of endemism above 75% are found for terrestrial gastropods on all three islands.
Western Guinean Lowland Forests (Guinea, Sierra Leone, Liberia and Côte d'Ivoire to the Sassandra River)	Classified as Globally Outstanding, this ecoregion is part of the Upper Guinea block of the Guineo-Congolian regional center of endemism. High species richness and endemism are found here. More than 3,000 plant species occur here, of which at least 200 are endemic. There are 15 near-endemic mammal species in the ecoregion, as well as larger threatened mammals such as the Critically Endangered West African subspecies of chimpanzee. There is high diversity and endemism among herpetofauna of the ecoregion, and the reptile fauna includes three strictly endemic species.
Eastern Guinean Forests (from Sassandra River in Côte d'Ivoire, Ghana, isolated highlands in Togo and Benin)	This ecoregion is dominated by moist evergreen forest in the west and along the coast, transitioning to moist semi-evergreen forest further inland, and dry semi-evergreen forest in the north. There is a high diversity of primates, and four mammals are endemic to the ecoregion – Wimmer's shrew (*Crocidura wimmeri*), Ivory Coast rat (*Dephomys eburneae*), Cansdale's swamp rat (*Malacomys cansdalei*), and Togo mouse (*Leimacomys buettneri*). There are also thirteen endemic amphibians.

Source: Olsen *et al* (2001).

Freshwater ecoregions

The distribution and status of freshwater biodiversity across the hotspot, including the use of freshwater ecoregions, is described by Starnes and Darwall (2021). Fourteen freshwater ecoregions overlap the hotspot, most defined by the major river basins. Further information on the biological importance of these ecoregions is presented in Table 4.2.

Table 4.2. Special Features of the Freshwater Ecoregions in the Hotspot

Ecoregion	Characteristics
Ashanti	Classified as Bioregionally Outstanding, this ecoregion has around 10% of its fish fauna endemic, including several highly restricted-range species. Fourteen percent of the amphibians in the ecoregion are endemic. The ecoregion is also rich in mollusks, and provides important breeding and resting habitats for aquatic birds.
Bight Drainages	Classified as Continentally Outstanding, this ecoregion is lower in terms of endemism, although it supports locally high species richness. Six endemic amphibians, six endemic fish and three endemic mollusks are found in the ecoregion. It is also important for several non-endemic, yet threatened species, including the Vulnerable West African manatee (*Trichechus senegalensis*), the Vulnerable hippopotamus (*Hippopotamus amphibius*) and the Vulnerable West African dwarf crocodile (*Osteolaemus tetraspis*), as well as providing important migratory and feeding habitats for aquatic birds.

Ecoregion	Characteristics
Eburneo	Classified as Nationally Important, this ecoregion has high richness of aquatic mollusks, with 33 known species, the majority of which are snails, of which four are endemic (and many others near endemic). One hundred and thirty fish species, including 10 endemics, have been recorded in this ecoregion. The brackish lagoons found here support the Vulnerable West African manatee, while the Endangered pygmy hippopotamus lives along the forested streams.
Fouta-Djallon	Classified as Bioregionally Outstanding, this ecoregion is characterized by isolated habitats with waterfalls and rapids, which have restricted the colonization of species downstream and encouraged evolution of species that are unique to these rivers. Sixty fish species are described in the ecoregion, with one quarter of these being endemic species adapted to headwater streams. Nearly all endemic species are cyprinids
Lower Niger-Benue	Classified as Continentally Outstanding, this ecoregion has a biota typical of the Nilo-Sudanian bioregion. Around 202 fish species adapted to seasonal fooding live within the ecoregion. Of these, 17 are endemic, including the Vulnerable freshwater stingray (*Dasyatis garouaensis*). The west African manatee resides in the Lower Niger and travels upstream in the wet season, as do many fish species. Of the 88 frog species in the ecoregion 16 are likely to be endemic to the surrounding forests, woodlands and wetlands. Many Palearctic migratory birds are hosted by the Niger River, including ducks and geese, storks and herons
Mount Nimba	Classified as Bioregionally Outstanding, Mount Nimba's high elevation, combined with the presence of rapids and waterfalls, has led to isolation, and high endemism of aquatic species, despite only moderate richness. Endemic aquatic fauna include frogs, fish, one freshwater crab, as well as the Endangered Mount Nimba otter shrew (*Micropotamogale lamottei*) and the Near-threatened Cape clawless otter (*Aonyx capensis*). Species richness is notably high among aquatic invertebrates. Reophytes (which are plants adapted to living in running water) dominate the riparian vegetation.
Niger Delta	A rich freshwater fauna is found in the Niger Delta, including five monotypic fish families, which is the highest concentration in the world. Such higher taxonomic endemism warrants the Niger Delta's classification as Globally Outstanding. Twenty of the 150 freshwater fish found in the ecoregion are endemic. The Vulnerable freshwater stingray and the Endangered thorny freshwater stingray (*Urogymnus ukpam*) are found in the delta. Sixty percent of Nigeria's mangrove forests are situated in the Niger Delta. The mangrove forests and freshwater swamp forests provide habitats for aquatic mammals, mollusks, reptiles and amphibians, and are important for numerous waterbirds.
Northern Gulf of Guinea Drainages-Bioko	Classified as Globally Outstanding, the coastal rivers and streams that feed into the Gulf of Guinea support a rich aquatic fauna. The extensive mangroves of the ecoregion's estuaries are highly productive habitats, and provide nurseries and breeding grounds for crustaceans and fish. More than 200 fish species inhabit the waters of the ecoregion, and 40 of these are considered to be near or strict endemics. Around one-quarter of the approximately 130 water-dependent amphibian species found in the ecoregion are endemic. Twelve of the 48 dragonfly species found in the ecoregion are endemic to it, of which four are endemic to the island of Bioko. Aquatic mammals that inhabit the ecoregion include African clawless otter, African water rat (*Colomys goslingi*), giant otter shrew (*Potamogale velox*), hippopotamus, spot-necked otter (*Lutra maculicollis*) and the Vulnerable West African manatee.

Ecoregion	Characteristics
Northern Upper Guinea	Classified as Continentally Outstanding, this ecoregion, together with Southern Upper Guinea, Fouta Djallon and Mount Nimba, forms the Upper Guinean bioregion, which has a distinct fish fauna. Around 28% of the 160 fish species found in the coastal streams and rivers are endemic. Ten endemic frogs, four endemic freshwater crabs, two endemic dragonflies and five endemic mollusks live within the waters of the ecoregion. Overwintering birds are found on the floodplains. Mangrove forests provide breeding and spawning grounds for many species of fish, insects and shellfish. A large variety of aquatic reptiles and mammals are found within the ecoregion, including all three species of African crocodile, the Vulnerable West African manatee, and the Endangered pygmy hippopotamus.
S. Tomé and Príncipe Annobón	Classified as Bioregionally Outstanding, this ecoregion has extremely low overall freshwater faunal richness but high levels of endemism among certain taxa. Nine species of amphibian live in the ecoregion, all of which are endemic. Only two species of freshwater fish and three species of freshwater mollusk are found on the islands. The ecoregion also supports the endemic and Critically Endangered Príncipe dropwing dragonfly (*Trithemis nigra*), an endemic freshwater crab (*Potamonautes margaritarius*) and four species of endemic freshwater shrimps (*Atya intermedia; A. sulcatipes; Macrobrachium zariquieyi* and *M. chevalieri*).
Southern Upper Guinea	Classified as Bioregionally Outstanding, this ecoregion is characterized by relatively short and partly torrential rivers and streams, which support a highly endemic freshwater fish and crab fauna. Around one fifth of the 151 fish species in the ecoregion are endemic, with particularly high levels of endemism within Cyprinodontidae, Cyprinidae and Cichlidae families. Many of these fish are adapted to life in fast-flowing rivers with rocky bottoms. Rare mammals are also found in the ecoregion, including the Vulnerable West African manatee and the Endangered pygmy hippopotamus. Eleven of the 52 amphibian species present are endemic.
Upper Niger	Classified as Nationally Important, this ecoregion is home to a rich fish fauna, with species specialized to live in steep and rapidly flowing waters. This specialization is distinguishing for the ecoregion's aquatic biodiversity. 150 fish species are found in the ecoregion, eight of which are endemic. Several aquatic mammals, reptiles and waterbirds are found in the ecoregion, including the Vulnerable West African manatee.
Western Equatorial Crater Lakes	This ecoregion is classified as Globally Outstanding, in particular due to its higher-level taxonomic endemism. The western equatorial crater lakes of Cameroon contain a highly endemic aquatic fauna, with as much as 75% endemism in fish. In lake Barombi Mbo, 12 of the 15 fish species present are endemic, and four of the five tilapiine genera are endemic. The lakes also support an endemic sponge and an endemic shrimp. The ecoregion also supports a species-rich amphibian fauna with high endemism: one-third of nearly 60 species present are endemic to the surrounding forests.
Volta	Delimited by the Volta basin, which is shared by six countries, this ecoregion covers much of Ghana and extends into Burkina Faso and Mali. The river is dammed close to its mouth, at Akosombo, forming the world's largest artificial lake. An estimated 240 fish species have been recorded from the Volta ecoregion. The eight species restricted to the ecoregion are *Brycinus luteus* (EN), *Micropanchax bracheti* (EN), *Chiloglanis voltae* (LC), *Synodontis voltae* (DD), *Synodontis macrophthalmus* (CR), *Enteromius vandewallei* (DD), *Proothobranchius seymouri* (EN) and, *Irvineia voltae* (EN).

Sources: Olsen *et al.* (2001), Starnes and Darwall (2021).

Marine ecoregions

The hotspot does not extend into the marine realm, but the neighboring marine ecosystems are important for livelihoods and environment within the hotspot, and land and resource use within the hotspot impacts on marine ecosystems. The hotspot borders four marine ecoregions, as defined by Spalding *et al.* (2007). All belong to the province of Gulf of Guinea, which is one of the world's most productive marine areas, with rich fisheries resources. The dominant feature of region is the Guinea Current. The Gulf of

Guinea is bordered to the north by the Canary Current and to the south by the Benguela Current coastal upwelling region. Coastal geology is dominated by the Volta and Niger basins. The continental shelf is generally narrow, extending 15-90 km offshore, and breaking at depths of approximately 100-120 meters.

There are no coral reefs in this part of Africa. Mangrove forests and swamps are the most biologically significant coastal ecosystems in the Gulf of Guinea region, as they provide critical breeding grounds for many fish and shrimp species, and critical habitat for a variety of other coastal species, including mammals, reptiles, and birds. There are seven species of mangrove native to the region, though most of the mangrove forests are dominated primarily by stands of Rhizophora racemosa. Nigeria, Cameroon and Sierra Leone collectively host approximately nine percent of the world's mangrove forests by area, which represents about 42% of the mangrove forests in Africa (FAO 2007). The most important mangrove stands in the hotspot are the Niger Delta communities in Nigeria and those in Yawri Bay in Sierra Leone. The mangroves of the Niger Delta are considered to be the largest in Africa, and the third largest in the world (Ukwe *et al.* 2001). Mangrove forests in many areas of the hotspot are threatened by unsustainable logging, pollution and Nipa palm invasion, especially in Nigeria and Cameroon.

4.6 Species diversity and endemism

The impressive levels of biodiversity and endemism contained within the Guinean Forests Hotspot are summarized by major taxonomic groups in Table 4.3 and described in the following sections.

Table 4.3. Species Richness and Endemicity

Taxonomic group	Status of Red List assessment	Number of species in hotspot	Species assessed for the Red List	Number of endemic species assessed
Amphibians	Complete	>284	284	118
Birds	Complete	>949	949	49
Bony fish	Complete	>1452	1452	no data
Coral/Anthozoan	Partial	8	8	0
Crabs and shrimps	Complete	72	69	no data
Fungi	Partial	no data	1	no data
Insects	Partial	>1000	384	>1
Mammals	Complete	444	438	67
Mollusks	Complete	105	99	no data
Plants	Partial	>9000	2256	no data
Reptiles	Partial	>308	308	20
Sea cucumber	Partial	>6	6	no data
Sharks and rays	Partial	>97	97	0
Spiders (arachnids)	Partial	>6	6	no data
Total			**6273**	

Amphibians are relatively poorly documented in the hotspot but there are 284 recorded species and more likely to be discovered in the future. Of these species more than 118 are endemic, with particularly large numbers of endemics in the Cameroon Highlands. Over one-quarter of the hotspot's amphibian species are considered globally threatened. 949 **bird** species have been assessed for the IUCN Red List. Just under six percent are globally threatened, and at least 49 are endemic.

Throughout the hotspot, information on the status of **butterflies** is still quite limited, with only 141 species currently assessed on the IUCN Red List. Information is better for a few individual sites, including the Oban Division of Cross River National Park in Nigeria,

which is thought to support more than 1,000 species of butterfly, and the Gola National Park in Sierra Leone, which is estimated to support in excess of 600 species.

The hotspot has a diverse **mammal** fauna, with an estimated 390 terrestrial mammals, over one-quarter of the roughly 1,100 total mammal species found in Africa. More than 60 mammals are endemic to the hotspot, including two of the rarest antelopes in the world: the Endangered Jentink's duiker (*Cephalophus jentinki*) and the Vulnerable zebra duiker (*C. zebra*). Other globally threatened species include the Endangered pygmy hippopotamus (*Choeropsis liberiensis*) and the Vulnerable Liberian mongoose (*Liberiictis kuhni*). The hotspot has 30 species of primate, six of which are endemic to the Upper Guinean Forests subregion, and nine to the Nigeria-Cameroon subregion. There are also four endemic primate subspecies on Bioko Island. Taxonomic work continues to identify new species in the region – for example, a new species of tree hyrax endemic to the area between the Niger (Nigeria) and Volta (Ghana) rivers was described in 2022 (Oates *et al.* 2022).

The hotspot is estimated to contain more than 9,000 vascular **plant** species, of which around 20% are thought to be endemic (Mittermeier *et al.* 2004). Taï National Park in Côte d'Ivoire, Mount Nimba on the Liberia-Guinea-Côte d'Ivoire border, Cross River National Park in Nigeria, and Mount Cameroon are especially rich in plant species, with nearly 2,500 plant species recorded on Mount Cameroon alone. Because of their relative isolation from the rest of the hotspot, the Gulf of Guinea Islands also support a highly endemic flora, and approximately 185 species are known to be endemic to these islands, with more to be described.

The Nigeria-Cameroon border, and the Cross River National Park in particular, supports the largest tract of remaining primary rainforest in Nigeria, and is especially rich in endemic plants. These include, *Synsepalum glycydora* (EN) and *Talbotiella eketensis* (EN), both forest tree species apparently restricted to South-east Nigeria. The area is also one of the richest in the hotspot for orchids and commercially important species in the Rubiaceae (Droissart *et al.* 2011) and has generally high levels of genetic distinctiveness (Dauby *et al.* 2014).

Three hundred and eight **reptile** species have been assessed for the Red List. Eighteen of the 24 reptiles found on the islands of São Tomé, Príncipe and Annobón are endemic. All three species of African crocodiles are found within the hotspot.

The hotspot supports a remarkable diversity of **bony fishes**: at least 1,452 species. More than half of the freshwater fishes are endemic to the western Africa region, but only a few are thought to be endemic to the hotspot itself, because the hotspot boundaries are largely based upon forest habitats and not river catchments, and most river systems in the hotspot originate outside its boundaries. Many species are, however, endemic to catchments crossing the hotspot (Starnes and Darwall 2021). About one-quarter of the world's 350 species of killifish are found in the hotspot, around half of which are endemic. Cichlids are also prominent, with more than half of the 60-plus species present endemic to the hotspot. Four of the five endemic genera of cichlids are found only in Lake Barombi Mbo in southwest Cameroon (Mittermeier *et al.* 2004).

The hotspot also supports a high diversity of many other freshwater taxa, including **freshwater crustaceans**, **mollusks**, **odonates** and **freshwater plants** (Smith *et al.* 2009). Western Africa is a center of diversity for Africa's freshwater crabs (Cumberlidge *et al.* 2009).

4.7 Landscape-level conservation priority setting

4.7.1 Endemic Bird Areas (EBAs) and secondary areas (SAs)

An EBA is an area which encompasses the overlapping breeding ranges of *two or more* restricted-range species, such that the complete ranges of the restricted-range species are entirely included within the boundary of the EBA. A region which encompasses the range of only one restricted-range species is known as a *secondary area*. Restricted-range species are defined as landbirds that have had, throughout historical times (since ornithological recording began after 1800), a total global breeding range estimated at below 50,000 km^2.[1] A global analysis has identified 363 EBAs and SAs globally. Six EBAs and two SAs are entirely or partly within the hotspot (Table 4.4).

Table 4.4. Endemic Bird Areas in the GFWA Hotspot

EBA	Benin	Cameroon	Côte d' Ivoire	Equatorial Guinea	Ghana	Guinea	Liberia	Nigeria	São Tomé and Príncipe	Sierra Leone	Togo
Cameroon Mountains		x		x				x			
Cameroon and Gabon Lowlands		x		x				x			
Upper Guinea Forests			x		x	x	x			x	
Annobon				x							
Lower Niger Valley (secondary)								x			
South-west Nigeria (secondary)								x			
Príncipe									x		
São Tomé									x		

4.7.2 Key landscapes for conservation and development

The EU has identified key landscapes for conservation and development (KLCDs). Twelve KLCDs overlap at least partly with the hotspot (Table 4.5). Detailed maps illustrating the boundaries and key features of most KLCDs are available on the PAPFor website https://papfor.org/-Landscapes-

Table 4.5. EU Key Landscapes for Conservation and Development

EU Landscapes	Benin	Cameroon	Côte d' Ivoire	Equatorial Guinea	Ghana	Guinea	Liberia	Nigeria	São Tomé and Príncipe	Sierra Leone	Togo
Cross River-Korup-Takamanda-Cameroon Montane (CRIKOT)		X						X			
Taï - Grebo-Krahn - Sapo - SW Liberia Forests			X				X				
Nimba-Diécké			X			X	X				
Gola-Foya-Kpo Mountains							X			X	
Wologizi-Wonegizi-Ziama						X	X				

[1] https://datazone.birdlife.org/eba

EU Landscapes	Benin	Cameroon	Côte d' Ivoire	Equatorial Guinea	Ghana	Guinea	Liberia	Nigeria	São Tomé and Príncipe	Sierra Leone	Togo
Bia Ankasa-Nini-Suhien-Kwabre-Tanoé					X						
Yawri Bay - Sherbro River Estuary/ Grand Mano complex							X			X	
Fazao-Malfakassa-Kyabobo					X			X			
Niokolo Koba - Badiar - Bafing - Boé*						X					
Outamba-Kilimi-Kuru-Pinselli-Soyah-Kounounkan*						X				X	
Eastern Gulf of Guinea				X					X		
Gashaka-Faro-Bouba-Ndji-da-Binder		X						X			

Note: * = these KLCDs are predominantly savanna woodland areas and have only a small part of their area overlapping with the hotspot.

4.8 Species priorities

4.8.1 Western Chimpanzee Action Plan

The Regional Action Plan for the Conservation of Western Chimpanzee (*Pan troglodytes verus*) 2020–2030[2] addresses the conservation of the Critically Endangered western subspecies of chimpanzee, which occurs in Côte d'Ivoire, Ghana, Guinea, Liberia, Sierra Leone in the hotspot (also in Guinea-Bissau, Mali, and Senegal). The population is thought to have declined by 80% between 1990 and 2014, and Guinea, Liberia, Sierra Leone are now the stronghold of the species. Only about 17% of the population are within protected areas. The main threats are habitat loss and poaching, followed by industrial and artisanal mining, disease, negative interactions between people and chimpanzees, industrial agriculture and road infrastructure. Conservation requires improved monitoring, stronger legal frameworks, regional coordination, improved land-use planning, improved management of protected areas, greater public awareness, under-pinned with greater finances.

4.8.2 Red Colobus Action Plan

There are 18 species of red colobus monkey in Africa. Five are found in the GFWA hotspot, with four of them Critically Endangered, and one Endangered. Three or four are endemic to the hotspot. The 2021 IUCN Red Colobus Action Plan[3] collates information on status and threats.

4.8.3 Amphibian Conservation Action Plan

The 2024 IUCN Amphibian Conservation Action Plan[4] is global in scope, and is structured around threats (climate change, chemical contamination, habitat loss, infectious disease, trade) and solutions (communications, education, strategic planning of conservation interventions, surveys and monitoring, breeding, biobanking and translocation).

4.8.4 Cycad Conservation Action Plan

The 2003 IUCN Cycad status survey and conservation action plan[5] includes one species that appears to occur in the hotspot (*Encephalartos barteri*, VU). The report discusses

[2] portals.iucn.org/library/sites/library/files/documents/2020-015-En.pdf

[3] https://portals.iucn.org/library/sites/library/files/documents/2021-015-En.pdf

[4] https://portals.iucn.org/library/sites/library/files/documents/SSC-OP-057-En.pdf

[5] https://portals.iucn.org/library/sites/library/files/documents/2003-010.pdf

the impact of trade, community-based conservation and breeding, and the need for improved law enforcement.

4.8.5 African Elephant Action Plan

Savannah and Forest elephants have been treated as separate species by IUCN since 2021. Savanna elephants only occur in West Africa in Cameroon and Nigeria, and these are likely to be outside the hotspot. Forest elephants occur more widely in West Africa, including in Benin, Cameroon, Côte d'Ivoire; Equatorial Guinea; Ghana; Guinea; Liberia; Nigeria; Sierra Leone and Togo. There are no good estimates of population, but work in Gabon and the Democratic Republic of the Congo (DRC), where most forest elephants occur, suggests declines of 80% over the last three generations (93 years) (IUCN Red List data). Important KBAs for forest elephants include Ziama (Guinea), Tai and Marahoue (Côte d'Ivoire), Sapo (Liberia), Kakum (Ghana), Fazao Malfakassa (Togo).

The African Elephant Action Plan, updated in 2023, is submitted to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) secretariat by the African Elephants Range States group.[6] All ten of the hotspot countries with elephants (i.e. all except São Tomé and Príncipe) were involved in the development of the plan. The plan focuses on management of human-elephants conflict, maintaining habitats and connectivity, reduce illegal killing and trade, increase stakeholder awareness, strengthen range state knowledge, strengthen range state cooperation, cooperation and collaboration with local communities, and financing for the implementation of the plan, linked to the Africa Elephant Fund. Delivery of the plan is through the development of National Elephant Action Plans.

4.9 Ecosystem Services in the Hotspot

Ecosystem services can be categorized into four broad groups: provisioning, regulating, supporting and cultural services (Millennium Ecosystem Assessment 2005). A wide variety of services are provided by the ecosystems found within the hotspot. They include those that are important at a global scale, such as climate mitigation through carbon storage and sequestration, as well as those benefitting the local communities and individuals, such as food, fuel, and building materials. Table 4.6 provides a summary of ecosystem services provided within the hotspot.

Table 4.6: The main ecosystem service in the hotspot

Type of service	Importance in the hotspot
Provisioning services	
Timber and forest products	The hotspot's forests provide a range of ecosystem services for a population of around 130 million, generally poor, people. These services include supplying timber and other building materials, fuel for cooking, in the form of either firewood or charcoal, food (e.g. fruit, fungi, meat) as well as medicines
Wild foods and fisheries	Forests provide a range of wild foods, from bushmeat to plants and fungi. Wetlands and mangrove areas are critical nursing and spawning grounds for many fish and shrimp species, supporting local capture fisheries as well as commercial fisheries off-shore. Fish protein constitutes between 40 and 80% of total annual protein consumed per capita, with much of it wild caught.

[6] https://wedocs.unep.org/bitstream/handle/20.500.11822/46046/african_elephant_fund%202023%20_action_plan.pdf?sequence=1&isAllowed=y

Water	The major ecosystem service values from water are realized outside the hotspot boundaries, where there is less rainfall and hence water is a more important service. Within the hotspot, water supply is generally not limiting and most major cities are supplied from local rivers or existing large dams. Most agriculture in the hotspot is rain fed, including 'upland rice', which is sewn directly into the soil during the rainy season. The most important catchment within the region is the Fouta Djallon Massif, which serves as the water catchment area for a number of the key rivers that flow outside of the hotspot, most notably the Niger and Senegal Rivers.
Regulating services	
Microclimate regulation	Forests stabilize local water cycles and rainfall patterns, contributing to regulating moisture, humidity, temperature and thereby affecting frequency and intensity of fire as well as the climate for people, crops and livestock.
Carbon sequestration and storage	Buchanan et al (2021) estimate that the forests and top 30 cm of soils of the countries of the hotspot (excluding São Tomé and Príncipe) sequester 38.7 million tons of carbon per year (2018), with the highest rates in Cameroon and Liberia.
Mitigating extreme weather and climate change	Coastal mangroves provide protection against floods, storm surges and erosion for the 40% of the hotspot population who live on the coast. Forests (and other vegetation) contribute to minimizing soil erosion, assisting ground-water recharge and buffering the impact of extreme rainfall events.
Recreational and cultural services	
Recreational, spiritual and other non-exploitative use values	Throughout the hotspot, and especially in Benin, Ghana, Sierra Leone and Togo, traditional sacred groves (sometimes called 'fetish groves') are designated as areas where resource harvest and even entrance by people are highly restricted. These sacred groves are found in many villages and can provide valuable, albeit small, areas of protected forest in farmed landscapes. In some areas (e.g. in Ghana) they are associated with populations of colobus monkey, or other wildlife. The coastal and natural landscapes of the hotspot have important recreational values, both for local residents (e.g. urban people visiting surrounding natural areas), and for tourists, who visit primarily for the cultural and natural interest of the region. Intact natural landscapes provide important venues for practical education and research on a range of social and environmental subjects.
Supporting services	
Biodiversity and endemism	The stock of biodiversity represents a future source of genes, varieties and new compounds

5. CONSERVATION OUTCOMES DEFINED FOR THE HOTSPOT

5.1 Introduction

Selection of conservation outcomes relies on the understanding that biodiversity is not measured in any single unit. Rather, it is distributed across a hierarchical continuum of ecological scales that can be categorized into three levels: i) species; ii) sites; and iii) broad landscapes (or ecosystem-level units), termed corridors. These levels interlock geographically through the occurrence of species at sites and species and sites within corridors. Given the threats to biodiversity at each of these three levels, targets for conservation can be set in terms of 'extinctions avoided' (species outcomes), 'areas protected' (site outcomes) and 'corridors consolidated' (corridor outcomes).

For this analysis, the conservation outcomes defined in the 2015 ecosystem profile are updated with reference to the latest version of the IUCN Red List, the latest version of the World Database on KBAs, species and site data gathered during and since the previous CEPF program in the hotspot, especially on freshwater sites, and new approaches to analyzing species and site data, particularly the STAR index and the KBA scoping tool. Available data was shared with stakeholders (chapter 2) and inputs were received on species and conservation action at KBAs.

The analysis includes the results of work on freshwater ecosystems in the hotspot funded under the previous CEPF program. This work assessed the status of 1,502 freshwater species: 555 freshwater fishes, 100 freshwater mollusks, 307 odonates (dragonflies and damselflies), 54 freshwater decapods (crabs and shrimps) and 486 species of aquatic plants, and is the most complete assessment of freshwater taxa in the hotspot to date.

5.2 Species outcomes

5.2.1 Methodology

Species selected are those classified as threatened (Critically Endangered, Endangered, or Vulnerable) on the IUCN Red List of Threatened Species (hereafter the IUCN Red List). A list of species was generated for each country in the hotspot, and then filtered to exclude species which do not occur within the hotspot boundary, using the range maps available on the Red List website.

5.2.2 Results

The IUCN Red List contains assessments for 6,273 species that occur in the hotspot. Of these, 1,084 (17%) are globally threatened (classified as Critically Endangered, Endangered or Vulnerable). This number is likely to increase in the future as more species are assessed, particularly in groups such as plants, invertebrates and fungi. The globally threatened species include 216 species assessed as Critically Endangered, the highest category of threat. Table 5.1 summarizes the data.

There have been several changes in the Red List for the hotspot since the 2015 ecosystem profile. The total number of species assessed has increased from 4,694 to 6,273, and based on these assessments, the total number categorized as 'threatened' (Critically Endangered, Endangered or Vulnerable) has increased from 936 to 1084. Although there are more species classified as threatened, this is actually a small decrease in the proportion of assessed species which are threatened – from 20% to 17%. However, this is an increase in the number and proportion of species in the highest threat category, Critically Endangered, from 135 (2.8% of species assessed) to 216 (3.4% of species assessed). At the same time, improved data has reduced the number of species classified as 'Data Deficient' (meaning that there is insufficient information

available to make a reliable assessment of their current risk of extinction using the IUCN Red List criteria) from 389 (8%) to 283 (4.5%).

Comparing the numbers of threatened species between 2015 and 2024 is complicated by the fact that changes may be the result of (a) a real increase or decrease in the extinction risk to species, (b) more species being assessed, (c) new data becoming available, or (d) taxonomic changes which affect the list of species. To determine meaningful changes in extinction risk over time, it is important to compare the same set of species, consider only the 'genuine' changes in status driven by improvements or deterioration in the status of individuals species, and take account of movement between threatened categories (e.g., from Vulnerable to Endangered) and not just changes in the number of threatened versus non-threatened species. The Red List Index is a well-established biodiversity indicator that does this, allowing calculation of the real change in extinction risk in a defined area, for the groups that have been comprehensively assessed more than once on the Red List: currently mammals, birds, amphibians, reef-building corals and cycads. Red List Indices for the hotspot countries (derived from the global indicator, with each species weighted by the proportion of its global range in the relevant country) have remained broadly stable over the past 20 years. This suggests that the number and magnitude of increases in extinction risk have been balanced by the number and magnitude of reductions in extinction risk (typically driven by successful conservation action). It is important to remember however that the Red List Index is moderately sensitive, particularly when disaggregated to the national scale for countries with a low proportion of endemic or near-endemic species. Populations of species in these countries may have continued to decline on average, with extinction risk growing, but not yet sufficiently significantly to be reflected in the Red List Index.

Table 5.1. Number of threatened species in the hotspot, by major taxonomic group and Red List category

Group	No. of species assessed	Critically Endangered	Endangered	Vulnerable	Data Deficient	Least Concern or Near Threatened	Extinct
Mammals	436	13	38	29	36	320	
Birds	948	9	18	27	3	891	
Reptiles	307	7	9	13	24	254	
Amphibians	283	26	35	19	26	177	
Bony Fish	1452	37	82	66	107	1160	
Sharks and Rays	96	19	23	23	2	29	
Insects	384	5	8	7	24	340	
Arachnida	6					6	
Freshwater Crabs and Shrimp	69	4	9	5	16	35	
Mollusks	99	9	7	4	7	72	
Corals	8	1			3	4	
Sea Cucumbers	6				3	3	
Plants	2178	86	244	202	32	1613	1
Fungi	1					1	
Total	**6273**	**216**	**473**	**395**	**283**	**4905**	**1**

Source: IUCN Red List version 2023-1; exported in July 2024.

The distribution of the major taxonomic groupings of threatened species, combined across all three realms, in each of the countries in the hotspot (Table 5.2) shows that Cameroon has the highest (57%) followed by Guinea (32%), Nigeria (27%), and Liberia (26%). The number of species assessed for each country within the hotspot is summarized in Table 5.2 and the list of priority species is in Annex 1.

Table 5.2. Breakdown of Globally Threatened Species by Country and Major Taxonomic Group

Group	Benin	Cameroon	Côte d' Ivoire	Equatorial Guinea	Ghana	Guinea	Liberia	Nigeria	São Tomé and Príncipe	Sierra Leone	Togo	Hotspot
Mammals	14	33	45	20	33	23	27	34	24	4	13	80
Birds	17	29	29	25	23	6	22	24	22	15	19	54
Reptiles	9	9	22	9	9	8	9	14	10	4	9	29
Amphibians	1	8	57	8	6	7	6	14	1	3	3	80
Bony Fish	22	33	77	32	61	22	54	46	43	14	15	185
Sharks and Rays	58	59	62	60	56	58	57	59	56	28	56	65
Insects	1	1	10	2	2	1	2	6	3		1	20
Arachnida	-	-	-	-	-	-	-	-	-	-	-	-
Freshwater Crabs and Shrimp			5	1	3	1	6	5	3	1		18
Mollusks	1	5	3	7	3	0	3	2	3	2	2	20
Corals										1		1
Sea Cucumbers	-	-	-	-	-	-	-	-	-	-	-	-
Plants	9	73	310	31	147	54	101	91	90	30	4	532
Fungi	-	-	-	-	-	-	-	-	-	-	-	-
Total	**132**	**250**	**620**	**195**	**343**	**180**	**287**	**295**	**255**	**102**	**122**	**1,084**

Plants

Around one quarter of the 2178 plant species in the hotspot so far assessed for the IUCN Red List are threatened. For these species, a broad spatial analysis shows a significant gap in coverage by the protected areas network in the hotspot (Burgess *et al.* 2005). This gap in spatial cover of protected areas is somewhat reduced by the inclusion of forest reserves but in reality many of these reserves may provide little conservation benefit.

Three plant species are believed to be extinct in the hotspot:

Eriocaulon jordanii is a wetland plant in the pipewort family. It was only known from two sites in Sierra Leone, both of them wetlands which have now been converted for rice cultivation. The species has not been recorded since the 1950s.

Byttneria ivorensis and *Argocoffeopsis lemblinii* are both forest trees known from single herbarium specimens collected in Côte d'Ivoire.

Eight-nine plant species are Critically Endangered, including many species of orchids, legumes and members of the coffee family (Rubiaceae). The majority (56) of these species are found in Cameroon, which has to date been the main geographic focus for assessment of plant species for the IUCN Red List.

Despite this being a forest hotspot, information on the status of trees remains very poor. For example, six of the eight highly valued mahogany species present in the hotspot were last assessed for the IUCN Red List in 1998 and are in need of updating.

The endemic flora of São Tomé (Figueiredo *et al.* 2011) is also highly threatened, with three CR species know only from a very small number of sites, one on Príncipe, two on São Tomé. There are also three Critically Endangered plant species on Bioko, including a very rare species of begonia, *Begonia pelargoniflora*, which is only known from four subpopulations two of which are on Bioko and one each from the Bakossi Mountains and the adjoining Mount Nlonako in Cameroon.

Further west in the hotspot, the Mount Nimba area is recognized for its high diversity of plant species many of which, although not yet assessed for the IUCN Red List, will likely be threatened, in particular due to mining activities, logging and deforestation. Of the few assessed plant species in the western parts of the hotspot most, such as *Neolemonniera clitandrifolia* (EN), a tree species occurring in low densities in Atewa Range and Cape Three Points Forest Reserves and Ankasa Resource Reserve, are threatened by habitat loss due to agricultural expansion, mining and logging.

The analysis of threat levels presented in Table 5.1 is not considered representative of the full flora of the Guinean Forests, as the limited sample of species currently assessed is likely biased towards those expected to be threatened. The 2178 terrestrial plant species from the hotspot that have been assessed for the IUCN Red List only represent a small fraction of the more than 9,000 species of vascular plants estimated to occur in the hotspot. The greatest geographic coverage of plant species assessments is for Cameroon, with the status of species in the rest of the hotspot remaining rather poorly known.

Mammals
Eighty-one of the 436 mammal species occurring in the hotspot (19%) are threatened, including a number of iconic species, such as western gorilla, chimpanzee, pygmy hippopotamus, forest elephant and drill. The primates, rodents, shrews and bats are however the dominant (in terms of the number of species) and most threatened groups of mammals, impacted mainly by hunting and deforestation due to agricultural expansion and logging.

Western gorilla, found in Nigeria and Cameroon within the hotspot, is Critically Endangered due to a combination of exceptionally high levels of hunting and disease-induced mortality. Most protected areas have serious poaching problems and animals in almost half of the habitat under protected status have been hit hard by Ebola (Ryan and Walsh 2011). Chimpanzee, which has subpopulations across much of the hotspot, is assessed as Endangered, also due to high levels of hunting, loss of habitat and Ebola.

Pygmy hippopotamus (EN), a species endemic to the hotspot, occurs only in Liberia, Côte d'Ivoire, Guinea and Sierra Leone, with much of the population in Liberia. A suspected population in the Niger Delta has apparently gone extinct. In 2011, it was estimated that there were only 2,000-3,000 individuals remaining (Hillers *et al*. 2017). The species is included in Appendix II of CITES (as *Hexaprotodon liberiensis*), which provides some controls on international trade. Sapo National Park and Taï National Park are two key sites for the species.

Since the previous ecosystem profile, African elephant has been recognized as two species. Savanna elephant *Loxodonta africana* is Endangered, and occurs only in Nigeria and Cameroon, in the northern fringes of the hotspot. Forest elephant, *Loxodonta cyclotis*, is Critically Endangered and occurs in all of the mainland hotspot countries, although many populations are extremely small and threatened. Population estimates by country are provided in the Elephant Database of the IUCN Species Survival Commission

(SSC) African Elephant Specialist Group[7] and show that of the hotspot countries, Benin and Ghana have by far the highest elephant population, though many of these are presumably Savanna elephants in the center and north of the two countries. Liberia and Côte d'Ivoire have smaller numbers, with very small populations surviving in Guinea, Siera Leone, Togo and Nigeria.

An estimated 28 species of marine mammal have been reported from the area adjacent to the hotspot of which five are threatened. Of special importance are the Critically Endangered Atlantic humpback dolphin *Sousa teuszii* and the Vulnerable African manatee *Trichechus senegalensis*, both of which inhabit the near shore coastal areas of the hotspot. The former species is endemic to the eastern tropical Atlantic and is limited to estuarine and shallow coastal waters (Ross 2002, van Waerebeek *et al.* 2004) in depths of less than 20 meters, and has been observed to travel up the Niger and Bandiala rivers. There is historical evidence of presence in the Cameroon Estuary. Their populations are considered to be highly fragmented, and in low numbers. As with other cetaceans, Atlantic humpback dolphin is threatened by incidental mortality in fishing nets, and is also taken directly for food. Habitat destruction, boat strikes and water pollution are additional potential threats, although little is known about them.

African manatee is found in near-shore and inland waters between Senegal and Angola. Within the hotspot it is widely distributed throughout estuaries, mangroves, rivers and inland lakes, and along the marine coastal flats, but overall numbers are declining largely due to hunting and incidental catches (Keith Diagne 2015). Although hunting is illegal in several countries of the hotspot, and the species is listed in CITES Appendix II, restrictions are difficult to enforce.

Birds
Fifty-four of the 948 birds recorded in the hotspot (5.7%) are threatened. The main threats are agricultural expansion, hunting, and loss of habitat due to logging.

Five of the nine Critically Endangered species have highly restricted ranges within small remaining forest fragments. São Tomé grosbeak (*Crithagra concolor*, previously *Neospiza concolor*) and São Tomé fiscal (*Lanius newtoni*) are both known from a very small area of primary forest on São Tomé (IUCN 2014). São Tomé ibis (*Bostrychia bocagei*) is also known only from São Tomé, where it is confined to the catchments of the São Miguel, Xufexufe and possibly the Quija rivers in the southwest, and along the Io Grande and Ana Chaves rivers in the center of the island. The most recent estimate puts the total population at between 50 and 250 mature individuals. Annobon scops-own (*Otus feae*) is only known from moist and cloud forests in the uplands of central and southern Annobón island. Príncipe thrush (*Turdus xanthorhynchus*) is endemic to the island of Príncipe, where it is found only in the remaining forests in the center and south of the island, and has a population estimated at fewer than 250 mature individuals.

A rare color morph of the common and widespread icterine greenbul (*Phyllastrephus icterinus*) was until 2018 considered a separate, Critically Endangered, species, Liberian greenbul (*Phyllastrephus leucolepis*). DNA testing has now shown that this is not a distinct species.

Four of the vulture species in the region are Critically Endangered. The distribution of White-backed vulture (*Gyps africanus*) overlaps marginally with the hotspot, particularly in Ghana, Togo, Benin and Nigeria. It has declined by more than 90% in western Africa, having completely disappeared from Ghana with the exception of Mole National Park (which is outside the hotspot boundary) and is likely extinct in Nigeria. Rüppell's vulture

[7] https://africanelephantdatabase.org/report/2016/Africa/West_Africa

(*Gyps rueppelii*), White-headed vulture (*Trigonoceps occipitalis*) and Hooded vulture (*Necrosyrtes monachus*) are also Critically Endangered. These declines are due to hunting for food and traditional medicine, lack of food due to the severe depletion of wild ungulates and changes in methods of carcass disposal, and secondary poisoning from carburofan and other toxins inserted into animal carcasses to kill mammalian predators (Mallon *et al.* 2015 and references therein).

Three species of weavers were listed as Endangered in the 2015 ecosystem profile, but improved data on Gola malimbe (*Malimbus ballmanni*) means that this species is now considered near threatened. Ibadan malimbe (*M. ibadanensis*) is still classified as Endangered. It is found in southwestern Nigeria, where the population was estimated at around 2,500 individuals within 112 km^2 of remaining forest (Manu *et al.* 2005). Forest clearance and fragmentation are the main reasons for the suspected ongoing decline in population. Bates's weaver (*Ploceus batesi*) is also Endangered, and is found in southern and western Cameroon, occurring in a narrow belt from Limbé, at the foot of Mount Cameroon, east to Moloundou.

Reptiles
Information on reptiles has improved significantly since 2015, with the number of species assessed tripled to 307. Of these, 29 are threatened (9%).

Seven reptiles are Critically Endangered. Three are endemic to the hotspot: the worm lizard *Cynisca gansi* is only known from the type locality in the Niger delta region of eastern Nigeria, and has an estimated area of occupancy of 3 km^2; Angel's five-toed skink (*Lacertaspis lepesmei*) is only known from the Bamboutos Mountains of Cameroon, while another recently described skink, *Trachylepis nganghae*, is reported to be locally common at a single site in central Cameroon.

Four Critically Endangered reptiles have a wider distribution. Home's Hinge-back Tortoise (*Kinixys homeana*) is near-endemic to the hotspot, occurring across the coastal regions from Liberia eastwards, but has declined sharply because of the combination of habitat loss, intensive harvesting for subsistence and traditional medicine, and exploitation for the international pet trade. Nubian flapshell turtle (*Cyclanorbis elegans*) has a disjunct distribution across Africa north of the rainforest zone, but has not been reported for several decades and may now be extinct in river systems in the hotspot. Slender-snouted crocodile (*Mecistops cataphractus*) was once widespread across much of western and central Africa. Its population now appears to be divided into two, one of these being in the Upper Guinea region, although market data and surveys suggest that the species is now extremely rare here. Hawksbill turtle (*Eretmochelys imbricata*) has a global distribution in tropical and sub-tropical ocean, but is declining throughout its range as a result of hunting, egg collection and loss of nesting habitat. Action for this species within the hotspot should focus on Bioko Island of Equatorial Guinea and the islands of São Tomé and Príncipe, where the species nests regularly.

Three other species of marine turtles are present within the hotspot: the Endangered green turtle (*Chelonia mydas*); and the Vulnerable olive ridley turtle (*Lepidochelys olivacea*) and leatherback (*Dermochelys coriacea*). Some estuarine and lagoon areas have also been identified as developmental habitat for juvenile turtles, including the Cameroon Estuary for olive ridley turtle (Fretey 2001). In areas with large turtle aggregations (such as green turtle feeding and nesting grounds in Equatorial Guinea and São Tomé and Príncipe), organized market systems have developed (Formia *et al.* 2003). Sea turtles are hunted both on land and at sea, for meat and carapaces, their nests are exploited for eggs, and they are frequently threatened by entanglement in fishing nets and from degradation and loss of nesting beaches, particularly as a consequence of coastal development (Formia *et al.* 2003).

African dwarf crocodile *Osteolaemus tetraspis* is listed as Vulnerable but the assessment was completed in 1996 and requires updating. Although this species is very important in the bushmeat trade, it is not currently considered to be under threat (Mallon *et al.* 2015).

Amphibians
Eighty of the 283 amphibian species in the hotspot (28%) are globally threatened, mainly due to the habitat loss/degradation resulting from expanding urban and commercial developments, agricultural expansion, and logging. Of these species, the majority are concentrated in Cameroon, which supports 61 threatened amphibian species.

Twenty-six of the hotspot's amphibians are Critically Endangered, all of them endemic to the hotspot. (One species, Mertens' Smalltongue Toad, *Werneria mertensiana*, has been recorded from mainland Equatorial Guinea, outside the hotspot, but this record requires verification and may be a different species. This species is therefore treated as a hotspot endemic for this discussion). Seventeen of the hotspot endemics are only found in Cameroon, with the isolated mountain KBAs including the Rumpi Hills, Nganha, Manengouba, Oku, Bamboutos, Bakossi among the most important sites. A further three occur in mountainous regions in both Cameroon and Nigeria, while one is endemic to Nigeria. In the Upper Guinea, there are three Critically Endangered amphibians endemic to Ghana, one in Ghana and Togo, and one on Mount Nimba, in Liberia, Guinea and Côte d'Ivoire.

The Critically Endangered amphibian species in Cameroon include Lake Oku clawed frog (*Xenopus longipes*), endemic to Lake Oku on Mount Oku in western Cameroon. The species is unable to move across land effectively and is restricted to this shallow, eutrophic lake where it fills the ecological niche typical of predatory fishes. The main threat in this case is the risk of introduction of a predatory fish species. The redbelly egg frog *Leptodactylodon erythrogaster* occurs alongside its Endangered congener Mertens' egg frog (*L. mertensi*) on Mount Manengouba around springs and streams in submontane and lower montane forest. These species are thought to be fairly resilient to disturbance but the ongoing degradation of habitat due to expansion of farming activities, coupled with their highly restricted range, puts them at risk. As a final example, Nganha night frog (*Astylosternus nganhanus*) is only known from Mount Nganha on the Adamawa Plateau, where it is at risk from habitat loss due to farming expansion.

Although Cameroon is the clear center for threatened amphibians in the hotspot, there are also a number of threatened species in other countries. In Ghana, the Critically Endangered Intermediate Puddle Frog (*Phrynobatrachus intermedius*), is known from only two sites in Ankasa Resource Reserve, where it occurs in swampy areas within primary rainforest. It is threatened by forest degradation, in particular due to plantations of raffia palm. The Critically Endangered Mount Nimba viviparous toad (*Nimbaphrynoides occidentalis*) is only known from the Mount Nimba area in Guinea, Côte d'Ivoire and Liberia where, although partly located within a World Heritage Site, it is threatened by a proposed iron ore mining concession and the arrival of large numbers of refugees (UNESCO 2013). Finally, the Endangered Taï toad (*Sclerophrys taiensis*) is a very rare species only known from Taï National Park in Côte d'Ivoire and Gola Forest Reserve in Sierra Leone.

Insects
Despite the enormous diversity and importance of insects, only 283 have been assessed for the Red List, with 20 identified as threatened. They include 15 dragonflies, 3 grasshoppers and relatives, and 2 butterflies, all but two of them endemic to the hotspot.

There are five Critically Endangered insects, all of them dragonflies. Gamble's Flatwing (*Neurolestes nigeriensis*) and Gambles's Relic (*Pentaphlebia gamblesi*) are known only from the Obudu plateau in Nigeria, Togo Red Jewel (*Chlorocypha jejuna*) is known only from the place it was first described, in Togo, and *Pseudagrion mascagnii* is known only from the original pair collected in Sierra Leone in 2004. *Elattoneura pluotae* occurs in South-east Senegal, but its range may include the north-western limit of the hotspot, in Guinea.

The two threatened butterflies are endemic to Ghana. Atewa Dotted Border (*Mylothris atewa*) is known from upland evergreen forest on the Atewa Range in eastern Ghana, and is classified as Vulnerable. Tiassale liptena (*Liptena tiassale*), also Vulnerable, is known only from a single locality, a very vigorous colony in Aburi Botanical Gardens, Ghana. The species was formerly more widespread and remains vulnerable to stochastic events or potential neglect within this highly restricted site (Larsen 2011).

Although only a small number of butterfly species in the hotspot have been assessed for the IUCN Red List, the wider western Africa region is reported to support nearly 1,500 butterfly species, representing more than one-third of all butterflies in the Afrotropical biogeographical region (Larsen 2005). Within the hotspot, the forests of the Cameroon-Nigeria border are reported to harbor the highest forest butterfly species richness in Africa (Larsen 2005). Given the importance of the hotspot for butterflies, it is important to better understand their conservation status and the potential impacts on them of the many threats across the hotspot.

Odonates (dragonflies and damselflies) are a diverse group of invertebrates for which we have good information and which are also useful indicators of water quality, are numerous across the hotspot with an estimated 360 species recorded (Starnes and Darwall 2021). Additional surveys would likely lead to new discoveries. The most important locations for further study are western Guinea, especially the Fouta Djallon Massif, and southeastern Nigeria, especially Cross River State and the Niger Delta. The main threats to these species are habitat loss due to agricultural expansion and deforestation, and to a lesser degree, expansion of human settlements, tourism and dams (Djikstra *et al.* 2009).

Freshwater fishes
At the time of the 2015 ecosystem profile, 632 bony fish species (Actinopoterygii and Sarcopterygii) had been assessed for the Red List. As a result of work conducted during the previous phase of CEPF investment, assessments now cover 1452 species of bony fish. 185 (13%) of them are classified as threatened.

The highest densities of freshwater fish species in the hotspot are found within the Niger Delta and the Atlantic river catchments of Sierra Leone and Liberia. The Niger Delta itself has 180 recorded freshwater fish species and an additional 19 species are thought likely to be present. More than half of the freshwater fishes present are endemic to the western Africa region, but only a few species are thought to be endemic to the hotspot itself, primarily as the hotspot boundaries are largely based upon forest habitats and not river catchments, and most river systems in the hotspot originate outside its boundaries. Many species are, however, endemic to catchments crossing the hotspot.

Thirty-seven bony fish species are Critically Endangered. Twenty-one of them are endemic to Cameroon, seven endemic to Liberia, two endemic to Sierra Leone, with one in both countries, a further four endemic to Nigeria, and one endemic to Ghana. Finally, one species is found in Nigeria, Benin and Cameroon.

Myaka myaka is a Critically Endangered fish endemic to the Barombi Mbo Crater Lake in Cameroon, where, along with 15 other fish species (12 of which are endemic to the lake), it is threatened by the expansion of palm oil plantations and slash and burn

agriculture leading to sedimentation and pollution of the lake. Another Critically Endangered fish is *Enteromius boboi*, a cyprinid known only from the Farmington River in Liberia, where its habitat is declining due to siltation and pollution from deforestation and mining (Entsua-Mensah and Dankwa 2020). In a similar situation, the Critically Endangered *Labeo curriei* is restricted to the Via River, and possibly the Corubal River, in the Saint Paul River catchment in Liberia. The threat to freshwater fishes is not only a concern in terms biodiversity loss but for its impact to local livelihoods.

Freshwater crabs and shrimps
Sixty-nine species of freshwater crabs and shrimps (Malacostraca) were assessed by the Red List, with 18 of them classified as threatened. Western Africa is a center of diversity for Africa's freshwater crabs (Cumberlidge *et al.* 2009). Four of them are Critically Endangered: two species, *Liberonautes grandbassa* and *L. lugbe*, are endemic to Liberia*, L. grandbassa* is known from a single rainforest locality (Cumberlidge and Daniels, 2020) which is not protected, while *L. lugbe* is known from only two specimens collected in Lugbe in Nimba County, where it was found in small forest streams. The other two Critically Endangered crabs are *Afrithelphusa afzelii* and *Afrithelphusa leonensis*, each known only from a single locality in Sierra Leone. *Afrithelphusa afzelii* was rediscovered in 2022 after 200 years.

The freshwater shrimp, *Atya intermedia,* is an Endangered species only known from the islands of São Tomé and Annobón, where increasing tourism development is expected to result in degradation of the freshwater ecosystems on the islands, unless it is very carefully managed (de Grave 2013). Crabs and shrimps both play an important role in nutrient cycling in African freshwater ecosystems (Dobson *et al.* 2004, Cumberlidge *et al.* 2009), as they feed on dead and decaying materials such as leaves, so their ongoing decline could have a significant impact on ecosystem function.

Freshwater mollusks
Freshwater mollusks are essential to the maintenance of wetland ecosystems, primarily due to their control of water quality and nutrient balance through filter-feeding and algal-grazing and, to a lesser degree, as a food source for predators including several fish species. Many species are also restricted to very specific microhabitats, and thus sensitive to the impacts of dams, introduction of alien species, wetland drainage and river channelization, pollution, sedimentation and siltation.

Freshwater gastropod mollusks are reasonably well known for much of western Africa. This is largely because certain species of the genera Lymnaea (Lymnaeidae), Biomphalaria and Bulinus (Planorbidae) act as intermediate hosts for medically important parasitic flatworms (trematodes) of humans and domestic animals (Kristensen *et al.* 2009). National surveys carried out in several countries over the past century were designed to target these genera but they also recorded other species. The results of these surveys and of other collections were collated by Brown (1994). 99 mollusk species in the hotspot have been assessed for the Red List, of which 20 are threatened. For the bivalve mollusks, 31 species have been assessed from the hotspot, and five classified as threatened.

Most threatened mollusks have highly restricted ranges, and rely on clean, rapidly flowing waters, with nine of them Critically Endangered. Of particular importance is the Critically Endangered, relict species *Pleiodon ovatus*, which may be an ancestral species for all western African bivalves. *P. ovata* is effectively a living fossil, probably having become restricted to a single river (the Gbangbaia River in Sierra Leone) due to the disappearance of its host fish (probably a Sindacharax or Alestes species) from most of Africa. This species should be considered as a priority for further research and conservation.

Sharks and rays
Although marine and coastal habitats are not the central focus of the Guinean Forests hotspot, the region supports many highly threatened sharks and ray species. Of the 96 species assessed, 66 (68%) are threatened, with 20 of them Critically Endangered. Historical records indicate that the two sawfish species (*Pristis pristis* and *P. pectinata*, both Critically Endangered) were once common in the estuaries of western Africa (Faria *et al.* 2013, Burgess *et al.* 2009). However, there have been recent confirmed records of these species only from Sierra Leone and only historical records from the other coastal countries in the region (Burgess *et al.* 2009). Four Critically Endangered species of guitarfishes (*Rhinobatos* spp.) inhabit shallow inland coastal waters in the region and are heavily targeted for their fins. Shark fishing has increased significantly in the past several decades and has decimated populations of many species in the region (Diop and Dossa 2011). Several rays, including the Endangered rosette torpedo (*Torpedo bauchotae*) and Critically Endangered smalltooth stingray (*Hypanus rudis*), may be endemic to the shallow, near-shore waters in the area, but very little is known of their populations, ecology or the impacts of threats.

Other families of fish, such as the Vulnerable Sailfish (*Istiophorus platypterus*) recorded from the marine waters of the hotspot may be threatened by over-fishing.

5.3 Site outcomes

5.3.1 Methodology
Many species are best conserved by protecting their habitats and the biological communities they are part of, through conservation actions at a network of sites. CEPF has adopted key biodiversity areas (KBA) as the basis for defining important sites in the hotspots. The KBA approach has the advantage that:

- It uses a standardized methodology to identify sites that contribute significantly to the global persistence of biodiversity
- KBA are increasingly recognized and used by international conventions, international financing institutions, governments and conservation agencies as an input to decision making and priority setting
- The development and application of the KBA approach is supported by the KBA Partnership, a consortium of 13 global conservation organizations including CEPF, IUCN, Conservation International, BirdLife International and the GEF[8].
- The KBA partnership manages a global database (the world database on Key biodiversity areas, or WDKBA, https://wdkba.keybiodiversityareas.org/) which is an interactive platform allowing users to access data on confirmed KBAs, to propose KBAs, and to contribute data
- The KBA partnership produces guidance and training materials related to KBA identification, and encourages the formation of National Coordinating Groups to lead the identification and conservation of KBAs in each country

The KBA Standard, launched in 2016 (IUCN 2016, KBA Standards and Appeals Committee of IUCN SSC/World Commission on Protected Areas (WCPA) 2022), sets out a process that harmonizes a number of approaches to the identification of sites of importance for biodiversity, including the KBAs identified previously using former KBA criteria (Langhammer *et al.* 2007), Important Bird and Biodiversity Areas (IBAs) (Donald *et al.* 2019), and Alliance for Zero Extinction (AZE) sites (Ricketts *et al.* 2005). In doing so it provides a system that can be applied consistently and in a repeatable manner by different users and institutions over time. All sites that were identified prior to the

[8] Information on the KBA partnership is available at https://www.keybiodiversityareas.org/working-with-kbas/programme/partnership

publication of the Standard have been included in the set of more than 16,500 KBAs globally. Those that meet the 2016 standard are recognized as Global KBAs, those not meeting global KBA criteria but shown to meet other pre-existing criteria (e.g. IBAs) are recognized as Regional KBAs, while a third category, 'Global/Regional to be determined' has been assigned to those sites with insufficient supporting information to demonstrate whether global criteria, or criteria from other pre-existing schemes, are met. Efforts are required to improve the documentation, especially in this latter group of sites. The criteria for identifying KBAs are summarized in Annex 6, and data on all KBAs is accessible on the KBA website (https://www.keybiodiversityareas.org/).

The utility of KBAs is expanding as the approach is promoted. KBAs, alongside the IUCN Red List and the World Database on Protected Areas, form the basis of the Integrated Biodiversity Assessment Tool (IBAT) which is being increasingly used by companies and financial institutions in their assessments of risk and impact. These approaches are also used in policy mechanisms including the Sustainable Development Goals and Kunming Montreal Global Biodiversity Framework targets (especially Target 3), as well as by Governments to inform the expansion of Protected Area networks and recognition of Other Effective area-based Conservation Measures (OECMs).

5.3.2 KBAs in the Guinean Forests of West Africa Hotspot

One hundred and twenty-five terrestrial KBAs were listed in the 2015 ecosystem profile. Two of these are no longer included: Tiwai Island in Sierra Leone is no longer a KBA, and two KBAs in Côte d'Ivoire, 'Réserve Intégrale du Mont Nimba' and 'Mount Nimba (part of Mount Nimba transboundary AZE)' have been replaced by a single KBA: 'Mount Nimba Strict Nature Reserve'. In addition, this update of the ecosystem profile includes 12 KBAs that were not listed in the 2015 edition.

As of November 2024, therefore, there are 135 confirmed KBAs in the hotspot. Thirty-six meet global KBA criteria, a further seven are classified as 'regional' and 92 are classified as 'global/regional to be determined'. The tables below show the KBAs per country and added KBAs.

Table 5.3. KBAs in the Hotspot, by Country

Country	Confirmed KBAs, 2015	Confirmed KBAs, 2024			
		Global	Global/regional TBD	Regional	2024 total
Benin	1	0	0	1	1
Cameroon	19	13	9	0	22
Côte d'Ivoire	15	5	11	0	16
Equatorial Guinea	3	3	0	0	3
Ghana	30	3	29	1	33
Guinea	11	1	9	1	11
Liberia	18	2	17	1	20
Nigeria	12	5	9	0	14
São Tomé-Príncipe	4	3	2	0	5
Sierra Leone	9	1	6	1	8
Togo	2	0	0	2	2
Total	**124**	**36**	**92**	**7**	**135**

Table 5.4. KBAs Added to the 2015 Ecosystem Profile Analysis

Map code	KBA code	KBA Name	KBA status	Year identified	Key species
Cameroon					
CMR20	47084	Eastern Bamenda highlands and associated hydrobasin	Global	2018	Supports endemic freshwater crab *Louisea balssi* (EN)
CMR21	100521	Eastern Slopes of Rumpi Hills	Global	2024	One of two sites for the smooth egg-guarding frog, *Alexteroon jynx* (CR)
CMR22	6114	Njinsing - Tabenken	Global/ Regional TBD	2001	Endemic bird species, including 2 EN and 1 VU
Côte d'Ivoire					
CIV16	24853	Tanoe Forest Swamp Forest	Global	2018	Probably the last site for Miss Waldron's Red Colobus (*Procolobus badius*) (CR)
CIV17	24863	Banco National Park	Global	2018	Only location for (CR) shrew *Crocidura wimmeri*
Ghana					
GHA31	22293	Bandai Hills	Global/ Regional TBD	2009	One of 9 sites in the Ghana forest zone for the plant *Talbotiella gentii* (CR)
GHA32	22292	Bobiri Forest Reserve	Global/ Regional TBD	2010	One of 3 sites for the Ghana endemic Bobiri reed frog (*Hyperolius bobirensis*) (VU)
GHA34	100282	Sui River Forest Reserve	Global	2023	One of two known sites for Krokosua Squeaking Frog (*Arthroleptis krokosua*) (CR)
Liberia					
LBR19	22310	Cestos-Sapo South Corridor forest block	Global/ Regional TBD	2009	Supports lowland forest mammals including pygmy hippo (*Choeropsis liberiensis*, EN); Chimpanzee (*Pan troglodytes*, EN) and Western Red Colobus (*Piliocolobus badius*, EN)
fw12	47038	Weeni creek and associated hydrobasin	Global	2018	Only site for Grandbassa river crab (Liberonautes grandbassa, CR)
Nigeria					
NGA13	100506	Emerald Forest Reserve	Global	2022	Supports the entire known population of Perret's Toad (*Sclerophrys perreti*, CR)
NGA14	100504	Idanre Hills	Global	2023	One of less than 10 sites for the endemic Ibadan Malimbe (*Malimbus ibadanensis*, EN)
São Tomé and Príncipe					
STP5	6885	Tinhosas Islands	Global	2001	Two small islands which hold the largest seabird breeding colonies in the Gulf of Guinea, with internationally important numbers of breeding black noddy (*Anous minutus),* brown noddy *(Anous stolidus),* sooty tern *(Sterna fuscata)* and brown booby *(Sula leucogaster)*

The 135 KBAs identified to date in the hotspot cover a total area of 8.2 million hectares, about 13% of the total land area of the hotspot. The average size of a KBA is just over 61,000 hectares, but they vary from 18 hectares (Tinhosas Islands, São Tomé and Príncipe) to over half-a-million hectares (Gashaka-Gumti National Park, Nigeria, and Parc National de Taï et Réserve de faune du N'Zo, Côte d'Ivoire). The largest number of KBAs are in Ghana (33, a quarter of all KBAs), but the largest area of KBAs is in Liberia, where 20 KBAs cover 2.8 million hectares, over a third of the entire area of KBAs in the hotspot. Table 5.5 summarizes the number and area covered by KBAs.

Table 5.5. KBA Numbers and Area in the Hotspot, by Country

Country	No. of KBAs	Area of KBAs (hectares)	Percent of KBA area in each country
Benin	1	98,403	1
Cameroon	22	1,190,166	14
Côte d'Ivoire	16	1,191,282	15
Equatorial Guinea	3	86,202	1
Ghana	33	605,775	7
Guinea	11	311,738	4
Liberia	20	2,827,263	34
Nigeria	14	1,362,831	17
São Tomé and Príncipe	5	51,269	1
Sierra Leone	8	268,353	3
Togo	2	216,562	3
Total	**135**	**8,209,826**	**100**

West Africa has exceptional freshwater biodiversity, but the identification of freshwater KBAs has progressed more slowly than terrestrial KBAs. One challenge is that the hotspot boundary is drawn to encompass terrestrial biomes, while many of the freshwater lakes and rivers are part of larger systems that cross the hotspot boundary. Thus, while there are many freshwater fish that are endemic to West Africa, few are endemic to the hotspot. A second challenge is that defining the boundaries of freshwater KBAs is difficult when species occur, for example, along a linear feature such as a river. During the development of the 2015 ecosystem profile, a preliminary analysis of important sites for freshwater biodiversity was undertaken, using river/lake sub catchments units, as the widely accepted management unit most applicable to the freshwater realm.

After review, 12 sites were chosen as the highest priorities for investment. These sites were subsequently assessed against the new global KBA criteria, but lacked sufficient recent data to be classified as global KBAs. As a result, they remain 'proposed KBAs' in the list of KBAs of the region (Table 5.6). Subsequent work means that at least five may now have sufficient data to be assessed. The work of refining the freshwater priorities in the region continued during the previous CEPF grant-making phase and led to the identification of 87 planning units representing gaps in the current network of KBAs and protected areas, including 22 sub-catchments identified as irreplaceable sites for threatened freshwater species conservation (Starnes & Darwall 2021). These sites represent the only known localities of thirty-nine threatened freshwater species.

Table 5.6. Proposed Freshwater KBAs in the Hotspot

Map code	KBA code	KBA Name	Notes
Cameroon			
Fw1	500001	Lake Barombi Mbo and surrounding catchments	Priority for assessment as a global KBA, data available
Fw2	500002	Lake Bermin and surrounding catchments	Priority for assessment as a global KBA, data available
Côte d'Ivoire			
Fw3	500003	Lower Bandama River	Priority for assessment as a global KBA, data available
Togo / Ghana			
Fw5	500004	Lower Volta eastern catchment	Priority for assessment as a global KBA, data available
Liberia			
Fw4	500000	Lower reaches of St Paul River	
Fw7	500006	Middle reaches of St Paul River	
Fw11	500007	Upper reaches of St Paul River	
Fw12	47038	Weeni creek and associated hydrobasin	
Nigeria			
Fw13	500008	West Niger Delta	
Fw10	500009	South East Niger Delta - near Calabar	
São Tomé- Príncipe			
Fw9	500012	São Tomé	Revision likely as part of a national KBA review
Sierra Leone			
Fw6	500011	Gbangbaia River Basin	
Fw8	500010	Rhombe Swamp and Mouth of Little and Great Scarcies Rivers	

Freshwater KBAs were identified independently of the existing set of confirmed KBAs, and as a result there are some overlaps between confirmed KBAs and proposed freshwater KBAs. The largest areas of overlap occur on the island of São Tomé; in Cameroon, where Lake Bermin and surrounding catchments overlaps with Bakossi Mountains and Banyang Mbo Wildlife Sanctuary; and in Liberia, where large areas of the St Paul river catchment are proposed KBAs. In these areas, site boundaries need to be harmonized to ensure effective conservation management of both terrestrial and freshwater biodiversity.

5.3.3 Lists and maps of KBAs by country

This section presents maps and lists of all KBAs which are inside or overlap with the hotspot, by country. KBA numbering repeats the numbers used in the 2015 profile, for consistency, but the global standard codes used in the World KBA Database are also given. The maps include KBAs categorized as Global (meets global criteria), Regional (meets other pre-existing criteria) or Global/ regional to be determined (insufficient information to demonstrate importance), as well as proposed freshwater KBAs.

In the maps that follow, yellow lines indicate the hotspot boundary, green lines indicate the boundaries of confirmed KBAs, and blue lines indicate the boundaries of proposed KBAs. Corridors are outlined in purple. KBAs which are outside the hotspot or in neighboring countries are outlined in grey.

Figure 5.1. Benin

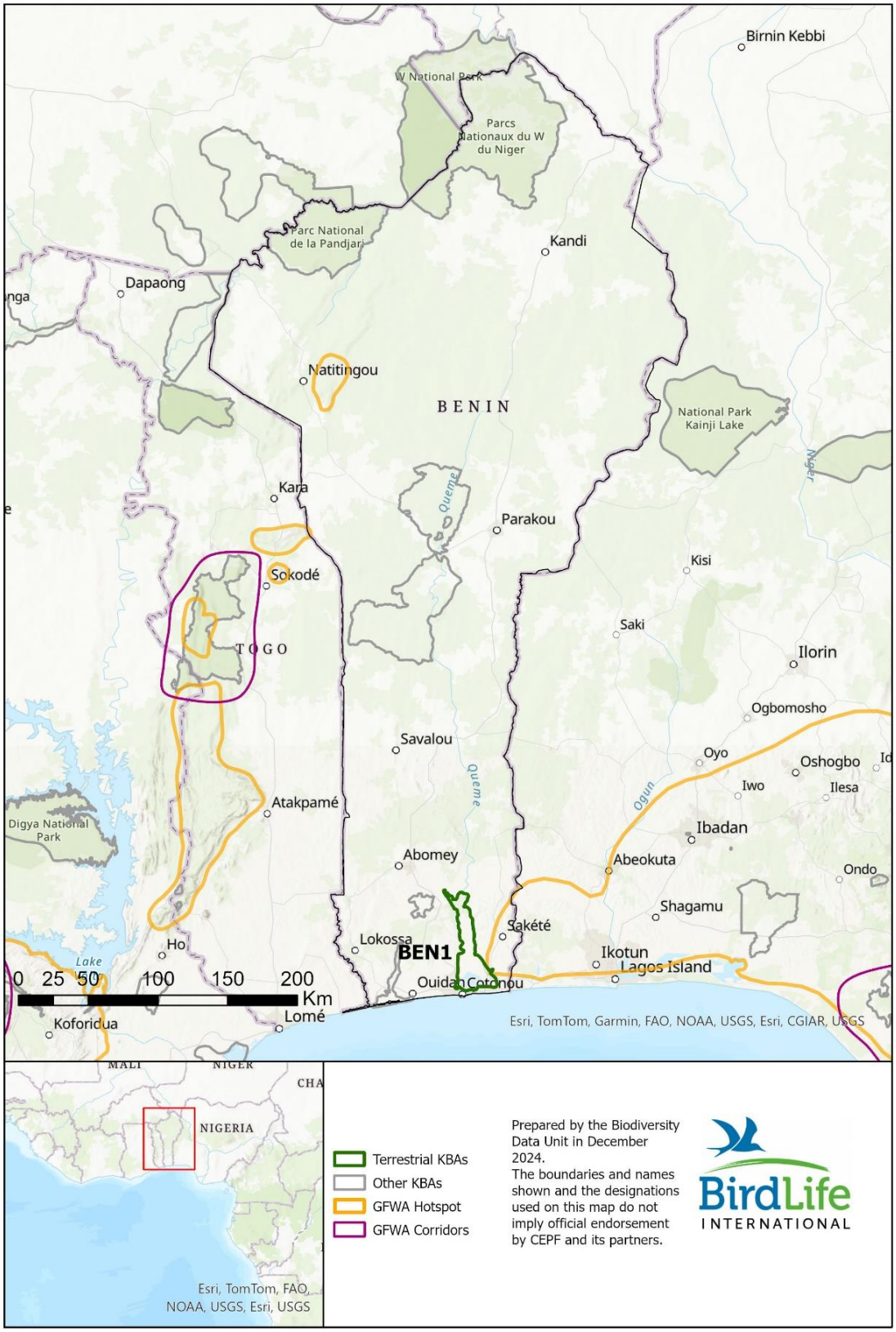

Table 5.7. GFWA KBAs in Benin

No.	Map code	KBA code	KBA Name	KBA Category
1	BEN1	6041	Lake Nokoué	Regional

Figure 5.2. Cameroon

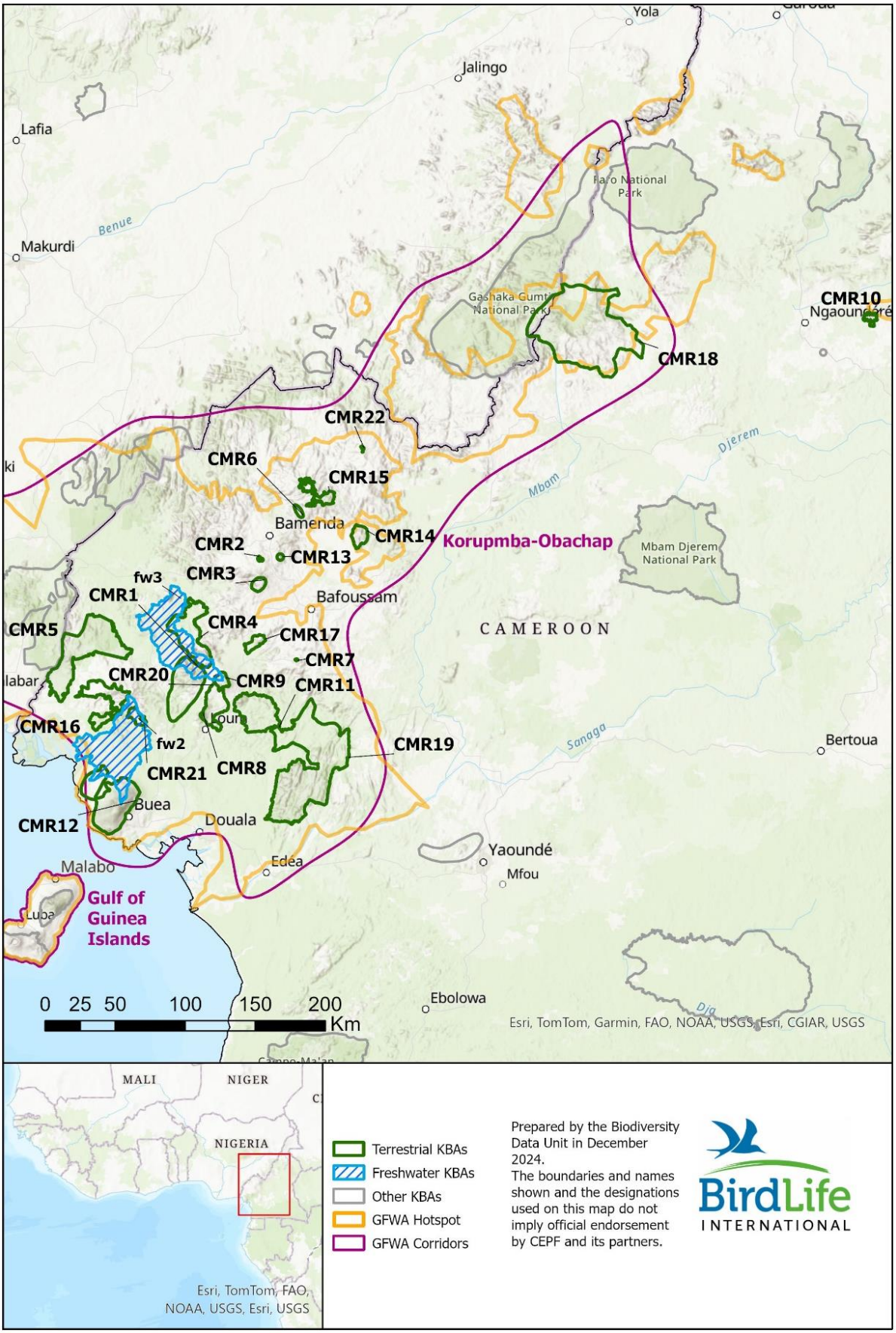

Table 5.8. GFWA KBAs in Cameroon

No.	Map code	KBA code	KBA Name	KBA status
1	CMR18	6112	Tchabal-Mbabo	Global
2	CMR22	6114	Njinsing - Tabenken	Global/ Regional TBD
3	CMR15	6115	Mount Oku	Global
4	CMR6	6116	Mbi Crater Faunal Reserve - Mbingo forest	Global
5	CMR14	6117	Mount Mbam	Global/ Regional TBD
6	CMR2	6119	Bali-Ngemba Forest Reserve	Global/ Regional TBD
7	CMR4	6120	Banyang Mbo Wildlife Sanctuary	Global
8	CMR17	6121	Santchou Faunal Reserve	Global/ Regional TBD
9	CMR5	6122	Korup National Park	Global/ Regional TBD
10	CMR7	6123	Mont Bana	Global/ Regional TBD
11	CMR9	6124	Mont Manengouba	Global
12	CMR1	6125	Bakossi mountains	Global
13	CMR11	6126	Mont Nlonako	Global/ Regional TBD
14	CMR16	6127	Mount Rata and Rumpi Hills Forest Reserve	Global
15	CMR8	6128	Mount Kupe	Global/ Regional TBD
16	CMR19	6129	Yabassi	Global/ Regional TBD
17	CMR12	6130	Mount Cameroon and Mokoko-Onge	Global
18	CMR10	26329	Mont Nganha	Global
19	CMR3	29689	Bamboutos Mountains	Global
20	CMR13	29690	Mount Lefo	Global
21	CMR20	47084	Eastern Bamenda highlands and associated hydrobasin	Global
22	CMR21	100521	Eastern Slopes of Rumpi Hills	
23	fw1	500001	Lake Barombi Mbo and surrounding catchments	Proposed
24	fw2	500002	Lake Bermin and surrounding catchments	Proposed

Figure 5.3. Côte d'Ivoire

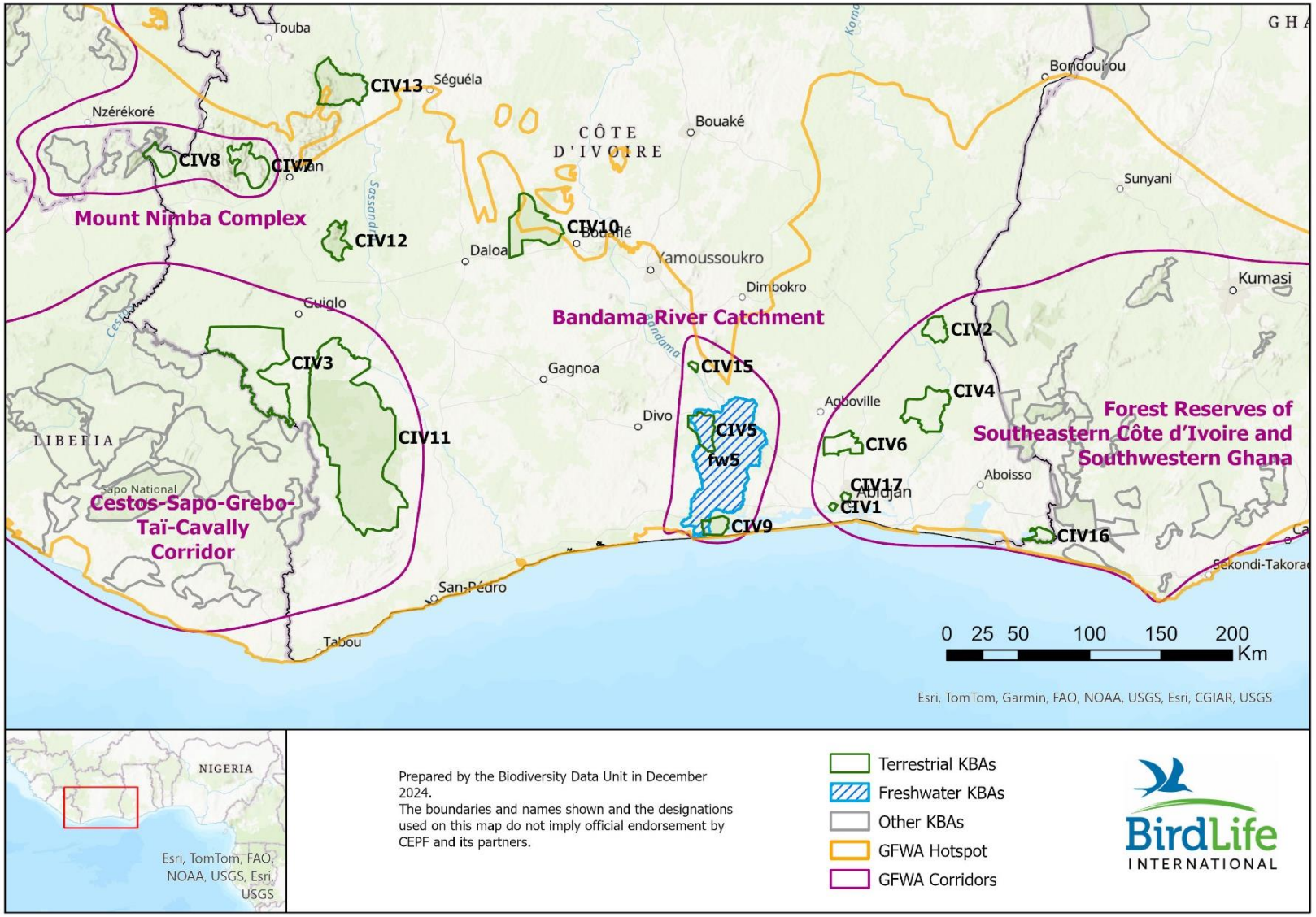

Table 5.9. GFWA KBAs in Côte d'Ivoire

No.	Map code	KBA code	KBA Name	KBA status
1	CIV13	6091	Sangbe Mountain National Park	Global
2	CIV8	6092	Mount Nimba Strict Nature Reserve	Global/Regional TBD
3	CIV7	6093	Gueoule and Glo Mountain Forest Reserves	Global
4	CIV12	6094	Peko Mountain National Park	Global
5	CIV10	6095	Marahoue National Park	Global/Regional TBD
6	CIV2	6096	Bossematie Forest Reserve	Global/Regional TBD
7	CIV3	6097	Cavally and Goin - Debe Forest Reserves	Global
8	CIV15	6098	Lamto Ecological Research Station	Global/Regional TBD
9	CIV4	6099	Mabi Forest reserve	Global/Regional TBD
10	CIV11	6100	Taï National Park and Nzo Faunal Reserve	Global/Regional TBD
11	CIV5	6101	Mopri Forest Reserve	Global/Regional TBD
12	CIV6	6102	Yapo and Mambo Forest Reserves	Global/Regional TBD
13	CIV9	6103	Azagny National Park	Global/Regional TBD
14	CIV16	24853	Tanoe Forest Swamp Forest	Global/Regional TBD
15	CIV1	24855	Adiopodoume	Global/Regional TBD
16	CIV17	24863	Banco National Park	Proposed
17	fw3	500003	Lower Bandama River	Global

Figure 5.4. Equatorial Guinea

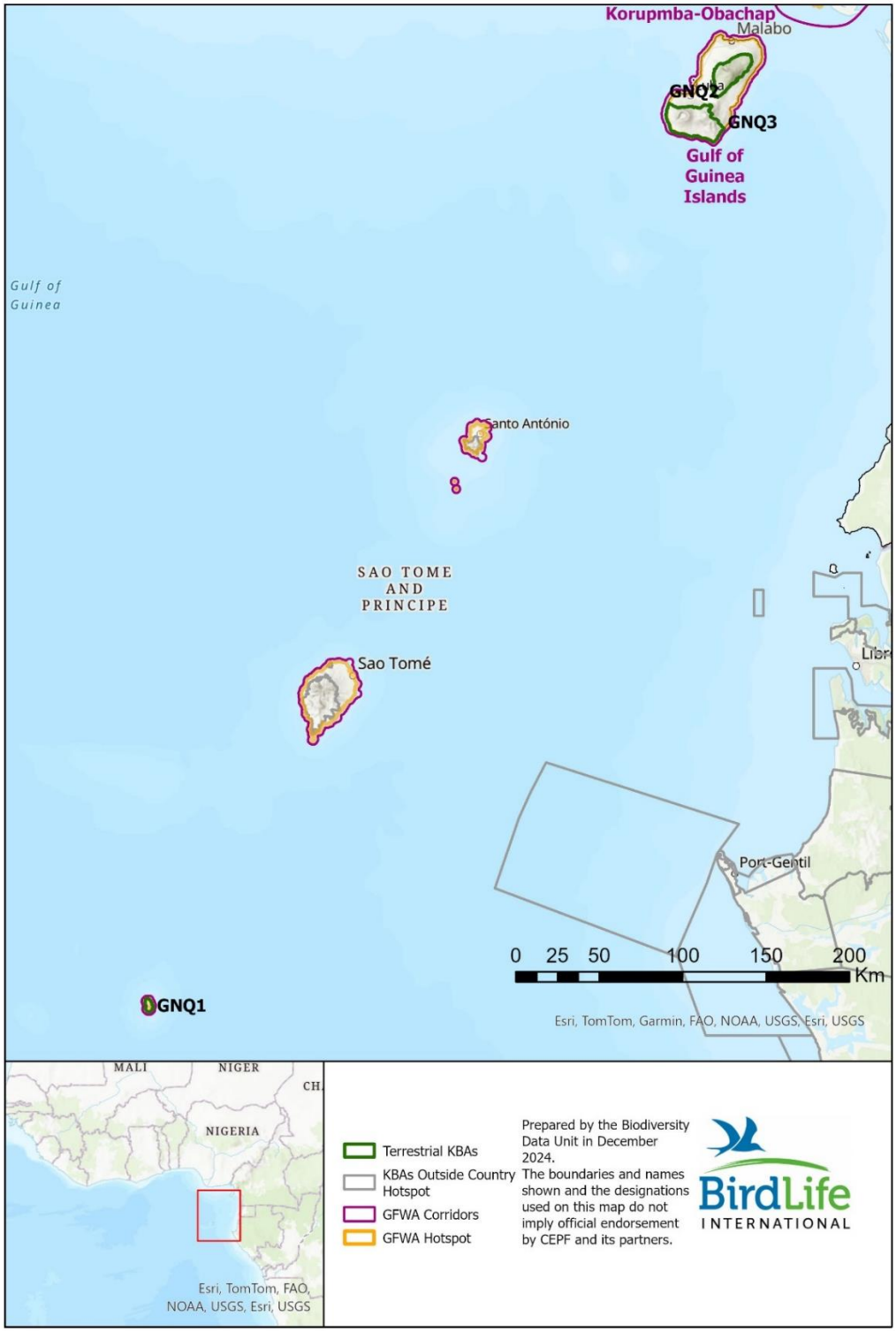

Table 5.10. GFWA KBAs in Equatorial Guinea

No.	Map code	KBA code	KBA Name	KBA status
1	GNQ1	6378	Annobón	Global
2	GNQ3	6379	Basilé Peak National Park	Global
3	GNQ2	6380	Luba Caldera Scientific Reserve	Global

Figure 5.5. Ghana

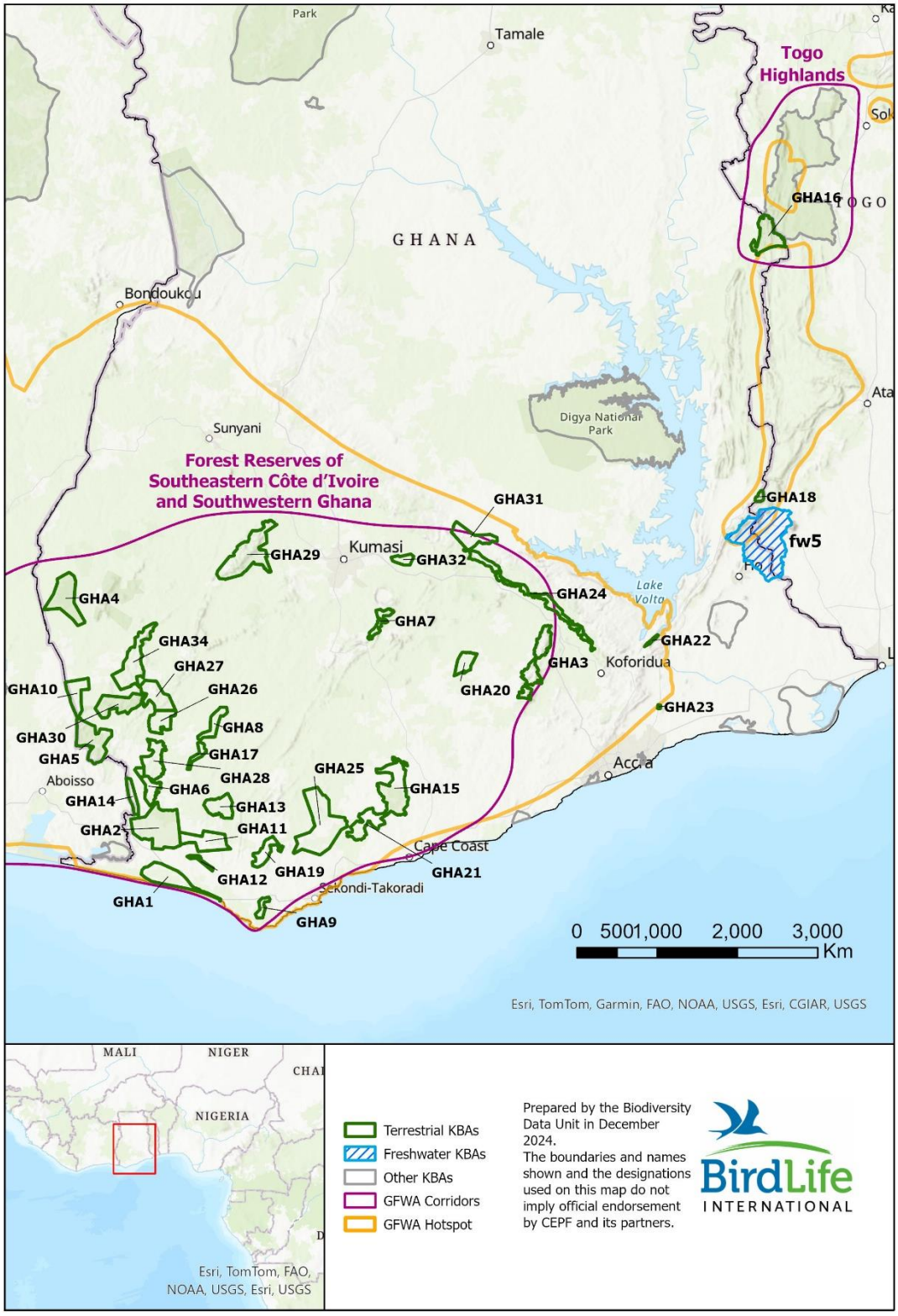

Table 5.11. GFWA KBAs in Ghana

No.	Map code	KBA code	KBA Name	KBA status
1	GHA2	6311	Ankasa Resource Reserve - Nini-Sushien National Park	Global
2	GHA3	6312	Atewa Range Forest Reserve	Global
3	GHA4	6313	Bia National Park and Resource Reserve	Global/Regional TBD
4	GHA6	6314	Boin Tano Forest Reserve	Global/Regional TBD
5	GHA5	6315	Boin River Forest Reserve	Global/Regional TBD
6	GHA7	6316	Bosomtwe Range Forest Reserve	Global/Regional TBD
7	GHA8	6317	Bura River Forest Reserve	Global/Regional TBD
8	GHA9	6318	Cape Three Points Forest Reserve	Global/Regional TBD
9	GHA10	6319	Dadieso Forest Reserve	Global/Regional TBD
10	GHA11	6320	Draw River Forest Reserve	Global/Regional TBD
11	GHA12	6321	Ebi River Shelterbelt Forest Reserve	Global/Regional TBD
12	GHA13	6322	Fure River Forest Reserve	Global/Regional TBD
13	GHA14	6323	Jema-Asemkrom Forest Reserve	Global/Regional TBD
14	GHA15	6324	Kakum National Park - Assin Attandaso Resource Reserve	Global/Regional TBD
15	GHA17	6325	Mamiri Forest Reserve	Global/Regional TBD
16	GHA18	6326	Mount Afadjato - Agumatsa Range forest	Global/Regional TBD
17	GHA20	6327	Nsuensa-Ayiola-Bediako Forest Reserves	Global/Regional TBD
18	GHA21	6328	Pra-Sushien Forest Reserve	Global/Regional TBD
19	GHA25	6329	Subri River Forest Reserve	Global/Regional TBD
20	GHA26	6330	Tano-Anwia Forest Reserve	Global/Regional TBD
21	GHA27	6331	Tano-Ehuro Forest Reserve	Global/Regional TBD
22	GHA28	6332	Tano-Nimiri Forest Reserve	Global/Regional TBD
23	GHA29	6333	Tano-Offin Forest Reserve	Global/Regional TBD
24	GHA30	6334	Yoyo River Forest Reserve	Global/Regional TBD
25	GHA23	6339	Shai Hills Resource Reserve	Global/Regional TBD
26	GHA1	6341	Amansuri wetland	Regional
27	GHA24	22287	Southern Scarp	Global/Regional TBD
28	GHA19	22288	Neung South	Global/Regional TBD
29	GHA22	22289	Sapawsu Forest Reserve	Global/Regional TBD
30	GHA32	22292	Bobiri Forest Reserve	Global/Regional TBD
31	GHA31	22293	Bandai Hills	Global/Regional TBD
32	GHA16	24265	Kyabobo National Park	Global/Regional TBD
33	GHA34	100282	Sui River Forest Reserve	Global
34	fw5	500004	Lower Volta eastern catchment	Proposed

Figure 5.6. Guinea

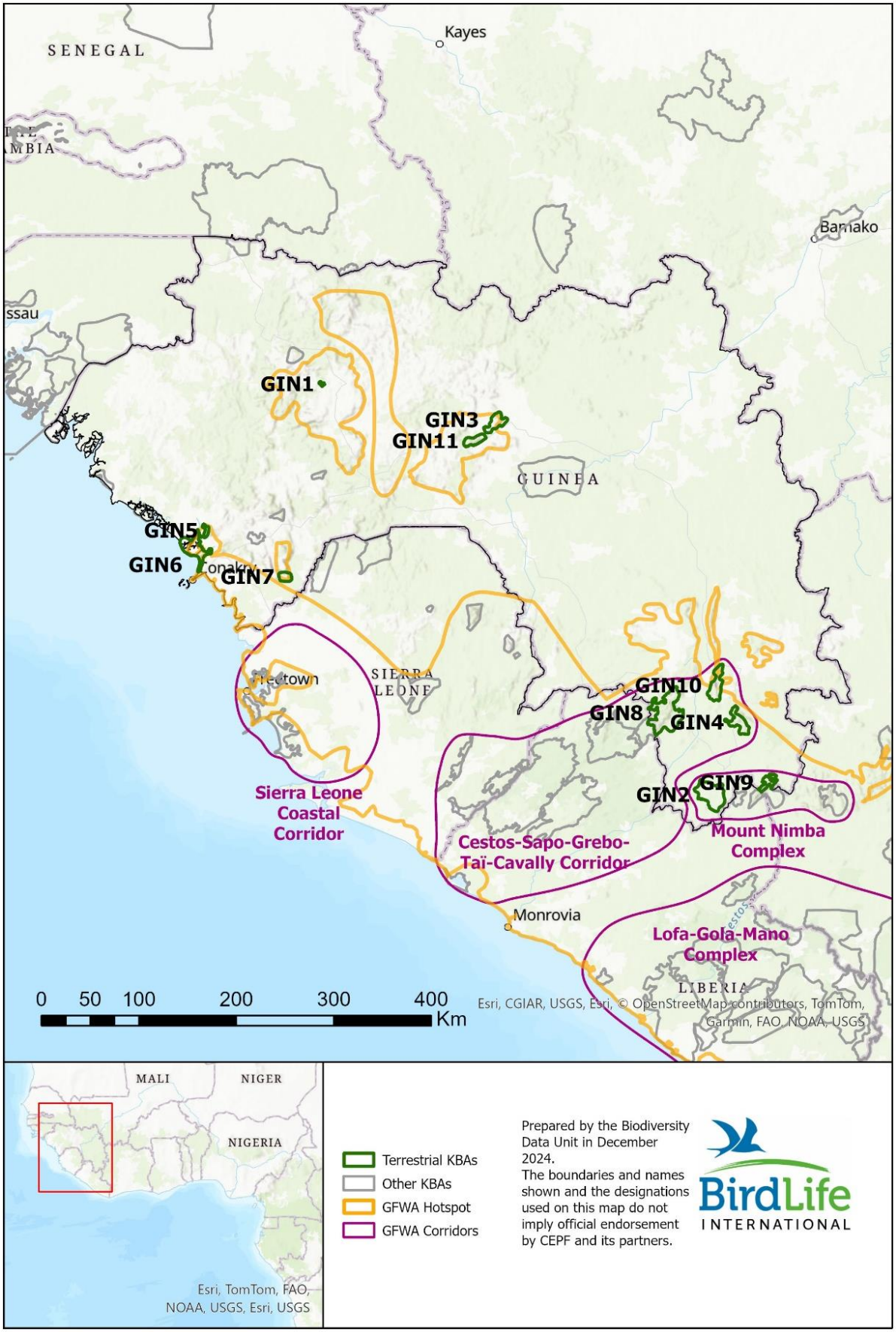

Table 5.12. GFWA KBAs in Guinea

No.	Map code	KBA code	KBA Name	KBA status
1	GIN1	6362	Chutes de la Sala	Global/ Regional TBD
2	GIN5	6370	Kabitaï	Global/ Regional TBD
3	GIN6	6372	Konkouré	Regional
4	GIN7	6373	Kounounkan	Global/ Regional TBD
5	GIN8	6375	Massif du Ziama	Global/ Regional TBD
6	GIN9	6376	Monts Nimba (part of Mount Nimba transboundary AZE)	Global
7	GIN2	6377	Diécké	Global/ Regional TBD
8	GIN11	22297	Sincery Oursa	Global/ Regional TBD
9	GIN4	22298	Foret Classe de Mont Bero	Global/ Regional TBD
10	GIN3	22302	Foret Classe de Balayan Souroumba	Global/ Regional TBD
11	GIN10	22304	Pic de Fon	Global/ Regional TBD

Figure 5.7. Liberia

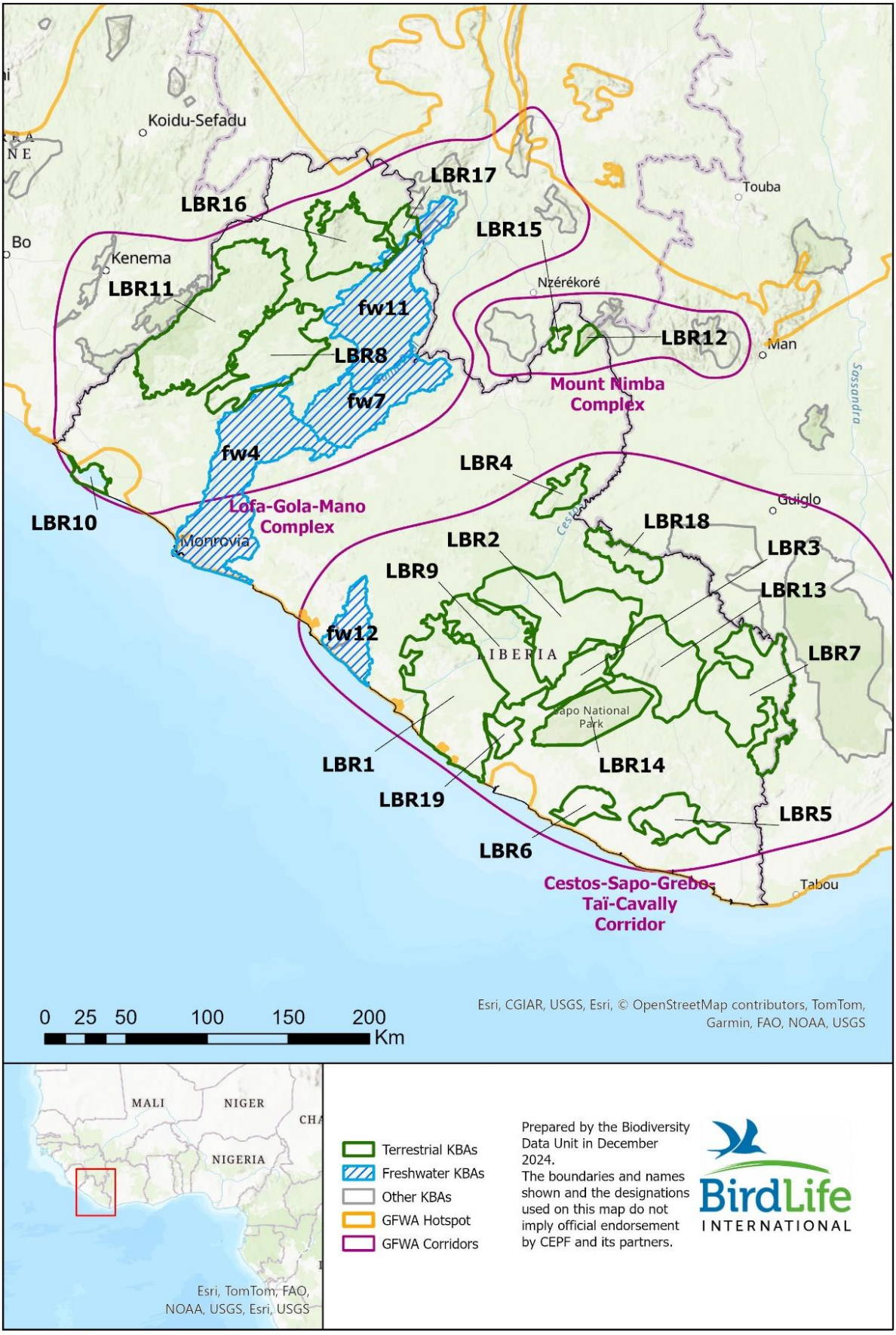

Table 5.13. GFWA KBAs in Liberia

No.	Map code	KBA code	KBA Name	KBA status
1	LBR16	6455	Wologizi mountains	Global/Regional TBD
2	LBR17	6456	Wonegizi mountains	Global/Regional TBD
3	LBR11	6457	Lofa-Gola-Mano Complex	Global/Regional TBD
4	LBR12	6458	Nimba mountains	Global
5	LBR10	6459	Lake Piso (Cape Mount)	Regional
6	LBR18	6460	Zwedru	Global/Regional TBD
7	LBR1	6461	Cestos - Senkwen	Global/Regional TBD
8	LBR14	6462	Sapo	Global/Regional TBD
9	LBR7	6463	Grebo	Global/Regional TBD
10	LBR2	22308	Cestos Gbi	Global/Regional TBD
11	LBR3	22309	Cestos-Sapo North Corridor forest blocks	Global/Regional TBD
12	LBR19	22310	Cestos-Sapo South Corridor forest block	Global/Regional TBD
13	LBR4	22313	Gio National Forest	Global/Regional TBD
14	LBR5	22316	Grand Kru SouthEast Forest blocks	Global/Regional TBD
15	LBR6	22317	Grand Kru SouthWest blocks	Global/Regional TBD
16	LBR9	22318	Krahn Bassa South	Global/Regional TBD
17	LBR13	22320	Sapo - Grebo Corridor	Global/Regional TBD
18	LBR15	22321	West Nimba	Global/Regional TBD
19	LBR8	22511	Kpelle Forest	Global/Regional TBD
20	fw12	47038	Weeni creek and associated hydrobasin	Global
21	fw4	500000	Lower reaches of St Paul River	Proposed
22	fw7	500006	Middle reaches of St Paul River	Proposed
23	fw11	500007	Upper reaches of St Paul River	Proposed

Figure 5.8. Nigeria

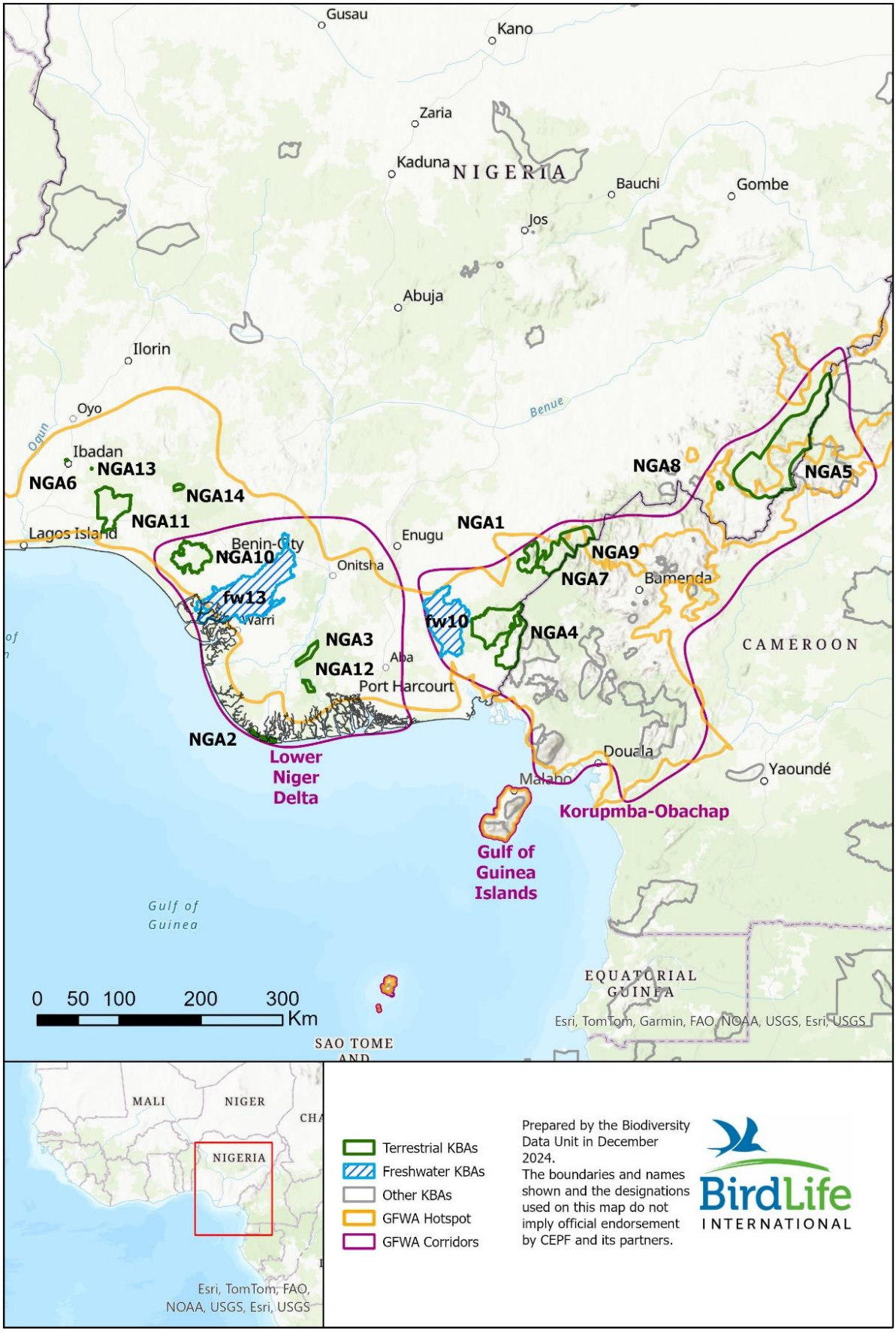

Table 5.14. GFWA KBAs in Nigeria

No.	Map code	KBA code	KBA Name	KBA status
1	NGA9	6734	Obudu Plateau	Global/Regional TBD
2	NGA5	6735	Gashaka-Gumti National Park	Global
3	NGA8	6736	Ngel-Nyaki Forest Reserve	Global
4	NGA1	6738	Afi River Forest Reserve	Global/Regional TBD
5	NGA10	6739	Okomu National Park	Global/Regional TBD
6	NGA4	6740	Cross River National Park (Oban Division)	Global/Regional TBD
7	NGA11	6741	Omo Forest Reserve	Global/Regional TBD
8	NGA7	6743	Cross River National Park (Okwangwo Division) and Mbe Mountains	Global/Regional TBD
9	NGA6	6744	IITA Forest Reserve, Ibadan	Global/Regional TBD
10	NGA12	6748	Upper Orashi forests	Global/Regional TBD
11	NGA3	6749	Biseni forests	Global/Regional TBD
12	NGA2	6750	Akassa forests	Global
13	NGA14	100504	Idanre Hills	Global
14	NGA13	100506	Emerald Forest Reserve	Global
15	fw13	500008	West Niger Delta	Proposed
16	fw10	500009	South East Niger Delta - near Calabar	Proposed

Figure 5.9. São Tomé and Príncipe

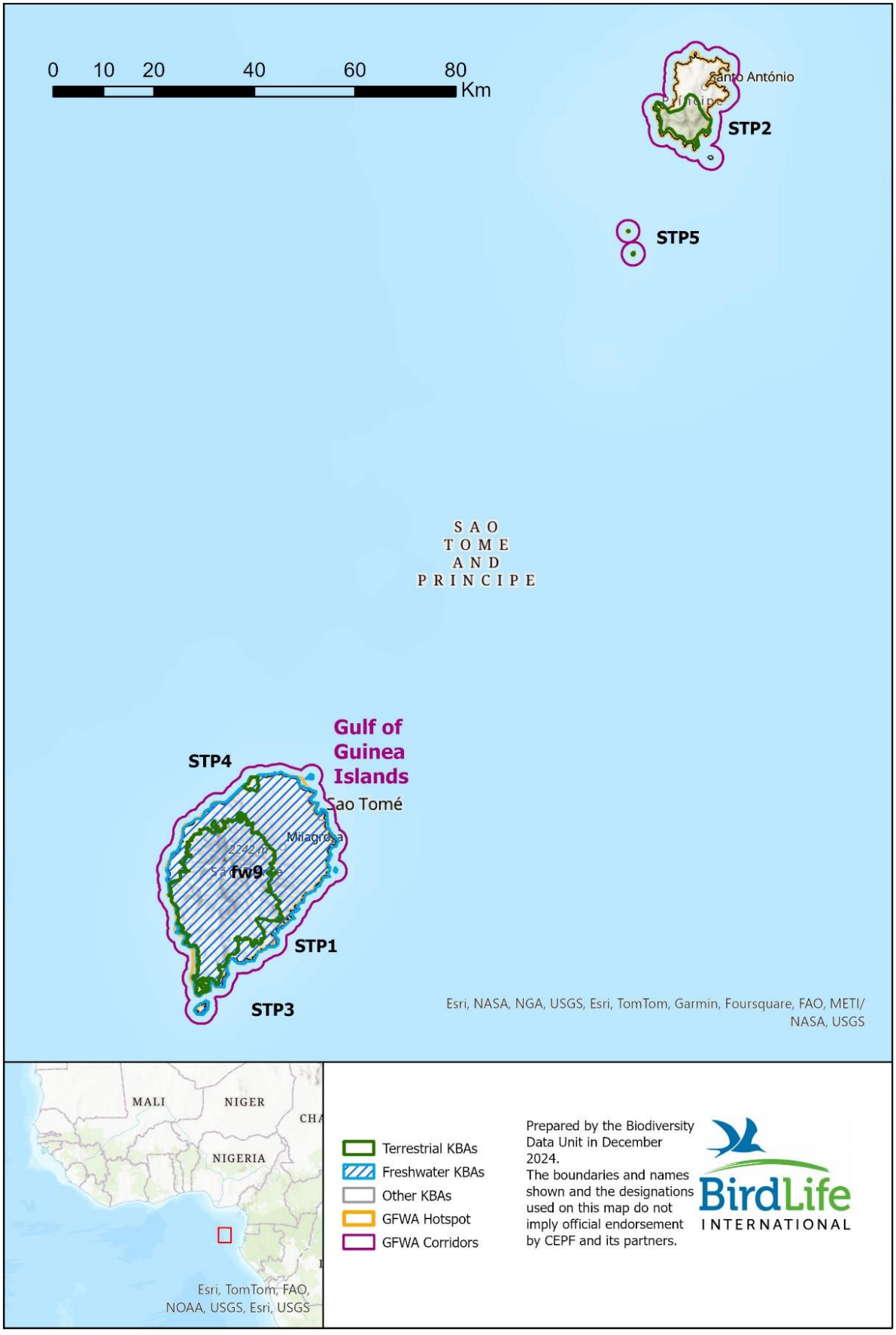

Table 5.15. GFWA KBAs in São Tomé and Príncipe

No.	Map code	KBA code	KBA Name	KBA status
1	STP4	6883	São Tomé northern savannas	Global/ Regional TBD
2	STP2	6884	Príncipe forests	Global
3	STP5	6885	Tinhosas Islands	Global
4	STP1	45720	Parque Natural Obô de São Tomé e Zona Tampão	Global
5	STP3	45721	Zona Ecológica dos Mangais do Rio Malanza	Global/ Regional TBD
6	fw9	500012	São Tomé (freshwater)	Proposed

Figure 5.10. Sierra Leone

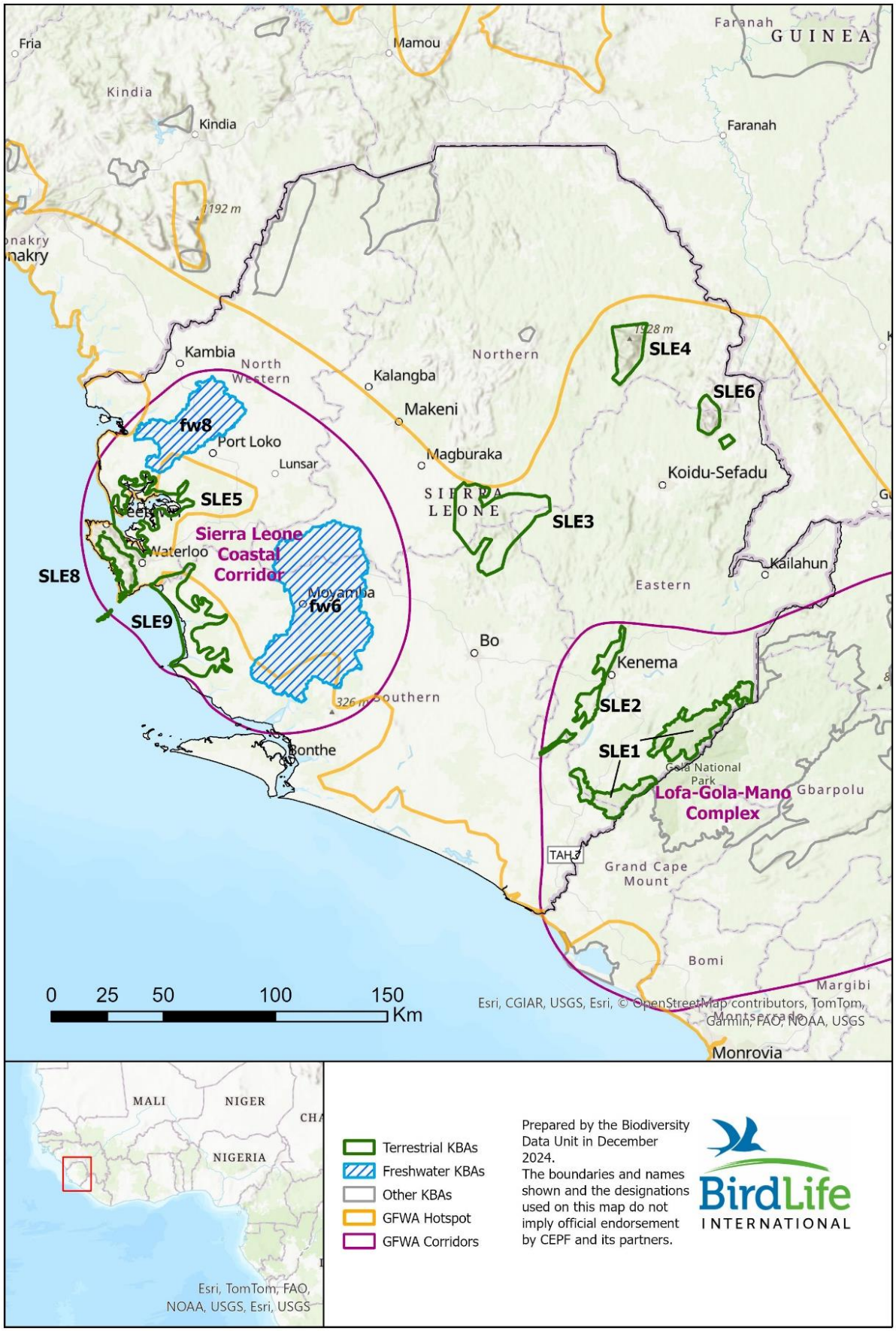

Table 5.16. GFWA KBAs in Sierra Leone

No.	Map code	KBA code	KBA Name	KBA status
1	SLE4	6832	Loma Mountains Non-hunting Forest Reserve	Global/ Regional TBD
2	SLE6	6833	Tingi Hills Non-hunting Forest Reserve	Global/ Regional TBD
3	SLE5	6834	Sierra Leone River Estuary	Regional
4	SLE3	6835	Kangari Hills Non-hunting Forest Reserve	Global/ Regional TBD
5	SLE8	6836	Western Area Peninsula Forest National Park	Global/ Regional TBD
6	SLE9	6837	Yawri Bay	Global
7	SLE2	6838	Kambui Hills Forest Reserve	Global/ Regional TBD
8	SLE1	6839	Gola Forests	Global/ Regional TBD
9	fw8	500010	Rhombe Swamp and Mouth of Little and Great Scarcies River	Proposed
10	fw6	500011	Gbangbaia River Basin	Proposed

Figure 5.11. Togo

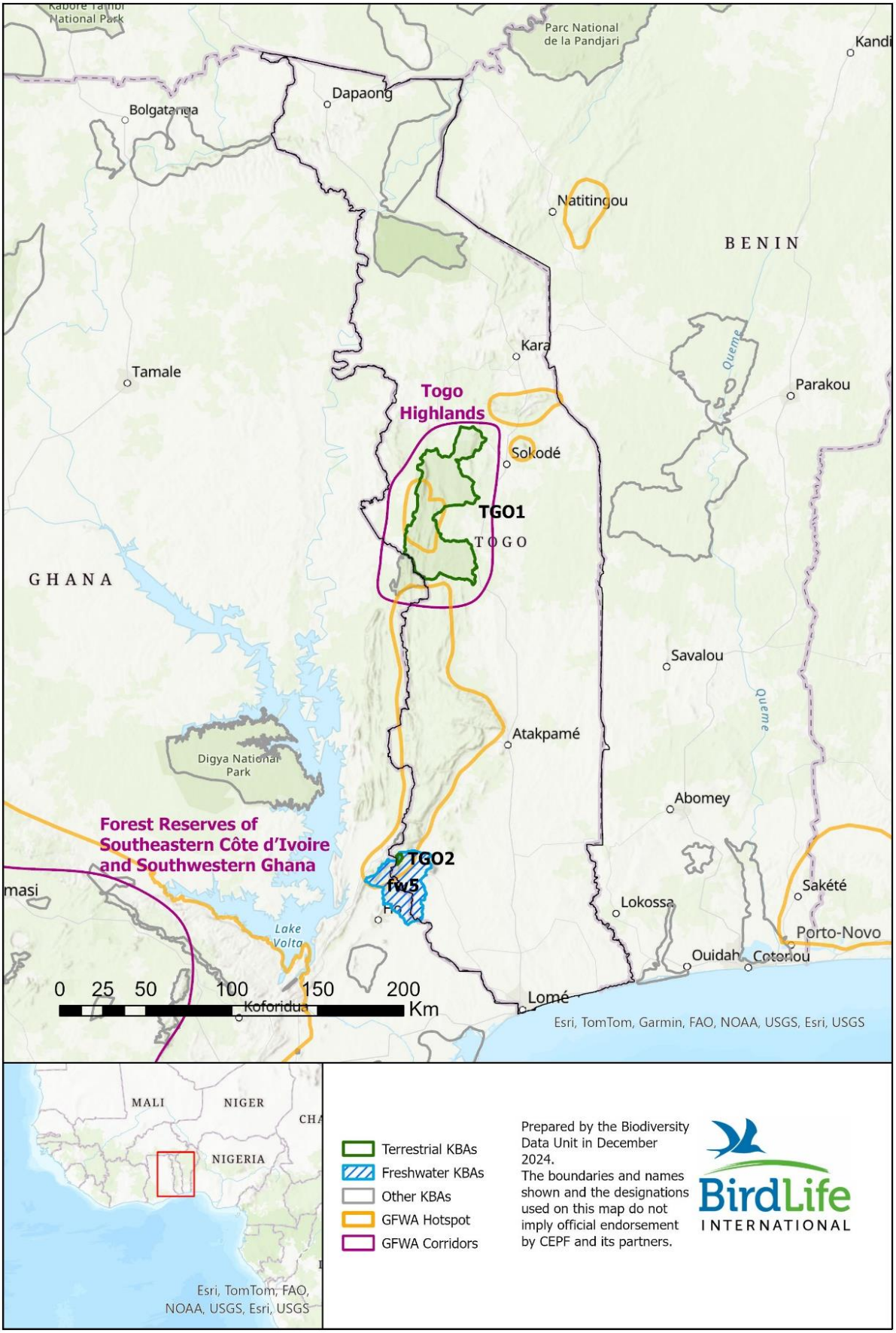

Table 5.17. GFWA KBAs in Togo

No.	Map code	KBA code	KBA Name	KBA status
1	TGO1	6916	Fazao-Malfakassa National Park	Global/ Regional TBD
2	TGO2	6917	Misahöhe Forest Reserve	Global/ Regional TBD
3	Fw5	500004	Lower Volta Eastern Catchments (transboundary with Ghana)	Proposed

5.3.4 Prioritization of KBAs

The results of the biological prioritization of KBAs are presented in Section 13, including a list of 33 highest priority KBAs. Nineteen of the priority KBAs are among those identified by the Alliance for Zero Extinction[9] (AZE) as sites of exceptional importance because they are the only site for a single species. In addition, AZE identified six further sites (Table 5.18), which are not included on the list of priority KBAs because data shows that they are not the only sites to support the species concerned.

Table 5.18. KBAs Not on the Priority List but Listed by AZE

Map code	KBA code	Country	KBA name
CIV1	24855	Côte d'Ivoire	Adiopodoume
CIV17	24863	Côte d'Ivoire	Banco National Park
CIV16	24853	Côte d'Ivoire	Tanoe Swamp Forest
GHA34	100282	Ghana	Sui River Forest Reserve
CMR21	100521	Cameroon	Eastern Slopes of Rumpi Hills
NGA8	6736	Nigeria	Ngel-Nyaki Forest Reserve

5.3.5 KBA gap analysis and national KBA processes

Of the 1,167 species assessed as threatened (Critically Endangered, Endangered or Vulnerable) that occur in the hotspot, only 227 (19%) have been recorded from a KBA. For marine groups, this is not unexpected, because, to date, the identification of KBAs has largely been focused on forest species. However, the low representation of bony fish (1%) and freshwater crabs and shrimps (11%) clearly shows that the data available for KBAs does not yet cover the diversity of species in the hotspot. Similarly, only 14% of threatened plants have been recorded from a KBA, perhaps illustrating the lack of effective botanical surveys in the region. The best studied groups (birds (67%), mammals (70%) and amphibians (43%)) are better represented but, even in these three groups, there are a total of 89 species that are not recorded from any KBA. Table 5.19 presents the full data.

The situation is particularly concerning for the Critically Endangered species which are most in need of conservation action. Of the 216 CR species in the hotspot, only 44 (20%) have been recorded from a KBA. Again, bony fish and plant species are particularly poorly represented.

These results reflect that the KBA data are incomplete and biased towards a sub-set of species that are possibly more easily detected and monitored and therefore for which data are available. It is probable that many of the species which have not been recorded from a KBA do, in fact, occur in one, and it is a priority to determine which species need

[9] https://zeroextinction.org

new KBAs identified as a basis for action for their conservation. Species which are not recorded from any KBA are noted in Annex 1.

Table 5.19. Coverage of All Threatened Species, and Critically Endangered Species, in KBAs, by Taxonomic Group

Group	No. threatened species in group	No. threatened species recorded in KBAs	% of threatened species recorded in KBAs	No. CR species in group	No. CR species in KBAs	% of CR species in KBAs
Mammals	80	59	74	13	11	85
Birds	54	39	72	9	5	56
Reptiles	29	7	24	7	2	29
Amphibians	80	36	45	26	18	69
Bony Fish	185	1	1	37	0	0
Sharks, Rays	65	5	8	19	4	21
Insects	20	1	5	5	0	0
Arachnida	0	0	-	0	0	-
Freshwater Crabs and Shrimps	18	2	11	4	1	25
Mollusks	20	0	0	9	0	0
Corals	1	0	0	1	0	0
Sea Cucumbers	0	0	-	0	0	-
Plants	532	84	16	86	3	3
Fungi	0	0	-	0	0	-
Total	**1,084**	**234**	**22**	**216**	**44**	**20**

Given the importance of this hotspot for its forest habitats, expansion of IUCN Red List coverage for forest plants and subsequent identification of KBAs for plants is a priority. For example, there are currently no KBAs identified for orchids (family: Orchidaceae), many of which are known to be highly threatened and/or range restricted.

KBAs are intended to include a representative set of ecosystems as well as species, and the KBA criteria allow for identification of a site to be triggered by the presence of a threatened ecosystem. However, classification of threatened ecosystems has not progressed as quickly as the work on species. As a result, the current set of KBAs is defined based on species. Critical ecosystems which are highly threatened – for example, mangroves and tropical montane grasslands – may be under-represented in the list of KBAs identified to date. An analysis of coverage of ecosystems by KBAs would allow priority ecosystem gaps to be identified.

The text above noted that 92 of the 135 KBAs in the hotspot have been classified as "Global/regional to be determined." As a priority, additional data and information are needed to demonstrate the importance of these sites as KBAs, or they risk being delisted by the 2028 deadline which has been agreed by the KBA Partnership. This issue affects all countries, but is particularly prevalent in Ghana, where 29/33 KBAs (88%) have this classification; Liberia, where the figure is 17/20 KBAs (85%), and Guinea, where the figure is 9/11 KBAs (82%). In most cases, the data needed includes confirmation that key species continue to be present at the site, and in sufficient numbers. Species abundance in KBAs may be inferred by other, area-based, metrics such as range and area of habitat. The KBA Secretariat has developed a spatial scoping tool that (1) identifies any species whose range or area of habitat overlaps a given polygon, and (2) estimates the proportion of the global extent occurring within the polygon. Such information can be used to estimate potentially qualifying species, and to guide researchers, field workers and site managers in gathering the specific data required.

The identification and conservation of KBAs should be a bottom-up, country driven process, not a top-down academic exercise. While anyone can propose a KBA, ideally, national assessments and reassessments are undertaken through National Coordination Groups (NCGs) that include local experts and stakeholders from NGOs, scientific institutions, relevant government departments and agencies, private sector organizations, indigenous people, and local communities. Advice and training are offered through the KBA Partnership. To date, KBA National Coordinating Groups have been formed in six hotspot countries: Côte d'Ivoire, Ghana, Guinea, Liberia, Nigeria, and Sierra Leone. All are reported to have very limited resources for time and travel, and this limits their effectiveness. In addition to NCG activity, BirdLife Partners are active in promoting and using KBAs as a basis for data-driven conservation advocacy and action, with staff dedicated to KBA conservation in Liberia, Nigeria and Ghana.

Finally, conservation organizations in São Tomé and Príncipe are working in partnership to undertake a major revision of KBAs in the country. Unusually, the identification and creation of protected areas has progressed more quickly than the analysis of KBAs, and there are now important areas set aside for conservation which do not have KBA status, even though they are very likely to meet the criteria in this biodiversity-rich region. A combination of additional field work, stakeholder consultation and analysis of existing information will be used to refine the boundaries of existing KBAs, and propose new ones.

5.3.6 Overlap between KBAs and protected areas

Two sources of data were used to assess the degree to which KBAs are protected in formal protected areas. The first was desk-based analysis, overlaying the boundaries of KBAs with the map of protected areas available from the World Database on Protected Areas (WDPA), managed by UNEP-WCMC. These data are readily available, but are dependent on state parties submitting and updating data, and as a result may be out of date or incomplete for some countries.

Secondly, the spatial data were cross-checked with stakeholders during four in-person workshops and via email and online consultation (described in Chapter 2). Stakeholders are often unable to give exact figures for the proportion of a KBA within a protected area, so were asked to make a best estimate of whether the site was 'entirely protected' (>95% within a protected areas); 'mostly protected' (between 50 and 95% within a PA); somewhat protected (10-50% within a protected area), or effectively unprotected (<10% within a PA). In most cases, the spatial and stakeholder data were consistent. In cases where there was a conflict, a judgement was made on which data source seemed most up to date.

Data on PA coverage was available from at least one of these sources for all 135 confirmed KBAs. Annex 2 gives protected area coverage for each KBA, while Table 5.20 summarizes these data. Seventy-four KBAs – 55% of the total – have total legal protection. This includes five KBAs which are in the process of being gazetted as the Kwa National Park in Liberia. An additional 24 KBAs (18%) have at least half their area within a protected area. About one-quarter (32 KBAs) have little or no legal protection.

Table 5.20: Extent of Protected Area Coverage of KBAs

Degree of overlap with a protected area	Number of KBAs
Near total (>95%)	74
Significant (50-95%)	24
Partial (10 - 50 %)	5
None or very little (<10%)	32
Total	**135**

The small group of KBAs which are partially protected include the Wologizi and Wonegizi mountains in Liberia, which were reported to be in the process of being incorporated into a National Park, but the extent and progress of the designation is unclear.

Of the 32 KBAs with less than 10% of their area legally protected, spatial data showed that two of them have small areas within protected areas, but that the others are entirely unprotected. Stakeholders noted that one site (Tchabal-Mbabo, Cameroon) is a proposed national park, that Chutes de la Sala (Guinea) has been proposed as a nature reserve, and that Tanoe Forest Swamp Forest in Côte d'Ivoire is protected through a voluntary nature reserve.

5.4 Corridor outcomes

Conservation corridors are delineated to link KBAs (in particular for trans frontier areas), secure ecological connectivity such as within river catchments, and maintain ecosystem function and services for long-term species survival.

The 2015 ecosystem profile defined nine corridors in the hotspot, covering 413,183 km^2 and 105 KBAs. The definition of corridors took account of hydrological units (i.e., river catchment basins), clusters of connected or spatial proximate KBAs, as well as land use (e.g., areas of forest remaining in the landscape mosaic outside of KBAs). The boundaries of the corridors in the 2015 ecosystem profile appear to be indicative, and not to adhere to particular landscape features.

The Gulf of Guinea islands (São Tomé and Príncipe; island Equatorial Guinea) were not included in any of the corridors delineated in the 2015 ecosystem profile. An additional corridor was, therefore, defined, to cover these islands and their exceptional biodiversity. This brings the total number of corridor outcomes in the GFWA Hotspot to 10 (Figure 5.12, Table 5.21).

Figure 5.12. Corridors Outcomes in the GFWA Hotspot

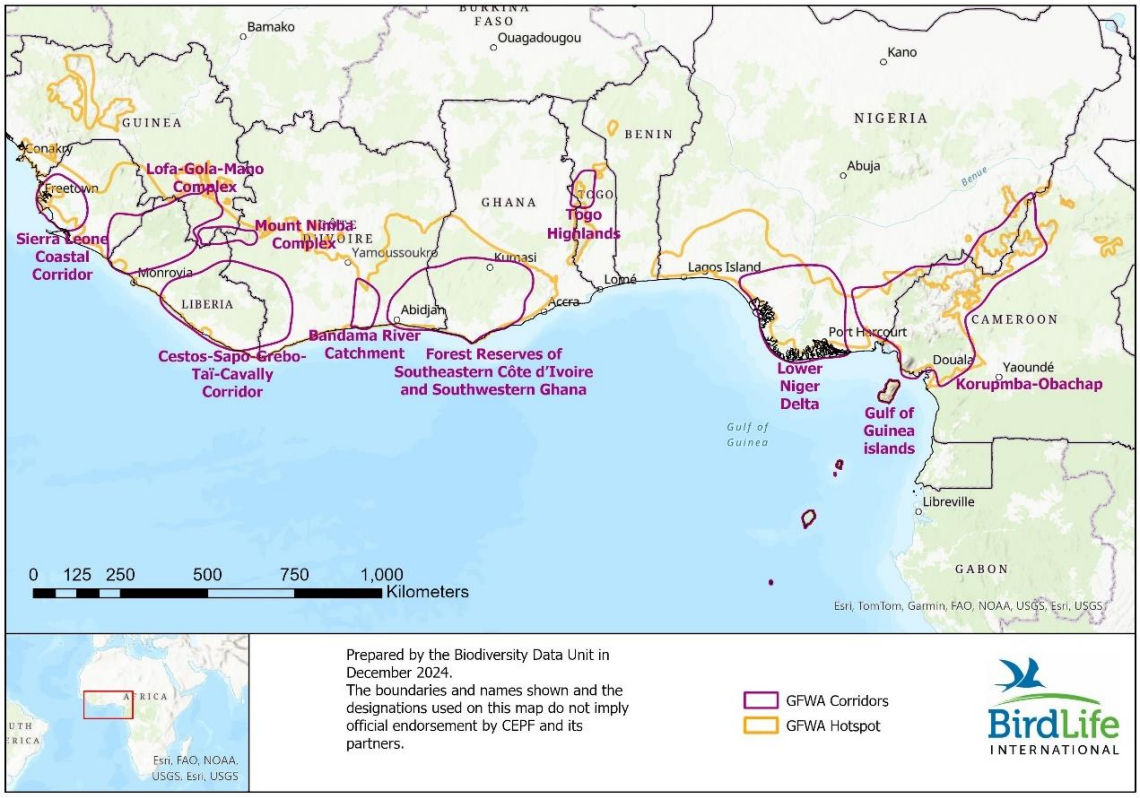

Table 5.21. Relationship between KBAs and Corridors

Corridor	Confirmed KBAs	Proposed KBAs	Total KBA hectares	Mean KBA size (hectares)	KBAs with CR or EN species
Forest Reserves of SE Côte d'Ivoire & SW Ghana	35	0	712,440	20,355	32
Sierra Leone Coastal Corridor	3	2	481,849	96,370	3
Cestos-Sapo-Grebo-Taï-Cavally Corridor	15	0	2,663,221	177,548	15
Lofa-Gola-Mano complex	9	3	1,839,606	153,301	10
Korupmba-Obachap	27	3	2,848,290	94,943	25
Mount Nimba Complex	6	0	174,727	29,121	5
Lower Niger Delta	4	1	644,610	128,922	4
Bandama River Catchment	3	1	370,043	92,511	3
Togo Highlands	2	0	237,219	118,610	2
Gulf of Guinea Islands	8	1	227,938	25,326	3
Total	**112**	**11**	**10,199,943**	**82,926**	**99**
No corridor	23	1	702,222	29,259	26

5.5 Future work to improve the dataset for conservation in the GFWA

More KBAs will be identified, and the existing KBAs refined, as more data become available. The currently available data offer a preliminary basis for understanding and prioritizing conservation actions. However, there are still many data omissions, which should be considered as priorities for further research and analysis by conservation actors. A review of relevant publications (Luiselli *et al.* 2019) found that Nigeria, Cameroon and Togo had disproportionately large number of scientific papers published, while Guinea, Liberia and Sierra Leone were the least studied countries. The study noted the need for improved local-scale data on biodiversity for more long-term studies to help determine which approaches are most effective in delivering biodiversity conservation.

The process of identifying and refining KBAs offers opportunities to raise awareness, engage local people and develop field and scientific skills. CEPF grantees may be able to contribute to these gaps in some cases, by:

- Implementing studies, and publish existing studies, to describe new species and clarify the taxonomic status of many known species.
- Completing Red List assessments for more species in the region, with special emphasis on: (a) plants and other species groups that have not yet been widely assessed; (b) Data Deficient and restricted range species that apparently have limited ranges and small populations; and (c) assessments based on data more than ten years old.
- Carrying out fieldwork to improve knowledge of the status and distribution of threatened species, particularly those known only from one or a few KBAs.
- Investing in further survey and validation of the KBA network, as it becomes an increasingly important basis for directing conservation effort. This includes finalization of the identification of freshwater KBAs, and reassessments of existing KBAs, applying the KBA criteria in the Global Standard.
- Developing mechanisms at regional and national levels to locate, store and facilitate access to relevant data, link this this to KBA and Red List updating, and use this to periodically reevaluate the conservation outcomes.
- Reviewing and, if necessary, amending the GFWA Hotspot boundary, which was defined 20 years ago, based on earlier data, and does not take into account current and future impacts of climate change.

6. THREATS TO BIODIVERSITY IN THE HOTSPOT

This chapter presents an overview of the main threats to biodiversity and natural ecosystems in the hotspot. The information sources include the IUCN Red List, remote-sensing analysis of land use change and deforestation, published literature, and stakeholder inputs received through the workshops and remote consultations.

6.1 Overview of deforestation in the hotspot

West African rainforests have been greatly modified by people. Myers *et al.* (2000) estimate that the original extent of forest was 126.5 million hectares, and that only 12,650 hectares (10%) remains in primary condition. A conservative estimate is that around 10 million hectares of forest were lost in the 20th century (Fairhead and Leach 1998, Li *et al.* 2007).

FAO (2020) reports that Africa had the highest annual net forest loss of any global region in 2010–2020, at 3.9 million hectares (followed by South America, at 2.6 million hectares). Furthermore, the rate of net forest loss has increased in Africa in each of the three decades since 1990, while it has declined in South America and Asia.

In 2010 there were just under 80 million hectares of natural forest across the 11 countries which are in the hotspot. By 2020, this had been reduced to just over 75 million hectares, a loss of 4.9 million hectares, or 6%. Over half of this deforestation was in two countries: Nigeria, which lost 1.6 million hectares, and Côte d'Ivoire, which lost 1.1 million hectares. Forest loss as a proportion of forest area in 2010 was highest in Côte d'Ivoire, at 28%, but there was also substantial loss of forest in Benin (14% lost) and São Tomé and Príncipe (10% lost), although these losses represent much smaller areas of forest. Table 6.1 summarizes forest loss over the decade across the entire area of the 11 hotspot countries.

Table 6.1. Forest Area and Change in the Countries of the Hotspot, 2010-2020

Country	Forest area, 2010 (1,000 hectares)	Forest area, 2020 (1,000 hectares)	Change in forest area, 2010-2020 (1,000 hectares)	Change in forest area as percent of 2010 area
Benin	3,615	3,112	-503	-13.9
Cameroon	20,859	20,279	-580	-2.8
Côte d'Ivoire	3,951	2,823	-1,128	-28.5
Equatorial Guinea	2,407	2,323	-84	-3.5
Ghana	7,723	7,689	-34	-0.4
Guinea	6,517	6,132	-385	-5.9
Liberia	7,902	7,590	-312	-3.9
Nigeria	23,027	21,411	-1,616	-7.0
Sierra Leone	2,718	2,514	-204	-7.5
São Tomé Príncipe	58	52	-6	-10.3
Togo	1,192	1,149	-43	-3.6
Total	**79,969**	**75,074**	**-4,895**	**-6.1**

Source: FAO Global Forest Resources Assessment (2020), Annex Table A2: Extent of Naturally Regenerating Forest.

In addition to deforestation, large areas of forest are degraded (i.e., lose biomass as a result of disturbance, while remaining as forest). These changes are likely to impact on the suitability of the forest as a habitat for forest-dependent species. Vancutsem *et al* (2021) measured the extent of *undisturbed* tropical moist forest across the tropics, and their findings show that of the six African countries with the largest reductions in

undisturbed moist forest extent, four are in the hotspot: Côte d'Ivoire (which lost 81.5% of its undisturbed forest between 1990 and 2020), Ghana (70.8%), Nigeria (47%) and Liberia (36%).

Figures for forest loss need to be interpreted with caution, as there are substantial differences (for example between the FAO and Vancutsem analyses described here) which may be the result of differences in the definition of forest cover and the methodology applied to measure forest extent.

Deforestation is primarily driven by expansion of smallholder agriculture and commodity cultivation (particularly cocoa, rubber), and in some areas by conversion to non-agricultural land use, e.g. for mining or urban development. Forest degradation is caused by fuelwood collection, fire, grazing and selective extraction of timber. Underlying drivers which influence the direct causes of forest loss include economic opportunities, commodity prices, and levels of access; social factors such as income, unemployment, access to services and education; human population size, growth rate and urbanization; and natural factors such as soil type, topography and climate. Deforestation is more likely to happen close to areas which have already been deforested, and this has resulted in the distribution of forest becoming increasingly clumped, with patches of intact forest isolated from each other (Xiao *et al* 2022).

In addition to deforestation and forest degradation, the most important groups of threats to biodiversity is those involving direct exploitation – unsustainable hunting, fishing and harvest of target species. In some areas of the hotspot, mining, oil extraction, and associated pollution and infrastructure development are significant threats (e.g. the Niger Delta, Mount Nimba). Montane forests are particularly vulnerable to conversion to pasture for grazing, with associated fires. Invasive species (for example, nipa palm, *Nypa fruticans*) affect the swamp forests of the Niger Delta and the Bakassi area of Cameroon. On the Gulf of Guinea islands, introduced mammal species (e.g. *Cercopithecus mona*, *Rattus* sp., *Mustela nivalis* and *Sus scrofa*) threated native species.

6.2 Overview of threats in Key Biodiversity Areas

6.2.1 Deforestation

Measurement of deforestation in 113 of the KBAs in eight countries of the hotspot (excluding Togo, Benin and São Tomé and Príncipe) found that over the ten years from 2013 – 2023, KBAs lost 265,644 hectares of forest. Although significant, this was far less than the 5.4 million hectares of forest lost over the same period in these eight countries. Overall, the percentage of deforestation in KBAs was about a third of the percentage in each country overall (Table 6.2). Data for individual KBAs is in Annex 2.

Table 6.2. Deforestation in KBAs and Hotspot Countries, 2013-2023

Country	Total forest loss, 2013-2023 (hectares)	Percent loss of forest, 2013-2023	Forest loss in KBAs, 2013-2023 (hectares)	Percent loss of forest in KBAs
Côte d'Ivoire	1,524,566	34	121,791	14
Nigeria	934,873	15	32,981	5
Ghana	914,570	25	32,326	7
Cameroon	716,617	4	5,857	1
Liberia	640,565	8	44,289	2
Sierra Leone	518,034	29	18,291	11
Guinea	196,995	24	9,966	6
Equatorial Guinea	31,196	1	143	0
Total	**5,477,416**		**265,644**	

Source: Trew *et al.* (2024).

6.2.2 Threats reported from KBAs

Stakeholder consultations and review of BirdLife's IBA monitoring data resulted in the compilation of threat data for 93 of the hotspot's 147 confirmed and proposed KBAs, from nine of the 11 hotspot countries – no data was available from Equatorial Guinea or Togo (Table 6.3). A total of 384 individual threats were reported, an average of 4.2 types of threat per KBA. 367 of these are on-going, while 17 are anticipated future threats. Hunting/collecting terrestrial animals (reported from 73 KBAs/75%) was the most commonly reported, but agriculture was almost as frequent, reported from 69 KBAs (74% of KBAs). Mining/quarrying (45 KBAs/46%) was third most frequently reported, with logging/wood harvest (45 KBAs, 44%) also prevalent. Note that 'Other ecosystem modification' was used as a category for 19 instances where the cause of the threat was not clear – for example 'forest clearance', 'deforestation', 'illegal occupation', 'land pressure'. It is likely that most of these were associated with farming, in which case agriculture would have been the most frequently reported threat.

Table 6.3. Threats Reported from 93 KBAs in the Hotspot

IUCN threat category	Description	Number of KBAs reporting threat
5.1	Hunting/collecting terrestrial animals	73
2.1	Agriculture	69
3.2	Mining/quarrying	45
5.3	Logging and wood harvest	45
7.3	Other ecosystem modification	19
7.1	Fire, fire management	16
5.2	Gathering terrestrial plants (NTFPs)	16
9.1, 9.2	Pollution - domestic/industrial effluent	15
5.4	Fishing and aquatic resources	12
1	Settlement/urbanization	12
2.3	Livestock	11
6.1, 6.3	Human disturbance	8
11	Climate change - erosion, extreme weather	8
4	Transport and service corridors	9
6.2	Conflict, insecurity	6
8.1	Invasive species	5
9.4	Garbage, solid waste	4
9.3	Herbicide, pesticide, soil erosion	3
3.3	Renewable energy	3
7.2	Dams	2
2.4	Aquaculture	2
3.1	Oil and Gas production	1
Total number of threats reported		**384**
Average number of threats per KBA		**4.2**

Source: Results of stakeholder consultations, August-October 2024; BirdLife International IBA monitoring data (2024, unpublished).

There was some variation between countries in the diversity of threats reported, and the average number of threats per KBA. A total of 15 or 16 types of threat affect KBAs in Côte d'Ivoire, Ghana, Guinea and São Tomé and Príncipe, compared to only 7 or 8 in Cameroon and Liberia. The average number of threats reported per KBA was highest in in Guinea and São Tomé Príncipe (6.4 threats per KBA), lowest in Cameroon (2.6 per KBA). These figures need to be treated as indicative because they may reflect greater effort to capture all the threats present at each site in some countries.

Agriculture was the most commonly reported threat to KBAs in Cameroon, Côte d'Ivoire, Guinea and São Tomé and Príncipe. Hunting and collecting of terrestrial animals was the most commonly reported for Ghana, Liberia, Nigeria and Sierra Leone.

6.3 Summary of the main threats, by category

6.3.1 Unsustainable biological resource use

Biological resource use – which includes hunting, gathering, harvest of timber and non-timber products, and exploitation of marine and freshwater organisms – accounted for about a third of all the threats reported from KBAs. This category of threats was very widespread - at least one biological resource use threat was reported from 79/93 (84%) of KBAs. In Benin, Guinea, Liberia and Nigeria every KBA for which there was threat data reported biological resource use as an issue. In order of frequency, the main threats reported were hunting and collecting of terrestrial animals, logging and wood harvest, harvest of non-timber products, and fishing and harvest of aquatic resources.

Hunting and collecting terrestrial animals

This threat includes hunting for food, which may be subsistence or commercial, and hunting for other reasons, including the trade in animal parts and live animals, or because of human-wildlife conflict. Hunting traditions are strong in the hotspot countries, and for rural communities, bushmeat consumption has historically represented a significant source of protein. However, unsustainable hunting is a threat to biodiversity, and to people whose livelihoods depend on the trade (Ingram *et al.* 2021). Bushmeat sale and consumption may be particularly important for poorer households in forest-edge communities, as it is often cheaper than domestic meat, is sold in smaller units, and may be obtained for free during subsistence hunting (Kouassi 2019).

Despite the scale of the issue, measuring the impact of the bushmeat trade is difficult, and assessments of its impact on biodiversity vary widely (Ingram *et al*. 2021). The Wildmeat database[10] gives access to studies and data on hunting, sales and consumption of wild species from seven African countries, including Cameroon, Equatorial Guinea and Nigeria in the hotspot. However, reviews which synthesize the impact of hunting on wild species (e.g. as reviewed in Kouassi 2019) are typically from pre-2010. The 2015 ecosystem profile concluded that 'off-take to supply local rural needs is probably not very harmful, whether consumption or sale is involved'. In many cases the species traded are common species raiding farms – for example, Duonamou *et al.* (2021) found an increase in sale of green monkeys in bushmeat markets around the Haut Niger National Park in Guinea, and studies from parts of Cameroon show that, in certain forest areas, the main sources of bushmeat come from traps set in fields and fallows to protect crops as well as catch animals (Endamana 2013a,b).

Despite this, the bushmeat is a cause for concern, especially when larger, rarer species are the target of professional hunters supplying urban markets, or even supplying the illicit trade in bushmeat to West African nationals living abroad. The naturally low density of large mammals in tropical forests means that it is easy to over-hunt and effectively remove large-bodied mammals from the forest systems of the hotspot (Bennett 2002, Bennett *et al.* 2007). A recent study of mammal 'defaunation' – when animals are lost from an intact habitat – identified hotspots of hunting-induced defaunation in West and Central Africa, and especially Cameroon, Guinea, and Côte d'Ivoire, as areas with high levels of defaunation (Benítez-López 2019).

The links between bushmeat hunting and human health received increased attention because of the West African Ebola epidemic (2013-2016) and the global Covid-19 Pandemic (2020-2022). In response to the Ebola epidemic, some governments in the hotspot banned hunting and consumption of meat from wild animals, however there is evidence that this did not change consumption but instead drove hunting and

[10] https://www.wildmeat.org/database/

distribution networks underground (Bonwitt 2018). Similar bans were imposed in response to the Covid-19 pandemic (Gaubert *et al.* 2024).

In addition to the bushmeat trade, animals are hunting for ornamental and medicinal purposes. Pangolins (*Phataginus* and *Smutsia* spp.), Pottos (*Perodicticus* spp.) and angwantibos (*Arctocebus* spp.) are all vulnerable to catching for the market in medicinal products, as are vultures (*Gyps* spp.).

West Africa has the smallest elephant population of any region in Africa. The Proportion of Illegally Killed Elephants (PIKE) data compares the number of illegally killed elephants with the total number of carcasses found. In West Africa, 914 elephant carcasses were reported over the 18 years from 2003 – 2020 (part of over 22,000 carcasses reported for the whole of Africa), with 12 reported from 8 sites in 2020, and no carcasses from 10 other sites. About 50% were reported illegally killed in 2023. The data suggest a slight declining trend in then proportion of illegally killed elephants over the last five years, but this data has to be interpreted with caution because the very small number means that the potential error is large (CITES 2021). Across Africa the proportion of illegally killed elephants has declined since 2011.

Changes in the abundance of species brought about by hunting can have broader impacts on ecosystem health (Abernethy *et al.* 2013, Lamperty *et al.* 2020). For example, the removal of large seed dispersers, such as elephants and gorillas, has consequences for forest diversity and regeneration (Effiom *et al.* 2013, Harrison *et al.* 2013), and potentially its carbon storage capacity (Brodie and Gibbs 2009).

Logging
Of the 45 reports of wood harvest from KBAs, 19 referred to informal/small-scale/community/illegal logging; seven relate to commercial logging operations; four to collection of wood for fuel, and 15 did not specify the purpose of the wood harvest.

In the past, production forestry and commercial timber extraction were large industries in many hotspot countries, leading to the clearing of large forest areas. In recent years, the situation has changed, with a reduction in the number of concessions and the contraction of logging industries.

Commercial logging can be well-managed and may itself cause only modest negative impacts on biodiversity, or indeed these impacts may be positive. Studies in western Central Africa have shown that Forest Stewardship Council (FSC) certified concessions support larger and more diverse populations of mammals, and are especially important for larger mammals, such as forest elephant and gorilla (Zwerts *et al.* 2024). However, secondary effects can be devastating for biodiversity – they include hunting to feed the workforce, and opening of logging roads, which offers easy pathways into remote forest areas for hunters, farmers and settlers for several years after operations cease. Logging companies who practice reduced-impact logging (e.g. who remove bridges once use in a particular area is over, and who supply their workers with meat, rather than leaving them to go hunting in the evening) are rare (see text below for information on FSC certification in the hotspot).

Informal and illegal logging also continues to threaten biodiversity in the hotspot (Forest Trends 2024; African Natural Resources Centre 2021). On São Tomé island, most timber outside of protected areas is of poor quality, despite 90% of the island being described as forested (de Lima *et al.* 2013). The potential conflict between law enforcement for conservation and demand for timber is imminent, since most houses are built with timber. On Príncipe, timber resources are more abundant as a result of lower demand from a smaller human population, although most resources are also found withing protected areas. Also, on this island the regional government has forbidden the sale of

timber and charcoal to the main island of São Tomé, and local developers have been using timber imported from mainland Africa, to reduce the pressure on local forests.

Wood is widely used as a household fuel throughout the region, but much of it comes from farms and secondary re-growth close to settlements. A review of case studies found only a weak link between fuelwood collection and deforestation (Sola *et al.* 2017). Collection of wood for fuel becomes a driver of habitat degradation inside KBAs when it is on a large-scale, for example to supply nearby population centers or local industries. Collection of wood for fuel was identified during stakeholder consultation as a threat in coastal sites such as Konkoure in Guinea and Mangais do Rio Malanza in São Tomé, where there is demand for mangrove wood to make charcoal, to treat fishing nets to make them more durable, and for commercial fish-smoking. It was also reported as a threat in the Ziama and Mont Bero KBAs, where slower-growing montane forest may not be able to sustain high levels of harvest.

Gathering of terrestrial plants/harvesting of non-timber products
Of 18 KBAs where harvest of non-timber forest products was reported as a threat, the products mentioned included rattan (2 KBAs), bark (2 KBAs), commercial collection of chewing sticks (2 KBAs), thatch (1 KBA), and fruits and seeds (1 KBA).

Overfishing of freshwater species
Overfishing and over-exploitation of aquatic resources is reported as a threat to 12 KBAs. Ten of them are coastal sites which have swamp forest, mangrove and coastal ecosystems. One is an inland water – Lake Bosomtwe in Ghana. Coding of threats for Red Listed species shows that the main threats to freshwater fishes in the hotspot are overharvesting, as well as reduced water levels and pollution. Lake Volta, for example, has been the most important inland fishery in Ghana but overfishing, combined with reduced water levels and pollution, has led to the stagnation of the commercial fishery.

6.3.2 Agriculture, plantations, livestock and aquaculture

Annual and perennial non-timber crops
Agriculture includes shifting, small-scale subsistence agriculture, and commercial cultivation at scales which vary from individual and family farms to industrial plantations. 75 KBAs (81% of those reporting threats) reported threats related to agriculture, including over 90% of KBAs in Cameroon, Guinea and Liberia.

The expansion of commodity crops (cocoa, oil palm and rubber) is discussed elsewhere in this document. Apart from these crops, rural communities in the hotspot practice small-scale subsistence agriculture, growing crops such as irrigated and upland rice, cassava and maize, with minimal agro-chemical inputs. Expansion of subsistence agriculture is a particular threat in areas with fertile volcanic soils and a rapidly growing human population, for example within the Mount Cameroon and Bioko Montane Forests ecoregion.

Lowland wetland ecosystems are particularly vulnerable to drainage and conversion for agriculture, threatening the high diversity of aquatic plants, for example in the lower Niger Delta. There is a paucity of published data on wetland losses in Africa, with searches for this update not yielding any recent overview of the status of wetlands in the region.

Wood and pulp plantations
The cultivation of wood plantations was not reported as a threat from any KBAs, but it remains a potential threat. The countries of the hotspot had a total of 902,000 hectares of planted forest in 2020 (FAO 2020) (Table 6.4). Three countries account for two-thirds of this total: Ghana (297,000 Hectares), Nigeria (216,000 hectares) and Equatorial Guinea (125,000 hectares). Ghana and Cameroon saw substantial growth in their planted forest area over the decade 2010-2020.

The existing data makes it impossible to know whether these planted forests are a direct threat to natural forests. There is no data on whether they directly replaced natural forest, were established on land previously cleared from natural forests, or are in a non-forest zone. Experience from elsewhere in the world, however, shows that increasing demand for fiber and woodchip products for a variety of uses, including for burning as a 'renewable/low emission' fuel, can drive deforestation in natural forests.

Table 6.4. Planted Forest in the Hotspot

Country	Planted forest area, 2010 (1,000 ha)	Planted forest area, 2020 (1,000 ha)	Change 2010-2020 (1,000 ha)	Change as percent of 2010 area
Benin	20	23	3	15
Cameroon	41	61	20	49
Côte d'Ivoire	14	14	-	-
Equatorial Guinea	125	125	-	-
Ghana	220	297	77	35
Guinea	52	57	5	10
Liberia	18	27	9	50
Nigeria	233	216	-17	-7
Sierra Leone	15	21	6	40
São Tomé and Príncipe	-	-	-	-
Togo	47	61	14	30
Total	**785**	**902**	**117**	**15**

Source: FAO Global Forest Resources Assessment (2020).

Livestock farming and ranching
Livestock grazing and associated activities – which may include use of fire, clearing land for pasture, or cutting vegetation to feed livestock - was specifically reported as a threat in 11 KBAs. This includes six KBAs in the mountains of Cameroon and one in Guinea (Mont Nimba), where grazing is a traditional livelihood but can also be a threat to montane forests, which support high levels of endemic biodiversity, but are fragmented and vulnerable to further disturbance. Other KBAs where grazing was reported as a threat are also on the ecological boundaries of the forest zone, including Shai Hills in Ghana and Mont Bero in Guinea. Finally, grazing was reported to be a threat to KBAs on São Tomé and Príncipe.

Marine and freshwater aquaculture
Nigeria is a major global producer of fish and crustaceans in aquaculture, producing 261,000 tons of aquaculture products in 2020, compared to 460,300 tons produced by the rest of sub-Saharan Africa[11]. Potential negative impacts of poorly planned and managed aquaculture can include conversion of coastal habitats, such as mangroves and tidal marshes, as well as pollution and introduction of invasive alien species. Aquaculture was reported as a threat to two KBAs, both in Guinea – Kounounkan and Massif du Ziamma.

6.3.3 Energy production and mining

Oil and gas extraction
Nigeria is by far the largest producer of oil in Africa, producing about 1.3 million barrels per day in mid-2024. Ghana is a distant second, producing 191,000 barrels per day, with Equatorial Guinea, Cameroon and Côte d'Ivoire all producing between 35,000 and

[11] FAO, State of the World's Fisheries 2022. https://openknowledge.fao.org/server/api/core/bitstreams/9df19f53-b931-4d04-acd3-58a71c6b1a5b/content/sofia/2022/aquaculture-production.html

55,000 barrels per day. Once a major producer, Equatorial Guinea's production has declined.

Oil in Ghana, Equatorial Guinea, Côte d'Ivoire and Cameroon is off-shore, and poses a threat to marine environments, but less directly to the forest KBAs of the hotspot. Nigeria's primary oil reserves are in the lower Niger delta region, however, where there are several KBAs and large areas of forest, although only one (proposed) KBA reported oil production a threat. The social and environmental impacts of oil production in the delta region are already significant, and they constitute a serious threat to the unique and fragile biodiversity of the area, which includes many species of endemic and threatened freshwater fish, mollusks and large numbers of migratory shorebirds. A 2011 UNEP Environmental Assessment of Ogoniland in southern Nigeria found that, even without an active oil industry, oil contamination is widespread and severely affecting many components of the environment, washing into creeks, stressing and killing vegetation when it reaches the root zone, and contaminating soils (UNEP 2011). Mismanagement of oil wealth is one of the factors that has undermined governance and contributed to insecurity in Southern Nigeria.

Oil has also been found in the Gulf of Guinea, around São Tomé, Príncipe and Bioko islands.

Mining and energy production
Mining and related activities were reported as a threat from 50 KBAs. Where details were given, mining was for gold (nine KBAs), stone, sand or clay (six KBAs), salt (two KBAs), bauxite (one KBA) and iron ore (one KBA). In at least nine cases (and probably many more), the mining is illegal.

Many parts of the hotspot are rich in gold and other valuable minerals, and their exploitation (especially surface mining) can cause direct loss of forest and other habitats, particularly when mineral rich area coincide with areas rich in biodiversity. Impacts on communities can also be substantial, although industrial mining may result in the development of infrastructure and facilities in remote regions. Liberia and Sierra Leone are particularly rich in diamonds, while Ghana is noted for its gold reserves (e.g. in Wassa Amenfi West district, including Mamiri Forest Reserve KBA). In addition to large-scale industrial gold mining, Ghana has seen a rapid increase in small-scale, illegal gold mining (known as 'galamsey'). In May 2023, the Ghanaian Forestry Commission revealed that Illegal mining has impacted 34 out of 288 forest reserves, covering a total area of approximately 4,726 hectares . Bauxite mining is a particular threat to Atewa and Tano-Offin Forest Reserves KBAs, both in Ghana.

Mining has been a threat to the Mount Nimba reserve since its recognition, and the site has been included on the list of 'World Heritage Sites in Danger' since 1992 as a result of mining (and an influx of refugees during the Liberian civil war). The Liberian side of the mountain was excluded from the World Heritage site because of existing mining damage, and the site is currently threatened by two iron ore mining projects on the Guinean side: the Société des Mines de Fer de Guinée has a 625 hectare mining concession located in an enclave within the reserve; while the Nimba Development Company is developing a mine in the buffer zone. There is uncertainty about the route and potential impact of a rail link which will be needed to transport the iron ore[12].

In addition to the direct impacts of mining, damage to KBAs is associated with pollution of soil and water from tailings and dumping of chemicals, especially mercury. Mines may

[12] Sources: https://www.eia.nl/en/projects/?it=fp; https://ejatlas.org/conflict/iron-ore-mining-on-mount-nimba

bring a large workforce into a remote locations and, as with logging operations, this can result in a spike in bushmeat hunting and secondary disturbance from farmers and loggers using the access roads created for the industry.

Renewable energy production
Renewable energy was mentioned as a threat from Parque Natural Obô de São Tomé e Zona Tampão in São Tomé, and from Príncipe, while energy production was reported as a threat for Shai Hills in Ghana, and Konoukan in Guinea.

6.3.4 Human intrusions and disturbance
Threats under this category were reported for 14 KBAs in five countries. Six are connected to insecurity in Cameroon. Four are specifically connected to recreation and tourism, while four refer to disturbance for livelihood and economic reasons. More details on insecurity in the hotspot and its impacts are in Chapter 7.

6.3.5 Climate change
The impacts of climate change are complex and difficult to separate from the impacts of other causes of forest loss and degradation. As a result, they are rarely reported as distinct threats. Impacts that are typically associated with climate change, such as coastal erosion, drought and extreme weather were reported as threats to eight KBAs, five of them in São Tomé. Climate change is discussed in detail in Chapter 10.

6.3.6 Agricultural run-off, poisoning and industrial pollution
Agricultural run-off, poisoning and industrial pollution were reported as threats to 14 KBAs. Of those where further information was provided, eight referred to water pollution, one to solid waste and one to pollution from illegal mining. In many cases these threats may be unseen, and it can be assumed that pollution is a much more widespread threat, especially to freshwater species. Agricultural run-off is from the use of agro-chemicals for horticulture, rubber, oil palm and other plantations. Soil erosion, linked to deforestation in catchments for agriculture, leads to greater sediment loads in rivers and lake systems, with subsequent impacts on freshwater species and habitats. It is a particular problem for the Cameroon crater lakes.

6.3.7 Dams and other natural system modifications
West Africa (including the Sahelian countries not in the hotspot region) has at least 150 dams, mainly in the Niger, Senegal, Volta and Gambia river basins. The two largest dams in the hotspot are the Akosombo dam on the Volta River in Ghana, built in 1964, which stands 134 meters high (the fourth highest in Africa) and forms Lake Volta, the largest artificial lake in the world, with a surface area of nearly 8,500 km^2 (Nilsson 2009), and the Kossou dam on the Bandama River in Côte d'Ivoire (the sixth largest in Africa).

Building of large has dams continues to be proposed by governments and funding agencies in the region, even though returns to the agricultural economy have been below expectations, and social and environmental impacts are considerable (Koundouno 2017). Only one dam project is currently proposed within the hotspot, the Mambila hydroelectric dam in Nigeria. This is a complex of four dams and will be Nigeria's largest power generating installation when it is commissioned in 2027. Work on the project has started, but in July 2024 it was reported that it was the subject of corruption investigations[13].

Dams have multiple impacts on freshwater systems. Critical riverine habitats, such as rapids and pools, are subsumed by lakes. Fish migrations are physically obstructed, and

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the river discharge and siltation patterns, which are used by many species as a cue for important behaviors, are altered. Curtailment of flood regimes may prevent or reduce the seasonal inundation of floodplains, affecting fish migrations and the availability of feeding, breeding, and nursery grounds. In the case of mollusks, most threatened species occur in restricted areas where they rely on clean, rapidly flowing waters, making them susceptible to pollution and the impact of dams. Agriculture associated with wetlands is also affected, as the suppression of flooding and the loss of new deposits of sediment reduces floodplain fertility for pastoral grazing and agriculture. The Akosombo dam has not only impacted downstream fisheries along the Volta River but also, due to the decreased levels of sediment load, led to erosion of the coastlines of Togo and Benin at a rate of 10 to 15 meters per year (World Commission on Dams 2000).

In June 2017, the Economic Community of West African States (ECOWAS) adopted a directive which 'aims to ensure that ecological, economic and social considerations are taken more into account in the implementation of cross-border water infrastructure projects in West Africa' by promoting alternatives to large dams, improving information sharing between countries and communities affected by planned dams, and improving the standard of environmental evaluations (Koundouno 2017).

6.3.8 Economic corridors and infrastructure

The development of transport and utility corridors was reported as a threat for nine KBAs. In anticipation of population and economic growth in the coming years (Chapters 6 and 7), national governments and regional agencies have a strong focus on infrastructure development. One example is the African Union/ African Development Bank (AfDB) Programme for Infrastructure Development in Africa, which focuses on energy, water, transport and communications, and especially on trans-boundary connections within the continent. The program is implemented through Priority Action Plans. About 40 projects are planned or underway in the hotspot countries, including projects such as the Abidjan-Lagos highway corridor, power and internet connectivity projects, port and airport upgrades[14].

Road development and other infrastructure may have positive effects on rural poverty reduction (e.g. through better market access) and may reduce subsistence use of resources. However, it can also have negative impacts, for example by fragmenting and opening-up forest areas to encroachment. Proximity to roads and urban areas is consistently found to be a predictor of deforestation (Trew *et al.* 2024).

6.3.9 Residential and commercial development

As discussed elsewhere, urban populations in the hotspot countries are increasing rapidly driven by high population growth, rural-urban migration and north to south migration. Urban development rarely takes place directly on forest land, although KBAs close to urban centers, such as the Western Area Forest near Freetown in Sierra Leone, are vulnerable to speculative development of land. Mangroves and coastal wetlands may also be heavily impacted, because of their location on coastal lowlands which are often a target for development. In well-planned urban areas, sites may be better protected when they are managed as part of an urban landscape. In total, 'Settlement' was reported as a threat from 12 KBAs. The impact of urban development is not limited to the footprint of the buildings, however. The concentration of population and economic activity associated with settlements creates needs for energy, food, water and waste disposal that shape the landscape around. During the building of new settlements, there may be intensive and poorly regulated extraction of local resources (e.g. sand, gravel

[14] https://www.au-pida.org/pida-projects/, accessed 17 Dec 2024

and timber), damming and canalizing of rivers, construction of port facilities, breakwaters and flood control structures, all of which can alter natural patterns of accretion and erosion and may lead to damaging changes, locally or elsewhere in the region.

6.3.10 Invasive and other problematic species, genes and diseases

The impacts of invasive species, diseases and genes are not always easily detected or understood, which may explain why they were reported from only five KBAs, including three on São Tomé and Príncipe, where the small populations and unique fauna of oceanic islands make species especially vulnerable to invasives and disease.

Invasive species include mammals (monkeys, pigs, civet, rats and weasels) on islands, introduced predatory fish, and plants, including the nipa palm in the swamp forests and mangroves of the Niger delta, and water hyacinth, which infests many freshwater lakes, including Lake Volta in Ghana. Invasives have serious economic, health, and environmental consequences. Water hyacinth impedes boat transport, damages fishing equipment, clogs irrigation canals and water supply machinery, and affects the operation of hydroelectric plants. It multiplies the rate of evapo-transpiration, leading to water loss, provides habitats for disease vectors, and shades out plants growing in the water. Some plant species were introduced deliberately on islands – including bamboo, oil palm, coconut, quinine, cinnamon, avocado, African breadfruit and African nutmeg – and have now become invasive, out-competing the native vegetation.

Diseases, such as Ebola, Simian Immunodeficiency Virus and respiratory illnesses are important threats to gorillas and chimpanzees. The globally devastating amphibian chytrid fungus *Batrachochytrium dendrobatidis*, has been detected in specimens from Cameroon collected in 1933, but has not become widespread in the hotspot. However it may still prove to be a serious threat to the many endemic and threatened amphibians in the hotspot (Doherty-Bone 2020).

6.4 Drivers and root causes

6.4.1 Inequitable land tenure arrangements

The inequitable tenure arrangements for land and natural resources that are found in many countries in the hotspot are contributing to non-biodiversity friendly land use practices and blocking the transition to better forest and agricultural land-use. As outlined in Chapter 6, land tenure in the hotspot countries is often a mix of customary and statutory land rights, resulting in discrepancies and conflict as the two systems are implemented. A specific feature of all the Francophone West African countries in the hotspot and of some of the Anglophone ones (notably Ghana) is that tree tenure and land tenure are separated. The result is that agricultural land may belong to one person and the indigenous trees on it to another. This situation dates from an earlier era when crops belonged to the grower but the trees belonged to the state or to the land-owner who rented the land to the grower. In the cacao belt in Ghana, young trees that could co-exist and provide shade for cacao bushes are often destroyed by farmers, rather than deal with the damage and inadequate financial compensation caused when timber is removed from their land by the holder of the timber rights. Another consequence is that this reduces the availability of timber for local needs, encouraging illegal harvest inside forest reserves and protected areas. Finally, this kind of tenure discourages farmers from planting trees on their land as a future source of timber, food and fuelwood, something which is common in many other parts of Africa (Shepherd and Kofi Nyame 2009). As a result, timber mills are still geared only for large forest trees, and the processing of smaller diameter trees from farms, e.g. agroforestry, hardly exists.

6.4.2 Socio-economic trends, development models and fiscal pressures

Changes in society and economy indirectly bring new pressures on species and habitats. For example, increasing wealth, health and education levels can result in greater investment in conservation, but they can also lead to greater demands for resources (e.g. land development for new housing; roads, access and infrastructure for recreation and tourism). As the population of the hotspot increases, these pressures are likely to intensify. New technologies and means of communication also change the ways in which people manage and exploit land, water and natural resources and conduct business and trade.

Pressures from outside the hotspot, such as moratoriums on deforestation and land shortages in Southeast Asia, have encouraged oil palm companies to invest in the region, driving further expansion and land use change.

6.4.3 Poverty and wealth inequality

The gap between rich and poor within the hotspot countries is measured by the gini coefficient, with a lower coefficient indicating more equitable distribution of income across the population. Comparing scores about 10 years apart (Table 6.5), the picture across the hotspot countries is mixed, with four countries becoming less unequal, three showing no change over ten years, and two becoming more unequal. Figures refer to the entire country and do not necessarily reflect the situation in the hotspot region.
Highly unequal income distribution generates, among its side effects, low trust of those in authority, deep poverty that becomes harder to alleviate as the income gap between rich and poor widens, and consequent indifference among the wealthy to the situation of the poor. Studies conducted in Cameroon (Kabelong *et al.* 2024, Tchetga 2024) show strong correlations between poverty and dependence on natural resources, suggesting that inequality and high levels of poverty are likely to result in greater dependence on natural resources.

Table 6.5. Gini coefficient scores for the hotspot countries (previous and latest available)

Country	Previous gini coefficient (value and date)		Latest gini coefficient (value and date)		Trend
Benin	n/a		34.4	2021	n/a
Cameroon	38.9	2007	42.2	2021	More unequal
Côte d'Ivoire	41.5	2008	35.3	2021	Less unequal
Equatorial Guinea	n/a		50.2	n/a	n/a
Ghana	42.8	2006	43.5	2016	No significant change
Guinea	39.4	2006	29.6	2018	Less unequal
Liberia	39.4	2007	35.3	2016	Less unequal
Nigeria	48.8	2010	35.1	2018	Less unequal
São Tomé Príncipe	30.8	2010	40.7	2017	More unequal
Sierra Leone	35.4	2011	35.7	2018	No significant change
Togo	39.3	2011	37.9	2021	No significant change

Source: Based on the 2015 ecosystem profile and current public data from the World Bank.

6.4.4 Population pressure, migration and displacement

As noted in Chapter 6, the countries of the hotspot have rapidly growing human populations. Population change is also impacted by internal and international migration. The hotspot countries are generally experiencing southwards migration, with people from the northern parts of the country, or from neighboring countries, moving towards the more developed central and coastal regions. This movement is in part rural-urban migration, as people move to access the economic opportunities available in the coastal conurbations, but it is also a result of environmental degradation and political insecurity in the Sahel zone.

Internal displacement and cross-border movements of refugees is caused by the conflicts in the region (described in Section 7.1), although it may also be a result of natural disasters such as drought and flooding. Although temporary, large scale movements of people with few resources can put intense pressure on local land and forest resources, even when local communities make efforts to accommodate the incomers. The Office of the United Nations High Commissioner for Refugees (UNHCR) estimates that there are around 3 million refugees in the hotspot countries, most from Sahelian countries or elsewhere in Africa (e.g. from Sudan)[15].

6.5 Solutions: approaches to address threats, drivers and barriers

6.5.1 Addressing hunting for bushmeat and wildlife trade, and overfishing

There is considerable debate in the academic literature and among conservation practitioners on how to address the bushmeat trade. Solutions proposed range from a total ban, to legalization and regulation of parts of the trade. Nasi *et al.* (2008) suggest that blanket bans on wild meat consumption are impractical and unenforceable, and would deprive poor families of a source of nutrition and cash earnings. As a high value-to-weight product, easily preserved through smoking, wild meat is one of very few tradable commodities in remote areas. Nasi *et al.* (2008) recommend the application of lessons learned from the local management of inshore fishing in many parts of the world and from Indigenous People's reserves (e.g. in Latin America), where strengthening the rights of local people to manage their natural resources has resulted in better protection for wildlife and exclusion of those without rights to the area. Similar approaches might work in the hotspot, especially in remoter, well-forested areas.

The provision of alternative protein and income-generating sources has become one of the most widely used community-level strategies to reduce bushmeat consumption and trade (van Vliet and Mbazza, 2011). However, while many such alternative livelihood projects have been implemented across West and Central Africa at various scales, there has been little analysis of their successes and failures, and little synthesis of lessons learned. A study of these projects conducted with project managers in West and Central Africa revealed that, while projects have had some success, they are based on many assumptions (e.g. about hunting drivers, market access) which need to be tested (Wicander 2012; Wicander and Coad 2015). For alternative livelihood projects to contribute more significantly to reducing the pressure of bushmeat hunting, they need to be better integrated with complementary approaches which address the threats and barriers that operate at the local level, such as the exclusion of local people from natural resources governance and unclear tenure arrangements. Other elements of a comprehensive strategy could include co-management of protected areas and sustainable use of natural resources by local communities, as well as consumer demand reduction.

Overexploitation of marine and inland water fisheries is a widespread problem. For inland fisheries, the development and enforcement of fishery management plans is recommended, and could include the development of brush park or 'acadja' systems, which have been shown to enhance fisheries (Welcomme 2002). For coastal seas, regional partnerships to govern marine habitats and wildlife include the Canary Current Large Marine Ecosystem and the Guinea Current Large Marine Ecosystem initiatives. There are also projects related to marine protected areas, including the West African

[15] https://reporting.unhcr.org/operational/regions/west-and-central-africa

Marine Ecoregion program of WWF (also known as the World Wide Fund for Nature) and a marine protected areas co-management project in Sierra Leone and Liberia.

6.5.2 Addressing forest degradation: logging, fuelwood collection and charcoal production

Efforts to reduce deforestation and forest degradation from legal and illegal logging have been prioritized by donors, governments and other actors in West and Central Africa. These efforts have been focused on the formal forest sector, as well as the protected area system, and include high-level forest sector planning. Restrictions and reforms to the forestry sector, including the reduction and cancellation of concessions, have contributed to contractions in the formal sector in the hotspot but potentially also to the expansion of the informal sector.

There has been progress in recent years with initiatives to develop legal and sustainable timber industries globally and in the hotspot. These include the promotion of forest law enforcement, governance and trade (FLEGT), through bilateral and multilateral initiatives, such as the EU's Voluntary Partnership Agreements (VPAs), which are currently being implemented with Cameroon, Ghana and Liberia. In 2024, Côte d'Ivoire became the 10th country globally to sign a VPA agreement with the EU, committing the country to developing a timber legality assurance system, through which it will issue FLEGT licenses, which allow import of timber to the EU.

Forest certification appears to have expanded little since the 2015 ecosystem profile, which reported that there were 37 FSC licenses, almost all in Cameroon and Ghana. As of November 2024, the FSC dashboard shows 27 forest management and chain of custody licenses in the hotspot countries: 12 in Ghana, six in Cameroon, five in Nigeria, 2 in Côte d'Ivoire and two in Sierra Leone (See Section 6.3.2/Forestry).

While there has been some effort to verify the legality of timber for export, mostly by larger companies, it small-scale producers who produce timber, fuelwood and charcoal for the households across the hotspot. Community-based natural resource management is one strategy to address the threats to forests and biodiversity posed by informal and unregulated logging, fuelwood collection and charcoal production. In addition to strengthening some traditional community conservation practices (such as sacred forest sites in Nigeria and Ghana, or the 'modified taungya' agroforestry system in Ghana), community forestry in the hotspot is supported by community forestry by-laws and forest management committees in Nigeria, as well as county forest forums in Liberia. The scale and effectiveness of community forestry is limited by insecure tenure arrangements for both forest management and management of trees in farmland, which supply much of the fuelwood and charcoal. Agroforestry, or 'on-farm' trees, could help meet this demand, provided farmers have secure tenure over these resources.

6.5.3 Landscape-scale approaches

The threats to habitats and biodiversity posed by the expansion of agriculture (particularly commercial plantations) and the development of large-scale infrastructure projects in the hotspot are important issues for conservation. Addressing these threats will require the formation of new strategies and partnerships, taking a landscape-scale approach. Existing landscape-level initiatives in the hotspot include the Conservation of the Western Area Peninsula Forest Reserve and its Watersheds project in Sierra Leone, as well as the establishment of conservation corridors and transboundary protected areas, such as the Cestos-Sapo-Grebo-Taï Cavally Corridor between Côte d'Ivoire and Liberia. Landscape-scale, ecosystem-based approaches should continue to form one of the core strategies for improving conservation outcomes in the hotspot. They need to work inside and outside protected areas and in partnership with key actors in agricultural

expansion and infrastructure development, including government agencies outside of the forest/conservation sector, the private sector, and communities affected by policies and projects aimed at transforming the economies and landscapes they live in. Such approaches should be based on a full assessment of the links between forests, water bodies and other ecosystems, and protected areas, agricultural areas, urban areas and emerging industries. Specific tools and methods may include the promotion of integrated and participatory land use planning, as well as integrated water resources and coastal zone management. Ecosystem-based adaptation to climate change, or the integration of ecosystem services into other kinds of adaption planning, can also contribute to landscape-scale planning that aims to maintain ecosystem services that are important for future livelihoods and resilience. Within the context of landscape approaches, there is scope to promote more sustainable models for agricultural and infrastructure projects, such as conservation agriculture, sustainability certification and climate-smart infrastructure development.

6.5.4 Addressing the impacts of energy production and mining

The threats posed by energy production and mining include habitat loss and modification, as well as environmental degradation from pollution and secondary effects (e.g. mining roads providing access to forests for hunting and logging). The mining, oil and gas industries in the sector are also linked to negative socio-economic and political impacts, such as conflict, corruption and sudden economic shifts for small communities. There are a number of initiatives in the hotspot that aim to address these threats, including the Extractive Industries Transparency Initiative and Publish What You Pay initiatives. Partnerships with mining and energy companies include the Niger Delta Shell-Wetlands International wetlands program in Nigeria, the Arcelor Mittal/East Nimba Nature Reserve and Biodiversity Conservation Programme in Liberia, and the BirdLife International-Rio Tinto conservation program in the Upper Guinea region. As the mining and energy industries expand in the hotspot, the conservation sector will need to work more with companies and with the government agencies responsible for planning, approving and monitoring these projects. As for agriculture and infrastructure, improved governance (such as better planning and environmental impact assessment (EIA) implementation, as well as requirements for restoration funds/plans) will be a key part of this strategy. Among large, international mining and energy companies, corporate social and environmental responsibility programs are increasingly the norm, and partnerships with local and international CSOs are relatively common. This is rarely the case among small and medium-scale companies, and companies with less exposure to international markets. In these cases, the role of government in enforcing environmental and social protection measures is very important.

Hydropower schemes pose several other challenges. Energy shortages in hotspot countries indicate that hydropower is likely to expand as part of the energy mix. However, further assessment (at an ecosystem level) is needed of the costs and benefits posed by these schemes to the environment and communities in the hotspot, as well as by dams outside the hotspot with potentially far-reaching impacts, such as those planned for the Niger and Volta Rivers (e.g. Owusu *et al.* 2023). It may help to build on or transfer experiences from other countries and regions in strategic environmental assessment (SEAs) and optimization of hydropower development (i.e. studying the most efficient and low risk options for hydropower or other types of energy production). Alternatives to large hydropower schemes (e.g. alternative renewable energy sources or alternative hydropower models) may be deemed more appropriate, cost-effective and lower risk.

7. SOCIO-ECONOMIC CONTEXT OF THE HOTSPOT

This chapter presents the socio-economic context of the hotspot countries and relates it to biodiversity conservation. It is based on an assessment of current knowledge, as recorded in published documents, and supplemented by information gathered through interviews with selected stakeholders in the region. The information in this chapter is based on the version published in 2015, updated as needed.

The 11 countries of the Guinean Forests Hotspot are extremely complex, both socially and economically. The diversity of cultures and ethnic groups found in the region has been influenced by past and current population migration. Historical and contemporary periods of civil unrest and epidemics have contributed to high levels of poverty and act as obstacles to development. Amid these problems, many of the region's industries, including agriculture, mining, oil and forestry, have continued to shape the landscape. All these factors have repercussions for the success of conservation initiatives in the region.

7.1 Background

7.1.1 History

Recent archaeological excavations reveal that the forests of Cameroon were occupied by people from the middle of the Stone Age (as long ago as 280,000 years ago, Lavachery *et al.* 2012). There is evidence of sedentary agriculture and the domestication of livestock in West Africa from the 5th millennium BC and archaeological records show evidence of iron smelting and forging very early on, between 3,000 and 2,500 before the common era (BCE) (Zangato and Holl 2010).

Successive waves of immigration and colonization took place throughout prehistoric and historic times. The Bantu expansion into Central Africa probably originated in what is now Cameroon and eastern Nigeria, but the expansion moved southwards and eastwards. As a result, only some tribes in southern Cameroon and the Fang ethnic group in Equatorial Guinea (80% of the population) are of Bantu origin. Elsewhere, people in West Africa are not exclusively Bantu.

Important empires in West and Central Africa included the Kanem-Borno empire in the Chad Basin and the Kingdom of Kano and other Hausa kingdoms, which were absorbed into the Islamic Caliphate of Sokoto in 1805. In West Africa, the Nok culture from 1000 BCE was followed by the Empires of Ghana, Mali and Songhai in the 1st and 3rd centuries CE. These vast, wealthy empires were based on the extraction of gold and salt, and the camel trade across the Sahara desert with North Africa. They were also associated with the spread of Islam to the south and west. Further south, the Kingdom of Nri in the 10th century fostered the development of the Igbo peoples and the Akan empire of Ashanti. The camel trade brought influences from the Mediterranean, the Arab world and the Nile Valley; and the sea routes brought more significant influences from Europe from the 15th century onwards.

European trading along the coast (including the slave trade) had enormous repercussions from the 15th century onwards, as did European colonialism in the 19th and 20th centuries. At the beginning of the 20th century the only independent country in the hotspot was Liberia, which had declared independence in 1847 and been recognized by the United States in 1862. Great Britain was the colonial power in Sierra Leone, the Gold Coast (part of present-day Ghana) and Nigeria. France controlled Guinea, Côte d'Ivoire and Benin as part of French West Africa. Until the Treaty of Versailles in 1919, Germany was the colonial power in Togo Land (encompassing part of present-day Ghana and the nation of Togo) and most of Cameroon (later divided between British and French

rule). São Tomé and Príncipe was under Portuguese trusteeship, having been discovered uninhabited in the 15th century. Portugal also colonized Bioko (Fernando Po), but the territory was later ceded to the Spanish as part of "Spanish Guinea", now known as Equatorial Guinea. The countries of the hotspot all became fully independent between 1957 and 1961, except Equatorial Guinea (1968) and São Tomé- Príncipe (1975).

Colonial history has had a great impact on current systems of governance and policy relating to conservation. For example, policies on forest management and protected areas in French-speaking and English-speaking countries are very different (see Chapter 6). The first conservation areas were hunting zones. In Cameroon, for example, the Waza National Park was created by decree No. 71 of 24 March 1934, under the name "Zina-Waza" hunting reserve.

Since independence, land tenure in the hotspot countries has generally been a mixture of customary and statutory law, although there are inconsistencies between the two systems. This can give rise to conflicts, for example, between owners of land under customary law and governments wishing to assert their authority over the national (i.e. unregistered) domain, or between farmers with rights to land and others with rights to the trees growing on it. In recent years, some governments (notably Benin, Sierra Leone and Togo) have tried to resolve this problem by formalizing customary land tenure through legal registration. The other countries in the hotspot still have their own land tenure systems, sometimes with three overlapping systems. Despite the reforms, customary tenure may not be respected on the ground, and contested land tenure remains a key barrier to progress with sustainable land management in many countries.

The region has experienced two disease epidemics in recent years. In March 2014, the worst Ebola virus epidemic ever recorded started in south-east Guinea, and rapidly spreading to Liberia and Sierra Leone, with a total of over 28,600 people infected and 11,135 deaths by the time the outbreak was over in June 2016[16]. Between 2020 and 2022, the global coronavirus (COVID-19) pandemic effected people, economies and societies around the world, including the hotspot countries. Although the region did not experience infection rates as high as other parts of the world, the economic repercussions were profound, exacerbated by a drop in global demand and local measures to contain the virus. According to data from the World Bank, the COVID-19 pandemic plunged the world into a recession unseen since the Second World War (from a global growth forecast of 2.9%, the world ended up growing by 0.5% in 2020 as a result of COVID-19). Benin, which had a forecast growth rate of 6.7% in 2020, saw this rate fall to 2.2%. In Cameroon, the decline in economic output was estimated at least 1.2 to 2 growth points (UNSDG, 2020).

The COVID-19 pandemic had a significant impact on the conservation of biodiversity. Containment measures led to a reduction in human activities, which enabled certain animal and plant species to thrive temporarily. However, restrictions on movement and contact led to a reduction in active protection and management of sites, while at the same time rural populations were turning to natural resources as a source of income and subsistence to replace employment in stalled businesses. The pandemic also caused the postponement of key international conferences and affected long-term conservation efforts. In the longer term, the pandemic may have helped to raise awareness of the importance of healthy ecosystems for food security and preventing disease.

[16] https://www.who.int/emergencies/situations/ebola-outbreak-2014-2016-West-Africa

7.1.2 Religion, language, ethnic group

Islam is the predominant religion in the northern parts of the hotspot countries and on the west coast of West Africa. Islam predominates in Guinea (over 90% of the population), and the northern regions of Sierra Leone, Liberia, Cameroon, Nigeria, Benin, Togo and Côte d'Ivoire (Table 7.1). Christianity was introduced by European missionaries during the colonial period and became the predominant religion in central and southern Nigeria, and in the coastal regions from southern Ghana to the coast of Sierra Leone. Catholicism is the predominant religion in Equatorial Guinea (87%) and São Tomé and Príncipe (72%), followed by other forms of Christianity and traditional beliefs. Traditional African religions are also closely linked to the historical and cultural heritage of the various populations.

There is a high diversity of languages in the region, with Cameroon and Nigeria recognized as part of a center for global cultural diversity, including in language (Loh and Harmon 2005). Nigeria alone has 520 officially recognized languages. In several countries, a form of Creole is used (for example, Krio is spoken by 90% of the population of Sierra Leone).

In most countries, the official languages are those of the former colonial power, and as a result most countries in West and Central Africa are either English- or French-speaking, and in some cases bilingual (e.g. Cameroon). The national languages in Equatorial Guinea and São Tomé and Príncipe reflect their very mixed histories of colonization and immigration. Equatorial Guinea has three spoken languages (French, Portuguese, Spanish) and São Tomé and Príncipe has seven, including the official language (Portuguese; spoken by 95% of the population), and Portuguese creoles such as Forro (8%) and Cape Verdean Creole (9%).

7.2 Demographic and social trends

7.2.1 Regional and national demographics

The hotspot countries had an estimated combined population of 368 million people in 2023 (Table 7.2). With a population of 223 million, Nigerians make up 60% of this number. Nigeria is the sixth most populous country in the world, and is predicted to overtake the United States of America (USA) to become the third most populous by 2050.[17] The country with the smallest population in the hotspot is São Tomé and Príncipe, which has a population of about 232,000.

Human populations across the hotspot were estimated to be growing at between 1.9% per year (Ghana, São Tomé and Príncipe) and 2.7% per year (Benin) in 2023. This growth is expected to continue in the coming decades, with the total population of the hotspot countries predicted to grow by over 60% to reach over 600 million people by 2050.

[17] https://worldpopulationreview.com/countries

Table 7.1 Languages, Ethnic Groups and Religions of the Hotspot Countries

Country	Number of existing languages	Main ethnic groups	Religions and belief systems
Benin	55	Fon and related 39.2%, Adja and related 15.2%, Yoruba and related 12.3%, Bariba and related 9.2%, Peulh and related 7% Ottamari and related 6.1%, Yoa-Lokpa and related 4%, Dendi and related 2.5%, other 1.6%, unspecified 2.9%	Christianity 48.5%, Islam 27.7%, Vodun 11.6%, 2.6% indigenous beliefs, other/no religion 9.6%.
Cameroon	280	Cameroon Highlanders 31%, Equatorial Bantu 19%, Kirdi 11%, Fulani 10%, Northwestern Bantu 8%, Eastern Nigritic 7%, other African 13%, non-African < 1%	Christianity 70.7%, Islam 24.4%, Indigenous beliefs 2.2%, Other 2.7%.
Côte d'Ivoire	81	Akan 42.1%, Voltaiques or Gur 17.6%, Northern Mandes 16.5%, Krous 11%, Southern Mandes 10%, other 2.8%	Islam 42.5%, Christianity 39.8%, indigenous and other beliefs 17.7%
Equatorial Guinea	14	Fang 85.7%, Bubi 6.5%, Mdowe 3.6%, Annobon 1.6%, Bujeba 1.1%, other 1.4%.	Christianity 93%, Islam 2%, other 5%.
Ghana	81	Akan 47.5%, Mole-Dagbon 16.6%, Ewe 13.9%, Ga-Dangme 7.4%, Gurma 5.7%, Guan 3.7%, Grusi 2.5%, Mande-Busanga 1.1%, other 1.6%	Christianity 71%, Islam 20%, indigenous beliefs 3%, others 6%
Guinea	37	Peuhl 40%, Malinke 30%, Soussou 20%, small ethnic groups 10%.	Islam 84.5%, Christianity 11.0%, indigenous beliefs 4.5%
Liberia	31	Kpelle 20.3%, Bassa 13.4%, Grebo 10%, Gio 8%, Mano 7.9%, Kru 6%, Lorma 5.1%, Kissi 4.8%, Gola 4.4%, others 20.1%.	Christianity 84.9%, Islam 12%, indigenous/other beliefs 3.1%
Nigeria	520	Over 250 ethnic groups, the most populous being: Hausa and Foulani 29%, Yoruba 21%, Igbo (Ibo) 18%, Ijaw 10%, Kanuri 4%, Ibibio 3.5%, Tiv 2.5%.	Islam 50.0%, Christianity 48.1%, indigenous beliefs 1.9%
São Tomé and Príncipe	4	Several ethnic groups, reflecting the complex history of colonisation and human settlement	Christianity 70%, Islam <2%, indigenous and other beliefs 28 %
Sierra Leone	25	Temne 35%, Mende 31%, Limba 8%, Kono 5%, Krio 2%, Mandingo 2%, Loko 2%, others 15%	Islam 77%, Christianity 22% Indigenous beliefs 1%.
Togo	43	37 tribes, the largest and most populaous of which are the Ewe, Mina and Kabre (99%); others 1%.	Indigenous beliefs 43.2%, Christianity 42.3%, Islam 14.%, other 0.5%

Sources: ReligionFacts (2014); Paul *et al.* (2015); US Dept. of State (2023).

The hotspot countries have 30% of Africa's population in about 10% of its area, and as a result the average population density of the hotspot countries is 142 people/km^2, far higher than the African average of 51 people per km^2. There is large variation between countries, however, with the highest densities in Nigeria (242 people/km^2) and São Tomé and Príncipe (241 people/km^2), and the lowest (49 people/km^2) in Liberia.

Population data specifically for the hotspot is not available because it is limited by biogeographical rather than political boundaries. However, the total population was estimated at 84.7 million in 2004 (Mittermeier *et al.* 2004), indicating an average population density of 136 people per km^2 at that time. A later publication (Mittermeier 2011) estimates 89 million in 2006, giving a density of 144 people per km^2. If population in the hotspot has grown at the same rate as the population in the hotspot countries as a whole (58.9% between 2004 and 2023), the population of the hotspot will now be 134.6 million people, a density of 216 people per km^2.

Table 7.2. Population Statistics for the Hotspot Countries

Country	Area (km^2)	Pop. 2023 estimate (millions)	Pop. density (people per km^2, 2023)	Pop. growth rate (2023)	Projected annual pop. growth, 2023-2050 (%)	Projected pop. in 2050 (millions)
Benin	112,622	13.7	122	2.7	2.89	24.4
Cameroon	475,442	28.6	60	2.6	2.90	51.1
Côte d'Ivoire	322,463	28.9	90	2.5	3.44	55.7
Equatorial Guinea	28,051	1.7	61	2.3	2.99	3.1
Ghana	238,553	34.1	143	1.9	1.79	50.6
Guinea	245,857	14.2	58	2.4	2.40	23.4
Liberia	111,369	5.4	49	2.2	2.38	8.9
Nigeria	923,768	223.8	242	2.4	2.24	359.0
São Tomé and Príncipe	964	0.2	241	1.9	2.12	0.4
Sierra Leone	71,740	8.8	123	2.1	1.73	12.9
Togo	56,785	9.1	159	2.3	2.68	15.6
Total	**2,587,614**	**368.6**	**142**		**2.38**	**605.1**

Sources: World Bank https://data.worldbank.org/indicator/SP.POP.TOTL?name_desc=false, accessed 14 Nov 2024; World Population Review: https://worldpopulationreview.com/countries, accessed 14 Nov 2024

The concept of ecological footprint gives an estimate of how fast a country (or other unit) uses resources and generates waste, compared to the same county's ability to sustain such use and absorb waste[18]. In the hotspot, the five countries with the highest population density (Benin, Ghana, Nigeria, São Tomé and Príncipe, Togo) are also those with an ecological footprint greater than their bio-capacity (Table 7.3). While the correlation between population density and ecological footprint is not perfect (for example, Nigeria has the highest population density but only the sixth highest ecological footprint),the figures suggest that, as the populations of the hotspot countries continue to grow, their bio-capacity will be exceeded or further exceeded, accompanied by unsustainable exploitation of natural resources.

[18] See https://www.footprintnetwork.org/our-work/ecological-footprint/

Table 7.3. Key Demographic and Ecological Footprint Data

Country	Ecological footprint of consumption (global hectares per inhabitant, 2022)	Total biocapacity (global hectares per inhabitant, 2022)	Ecological reserve (or deficit) (global hectares per inhabitant, 2022)
Benin	0.6	1.1	-0.5
Cameroon	1.4	1	0.4
Côte d'Ivoire	1.1	0.9	0.2
Equatorial Guinea	2.7*	1.8	0.9
Ghana	0.9	1.8	-0.9
Guinea	1.7	1.5	0.2
Liberia	2.7	1.2	1.5
Nigeria	0.4	0.8	-0.4
São Tomé and Príncipe	No data	No data	No data
Sierra Leone	0.9	1	-0.1
Togo	0.6	0.9	-0.3

7.2.2 Trends in urbanization and migration

There are a least 10 population centers with over one million people in the hotspot. In the lower Guinea region they include Douala (1.3 million) in Cameroon, Ibadan (2.5 million), Benin City (1.1 million), Port Harcourt (1 million) and Aba (1 million) in Nigeria, with Lagos (8 million, also Nigeria) on the border of the hotspot. In the lower Guinea they include Benin's largest city, Cotonu, on the border of the hotspot, Abidjan (6 million people), in Côte d'Ivoire, Greater Accra (5.4 million) and Kumasi (3.7 million) in Ghana, Freetown (1.3 million) in Sierra Leone and Conakry (1.7 million) in Guinea. Table 7.4 presents summary statistics.

Table 7.4. Rural and Urban Populations of Each Hotspot Country

Country	Population of urban and rural areas (mid-year, 1,000) and percentage urban in 2022				Average annual rate of change in urban population (percent) 2015-2020
	Urban	Rural	Total	Urban percentage	2015-2020
Benin	6,614	6,738	13,352	49.5	3.55
Cameroon	16,395	11,519	27,914	58.7	3.40
Ivory Coast	14,829	13,330	28,159	52.6	3.39
Equatorial Guinea	1,239	435	1,674	74.0	3.09
Ghana	19,621	13,853	33,474	58.6	3.07
Guinea	5,220	8,638	13,858	37.6	3.73
Liberia	2,813	2,488	5,301	53.0	3.24
Nigeria	116,965	101,575	218,540	53.0	4.30
São Tomé and Príncipe	No	No	No	76	3.03
Sierra Leone	3,771	4,833	8,604	43.8	2.72
Togo	3,886	4,962	8,848	43.9	3.60
Total	**191,347**	**76,953**	**268 300**	**71.3**	

Sources: United Nations, Department of Economic and Social Affairs, Population Division (2022); for São Tomé and Príncipe: https://www.dadosmundiais.com/africa/sao-tome-principe/index.php

In 2022, about 71% of people in hotspot countries lived in urban areas, with the population of urban areas growing at over 3% per year, faster than the overall population growth rate (UN Department of Economic and Social Affairs, Population Division 2022).

The rapid growth of the urban populations has social and ecological consequences, especially where movements are unplanned and rapid. In Conakry (Guinea), rural exodus combined with refugees from Liberia, Sierra Leone and Côte d'Ivoire has resulted in the destruction or degradation of most of the wooded savannahs and mangroves around the city, on the Kaloum peninsula. In Freetown (Sierra Leone), growth of the urban population is contributing to expansion of settlements and degradation from fuelwood collection in the Western Area forest.

The population of urban areas is increasing because of rural-urban migration within each country, but also because of movements across borders, for example from Sahelian countries into the coastal states. The southward migration of large numbers of young people is the result of the greater economic opportunities offered in urban areas, of climate change in northern rangelands, and in some cases of insecurity. These movements can lead to serious land and resource degradation in areas unable to cope with high local population densities. Conversely, high levels of environmental degradation can also lead to social and political collapse and conflict (van Schaik and Dinnissen 2014).

7.2.3 Poverty and human development

Table 7.5 presents data on national income and poverty for the countries in the hotspot. All the hotspot countries are classified as lower middle-income (income groups according to the World Bank method based on gross national income (GNI) per capita, Atlas method) except Equatorial Guinea (upper middle-income) and Liberia, Sierra Leone and Togo (low income). The majority of countries have significant proportions of their population living below the poverty line (US$1.145 per day, in 2023) and/or the national poverty line.

Table 7.5. Economic Data for the Hotspot Countries

Country	GNI per capita, Atlas method (US dollars, 2023 data)	Income group according to the World Bank method (2023 data)	Percent population living below the poverty line (US$1.90/day, 2012-2022 data)
Benin	1,440	Lower middle	38.5
Cameroon	1,650	Lower middle	37.5
Côte d'Ivoire	2,670	Lower middle	37.5
Equatorial Guinea	5,240	Upper middle	8.5
Ghana	2,340	Lower middle	23.5
Guinea	1,360	Lower middle	43.7
Liberia	730	Low	50.9
Nigeria	1,930	Lower middle	40.1
São Tomé and Príncipe	2,480	Lower middle	55,5
Sierra Leone	560	Low	56,8
Togo	1,030	Low	45.5

Sources: World Bank, https://data.worldbank.org/.

Table 7.6 shows development indicators for the 11 hotspot countries. In terms of the Human Development Index (HDI, a composite index of life expectancy, educational attainment and command of the resources necessary for a decent standard of living), all the countries in the hotspot rank among the lowest in the world, despite considerable recent progress. Within the hotspot, Ghana and São Tomé and Príncipe are the two highest-ranking countries (133rd and 138th respectively), while Sierra Leone (181st) and Guinea (182nd) are among the lowest (out of 187 countries). This low level of HDI is also reflected in the region's stagnation in achieving the Millennium Development Goals, undermined by poor governance and the Ebola epidemic that hit these countries hardest.

Table 7.6. Development Indicators for Hotspot Countries

Country	Life expectancy at birth (years, data from 2022)	Infant mortality rate (per 1,000 births) (data for 2022)	Adult literacy rate (%, data from 2019-2022)	World rank in HDI (data from 2022)	Change in HDI ranking (data from 2017 to 2022)
Benin	60	54	47	166	-1
Cameroon	61	47	78	151	1
Côte d'Ivoire	51	52	50	159	12
Equatorial Guinea	61	55	94*	145	-1
Ghana	64	32	80	133	5
Guinea	59	62	45	182	-3
Liberia	61	55	48**	178	1
Nigeria	54	69	63	164	-12
São Tomé and Príncipe	68	11	94	138	4
Sierra Leone	60	76	49	181	2
Togo	62	42	67	162	4

Sources: UNDP https://hdr.undp.org/data-center/human-development-index#/indicies/HDI; Population Reference Bureau (2022); World Bank Open Data https://data.worldbank.org/ Notes: * = data from 2010; ** = data from 2017

The Global Hunger Index combines four weighted indices of undernourishment, stunting, the proportion of underweight children and child mortality. Index values are declining (i.e. improving) in all countries, but remain high, with six hotspot countries classified as having "serious" levels of hunger (Table 7.7). Access to services (health services, drinking water and sanitation) is improving in the hotspot in both urban and rural areas, although many rural populations and slum dwellers still have very limited access to these services.

Table 7.7. Global Hunger Index and Gender Inequality Index Values

Country	Global Hunger Index score (2024)	Global Hunger Index category*	Gender Inequality Index	Gender Inequality Index Rank
Benin	24.7	serious	0.649	152
Cameroon	18.3	moderate	0.555	148
Côte d'Ivoire	20.6	serious	0.612	155
Equatorial Guinea	No data	No data	No data	No data
Ghana	13.9	moderate	0.512	123
Guinea	23.2	serious	0.609	157
Liberia	31.9	serious	0.656	164
Nigeria	28.8	serious	0.677	168
São Tomé and Príncipe	No data	No data	No data	No data
Sierra Leone	31.2	serious	0.613	162
Togo	18.6	moderate	0.578	149

Sources: Global Hunger Index (https://www.globalhungerindex.org/ranking.html, accessed 04 Feb 2025), UNDP – Gender Inequality Index (https://hdr.undp.org/data-center/thematic-composite-indices/gender-inequality-index#/indicies/GII, accessed 04 Feb 2025). Notes: * = countries are categorized as low, moderate, serious, alarming and extremely alarming.

The Gender Inequality Index is a composite measure reflecting imbalances between men and women in three areas: reproductive health; empowerment; and the labor market. Sub-Saharan African countries perform worse than any other region on earth. The trend in the hotspot countries, despite some improvements between 2010 and 2022, are

among the countries with the lowest gender inequality indices in the world[19]. This poor position is largely due to high rates of maternal mortality and adolescent fertility, and huge gaps in schooling.

7.3 Economic trends

7.3.1 Trends in Gross Domestic Product (GDP)

Nigeria's GDP of 367 billion US$(2023, current US$) is larger than the combined GDP of all the other countries in the hotspot. The largest of the other countries is Côte d'Ivoire (US$78 billion) followed by Ghana (US$76 billion). The smallest economies are São Tomé and Príncipe (US$0.6 billion) and Sierra Leone (US$3.8 billion).

Figure 7.1. Annual GDP in Hotspot Countries since 2014 (except Nigeria)

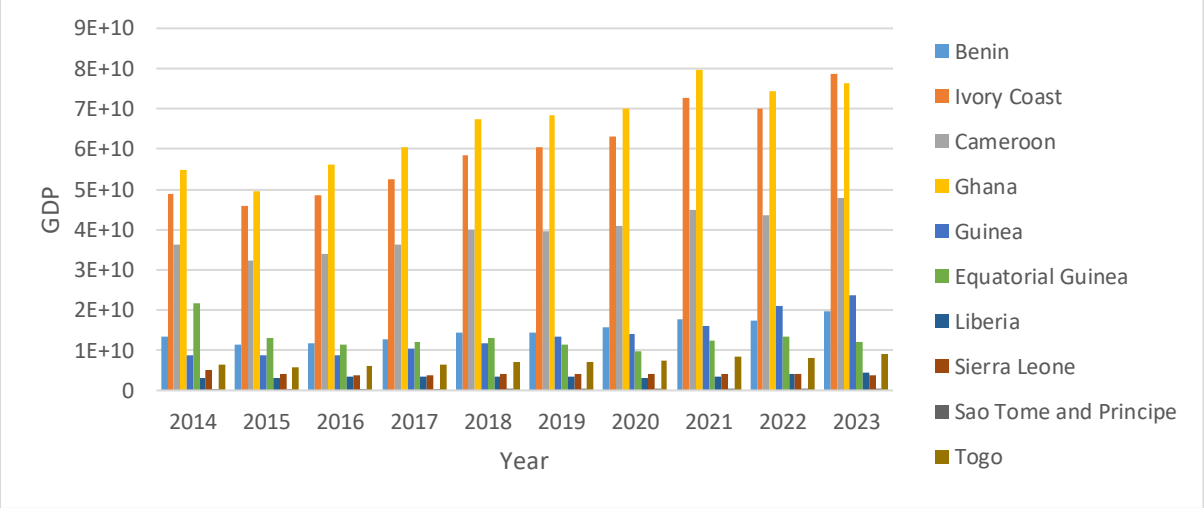
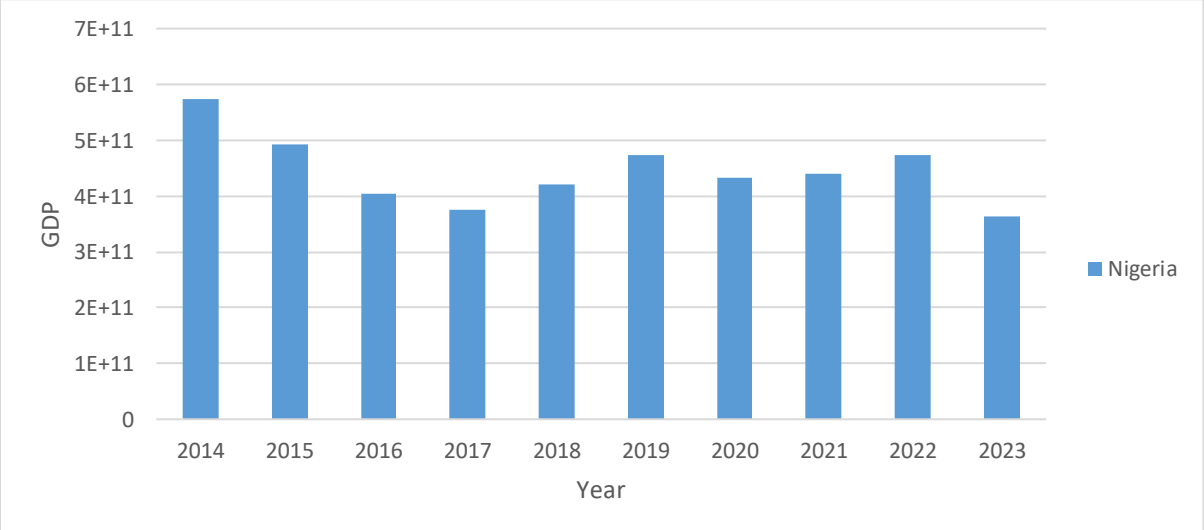


Figure 7.2 Annual GDP Nigeria since 2014



The GDP of Nigeria and Equatorial Guinea has seen an overall downward trend in the last ten years (Figures 7.1 and 7.2). The GDP of Cameroon, Ghana, Guinea and Côte

[19] UNDP: https://hdr.undp.org/data-center/thematic-composite-indices/gender-inequality-index#/indicies/GII

d'Ivoire has grown steadily over the same period (Figure 7.1), while Benin and Togo have grown more slowly. Sierra Leone, Liberia and São Tomé and Principe have seen little change in GDP over the last ten years.

Foreign direct investment in West Africa fell from US$13 billion in 2021 to US$9 billion in 2022[20], mainly as a result of reductions in investment in Nigeria and Ghana. Nevertheless, FDI remains an important economic driver, with Côte d'Ivoire, Ghana and Nigeria the largest recipients . The United Arab Emirates (UAE), France, India and the USA are the leading investors in sub-Saharan Africa. China remains an important investor, although its overall level of investment dropped sharply between 2018 and 2022. Foreign investment in sub-Saharan Africa includes the acquisition of very large areas of land, particularly for edible oil and biofuel production (see section 7.3.2).

7.3.2 Main economic sectors

Natural resources play an important role in the economies of the hotspot countries. All except São Tomé and Príncipe and Equatorial Guinea count gold among their top five exports. Sierra Leone and Guinea also export aluminum ore, and both these countries and Liberia have iron ore. Sierra Leone also has titanium (rutile). Cameroon, Côte d'Ivoire, Equatorial Guinea, Ghana, Liberia, Nigeria and Togo include crude or refined oil and gas among their top five exports. Wood is amongst the top five exports from Cameroon and Sierra Leone. Other important products include agricultural commodities (cocoa, coconuts, Brazil buts, soybeans, vegetable oils), which are among the top five exports for all countries except Nigeria and Sierra Leone.[21]

Agriculture

Agriculture is an important economic sector in all countries. Agricultural expansion to feed a growing population and develop commercial exports is the activity that contributes most to land-use change and deforestation across the hotspot and, therefore, is the main pressure on species, and site and corridor outcomes (see Chapter 5).

The agriculture, forestry and fishing sectors contribution to national GDP is high: in 2023 it was between 14% (Côte d'Ivoire, São Tomé and Príncipe) and 64% (Sierra Leone). Only Equatorial Guinea follows a different pattern, where historic dependence on oil means that natural resources contribute only 2.88% of GDP.

Agriculture in the hotspot takes many different forms, ranging from traditional low intensity cropping and grazing systems to the cultivation and planting of cash crops for both urban and export markets. Most rural populations satisfy their own needs and part of the urban demand for cassava, maize and beans, meat, firewood and charcoal. Urbanization increases the local demand that must be met by rural areas and leads to the conversion of more agricultural land in the absence of technologies for land-use intensification (Norris *et al.* 2010).

There is great variation between hotspot countries in the proportion of land used for arable and permanent crops (excluding land used for livestock grazing). In Togo, for example, 80% of potential arable land is already in use and there is severe land degradation in the absence of affordable fertilizers or effective composting techniques (UNEP 2008).

The main agricultural products grown for export are cacao, oil palm and rubber. Cash crops have a long history in the hotspot, especially cacao in Ghana and Côte d'Ivoire.

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[20] https://unctad.org/news/investment-flows-africa-dropped-45-billion-2022

[21] Data for 2022 from the CIA Fact Book, https://www.cia.gov/the-world-factbook/field/exports-commodities/

This crop was originally associated with unregulated and profitable logging, which fueled forest fragmentation, degradation and further deforestation in these countries. Recent analysis concludes that cocoa is an underlying driver of 37% of deforestation in protected areas in Côte d'Ivoire, and 13% of deforestation in protected areas in Ghana (Kalischek *et al.* 2023). Clearance of land for other monocultures, particularly industrial tree crops such as oil palm, rubber and plantations of the timber tree Gmelina arborea, is also threatening forests and biodiversity in the hotspot.

Cacao production
Four hotspot countries account for more than 60% of the world's cacao bean supply: Côte d'Ivoire (38% of world production in 2022), Ghana (19%), Nigeria (5%) and Cameroon (5%) (Tabe-Ojong *et al.* 2024). In Côte d'Ivoire, a third of the population depends on cocoa farming, and it is a vital contributor to the economy - in 2023, cacao and by-products accounted for more than 40% of total export earnings. Cacao is also the most important cash crop in São Tomé and Príncipe, and most of the lowland forests have been cleared to allow the expansion of cocoa farming over the last century (UNEP 2008). Due to the nature of the crop, large-scale production by private companies is less successful than cultivation by small farms. Farmers sell their cacao beans either to local processing plants or to commodity trading companies, which then export them to EU countries including the Netherlands, Germany, France and Belgium, as well as to the USA, Malaysia and Indonesia (Tabe-Ojong *et al.* 2024).

Cacao farming can be both a direct and indirect cause of deforestation and forest degradation. The low productivity of small farms has led to expansion in the area under cultivation, and some areas of the hotspot (e.g. the Kwahu Plateau in Ghana and south-west Côte d'Ivoire) are predicted to become more suitable for production under climate change scenarios (Läderach *et al.* 2013).

Cacao bean prices have been rising since the last quarter of 2023, reaching a record level of US$10.97 per kilogram on 19 April 2024. The price surge is due to a significant drop in cacao bean production by the world's main suppliers, triggered by the closely linked effects of climate change and El Niño, which have led to irregular rainfall and higher temperatures in cocoa-growing regions, favoring the proliferation of pests and cacao tree diseases such as black rot and swollen shoot virus disease. Soaring cocoa prices have different implications for smallholders in the producing countries. Côte d'Ivoire and Ghana have fixed-price systems in place, and as a result farmers in these countries have seen no benefits as prices have risen and yields have fallen. Farmers in Côte d'Ivoire threatened to strike in response, and in April 2024 President Alassane Ouattara announced a 50% increase in the farmgate price. Ghana implemented a similar price rise shortly afterwards. In contrast, the market is liberalized in Cameroon and Nigeria, and farmers have received high prices, up to US$9.70 per kilo in April 2024 (Tabe-Ojong *et al.* 2024).

These soaring prices coincided with the World Cocoa Conference in Brussels in April 2024, on the theme of "Paying more for sustainable cocoa". They also come against the backdrop of the implementation of the European Union's regulation on deforestation-free products (EUDR), which bans trade in products from recently deforested or degraded land. The EUDR initially came into force in June 2023 and was to have become applicable to commodity trading companies doing business with the EU in December 2024. However implementation has been postponed for 12 months (to 30 December 2025 for medium and large companies, 30 June 2026 for micro and small enterprises). Given that the majority of West African cocoa is destined for the EU, these countries will have to develop transparent and traceable systems to demonstrate that their exported cocoa beans are not linked to deforestation after December 2025.

The Cocoa and Forests Initiative is an active commitment between leading cocoa-producing countries notably Côte d'Ivoire and Ghana, and the chocolate and cocoa

industries, to eliminate deforestation and restore forest areas by prohibiting any further conversion of forest land for cocoa production. Implementation of the Cocoa and Forests Initiative began in January 2018 in five priority regions priority regions: La Mé, Nawa, Cavally, San Pedro and Guémon. These regions were identified based on criteria related to forest preservation, cocoa production and population density.

Some of the main cocoa exporting companies – such as Cargill and ADM in Ghana - have their own sustainability systems (Cargill Cacao Promise and ADM's SERAP program), both certified by UTZ, part of the Rainforest Alliance. Rainforest Alliance has also certified small individual farms or cooperatives in Cameroon, Côte d'Ivoire, Ghana, Nigeria and Togo, while Fairtrade has certified cooperatives in Côte d'Ivoire and Ghana. In recent years, São Tomé and Príncipe has also invested in the creation of cooperatives to export certified organic cocoa and coffee, spices and Fairtrade-certified cocoa. The implementation of these projects has brought benefits to rural populations, offering support and better remuneration to small-scale farmers, but their impact on forests is difficult to assess. The indirect supply chain for cocoa (i.e. the existence of intermediate exporters) makes it difficult to establish a direct link between the main international manufacturers of the finished product and the impacts on producing countries.

Palm oil production
Nigeria was by far the largest African producer of palm oil in 2023-24, producing around 1.5 million tons, equivalent to 2% of global production. Côte d'Ivoire produced over 0.6 million tons, Cameroon 0.4 million and Ghana 0.3 million. Sierra Leone, Guinea, Liberia, Benin and Togo each produced less than 100,000 tons[22].

In contrast to cacao, oil palm is amenable to cultivation on large-scale estates, and benefits from economies of scale as it needs to be processed soon after harvest. In the late 2000s, soaring demand and prices led to a rapid expansion of oil palm estates. Oil palm companies, short of land for expansion in Malayia and Indonesia, worked with Governments including Sierra Leone, Liberia, Cameroon and Côte d'Ivoire to secure land. In some areas this caused conflict with farmers and others already living on the land. Remarkably, these communities had a high degree of success in resisting oil palm: between 2008 and 2019, 27 palm oil projects covering 1.37 million hectares failed or were abandoned in the region, and of the remaining 2.7 million hectares of forest under concession, less than 10% had been converted to plantations (Chain Reaction Research 2022).

Researchers identify a number of reasons for the failure of plantation projects. Some companies had no experience of developing concessions on such a scale. Others found themselves limited by the deforestation commitments they had made under pressure from investors. However, the biggest obstacle was resistance from agrarian communities and land defenders. In Cameroon, for example, the US agribusiness company Herakles Farms virtually abandoned its 73,086-hectare concession after years of conflict with communities; in 2019, Malaysian conglomerate Sime Darby sold a 220,000 hectare concession at a loss, just ten years after signing a 63-year contract; and in Liberia, communities forced British company EPO to back down, despite intimidation and violence against them. There are also examples of community resistance from Sierra Leone, where SOCFIN signed agreement for a large estate. These local campaigns were backed by civil society groups in Europe and the US that have advocacy and communications expertise and fundraising capacity. Community advocates have also developed cross-border networks that have exchanged information and strategic advice (Mukpo 2022).

[22] USDA: Production – Palm Oil. https://fas.usda.gov/data/production/commodity/4243000, accessed 17 Dec 2024

Despite the success of community campaigners and the withdrawal of some companies, most concessions still exist on paper. More than 450,000 hectares of large-scale industrial palm plantations are operational, with over 300,000 hectares are held by just five companies: Socfin, Wilmar, Olam, Siat and Straight KKM (Chain Reaction Research 2022, Mukpo, 2022). Meanwhile, national and local governments continued to promote investment – for example, on 2022 the Edo state government, in Nigeria allowed the development of palm oil in Edo's forest reserves.

The growing global market for palm oil for biofuel and in other products means that there is pressure to increase production. Oil palm expansion has the potential to contribute to poverty reduction, infrastructure expansion, government revenues and support for smallholder farms, but also carries risks, including the loss of forest, and appropriation of local community lands.

Rubber
In 2023, Côte d'Ivoire was the world's third largest rubber exporter (after Indonesia and Thailand), exporting rubber worth US$2.1 billion. Ghana (US$111 million), Liberia (97 million US$), Cameroon (US$59 million) and Nigeria (US$54 million) were also important producers[23]. Demand for rubber is expected to increase as faster-wearing tires are required for electric vehicles, requiring an estimated 2-5 million hectares additional plantation by 2030 (Warren-Thomas *et al.* 2023). Rubber is chiefly grown by smallholder farmers, and this creates challenges in ensuring the sustainability standards and traceability requirements are met. A number of studies have shown that expansion of rubber cultivation directly drives deforestation (Warren-Thomas *et al*. 2023). In a case study in Ghana, farmers seeking to increase their cash income chose to convert food croplands to rubber plantation, with negative consequences for household food security (Ashiagbor *et al.* 2024). The Global Platform for Sustainable Natural Rubber and many large producers which have made zero-deforestation commitments are working to address these concerns and ensure that rubber meets the requirements of markets, such as the EU and UK deforestation-free commodity regulations.

Forestry
In most countries in the forest zone, the forest services of the colonial period established vast networks of reserves to be managed for production or conservation, although many of these reserves were not managed or protected effectively and many now contain little or no forest. As a production sector, forestry can be divided into two broad categories. The first category includes large-scale commercial logging and timber extraction, including the exploitation of natural and semi-natural (secondary) forests and forest plantations. The second includes small-scale local or artisanal logging for local use or markets (e.g. poles, fuelwood, charcoal and NTFPs).

Commercial logging of natural forests
Production forestry and the exploitation of commercial tree species were major industries in several hotspot countries during the colonial period. Timber is no longer a major export product in most countries, with the forestry sector contributing between 10% and 20% to the GDP only in Liberia (17.27%); between 5% and 10% in Sierra Leone (8.94%), Guinea (8.44%), Togo (5.53%) and Ghana (5.22%); and less than 5% in Benin (3.42%), Cameroon (4%), Côte d'Ivoire (1.97%) and Nigeria (1.16%) (African Natural Resources and Investment Centre 2022, using FAO data collected between 2010 and 2020; Forest Trends 2024).

More selective and sustainable forest management and harvesting methods are being adopted in most countries, including the adoption of sustainable forest policies and the

[23] https://www.worldstopexports.com/natural-rubber-exports-country/, accessed 17 Dec 2024

creation of conservation concessions. A search of FSC certificates[24] shows 27 in total in five countries across the hotspot, ten of them for roundwood log production, the rest for timber processing and other downstream industries. The certified logging operations are in Cameroon (4), Ghana (5) and Sierra Leone (1).

Illegal logging remains a challenge across the hotspot. In Ghana, it is reported to be declining, but illegal trade in high value species remains a problem (Forest Trends 2021). In Nigeria, illegal deforestation is often associated with expansion of commodities and grazing land as well as for high-value timber (Forest Trends 2022). Cameroon has a history of weak regulation and management of forest concessions, and illegal logging (both large-scale and small-scale) remains widespread. The country is also a hub for timber export from the region, and this complicates tracing and labelling of certified products (Forest Trends 2024).

Forest plantations were introduced under colonial rule, with planting of fast-growing trees such as pine and eucalyptus. From the mid-20th century, plantations increased, mainly with the help of international bodies such as the World Bank (Jacovelli 2014). The management of plantations, which was previously in the hands of the public services responsible for forests, is now largely in the hands of private companies. FAO (2020) reports a total of 902,000 hectares of planted forest in the countries of the hotspot, with the largest areas in Ghana (297,000 hectares), Nigeria (216,000 hectares), and Equatorial Guinea (125,000 hectares).

Small-scale exploitation: fuelwood, charcoal, mangroves
Over 70% of the population of sub-Saharan Africa relies on wood fuel as their primary household energy source (Sola *et al.* 2017). Surveys show that all countries in the hotspot are heavily dependent on fuelwood (for example, 95% of the population of Benin and 85% of the population of Sierra Leone). Mangroves are particularly vulnerable to overexploitation for poles and charcoal, especially as they are often close to coastal population centers. the hotspot where the highest population densities and urban centers are located.

Tourism
West Africa offers exceptional natural environments and rich culture. However, limitations in transport infrastructure and accommodation have hampered the growth of the sector. Tourism in West Africa lags behind East and Southern Africa in terms of the region's contributions to the national economy, employment and visitor arrivals (Red Clay Advisory 2021). The region recorded 5.7 million visitor arrivals per year in 2022[25] (some older data: see Table 7.8), with most of these to Côte d'Ivoire and Nigeria.

Although tourism is on a small scale in terms of economic value, a large part of tourism concerns nature and culture and can therefore be directly linked to the conservation of landscapes and natural heritage. Tourist attractions in the hotspot are centered on activities linked to the local population, but also include the tropical forests, savannah, waterfalls and, more generally, take advantage of the natural wealth. Nature protection strategies have increasingly integrated tourism activities that promote local development. These initiatives range from community-based hospitality programs to more established businesses with links to local communities. However, many of these ecotourism initiatives suffer from low visibility in the global market and difficult access. There are also examples of 'ecotourism' that do not meet the International Tourism Society's definition of ecotourism (i.e. "enhances the well-being of local people").

[24] https://uk.fsc.org/search, accessed 17 Dec 2024
[25] United Nations Tourism Organization, UNWTO, https://www.unwto.org/tourism-statistics/key-tourism-statistics

Table 7.8 International Tourism Arrivals in West Africa Countries

Country	Tourist arrivals (year of data)
Benin	354,000 (2020)
Cameroon	539,000 (2022)
Côte d'Ivoire	2,047,000 (2022)
Equatorial Guinea	No data available
Ghana	915,000 (2022)
Guinea	99,000 (2017)
Liberia	No data available
Nigeria	1,271,000 (2022)
São Tomé and Príncipe	34,000 (2019)
Sierra Leone	44,000 (2021)
Togo	482,000 (2020)
Total	**5,785,000**

Capture fisheries and aquaculture

Fishing is an important activity for some hotspot countries, and it is an important source of animal protein, complementing livestock production in several countries. The hotspot countries account for 2.6% of global capture fisheries production. However, there have been significant falls in the fisheries catch in recent years: in Côte d'Ivoire, coastal fisheries catch dropped 40% between 2003 and 2013, while neighboring Ghana has seen a 59% fall in landings of small fish over the last 25 years. The causes of the fisheries crisis are over-fishing by an increasing local population, foreign trawlers fishing illegally or using local companies as fronts, and climate change, which causes ocean warming and changes fish migration patterns[26].

Table 7.9. Production from Capture Fisheries and Aquaculture, 2022

Country	Capture fisheries (tons)	Aquaculture (tons)
Benin	76,105	4,550
Cameroon	299,035	10,118
Côte d'Ivoire	99,943	6,200
Equatorial Guinea	6,610	15
Ghana	519,627	132,682
Guinea	334,870	1,180
Liberia	29,338	1,375
Nigeria	784,124	259,106
São Tomé and Príncipe	5,703	0
Sierra Leone	215,140	145
Togo	21,505	1,151
Total	**2,392,000**	**416,522**

Source: World Bank open data, accessed December 2024 Total fisheries production (metric tons) | Data

The hotspot countries are responsible for only 0.33% of global aquaculture production. However, since 2000, aquaculture production in the hotspot has increased more than 10-fold, from 32,037 tons to 416,522 tons, driven by increases in Ghana and Nigeria. Declining aquaculture production in countries such as the United States of America and Japan, coupled with declining wild fish stocks globally, is likely to increase demand for aquaculture products, potentially stimulating aquaculture expansion in West Africa and the hotspot sub-regions. While the expansion of aquaculture can potentially have positive environmental effects through the easing of pressure on wild stocks,

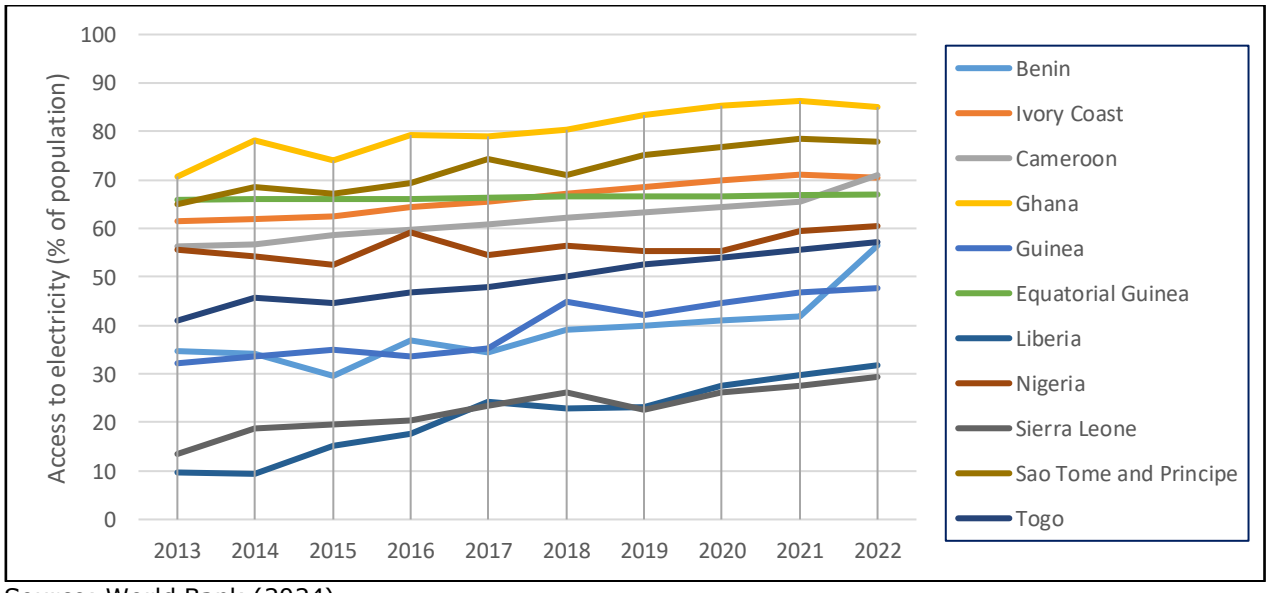
[26] Salata Institute for Climate and Sustainability, https://salatainstitute.harvard.edu/hooking-a-new-livelihood-collapse-of-west-africa-fisheries-forces-adaptation/

aquaculture systems themselves can have serious environmental impacts, such as water eutrophication, mangrove destruction and water pollution.

Energy and electricity production
Only two of the hotspot countries have more than 75% of their population with access to electricity – Ghana and São Tomé and Príncipe (Figure 7.3). Six more have between half and three-quarters of the population with access (Benin, Côte d'Ivoire, Equatorial Guinea, Cameroon, Nigeria and Togo) have more than half of their population with access to electricity. In Guinea the figure is 47.7%, in Liberia 31.8%, and in Sierra Leone 29.4%[27]. Households without access to electricity are likely to rely on local fuel sources, such as wood and charcoal (CIFOR 2013).

In 2022, 68% of the energy generated in the hotspot countries came from fossil fuels (gas and oil). The balance came from hydro power, solar and biomass energy. The countries with the largest proportion of non-fossil fuels in their energy mix were Sierra Leone, where 95% of power needs are from hydro; Guinea (67% non-fossil fuels), which has hydro and also a small amount of solar generation; Cameroon (65% non-fossil fuels), which has hydro, solar and biomass generation; and Liberia (63% non-fossil fuel), which also has hydro. The largest users of fossil fuels are Benin, which generates 98% of its power from gas and oil; and São Tomé and Príncipe, which generates 91% of its needs from oil. Amongst the countries that generate the most energy, Nigeria relies on fossil fuels for 78% of its energy needs, Ghana 64%. There is no significant nuclear, wind, coal or geothermal power generation in the hotspot countries.[28] The social and environmental impacts of the hydropower dams that generate 31% of the energy needs of the hotspot countries are discussed in Section 6.3.7.

Figure 7.3. Percentage of the Population with Access to Electricity in Hotspot Countries since 2013



Source: World Bank (2024).

Mining and oil exploitation
In Sierra Leone, mining officially accounted for more than 90% of export earnings and 20% of GDP before the war in 1991. Despite the historical importance of diamonds as a

[27] World Bank, Access to electricity (% of population) | Data, Accessed Dec 17 2024
[28] Energy mix data from Ember https://ember-energy.org/data/yearly-electricity-data/, Accessed Dec 2024

major export, iron and titanium ores have become Sierra Leone's main export products, accounting for 60.9% of total exports[29].

Most mining in Ghana is carried out by international companies, but illegal small-scale mining is widespread. On the advice of the International Monetary Fund and World Bank, forestry and mining legislation and regulations were relaxed in the 1980s and 1990s, and investment by the mining and forestry industries was encouraged through incentives. The mining industry was privatized and liberalized, and some mines were even authorized in forest reserves. These reforms took gold production to new heights (replacing cocoa as Ghana's most valuable commodity, making up 47% of exports in 2022[30]).

Nigeria was the world's ninth largest crude petroleum exporter in 2023, with 73.7 % of export earnings (2022) from export of crude oil[31]. The government's dependence on oil revenues made it highly vulnerable to fluctuations in global prices. In response, the country has introduced fiscal buffers in the form of savings generated when oil revenues are higher than budgeted. Oil operations began in 1960 and national production peaked at almost 2.6 million barrels per day in 2005, although production has subsequently declined significantly due to the activities of militant groups. Production takes place mainly in the River Niger Delta (which includes several KBAs), where there are persistent environmental and social problems arising from thousands of oil spills each year. Local communities receive little or no benefit from oil wells on their land and no compensation for pollution or loss of land and ecosystem services. Corruption and vandalism are rife, with many deaths caused each year by local people trying to steal oil directly from pipelines and setting up thousands of small refineries operating illegally across the delta.

Livestock raising
Livestock raising accounts for around 35% of the region's agricultural gross domestic product, making a significant contribution to food supply and nutritional security. In addition, livestock farming is a source of income for smallholders and provides employment opportunities, as well as supplying essential inputs for crop production. The genetic diversity of African livestock also contributes to biodiversity and the resilience of farming systems. Pastoral systems, characterized by their mobility, are particularly well adapted to variable environmental conditions and contribute to sustainable land use. However, the sector faces challenges such as access to markets, product quality and animal health, which require appropriate policies to support small-scale livestock farmers and improve productivity. In addition, the dairy sector in West Africa, which is an important component of rural livelihoods, faces challenges such as competition from imports and the need for investment to meet growing demand. For some years now, transhumance has been perceived as a source of conflict in the hotspot countries, despite its economic importance. The increase in livestock numbers and the growing sedentarisation of livestock breeders are a source of tension with other resource users, particularly farmers, local livestock breeders and the agencies responsible for managing protected areas.

[29] Observatory of Economic Complexity, https://oec.world/en/profile/country/sle, accessed Dec 2024
[30] Observatory of Economic Complexity, https://oec.world/en/profile/country/gha, accessed Dec 2024
[31] Observatory of Economic Complexity, https://oec.world/en/profile/country/nga, Accessed Dec 2024

8. POLITICAL CONTEXT OF THE HOTSPOT

This chapter examines the framework of policies, agreements and institutions operating at global, regional and national levels in the hotspot.

8.1 Governance

8.1.1 National governance

Amongst hotspot countries, Liberia, Ghana, São Tomé and Príncipe, and Sierra Leone, are democracies, although there are challenges to the institutions and processes. Benin, Côte d'Ivoire, Togo, Guinea and Nigeria are classified by Freedom House[32] as "moderate autocracies," with serious weaknesses in democratic processes and the protection of civil liberties, while Cameroon and Equatorial Guinea are described as hardline autocracies.

Benin had been among the most stable democracies in sub-Saharan Africa, although there have been concerns about restriction on the freedom of political opposition since 2016, including before the 2021 election, which returned the incumbent. Legislative elections in 2023 passed peacefully. The government has faced challenges from increasing Islamist militant activity in the north of the country.

Cameroon has been ruled by President Paul Biya since 1982. The country has held regular elections, but these have not been judged to be free and fair. The freedom of media and nongovernmental organizations to criticize or oppose the government is restricted. A conflict between security forces and separatists in the Anglophone Northwest and Southwest regions is ongoing and has resulted in widespread civilian deaths and displacements.

Côte d'Ivoire suffered an armed conflict which was caused by ethnic and regional tensions, land disputes and corrupt governance. Although the conflict ended in 2011, many of the causes remain. There was violence during elections in 2020, but overall the country is stable, with civil society and the political opposition able to operate more freely.

Equatorial Guinea has been ruled by the same government since a military coup in 1979, without free elections. The ruling family control oil wealth and political power. Opposition, civil society and media cannot operate freely.

Ghana has held multiparty elections and seen multiple peaceful transitions of power since 1992. The country has a strong record of upholding political rights and civil liberties, although there are some challenges in controlling corruption. Presidential and parliamentary elections in December 2024 saw the election of the opposition candidate, John Mahama, who was previously President from 2012-2017, as the next President.

Guinea experienced its third military coup since independence in 2021. The coup leaders have delayed a promised return to civilian rule and taken action against critics and political opponents.

Liberia has slowly recovered from its civil war, which ended in 2003. Free elections have been held twice, in 2017 and 2023, both relatively free from violence. Corruption and impunity are ongoing challenges to governance.

[32] https://freedomhouse.org/

Nigeria returned to a democratic system in 1999. The latest elections, in 2023, were marred by violence and voting irregularities noted by local and international observers. Corruption and sectarian violence affect several areas of the country, including the north and central belt, and the oil-rich delta region. There is a relatively free press and civil society, but there are examples of harassment and repressive use of legal action against critics of the government.

São Tomé and Príncipe is a multiparty democracy which has held regular, competitive national elections and has seen multiple transfers of power between rival parties. Civil liberties are generally respected. Poverty and corruption have weakened some institutions, including the justice system.

Sierra Leone has held regular multiparty elections since the end of its civil war in 2002. These have been marred by attempts to control opposition and limit the freedom of civil society. The results of the latest election, in 2023, were contested but the two main parties have since agreed to a compromise that has allowed government to operate.

Togo has had two leaders since a coup in 1963 - the late Gnassingbé Eyadéma and his son, current president Faure Gnassingbé. The country has held regular multiparty elections, but these are not judged to be free.

Many countries in sub-Saharan Africa are characterized by high levels of corruption and poor governance. The 2023 Corruption Perceptions Index gives all the countries in the hotspot scores between 17 (high corruption, 172nd place) and 45 (average level of corruption, 67th place), with the maximum score of 100, a guarantee of good governance[33]. Overall, there has been a slight decline in corruption since the 2014 ranking. According to these results, corruption is a factor in the daily lives of citizens in all 11 countries that make up the hotspot.

8.1.2 Conflicts and security issues

Most hotspot countries have experienced some form of political instability or insecurity in the past 20 years. Some regions, such as the Lake Chad Basin to which Nigeria and Cameroon belong, have seen an intensification of conflict, with the presence of terrorist groups such as Boko Haram, the Islamic State in West Africa and groups affiliated to al-Qaeda.

Nigeria faces four major types of insecurity. Since 2009, the Islamic sect Boko Haram has claimed more than 350,000 lives in the north-east of the country, forcing more than 2 million people to flee (Solidarités International 2022). Conflicts between herders and farmers can result in violent clashes over the use of land and water, as well as over grazing tracks or transhumance corridors. Farmer-herder conflicts are exacerbated by climate change and the spread of the Sahara Desert. Banditry and kidnappings are a third source of insecurity in Nigeria, with more than 10,000 students kidnapped for ransom since 2020. Separatist groups are active in the south of the country, mainly in the Niger Delta. Since 2015, the security situation in Nigeria has deteriorated due to various economic, social, religious, environmental and political factors, exacerbated by the effects of climate change. The northern regions are particularly vulnerable, leading to mass migration southwards.

In Cameroon, there are three major types of insecurity, which have led to the displacement of over two million people. These are the activities of the Islamic sect Boko Haram, which have spilled over into the North and Far North regions; the phenomenon

[33] Corruptions Perceptions Index are available at: https://www.transparency.org/en/

of hostage-taking and conflicts between farmers and herders in the Adamaoua, North and Far North regions.

There is also the security crisis in the Northwest and Southwest regions, which began in 2016 and has led to clashes between separatist groups and the security forces, resulting in displacement. The conflict is characterized by targeted attacks, arson, destruction of property, loss of life from stray bullets, arbitrary arrests and detentions, kidnappings for ransom and extortion, and attacks on health workers (OCHA 2024). It affects one of the most biodiverse and unique parts of the hotspot, has resulted in increased poaching in protected areas, habitat degradation, disruption of management and surveillance by protected area authorities, difficulty of access for researchers and conservation staff, and displacement of local populations, causing pressure on natural resources.

Togo, Benin and Côte d'Ivoire have also suffered sporadic terrorist attacks. Their proximity to Niger, Burkina Faso and Mali makes them vulnerable, as these countries are experiencing political instability.

Security threats in Benin relate to kidnappings in the northern part of the country by suspected militant groups Jama'at Nasr al-Islam wal Muslimin and other violent extremist organizations.

Since the early 2000s, Côte d'Ivoire has experienced two civil wars: the first from 2002 to 2007, and the second from 2010 to 2011. These wars have led to security problems, civilian casualties and a highly polarized and unstable political situation. The high levels of forest conversion in Côte d'Ivoire are a product of this instability.

Liberia suffered two civil wars, from 1989 – 1997, and from 1999 – 2003. Beginning as an expansion of an earlier war in Liberia, the devastating civil war in Sierra Leone (1991-2002) halted the country's conservation efforts. Both countries have been peaceful since the end of the war, which saw large number of refugees moving to Guinea, and a spike in poaching and deforestation.

Ghana has remained relatively stable, and has thus made good progress towards achieving the Millennium Development Goals.

The security environment in Equatorial Guinea is generally good, although the country has disputes with Nigeria over maritime borders. The political situation in São Tomé and Príncipe is also stable, although there was an attempted coup in 2022.

Guinean politics are highly volatile, and concerns about the transparency of the electoral process have recently led to violent political incidents and inter-ethnic clashes.

8.2 International environmental agreements

All the governments of all the hotspot countries have ratified the following international conventions and agreements related to conservation: Convention on Biological Diversity; United Nations Framework Convention on Climate Change; the Paris Agreement (climate change); the Ramsar Convention (wetlands); the Convention on International Trade in Endangered Species; the United Nations Convention to Combat Desertification and the World Heritage Convention.

These international commitments significantly influence the development of national policy and legislation in these states. This harmonization of legal and policy frameworks at international and national levels has fostered partnerships and increased collaboration between governments and civil society organizations (CSOs). These international agreements have also strengthened funding and technical support for conservation initiatives, mobilizing additional resources from multilateral and bilateral donors.

8.2.1 Convention on Biological Diversity (CBD)

All the hotspot countries have developed National Biodiversity Strategies and Action Plans (NBSAPs) to guide and support national implementation of the CBD[34]. Several are now out of date, and all will need to be re-aligned with the Global Biodiversity Framework targets adopted at the Kunming-Montreal COP in 2022.

Benin's NBSAP (2016) addresses stakeholder engagement in biodiversity conservation planning and implementation; mainstreaming biodiversity in development programs; alignment of the NBSAP and national and sectoral strategies; synergies between conventions; promotion of public-private partnerships; and the consideration of the Ecosystem Approach in implementation.

Cameroon's NBSAP (2012) proposes a new policy orientation to reverse and halt the current trend in biodiversity loss to establish a strong nature base that is indispensable for the country's socioeconomic growth.

Côte d'Ivoire's NBSAP (2016) focuses on protection of natural environments, functions and services; preservation of species and genetic diversity; strengthening of conservation infrastructure; valuation and sustainable use of biodiversity; mobilization of civil society and diffusion of knowledge on living organisms; and strengthening national coordination and international cooperation.

Equatorial Guinea's NBSAP (2015) addresses sectoral mainstreaming; social awareness-raising; legislation; sustainable use for poverty reduction; livelihood alternatives; protected areas; pressures on forest ecosystems; traditional knowledge; carbon accreditation; biodiversity and adaptation to climate change; bioprospecting; data collection and access; monitoring; financing; mainstreaming in education (capacity-building).

Ghana's NBSAP (2016) has four strategic objectives: mainstreaming biodiversity into government and society; improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity; enhance the benefits of biodiversity to all sectors of the economy; participatory planning, knowledge management and capacity-building.

Guinea's NBSAP (2016) contains nine national priorities focused on: stakeholder involvement and commitment; capacity-building (systemic and institutional); inventory and valuation of traditional knowledge; reducing or halting pressures on biodiversity; protecting representative ecosystems; valuation of the benefits derived from biodiversity and ecosystem services; participatory planning for traditional knowledge management and capacity-building; coordination; and resource mobilization.

Liberia's NBSAP (2017) aims 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; and to develop a framework for mainstreaming biodiversity into national accounting systems, development policies, plans and programs."

Nigeria's NBSAP (2015) aims to mainstream biodiversity into development planning to enhance sustainable development, through 14 SMART targets linked to the Aichi targets.

Sierra Leone's NBSAP (2017) establishes priorities to achieve protection of biodiversity across sectoral legislation; implementation of conservation action; enhance the status of species, habitats, sites and ecosystems; improve living standards, ecosystem services

[34] NBSAPs are available at: https://www.cbd.int/nbsap/about/latest

and opportunities; and improved sectoral and public involvement, and enhanced capacities and awareness.

São Tomé and Príncipe's NBSAP (2016) is focused on strengthening the institutional and human capacities to promote diversified economic development, which will contribute directly and indirectly to the conservation of biodiversity. It identifies marine and coastal, forest, inland waters and agrarian ecosystems as priorities.

Togo's NBSAP (2014) lays out twenty national targets aimed at: fostering a common culture; strengthening advantages derived from biodiversity and ecosystem services for all; improving the legal and institutional framework and governance; developing knowledge on national biological resources; and strengthening technical and human capacity

The Kunming-Montreal Accord, adopted in December 2022 at the 15th Conference of the Parties to the Convention on Biological Diversity, marks a shift towards protection of biodiversity with a human rights-based approach. Countries adopted the Global Biodiversity Framework, which underlines the crucial importance of biodiversity for human rights and vice versa, recognizing the vital role of indigenous peoples and local communities in biodiversity conservation. For sub-Saharan Africa, this perspective is particularly relevant, as it highlights the need to protect ecosystems while respecting traditional rights and knowledge. The commitment to intergenerational equity and shared responsibility for future generations reinforces the urgency of taking action against biodiversity loss. The significant participation of the International Indigenous Forum on Biodiversity in the negotiations reflects the importance of including indigenous voices in environmental decision-making.

8.2.2 UNFCCC and the Paris Agreement

All the hotspot countries are signatories to the Paris Agreement, which requires countries to commit to emissions reductions through their Nationally Determined Contributions (NDCs). All signatory countries, including the 11 hotspot countries, have made binding commitments under the Paris Agreement to reduce GHG emissions and promote initiatives to adapt to climate change, and most of them have submitted their revised NDCs. Table 8.1 summarizes the NDCs of hotspot countries.

Table 8.1. Summary of NDCs in Hotspot Countries

Country	Years of submission	Objective
Cameroon	NDC submitted in 2016, updated in 2021	GHG reduction target for 2030 is 35%, divided as 23% in a conditional scenario, 12% unconditional
Benin	NDC submitted in 2016, revised in 2021	Committed to reducing its emissions by 11.68% without international support, 21.36% with support, by 2030
Côte d'Ivoire	NDC submitted in 2016, revised in 2022	Committed to reducing emissions by 30.41% by 2030 without international support, 98.95% by 2030 with international support
Ghana	The 2016 NDC, revised and submitted in September 2021	15% reduction in emissions by 2030, with a conditional target of 45% dependent on international financing, technology transfer and international cooperation
Nigeria	The 2015 NDC revised, submitted in July 2021	Provides for a 20% reduction in emissions by 2030, with a conditional target of 47%
Togo	The 2016 NDC revised, submitted July 2021	Plans to reduce emissions by 14.45% by 2030, with a conditional target of 50.12%

Country	Years of submission	Objective
Equatorial Guinea	NDC revised and submitted in July 2021	Committed to reducing emissions: by 20% (unconditional target) by 2030 compared to the business as usual (BaU) scenario, and international financial support is assured. Equatorial Guinea plans to reduce emissions by 50% by 2030
Guinea	NDC revised and submitted in October 2021	Aims to reduce emissions by 13% in an unconditional BaU scenario and by 49% (conditional) by 2030
Liberia	NDC revised and submitted in July 2021	Aims to reduce emissions by 10% in an unconditional BaU scenario and by 64% (conditional) by 2030
São Tomé and Príncipe	NDC revised and submitted in July 2021	Forecasts a reduction in emissions of 27% in an unconditional BaU scenario and 47% (conditional) by 2030
Sierra Leone	NDC revised and submitted in 2021	Plans to reduce emissions by 10% in an unconditional BaU scenario and by 25% (conditional) by 2030.

Source: UNFCCC NDC Register , https://unfccc.int/NDCREG

Under the UN Framework Convention on Climate Change (UNFCCC), the UN also supports country preparation for Reducing Emissions from Deforestation and Forest Degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries (REDD+). The UN-REDD Programme is supporting national REDD+ processes in Benin; Cameroon (linked to EU-FLEGT); Côte d'Ivoire; Ghana; Guinea; Liberia; Nigeria; and Togo. Sierra Leone and São Tomé and Principe have yet to be involved. In addition, there is a voluntary carbon offset project in the Gola forests in Sierra Leone (see Section 11).

8.2.3 Ramsar Convention on wetlands

Hotspot countries have listed 64 wetlands as of international importance under the convention. Seventeen are located in the hotspot, nine of them confirmed KBAs and three within proposed freshwater KBAs (Table 8.2 and 8.3).

Table 8.2. Ramsar Sites within the GFWA Hotspot

Country	Ramsar site	KBA status
Cameroon	Barombi Mbo crater lake	KBA
Cameroon	Rio Del Rey estuary	Not a KBA
Côte d'Ivoire	Azagny National Park	KBA
Equatorial Guinea	Isla de Annobón	KBA
Ghana	Owabi reservoir	Not a KBA
Guinea	Konkouré	KBA
Liberia	Gbedin wetlands	proposed freshwater KBA
Liberia	Kpatawee wetlands	proposed freshwater KBA
Liberia	Lake Piso	KBA
Liberia	Marshall wetlands	Not a KBA
Liberia	Mesurado wetlands	proposed freshwater KBA
Nigeria	Apoi Creek forests	Not a KBA
Nigeria	Lake Oguta	Not a KBA
Nigeria	IITA	KBA
Nigeria	Upper Orashi forests	KBA
São Tomé and Príncipe	Tinhosas islets	KBA
Sierra Leone	Sierra Leone river estuary	KBA

Table 8.3. Participation in the Ramsar Convention by Hotspot Countries

Country	Year of membership	Ramsar sites in the country	Ramsar sites in the hotspot
Cameroon	2000	4	0
Benin	2006	7	2
Ivory Coast	1996	6	1
Ghana	2003	3	1
Nigeria	1988	6	1
Togo	1993	16	1
Equatorial Guinea	2003	5	5
Guinea	2001	13	4
Liberia	2006	1	1
São Tomé and Príncipe	2000	1	1
Sierra Leone	1995	4	0
	Total	**66**	**17**

8.2.4 Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

CITES is an important convention for the countries of the Guinean Forests Hotspot, as it regulates trade in wild species. Unregulated international trade is a threat to plant and animal biodiversity (for example, the export of the grey parrot (*Psittacus erithacus*) to the EU). Some trade continues, notably the export of bushmeat for the West African diaspora.

CITES parties are expected to put in place regulations and mechanisms to implement the decisions of the convention. However, of the 11 countries in the hotspot, only Nigeria is considered to have national legislation that meets the general implementation requirements of CITES. A bill adopted in 2024 will further strengthen measures against illegal wildlife trade by increasing law enforcement capacity, extending investigative powers to include financial investigations and intelligence-led operations, and enabling courts to expedite wildlife cases and recover assets.

The CITES Conference of the Parties and Standing committee can recommend suspensions of trade in particular species or all CITES listed species for a specified period. These temporary suspensions are intended to give the country an opportunity to make progress in the enactment of adequate legislation, combating and reducing illegal trade, submitting missing annual reports or responding to specific recommendations of the Standing Committee. The suspension is withdrawn once the issue has been addressed. At present, ten of the eleven countries in the hotspot are subject to suspensions of all trade in the case of São Tomé and Príncipe, of commercial trade in Liberia, and for particular species all other countries except Sierra Leone:

- Benin: trade in emperor scorpion (*Pandinus imperator*), graceful chameleon (*Chamaeleo gracilis*), Senegal chameleon (*C. senegalensis*) and Home's hinge-backed tortoise (*Kinixys homeana)* is suspended.
- Cameroon: trade in African rosewood (*Pterocarpus erinaceus*) suspended due to compliance and enforcement issues.
- Côte d'Ivoire: trade in the timber tree *Pericopsis elata* suspended.
- Equatorial Guinea: trade in the medicinal tree *Prunus africana* suspended.
- Ghana: trade in emperor scorpion (*Pandinus imperator*), graceful chameleon (*Chamaeleo gracilis*) and Senegal chameleon (*C. senegalensis*) suspended.
- Guinea: trade in West African Seahorse (*Hippocampus algiricus*) suspended because of enforcement issues.
- Liberia: all commercial trade suspended because of inadequate national legislation.
- Nigeria: trade in African rosewood (*Pterocarpus erinaceus*) suspended due to compliance and enforcement issues.

- São Tomé and Príncipe: all trade suspended because of issues with annual reports, all commercial trade suspended because of problems with national legislation.
- Togo: trade in the African rosewood (*Pterocarpus erinaceus*), brown-necked parrot (*Poicephalus fuscicollis)* and emperor scorpion (*Pandinus imperator*) suspended due to compliance and enforcement issues.

In response to these measures, in June 2024, Liberia's Forestry Development Authority (FDA) organized a roundtable with stakeholders to define its conservation priorities and strengthen collaboration with various partners, including local and international organizations[35] . These efforts are aimed at combating illegal wildlife trade and ensuring effective implementation of CITES provisions.

8.2.5 World Heritage Convention

Seven sites are listed from the hotspot countries as World Heritage Sites on the basis of their natural values. Only three are inside the hotspot: the Taï National Park in Côte d'Ivoire, and the sections of Mount Nimba in Côte d'Ivoire and Guinea.

8.3 National legislation

The following section provides an overview of the main constitutional and legal frameworks and policies governing natural resource management and biodiversity conservation in the hotspot countries. The main laws in each country are presented in Annex 3 and summarized in Table 8.4.

Table 8.4. Overview of National Policies, Laws and Regulations Relating to Environmental Protection and the Preservation of Biodiversity

Purpose of policies, laws and regulations	Benin	Cameroon	Côte d' Ivoire	Equatorial Guinea	Ghana	Guinea	Liberia	Nigeria	São Tomé and Principe	Sierra Leone	Togo
Protected areas	x	x	x	x	x	x	x	x	x	x	x
Preserving species*									x		
Forest management	x	x	x	x	x	x	x	x	x	x	x
Land use planning	x	x	x	x	x	x	x	x	x	x	x
Poverty Reduction Strategy Paper	x	x	x	x	x	x	x	x	x	x	x
Sustainable financing**		x			x		x	x			
EIA	x	x	x	x	x	x	x	x	x	x	x
Community conservation		x			x						
Transfrontier conservation		x	x			x	x	x	n/a	x	
Decentralization	x	x	x	x	x	x		x	x	x	x

Source: Based on national documentation.
Notes: * = apparently only under the auspices of CITES and NBSAPs; ** = establishment of a trust fund in Liberia and the REDD+ program in Cameroon, Ghana and Nigeria.

In some hotspot countries, legislation relating to conservation issues is very old. For example, Ghana's environmental laws date back to colonial times (before 1957) and most of them deal with disease prevention and control, as well as wildlife protection.

[35] https://frontpageafricaonline.com/environment/liberia-fda-holds-stakeholder-roundtable-outlines-2024-conservation-priorities/

Sierra Leone's environmental legislation is at least two decades old. Several countries in the hotspot have modernized or are in the process of modernizing their laws, including new considerations such as provisions governing community conservation activities.

8.3.1 Protection of sites

All the countries in the hotspot have made considerable progress towards creating a national network of protected areas. The protected planet database, which is the official reference of the CBD, records over 2,000 protected areas have been created covering more than 44 million hectares (Table 8.5). This is equivalent to 17.5% of the terrestrial and inland water area of the hotspot countries. However, the number of protected areas which are dedicated and managed for biodiversity conservation (IUCN category I to IV protected area) may be much smaller – for most protected areas the IUCN category is not reported, making it impossible to accurately assess this number.

Even when protected areas are established to conserve biodiversity, they are not always effective. Barriers to effective management include failure to take account of customary and other land and resource rights, competing land uses such as logging and mining, armed conflicts in some hotspot countries, and human and agricultural pressure. These problems are compounded by insufficient staff capacity and funding for protected area agencies, which leads to a lack of monitoring, , weak law enforcement and lack of community participation. The effects of climate change, such as prolonged droughts and floods, threaten ecosystems and species within protected areas, thus reducing their resilience. In this context, the creation of a new protected area is likely to be a long, complicated and costly process. These challenges require an integrated and collaborative approach between governments, local communities and international partners to ensure effective protection of protected areas.

A recent breakthrough in the CBD process has been the definition of OECMs, complementing protected areas by recognizing the contribution made to biodiversity conservation by other areas which are not protected areas (Jonas *et al.* 2024). No countries in the hotspot have yet reported OECMs to the Protected Planet website.

Table 8.5. Summary of Data on Protected Areas in Hotspot Countries

Country	Number of Protected Areas	Hectares of Protected Areas	% of terrestrial and inland water area covered by Protected Areas
Benin	76	3,422,300	29.69
Cameroon	54	5,108,800	10.99
Côte d'Ivoire	257	7,321,400	22.83
Equatorial Guinea	16	510,300	18.99
Ghana	313	3,543,500	14.84
Guinea	132	9,195,500	37.61
Liberia	19	386,300	4.03
Nigeria	1,002	12,673,500	13.94
São Tomé and Príncipe	6	31,400	31.73
Sierra Leone	67	908,800	12.58
Togo	87	1,590,800	28.10
Total	**2,029**	**44,692,600**	**17.56**

Source: World Database of Protected Areas, https://www.protectedplanet.net/en, accessed December 2024.

The data reported above from Protected Planet is dependent on government reporting to UNEP-World Conservation Monitoring Centre (WCMC), and may be incomplete. Stakeholders reported that several new protected areas are being created in Liberia, for example. Côte d'Ivoire recently created several new protected areas, and updated its national conservation strategy to include stricter measures against deforestation and the

degradation of natural habitats[36]. A project to create elephant sanctuaries is underway. New government agencies have been created to oversee conservation efforts and coordinate initiatives between different regions.

8.3.2 Protection of species

Some hotspot countries have laws protecting specific species, in addition to those listed in the CITES appendices or NBSAPs. Existing laws consider three categories of threats to biodiversity classified according to the IUCN Red List: Critically Endangered, Endangered and Vulnerable species. In Nigeria, for example, the 2016 Endangered Species Act is the main legislation protecting the country's flora and fauna.

8.3.3 Forest management policies

Management of forest for timber was a pre-occupation of colonial powers, and the influence of colonial era forestry laws can still be felt in some hotspot countries in the way that forests and the agencies that manage them are structured. Post-colonial reform has expanded to encompass a wider range of products and services from forest, such as carbon, and to allow the participation of wider range of stakeholders, with important initiatives allowing community-based forest management in some countries (See 8.3.9, below).

Benin passed a law protected sacred forests in 2012[37]. Forest is managed under the Forestry Code, updated in 2011. The code defines two types of forest: classified forests, including gazetted forests, where rights are restricted, and protected forests, which can be used after with authorization from the Forestry Administration.

In Cameroon, Commercial forestry is primarily implemented in the permanent forest estate through industrial logging concessions which are allocated by public tender both to Cameroonian and foreign entities. Regulations also define rural council forests and community forests[38].

In Côte d'Ivoire a new Forestry Code was adopted in 2019. The introduces new forest categories (agro-forests, community forests, sacred forests) and removes older categories, in particular forest logging perimeters with the registration of lands belonging to the forest domains of private legal entities and individuals. Several decrees and orders have been issued to specify the provisions of the new Forestry Code[39]. An ambitious reforestation program has been launched, with the aim of increasing forest cover from 11% (2015) to at least 20% by 2045.

In Ghana, forest management is based on the Timber Resource Management and Legality Licensing Regulations of 2017. The law defines (a) land suitable for the grant of timber rights, (b) terms and conditions for small- and large-scale timber rights, (c) other sources of timber, and (d) the legality licensing scheme.[40]

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[36] https://environnement.gouv.ci/preservation-de-la-biodiversite-la-cote-divoire-actualise-sa-strategie-et-son-plan-dactions/

[37] World Bank (2020) https://documents1.worldbank.org/curated/en/842541599117591656/pdf/Benin-Country-Forest-Note.pdf

[38] Timber Trade Portal: Cameroon https://www.timbertradeportal.com/en/cameroon/24/legal-framework

[39] Timber Trade Portal: Cote d'Ivoire https://www.timbertradeportal.com/en/republic-of-cote-divoire/178/legal-framework

[40] Timber Trade Portal: Ghana Legal framework for forest management and timber trade of Ghana

In Guinea the Forest Code (Code forestier – Loi L/99/013/AN, 1999) establishes the framework for the management of forest resources.[41] Management is guided by a long-term National Forest Action Plan.

In Liberia, the 2006 National Forestry Reform Law (NFRL 2006) is the basis of forest resource management. It addresses commercial, community and conservation forestry. Other recent laws and policies include the Community Rights Law of 2009; the Community Rights Regulation of 2011; the Liberia Extractive Industries Transparency Initiative Law of 2009; the Maritime Authority Law of 2010.[42]

Nigeria's 2006 National cross-sectoral Forest Policy aims to achieve sustainable forest management that ensures the economic, social and environmental benefits from forests and trees are retained for the present and future generation, including the poor and the vulnerable groups.[43]

In São Tomé and Príncipe, Basic Forest Law 5 of 2001 defines forests as State property, and the objectives of management is sustainable and rational use and biodiversity conservation. Forests are classified by use. A national forest plan and fund are established.[44]

Sierra Leone's 2010 revised forest policy establishes that the long-term vision for forestry is to move towards an integrated forest sector that achieves sustainable, rights-based management of forests for economic, social, cultural, aesthetic, and environmental benefits for the present and future generations of Sierra Leone, and for humankind in general. The document lays out principles for forest reserve management and community forest management.[45]

Togo's 2008 Forest Code establishes rules for the management of forest resources to maintain ecosystem balance and the sustainability of the forest resources. The Code defines the forest regime, the wildlife regime, and participation in the development of forest resources.

8.3.4 Environmental impact assessment

All the countries in the hotspot have introduced requirements for EIAs. This is partly due to the rapid expansion of the mining and oil/gas sectors and emerging pressures for the development of oil palm and rubber plantations. EIAs are crucial for anticipating and mitigating the effects of development projects on sensitive ecosystems. However, their effectiveness depends on technical capacity, transparency, data quality, and the political will to implement the recommendations.

8.3.5 Community-based conservation

The need to involve local communities in conservation actions is now widely accepted in international practice. Within the hotspot, regulations governing community conservation have existed in Cameroon and Ghana for over 20 years but have yet to be developed in the other countries of the hotspot, where customary rules prevail in community management of forests.

Community-based conservation has been implemented in Ghana for over 20 years through Community Resource Management Areas (CREMAs). About 40 CREMAs are

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[41] https://www3.dfc.gov/environment/eia/cbg/Volume_D/3_Annexe_4_1_Final.pdf
[42] Timber Trade Portal: Liberia https://www.timbertradeportal.com/en/liberia/138/legal-framework
[43] FAO: https://www.fao.org/faolex/results/details/en/c/LEX-FAOC144367/
[44] FAO https://www.fao.org/faolex/results/details/en/c/LEX-FAOC072017/
[45] FAO https://www.fao.org/faolex/results/details/en/c/LEX-FAOC143754/

reported to be in progress or being created. They are intended to conserve wildlife by integrating conservation practices into sustainable local livelihoods (Agyare *et al.* 2024). In Cameroon, the 1994 forestry legislation allowed community groups to manage a community forest of up to 5000 hectares. However, uptake has been limited and expected impacts on livelihoods and forest management have not been realized (CED *et al.* 2017). In Côte d'Ivoire, new forest and conservation policies emphasize the involvement of local communities in conservation, offering economic incentives to protect natural resources. A national strategy for the promotion and management of Voluntary Nature Reserves is available.

Table 8.6 gives examples of key community conservation initiatives in hotspot countries. Many of the approaches to community-based conservation described in this table are based on existing customary practices. In Benin, Cameroon, Ghana and Togo, for example, traditional sacred groves (sometimes called 'fetish groves') are designated as areas where resource exploitation and even human access are extremely restricted. This practice is believed to have local conservation benefits for the biodiversity maintained in the woodlands (Decher 1997, Campbell 2005, Dudley *et al.* 2009), although no rigorous and comprehensive studies have been carried out to examine the extent of these benefits.

8.3.6 Cross-border conservation and corridors

Many of the conservation corridors identified in this hotspot are transboundary, spanning two or more countries. There are several examples of cross-border coordination for conservation in the hotspot:

- In 2016, a corridor was created between Benin, Togo and Ghana (West African Savannah Elephant Corridor), linking several reserves and parks to protect elephants and the natural resources of the Sudano-Guinean savannahs (Thouless *et al.* 2016).
- Between Côte d'Ivoire and Liberia there is the Taï-Grebo-Sapo Corridor, created in 2013 and strengthened in 2016 to preserve the rainforests and endangered primates of the Taï, Grebo and Sapo national parks (Liberia Protected Area Network Strategy 2018). In addition, the 'Taï Ecological Corridor' Voluntary Nature Reserve was created at the request of the municipality of Taï.
- The Volta-Noire forests corridor was created in 2016, linking the forested areas between Ghana and Côte d'Ivoire and facilitating the movement of elephants.
- In 2006, a corridor between Cameroon and Nigeria was created for primates such as gorillas and chimpanzees to move between the Cross River and Takamanda mountains, facilitating ecosystem interconnectivity and genetic exchange (Dunn *et al.* 2014).
- The Gola-Foya corridor was strengthened in 2019 to improve conservation of the Greater Gola Landscape between Sierra Leone and Liberia (Gola Forest Transboundary Conservation Plan 2019).
- The Mount Nimba corridor (a United Nationsl Educational, Scientific and Cultural Organization/UNESCO World Heritage site) between Côte d'Ivoire, Guinea and Liberia was strengthened in 2015 to reduce biodiversity loss and to conserve endemic species.

Table 8.6. Community Conservation Initiatives in the Hotspot

Country	Initiative	Objective	Approach
Benin	Sustainable management of Benin's classified forests	Improving forest ecosystems and building local capacity for sustainable resource management	Participatory management involving local communities for the conservation of classified forests
Cameroon	Ngoyla-Mintom forest conservation programme	Preserving biodiversity, improving the resilience of ecosystems and of poor and vulnerable people in the face of climate change	Co-management with local communities for forest conservation in sensitive areas
Côte d'Ivoire	Conservation of the classified forests of Cavally and Goin-Débé	Increasing forest cover and preserving endangered species.	Sustainable management and restoration of degraded ecosystems, with particular attention to biodiversity and ecosystem services
Equatorial Guinea	Monte Alén tropical forest protection programme	Protecting endangered species such as the lowland gorilla and the forest elephant	Community surveillance of forests and support in the fight against poaching
Ghana	CREMA (Community Resource Management Areas) programme	Improving livelihoods through the sustainable management of biodiversity	Decentralization of natural resource management by local communities with technical support from NGOs
Guinea	Rehabilitation of the Koundinda wetlands and protected areas in maritime Guinea	Improving the quality of habitats for endemic species	Development and rehabilitation involving local communities and training for sustainable management
Liberia	Conservation of the tropical forests of Sapo National Park	Preservation of forest ecosystems and improved management of natural resources	Collaborative management between government, CSOs and communities to protect biodiversity
Nigeria	Restoring mangroves in the Delta	Reducing carbon emissions and protecting coastal areas	Rehabilitation of degraded areas with the involvement of local communities.
São Tomé and Príncipe	Special Reserves pilot committees	Community leaders share responsibility for management	Community leaders included in special reserves committees
Sierra Leone	Protecting coastal and marine ecosystems,	Preserving marine biodiversity and coral reefs;	Integrated coastal zone management and raising local awareness of marine conservation,
Sierra Leone	rehabilitation of the Gola Forest National Park	protecting threatened species and fragile forest ecosystems	co-management of forests by the government and local communities
Togo	Forest ecosystem restoration programme in Togo	Building local capacity in natural resource management	Ecological restoration and the fight against deforestation, with the involvement of local communities

Sources: Reports from NGOs (WWF, FAO, WCS, UNEP) and international donors (World Bank, GEF).

8.3.7 Decentralization

The process of decentralization involves the transfer of power from central to local authorities, with various levels of administrative, financial and political implications. Under the impetus of international organizations, a considerable number of reforms aimed at decentralizing institutional structures have taken place in the region over more than two decades.

In theory, delegating responsibility for land use decision-making and natural resource management to lower levels of government creates opportunities for greater stakeholder participation and accountability. However, some of the decentralization processes in the region have been criticized because of problems of transparency in the management of public resources, insufficient transfer of funds and fiscal powers to local authorities. In Cameroon, for example, the transfer of the management of forest resources to local or village management committees is said to have encouraged exploitation of timber without adequate monitoring, leading to elite capture and corruption (Oyono 2004, 2005).

Countries such as Benin, Cameroon, Côte d'Ivoire and Ghana have also transferred power to local authorities for land-use planning and environmental management. For example, Parliamentary Acts 97-028 and 99-029 in Benin give regions and municipalities the power to draw up land use plans to address environmental issues, among other things. Other countries, such as Liberia, have been slower to implement decentralization on these issues, despite the progress made in developing national decentralization policies.

8.4 Regional agreements

The region is covered by a number of regional bodies and agreements that make an important contribution to conservation in the hotspot (Table 8.7). Two regional bodies promote economic and conservation cooperation: ECOWAS and the Economic Community of Central African States (ECCAS). The eight hotspot countries from Guinea to Nigeria are members of ECOWAS, while Cameroon, Equatorial Guinea and São Tomé and Príncipe are members of ECCAS. There are also a number of regional and pan-African programs operating in the hotspot.

8.4.1 Economic Community of West African (ECOWAS)

ECOWAS was founded in 1975 as the regional pillar of the African Economic Community, tasked with contributing to the development of the continent. Its mission is to promote collective self-sufficiency, economic integration, stability and cooperation in the region, in areas such as natural resources, energy and agriculture, through the creation of a vast West African economic and trade area. The ECOWAS treaty aims to harmonize and coordinate national environmental protection policies, by promoting programs, activities and projects in the fields of agriculture and natural resources. The ECOWAS Commission has drawn up an environmental policy in line with the ECOWAS Heads of State's Vision 2025. This policy envisages a "peaceful, dignified and prosperous region whose varied and productive natural resources are preserved and managed in a sustainable manner for the development and equilibrium of the sub-region" (ECOWAS, 2008). ECOWAS has also developed a forestry convergence plan, which recognizes the role of CSOs, and defines regional priorities for the conservation and sustainable management of forest resources.

8.4.2 Central African Forest Commission (COMIFAC)

COMIFAC is an intergovernmental organization focusing on the sustainable management of Central Africa's forests. It has 11 member states, including Cameroon, Equatorial Guinea and São Tomé and Príncipe in the hotspot. In 2005, COMIFAC adopted a convergence plan, similar to that of ECOWAS, aimed at improving the preservation and

management of Central Africa's forests. In 2015, this convergence plan was revised and includes 6 strategic axes. The plan is currently under review.

Table 8.7. Participation of Hotspot Countries in Regional Agreements

Regional agreements	Benin	Cameroon	Côte d' Ivoire	Equatorial Guinea	Ghana	Guinea	Liberia	Nigeria	São Tomé and Principe	Sierra Leone	Togo
Economic Community of West African States (ECOWAS)	x		x		x	x	x	x		x	x
Niger Basin Water Charter	x	x	x			x		x			x
Permanent Inter-State Committee for Drought Control in the Sahel	x		x			x					x
Organization for the Harmonization of Business Law in Africa	x	x	x	x		x					x
African Union	x	x	x	x	x	x	x	x	x	x	x
West African Economic and Monetary Union (WAEMU)	x		X								x
Central African Forests Commission (COMIFAC)		x		x		x			x		
Lake Chad Basin Commission		x		x				x			
International Commission for the Conservation of Atlantic Tunas			x	x	x	x	x	x	x	x	
Economic Community of Central African States (ECCAS)		x		x					x		
African Convention on the Conservation of Nature and Natural Resources (revised version)	x	x	x	x	x		x	x	x	x	x
New Partnership for Africa's Development (NEPAD)											
Congo Basin Forest Partnership		x		x					x		
Central African Economic and Monetary Community		x		x							
African Union Convention on Preventing and Combating Corruption	x	x	x	x	x	x	x	x	x	x	x

Source: FAOLEX.

8.4.3 New Partnership for Africa's Development

The New Partnership for Africa's Development (NEPAD) is an economic development programme of the African Union, of which all the countries in the hotspot are member states. Adopted in 2001, NEPAD aims to provide a global vision and strategic framework for economic cooperation and integration among African countries. Implementation is led by the African Union Development Agency-NEPAD (AUDA-NEPAD). The main objectives of the programme are to eradicate poverty, empower women and promote sustainable growth and development. NEPAD launched the Environment Initiative and Action Plan (NEPAD 2003) to implement improve environmental conditions by assisting African countries in the implementation of regional and international environmental agreements.

8.4.4 African Continental Free Trade Area Agreement (AfCFTA)

The AfCFTA aims to create a single market for goods and services across Africa, facilitated by movement of people, in order to deepen the economic integration of the African continent. It was launched in 2019 and had been ratified by 48 countries in

September 2024,[46] including all the hotspot countries except Benin. The creation of the AfCFTA could transform African economies, stimulating growth, raising incomes and reducing poverty. The elimination of tariffs on most goods and the liberalization of trade in services could also increase intra-regional trade and attract more foreign direct investment. The various countries in the hotspot have drawn up national strategies.

[46] African Union, https://pap.au.int/en/news/press-releases/2024-09-19/significant-progress-afcfta-implementation-highlighted-conference-s#:~:text=With%2054%20countries%20having%20signed,the%20continent%27s%20growing%20youth%20population. Accessed Dec 2024

9. CIVIL SOCIETY CONTEXT OF THE HOTSPOT

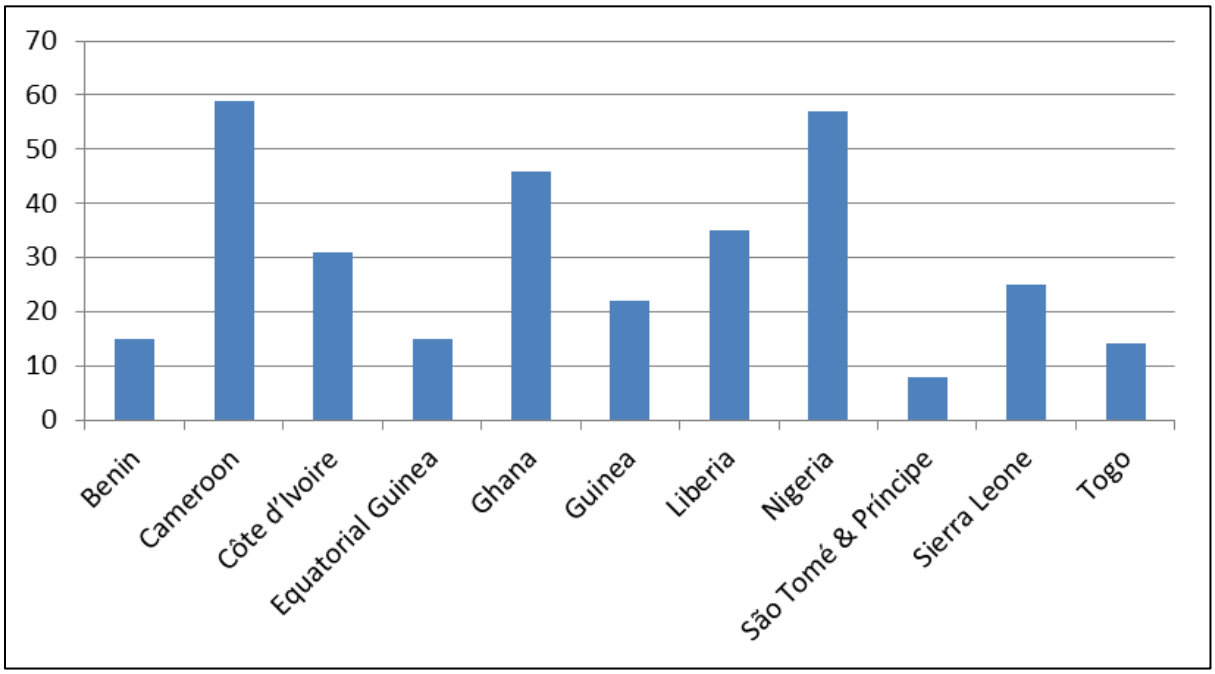
This chapter provides an overview of the CSOs that are engaged in natural resource management and biodiversity conservation in the Guinean Forest Hotspot, and of the environment for CSOs in the hotspot countries. CEPF defines civil society broadly, as the set of institutions, organizations and individuals located between the family, the state and the market, in which people associate voluntarily to advance common interests. This chapter is based on desk studies and reviews, information obtained from representatives of civil society groups during the stakeholder consultation workshops described in Chapter 2, personal knowledge of the authors, and responses from CSOs through remote consultations.

9.1 Overview

9.1.1 National CSOs

Civil society is active in all the countries of the hotspot. The 2015 ecosystem profile identified about 327 CSOs (including national and international NGOs, community-based organizations (CBOs), universities and research centers) involved in conservation in the hotspot (Figure 9.1).

Figure 9.1. Number of CSOs Involved in Conservation in Each Hotspot Country*



Note: * = includes national and international NGOs; community-based organizations; universities and research centers.

The following section summarizes country-level information compiled for the long-term vision and lists those CSOs which were involved in consultations for this ecosystem profile update and/or have been a CEPF grantees in the past.

Benin

Many CSOs are working locally for the development of nature-based livelihoods and conservation in Benin with support from bilateral and international organizations. They rely on external funding and must halt most of their activities between projects. There are however several leading, stable CSOs. Most of them are members of the National Platform of CSOs in the environment sector "ProEnvironnement" which aims to increase the influence of the civil society in decision-making processes. This platform was

established in collaboration with the Ministry of the Living Environment and Sustainable Development and has 12 member CSOs.

Examples of local CSOs in Benin include: Association/APAC Benin; Actions pour l'Environnement et de le Développement durable (ACED); Africa Mobile Nature (AMN); Association des Femmes Exploitantes de la Lagune (AFEL); Benin Ecotourism Concern (Eco Bénin); Benin Environment and Education Society (BEES); Biosphère; Centre d'Intervention pour le Développement (CIDEV); ECODEC; JEVEV; Le Centre Régional de Recherche et d'Education pour un Développement Intégré; Nature Tropicale; ODDB; SOS-Savane.

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Cameroon

Cameroon has a number of effective conservation CSOs, including those who can mentor smaller groups. The only CSO networks are a group of CSOs working together for sea turtle conservation and a local group of CSOs in the North west province. CSOs are not organized enough to be able to confront big development projects. In addition, CSOs are often politicized and are therefore not independent, but some leading CSOs are consulted by the government for specific initiatives (e.g., tree planting campaigns, design of the REDD+ strategy).

Local CSOs in Cameroon include: Agriculture and Bio-conservation Organization for Youth Empowerment and Rural Development (ABOYERD); Action pour le Développement Communautaire (ADC); Action pour le Respect et la Protection de l'Environnement; African Centre for Renewable Energy and Sustainable Technology (ACREST); African Marine Mammal Conservation Organization (AMMCO); AIWO-CAN; Ajemalebu Self Help (AJESH); Alliance pour la conservation des Grands Singes en Afrique Centrale (AGSAC); Appui à l'Autopromotion de la Femme de la Boumba Et Ngoko (AAFEBEN); Bagyelis Cultural and Development Association; Biodiversité - Environnement et Développement Durable; Cameroon Biodiversity Conservation Society; Cameroon Environmental Watch; Cameroon Gender and Environment Watch (CAMGEW); Centre for Community Regeneration and Development (CCREAD); Centre des Ressources Agroforestières, forestières et de Formation Continue du Nord (CERAF NORD); Community Assistance In Development (COMAID); Ebo Forest Research Project; Environment and Community Development Association (ECoDAs); Environment and Rural Development Foundation (EruDeF); Environmental Governance Institute; Forêts et Développement Rural (FODER); Jeunes Volontaires pour l'Environnement – Cameroun; Korup Rainforest Conservation Society (KRCS); KUD'A'TUBE; OKANI; Resource Centre for Environment and Sustainable Development; Réseau des acteurs de la sauvegarde des tortues marines en Afrique Centrale (RASTOMA); SEKAKOH; Sura-Mama; Sustainable Agricultural Technicians; Tropical Forest & Rural Development; Tube Awu; Twahntoh Mixed Farming Common Initiative Group.

Côte d'Ivoire

Only a few conservation-focused CSOs exist in Côte d'Ivoire, but the community is slowly developing, encouraged by government support for conservation. This is enabling some CSOs to grow and become more influential in government processes and with the organization of public social movements. However, support is still needed to strengthen the network of CSOs. Limited access to financial resources is a major issue.

CSOs in Côte d'Ivoire include: Action pour la Conservation de la Biodiversité en Côte d'Ivoire (ACB-CI); Centre d'Etudes, Formation, Conseils et Audits; Conservation des Espèces Marines (ONG CEM); Club de Développement Durable de Côte d'Ivoire (CDD-CI); Conservation Taï; Environnement Cadre de Vie; Femmes Côte d'Ivoire Expérience; Génération Femme du Troisième Millénaire (GF3M); Initiatives pour le Développement Communautaire et la Conservation de la Forêt; Jeunes Volontaires pour l'Environnement - Côte d'Ivoire; Nature - Résilience ONG; Notre Forêt Notre Avenir (NOFNA); Observatoire ivoirien pour la Gestion des Ressources naturelles (OI-REN); REFEB- CI;

SOS-Forêts; West African Sea Turtles Conservation Network (WASTCON); Yacoli Village Ecole (YVEO).

Equatorial Guinea
Within the hotspot, one of the key conservation initiatives is the Bioko Biodiversity Protection Program: a collaboration between BIOPOLIS-CIBIO in Portugal and the Universidad Nacional de Guinea Ecuatorial. This program is currently in the process of registering as a local CSO: Equatorial Guinea Biodiversity Program. The only local CSO to receive funding from CEPF during in the 2015-2022 investment phase was Organización No Gubernamental Amigos de la Naturaleza y del Desarrollo de Guinea Ecuatorial (ANDEGE). Other national CSOs with missions related to the environment include Apoyo Al Desearrollo Local, Gracia Recibisteis and Simbiosis.

Ghana
There are multiple strong CSOs with good capacity. However, collaboration between CSOs is limited. Some organizations already undertake a mentoring role with other smaller organizations (e.g. A Rocha Ghana). A national partnership of CSOs is currently being piloted by WACSI.

Local CSO in Ghana include: A Rocha Ghana; Biodiversity Alliance; Capacity for Sustainable Change; CILTAD COASTAL TV; FoE – Ghana; Forest Watch Ghana; Friends of the Nation (FON); Ghana Wildlife Society (GWS); HATOF Foundation; Hen Mpoano; Herp Ghana; Institute of Nature and Environmental Conservation; Resourcetrust Network; Save Ghana Frogs; Save Our Environment Foundation; The Development Institute; West African Primate Conservation (WAPCA); Wild Fauna Foundation; Youth Empowerment.

Guinea
Guinea has very few local CSOs. International organizations and the government tend to always work with the same CSO. Many CSOs are still functioning on a voluntary basis and work discontinuously. As a result, these organizations are not well structured. CSOs need support with networking, leadership development and secure financing.

CSO in Guinea include: Acteurs Unis pour le Développement Rural (AUDER); Action Citoyenne pour la Protection de l'Environnement (ACPE); Carbone Guinée; Développement Pour Tous (DPT); Green Transformation 2050; Guinée Ecologie; Initiative de Base pour la Gestion des Ressources Naturelles; Réseau Emergence Guinée.

Liberia
Several CSOs are well established, with diverse funding sources. Some have acted as mentors for smaller groups. CSOs are regularly consulted during policy and strategy development processes but further support is needed to enable them to influence decisions. A National Civil Society Council was established in Liberia in 2004.

CSO in Liberia include: Citizens Against Poverty; Community Aid for Rehabilitation & Development; Community Union For Sustainable Development; Farmers Associated to Conserve the Environment; Friends of Ecosystem and the Environment; Greenlife West Africa; Partners in Development; Rural Integrated Center for Community Empowerment; Skills and Agricultural Development Services; Social Entrepreneurs for Sustainable Development (SESDev); Society for Environmental Conservation; Society for the Conservation of Nature of Liberia (SNCL); Volunteers for Sustainable Development in Africa.

Nigeria
A relatively small number of CSOs are well established conservation leaders, with secure funding. They have some capacity to influence government decisions and can mentor smaller groups. Other CSOs have limited visibility and require support to increase their

organizational and financial capacity. A National Network of CSOs was established in 1992 but needs to be strengthened. A Coalition for Biodiversity Conservation – including experts and CSOs – was recently created to increase conservation experts' and CSOs' capacity to communicate on conservation issues and influence government decisions.

CSOs in Nigeria include: Africa Nature Investors (ANI); African Research Association; Biakwan Light; Biodiversity Preservation Centre; Centre for Ecological and Community Development; CERCOPAN; Development Concern; Etara Eyeyeng Forest Concerns; Foundation for Sustainability for Ecosystems, Wildlife, and Climate; Global Initiative For Food Security and Ecosystem Preservation (GIFSEP); Green Concern for Development; Habitat Protection and Sustainable Development Initiative (HAPSDI); Integrated Mangrove Watch Association of Nigeria; Nigerian Conservation Foundation (NCF); Non-Governmental Organization Coalition for Environment; Organization for Positive Sustainability Culture in Nigeria; Peace Point Development Foundation; Society for Sustainability and Conservation Education for Rural Areas (SCERA); Society for Women and Vulnerable Group Empowerment; Sustainable Actions for Nature; United Purpose
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São Tomé and Príncipe

There are multiple local CSOs, but while several have good field work skills and technical knowledge, they suffer from limited capacity and governance. They tend to act as local partners to international NGOs, and as a result they have experience of implementing project actions, but limited experience of project design and proposal development. A small group of leading local CSOs play an important role in supporting local conservation initiatives, communicating on conservation issues, and mentoring smaller groups.

Local CSOs in São Tomé and Príncipe include: Ação para o Desenvolvimento Agropecuário e Proteção Ambiental; Associação Amigos da Reserva da Biosfera da Ilha do Príncipe; Associação dos Terapeutas Tradicionais da Região Autónoma do Príncipe; Associação Programa Tatô; Association des Biologiste de São Tomé; Club NAPAD; Cooperativa de Apicultura do Príncipe; Federação das Organizações Não Governamentais de São Tomé e Príncipe; Fundação Príncipe; Mar Ambiente e Pesca Artesanal (MARAPA); Monte Pico; Oikos - Cooperação e Desenvolvimento; Rset - Associação Técnico-Científica Para O Desenvolvimento; Zatona-ADIL.

Sierra Leone

Sierra Leone has a small CSO community. CSOs are not yet structured into networks, and they currently do not have the experience or resources to challenge the government or the private sector (e.g., on mining issues). There are promising examples of cross-sectoral partnerships between conservation and development CSOs, for example on coastal mangrove restoration for food security. WACSI reports that two national CSOs have effectively mentored smaller CSOs, and new CSOs led by youth have emerged. Leadership development and financing are priority needs.

CSOs in Sierra Leone include: Conservation Society of Sierra Leone (CSSL); Environmental Forum for Action; Environmental Foundation for Africa; Foundation for Integrated Development; GREENLIFE WA, Sierra Leone; IslandAid Sierra Leone; Muloma Women's Development Association; Women & Youths' Development Center Sierra Leone (WYD); Reptile and Amphibian Programme - Sierra Leone (RAP - SL), Tacugama Chimpanzee Sanctuary.

Togo

Several CSOs specialize in the conservation of coastal and marine biodiversity. UNDP is currently supporting nine CSOs under the GEF Small Grant Programme (SGP) – OP7 (2020-2024) to implement projects for natural resource management and environmental protection.

Local CSOs in Togo include: Action Environnementale pour le Développement Durable (AE2D); Agbo Zegue; Alliance Nationale des Consommateurs et de l'Environnement au Togo (ANCE-Togo); Centre de Développement des Actions Communautaires (CDAC); Jeunes Volontaires pour l'Environnement (JVE); Les Compagnons Ruraux (LCR); Tube Awu.

9.1.2 Research organizations

The hotspot has a number of universities and research institutions that teach and conduct research on topics relevant to conservation and sustainability within the hotspot (Table 9.1). Among the 11 hotspot countries, Nigeria has the greatest number of public and private universities offering courses on the environment and other related disciplines.

Table 9.1. Research Institutions and Universities in Hotspot countries

Country	Institution
Benin	Universite de Parakou; Universite des Sciences et Technologies du Benin
Cameroon	University of Yaoundé, Institut de Recherche Agricole pour le Développement (IRAD); University of Buea, University of Dschang; Pan African Institute for Development; University of Douala, Oxford University Fisheries Institute in Yabassi; Smithsonian Institute
Côte d'Ivoire	Centre Suisse de recherches scientifiques (CSRS); Université Félix Houphouët Boigny; Université Nangui Abrogoua; Centre de Recherche en Ecologie, Abidjan
Equatorial Guinea	Universidad Nacional de Guinea Ecuatorial
Ghana	Kwame Nkrumah University of Science and Technology - Kumasi; University of Cape Coast; Centre for African Wetlands; Forestry Research Institute of Ghana (FORIG)
Guinea	SAV/Farannah; CU N'zerekore; Cerescor; IRAG; Université de Conakry ; Centre de Recherche Scientifque de Conakry; Centre National des Science Halientiques de Boussoura
Liberia	CARI; FTI; All Community Colleges in Liberia; CUC, UMU, SMPU; University of Liberia, Monrovia
Nigeria	University of Ibadan; University of Benin; Federal University of Technology, Akure; University of Calabar; Forestry Research Institute of Nigeria (FRIN); A.P. Leventis Ornithological Research Institute (APLORI), Federal College of Wildlife, New Busa
São Tomé and Príncipe	Universidade Pública de São Tomé and Príncipe; Centro de Investigação Agronômica e Tecnológica de S.Tomé e Príncipe (CIAT); Gulf of Guinea Biodiversity Center
Sierra Leone	University of Sierra Leone, Freetown; Njala University, Njala/Bo; SLARI
Togo	Université des Sciences et Technologies du Togo; Université du Lomé, Université de Kara

9.1.2 International CSOs

International CSOs play a critical role in conservation in the hotspot, raising funds, undertaking research and implementing on-the-ground conservation action in partnership with local communities, CSOs and government agencies. International NGOs have increasingly focused on strengthening local partnerships, and several played a role as mentors of local CSOs under the previous CEPF program. BirdLife International explicitly works to strengthen or create independent national partners, and in countries where no one CSO exists to take on this role (for example in São Tomé and Príncipe), BirdLife International supports conservation through a country program, while seeking to build local capacity, with the intention of handing over the work to a local partner in the long term.

Table 9.2. Key International CSOs Working for Conservation in the Hotspot

Country	CSO
Cameroon	African Wildlife Foundation (AWF) places a strong emphasis on integrating sustainable financing and building local conservation capacity, with initiatives on sustainable land management, protected area governance, and community livelihoods. Most of their work is in central and eastern Africa, but their work in the Faro landscape of western Cameroon is on the edge of the hotspot
Cameroon, Ghana	Wildlife Conservation Society (WCS) focuses on ecosystem restoration, wildlife protection, and improving community livelihoods in critical landscapes such as Cross River National Park in Nigeria, conserving species such as Cross River gorillas
Cameroon, Ghana, regional	International Union for Conservation of Nature (IUCN) West and Central Africa Program (PACO) implements a large portfolio of projects and provides support to government and NGOs. This includes the EU Biodiversity and Protected Areas Managemetn Program (BIOPAMA) program and the SOS program (see chapter 10). IUCN-PACO has a country program in Cameroon, and an office in Ghana. PACO also hosts TRAFFIC, the wildlife trade monitoring network, in the region. The EU-funded project Gestion des forêts de mangroves du Sénégal au Bénin has activities in Guinea, Côte d'Ivoire, Ghana and Benin
Côte d'Ivoire, Guinea	Interntional Centre for Forestry Research – World Agroforestry (CIFOR-ICRAF) focuses on sustainable forest and agroforestry practices, particularly in, where they implement community-driven projects to improve livelihoods and enhance forest management.
Côte d'Ivoire, Guinea, Liberia	Wild Chimpanzee Foundation (WCF) Active across the range of Western Chimpanzee, WCF focuses on chimpanzee conservation through habitat protection, ecological monitoring, and public awareness campaigns
Guinea, regional	The Missouri Botanical Garden conducts research on plant diversity, conservation, and ecosystem restoration, particularly in regions with high levels of plant endemism. They collaborate with local and international partners on biodiversity surveys and plant conservation strategies
Guinea, Sierra Leone	The Royal Botanic Gardens, Kew is involved in plant conservation and ecosystem research across the Guinean Forests, particularly in Guinea and Sierra Leone. Their work focuses on documenting and protecting rare plant species and supporting local conservation efforts
Guinea, Liberia	Fauna & Flora focuses on landscape restoration and developing sustainable agricultural practices to prevent forest degradation in the Wologizi-Wonegizi-Ziama landscape (Liberia/Guinea). They engage in protected area management and community-led conservation efforts that improve biodiversity resilience while providing sustainable livelihood options for local communities
Liberia	Conservation International (CI) engages in large-scale landscape conservation projects focusing on sustainable agriculture, biodiversity protection, and natural resource governance. In Liberia, CI's initiatives integrate sustainable land management practices to reduce deforestation, promote agroforestry, and strengthen forest governance. They work closely with local communities to implement practices that sustain both ecosystems and livelihoods, supporting Liberia's Protected Area Network and conservation corridors
Liberia, Sierra Leone	Zoological Society of London (ZSL) EDGE of existence program previously supported conservation of Pygmy Hippo in Liberia and Sierra Leone, in partnership with Fauna & Flora, as well as local CSOs and government agencies. ZSL is expanding its focus on sustainable finance mechanisms, exploring new conservation finance models in the Guinean Forests to fund long-term ecosystem preservation and biodiversity projects.

Country	CSO
Regional	ProForest's works on sustainable supply chains and responsible land management. They support sustainable palm oil and cocoa production in West Africa, collaborating with companies and NGOs to minimize deforestation impacts on high-biodiversity regions in the Guinean Forests
São Tomé and Príncipe; regional	BirdLife International has independent national NGO country partners in Guinea, Sierra Leone, Liberia, Côte d'Ivoire, Ghana and Nigeria (included in Section 9 BirdLife's Secretariat collaborates with country partners on science, policy and delivery of conservation action through projects. In high priority regions where there is currently no national partner, the secretariat works through site projects or country offices – previously in Mount Kupe and Kilum-Ijin in Cameroon, and currently in São Tomé and Príncipe. BirdLife International has a substantial project portfolio funded by partners such as the Cartier for Nature Foundation, UK Darwin Initiative, and GEF.
Togo	GRET is a French development NGO whose work includes rural development and natural resource management, emphasizing integrated approaches that combine agricultural practices with forest conservation. GRET's EU-funded GIPAP project (4 years, 2024-2027) is working with communities around three protected areas in Togo, including the Fazao-Malfakassa Park in the hotspot. The project involves French and Togolese NGOs
Nigeria, Côte d'Ivoire, Ghana	Naturschutzbund Deutschland (NABU): the German partners of BirdLife International works with Nigerian Conservation Foundation on Community Forest Management and Livelihood Improvement in the Buffer Region of the Cross River National Park, and supported two CSO capacity development programs which included CSOs in the hotspot: AfriEvolve (2021–2023: Capacity Development for Green NGOs in Africa) and AfricElle (2024–2027: Women as Champions for Agroforestry, Biodiversity, and Nature Conservation around Protected Areas in Africa, including Côte d'Ivoire and Ghana).
Nigeria, Cameroon	World Wide fund for Nature (WWF) works through an associate in Nigeria, Nigerian Conservation Foundation and in Cameroon and Equatorial Guinea (Annobon and Bioko). The WWF Global Forest and Trade Network worked to encourage logging companies in Ghana, Côte d'Ivoire, Cameroon and Liberia to adopt FSC certification.
Guinea, Côte d'Ivoire, Ghana, Togo, Nigeria, Cameroon, Equatorial Guinea	Re:Wild is active in Guinea (including on Mount Nimba), Côte d'Ivoire (Tanoe Forest reserve), Ghana (Atewa), Togo (Fazao-Malfakassa National Park), Nigeria (Apoi creek), Cameroon (Ebo forest reserve) and Equatorial Guinea (Gran Caldera de Luba, Bioko).

9.2 Operating context and political space

The effectiveness of civil society groups is affected by their wider environment, especially any legal restrictions placed on their ability to campaign, mobilize people and raise funds.

Some of the governments of the hotspot countries (e.g. Cameroon, Ghana, Liberia, Nigeria and Sierra Leone) are signatories to agreements that support partnerships between government and CSOs to assist in the management of natural resources. The forest convergence plan of ECOWAS recognizes the role of CSOs, while that of COMIFAC encourages the engagement of CSOs in forest conservation (see Section 8.4).

The Civicus Africa monitoring report measures trends in each country in respect of general political and social freedoms, classifying countries into five categories, from 'open' to 'closed'. In 2023, only São Tomé and Príncipe was 'open', and only Equatorial Guinea was "closed."

Table 9.3. Civicus Monitoring Classifications of the Hotspot Countries

Country	Score 2023	State 2023*	Trend
Benin	47	Obstructed	Stable
Cameroon	26	Repressed	Stable
Côte d'Ivoire	54	Obstructed	Slight improvement
Equatorial Guinea	19	Closed	Stable
Ghana	55	Narrowed	Stable
Guinea	26	Obstructed	Slight improvement
Liberia	49	Obstructed	Stable
Nigeria	32	Obstructed	Improving
Sierra Leone	47	Obstructed	Stable
São Tomé and Príncipe	82	Open	Stable
Togo	39	Obstructed	Slight improvement

Note: *Civicus allocates countries to categories based on respect in law and practice for the freedoms of association, peaceful assembly and expression, drawing on data from multiple sources. Countries are categorized as closed (score 1-20); repressed (21-40); obstructed (41-60); narrowed (61-80) and open (81-100).

CSOs in several of the hotspot countries have successfully engaged their governments and the private sector in the development of enabling policies for natural resource utilization and conservation. Of particular note are the engagement of Liberian CSOs in the development of the community rights law, the participation of Ghanaian CSOs in the revision of national forest and wildlife policies, and the development of biodiversity action plans for specific forest reserves in the Niger Delta through cooperation between Shell Petroleum Development Company and the Nigerian Conservation Foundation. Cameroon, Ghana and Liberia are also noted for the inclusion of civil society representatives in the composition of their national REDD+ working groups/steering committees. In Equatorial Guinea, CSOs worked with the government to promulgate a law prohibiting the hunting of large primates and other endangered species. In Cameroon, CSOs successfully advocated for a community forest reform that strengthened the management of community forestry by CSOs and CBOs. In São Tomé and Príncipe, CSOs such as MARAPA have been instrumental in promoting the sustainable management of key marine/coastal species and the protection of their habitats.

9.3 CSO capacity and organizational development

9.3.1 Data sources

Sources of information on CSO capacity and organizational development for this section were:

- The 2015 ecosystem profile (CEPF, 2015).
- Data from the CEPF civil society tracking tool (CSTT) completed by 84 national CSOs during the previous CEPF program. The tracking tools were completed between 2018 and 2022, but the majority (66/84) were in the final year. In many cases a CSO completed the CSTT at the start and end of their project – in these cases only the most recent CSTT was used. 35 of these organization were CEPF grantees, others were beneficiaries of the mentoring program run in the last two years of the program.
- The Final Assessment of the previous CEPF program (CEPF 2022a).
- The Long-Term Strategic Vision for CEPF investment in the Hotspot (CEPF 2022b).
- A questionnaire addressing CSO perceptions on the objectives and delivery of OD, sent to 111 national and local CSOs in the hotspot in October 2024. Responses were received from 38 organizations.
- Interviews with informants from six organizations which specialize in organizational development: Beautiful Soul, Maliasili, Tropical Biology Association, Well Grounded, West Africa Civil Society Institute, IUCN-Programme Petites Initiatives (further information on these organization is discussed elsewhere in this document).
- Input from the Guinean Forests of West Africa Ecosystem Profile update advisory committee, including specialist OD staff at Fondation Hans Wilsdorf, through a dedicated session of the committee and written comments on earlier drafts of this document.
- Coordination with parallel discussion on capacity development in the CEPF global team and the team updating the ecosystem profile for the Mediterranean Basin.
- Desk review of relevant reports and literature, including from MAVA and Ford Foundation.

9.3.2 Definition and objectives of capacity development and organizational development

The concept of more *resilient* organizations is central to CEPF's vision for civil society in the hotspot. The journey towards becoming a resilient organization will be different for every CSO, depending on its history, purpose, stakeholders and the political and cultural environment in which it operates but common features of a resilient organization include that it:

- Has a clear mission that is ecologically and culturally relevant to a place.
- Delivers a program that is aligned with the mission.
- Has in place mechanisms to sustain financing and impact.
- Has appropriate governance and is accountable to key stakeholders.
- Forms part of a conservation community, collaborating and not stifling others.
- Has a positive organizational culture, motivated and satisfied staff.
- Is innovative and able to learn, embrace change and manage risk.

Nothing in this definition implies that an organization must be of a particular size or complexity: resilience is just as important for a small community-based organization as it is for a professional national NGO.

There are a wide range of actions that can support an organization in this journey to becoming more resilient, from simple, technical training (e.g. how to operate a software package) to a long-term, multi-faceted intervention which is intended to bring about

fundamental change in the way an organization works. For the purposes of analysis and planning, it is useful to divide these needs and responses into capacity development and organizational development:

- Capacity development (CD) is the delivery of specific knowledge and skills needed to enhance the performance of the CSO. In the context of CEPF support, CD will normally be linked to the development, delivery, monitoring and reporting of grant-funded conservation projects.
- Organizational development (OD) is the delivery of a package of support which addresses core institutional needs identified by the CSO, usually over a long timeframe and with the involvement of all or core members of the organization.

Table 9.4. Key Features of Capacity Development and Organizational Development

	Capacity Development	Organization Development
Objective	Specific personnel improve their knowledge and skills in a defined area of work	The organization has greater long-term resilience and adaptability
Delivery approach	Often through standard training events and modules, allowing for efficiencies such as training in groups and remote or online learning.	Tailored to the needs of the organization and its environment, with a variety of delivery types and phases over an extended period
Time and resources needed	Discrete, predictable, typically requiring limited funding and time	Long-term, requiring significant commitment of time from all levels of the organizations as well as external facilitators. Likely to be costly, but difficult to budget in detail from the start because of the iterative nature of the process
Measurement of impact	An immediate impact (e.g. acquisition of knowledge) is easy to define and measure, although demonstrating application of that knowledge to improve performance may be more difficult and long-term	Impact is long-term, may not be possible to define at the start, difficult to measure objectively

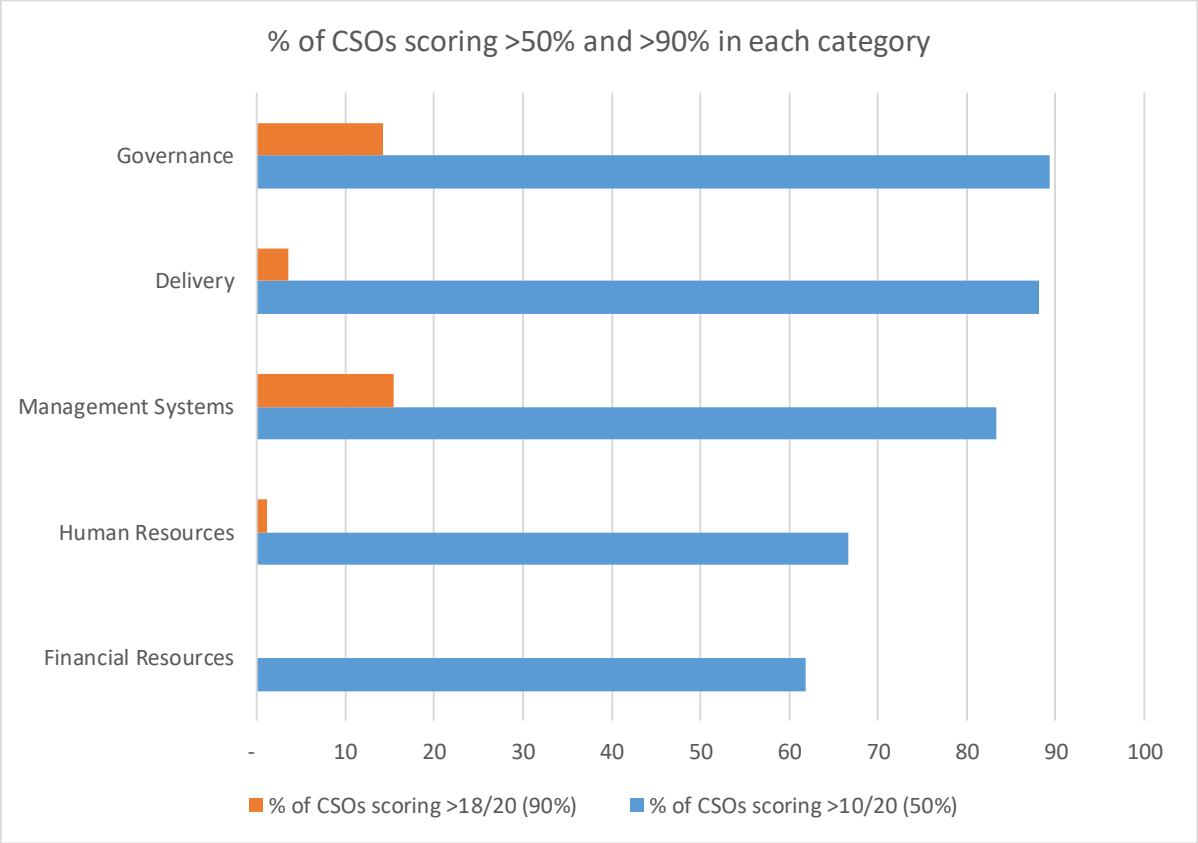
It is important to recognize that there is not a clear division between CD and OD, and that many actions and interventions will have some of the characteristics of both. For example, CSO staff trying to implement a newly acquired skill (CD) may encounter barriers which are to do with the organization's decision-making processes, governance or culture, so CD may have to engage with OD issues to ensure it has an impact. Conversely, OD demands time and commitment from staff which may take them away from delivering on short-term commitments to donors and stakeholders. It may be that CD is needed first, to deliver immediate improvements in performance which motivate staff and create the flexibility, before the more 'OD' activities can begin.
Principles and options for the delivery of OD and CD are discussed in Section 9.3.5.

9.3.3 The state of CSO capacity in the hotspot

Two tools provide detailed information on the capacity of individual CSOs in the hotspot – the CEPF CSTT, and an OD questionnaire distributed to CSOs as part of the updating process.

Analysis of CSTT responses from 84 national CSOs[47] identify the strongest areas as governance, management systems and delivery, with over 80% of CSOs achieving a score of at least 50% (10/20) for these three categories (Figure 9.2). Governance and management systems were particularly strong, with around 15% of CSO achieving near perfect scores (>18/20) in these categories. Conversely, human resources (particularly low total years staff experience, which may reflect high staff turnover) and limited financial capacity (especially diversifying their sources of income and achieving financial sustainability) emerge as key areas of weakness, with only just over 60% of the CSOs which responded achieving more than a 50% (10/20) score.

Figure 9.2. Analysis of CSTT Scores from 84 CSO Respondents

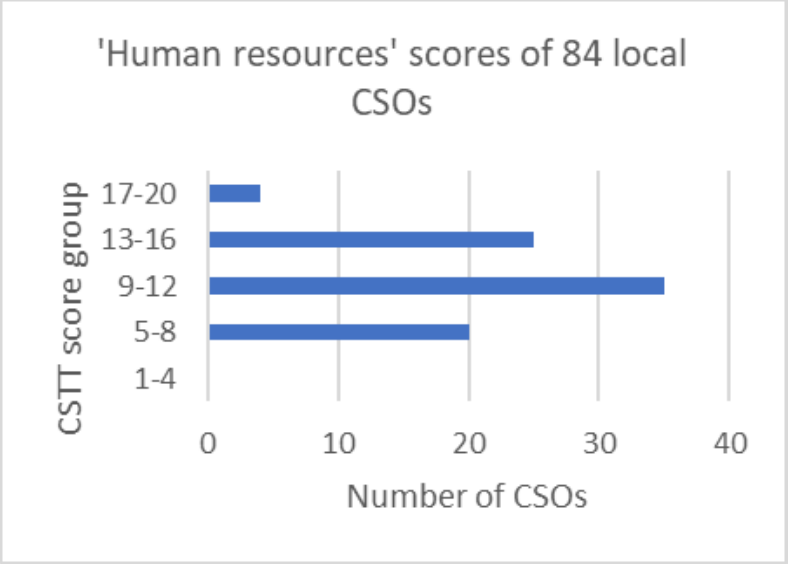


CSTT's were completed by 84 local CSOs between 2019 and 2022, with the majority (64) completed in 2022. 35 of these organizations were CEPF grantees, others were beneficiaries of the mentoring scheme. Where CSOs completed the CSTT twice, at the start and end of their project, the most recent version is used. The CSTT is divided into five main sections, each worth 20 points, giving a maximum possible score of 100.

The human resources dimension of CSO capacity concerns the number of staff, their cumulative years of experience, the existence of a HR development strategy, an inventory of key staff skills, and the use of volunteers. CSTT scores are clustered around the mid-range, with only 4 CSOs in the top category. The average score, 11.5, is second lowest of all the categories. Scores were particularly low for staff experience - an average of 1.26/4, meaning CSO staff have on average a combined total of just over 50 years relevant experience. Staff skills scored well, however (average of 3.2/4), reflecting the range of skills available within these staff teams.

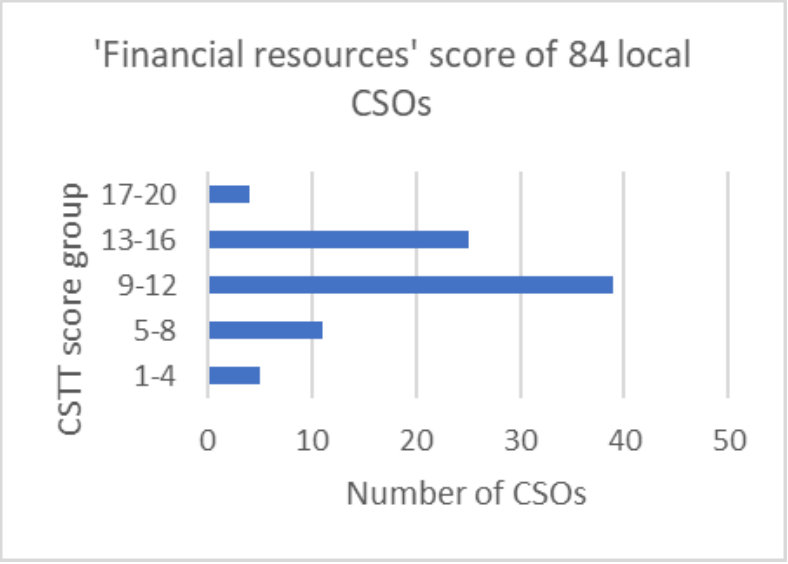
[47] Analysis of the CSTT data was carried out for the Long-term Strategic Vision (See CEPF, 2022b, pages 17) and repeated as part of this Ecosystem Profile Update process to get further details.

Figure 9.3. Analysis of CSTT Scores for Human Resource Management



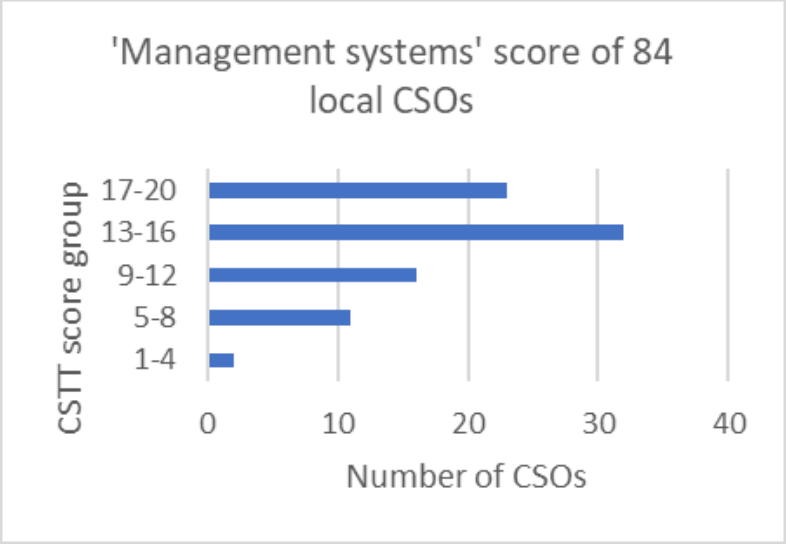
The financial resources dimension of CSO capacity is assessed in terms of the adequacy of finances for delivery, diversity of funding, capacity to raise funds, existence of a sustainability strategy, and the organization's profile among key external actors. The average score, 11.2, is the lowest of all five categories. The distribution of scores resembles 'human resources' but with more CSOs in the lowest category than the highest. Scores were particularly low for 'sustainability strategy' – on average 1.74/4. The results suggest that most CSOs lack secure, diverse, long-term finance.

Figure 9.4. Analysis of CSTT Scores for Financial Management



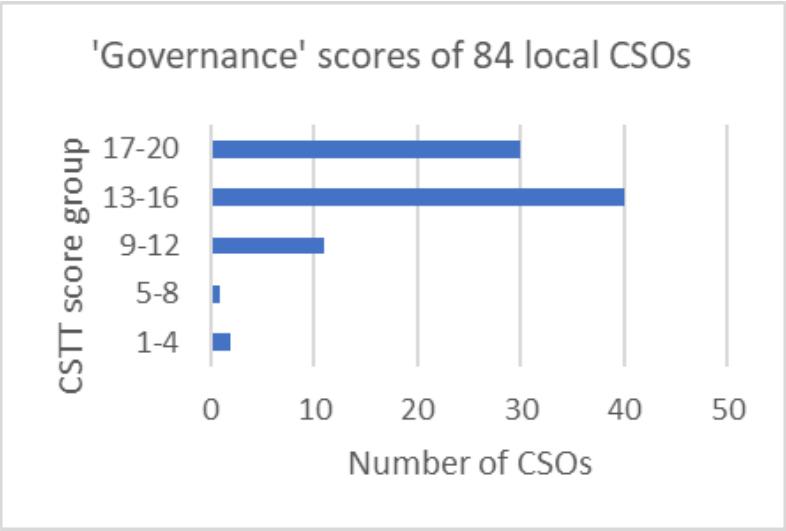
The management systems dimension is assessed on the basis of clarity of organizational structure, an inventory of standard administrative procedures, financial record keeping, project monitoring and evaluation, and financial reporting. The average score, 14/20, is the second highest, with 10 CSOs scoring 19/20 or 20/20. The sub-criteria on financial management had a particularly high average score, 3.2/4.

Figure 9.5. Analysis of CSTT Scores for Management Systems



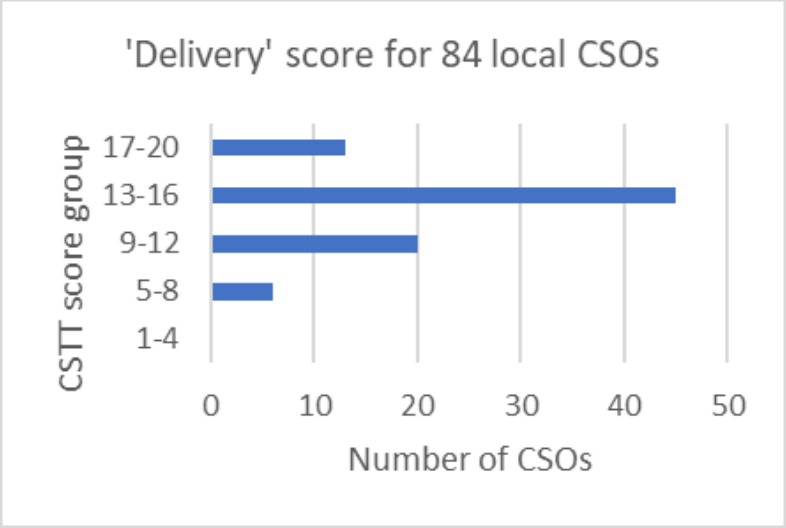
The governance dimension is assessed based on the governance structure, existence of a mission statement and strategic plan, coherence of the project portfolio with the mission, and accountability to key stakeholders. The average score, 15/20, is the highest of the five categories, with 12 CSOs scoring 19 or 20/20, although some remain in the lower two categories. The sub-criteria addressing the mission statement and the relevance of the project portfolio to the mission were both high scoring on average (3.5/4).

Figure 9.6. Analysis of CSTT Scores for Governance



Finally, the delivery dimension is assessed on the basis of the size of the organization's largest project, conservation relevance of projects, delivery of planned outputs, local connections in the project area, and collaborative relationships. The average score is 13.8, but there are no CSOs in the lowest category. The score for performance in delivering project outputs was high (average 3.4/4).

Figure 9.7. Analysis of CSTT Scores for Delivery



The questionnaire sent to national CSOs as part of the ecosystem profile update process complemented and updated the CSTT analysis, asking about changes needed, and also about providers and delivery mechanisms for capacity development. Questionnaire respondents[48] were asked to describe the highest priority changes they would make in their organization (Table 9.5). When their statements are categorized following the CSTT categories, human resources again emerge as a priority - mentioned by 66% of respondents. This reinforces the conclusion of the CSTT, that finding and keeping staff, and motivating them to work effectively, are challenges felt by many CSOs. In contrast to the CSTT, however, strengthening financial resources was only mentioned by 16% of respondents (however, lack of funding was the most frequently mentioned constraint for organizational development – see Section 9.5.4).

Table 9.5. Category of Priority Change Needed Identified by 38 Local CSOs during the Ecosystem Profile Update Process

Category of priority change needed	Frequency	% of responses
Human resources	25	66
Governance	14	37
Management systems	12	32
Delivery	9	24
Financial resources	6	16

9.3.4 CEPF support for capacity and organizational development in the hotspot

The 2022 Long-term Vision for the hotspot defines five long-term objectives (termed graduation criteria), which need to be achieved before CEPF can conclude that civil society conservation action in the hotspot has reached a sustainable state and no longer requires support. One of the five is directly concerned with the capacity of civil society:

> *Graduation criteria 2: Civil society capacity: Local civil society groups dedicated to conservation priorities* ***collectively possess sufficient organizational and technical capacity*** *to be effective advocates for, and agents of, conservation and*

[48] For the remainder of this section, 'questionnaire respondents' refers to the 38 organizations which responded to the Organizational development questionnaire sent to CSO as part of the EP update, as described in section 9.5.1

sustainable development, while being equal partners of government agencies influencing decision making in favor of sustainable societies and economies.

CEPF provided support for civil society as part of its grants program in the hotspot (as it does in all hotspots). Between 2016 and 2022, CEPF disbursed US$10.1 million in grants in the hotspot, with US$1.63 million (20% of CSO grants) going to Strategic Direction 4: "Build the capacity of local civil society organizations, including Indigenous People's, women's and youth groups, to conserve and manage globally important biodiversity".

Delivery of capacity development was organized by the RIT. RIT activities included:

- National capacity needs assessments and stakeholder mapping exercises in each country
- Support to short-listed applicants to improve project design and proposals
- Support to grantees on meeting technical and financial reporting standards
- Compiling project portfolios which facilitated sharing experiences between grantees

CEPF grantees are asked to complete an anonymous survey where they evaluate the performance of the CEPF secretariat and the RIT in five areas: grant application process, administration, technical support, capacity building, and donor-grantee relationship. Performance assessed on a three-point scale. Thirty-five responses are available from the GFWA hotspot from the previous investment period. They show that CEPF support was scored as 'very good/useful' in over 50% of cases, with less than 10% of cases scoring 'not good/not useful'.

Table 9.6. Percentage of Grantee Responses in Each Category of the CEPF Post-project Grantee Perception Survey

Score given by respondent	Percent of responses in each category				
	Application process	Administrative support	Technical support	Capacity building	Donor – grantee relationship
1 (very good/useful)	59	52	65	66	78
2 (somewhat good/useful)	39	43	30	28	20
3 (not good/useful)	2	5	5	7	2

Note: The grantee perception survey asks multiple questions under each of the five categories. All the responses were converted to scores 1 (best) – 3 (worst), and the number of each score totaled in each category.

The end-of-program evaluation sought grantee views on the capacity development work, and was told that the RIT's support was highly appreciated, and that the RIT provided greater support, guidance, and assistance at numerous stages of a project cycle than other donors.

In 2018 the RIT and CEPF reviewed capacity needs in the Guinean Forests of West Africa hotspot and developed a Capacity Development Strategy. The three key outcomes of the strategy were:

- A two-year mentorship program, linking three international/regional CSOs (TBA, FFI, WACSI) with 79 local CSOs (not all of them CEPF grantees) in nine hotspot countries, to provide support in areas such as project management. CEPF funded both sides of the partnership through separate grants. At the end of the program, the mentees saw a weighted average increase of 17% in their capacity, particularly for financial management and strategic planning, as measured by the CSTT.

- A decision to focus small grants on smaller organizations, to allow them to build their experience and gradually progress towards larger and more complex grants by building their project management capacities
- Implementation of a series of 'Master Class' workshops (learning from the experience of the Eastern Afromontane hotspot RIT) which improved capacity on project cycle, project design and proposal writing, financial management, diversity and inclusion, safeguards, communications and networking, and reporting.

In 2017, a MoU was signed between Conservation International (as host of CEPF), PPI, AFD/FFEM, the MAVA Foundation, IUCN Central and West Africa Programme, and IUCN Netherlands. The MoU was established as a general framework for cooperation and to align initiatives and synergies between conservation donors working in the Guinean Forests of West Africa hotspot. The practical impacts were mainly in the area of CSO capacity development, and included (i) the co-funding of three projects between CEPF and PPI; (ii) the provision of advice and support for the CEPF mentorship concept, with review by the PPI team and the MAVA Foundation; (iii) the external review of applications to PPI by CEPF; (iv) the participation of CEPF at a 2017 partners' meeting to discuss organizational development approaches for CSOs; (v) the participation of the RIT and the PPI team in a 2018 workshop on good governance promoted by the MAVA Foundation; and (vi) adoption by PPI of the CEPF CSTT and Gender Tracking Tool, in 2018 and 2022 respectively.

As a result of capacity building support from CEPF and other partners (including IUCN-PPI, WACSI, TBA and FFI (now Fauna & Flora)), several CSOs active in the hotspot have demonstrated significant improvements in their ability to plan programs, raise funds and even mentor smaller local organizations. Examples include A Rocha and Daasgift Quality Foundation in Ghana; Guinée Ecologie and STEP-Guinée in Guinea; and the Biodiversity Preservation Center in Nigeria. Further information on the CSO mentoring program is available at https://www.cepf.net/stories/mentor-programs-boost-west-african-conservation-organizations.

9.3.5 Need for CSO organizational development

Capacity and organizational development is important to CSOs in the hotspot but they need assistance to implement it effectively. All the questionnaire respondents rated OD 'very important'[49], but only 3 (8%) said their organization implemented OD 'very effectively', while 23 (61%) judged their organization's OD work 'somewhat effective', and 12 (32%) 'not very effective'. Those who explained the limited effectiveness most often mentioned lack of funding for capacity development (13/38). Other challenges mentioned were lack of a comprehensive strategy and knowledge (3), difficulties managing the process (2), and lack of staff motivation, high staff turnover and poor institutionalization of learning (3).

When asked to assess the severity of a list of potential problems with organizational development, the issues most frequently identified as being *severe* or *important* problems were connected with funding (identified by 81% of CSOs), 'lack of an up-to-date plan or strategy for OD' (47% of CSOs), and lack of an appropriate OD provider (identified by 37% of CSOs).

9.3.6 Lessons from delivering organizational development

OD is a *continuous process* of positive change towards becoming a resilient organization. OD does not have to involve external actors but in many cases will benefit from

[49] This is not a reliable indication of interest in organizational development among CSOs overall, as the 38 out of about 120 recipients who returned the question are likely to be especially interested in the subject

expertise and resources from donors and organizational development specialists. Donor funding brings with it the risk of donor influence but, for effective OD, it is critical that *the CSO remains in control of its own process.*

Discussions with OD providers (listed in Section 9.3.7) and grantees yielded broad agreement on the essential properties of a good OD approach, and highlighted some of the strategic choices which need to be made in delivering and funding OD. The OD 'journey' is *tailored to the needs of the organization* and so there is no single blueprint. However, a typical OD process will have the following stages: initiating the process, planning, delivering the OD support, measuring and sustaining the impact of OD. These are summarized in the following sections.

Initiating the process
Leadership commitment from the beneficiary CSO is central, as is buy-in from the personnel who will be involved. The need to secure leadership commitment may influence the entire shape of the OD process – for example, in Madagascar, Maliasili started by working with CSO leaders through its leadership program before a sub-set of them embarked on whole-organization OD processes, and Well Grounded offers CSO leaders in Congo, DRC, CAR and Cameroon the opportunity to participate in leadership development jointly with other CSOs. WACSI asks for a financial contribution towards the costs of training events as an indication of organizational commitment. WACSI's Open Society program makes it mandatory for leadership to join for an introductory session.

Allocation of staff time and resources is also important, recognizing, for example, that staff who are under pressure to meet project-driven deadlines need to be allowed to allocate dedicated time to the OD process. This may require negotiating with project donors, beneficiaries, and partners.

Funding needed maybe substantial and needs to be available on a flexible timeline and with outputs and objectives that will often be re-defined as the OD process develops. This does not mean that OD cannot be planned - Maliasili uses a hierarchy of plans, with a 4-5-year organizational change plan delivered through more detailed annual plans. PPI also uses OD plan developed with each of its grantees. See Section 9.3.8 for further discussion of funding OD.

Establishing and maintaining trust between the parties involved allows for open communication and discussion of sensitive issues. Where the OD process is linked to project funding, the imbalance of power in the donor-grantee relationship is a barrier to open communication. PPI handles this by having OD staff who are (mostly) independent of the grant decision making and administration process. The issue can also be mitigated by out-sourcing delivery of OD support to a third party (which has he additional benefit of bringing in relevant expertise) – as was done with TBA and Fauna and Flora International (now Fauna & Flora) in the previous CEPF program and has been done in other hotspots (e.g. Wallacea, Indonesia). The way in which the agenda and objectives of the OD process are established, which often uses a diagnostic tool, also has an important impact on trust and openness (see below).

As part of building trust, adequate time to build a relationship between CSO and OD facilitator is key and requires the funding flexibility and organizational commitment noted above. Maliasili expects to spend several months getting to know an organization and may implement a due diligence process or a single activity with the partner (such as a strategic planning process or training on a specific area) to test collaboration, before committing to a long-term process. WACSI's Shift the Power program has an 'onboarding' phase, where organizations whose proposals have been accepted are invited to re-assess their plans. Three months was invested in these reviews and discussion of needs and priorities before the first cohort embarked on the OD program.

Similarly, Well Grounded have a 6-month selection and engagement period before the formal start of their year-long leadership development training program. Where CSOs are already familiar with the donor and OD provider (as is the case for CEPF and many CSOs in the hotspot), there may already be a level of trust which can provide a foundation for further work.

Diagnostic assessments and planning the OD intervention
Any kind of CD or OD intervention should start with an assessment of the specific needs of the organization, leading to agreement on the objectives and delivery. The way that this initial assessment is done should clarify expectations and set the tone for the relationship between funder, facilitator and beneficiary. The process should be driven by the beneficiary, with the guidance and support of the facilitator. Providers Beautiful Soul and Well Grounded emphasized that when they are approached by a funder, asking them to support the funder's local partner, they will only agree to do so once they have independently confirmed the interest and commitment of the local partner.

Initial discussions may include helping the CSO understand what can be achieved and what an OD intervention might involve. WACSI emphasized the importance of spending time discussing options with the beneficiary CSO staff, as they will often not know what a capacity development process will look like or how it can help them address their priority issues. PPI similarly emphasize the importance of the initial conversation, which should involve an in-person visit to the CSO, not just an online call.

To structure the discussion on existing capacity and identify strengths and gaps, supporting organizations typically use some form of diagnostic tool. The CEPF CSTT is one example, but two useful lessons on the use of diagnostic approaches emerged from the discussions:

- Diagnostic tools are designed to be completed in a participatory way, but a weakness is that they ask the respondent to score their own organization against a set of normative criteria, which may not be relevant to the aspirations of the organization. The highest scoring criteria typically resembles the properties of a large, complex, professional NGO, implying that all CSOs should aspire to become larger and more professional, and providing little room for discussion of what is important for the CSO and the local context. An exception is PPI's ODADO tool, which asks about the respondents' *level of satisfaction* against broad criteria, allowing respondents to define for themselves what constitutes a satisfactory or less-than-satisfactory situation.
- There is a risk that the implementation of diagnostic tools focuses on weaknesses and failures – which can in turn erode trust and support for the OD process. To address this, Well Grounded and Beautiful Soul use an appreciative enquiry/experience-based approach – focused on identifying and valuing strengths, and building on these to address challenges, rather than starting by looking for the weaknesses and deficiencies in an organization's structure and operations. The approach is designed to build confidence and encourage open discussion.

Facilitation of the diagnostic process is key. WACSI's 'Shift the power' program offers an organizational 'health check' which consists of a list of questions which the partner staff discuss independently, including ranking and prioritizing issues, before the results are discussed with WACSI. In an example from outside the region, Ford Foundation asks their grantees to complete their diagnostic tool with a facilitator, who then provides anonymized summary statistics to the donor.

Planning for a typical long-term capacity development intervention may progress from diagnostic tool to agreement on overall aims, a first year workplan, and plans and budgets for delivery of specific training and facilitation support. However, approaches

which take an individually tailored approach need to be controlled by the beneficiary and respond to changes as the process progresses, so there is no pre-determined blueprint. It is more useful to think in terms of a 'toolbox' of support which is available, and a process which is created collaboratively by the beneficiary and facilitator, with the backing of a funder.

Discussions with CSOs and with capacity development providers identified choices and issues which need to be considered in the planning of a program of support: *online versus in-person approaches*; *single-organization and multiple organization approaches*; *monitoring and evaluating the impacts of OD;* and *sustaining the impact of OD.* These are described in more detail below:

Online versus in-person approaches
The possibility of using online capacity development has expanded rapidly as access to the internet has improved, with the Covid-19 pandemic of 2019-2021 forcing many people to become more familiar with online interaction. All the providers interviewed recognize positive and negative aspects of both in-person and on-line approaches, and normally use a combination of the two to maximize impact.

Key positives for online learning are minimal cost for participants to attend, convenience, and flexibility for participants to engage at a time that works for them. Important negatives, however, are the lack of personal interaction, the temptation for participants to multitask or otherwise be distracted by other pressures in their environment, as well as technical issues including poor connectivity.

Conversely, in-person participation provides high-quality opportunities to engage, share and bond with other participants, including during time spent together outside of the formal sessions. Well facilitated in-person sessions can allow for effective discussion of issues, consensus building and inclusion of voices which are not normally well-represented. In contrast to online, in-person sessions also offer a more focused experience, with participants less likely to try and multi-task during the training. The challenges of in-person approaches include the cost of travel and accommodation, and the need for all participants to commit to meeting at a particular time and place.

Well Grounded and Beautiful Soul both noted that *facilitated* online learning could help overcome some of these challenges. This might be in real-time, such as when participants join a scheduled online workshop, where they may be divided into virtual sub-groups that create opportunities for sharing and discussion like in-person interaction. One-to-one coaching and mentoring can also be effective online. Online capacity development can use exercises, tests and other work, which is done individually, at a time that suits the participant. Well Grounded has found that providing feedback on these submissions is important to encourage continued engagement and ensure that goals are met but noted that providing quality facilitated online learning requires significant investment in staff time.

While one-off events (for example, a strategic planning workshop, training on priority setting) may use just one approach, all the providers report that they use a combination of online and in-person approaches to deliver their long-term leadership and mentoring support. Beautiful Soul, for example, report that when they are facilitating a long-term process with an organization, they will get everyone together in person at least every six months, while work in between is a mixture of online and in-person events with smaller teams. Maliasili also use a combination of in-person and on-line approaches for all their OD work, including thought partnership calls with the leadership of the organization.

The review of capacity development in the Long-term Vision supports these conclusions, highlighting as key lessons that workshops with an in-person facilitator were more effective than those with the facilitator online, and that the first workshop in a series

should be in-person, to allow for relationships to be established, before continuing the process online if required.

Single-organization and multiple organization approaches
Capacity development can be delivered with the mentor/facilitator working with individuals and teams from a single client CSO, or through events which bring together people from several CSOs.

The single organization approach allows for capacity development which has been co-designed and tailored to the specific needs of the CSO to be delivered at a time and place that is most effective for the CSO. Well Grounded, Maliasili and Beautiful Soul all provide this kind of individually tailored support as a core part of their long-term capacity development services. This approach demands more time from the facilitator, and so is more costly, but is likely to have a greater impact on the organization because it is targeted to specific needs.

The same providers also offer capacity development programs where peer-to-peer learning and the creation of a 'cohort' of graduates is an explicit objective. These are delivered through a series of workshops and events which bring people from different organizations together. Well Grounded and Maliasili's leadership development training programs, and Well Grounded's ecofeminist leadership development training, use this model. The approach has a strong emphasis on selection, with applicants invited to apply and a screening process to ensure that they will benefit from the process. In-person and online events are used to create opportunities for participants to share and learn from each other.

Much of the capacity development done by CEPF in the hotspot, including the TBA-run "master classes" and other training events on finance, project management and other topics, have brought people together from multiple organizations to participate in a single event. The program evaluation and the Long-term Vision note that there are significant benefits from the peer-to-peer sharing and learning that takes place at these events. This extends to the formation of links between participants which may be maintained after the training event and become the basis of follow-up to the training, or collaboration between organizations. These impacts are especially important, given that the relationships between West African CSOs are often weak, siloed and competitive, rather than collaborative and mutually supportive. In addition, multi-organization training may be a more efficient way to deliver a set of skills – such as project management or financial management – to a large group of CSOs.

The potential disadvantage of training involving multiple organizations is that the timing, place and content are not controlled by the participants and may not respond to their needs. There is therefore a risk that such events waste time and resources without making an impact. The risk can be reduced with adequate planning, including careful selection of participants, and tailoring the content to their needs. Participation should be voluntary (i.e. not required by a donor) and driven by a desire to learn and address a specific need. In addition, the event should be designed to facilitate and encourage interaction between participants, including after the event, as one of the key benefits.

Monitoring and evaluating the impacts of OD
Monitoring is important primarily to enable the staff and other stakeholders of the CSO to see that the time and resources invested in the OD effort are having a positive impact. Well Grounded and Beautiful Soul both mention the importance of 'pause and reflect' periods during an OD process, to recognize progress and allow adjustment of plans. In these cases, monitoring may rely more on personal impressions that objectively measurable indicators.

Monitoring is also important to demonstrate to donors supporting the capacity development process that their funding is having the intended impact. When communicating to donors (and other supporters and stakeholders), it is important to present monitoring results in the context of the long-term aims of the OD process, and to make it clear that evidence of transformative change in an organization may not emerge for some years.

The diagnostic frameworks mentioned in the planning section (above) are often repeated and compared with the baseline, as CEPF does using the CSTT. While this approach has the value of producing measurable data which can be compared with other organizations or over time, it suffers from the problem that changes in personal, team and organizational capacity may be intangible and not effectively captured by the criteria used in these frameworks. The scoring will be influenced by who fills in the form, and results can be difficult to interpret. CEPF has experience of CSTT scores that go down for individual CSOs over the life of a project, and attributes this, in some cases, to increased critical awareness leading to staff scoring their organization lower second time around. PPI's ODADO, which rates respondent satisfaction, may capture change better but is impossible to analyses quantitatively. To overcome this PPI uses a simple additional questionnaire to derive data which can be used to report progress to donors. Maliasili use a set of indicators which cover organizational growth, stability, funding, teams and other key areas.

It is easier to evaluate the immediate impact of CD for participants in a group training event which is structured around a fixed syllabus. The Long-term Vision noted, however, that this does not necessarily correlate with implementation of the newly acquired skills in the organization, or with wider impact. Post-training follow up is recommended to give an assessment of the real impact of the skills acquired on performance.
Online training presents specific challenges for monitoring, but Well Grounded note that online platforms can be used effectively to gather basic information on participant engagement and performance.

Sustaining the impact of OD
Given that OD is an ongoing process, 'sustainability' of a specific OD intervention does not mean that the client organization will never need OD support again, but that they are in a better position to plan, access and fund such support when they need it. To encourage partners to move in this direction, PPI is encouraging CSOs to source their own OD support, with PPI funding, as a way of building links between CSOs and local OD providers. In Central Africa, Well Grounded recognized that lack of trained OD facilitators is a key constraint to achieving sustainable access to OD support. In response they created a dedicated OD facilitators training program, Facilitators for Change, which has so far graduated 29 OD practitioners, many of whom are working with partners or for other international and local NGOs.

PPI, WACSI and Maliasili have also tried to find efficient ways to maintain contact and encourage continued learning and growth. Maliasili describes OD beneficiaries as partners for life. Once an organization has graduated from the 4–5-year OD program, Maliasili provides on-demand advisory services and mentoring support. Partners are expected to fund (or work with Maliasili to raise funds) these ongoing services. PPI's OD consultants maintain informal contacts with CSO leaders and staff after projects and OD interventions have finished.

Networks and communities are used to sustain the momentum of an OD process. Graduates of Maliasili's leadership program become part of the 180-member African Conservation Leadership community. WACSI facilitates a community of practice for organizations that have been through its training events. The community helps them to reflect and discuss next steps, share success and challenges.

PPI is trying to link its grantees (and recipients of OD support) with networks and potential technical or financial partners, helping them achieve visibility so that they can access donor funds.

9.3.7 Sources of capacity and organizational development expertise

In a survey of 38 local and national CSOs, over half reported that they access OD support from international donors (87%), professional training providers (63%), other NGOs (55%) or some combination of those. The number who access support from universities was more modest (29%), while less than 10% of respondents said they accessed support from government training programs, volunteers, peer networks, and internal resources.

Several specialist capacity development providers now work in the region, or parts of it. TBA and WACSI have previously worked with CEPF and the RIT to provide capacity support to grantees. PPI had an MOU with the RIT, and individuals from the PPI team remain active in the Mediterranean CEPF program (for Cabo Verde). The following section briefly summaries these organizations.

Beautiful Soul (https://www.beautifulsoul.sn/en/home) provides organizational development support to private sector, government and civil society organizations in Senegal, where it is based, and in Ghana and Côte d'Ivoire, with some experience of work in other hotspot countries. The organization offers tailored coaching support focused on change behavior for teams, with a typical intervention lasting between six months and three years.

Maliasili (https://www.maliasili.org/) exists to support high-potential, local African conservation organizations in accelerating the benefits they bring to people, ecosystems, and climate change. The organization has worked with more than 40 partners in 13 countries, mainly in East Africa, Southern Africa and Madagascar. Maliasili is expanding its work in West and Central Africa, focusing on Mali, Sierra Leone, Ghana and Liberia in 2025. Maliasili has helped its partners strengthen their organizations, generate or leverage more than US$15 million in funding for their work, develop a growing set of tools to improve organizational performance, and significantly expand their impact in the field. Maliasili run leadership programs, provide long-term organizational development support, including strategic planning, fundraising, and team development.

The Programme de Petites Initiatives (PPI, https://www.programmeppi.org/en/le-ppi/) is implemented by the French Committee of IUCN, with financing from FFEM. Although it is primarily a small grant initiative (see further details in Chapter 11), importantly for this discussion, PPI provides dedicated capacity-building support to its grantees, through a small team of independent advisors who provide informal coaching and support, and through dedicated grants for capacity development. Unlike the other organization listed here, PPI does not provide OD consultancy services other than for PPI grantees.

The Tropical Biology Association (https://tropical-biology.org/) provides capacity support for conservation-focused CSOs, with a strong emphasis on linking training with practical project implementation. TBA continues to work closely with BirdLife International and other CSOs in the region, including running a project development master class in August 2024.

Well Grounded (https://well-grounded.org/) focuses on the Congo Basin (Gabon, DRC, Congo-Brazzaville, Cameroon) but has shared partners with CEPF in western Cameroon. The organization provides support specifically for CSOs working with communities on forest conservation. Its approach is similar to that of Maliasili, with which it cooperates, running leadership programs and organizational development mentoring programs. However, in addition to its general CSO support, Well Grounded has specific leadership programs for Indigenous People and Ecofeminist leaders, community-based

organizations and women-led CSOs. Well Grounded runs a facilitator training program, to increase the pool of OD facilitators available in the region.

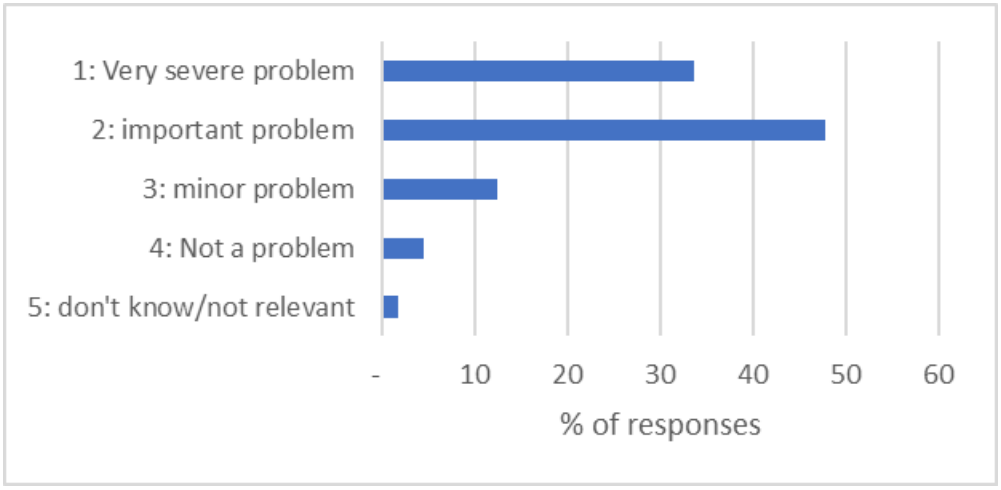
The West Africa Civil Society Institute (WACSI, https://wacsi.org/) is based in Ghana and works in nine hotspot countries (all except São Tomé and Príncipe, and Equatorial Guinea). In addition to providing capacity support, WACSI has a civic space team working on policy advocacy, and also undertakes research on issues impacting civil society. Recent capacity initiatives include with grantees of the Open Society Initiative, and the 'Shift the Power' program, which provides five years of OD support to participants.

In addition to CEPF, donors with a strong record in investing in capacity development for their grantees are the IUCN National Committee of the Netherlands, and the MAVA foundation, which closed in 2022. The implementation of the Western Chimpanzee Action Plan also includes plans for capacity building for local partners, and for provision of seed funding for conservation projects, in the eight range countries.

There are an increasing number of formal education providers in the region, which are potential sources of partnership or capacity development in technical skills and research methodologies. They include leading institutes and universities in Cameroon, Côte d'Ivoire, Ghana and Nigeria. Specialist institutes offering training related to conservation and sustainable land management include the Garoua Wildlife School (Cameroon), and the AP Leventis Research Institute in Jos in Nigeria (APLORI) . APLORI specializes in capacity development for conservation and fundamental biological research in West Africa. The institute runs degree, Masters and PhD level courses, equipping West African students with skills in Ornithology and Conservation Science, including data management and analysis, GIS skills and mapping. Alumni of APLORI are now spread across West Africa working in PAs and conservation management and contributing to research and knowledge management. Another example is Njala University College in Sierra Leone, which provides short-term, targeted training for conservation professionals in the region.

Numerous non-African institutions (especially from Europe and the USA) have a long history of research and collaboration in Africa, sometimes built on post-colonial shared language and educational connections. CIRAD, CIFOR/ICRAF, and EU's Joint Research Centre play important roles in the region, bridging science, policy and practice to produce actionable recommendations for policy makers and managers. Many of the international conservation NGOs working in the hotspot undertake capacity development work with local partners.

Figure 9.8. CSO Perceptions of Severity of Funding Problems for OD



9.3.8 Funding capacity development

The cost of capacity development and the need for secure funding

The questionnaire respondents reported that lack of funding and constraints on funding were the most severe problems they faced in pursuing their capacity development ambitions. Funding issues were described as 'very severe' or 'important' problems in 81% of the responses to three questions (Figure 9.8).

As an indication of the costs involved in a variety of CD approaches, Table 9.7 lists examples of grants made for CSO capacity development during the previous CEPF investment phase.

Table 9.7. Examples of CEPF Grants for CSO Capacity Support Work Made during the 2016-2022 Investment Phase

Grantee	Grant purpose	Grant (US$)	Months	Countries
Ciltad Coastal TV	Building CSOs communication skills to enhance better engagement with the public to respond to biodiversity conservation challenges	11,053	6	Ghana
Fauna & Flora International*	Country-specific mentoring and training to Strengthen West African Civil Society Organizations	249,916	16	Liberia, São Tomé-Principe
Fauna & Flora International*	Capacity and tools for Biodiversity Mainstreaming in the GFWA	36,131	3	Hotspot-wide
Fauna & Flora International*	Learning Exchange in the GFWA – CSO capacity and networks workshop	49,726	3	Hotspot-wide
Royal Society for the Protection of Birds	Building Networks for Key Biodiversity Area Monitoring and Protection in the GFWA	88,125	8	Ghana; Guinea; Liberia; Nigeria; Sierra Leone
Tropical Biology Association LTD	Enhancing Biodiversity Conservation Capacity of Civil Society Organizations	484,491	20	Ghana, Nigeria
West Africa Civil Society Institute	Strengthening Civil Society Organizations' Capacities for Effective Stakeholder Engagement in Biodiversity Conservation	299,981	14	Côte d'Ivoire; Guinea; Sierra Leone

Note: * = now Fauna & Flora.

The cost of long-term OD support is dependent on the specific needs of the CSO and the design of the process. The main costs will be the time of facilitators/mentors to support the process, travel and accommodation costs for the facilitator to meet with the CSO, and the costs of any workshops, retreats and other meetings. Discussions with OD providers yielded some examples:

- Maliasili estimates US$35,000 to 50,000 per year per partner for their OD model.
- PPI allocates about 30% of its budget for OD, amounting to between EUR350,000 and 450,000 per year. This supports four coordinators, working with almost 90 partners, and includes funds for OD actions.
- Beautiful Soul gave an example of US$50,000 per year to provide OD support for an organization with 80 staff, including individual coaching, retreat facilitation, strategic planning facilitation, support to work units
- Well Grounded in collaboration with Maliasili, budgets US$330,000 for a cohort of 20 people from 10 organizations to go through a 1-year leadership development process, including 3 one-week retreats, online training platform and support, and

individual coaching, including 6 months of preparation, selection and engagement, 6 months wrap-up and a follow-up alumini strategy
- Well Grounded's Ecofeminist Leadership Development program, currently implemented in Cameroon but also piloted in the DRC, costs US$220,000 to US$330,000 for 12 months, involving 20 participants from 12 organizations in 3 one-week retreats, individual coaching, and online discussions and webinars.

Funding modalities for capacity development

Funding agencies which support CSOs to undertake conservation projects are frequently unwilling to allocate more than a fraction of their funding to activities which are not directly connected with delivering the objectives of the project, such as OD. Where they do support capacity, this is often delivered to suit the donors agenda, timetable and budget, rather than being tailored to the specific needs of the CSO. Secure funding, which does not impose an agenda on the recipient on otherwise exacerbate donor-beneficiary power inequality, is critical for OD.

There are at least four models of funding for OD by donors:

- Unrestricted funding to the beneficiary CSO does not require any detailed reporting or accounting and allows the organization freedom to invest in OD or projects. Unrestricted approaches are typically used where there is a long-standing relationship and high level of trust between donor and CSO.
- Grants specifically for OD to the beneficiary CSO, are likely to be managed as a normal project, with a budget, defined objectives, and accountability to the donor. This model means that a degree of control is retained by the donor (depending on donor requirements) and the CSO is accountable to the donor for its own capacity development. However, compared to making a grant to an OD provider (see below) this model gives the CSO greater control over contracting and managing the support it receives.
- An OD component can be included in a larger conservation project grant. For donors (such as CEPF) where OD is a means to achieve lasting biodiversity conservation, this modality has the advantage of maintaining closer links between the OD work and the conservation objective. CD and OD may have a greater and more sustained impact when it is combined with project implementation. At the same time, there is a risk that the OD element is eclipsed as grantees strive to achieve conservation targets. It may be most appropriate where there is capacity to be developed has direct links to delivery of the project.
- It is common for donors to award grants to OD providers, rather than beneficiary CSOs, to provide CD and OD support. This approach reduces the administrative burden on the CSO and allows for efficiencies (e.g., an OD provider might be funded to provide OD support to several grantees) but it poses a challenge because it reduces the agency of the beneficiary CSO in selecting and managing the CD/OD provider. This problem could be overcome if the CSO is allowed to select (or be involved in the selection) of the provider.

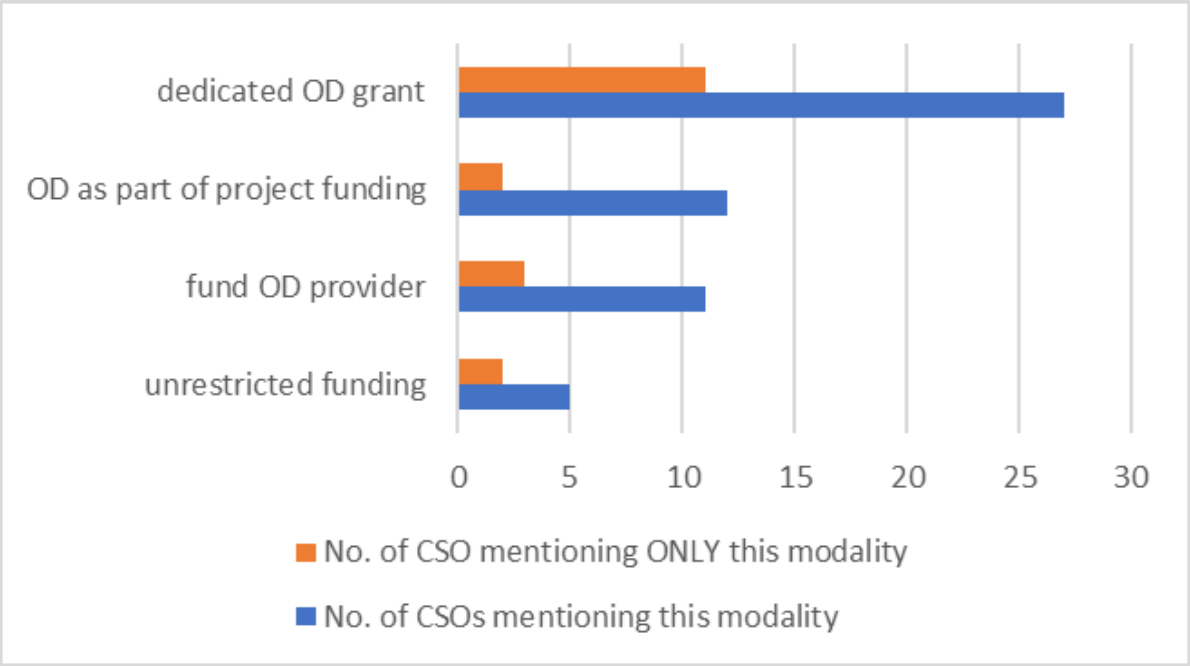
Combinations of these modalities are possible and, indeed, may be very effective. For example, a grantee awarded a grant for conservation action could apply for a specific OD grant, or an OD provider could receive a grant to provide support to set of partners implementing conservation projects. In these cases, there may be tensions between the different pace and time period to projects, and it may be useful to allow capacity interventions to run on beyond the life of the field project (as allowed by PPI, for example).

Questionnaire respondents were asked to state their preferred options for funding OD. Although the question had a free text answer, the four modalities described above were mentioned as examples, and in practice grantees did not propose any other models of

funding. Of 36 respondents, the overwhelming majority 75% (27/35) identified a dedicated OD grant as one of their preferred mechanisms, with 11 of them (31% of respondents) not mentioning any other option, while 16 identified this option in combination with one or two of the others. OD as part of a project grant was identified by 33% of CSOs (12/35), and funding directly to an OD provider by 31% (11/35).

In their responses, CSOs also mentioned the importance of long-term support for OD (6/35), and suggested OD funding for a group of NGOs (1/35).

Figure 9.9. Preferred Modalities for OD Funding among CSOs Responding to the OD Questionnaire



Choosing a funding modality
Some contributors to the capacity discussion, and the CEPF Long-term Strategic Vision, advocate maintaining a strong link between conservation project funding and capacity development funding. The purpose is to enhance both aspects of the work: CD interventions are more likely to have a sustained impact if they deliver priority skills which can be applied immediately, while management of a conservation project will be more effective if areas of weakness - for example financial management, or specific technical skills - receive targeted support. TBA is a strong proponent of this approach, with experience from delivering conservation masterclasses and other training showing that skills acquired in this way are more likely to be internalized and to result in actual changes in the way that teams and organizations work.

However, as noted above, combining OD and project implementation has risks around capacity work become 'projectized' and loss of control by the CSO. PPI, which like CEPF combines the roles of donor and capacity support provider, manages this risk by providing separate funds for conservation projects and OD support; and by maintaining an institutional 'firewall' between the team in France, which makes decisions on grants, ensures accountability and conducts formal evaluation; and the OD advisory team, which is a small team of consultants based in the region whose task is to develop strong relationships with the grantee, in order to help them identify and address their capacity needs.

Investment in long-term organizational development requires, as noted above, trust between CSO, donor and provider; and high degree of control over the process by the CSO. This is challenging to achieve when OD funding is tied to the delivery of a short-term (1-2 year) conservation project, and seems to argue for separate OD funding, with a long-term commitment and a high degree of autonomy for the CSO. Such an approach carries its own risks, of course - that the OD process loses focus or fails to deliver the improvements hoped for.

To enable CEPF to address both specific CD needs, and more ambitious OD, a combination of approaches is likely to be needed, which reflects the type of CD/OD need, the stage of development of the CSO, and the history of grant-making and collaboration between the CSO and CEPF. A targeted, short-term, approach to CD linked to a conservation project grant is likely to be appropriate for:

- Situations where a specific technical skill/knowledge is required and can be efficiently delivered.
- Organizations with limited project implementation capacity.
- Organizations which are new/unknown to CEPF.

Conversely, a separate OD grant is likely to be appropriate where:

- The CSO wants to engage in a long-term program of OD.
- The CSO has the capacity to plan and manage the OD process (with support as necessary).
- The CSO has a strong track record with CEPF and in conservation which justifies the greater risk and investment likely to be involved.

Chapter 13 proposes a model for delivery of CEPF support under Strategic Direction 4.

9.4 CSO Partnerships and Networks

Cameroon, Ghana and Liberia are the hotspot countries with the largest numbers of civil society networks and partnerships working on issues of conservation and sustainable management of natural resources (Table 9.8). Ghana has created National, Regional and District Forest Forums where issues of forest governance are discussed and consensus reached at the different levels. Cameroon and Liberia have also created working groups on forest governance and climate change. In Nigeria, the NGO Coalition for the Environment is a coalition of all conservation CSOs in the Cross River state, which has a number of aims and objectives in common, including education, capacity development, research and facilitating national and international cooperation.

National Coordinating Groups for promoting the identification and conservation of KBAs are discussed elsewhere in this document.

There are also several regional partnerships and networks active in the hotspot countries:

- African Forest Forum (AFF)
- African Forest Action Network (AFAN).
- Climate Action Network (CAN) West Africa.
- Green Advocates for West Africa (GAWA).
- Women's Network for Community Management of Forests (REFACOF).
- Global Forest and Trade Networks.
- Réseau des Aires Protégées d'Afrique Centrale (RAPAC).
- Congo Basin Forest Partnership (CBFP).
- Forest Governance Learning Group (FGLG).
- Network of African Women for Sustainable Development (REFADD).

- Network of Youths for the Sustainable Management of the Central African Moist
- Forest Ecosystems (REJEFAC).

Table 9.8. Examples of National Civil Society Partnerships and Networks in the Hotspot Countries

Country	National Partnerships and Networks
Benin	Amis de l'Afrique Francophone - Benin
Cameroon	National REDD Working Group; National VPA Working Group; Cameroon Committee of IUCN; National Gender Working Group; FGLG; REFADD; South West Civil Society Organization Network (SWECSON); Association pour l'Etude Taxonomique de la Flore d'Afrique Tropicale (AETFAT); Colletif de Femmes pour la Protection des l'Enfant et de l'Environnement.
Côte d'Ivoire	National REDD Working Group; Tai-Sapo-Grebo Forest Complex Steering committee, Association des Femmes de Côte d'Ivoire; Alliance Ivoirienne pour l'Habitat; FLEGT; Observatoire Ivoirien pour la Gestion des Ressources Naturelles (OI-REN).
Equatorial Guinea	REFADD
Ghana	Forest Watch Ghana; National, Regional and District Forest Forums; National REDD Working Group; National REDD Gender SubWorking Group; National VPA Working Group; National Coalition on Mining; National Coalition of NGOs in Water and Sanitation; Ghana Climate Change Coalition; Western Regional Environmental NGOs Coalition; Landscape Management Board; FGLG.
Guinea	Forum des ONGs pour le Dévelopement Durable
Liberia	National REDD Working Group; National VPA Working Group; Conservation Leadership Network; Tai-Sapo-Grebo Forest Complex Steering committee; Sapo Conservation Centre Steering Committee; Nimba Biodiversity Forum
Nigeria	National REDD Working Group; Nigerian Youth Climate Coalition; Ogoni Interactive Youths Network; NGO Coalition for the Environment (NGOCE).
São Tomé - Príncipe	*No active networks identified*
Sierra Leone	SLANGO and Environmental Protection Board.
Togo	Association Togolaise d'Etude, de Recherche et d'Appui au Development Humain Durable (ASTERADHD); Magnificat Environment Association.

Source: 2015 ecosystem profile.

The lack of collaboration between civil society organizations towards common objectives and goals is recognized as a challenge in the 2015 ecosystem profile, and in the Evaluation of the lessons learned in relation to the RIT carried out post-program. CEPF has addressed this by creating opportunities for CSOs to network, and share knowledge and learning. During the previous funding program, in-person or online events in each hotspot country provided these opportunities for grantees. Grantees working at the same sites or in the same regions were informed about each other's activities and encouraged to communicate. Data gathered by one grantee (for example, INGOs such as Missouri Botanical Gardens) was shared through training sessions and workshops.

Partnerships between multiple stakeholder groups can also be important to enable coordination of conservation efforts at a site. During the previous funding phase, 19 grants supported the formation or strengthening of 41 networks which brought together civil society, government and private sector actors to facilitate capacity development, avoid duplication of effort and maximize conservation impact. Examples include the Okomu Biodiversity Stakeholders Platform (Nigeria).

Finally, networking offers a way to encourage groups and voices that are under-represented in conservation to participate more. The previous funding phase supported the establishment or strengthening of 25 women-led conservation and development organizations, associations and networks.

9.5 The private sector in the hotspot

In all 11 hotspot countries, the private sector is the primary taxpayer and the secondary provider of jobs after the state. The major private sector companies operating in the hotspot, and which have notable implications for conservation, include logging companies, mining companies and large-scale agribusinesses. The activities of this stakeholder group are often viewed as posing a threat to conservation and sustainable management in the hotspot. However, private sector companies also play a critical role as funders of conservation efforts, by mitigating their environmental and social impacts, and through their influence with government and over land-use decision making.

9.5.1 Private sector funding for civil society

Some private sector companies are important funders – or potential funders – of civil society and conservation action. Chapter 11 reviews examples of mining, oil and gas, tourism and agroindustry initiatives, including corporate social responsibility (CSR), sustainable trade chains, and compensation payments. The private sector will also play a key role in determining whether innovative financing mechanisms (see Chapter 11) such as biodiversity credits, bonds and other social investments become significant sources of conservation finance.

9.5.2 Certification and mitigation of risks and damage

Sustainable, low-impact management of landscapes is critical for maintaining connectivity between KBAs. FSC is currently expanding in the sub-region, and 12 timber logging and processing companies are already certified in Cameroon, Côte d'Ivoire and Ghana. FSC certified companies are required to meet stringent standards that ensure the sustainable management of forests. These standards include adherence to environmental, social, and economic principles that safeguard forest resources. While FSC certification itself does not directly provide funding, it can facilitate collaborations where CSOs might partner with FSC-certified companies on community-based projects or conservation efforts. Such partnerships can potentially attract funding from other sources interested in promoting sustainable forestry practices and responsible management of forest resources.

9.5.3 Supporting CSOs to engage with the private sector

Weak engagement between civil society and the private sector is identified as a problem in the 2015 ecosystem profile and the Long-term Vision, although the Final Assessment report notes that 21 partnerships were established and/or strengthened among civil society, government, private sector and community institutions to promote best practices in mining, sustainable forestry and agriculture. The Long-Term Strategic vision concludes that strategic engagement with private sector players can be effective, citing the example of two grants which focused on mainstreaming biodiversity into the practices of mining companies. These grants contributed to encouraging companies to implement the mitigation hierarchy (avoid, minimize, restore, offset) and to engage in Public-Private Partnerships and Community Conservation Agreements.

Actions proposed to enhance collaboration between CSOs and the private sector include:

- Creating discussion platforms between conservation-focused CSOs and private companies to support companies to assess their vulnerability to environmental degradation and climate change, and in identifying more resilient and sustainable practices (private sector whose business is/are not necessarily vulnerable to environmental degradation and climate-change should also be aware of the benefits of investing in practices that are more environmentally friendly).
- Supporting the development of sustainable value chains whereby producers are encouraged in adopting sustainable practices.
- Reinforcing EIA policies, quality control systems and mitigation interventions.

- Increasing the flow of funds from the private sector towards conservation interventions using CSR, carbon credit, biodiversity offsets and PES among others.

9.6 Conclusions and recommendations

All the countries of the hotspot have an active and diverse civil society sector. The capacity of these organizations to deliver effective conservation on the ground for the benefit of biodiversity and people is variable but there appears to be a strong appetite to learn and grow. Funding, and recruiting and retaining staff are two major, inter-related problems that are widely encountered. In many countries, conservation remains heavily reliant on international CSOs. These organizations are increasingly investing in building the capacity of local community groups and CSOs, a trend which needs to be encouraged and strengthened.

While all the evidence suggests that CSOs can be more effective when they work together, especially across sectors, the reality is that competition for funding and influence makes this challenging. A key part of developing resilient CSOs will be enabling them to network and collaborate more effectively.

West Africa CSOs work in challenging economic and political contexts. While most countries in the region are nominally democratic, with space for CSOs to mobilize and act, there are also many examples of repression, corruption and elite capture of institutions and financial opportunities. Recent coups and outbreaks of insecurity and violence in several countries show that progress is fragile and can easily be undermined by economic and political forces.

The role of the private sector is complex. Natural resource companies are drivers of forest loss and degradation, but may also be important contributors both to national economies and civil society funding. They have close relationships with government and other powerful elites. CSO need to become more adept at influencing these actors, working with them where appropriate, challenging them when necessary. International networks and collaboration can be critical to success, especially when challenging multinational companies.

In this context, CEPF's aim of building resilient civil society is critical. Several key conclusions and lessons emerge from this chapter and discussions (for example in the Long-term strategic vision for the hotspot):

- CSOs will be a stronger position to work with government and private sector if they are legitimate. Legitimacy is a product of delivering effective projects which are valued by local stakeholders; accountability to donors and stakeholders at projects sites; transparency and fulfilment of legal requirements; clearly thought-out and communicated objectives and strategy, backed by analysis.
- Although networking and collaboration is critical, it cannot be imposed through donor requirements alone. CEPF's role is to facilitate greater contact between CSOs, and create opportunities for sharing and collaboration to emerge, which could then be funded through joint proposals.
- Similarly, capacity development and organizational development should build on a genuine interest and commitment from the organization to grow and improve, and not be simply a response to donor conditionalities or opportunities.
- Despite efforts to move away from donor-dependence and project-driven approaches, CSOs will be dependent on external donors for some time to come. There is a need to minimize the impact of donor-driven agendas and requirements. Donor coordination, sharing information and harmonizing approaches, can make it less burdensome for CSOs to meet donor requirements and use funds in more flexible ways.

10. CLIMATE CHANGE ASSESSMENT

10.1 The global picture

(Note: the figures in this section are from the Sixth Assessment report of the Inter-governmental Panel on Climate Change (IPCC 2023), unless otherwise referenced.)

Human-caused global climate change is a growing threat to societies, economies and the environment, with complex and inter-related impacts on each of these areas. Climate change is caused by the release of greenhouse gases (primarily carbon dioxide, methane and nitrous oxide) from human activities. In 2019, atmospheric CO_2 concentrations were 410 parts per million, higher than at any time in at least 2 million years, while concentrations of methane (1866 parts per billion) and nitrous oxide (332 parts per billion) were higher than at any time in at least 800,000 years. The level of emissions continues to grow: in 2019, global net anthropogenic emissions were estimated to be 59 $GtCO_{2e}$, 12% higher than emissions in 2010 and 54% higher than 1990. As a result, the global surface temperature was, on average, 1.09^{o}C warmer over the decade 2011-2020 than it was between 1850-1900. Warmer temperatures have caused or contributed to sea level rise, acidification of sea water, heatwaves, extreme precipitation, droughts and cyclones, and changes in the frequency and distribution of wildfires, pests and diseases. These impacts will intensify as emissions continue. Climate change impacts food, water and economic security for human populations, in extreme cases causing displacement.

Globally, in 2019, about 79% of emissions were from energy, industry, transport, and buildings, while 22% were from agriculture, forestry and other land use. While there has been some progress in transitioning to renewable energy sources and less carbon-intensive production, the reductions in emissions from these changes are currently outstripped by the growth from increased economic activity.

Most countries globally have agreed to address climate change through the mechanism of the Paris agreement. However, the level of emissions reductions contained in current national determined commitments (NDCs) makes it likely (according to the IPCC assessment) that the world will exceed 1.5^{0}C of warming in the 21st century.

Climate change impacts biodiversity in a number of ways. Changes in rainfall, humidity, temperature and other factors in the physical environment directly impact on the ability of species to live, grow and reproduce successfully. There may be additional pressures from pests, diseases or competitor species. Some species may be able to move to areas which are still suitable for them, but others will be unable to move and will become locally extinct. As a result, ecological communities will change, and the complex web of interactions between species, such as pollination, seed dispersal, and food availability, may be disrupted. Where species' populations are already small, as is the case for many threatened endemics, the greater frequency and intensity of fire, storms or other extreme events increases the risk of extinction as a result of a one-off event. Even intact tropical forest landscapes affected by climate-change induced changes to humidity and dry season length, which are linked to declines in the number and diversity of species they support (Wolfe *et al.* 2025).

Biodiversity will also be impacted indirectly by climate change, as a result of the changes to human activities. Pests, diseases and changing local climates will affect which crops can be grown, and where. Farmers may respond to changing conditions by seeking new land – moving higher up mountains, for example, or by clearing forest to access fertile soils. Where indigenous and local systems to regulate fishing, hunting and gathering of wild products have ensured sustainable harvest, there is a risk that these relationships change and become unsustainable. Poverty is an important driver of deforestation and unsustainable land use in the hotspot (Chapter 6), and the disruption caused by climate

change is expected to make rural livelihoods more insecure, undermine efforts to address poverty, and so put greater pressure on subsistence use of natural resources.

10.2 Greenhouse gas emissions in the hotspot countries

In 2023, hotspot countries emitted the equivalent of 572 million tons of CO_2[50] or 1.1% of global emissions. People in the hotspot produce far less emissions per capita than the global average – only 1.55 tons of CO_2e per person per year in 2023, well below the global average of 6.59 tons per person. Emissions from individual countries correspond to the size of their economy and population, with Nigeria responsible for 67% of the hotspot countries' emissions.

The Agriculture, Forestry, and Other Land Uses (AFOLU) sector, which is normally divided into (a) Land use, land use change, and forestry (LULUCF) and (b) Agriculture, is important because, uniquely among economic sectors, it has the potential to absorb more greenhouses gases than it emits. Reducing emissions of greenhouse gases and increasing their sequestration is a priority under the Paris agreement, and these objectives align strongly with biodiversity conservation priorities, as they typically involve retaining and restoring forest and other high-carbon ecosystems, as well as encouraging more sustainable land use practices. Models to finance emissions reductions, including REDD+ have developed in recognition of the particular role of land use and forestry in emissions reduction. A detailed discussion of AFOLU and associated issues is available on the IPCC website, https://www.ipcc.ch/report/ar6/wg3/chapter/chapter-7/.

Data on LULUCF net emissions for 2001-2018 (Mostefaoui *et al.* 2024) suggest that the land use – forestry sectors of four countries absorbed more CO_2 than they emitted during this period, while Guinea, Nigeria and Togo emitted more than they absorbed. Ghana was near neutral (Table 10.1).

Table 10.1. Total GHG Emissions, Percent of Global Emissions, Per Capita Emissions, and Emissions from LULUCF in Hotspot Countries

Country	2023 Emissions (Mt CO_2e)	Percent of global emissions in 2023	Per capita GHG emissions (tons CO_2e per capita) in 2023	Emissions from LULUCF (Mt CO_2e per year)
Benin	16.7	0.03	1.27	-14.6
Cameroon	39.38	0.07	1.41	-77
Côte d'Ivoire	32.18	0.06	1.14	-20
Equatorial Guinea	6.98	0.01	4.52	No data
Ghana	48.27	0.09	1.48	1
Guinea	28.63	0.05	1.93	34
Liberia	4.53	0.01	0.82	-96
Nigeria	385.11	0.73	1.73	98
São Tomé - Principe	0.3	0	1.3	No data
Sierra Leone	6.94	0.01	0.81	No data
Togo	10.61	0.02	1.18	9.1
Hotspot total	**572.65**	**1.1**	**1.55**	
World	**52,962.9**	**100**	**6.59**	

Sources: columns 2,3,4: IPCC; column 5: Mostefaoui *et al.* (2024).

[50] European Union: https://edgar.jrc.ec.europa.eu/report_2024?vis=ghgpop#sources

10.3 KBAs and carbon storage in the hotspot

Buchanan *et al.* (2021) estimated that the forests and top 30 cm of soils of the countries of the hotspot (excluding São Tomé and Príncipe) sequester 38.7 million tons of carbon per year (2018), with the highest rates in Cameroon and Liberia. KBAs accounted for 6.3 million tons per year (16%) of this amount. They identify the potential to sequester a further 27 million tons per annum (1.5 million tons in KBAs) if the forest lost in these areas between 2010 and 2018 is restored.

10.4 Climate change in the hotspot

The climate of West Africa is characterized by a north-south gradient, with southern areas being cooler and wetter, and the northern areas drier and hotter. Climatic conditions which support the growth of tropical rainforest – and therefore define the limits of the GFWA hotspot – are generally found in the wetter southern zone, with some forested mountains further north where altitude and topography causes sufficient rainfall to support evergreen forest vegetation.

10.4.1 Observed changes in temperature

In the western part of the hotspot (Guinea, Sierra Leone and Liberia) there has been a mild warming trend. In central and eastern parts of the hotspot, there is no clear warming trend (Docherty *et al*. 2022). Nevertheless, extreme heat events have become more common. In February 2024, most of West Africa experienced extreme heat, with Accra recording its highest ever temperature (38°C), hottest nights ever recorded in Ghana, Togo and Benin, and temperatures of 40°C recorded in several places.[51]

10.4.2 Projected temperature change

Between 2020 and 2050, the mean annual temperature across the hotspot is expected to rise by between 1.5^{0}C and 3^{0}C. Given the low range of temperature variation, which is currently experienced in this zone, these changes will take temperatures outside the current normal range.

10.4.3 Observed changes in rainfall

The western part of the hotspot (Guinea, Sierra Leone, Liberia) experiences the highest rainfall in the hotspot, typically during a single-peaked wet season. There is large inter-annual variability in rainfall totals. The central and eastern part of the hotspot, from Côte d'Ivoire to Nigeria, experiences a double peak of rainfall, in June and September, associated with the West African monsoon and migration of the inter-continental convergence zone northwards and then southwards across the coastal region. At the level of the whole of West Africa there is a general pattern of increasing rainfall in the north east (e.g. Lake Chad) and decreasing rainfall in the west, but the data for the hotspot does not show a consistent pattern of change in rainfall (Doherty *et al.* 2022).

10.4.4 Projected rainfall change

Models of rainfall change have less confidence attached to them than the models of temperature change. However, it is expected that annual variability, the number of high intensity rainfall events and the number of drought days will all increase[52]. In the western part of the hotspot there will be reductions in rainfall in the early part of the rainy season associated with delays in the onset of the rains. The rainy season will not just shift to later in the year, however. In extreme western end of the hotspot (Guinea, Sierra Leone) the rainy season is likely to get shorter, with later onset and earlier halt to

[51] https://www.carbonbrief.org/climate-change-made-west-africas-dangerous-humid-heatwave-10-times-more-likely/

[52] west-africa-climate-risk-report-final.pdf

the rains. East of this, in Liberia, later onset is expected to be more than compensated for by a later end to the rains, resulting in a longer rainy season overall. Across the rest of the hotspot, from Côte d'Ivoire and Ghana to Nigeria, annual variability in rainfall totals and intensity is expected to increase, but a shift in the rainy season is not expected. Some models predict increases in peak river flows, potentially leading to flooding, in several of the region's larger rivers (Docherty *et al*. 2022).

10.4.5 Observed changes in sea level

One study in Togo (Konko *et al.* 2024) found evidence of increasing annual sea levels, and greater wave energy. The local impact of these changes (e.g. erosion, accretion) is dependent on local substrate and topography. Erosion has been reported from several locations on the Ghanaian coast.[53].

10.4.6 Projected sea level rise and changes to marine ecosystems

It is predicted that sea levels will rise around the entire coastline of the hotspot by around 0.3 meters between 2000 and 2050, with impacts on coastal livelihoods, infrastructure and ecosystems, including salt-water intrusion into coastal wetlands. Increases in sea surface temperature and ocean acidity are also expected, and will impact on marine organisms and ecosystems, and therefore also on the livelihoods of coastal communities which depend on them. Changes in ocean currents (the eastwards-flowing Guinea current and the cold-water upwelling in the Gulf of Guinea) are uncertain, but any changes would be likely to have a large impact on the productivity and biodiversity of the region.

10.5 Impacts and responses

Expected climate change impacts, and potential adaptive responses relevant to the management of natural resources are summarized below.

Table 10.2. Impacts and responses

Sector/ resource	Areas impacted by climate change	Responses
Water	• Increased water stress • Depletion of ground water • Flood and drought more common and more extreme • Changes in river flow • Concentration of pollutants	• Land management to increase ground water recharge, minimize erosive run-off • Water conservation and efficiency measures • Increase domestic and local water storage capacity • Land restoration and reforestation on upper catchments
Agricultural production	• Rainfed agriculture more vulnerable to failure • Change in pests, diseases • Changes in yields and growing season • Changes in climatic suitability for crops • Competition for water and fertile land	• Climate smart agriculture (e.g. soil management to maximize organic matter and retain water0) • Resistant cultivars and crops • Efficient water use

[53] E.g. Sea-Level Rise: West Africa Is Sinking | Earth.Org

Sector/ resource	Areas impacted by climate change	Responses
Pastoralism and livestock	• Animal health impacts • Food availability • Conflict over access to water and grazing land	• Alternative livestock species New grazing areas • Alternative sources of food and water for livestock
Forests and natural resources	• Increased fire frequency and intensity • Changes to fruiting, seeding seasons • Changes to availability of forest products • Prevalence of pests and diseases • Changes to species composition of ecosystems, especially edge effects	• Manage use of fire to minimize risk Maintain diversity of ecosystem to maximize resilience • Maintain connectivity and integrity of forest patches to minimize edge effects • Monitor stock and harvest of forest products and adapt to changing availability
Coastal regions	• Loss of beaches and coastal ecosystems • Changed patterns of deposition and erosion • Shoreline retreat, collapse of coastal infrastructure • Saltwater intrusion into water supply and soils	• Plan for more frequent flood and storm surge events • Nature-based coastal protection (e.g. mangrove restoration)
Marine fisheries	• Changes in availability and seasonality of fish species	• Address other pressures on fisheries (e.g. over-exploitation by foreign trawlers)

Source: Doherty *et al.* (2022).

11. ASSESSMENT OF CURRENT CONSERVATION INVESTMENT

This chapter assesses the current landscape of biodiversity conservation investments across the Guinean Forests of West Africa. It reviews global biodiversity finance, and then considers biodiversity conservation funding in the hotspot from multilateral and bilateral donors, philanthropic foundations and international NGOs, with specific reference to access to these funds for CSOs. Large strategic projects and private sector programs are also covered.

11.1 Global and regional trends in biodiversity finance

11.1.1 Growth of global biodiversity finance (2015–2022)[54]

Between 2015 and 2022, global biodiversity finance experienced significant growth, driven by both public and private sectors. Public international biodiversity finance expanded from approximately US$10.9 billion in 2015 to US$25.8 billion in 2022. This growth reflects heightened international commitment, fueled by the implementation of frameworks such as the Kunming-Montreal Global Biodiversity Framework.

Development Assistance Committee (DAC) members, along with multilateral organizations like the GEF and the Green Climate Fund (GCF), contributed heavily to biodiversity finance, especially in low- and middle-income countries. Contributions from these institutions rose by 123% between 2021 and 2022 alone, demonstrating the strategic priority placed on biodiversity within broader development objectives.

There has been a notable shift towards leveraging private finance for biodiversity projects. Private contributions, often mobilized through public initiatives, doubled from US$748 million in 2021 to US$1.8 billion in 2022.

Biodiversity finance has increasingly aligned with climate change mitigation and adaptation efforts. By 2021, nearly 88% of biodiversity-focused Official Development Assistance projects also targeted climate objectives, underscoring a trend towards projects that generate co-benefits for biodiversity and climate resilience. This integration is driven by the recognition that preserving biodiversity plays a vital role in climate adaptation strategies, especially in regions susceptible to environmental degradation.

Despite substantial increases in funding, global biodiversity finance faces several ongoing challenges:

- The funding gap remains considerable, particularly to meet global targets like those set under the Kunming-Montreal framework.
- There is limited integration of biodiversity finance across other sectors, such as agriculture and infrastructure, missing opportunities for substantial co-benefits that could arise from integrated planning.

In an important trend, innovative financing tools are gaining prominence:

- Green Bonds and Biodiversity Credits: Designed to tap into private capital, green bonds allow investors to support environmentally friendly projects, while biodiversity credits enable companies to offset environmental impacts.
- Impact Investing and Blended Finance: Public-private partnerships and blended finance structures are being explored to attract more private investors by

[54] OECD (2024), Biodiversity and Development Finance 2015-2022: Contributing to Target 19 of the Kunming-Montreal Global Biodiversity Framework, OECD Publishing, Paris, https://doi.org/10.1787/d26526ad-en

reducing investment risks, making biodiversity projects more appealing and financially viable.

Africa receives substantial attention within global biodiversity finance, accounting for around 35% of philanthropic funding directed at biodiversity-rich areas globally[55]. From 2015 to 2022, both multilateral and bilateral donors prioritized biodiversity-related projects across the continent.

11.1.2 Official Development Assistance (ODA)[56]

Countries in the hotspot received net ODA of US$14 billion in 2022, with the largest sums going to Nigeria, Ghana and Côte d'Ivoire. The largest donor overall was the International Development Association (IDA, part of the World Bank), following by several bilateral and multilateral donors (Table 11.1).

National ODA receipts (2016 to 2023) show notable but varied levels of support. ODA allocations have generally risen, driven by commitments to poverty reduction, infrastructure development, and sustainable economic growth. However, the distribution varies considerably, with larger economies like Nigeria and Ghana receiving substantial portions due to their population size and strategic importance. A significant portion of ODA is climate-related, especially in sectors such as agriculture, forestry, and fishing, which are vital for biodiversity and climate adaptation. Funding has emphasized infrastructure, healthcare, and education, with additional resources directed to sectors tied closely to climate mitigation and adaptation.

Table 11.1. 2022 Net ODA Receipts by Country, with top 5 donors

Country	Income group	Top 5 donors*	Net ODA (US$ million)
Benin	Lower middle	IDA; France; USA, IsDB; Germany	968
Cameroon	Lower middle	IDA; France; USA, IsDB; Germany	1,687
Côte d'Ivoire	Lower middle	IDA; France; Belgium; Germany; AfDB	2,840
Equatorial Guinea	Upper middle	USA; Portugal; Spain; France; United Nations Population Fund (UNFPA)	479
Ghana	Lower middle	Netherlands; Sweden; Switzerland; IDA; Mastercard Foundation	1,928
Guinea	Lower middle	IDA; EU; Global Fund; France; USA	446
Liberia	Low	USA; Japan; IDA; Korea; Sweden	878
Nigeria	Lower middle	ISA; USA; Global Fund; UK; Bill&Melinda Gates Foundation	3,896
São Tomé and Príncipe	Lower middle	Portugal; IDA; EU; France; Global Fund	64
Sierra Leone	Low	IDA; UK; USA; Global Fund; EU	535
Togo	Low	IDA; France; Global Fund; EU; Germany	381
		Total	**14,103**

Source: OECD, Aid Statistics[57]. * IsDB – Islamic Development Bank; AfDB – African Development Bank

Several DAC members have allocated ODA in alignment with the OECD's climate and biodiversity Rio markers, ensuring a greater flow of funding into environmental

[55] Research by Mongabay on philanthopic support for biodivesity conservation publihsed in 2023 (Bankrolling biodiversity: How are private philanthropists investing in nature?) found a total allocation of US$1.2 billion, with US$411 million for Africa. Africa would also share in transational funding which comprises another 35%.
[56] Organization for Economic Co-operation and Development (OECD). "Official Development Assistance (ODA) Data." https://data.oecd.org/oda/, accessed October 25, 2024.
[57] Detailed aid statistics: Total receipts (Edition 2023) | OECD International Development Statistics | OECD iLibrary

conservation alongside traditional developmental objectives. Despite increases, ODA levels still fall short of meeting the vast biodiversity and climate adaptation needs across the region. Financial support often does not fully cover the resources needed for effective biodiversity conservation, nor does it adequately address capacity-building for local environmental governance.

11.2 Major sources of conservation investments in the GFWA

11.2.1 Multilateral funding programs

Global Environment Facility (GEF)

The GEF is the leading direct investor in biodiversity conservation in the hotspot. A new four-year round of funding, GEF-8, was approved in July 2022, with the first projects expected to start by the end of 2024. Meanwhile, projects from previous cycles (GEF-5 to GEF-7) are still ongoing.

GEF projects are implemented by governments and civil society organizations with the support of GEF agencies, which in the Guinean Forests of West Africa include UNDP, UNEP, UN Industrial Development Organization (UNIDO), World Bank, FAO, AfDB, IFAD, CI, and IUCN.

GEF allocates funding for country level action on biodiversity, climate change, and land degradation under the System for Transparent Allocation of Resources (STAR). Under GEF 8, the STAR allocations across the 11 hotspot countries total over US$134 million, a one-third increase from the previous (2018 - 2022) funding round, with an increase of almost 50% in funding earmarked for biodiversity.

Table 11.2. GEF 7 and 8 STAR Allocations to Hotspot Countries, by Focal Area[58]

Countries	GEF8 STAR per focal areas				GEF7 STAR per focal areas			
	Climate Change	Biodiversity	Land Degradation	Total	Climate Change	Biodiversity	Land Degradation	Total
Benin	2	4	6.6	12.6	1.5	3	5.1	**9.6**
Cameroon	1.3	17.1	2.0	20.4	1.6	11.0	1.4	**14.0**
Côte d'Ivoire	1	7.6	4.3	12.9	1	4.7	3.3	**9.0**
Equatorial Guinea	1	3	1	5	1	2	1	**4**
Ghana	1.5	5.6	4.6	11.7	1	4.3	4.2	**9.5**
Guinea	2	5.5	3.6	11.2	1.5	3.7	1.9	**7.1**
Liberia	2	4.6	2	8.6	1.5	3.1	1.5	**6.1**
Nigeria	8.3	8.4	4.8	21.4	10.8	5.6	4.3	**20.7**
São Tomé and Príncipe	2	4.8	3.6	10.4	1.5	3.4	3.4	**8.3**
Sierra Leone	2	4	2.5	8.5	1.5	3	1.5	**6**
Togo	2	4	5.5	11.5	1.5	3	2.7	**7.2**
Total	**25.1**	**68.6**	**40.5**	**134.2**	**24.4**	**46.8**	**30.3**	**101.5**

Of the biodiversity funding under GEF 8, US$17 million (25%) is allocated to Cameroon, about 12% each to Nigeria and Côte d'Ivoire, while the other countries receive about 6%

[58] Global Environment Facility (2022) INITIAL GEF-8 STAR COUNTRY ALLOCATIONS. GEF/C.63/Inf.05, 63rd GEF Council Meeting, December 5 - 9, 2022, Washington DC and Global Environment Facility (2018) INITIAL GEF-7 STAR COUNTRY ALLOCATIONS. GEF/C.55/Inf.03, 55th GEF Council Meeting, December 18-20, 2018, Washington DC

each. Cameroon and Côte d'Ivoire have seen the largest increases in biodiversity funding from GEF 7 to GEF 8, but there are substantial (>30%) increases for all countries.

In addition to the STAR allocations, GEF funding is channeled through the following funding areas:

- International Waters supports the protection and sustainable management of transboundary water systems, including rivers, lakes, groundwater, and marine ecosystems. The Mano River Union (MRU) program (see below) is funded under this line.
- Sustainable Forest Management is for projects that combat deforestation and enhance carbon sequestration in forest landscapes.
- Chemicals and Waste addresses persistent organic pollutants, mercury, and other hazardous substances. Funding under this area supports countries in fulfilling their obligations under the Stockholm convention on Persistent organic pollutants, and the Minamata Convention on mercury.
- Cross-Cutting Capacity Development supports countries to develop the skills and institutions necessary to address environmental issues and comply with global environmental agreements.

GEF also supports large *Impact Programs*, designed to create large-scale environmental impacts across multiple countries by focusing on critical thematic areas. Impact Programs focus on Food Systems, Land Use, and Restoration (FOLUR); Sustainable Cities; and Sustainable Forest Management. Each Impact Program involves a series of interconnected projects (referred to as Child Projects) which have base funding from national STAR allocations and top-up funding to enhance the scale or scope of the impact. They are co-financed, and involve multiple stakeholders including governments, civil society, and the private sector. The programs are intended to foster synergies across projects, scale up impacts, and facilitate knowledge sharing among participating countries and entities. The Guinean Forests Integrated Program is at the approval stage.

Some 43 GEF projects under the biodiversity funding area are active in the hotspot, with a total GEF grant value of over US$700 million (this includes several global and regional projects which include many countries outside the hotspot). Every country in the hotspot is included in at least two projects, but eleven include Cameroon, seven include São Tomé- Príncipe, and six each include Guinea and Côte d'Ivoire. Key Areas of focus of GEF projects in the Guinean Forests are:

- Protected Areas and Key Biodiversity Areas (KBAs): Projects focus on enhancing the management of protected areas such as Sapo National Park (Liberia), Taï National Park (Côte d'Ivoire), and Cross River National Park (Nigeria). GEF's approach integrates biodiversity with climate resilience.
- Sustainable Land Management: Initiatives such as the Food Systems, Land Use, and Restoration Impact Program (FOLUR) promote sustainable land use across Côte d'Ivoire, Ghana, Guinea, and Liberia, aligning commodity chains like cocoa and palm oil with conservation.
- Climate Resilience and Mitigation: By integrating climate-smart agriculture and land-use planning, GEF projects reduce the environmental impacts of artisanal mining and unsustainable farming, while programs like planetGOLD work to formalize gold mining with mercury-free practices to preserve ecosystems.
- Capacity development and Governance: GEF enhances CSO capacities through training on sustainable practices, environmental monitoring, and policy engagement, particularly for transboundary projects. This capacity development extends to local communities, empowering them to manage biodiversity sustainably.

- GEF is funding each country in the hotspot to revise its NBSAP, to align with the objectives and targets adopted through the Global Biodiversity Framework. UNEP is the implementing agency.

Among the large-scale GEF funded projects in the hotspot are:

- *Food Systems, Land Use, and Restoration Impact Program (FOLUR)* (US$345 million, 2020–2027). This program operates in Côte d'Ivoire, Ghana, Guinea, and Liberia, encompassing important landscapes such as Mount Nimba (Guinea/Liberia), Gola Rainforest National Park (Sierra Leone/Liberia), Taï National Park (Côte d'Ivoire), and the Gola-Lofa-Mano and Taï-Grebo-Krahn-Sapo corridors. It addresses sustainable land use, food systems, and greening of commodity chains (notably palm oil and cocoa) that drive deforestation. Through spatial land use planning, community governance, and capacity-building, FOLUR's work aims to preserve fragmented forest landscapes and reduce deforestation pressure in these regions.
- *Global Opportunities for Long-term Development of Artisanal Small-scale Gold Mining (ASGM) Sector Plus (planetGOLD)* (US$180 million for multiple participating countries, 2019–2025). The program is active in Côte d'Ivoire, Ghana, Guinea, and Sierra Leone. It operates in areas impacted by pressures from artisanal and small-scale gold mining, leading to forest degradation, soil contamination, and water pollution. The project aims to mitigate environmental impacts by reducing mercury use and formalizing the ASGM sector.
- *Strengthening Conservation of Primary Forests through Partnership Enhancement and Coordination of Support* (US$2 million, 2024–2026) is a global project addressing the loss of tropical primary forests through (1) knowledge dissemination and capacity development, to ensure their inclusion in forest financing strategies, conservation initiatives, and the global policy agenda; (2) stimulate financing for tropical primary forest conservation by establishing robust donor-recipient dialogue and coordination mechanisms and providing information on financing opportunities. The project seeks to enhance the work of the Global Forest Financing Facilitation Network, supporting countries in developing forest finance strategies that prioritize intact tropical primary forests.
- *Mano River Union Ecosystem Conservation and International Water Resources Management Project* (US$6.3 GEF funding and total financing of US$63 million, implemented by IUCN with the Mano River Union Secretariat as the executing agency) encompasses Côte d'Ivoire, Guinea, Liberia, and Sierra Leone. Its primary objectives include sustainable management of the Upper Guinea forest ecosystem and enhanced governance of transboundary water resources. Key activities include institutional reforms, community-based forest management, and the establishment of regional cooperation frameworks to support sustainable ecosystem use. A second phase of funding is expected under GEF 8.

GEF also support a small grants program, discussed in Section 11.4.1.

CSOs, including international NGOs or strong country-based NGOs, may serve as implementing partners or co-executing agencies for GEF projects under STAR, especially in areas related to community-based conservation, sustainable livelihoods, and local governance. Arrangements for the involvement of CSOs are validated at national level during the Project Preparation phase and included in the contractual arrangements for the project. The government usually acts as the executing agency, and retains a right of supervision. Local NGOs can also be considered as technical partners of state institutions for specific activities and can be contracted under sub-grants or service provision as part of the project's outputs. In the case of the GFIP (see Section 11.3.1), the Society for Conservation of Nature in Liberia will be co-executing the project with the Forestry Development Authority, the agency responsible for protected areas. Importantly, GEF

STAR funding does not offer flexibility to CSOs for their internal development and long-term post-project arrangements.

CSOs are frequently involved in the design and planning stages of GEF projects through stakeholder consultations, participatory workshops, and focus group discussions. Their input aims to tailor projects to local contexts and reflect community priorities. However, as funds are under national authority, decisions are ultimately made by state institutions, limiting the lobbying capacity of civil society organizations. Mechanisms may exist for the inclusion of CSOs and communities in decision-making processes during implementation, for example through representation in project steering committees. In practice, however, the role of civil society is limited and depends on the commitment and approach of the agencies, as well as their relationships to national authorities.

GEF projects often include capacity-building components aimed at strengthening the governance and technical capacities of CSOs. This includes training on sustainable land-use practices, environmental monitoring, advocacy, and policy engagement. By enhancing the capabilities of CSOs, GEF projects contribute to long-term sustainability beyond the lifespan of the individual project. Additionally, CSOs play a key role in knowledge sharing and dissemination of best practices through workshops, publications, and online platforms. This contributes to regional learning and helps replicate successful conservation models in other contexts.

Green Climate Fund
The GCF is the world's largest climate finance institution, established by the United Nations Framework Convention on Climate Change (UNFCCC) to help developing countries respond to climate change. Although GCF's primary focus is on climate change mitigation and adaptation, it also indirectly supports biodiversity conservation through projects that target ecosystem resilience, sustainable land use, and reforestation.

In the Guinean Forests of West Africa hotspot, the GCF has supported 93 projects with investments of over US$886 million. The projects promote ecosystem-based adaptation, forest conservation, and sustainable agriculture. Important projects include:

- The FAO-led *REDD+ Readiness*[59] project supports institutional and technical frameworks for REDD+ readiness across several West African countries, including Guinea and Sierra Leone. The initiative focuses on reducing emissions from deforestation and forest degradation by strengthening local capacities and forest monitoring systems, with the ultimate aim of preserving forest cover and promoting sustainable land management.
- The *Climate Resilience Project in Guinée Forestière*[60], implemented by UNDP and funded by GCF, is enhancing climate resilience by introducing climate-smart agricultural practices and improving water resource management. It specifically targets vulnerable communities, including those near Mount Nimba and Ziama Forest.

[59] FAO. (2024, June 14). FAO launches Green Climate Fund readiness project to combat deforestation and forest degradation in West Africa. Retrieved from https://www.fao.org/countryprofiles/news-archive/detail-news/en/c/1697819/

[60] UNDP. (2023, May 12). Guinea launches project aimed at strengthening the climate resilience of communities in its forested region. Retrieved from https://www.undp.org/africa/press-releases/guinea-launches-project-aimed-strengthening-climate-resilience-communities-its-forested-region

Table 11.3. Individual Projects Funded by the Green Climate Fund

Country	Number of projects funded	Total amount of financing (US$ million)
Benin	11	88.2
Cameroon	8	61
Côte d'Ivoire	13	108.7
Equatorial Guinea	8	2.9
Ghana	9	128
Guinea	8	73.6
Liberia	3	44.5
Nigeria	15	193.9
Sierra Leone	8	75
São Tomé and Príncipe	1	17.4
Togo	9	93.4
Total	**93**	**886.6**

Source: GCF[61].

The GCF's collaboration with CSOs faces limitations in accessibility, capacity development, and project sustainability[62]. Although GCF's Readiness Program helps CSOs in developing countries prepare for climate finance, it remains challenging for smaller or less-resourced CSOs to meet the rigorous requirements for GCF accreditation and funding access. Many CSOs also lack the technical capacity to manage complex climate finance projects effectively, including monitoring, evaluation and reporting requirements. Also, post-funding sustainability is a critical issue, as many CSO-led projects rely on short-term grants, leading to gaps in long-term impact after GCF funding ends. Finaly, while GCF's projects often target high-level outcomes, they may sometimes overlook the nuances of local community needs or lack mechanisms for equitable benefit sharing. This can reduce the effectiveness and local support for conservation initiatives.

There is, nevertheless, an opportunity for CEPF to support stronger CSO partners to prepare to access GCF funding. Priorities are:

- Training on project management, especially in monitoring and evaluation.
- Capacity-building to assist CSOs in meeting the required standards in proposal development, legal and financial management.
- Supporting development of business plans and revenue-generating components within projects to ensure sustainability, including promoting partnerships with private sector entities.
- Facilitating community consultations and participatory project design sessions, emphasizing inclusive planning to develop projects that are responsive to local needs.

The World Bank

The World Bank plays an important role in shaping the financial landscapes of many poor countries around the globe, working through the International Development Association (IDA) and the International Bank for Reconstruction and Development (IBRD). Integration of social and environmental issues into its safeguards and funding criteria provide important momentum for mainstreaming these issues across sectors.

The IDA provides concessional loans to low income countries. The IDA is funded through three-yearly replenishments, with the final pledging meeting for the 21st replenishment

[61] Details avauilable at: Approved projects | Green Climate Fund

[62] Green Climate Fund. (n.d.). Thematic Brief: Civil Society Partnership for Integrity in Climate Action. Retrieved from https://iiu.greenclimate.fund/document/thematic-brief-civil-society-partnership-integrity-climate-action

in December 2024 resulting in commitments of US$100 billion[63]. Replenishment negotiations are a platform for agreement of strategic directions and financial commitments, including a focus on climate change and biodiversity.

Unlike IDA, the IBRD raises funds primarily through the issuance of bonds in the world's financial markets. The operations of the IBRD are funded through its own earnings and the capital contributions from its member country shareholders.

Among the countries of the hotspot:

- Guinea, Sierra Leone, Liberia, Côte d'Ivoire, Togo, Benin, and São Tomé and Príncipe are IDA eligible, reflecting their status as lower-income countries.
- Ghana, Nigeria and Cameroon currently have 'blend' status, making them eligible for both IDA concessional loans and IBRD non-concessional loans, indicating a transitional economic position.
- Equatorial Guinea is only eligible for IBRD funding, as its economic standing does not qualify for IDA's concessional finance.

The World Bank's engagement in the Guinean Forests spans several critical projects, including enhancing forest management, conservation, and sustainable development with significant financial investments.

The *Forest for Development, Climate, and Biodiversity* Global Challenge Program combines public and private capital to support countries in developing their REDD+ and Carbon Programs, offering financial and technical assistance to engage in carbon finance mechanisms. In particular, the Partnership for Market Implementation[64] aims to support carbon pricing initiatives in at least 10 developing countries directly, with plans to assist an additional 20 countries in getting ready for such implementations. This project started operations in July 2020 and is expected to continue for a decade, with a total capitalization target of US$250 million.

In the Guinean Forests of West Africa, notable projects include:

- The *Guinea Partnership for Market Implementation Readiness Support Plan* (2023-2025) aims to develop Guinea's capacity for a comprehensive forest, land use, and biomass monitoring system.
- The *Côte d'Ivoire Forest Investment Project* (P175982; 2022-2029; phase 2: US$148 million; implemented by the Ministry of Environment and Sustainable Development) supports large-scale reforestation and agroforestry, facilitated by a payment-for-result program that encourages south-south exchanges and capacity development.
- The *Côte d'Ivoire Tai National Park Area Emission Reductions Program* (P170309; 2021-2025; US$50 million; implemented by SEP-REDD+ (Environmental and Social Strategy for REDD+)) focuses on south-south exchanges on forest carbon financing, enhancing the region's capacity to engage in international carbon markets.

[63] IDA21 cobbles together $100 billion replenishment in context of wider aid cuts - Bretton Woods Project

[64] World Bank. (2019, December 10). At COP25, the World Bank Announces Global Partnership for Implementing Carbon Markets. Retrieved from https://www.worldbank.org/en/news/press-release/2019/12/10/at-cop25-the-world-bank-announces-global-partnership-for-implementing-carbon-markets

The World Bank's *SCALE*[65] *(Scaling Climate Action by Lowering Emissions)* project is designed to catalyze transformative climate action with a significant funding pool. It specifically aims to mobilize resources for generating and transacting high-integrity, socially inclusive carbon credits, facilitating access to international carbon markets. It aims to help countries reduce greenhouse gas GHG) emissions and achieve low-carbon development. This includes substantial funding allocations internal to the World Bank to unlock opportunities.

Important World Bank supported initiatives in the hotspot include:

- The *Côte d'Ivoire Emission Reductions Payment Agreement* targets a total of 10 million tons[66]. To date, the country has secured US$35 million for reducing 7 million tons of carbon emissions. Côte d'Ivoire's initial audit justified 75% of the credits, with surplus credits expected in the second audit. The funds are directed through a benefit sharing agreement to the Ivorian Office of Parks and Reserves (OIPR) and the Foundation for Parks and Reserves of Côte d'Ivoire (FPRCI), implying they will be used to support the management of the Taï National Park. Challenges include implementing a robust benefit-sharing plan to generate additional credits.
- Ghana has earned US$21.8 million for avoiding 4.3 million tons of carbon emissions through activities to reduce deforestation and forest degradation . The initiative is based on intensifying cocoa production, which involves reducing deforestation. The benefit-sharing plan does not directly involve the protected areas network, but it may benefit biodiversity by protecting corridors between KBA.
- The *Guinea Natural Resources, Mining and Environmental Management Project* (P168613; 2021-2027) focuses on reforming the Protected Area network and includes studies and the establishment of a Conservation Trust Fund supported by the private sector. It encompasses an integrated approach to natural resources and mining management. The initiative is funded by a loan of US$28 million for conservation and environmental support, managed through the Ministry of Environment and Sustainable Development, with technical support from the World Bank. The program has a US$65 million total budget if considering the mainstreaming of mining sector.

Although not focusing on forests, another notable initiative from the World Bank is the West Africa Coastal Areas Resilience Investment Project (WACA ResIP 2, US$246 million) currently focusing on Ghana, as well as the Gambia, Guinea-Bissau, and the West African Economic and Monetary Union[67]). The program aims to enhance coastal resilience, focusing on mitigating risks from coastal erosion, flooding, and pollution while promoting sustainable economic opportunities and enhancing the resilience of coastal communities. One example of the activities funded is a US$5 million PROBLUE[68] grant for Ghana, which supports a pilot mangrove blue carbon deal financed by the Danish energy company Ørsted, marine spatial planning, and marine plastics pollution management.

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[65] World Bank. (2022, November 8). World Bank Group Presents New Fund for Lowering Emissions. Retrieved from https://www.worldbank.org/en/news/press-release/2022/11/08/world-bank-group-presents-new-fund-for-lowering-emissions

[66] World Bank. (2024, June 14). Côte d'Ivoire Receives US$35 million Payment for Verified Reduction of Carbon Emissions. Retrieved from https://www.worldbank.org/en/news/press-release/2024/06/14/cote-ivoire-receives-35-million-payment-for-verified-reduction-of-carbon-emissions

[67] West Africa Coastal Areas Management Program (WACA). (2023, January 26). The Gambia, Ghana, and Guinea-Bissau join WACA. Retrieved from https://www.wacaprogram.org/article/gambia-ghana-and-guinea-bissau-join-waca

[68] World Bank. (n.d.). PROBLUE. Retrieved from https://www.worldbank.org/en/programs/problue

The *WACA Project* already significantly overlaps with the geographical scope and conservation goals of the CEPF ecosystem profile and will keep expanding its geographical scope in the coming years. WACA's investments in coastal resilience now covers nine countries in West Africa and will expand to all the Guinean Forests of West Africa hotspot countries, as well as seven regional institutions on policy harmonization and cross-border solutions for coastal management, with a US$507 million portfolio managed by the World Bank. Many partners provide financing and technical support to WACA, including the Nordic Development Fund (NDF), l'Agence Française de Développement (AFD), and the GEF.

The *Gulf of Guinea Northern Regions Social Cohesion Project* (P175043; 2022-2027), funded by World Bank through a US$450 million investment, aims to address multifaceted challenges across several countries in the Gulf of Guinea region, including Benin, Côte d'Ivoire, Ghana, and Togo. The project is designed to tackle the impacts of climate change, high demographic growth, and other non-climate-related shocks like conflict, which collectively exacerbate pressures on natural resources and intensify local tensions. The initiative focuses on enhancing social cohesion and resilience by supporting community-driven solutions and promoting local development through improved connectivity and cross-border collaboration. A critical component of the project includes building capacities and frameworks for better managing environmental and social risks, incorporating measures like Environmental and Social Management Frameworks and Resettlement Plans to ensure sustainability and inclusiveness in project implementation. Moreover, the project aims to "think regionally" by fostering a Regional Collaboration Platform that supports a coordinated regional approach and common policies across states to facilitate cross-border flows of information and policy dialogue on climate and conflict-related risks. This platform is intended to bolster regional stability and resilience, enhancing both economic opportunities and social harmony across the northern regions of the participating countries.

The World Bank typically implements its funding through a combination of grants, loans, and technical assistance to support projects. The International Development Association may use third party implementation by United Nations organizations and CSOs, especially in fragile and conflict-affected situations, but of US$8.6 billion contracted in this way between funding years 2016 and 2023, only US$203.8 million was channeled through CSOs.

To effectively leverage opportunities with the World Bank, Civil Society Organizations should ensure their projects align with the Bank's strategic priorities, including poverty reduction, environmental sustainability, and social inclusivity. Actively participating in the Bank's consultative processes and establishing networks with other development stakeholders are essential steps. Furthermore, a thorough understanding of the World Bank's funding mechanisms, as well as those of associated governments, is crucial for enhancing the prospects of successful collaboration and securing funding. This approach can serve as a strategic method for the CEPF to invest in building resilience among local and national civil society organizations. This investment would not only strengthen their capacity but also align their efforts with broader global development goals.

African Forest Landscape Restoration Initiative (AFR100)
AFR100[69] is a country-led effort to restore 100 million hectares of deforested and degraded land across Africa by 2030. This initiative is part of the African Union's Agenda 2063 and is supported by numerous international partners, including the World Resources Institute and the NEPAD, which acts as the secretariat. AFR100 operates by mobilizing political, technical, and financial support to achieve large-scale restoration and sustainable land management goals. In all hotspot countries, AFR100 supports projects

[69] AFR100. (n.d.). African Forest Landscape Restoration Initiative. Retrieved from https://afr100.org/

that include reforestation, agroforestry, and the restoration of other vegetation types. Each participating country commits to specific restoration targets and implements projects suited to their unique environmental conditions and national priorities. For instance, in countries like Ghana and Côte d'Ivoire, the focus may include restoring landscapes that are crucial for agricultural productivity and biodiversity conservation. These efforts are complemented by capacity development, knowledge sharing, and the development of financial mechanisms to support the sustainable financing of restoration activities. AFR100 also emphasizes the importance of monitoring and adaptive management to ensure that the restoration efforts meet their intended ecological and socio-economic benefits.

Several AFR100 projects across West Africa overlap with CEPF's geographical focus. Many are funded through Terrafund, AFR100's financing mechanism, which provides grants and low-interest loans to CSOs and local initiatives:

- In Benin, AFR100's project, led by CeSaReN-ONG, focuses on the restoration of sacred forests, planting 130,000 trees over 400 hectares to protect local biodiversity and enhance ecosystem health. This project contributes significantly to biodiversity by targeting species including the Endangered red-bellied monkey. With US$85,000 invested, the project requires further funding to integrate these sacred forests fully into the national protected area system.
- AFR100 has initiated various projects across Ghana, including mangrove restoration and agroforestry. Key projects such as Mending Mangroves in Ghana and Transforming Climate Challenges into Opportunities directly benefit the Ankasa Conservation Area and Bia National Park KBAs. Since 2013, projects like Hen Mpoano's mangrove restoration have aimed to restore 60 hectares and engage communities to protect against coastal erosion. Other initiatives, supported by TerraFund, focus on sustainable forestry and agricultural practices to improve food security and resilience, enhancing community involvement and addressing climate adaptation.
- In Côte d'Ivoire, AFR100's focus on mangrove restoration and community-led reforestation includes activities in the Taï-Grebo-Krahn-Sapo Corridor. Blue Forest and SOS-Forêts spearhead restoration efforts, with initial investments of US$400,000 aimed at enhancing biodiversity and promoting carbon sequestration through forest landscape restoration. Projects are ongoing and emphasize community engagement, with additional funding needed to scale up efforts and integrate carbon credit mechanisms.
- AFR100's initiatives in Togo, particularly around the Fazao-Malfakassa National Park, address environmental degradation through agroforestry and community restoration efforts. Projects led by Mouvement Alliance Paysanne du Togo and PADES educate and involve local communities in planting 800,000 trees across 1,500 hectares, with support from TerraFund.
- AFR100's work in Nigeria, overlapping with CEPF's targeted areas of the Cross River-Korup Corridor for example, includes community-driven agroforestry and sustainable land management practices. For instance, the Energy Pellets Initiative repurposes agricultural waste into biomass, reducing deforestation while providing sustainable energy. Projects supported by TerraFund engage over 100 staff and youth, emphasizing reforestation and community empowerment, though further investment is necessary to extend these efforts.
- The Forest Restoration in Conflict Areas project, led by Sustainable Run for Development, in Cameroon, around areas of Mount Cameroon and Korup National Park, addresses deforestation in conflict-affected regions, aiding communities in transitioning from forest exploitation to conservation. Supported by TerraFund, this project aims to restore habitats for species like the Nigeria-Cameroon sub-species of chimpanzee, promoting both biodiversity and community resilience.
- In Guinea, AFR100 collaborates with Association Mines Sans Pauvreté to restore degraded lands around Mount Nimba, Fouta Djallon, and Ziama Forest. From

2020 to 2022, this project restored 160 hectares, with plans to extend reforestation to 12,000 hectares. While funded by TerraFund, the project requires additional support to expand its environmental and socio-economic impacts, enhancing reforestation in areas affected by mining.

AFR100 collaborates closely with CSOs across Africa to attain its land restoration goals. This partnership approach enables CSOs to contribute local expertise and foster grassroots participation, which helps to build resilience in rural communities and ensure the long-term success of restoration efforts. The initiative includes multi-stakeholder national platforms, where CSOs work alongside government bodies, the private sector, and local communities to develop restoration plans, set priorities, and monitor progress. AFR100 actively supports these partnerships through financial resources (such as TerraFund), capacity-building workshops, and technical support to help CSOs and community-led groups restore degraded land effectively. AFR100 has also established frameworks and working groups for topics such as sustainable finance, gender and monitoring and evaluation of country-level restoration commitments.

International Fund for Agricultural Development (IFAD)
IFAD is a significant contributor to agricultural development in the Guinean Forests region. IFAD's primary focus is on supporting national agricultural intensification strategies, but it has a growing emphasis on biodiversity mainstreaming. This is evident in its support for sustainable farming practices and projects that aim to reduce deforestation and land degradation while increasing food security. Although biodiversity integration is a growing component of IFAD's work, it largely remains embedded within broader agricultural development goals rather than standalone conservation projects (Table 11.4).

IFAD operates in nearly all key landscapes and corridors within the Guinean Forests region, primarily executing projects through government partnerships. Despite having limited engagement with CSOs, there are opportunities to reinforce the integration of biodiversity into IFAD's agricultural development approach, for example promoting biodiversity-friendly practices. This is particularly important in regions where agriculture intersects with key biodiversity corridors and protected areas. CSO involvement can help ensure that agricultural development contributes positively to conservation goals, balancing food security with ecosystem preservation.

Table 11.4. IFAD's Project Investments across Hotspot Countries[70]

Country	Number of Projects in Current Portfolio	Total amount (US$ million)
Benin	14	254.45
Cameroon	13	326.04
Côte d'Ivoire	13	246.49
Equatorial Guinea	3	9.60
Ghana	20	412.42
Guinea	14	235.67
Liberia	8	149.98
Nigeria	13	633.29
São Tomé and Príncipe	7	36.20
Sierra Leone	10	216.25
Togo	9	114.70
Total	**124**	**2,635.09**

[70] IFAD Projects. Retrieved from https://www.ifad.org/en/projects-and-programmes

Food and Agriculture Organization (FAO)
Similarly to IFAD, FAO plays a crucial role in supporting environmental and agricultural initiatives across the Guinean Forests region, particularly through large-scale forest and landscape restoration projects. FAO's work aligns with several regional frameworks, such as the African Forest Landscape Restoration Initiative (AFR100) and the Bonn Challenge, to support national restoration commitments and sustainable agricultural practices.

Some key FAO projects[71] include:

- FAO collaborates with the government of Guinea through the *Forest and Landscape Restoration Mechanism (FLRM)*, to promote sustainable land use and food systems, particularly in the Faranah region and Upper Guinea. This project is part of the GEF's Food Systems, Land Use, and Restoration (FOLUR) program, with an investment of over US$10 million. It focuses on creating deforestation-free food systems, enhancing ecosystem services, and supporting local livelihoods.
- FAO's initiatives in Cameroon include the Sudano-Sahelian agro-ecological zone restoration, which is part of a broader landscape management effort in collaboration with local stakeholders to reduce land degradation. This project includes capacity development and technical assistance to align national agricultural practices with sustainable land management goals.
- In Nigeria, FAO implements the *Integrated Landscape Management for Sustainable Food Systems in the Niger Delta* project under the FOLUR program. This initiative promotes biodiversity conservation and climate resilience in one of Nigeria's most ecologically sensitive regions, supporting sustainable practices in agriculture to balance ecosystem needs.

FAO's work often intersects with conservation goals in critical landscapes, such as Mount Nimba, Ziama Forest, Taï National Park, and transboundary corridors like the Gola-Lofa-Mano Peace Park. While FAO's approach is mainly state-focused, there is potential for CSOs to play a stronger role in advocating for and reinforcing biodiversity integration within FAO-supported agricultural projects.

United Nations Environment Programme (UNEP) and United Nations Development Programme (UNDP)
UNEP and UNDP manage project portfolios beyond their GEF-funded initiatives. These portfolios primarily focus on policy development and sustainable financing:

- UNEP focuses on advancing sustainable financing mechanisms and supporting green policy frameworks that guide nations toward low-carbon, resilient economies. It collaborates with financial institutions to promote investments in renewable energy, ecosystem-based adaptation, and sustainable land use through initiatives like the UNEP Finance Initiative and Green Climate Fund.
- UNDP emphasizes policy alignment and capacity development to integrate environmental sustainability within national development agendas. Through programs such as the Green Commodities Programme and UNDP Climate Promise, UNDP works with governments to reform agricultural and forestry policies, align them with sustainable practices, and develop finance solutions for environmental initiatives.

11.2.2 Bilateral funding initiatives
The information in this section was collated between August and November 2024. The bilateral funding landscape is dynamic, with priorities and funding levels subject to

[71] Food and Agriculture Organization of the United Nations. (n.d.). FAO Projects. Retrieved from https://www.fao.org/in-action/fao-projects/en/

review in several countries. If funding decreases, regional stakeholders need to strengthen their capacity to maintain conservation efforts independently. Reduced long-term funding requires a stronger focus on establishing sustainable financing mechanisms, and leveraging collaborative partnerships and existing frameworks. Local governments, CSOs, and regional organizations like ECOWAS and MRU must work closely to coordinate, share resources, and replicate successful conservation models across borders.

The European Union (EU)
The EU's 2021-2027 Neighborhood, Development and International Cooperation Instrument[73] includes support to the umbrella initiative 'NaturAfrica' under the external dimension of the EU New Green Deal. This initiative is structured around Key Landscapes for Conservation and Development (KLCD), where healthy ecosystems have the capacity to sustain the livelihoods of indigenous peoples and local communities, together with viable populations of wildlife species. The main objective of the initiative is to promote biodiversity conservation and socio-economic development, whilst enhancing sustainable landscape management and boosting job opportunities, food security and climate resilience.

The Initiative includes one regional *NaturAfrica* programme, with EUR310 million allocated over six years (2021-2027). It focuses on key landscapes for conservation and development (KLCDs) across Africa, including in the Guinean Forests. There is a high degree of overlap between KLCDs and the KBA corridors. The NaturAfrica technical assistance for West Africa was launched in early 2024, while 11 landscape projects are being developed to start in 2024/2025 (Table 11.5), allowing for continuity in the EU's regional conservation strategy. *NaturAfrica West Africa* has a funding allocation of EUR85 million, with approximately EUR38.5 million allocated to the Guinean Forests, representing an almost 93 percent increase compared to the PAPFor investment. Within these projects, the EU provides sub-grants to international NGOs working in consortia with local civil society organizations to deliver technical assistance and financial resources to government entities. The projects are intended to complement funding from sources such as GEF, AFD, or the EU National Envelope, for example in the greater Gola landscape, Wologizi-Wonegizi-Ziama landscape or Taï-Grebo-Krahn-Sapo forest complex).

Table 11.5. EU NaturAfrica West Africa Pipeline Funding, with Focus on the Guinean Forests

Landscape (Key Landscape for Conservation and Development)*	Total phase 1 (million Euro)+	Phase 2 - December 2025 (million Euro)+	Total EU commitment (Million Euro)	Lead EU delegation
Fazao Kyabobo	1.75	2	3.75	Togo
Outamba-Kilimi-Kuru Hills Protected Site**	0	3	3	Guinea
Gola Foya Kpo	3	2	5	Liberia
Wologizi-Wonegizi-Ziama	0	2.5	2.5	Guinea
Monts Nimba	2.5	2.5	5	Guinea
Taï-Grebo-Krahn-Sapo Corridor	6.2	5.5	11.7	Liberia/Côte d'Ivoire
Cross River	3.5	0	3.5	Nigeria
TOTAL* **	**16.95**	**17.5**	**34.45**	

Notes: * = the relationship between KLCDs and hotspot countries is shown in Section 4; ** = this KLCD is predominantly savanna woodland and has only a small area within the hotspot; *** = in addition to the landscape programs, *NaturAfrica* includes funding for coordination and evaluation, led by the Burkina delegation.
+ = these figures are to be confirmed

The Support Program for the Preservation of Forest Ecosystems in West Africa (PAPFor) is a EUR20 million program, implemented from 2019-2024 but extended, which targets climate resilience and biodiversity conservation in six critical transboundary forest landscapes across Liberia, Sierra Leone, Guinea, Côte d'Ivoire, and Nigeria-Cameroon, five of them within the hotspot. This program emphasizes sustainable ecosystem management, supporting food and water security, and prioritizing forest ecosystems integral to these regions. A regional coordination unit based in Monrovia, Liberia promotes regional coordination and communication.

Another regional project of relevance is the *West Africa Sustainable Ocean Programme (WASOP)*, funded by the EU with EUR59 million, designed to enhance ocean governance across West Africa, with a focus on sustainable fisheries, combating illegal, unreported, and unregulated (IUU) fishing, and advancing a sustainable blue economy. Running from 2024 to 2030, WASOP emphasizes marine biodiversity conservation and sustainable ocean use, aligning with broader EU priorities for ecological resilience and economic growth.

The EU also has national-level programs which are relevant:

- The *NaturaGuinée* program, supported by the EU, dedicates approximately EUR15 million to conservation in Guinea, focusing on biodiversity-rich landscapes. This includes a EUR3 million allocation for the mangrove landscape in the Konkouré estuary, aimed at enhancing biodiversity conservation, creating economic opportunities for local communities, and improving landscape governance. In addition, EUR12 million is allocated to the Wild Chimpanzee Foundation (WCF) to further support conservation efforts across key forest ecosystems, specifically addressing the governance and sustainable management of protected areas, alongside community development initiatives.
- The *EU National Envelope for Sierra Leone* aims to enhance environmental governance, support climate adaptation, and foster sustainable livelihoods across key areas. While the exact allocation amounts and distribution methods are still being finalized, potential focal areas include biodiversity-rich regions like the Gola Rainforest National Park and Loma Mountains, which are crucial for species conservation, habitat connectivity, and climate resilience. This targeted support would help to reinforce Sierra Leone's natural resource management and contribute to regional biodiversity objectives, aligning with overarching EU conservation strategies in the Guinean Forests region.
- The *EU National Envelope for Liberia* includes a key initiative, the Leh Go Green Project, with a EUR4.8 million funding allocation from the EU. This project is led by UNDP, in partnership with the Forestry Development Authority and other organizations, such as the Royal Society for the Protection of Birds, the Society for the Conservation of Nature of Liberia (SCNL), Fauna & Flora, BRAC, and the Wild Chimpanzee Foundation. It targets sustainable forest management and biodiversity conservation in Liberia's northwestern and southeastern landscapes, particularly in Gola Forest National Park and Grebo-Krahn National Park. The project focuses on enhancing forest governance, providing sustainable livelihoods, and empowering communities through the sustainable use of natural resources. Activities include forest restoration, livelihood diversification, and community conservation agreements that involve local residents directly in forest management, supporting climate adaptation efforts and economic resilience, especially for marginalized groups like women and youth.
- The EU also supports the development of a sustainable cocoa sector through the 'multi-stakeholder dialogue for sustainable cocoa'. Over 60% of Côte d'Ivoire and Ghana's cocoa production is exported to the EU, and the dialogue aims to complement the two countries' joint initiative of June 2019 with objectives including the elimination of child labor and child trafficking, the protection and restoration of forests, and engagement at local level to ensure a living income for

cocoa farmers. In 2022, Côte d'Ivoire and Ghana expressed concern that the EU's proposed Deforestation legislation would have a negative impact on the income of smallholder farmers and increase poverty among cocoa farmers in both countries[72]. They called on the EU to support the Living Income Differential mechanism jointly initiated by the 2 countries, and to agree an economic pact for sustainable cocoa and the development of a sustainable cocoa value chain.

United States Agency for International Development (USAID)
The *West Africa Biodiversity and Climate Change (WABiCC)* program, a US$53.75 million initiative funded by USAID from 2015 to 2021, aimed to enhance conservation and promote climate-resilient, low-emissions growth across West Africa. The program targeted critical landscapes across the region, working with policymakers and practitioners to strengthen governance, policy frameworks, and on-the-ground conservation practices. WABiCC's approach focused on three main components: combating wildlife trafficking; increasing coastal resilience to Climate Change; and reducing deforestation, forest degradation, and biodiversity loss.

Building on WABiCC's accomplishments, the *West Africa Biodiversity and Low Emissions Development (WABiLED)* program was implemented from 2021 to 2025, with a US$49 million budget, expanding efforts to strengthen regional capacity and policy frameworks. WABiLED's core objectives included: (1) support to counter wildlife trafficking and for great ape conservation; (2) reducing deforestation, forest degradation, and biodiversity loss, supporting targeted conservation in key landscapes, particularly in Côte d'Ivoire, Guinea, Liberia and Sierra Leone; and (3) reducing GHG emissions and increasing carbon sequestration, focused on sustainable land-use planning and low-emissions development strategies. The WABiLED program's priority landscapes overlap significantly with CEPF ecosystem profile in the Guinean and Lower Guinean Forests, with direct sub-granting to International NGO in the Gola Transboundary Landscape (Liberia and Sierra Leone) and the Outamba-Kilimi-Madina-Oula Transboundary Landscape (Guinea and Sierra Leone).

WABiLED partnered with CSOs across West Africa to support its objectives. However, with less than 20% of its funding sub-granted, mainly to international NGOs working in consortium with local NGOs, the approach differed from CEPF's more direct support for local organizations, highlighting a potential area of complementarity between the two programs. WABiLED helped strengthen the technical capacity of CSOs in areas such as combating wildlife trafficking, implementing biodiversity conservation, and supporting low-emissions development strategies. It also provided resources and training that enabled CSOs to engage more effectively in policy development, transboundary cooperation, and environmental governance. By involving CSOs directly in program implementation and decision-making processes, WABiLED empowered these organizations to become key actors in long-term environmental stewardship, building a foundation for sustainable and resilient conservation efforts across West Africa.

Other relevant USAID sub-regional initiatives in the Guinean Forests of West Africa include:

- The *Resilient Ecosystems and Sustainable Transformation of Rural Economies (RESTORE)* project (2022-2027; US$7 million; implemented by Rainforest Alliance and Olam Food Ingredients). Cocoa is the leading export of Côte d'Ivoire and Ghana, with thousands of families relying on the crop for their livelihoods. Yet cocoa farmers capture only about 5.5% of the value in the cocoa and chocolate supply chain. As a result, food insecurity is widespread and there has

[72] https://cocobod.gh/news/press-release-cote-divoire-ghana-initiative

been a surge in illegal and environmentally destructive activities like gold mining and logging. RESTORE aims at bringing together cocoa producing families, governments, and the private sector to improve livelihoods for cocoa farmers, increase tree cover, and help reduce greenhouse gas emissions in Ghana and Côte d'Ivoire. It also aims at having a direct impact on an estimated 15,000 farmers managing 50,000 hectares of farmland.

- *SERVIR West Africa 2* (2022-2027, US$15 million; six countries, including Nigeria and Ghana) is a joint initiative of NASA and USAID that aims to increase the ability of local, national, and regional institutions to apply geospatial technologies and analysis that improve resilience, food security, disaster risk reduction, and sustainable resource management. With Earth Observation data drawn from satellite images, GIS and predictive models, *SERVIR West Africa 2* prepares its consortium of partners in West Africa to mitigate the impact of climate change and ensure appropriate land us to reduce greenhouse gas emissions.

Finally, the USAID *Promoting Biodiversity Conservation and Enhancing Economic Prosperity in Liberia through a One Health Approach* project, also known as the *Liberia Conservation Works* initiative, overlapped with key areas outlined in the ecosystem profile, including the West Nimba Nature Reserve, Marshall Wetlands, Cestos-Senkwen Proposed Protected Area, Krahn-Bassa Proposed Protected Area, Sapo National Park, Grand Kru-River Gee Proposed Protected Area, and Kpatawee Falls. This US$20 million USAID-funded program ran from 2021 to 2024, and was implemented by partners including EcoHealth Alliance, Fauna & Flora, Liberia Chimpanzee Rescue & Protection, and Solimar International. The project integrated biodiversity conservation with sustainable development, with the aim of protecting Liberia's unique biodiversity while creating economic opportunities for communities that depend on forest resources

Agence Française de Développement (AFD)
AFD is a leading contributor to biodiversity and ecosystem conservation in West Africa, investing in both national policy enhancement and site-specific conservation initiatives, often with co-financing from FFEM.

Notable projects include the COMBO and COMBO+ programs, which focus on improving Guinea's national biodiversity policy through EUR1.67 million in funding. These programs strengthen cross-sectoral coordination and offer tools for integrating biodiversity data into impact mitigation, including biodiversity offsets. They also develop governance and financing mechanisms, while building capacity within governments, industries, financial institutions, and civil society to ensure effective biodiversity conservation outcomes. AFD also supports Guinea's BIODEV2030 project with EUR258,608, promoting the adaptation and implementation of biodiversity-focused strategies. This initiative aims to engage at least two strategic economic sectors in reducing their environmental impact by 2030, fostering collaboration among government, private sector, and civil society for sectoral shifts in biodiversity management. For site-based conservation, AFD allocated EUR5 million for the Ziama Massif Biosphere Reserve in Guinea (2024-2025), with a focus on sustainable management and community benefits, especially for women. Similarly, the Wonegizi-Wologizi Forest Landscape in Liberia receives EUR9 million (2025-2030) to support sustainable management that integrates local communities into conservation efforts. These site-specific initiatives help solidify AFD's commitment to biodiversity preservation and socio-economic development across West Africa.

Gesellschaft für Internationale Zusammenarbeit (GIZ) and the *German Development Bank (KfW)*
Germany actively supports biodiversity and ecosystem conservation in West Africa through two main agencies: GIZ; and KfW. These agencies employ complementary approaches. GIZ focuses on technical assistance, capacity-building, and improving governance. It implements projects aimed at skill development, enhanced management practices, and participatory governance. For example, GIZ's *Better Connectivity of Forest*

Ecosystems in Côte d'Ivoire and Liberia project (2017-2024) strengthened ecological connectivity in the Taï-Grebo-Krahn-Sapo forest complex. Supported by EU funding, this project collaborates with local and national institutions to improve protected area management, sustainable livelihoods, land use planning, and cross-border cooperation between Côte d'Ivoire and Liberia. Through participatory planning, it fosters effective management of forest corridors and residual areas outside protected zones, improving ecological continuity in this critical transboundary ecosystem.

KfW offers financial assistance through grants and loans, including for large-scale biodiversity and climate resilience projects. Recent projects in the hotspot have included a program of support to the Tai national park in Côte d'Ivoire, the Tai-Grebo-Krahn-Sapo transboundary landscapes, and protected areas in the Savanna zone of Benin, but most of KfW's activity in the region is focused on health, infrastructure and microfinance. KfW was active in Ghana, Sierra Leone and Côte d'Ivoire in the hotspot in 2024. Globally, KfW supports long-term preservation of high-value landscapes, including through the *Worldwide Alliance for Landscape-based Decarbonization (WALD)* initiative (2024-2028) that encourages private-sector investments in forests as carbon sinks. The first international project launched under this initiative is the WALD Innovation Facility, which currently, with EUR9 million from BMZ, focuses on East Asia and the Pacific but could potentially expand to operate in Africa.

Norwegian International Climate and Forest Initiative (NICFI)
In September 2014, Liberia and Norway entered into a partnership to foster development while managing the country's forest resources sustainably, funded by a US$100 million results-based commitment. The goal is to achieve growth without deforestation. Activities supported aim to improve forest governance, to assist communities to formalizing land rights, to improve land and forest management, and to expand agricultural production without deforestation. NICFI also supports the Liberia Forest Sector Project, through the World Bank, with implementation by CSOs SNCL and IDH and the Forest Development Authority.

Swedish International Development Cooperation Agency (SIDA)
The Global Forest Transformation for People and Climate Project is funded by the SIDA and implemented by FAO in collaboration with ECOWAS. This US$8.25 million, 5-year project (2019-2024) is intended to help roll out the ECOWAS Convergence Plan for the Sustainable Management and Use of Forest Ecosystems in West Africa, which aims to mobilize political, institutional, financial, and technical support to address transboundary forest issues across ECOWAS's 15 member states. The project's objective is to strengthen decision-making on forests and land management across West Africa by improving knowledge of forest dynamics, supporting legal reform, and demonstrating and sharing best practices for community-based forestry across the region.

United Kingdom Department for Environment, Food & Rural Affairs (DEFRA)
DEFRA operates two funding schemes: the Darwin Initiative; and the Illegal Wildlife Trade Challenge Fund. In the Guinean Forests, the Darwin Initiative collaborates with international CSOs including Fauna & Flora, Royal Botanic Gardens, Kew, and BirdLife International. These NGOs work with local communities and civil society organizations to promote conservation in key biodiversity areas, with an emphasis on local expertise and community engagement. Projects supported include:

- *Community Engagement for Conservation of Mount Béro Classified Forest*. Led by BirdLife International and Guinée Ecologie with GBP600,000 in funding, this project (2024-2027) aims to develop robust, community-led governance structures around Mount Béro in Guinea. It promotes sustainable agricultural practices and participatory ecosystem management to support biodiversity and local livelihoods.

- *Improving Capacity for Plant Biodiversity Planning in Guinea*. This project, managed by Royal Botanic Gardens, Kew, focuses on enhancing planning for plant biodiversity conservation across Guinea with a funding of GBP197,151 (2024-2026). It emphasizes local capacity-building to support plant biodiversity data collection and conservation planning.
- *Conserving Critical Forest Biodiversity through Sustainable Agricultural Livelihoods*. Led by Fauna & Flora, with GBP396,869 in funding, this project (completed in 2021) sought to mitigate human-elephant conflict and improve sustainable agricultural practices around forest wetlands in Guinea, reducing habitat encroachment and supporting biodiversity conservation.

The Illegal Wildlife Trade Challenge Fund has supported strengthened investigation, law enforcement and other activities to combat illegal national and transboundary wildlife trade.

11.2.3 Philanthropic foundations

Arcadia Fund
The Arcadia Fund, through its nature grants, funds projects focused on evidence-based ecosystem preservation and the protection of endangered species. No current grants directly target the hotspot, but several fund the work of international NGOs (such as Fauna & Flora, Re: Wild and the Wildlife Conservation Society) which are active in the hotspot. A complete list of projects is available at https://arcadiafund.org.uk/grants-awarded/.

Arcus Foundation
This UK-based foundation specializes in ape conservation, especially Western Chimpanzees, through the Great Apes & Gibbons Program, and also provides some support for landscape and corridor conservation through its Social Justice Program. Arcus supports habitat protection and restoration initiatives, often aligning with the Western Chimpanzee Action Plan.

Table 11.6. Arcus-Foundation-funded Projects in the Hotspot

Organization	Project summary	Amount (US$) and duration
Guinée Ecologie, Guinea	reduce threats to chimpanzees in Guinea while engaging local communities in the protection of the endangered apes and their habitats	93,000, 1 year
Environment and Rural Development Foundation (EruDeF), Cameroon	conservation of the Cross River gorilla and the Nigeria-Cameroon chimpanzee in the Lebialem Highlands of southwestern Cameroon	200,000, 3 years
Social Entrepreneurs for Sustainable Development	work with communities in proposed protected areas in Liberia to develop land use plans that integrate traditional beliefs and cultures	300,000, 3 years
Tacugama Chimpanzee Sanctuary, Sierra Leone	increase the capacity and training of staff to analyze the behavior of and recognize disease symptoms in its resident chimpanzees, while also upgrading standards of care and enrichment	120,000, 3 years

Cartier for Nature Foundation
This Swiss-based foundation supports activities in São Tomé and Príncipe by offering flexible funding for forest and biodiversity conservation (EUR300,000 per year). This support enables BirdLife International to respond to pressing conservation needs, from

habitat protection to community engagement, while implementing its 10-year strategic plan (2021–2030).

Fondation Hans Wilsdorf
This Geneva-based foundation is predominantly a funder of social and health projects, but 1% of its projects in 2023-2024 addressed the foundation's 'animals/ecosystems' focal area. The foundation is now actively supporting forest conservation in the Guinean Forests, with an emphasis on providing flexible funding to local CSOs and NGOs in countries such as Guinea and Sierra Leone. While current funding levels remain modest, the Foundation's support is significant due to its adaptable approach, which empowers local organizations to address conservation needs more effectively. The Foundation collaborates closely with Rainforest Trust to align strategies and co-finance conservation initiatives, leveraging Rainforest Trust's experience and established projects in the region. This partnership enables both organizations to maximize their impact.

Fondation L'Occitane
Fondation L'Occitane, through BirdLife International, in consortium with Guinée Ecologie, focuses on conservation in Guinea, supporting management of the Béro Classified Forest. The foundation provided EUR600,000 during 2022-2024.

MAVA Foundation
The MAVA Foundation was a key supporter of biodiversity conservation, with a strong focus on coastal and marine ecosystems and core funding for local CSOs. Until its closure in October 2022, MAVA invested significantly in ecosystem restoration and community-based conservation projects across priority regions. Through flexible, long-term support, MAVA enabled local CSOs to build capacity and implement sustainable practices, particularly benefiting high-biodiversity coastal areas. The foundation's legacy library, available at https://mava-foundation.org/legacy-library/, houses valuable insights and outcomes from its funded projects. This resource provides an extensive record of strategies and lessons learned, which can inform future investments by CEPF and other conservation funders in similar ecosystems.

Mohamed Bin Zayed Species Conservation Fund
This fund offers small grants, generally ranging from US$5,000 to 25,000, specifically for species-focused conservation initiatives. These grants are intended to support urgent, high-impact conservation actions, prioritizing threatened species across the world, including in biodiversity hotspots like the Guinean Forests. Grants are accessible to both local and international conservationists, researchers, community-based organizations, and NGOs. The fund particularly targets projects that address direct threats to species, contribute to recovery plans, or provide new data on species conservation needs. In 2024, four grants were funded in the hotspot:

- US$7,500 for extinction risk assessment and conservation measures for *Louisea balssi*, an Endangered freshwater crab from Mt. Manengouba, Cameroon.
- US$12,000 for scaling up research and conservation of pangolins in West Africa by identifying priority hotspots.
- US$6,250 for assessing the distribution and density of Cameroon Wolterstorff's toad (*Wolterstorffina parvipalmata*, CR) in response to anthropogenic pressures on Mount Kala, central Cameroon.
- US$10,000 for conservation of the most significant population of the tortoise Home's hinge-back tortoise (*Kinixys homeana*, CR) in Côte d'Ivoire, and assessment of the populations in Liberia.

Table 11.7. Rainforest-Trust-funded Projects in the Hotspot

Organization	Project Summary	Amount (USD)
Cameroon		
AJEMALEBU Self Help (AJESH)	Creation of the Rumpi Hill and Mont Rata National Park	$1,378,900
Cameroon Herpetology-Conservation Biology Foundation and ERuDeF	Establishment of the Mount Manengouba Herpetological Sanctuary	$198,799
Cameroon Wildlife Conservation Society	Creation of Douala-Edea National Park	$400,424
Cameroon Wildlife Conservation Society	Feasibility studies for the Tchabal Mbabo National Park	$101,047
Cameroon Wildlife Conservation Society	Somie Community Forest	$10,460
Cameroon Wildlife Conservation Society	Njinsing-Tabenken Community Forest	$12,070
Cameroon Wildlife Conservation Society	Establish the Mount Manengouba Ecological Reserve	$301,200
Environment and Rural Development Foundation (ERuDeF)	Protection efforts of the Mak-Betchou Wildlife Sanctuary, now known as Bangwa Mbo Wildlife Sanctuary	$550,154
ERuDeF	Tofala Hill Wildlife Sanctuary	$168,905
Zoological Society of San Diego	Protection of the Ebo Forest	$78,991
Côte d'Ivoire		
Centre Suisse de Recherches Scientifiques en Côte d'Ivoire	Establishment and land certification of the Tanoé-Ehy Community Reserve	$105,600
Conservation des Espèces Marines	Create the Mouth of the Dodo River Community Natural Reserve, equip rangers	$215,414
Conservation des Espèces Marines	Creation of the Grand Bereby Marine Protected Area	$508,752
Ghana		
A Rocha Ghana	Establish and legally protect the Atewa Forest	$20,697
Ghana Wildlife Society	Establish and legally protect the Atewa Forest	$84,380
Hen Mpoano	Protection of the Greater Amanzule Wetland	$9,008
Herp Conservation Ghana	Attendance at the Africa Protected Areas Congress in 2022	$2,000
Herp Conservation Ghana	Creation and expansion of Onepone Endangered Species Refuge	$846,483
Threatened Species Conservation Alliance	Creation of the Techiman-Tanoso Tano River Crocodile Sanctuary	$697,130
West African Primate Conservation Action	Expansion of Cape Three Points National Park	$80,000
Guinea		
Fauna & Flora	Wologizi & Wonegizi Protected Areas	$749,792
Guinean Park Foundation	Mount Nimba Nature Reserve	$5,289
Wild Chimpanzee Foundation	Expansion and protection of Mount Nimba Nature Reserve	$3,206,248
Wild Chimpanzee Foundation	Creation of the Pinselli-Soyah-Sabouyah National Park	$3,206,248
Liberia		
Wild Chimpanzee Foundation	Creation of Gola Forest National Park	$305,162.33
Wild Chimpanzee Foundation	Expansion of community forests around Gola Forest National Park	$724,831.53
Wild Chimpanzee Foundation	Establishment of GbarLo Forest National Park (formerly Foya Nature Reserve)	$1,530,225

Wild Chimpanzee Foundation	Creation of Krahn-Bassa National Park	$3,024,529
Wild Chimpanzee Foundation	Preventing deforestation in GbarLo Forest National Park	$36,504
Wild Chimpanzee Foundation	Capacity development to protect the Gola landscape	$11,650
Wild Chimpanzee Foundation	Mitigating threats to Gola National Park during the COVID-19 pandemic	$24,260
Wild Chimpanzee Foundation	Creation of Liberia's 30x30 National Plan	$65,000
Nigeria		
Niger Delta Forest Project	Creation and management of Apoi Community Forest	$375,982
Wildlife Conservation Society	Establishment of the Mbe Mountains Wildlife Sanctuary	$394,050
São Tomé and Príncipe		
BirdLife International	Protection of the Obo Natural Park buffer	$210,890
Fauna & Flora	Establishing a Marine Protected Areas network	$520,000

Rainforest Trust
Rainforest Trust partners with grantees across the region to protect biodiversity and foster community-based conservation. They have supported conservation projects across eight of the hotspot countries, focusing on establishing and expanding protected areas, and providing post-award support to ensure effective conservation outcomes (Table 11.7). The total funding allocations amount to approximately US$4 million for completed projects to date, US$14 million for currently active projects, and an additional US$5 million in the pipeline to support upcoming efforts.

11.2.4 International non-governmental organizations
These organizations often finance the work of local partners and community organizations, as well as partnering to build capacity. They access funds from a range of sources, including many of the donors and foundations already listed. A detailed discussion of international NGO activities in the hotspot can be found in Section 9.1.2.

Conservation International (CI) plays an important role in resource mobilization through its role as a GEF Implementing agency. Fifteen GEF projects involving hotspot countries are currently being implemented with CI as the implementing agency, including the two large integrated projects: the Guinean Forests and Congo Critical Forest Biome Integrated Programs.

11.3 Strategic projects

Several large, multi-faceted projects bring together a group of funders and implementation partners to address conservation issues at scale across parts of the hotspot. The most important are summarized here.

11.3.1 GEF - Guinean Forests Integrated Program
The GEF-funded *Guinean Forests Integrated Program (GFIP)* is a regional program under GEF-8 focused on enhancing transboundary forest governance. Conservation International is the implementing agency. The program has four national 'child' projects in Guinea, Liberia, Sierra Leone and Togo (with Guinea-Bissau also expected to participate). Co-finance, in particular from the World Bank, will allow participation from Côte d'Ivoire and Ghana in regional efforts. The landscapes proposed for the GFIP national child projects are all within the hotspot:

- Guinea: Ziama Reserve and Mont Nimba Biosphere Reserve
- Liberia: Kpo Mountains Proposed Protected Area, Wologizi Nature Reserve, Foya Proposed Protected Area, Gola Forest National Park
- Sierra Leone: Gola Rainforest National Park
- Togo: Southern Zone of Mount Togo

The national child projects will address capacity development, sustainable financing mechanisms, policy harmonization, and creating sustainable livelihood opportunities for local communities to reduce pressure on forest resources in priority landscapes. A fifth (regional) child project titled the *Guinean Forests Regional Coordination and Learning Project* will provide support and oversight to the national child projects, and co-ordination with other countries in the region. The regional child project is executed by BirdLife International and will engage governments and stakeholders across the region to provide technical support and capacity development, learning, knowledge exchange, dissemination of innovations, project- and program-level monitoring and evaluation, facilitation of transboundary watershed and forest landscape management, and promotion of regional policy dialogue.

The GFIP will support sustainable livelihoods and nature-friendly enterprises, enhance gender-inclusive and responsive watershed and forest governance through multi-stakeholder dialogues, and promote landscape-level coordination for improved planning

and decision-making. These efforts will address barriers, including the lack of land-use planning, insufficient sustainable livelihood options, limited conservation and management capacity within government agencies, weak forest governance policies and legislation (including tenure and resource rights), poor coordination of transboundary watershed and forest management, gender inequality in natural resource management, and limited private sector engagement in conservation.

The GFIP is funded through national STAR allocations (for the country child projects), topped up with an additional US$5 million from GEF, while the regional child project (US$6,782,000) is fully funded from GEF outside of STAR allocations. The project is expected to catalyze over US$100 million in co-financing.

São Tomé and Príncipe has joined the GEF *Congo Basin Integrated Program*, allocating more than US$5 million of its national STAR envelope (a mix of Biodiversity and Land Degradation funding) to the program as a national child project, and benefitting from a GEF top-up of US$1.25 million and additional technical assistance from the regional project in the Congo Basin. The national child project is focused on Obo Natural Park.

11.3.2 Biodiversity and Protected Areas Management Program (BIOPAMA)

BIOPAMA is funded by approximately EUR60 million from the EU and implemented by IUCN and the European Commission's Joint Research Centre. The program was launched in 2012, with the second phase (2017-2024) nearing completion. There is currently no confirmation of a new phase. The program focuses on strengthening the governance, management effectiveness, and resilience of protected areas and surrounding communities in the African, Caribbean, and Pacific regions, including the Guinean Forests. It supports capacity development, data systems, and on-the-ground conservation actions.

BIOPAMA Regional observatories support collation of data on protected and conserved areas and biodiversity, contributing to monitoring of progress with the Global Biodiversity Framework, offering capacity development and policy guidance for decision-making; and tracking progress against global, regional and national biodiversity goals. The hotspot countries are served by the Regional Observatory for Biodiversity and Protected Areas in West Africa (OBAPAO), established in 2019 with partners the Centre de Suivi Ecologique (CSE)[73] Consortium, Dakar and the West African Economic and Monetary Union (WAEMU); with data hosting via the Regional Reference Information System (RRIS) and tools such as IMET (the Integrated Management Effectiveness Tool for PAs)[74], and ECNA (Ecosystem Natural Capital Accounting).[75] Cameroon, Equatorial Guinea and São Tomé Príncipe are covered by the Central Africa Forest Observatory (OFAC) hosted by the Commission of Central Africa Forests (COMIFAC)[76].

In the Guinean Forests, BIOPAMA funding has been directed toward enhancing governance frameworks, monitoring biodiversity, and addressing threats to protected areas through targeted grants and technical support. The program's Action Component provides grants for on-the-ground conservation actions. In the Kambui Hills Forest Reserve in Sierra Leone (part of the greater Gola Rainforest landscape), BIOPAMA has worked with the Conservation Society of Sierra Leone to protect the area against

[73] https://www.cse.sn/
[74] https://rris.biopama.org/pame/tools
[75] https://www.papbio.org/FAQ

[76] https://www.obapao.org/; https://www.observatoire-comifac.net/

encroachment, improve governance, and promote sustainable livelihood alternatives for surrounding communities.

11.3.3 Save Our Species (SOS)

The SOS initiative, established in 2010, is led by the IUCN and supported by partners including the EU and AFD. The scheme funds projects focused on the conservation of threatened species (those categorized as Vulnerable, Endangered, or Critically Endangered on the IUCN Red List). SOS aims to prevent species extinctions by supporting on-the-ground conservation actions and capacity development, and grants focus on direct conservation interventions, such as habitat protection, anti-poaching measures, and community engagement programs to reduce human-wildlife conflict. The scheme provides smaller Rapid Action Grants for immediate conservation needs as well as larger, multi-year Threatened Species Grants. Funding amounts vary between EUR25,000 and 300,000, with a wide range of recipients, from small local CSOs to large international NGOs.

SOS has funded 32 projects in eight hotspot countries, although the only currently active project is *Mitigating Human Threats on Freshwater Species and Ecosystems in Liberia*, which is focused on the Cestos-Senkwen KBA and implemented by Fondation Segré Conservation Action Fund.

11.3.4 West Africa Nature Transformation initiative (WANTi)

WANTi is a collaboration between the University of Cambridge, BirdLife International, RSPB, Fauna & Flora, IUCN, the Tropical Biology Association and UNEP-WCMC. The initiative is in its first phase, funded by a GBP70,000 grant from the Horne Family Foundation. In October 2024, WANTi gathered conservation practitioners, researchers, policymakers, and private sector representatives from across West Africa to create a vision for transformational, equitable and just approaches that can support the protection and restoration of the Guinean Forests of West Africa. The following phase aims to raise funds for key strategy components which will include addressing knowledge gaps, strengthening regional capacities through a collaborative network, and bringing together research and conservation to inform policies, investments, and research to support socio-bio-economies in the region.

11.4 Small-grant funding for civil society

11.4.1 GEF Small Grants Programme (SGP)

The SGP offers grants directly to local communities, NGOs, and indigenous groups to implement projects at the grassroots level. It enables small-scale, community-driven projects focused on biodiversity, climate change, and sustainable development.

The SGP operates in over 125 countries and has funded more than 27,000 projects globally since its inception. Typical SGP grants range from US$25,000 to US$50,000 for small-scale, community-driven projects, though larger strategic grants of up to US$150,000 are also available. Large number of projects have been supported in the hotspot, with investments estimated at between US$5 million and US$10 million in this region over the past two decades[77]. The full repository of SGP projects is available at https://sgp.undp.org/, and provides valuable insights into the type of initiatives which could be leveraged for collaboration. Notable examples of GEF-SGP projects include:

- Grand Cape Mount County, Liberia, a project by Rural Integrated Center for Community Empowerment (RICCE) ($48,000) aimed at restoring degraded

[77] Global Environment Facility (GEF). GEF Small Grants Programme Results Report 2022. UNDP, 2023

wetlands, reforesting, improving food security and reducing deforestation pressure by establishing alternative livelihoods like beekeeping.

- Lofa County, Liberia: Sustainable Development Network-Liberia (SDN-Liberia) implemented a US$49,500 project combining community-based conservation with sustainable farming training and agroforestry to support biodiversity and provide economic alternatives such as small-scale ecotourism.
- The Community Agroforestry and Forest Protection Initiative in Liberia's Gola Forest region was supported with US$50,000. Local NGOs partnered with community-based organizations to train community members in sustainable agroforestry techniques, with the aim of maintaining the forest's ecological integrity while enhancing livelihoods.
- In the Taï Region of Côte d'Ivoire, the Groupement des Agriculteurs de Taï (GAT) carried out a US$47,000 project to promote agroforestry and sustainable land management. This helped reduce deforestation pressures on Taï National Park while enhancing soil fertility and crop productivity.
- In Côte d'Ivoire's Cavally Region, Tropenbos Côte d'Ivoire implemented a US$50,000 project focusing on restoring degraded lands and promoting biodiversity conservation. Sustainable farming practices were introduced, which mitigated soil erosion and improved water resources, alongside enhancing community stewardship of local forests.
- Near Banco National Park, Côte d'Ivoire, the Association pour la Protection de l'Environnement et le Développement Durable (APEDD) implemented a US$48,500 grant focused on sustainable agriculture to combat deforestation. The initiative educated farmers on agroecology and organic farming, reducing negative impacts on the nearby forest.
- In Ghana's Volta Region, the Development Institute managed a US$50,000 project for the sustainable management and restoration of mangrove ecosystems. This project emphasized community engagement and education on sustainable harvesting, which helped restore mangroves and provided alternative livelihoods like fish farming, enhancing local resilience and ecosystem preservation.
- The Tafi Atome Monkey Sanctuary Community Resource Management Area (CREMA) in Ghana undertook a US$49,000 project to conserve the sacred grove in Tafi Atome. By integrating forest restoration with eco-tourism, the project preserved local biodiversity and boosted eco-tourism revenues, linking conservation efforts with sustainable community development.

Despite this support, many local organizations and communities in the Guinean Forests encounter challenges related to capacity, making it difficult to access, implement, and scale SGP-funded projects effectively. Effective management and resource utilization often require additional training and technical support. Although SGP provides essential funding, long-term financial sustainability remains a challenge to ensure projects continue delivering positive environmental and socioeconomic outcomes after grant funding ends.

The GEF-SGP was funded through a global allocation of US$167 million under GEF-7 (2018-2022) and was implemented by UNDP. Under GEF-8, 'SGP 2.0' is being rolled out, with a focus on increased efficiency, greater agency involvement, and enhanced accessibility for CSOs and local communities. Core funds have been reduced to US$135 million, with an additional US$20 million for two new initiatives supporting CSOs, the Challenge Program and a Microfinance Initiative, each with US$10 million. SGP 2.0 is implemented through three agencies: UNDP; FAO; and CI. CI will be the Implementing Agency IA for SGP 2.0 in Equatorial Guinea, working through CEPF as the delivery mechanism. This will ensure close alignment with the CEPF program elsewhere in the Guinean Forests of West Africa.

The operational guidelines developed for GEF8[78] indicate the following possible areas of focus which would be relevant to the Guinean Forests of West Africa:

- Strengthen local and community-led conservation efforts, including support for Indigenous peoples and local communities.
- Encourage broader cross-sector partnerships, encouraging engagement of private sector actors, especially in the sustainable agriculture, eco-tourism, and forestry sectors.
- Expand financing mechanisms and sustainable livelihoods, including through microfinance initiatives and local conservation-based enterprises which could attract additional investment.
- Increase capacity development and technical support.
- Promote knowledge sharing and regional coordination.
- Address climate resilience in conservation projects.

11.4.2 Programme de Petites Initiatives (PPI)

The PPI is an initiative of the French Committee of IUCN, funded by FFEM, which provides grants primarily to CSOs in West and Central Africa (a parallel scheme, PPI OSCAN, works in North African countries). It focuses on biodiversity conservation, capacity development, and local empowerment for sustainable development. Now in its sixth phase (2021 – 2025) the program has a total annual budget of around EUR1.2 million to EUR1.5 million, with grants ranging from EUR5,000 to EUR50,000 for projects of 12 to 36 months in duration. The funding approach is typically grantee-based rather than strategically coordinated, which means projects are selected based on individual applications and specific organizational needs rather than broader, integrated conservation strategies. The scheme has a strong focus on CSO capacity development, supported by a team of independent facilitators based in the region. About 30% of the total budget is allocated or CSO capacity work (see Chapter 8).

Key examples of PPI investments and potential synergies with CEPF:

- Benin: PPI supported the local NGO CREDI to establish operational offices and improve conservation project management in the Sitatunga Valley (outside of the hotspot).
- Taï National Park, Côte d'Ivoire: Action pour la Biodiversité en Côte d'Ivoire (ACB-CI) aims to involve local communities in conservation around Taï National Park.
- Ankasa Conservation Area, Ghana: Hen Mpoano worked to establish community resource management areas (CREMAs) and restore degraded lands.
- East Nimba Nature Reserve, Liberia.

11.4.3 Other small grants programs available to CSOs in the hotspot

Fondation Franklinia is a Swiss-based charity which makes grants to CSOs for the conservation of threatened tree species. The foundation has made fifteen grants for conservation work in the GFWA hotspot (in Benin, Cameroon, Ghana, Guinea and São Tomé and Principe), which are on-going or recently completed, many of them to organizations which are past CEPF grantees. Fondation Franklinia co-funds CSO grantmaking with CEPF in the Madagascar hotspot.

Global Greengrants supports environmental and climate action by local CSOs. In the hotspot, projects have included action against mining and oil industry pollution in Cameroon, Nigeria and Ghana.

The Conservation Leadership Program is a partnership of BirdLife International, Fauna & Flora, and the Wildlife Conservation Society, which provides grants, mentoring and

[78] Global Environment Facility (GEF). GEF-8 SGP Operational Guidelines. UNDP, February 2024.

learning opportunities to groups and individual young people to undertake research and conservation action, mainly in their own countries. Current support in the hotspot includes 'Saving the Critically Endangered Intermediate puddle frog in Ghana', focused on the International Ankasa Conservation Area KBA. Previous projects have supported work on the Obudu Plateau, the Jos Plateau and the Idanre Hills, Nigeria; in South-west Cameroon, the Sui River KBA in Ghana, and have addressed shark and pangolin trade in Ghana.

The partnership implementing the Western Chimpanzee Action Plan is working with stakeholders in eight West African range states (five in the hotspot: Côte d'Ivoire, Ghana, Guinea, Liberia, Sierra Leone), and plans to provide small grants as seed funding for local CSOs to undertake conservation projects which are aligned with the Action Plan (see Section 3.9).

11.5 Private sector contributions to biodiversity conservation

The growing private sector in the region is an important potential source of funding for conservation. Private funding may be mobilized for biodiversity compensation and offsets, for carbon trading, environmental services or biodiversity credits. Private sector financing and investment brings a business perspective to conservation management that may offer a greater focus on concrete results and win-win solutions that achieve biodiversity conservation and sustainable development, including nature-based solutions to climate change. This section provides a brief overview of the main known sources and opportunities for private sector financing, without claiming to be an exhaustive list.

11.5.1 Mining sector

Rio Tinto's Simandou project in Guinea is Africa's largest mining and related infrastructure project[79]. It involves the exploitation of high grade Iron Ore in the south-east of the country, and construction of a 600 km rail corridor and port facilities. Rio Tinto is making substantial investments in biodiversity conservation, particularly through 'biodiversity offsetting', with the aim of counterbalance the ecological impacts of its mining operations. Biodiversity offsets involve restoring or enhancing biodiversity in areas that can balance or exceed the negative impacts at the operational sites. Rio Tinto has launched significant biodiversity offsetting initiatives, specifically around the Simandou region, designed to create a 'net positive impact' on biodiversity. These efforts include environmental assessments and collaboration with local communities and regulatory bodies to align conservation efforts with sustainability goals.

Key investments and initiatives:

- CSO Capacity and Resilience: US$1 million in small grants to build the capacity of civil society organizations (CSOs) in the region, promoting resilience and involvement in biodiversity initiatives.
- Direct Mitigation Measures: Rio Tinto's Simandou project includes a five-year (extendable) US$5.5 million investment for the management plan of Pic de Fon KBA. The investment aims to secure the ecological integrity of Pic de Fon through implementation of its approved management plan.
- Biodiversity Offset Strategy: Rio Tinto is exploring a biodiversity offset strategy with potential investments reaching hundreds of millions of dollars. This long-term commitment could involve offsetting measures across Guinea and beyond, aligning with regional conservation priorities.
- Nature-Based Solutions for Carbon Goals: To meet carbon reduction targets, Rio Tinto is investigating nature-based solutions within the region. This may include

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reforestation and carbon sequestration projects designed to offset their operational emissions and contribute to their overarching carbon-neutral goals. A feasibility study in and around the Ziama Classified Forest is underway.

11.5.2 Oil and gas sector

There is a growing interest among oil and gas companies in participating in carbon markets, particularly through the pre-funding of feasibility projects. Although work has not yet been funded in the hotspot, oil and gas companies are a potential future funding source for government agencies and civil society organizations to support biodiversity conservation efforts while companies fulfill their carbon neutrality goals. As an example, the Shell Foundation is involved in initiatives aimed at reducing carbon emissions, to help the company deliver on its commitment to net-zero emissions by 2050. Oil and gas companies are actively seeking testing grounds and financing feasibility studies, including for REDD+ and afforestation projects.

11.5.3 Agroindustry and beverage sectors

Several private sector investors are emerging within the agroindustry and beverage sectors. For example, Socfin, which operates oil palm plantations in São Tomé and Príncipe, Liberia, Nigeria, Ghana, Sierra Leone, Côte d'Ivoire, and Cameroon, is aiming for 100% Roundtable on Sustainable Palm Oil (RSPO) certification. This includes implementing compensation and remediation measures to address the environmental impacts associated with their operations. In São Tomé and Príncipe, Socfin-owned Agripalma has sub-granted US$1.4 million to the Gulf of Guinea Biodiversity Center as part of its 25-year compensation plan (started in 2023) to strengthen monitoring and community engagement around the perimeter of the São Tomé Obô Natural Park. This partnership model could be replicated in other plantations.

As another example, Coca Cola is also actively engaging in nature-based solutions, particularly focusing on Water, Sanitation, and Hygiene (WASH) initiatives. Their approach involves promoting sustainable water management practices, which can significantly impact local ecosystems and biodiversity.

11.5.4 Tourism sector

A promising opportunity arises from the tourism sector, exemplified by Here Be Dragons (HBD) in Príncipe. HBD has been involved for over a decade in conserving the rich biodiversity of Príncipe Island, which also serves as the unique asset of its network of sustainable tourism lodges. HBD supported the creation and continues to closely collaborate with Fundação Príncipe, an independent local CSO that started as HBD's environmental and social arm. HBD is a Fellow Member of The Long Run—a membership organization of nature-based tourism businesses committed to driving sustainability—which champions Conservation, Community, Culture, and Commerce (4Cs). HBD is currently assessing the feasibility of implementing a fee for services provided to nature as a local right to communities. As of 2023, with a budget of approximately US$130,000 per year (not including in-kind support), they fund activities of Fundação Príncipe and provide small grants to local biodiversity-positive entrepreneurship and community-based organizations, among other activities. HBD is developing a comprehensive conservation plan for their concession area, aiming to promote research and sustainable practices that enhance both biodiversity and community engagement. HBD's efforts may potentially lead to innovative models (Public-Private Partnerships) of protected area management, providing financing options for sustainable tourism development that align with conservation goals. Additionally, there is potential for collaboration with organizations like Rainforest Trust, which could offer additional support for implementing effective conservation strategies within tourism frameworks.

Other examples of nature-based tourism contributing to protected area funding come from Kakum National Park in Ghana, where an aerial walkway was attracting 140,000

visitors a year by 2010, and Taï National Park in Côte d'Ivoire which attracts tourists to see groups of habituated chimpanzees.

11.5.5 National private sector

The CEPF Long-term Vision notes several examples of conservation funded through corporate social responsibility or local value-chain initiatives. These include:

- In São Tomé and Príncipe, a payment for ecosystem services (PES) scheme was established with a drinking water company funding ecoguards, and a coconut milk company is supporting the production of charcoal from coconut wastes to be used as fertilizers and pesticides.
- In Nigeria, CSR initiatives with banks and some private companies support reforestation (e.g., 10 million US$ for large scale reforestation from a cement production company).
- In Benin, a private sector platform for CSR has been established, with some big companies supporting conservation interventions.

Private sector can also be important players in the establishment of trade chains which deliver value for community-managed resources. The Long-term vision notes the examples of:

- In Ghana, Noé is supporting the development of sustainable value chains (e.g., shea, coconut oil, cacao, honey and wax) with Community Resource Management Areas (CREMAs).
- Also in Ghana, 24 companies have joined the BESnet network, which encourages sustainable value chains, and was originally focused on Atewa KBA.

11.6 Public funding for conservation

Data on conservation funding from national governments in the hotspot is often difficult to access and may also be difficult to interpret, if it is not segregated by expenditure sector. State funding is often limited to salaries of government staff and basic operational expenses. These funds are rarely sufficient for the conservation actions they are supposed to support. Protected area monitoring is also insufficiently regular or standardized to give a clear picture of the level and trends in government funding.

Nevertheless, the increased awareness of the importance of forests for biodiversity, climate change, and the livelihoods of local communities has led to a general rise in funding allocated to forest conservation. Initiatives such as REDD+ (Reducing Emissions from Deforestation and Forest Degradation) have encouraged many countries to increase their forest budgets to benefit from international financing. The increasing availability of funding through partnerships with the private sector, NGOs, bilaterals and multilaterals has also encouraged national government to invest more in conservation.

Each country exhibits unique patterns in budget allocation and conservation efforts, shaped by their economic, political, and environmental contexts. Some general trends can be observed:

- Benin has seen a moderate budget allocation with slight annual increases. The country has established national funds for conservation but remains dependent on international financing. Despite a commitment to sustainability, internal financial resources are limited.
- Cameroon experiences fluctuations in its budget depending on revenues from natural resource extraction. There is a general trend of increase, heavily reliant on external financing. Intensive logging and REDD+ initiatives are significant, yet governance challenges persist.

- Côte d'Ivoire witnessed a strong post-conflict increase in budget, focusing more on reconstruction. While the environmental budget is growing, there are concerns about long-term sustainability. Political stabilization and international investments, along with the development of eco-tourism, are key factors.
- Equatorial Guinea shows variable budget allocations, heavily influenced by oil revenues, which are the country's main income source. There is potential for increased forest funds through economic diversification, but transparency is limited.
- Ghana reports a steady increase in forest budgets thanks to proactive policies and international partnerships, including the introduction of green financing mechanisms. Strong government commitment and integration of sustainable development goals are crucial.
- Guinea has a budget that is slightly increasing but constrained by internal resources and political instability. High dependence on external financing is noted, along with governance and resource management challenges.
- Liberia has seen moderate progress with increased attention post-conflict. The conservation budget is growing but is hampered by limited infrastructure. Post-conflict rehabilitation and REDD+ projects are important priorities.
- Nigeria has a relatively high budget due to the size of its economy, but corruption and mismanagement limits effectiveness. There is a slight increase in forest budgets with green financing initiatives.
- São Tomé and Príncipe has maintained a stable budget with a slight increase, mainly focusing on eco-tourism and international grants. As a small country with protected forests, the funding is limited but effective.
- Sierra Leone shows moderate post-conflict increase reliant on international funding. The conservation budget is growing, but governance challenges persist. Post-civil war rehabilitation, REDD+ projects, and fragile public management are key.
- Togo has a budget that is slightly increasing with a growing focus on conservation. There is moderate dependence on international financing. Conservation initiatives are integrated into national policies, yet financial constraints remain.

Key trends and observations:

- Countries rich in natural resources, such as Cameroon, Equatorial Guinea, and Nigeria, often see fluctuations in environmental budgets based on revenues from mining and oil extraction.
- Despite the trend of increasing state funding in many countries, issues of corruption and mismanagement often hinder the effectiveness of the budgets allocated. Political and economic instability can lead to budgets being redirected.
- Countries that have experienced conflicts, like Côte d'Ivoire, Liberia, and Sierra Leone, tend to increase their conservation budgets during reconstruction phases, although sustainability can be a challenge.
- Commitments to international agreements (such as the UN Sustainable Development Goals and REDD+) and partnerships with international organizations (like the World Bank, IMF, NGOs) positively influence the budgets allocated to forests.
- The quality of governance and the level of transparency in managing public funds play a crucial role in the effectiveness of environmental budgets. Countries facing corruption issues often have less effective budgets despite nominally high allocations.

11.7 Innovative financing mechanisms in conservation

Innovative financing mechanisms are emerging to address the pressing conservation needs of the Guinean Forests, facilitating investments that support biodiversity and sustainable development:

- REDD+ funding is increasingly available through voluntary carbon markets. National successes in Côte d'Ivoire and Ghana have been illustrated above. Another example from the voluntary market is the Gola Rainforest National Park in Sierra Leone. Through the Gola Rainforest Company– a partnership of the Forestry Division of the Government of Sierra Leone, the Conservation Society of Sierra Leone (CSSL), the Royal Society for the Protection of Birds (RSPB), and the people of the seven Gola Chiefdoms, the project generates carbon credits through sustainable forest management practices. The Gola REDD+ project aims to generate revenue from carbon credits by mitigating deforestation and avoiding over 6 million tons of CO_2 emissions, with a value of US$40 – 50 million. Korup, in Cameroon, is also implementing a REDD+ project.
- While debt-for-nature swaps are more commonly applied in other regions, they could potentially be introduced in West Africa to convert external debt into funding for local conservation projects. São Tomé and Príncipe has signed a two-year debt-for-nature swap agreement with Portugal, and the international environment is conducive to such initiatives. Cameroon, for example, has a debt-for-nature swap with France for the preservation of the Congo Basin, outside the hotspot.
- Public-private partnerships: In 2017, the Government of Nigeria's National Park Service signed a 30-year co-management public-private partnership agreement with Africa Nature Investors Foundation (ANI) for the protection and development of Gashaka Gumti National Park. The agreement has enabled ANI to invest in improving park infrastructure, recruiting, training and equipping rangers, and in livelihoods programs with surrounding communities, leading to a reduction in illegal logging, poaching and encroachment. ANI is developing a long-term sustainable financing model for the park based on eco-tourism, REDD+ carbon credits and other sources. They are also exploring the development of a transboundary project with the proposed Tchabal Mbabo National Park in neighboring Cameroon. In 2022 the National Park Service and ANI signed a similar 30-year agreement for the management of the Okomu National Park in Edo State

Other sustainable financing mechanisms that could be evaluated across the hotspot include:

- The High Integrity Forest Investment Initiative (HIFOR), an innovative financing mechanism designed to scale up investments for the conservation of high-integrity tropical forests. This initiative recognizes the climate, biodiversity, and socio-economic benefits of intact tropical forests and aims to shift global economic systems away from exploiting natural resources to valuing and maintaining essential natural infrastructure.
- The Biodiversity Investments Researcher & Accelerator (BIRA) Coalition, which plans to launch Africa's first nature Buyers' Club in 2025 and aims to connect financiers with nature-positive projects, enabling investment-grade biodiversity metrics and ecosystem units to be reported. The initiative seeks to raise significant funds for impactful biodiversity and carbon projects across Africa.
- West Africa could explore issuing conservation bonds. inspired by the Rhino Bond. These bonds would fund conservation efforts, with returns linked to specific biodiversity outcomes, such as the restoration of degraded lands or the protection of endangered species.

- In 2017, Nigeria issued its first sovereign green bond (financial instruments issued to finance projects with positive environmental impacts) to finance reforestation and renewable energy development projects. It was followed by Côte d'Ivoire in 2018 with the issue of green bonds to finance solar energy and sustainable forest management projects. In the same vein, Benin, through PADME (a green microfinance institution), has launched green financial products to support small businesses and sustainable agricultural projects.
- The Legacy Landscapes Fund (LLF) provides long-term, sustainable funding for critical protected areas globally. Although it has not officially designated sites within the Guinean Forests as legacy landscapes, its approach aligns well with the conservation needs of the region. LLF aims to secure financial support from both public and private sectors, with initial contributions from entities like the German Federal Ministry for Economic Cooperation and Development and the KfW Development Bank.

Conservation trust funds are specialized financial vehicles designed to support long-term conservation efforts by securing, managing, and allocating financial resources for biodiversity preservation. These funds typically gather capital through donations, debt-for-nature swaps, and governmental or international contributions. Conservation trust funds may use endowments that allow for the disbursement of interest earned, without depleting the principal amount, or sinking funds. This financial strategy provides a stable and reliable funding stream.

In the hotspot, two conservation trust funds are currently active:

- The Foundation for Parks and Reserves in Côte d'Ivoire (Fondation pour les Parcs et Réserves de Côte d'Ivoire, FPRCI): Established on November 20, 2003, and recognized as a public utility on January 8, 2009, this trust fund was the first in Côte d'Ivoire dedicated to conserving national parks and reserves. It finances projects linked to the preservation of Côte d'Ivoire's national parks and reserves, builds capacity of institutions, and commits nearly 2 billion CFA francs (approximately US$3 million) annually to the Ivorian Office of Parks and Reserves (OIPR) for managing these protected areas. FPRCI is also an active member of the Consortium of African Funds for the Environment (CAFÉ).
- Liberia Conservation Fund: Established in 2017, this fund is Liberia's first independent conservation trust. It started with an initial capital of US$2 million, including a US$1 million commitment from Conservation International through its Global Conservation Fund, matched by an equal contribution from the Liberian government via the Liberia Forestry Development Authority.

Additionally, two conservation trust funds are in development:

- EcoTéla Trust Fund in São Tomé and Príncipe: This fund is currently in the pipeline with no funding allocated yet. It is expected to become operational by 2025/2026.
- Guinea Conservation Trust Fund: This fund is being established with support from the World Bank under the Guinea Natural Resources, Mining, and Environmental Management Project. A feasibility study was validated by all stakeholders in September 2023, with an action plan set for implementation over three years.

There is also a conservation trust Fund in Cameroon, called the Foundation for Environment and Development in Cameroon (FEDEC). Established in 2001 and registered in the Netherlands, this fund is primarily oriented towards two protected areas in the southern part of the country, which do not overlap with the hotspot.

11.8 Conclusion

Conservation finance in the Guinean Forests of West Africa has evolved into a complex landscape, with diverse funding sources and multi-stakeholder collaborations. Recent years have seen increasing investment from multilateral funds (e.g., GEF, GCF, and World Bank programs), bilateral donors (e.g., AFD, EU, USAID), and philanthropic trusts (e.g., Rainforest Trust, Arcus Foundation). Innovative financing mechanisms, such as PES, green bonds and conservation trust funds, show potential to provide funding streams beyond normal project cycles. These models allow for the integration of public and private funding, creating partnerships that can sustain conservation efforts in the face of funding variability.

However, significant funding gaps and challenges persist, particularly in underfunded landscapes and lesser-known ecosystems. KBAs and conservation corridors that do not receive adequate attention or financial support risk losing habitat connectivity, undermining the long-term conservation goals of the region. In addition, harmonizing conservation policies across national borders remains a major hurdle in transboundary conservation projects, as differing national priorities and legal frameworks can hinder collaborative efforts.

In this context, CEPF and other stakeholders have demonstrated that aligning financial strategies with both local needs and regional priorities is essential. Understanding and aligning strategies for conservation finance is key to making the most effective use of the funds available, and to defining CEPF's niche within conservation in the hotspot (Chapter 12). Key points relevant to CEPF's future role are:

- Strengthening capacity of CSOs to access funding, including assisting them to achieve the standards required to be eligible for larger funding, and supporting them to develop capacity for successful management of projects. Helping CSOs understand the opportunities and risks involved in emerging funding mechanisms, including the carbon trade.
- Opportunities to collaborate with other CSO-funding organizations: working with other donors that fund CSOs and whose mission and objectives overlap with those of CEPF is an effective way to broaden the impact of the CEPF program. Collaboration could involve knowledge exchanges (for grant management teams and for grantees); alignment and sharing of training programs; co-financing of projects; or graduating CEPF small-grant recipients to apply for larger funds from other donors. Potential partners include the Rainforest Trust, the GEF-Small Grants program in each country, IUCN-PPI, the AFR100 (both the terrafund, and AFR100's network of trained CSOs and community groups).
- Opportunities to complement funding that target governments with CSO-focused funding: for example, CEPF could support CSO site-level actions which complement the GEF-GFIP program, which will support governments to address transboundary governance, policy harmonization, and sustainable financing mechanisms. Such collaboration could enable small, CEPF-funded projects to participate in carbon projects

Successful coordination with other donors will be key to ensuring that funding stream complement each other and add value, as opposed to duplicating efforts. It will also be important to working with other donors and key grantees to influence the targeting and effectiveness of conservation investment, for example by:

- Helping conservation agencies implement monitoring and reporting mechanisms to ensure the effective use of funds.
- Support establishment of the regulations and institutions needed for innovative financing mechanisms such as green bonds, environmental taxes, and payments for ecosystem services.

- Support training and strengthening for the institutions responsible for managing environmental funds.
- Encourage collaboration between the government, private sector and CSOs to increase the resources available for conservation.
- Ensure that forest protection is a priority integrated into economic and social development plans.

An important part of donor coordination could be shared monitoring and evaluation of projects and programs, to encourage good practices and learning among CSOs and donors. Many donors have their own monitoring schemes (for example, AFR100, WABiLED), and there are established platforms for sharing such those established by the EU PAPbio/NaturAfrica initiatives.

At the regional level, AFR100's multi-stakeholder national platforms offer an opportunity to collaborate directly with government agencies, CSOs and the private sector, while WABiLED's policy harmonization efforts with ECOWAS and MRU offer a solid basis for CEPF to advocate for and support continuous policy integration across West Africa. Leveraging WABiLED's policy outcomes can enhance coherence in conservation laws, enforcement, and cross-border environmental collaboration in the region.

12. CEPF NICHE FOR INVESTMENT

12.1 Lessons from previous phases

Between 2001 and 2022, CEPF invested US$18.4 million through two phases of grant-making in the GFWA hotspot. The first phase (2001-2012) invested US$8.3 million in the Upper Guinean Forests, while the second phase (2016-2022) granted US$10.1 million across the entire hotspot. The projects in the second phase had impacts at the level of species (14 projects delivered priority actions for 40 CR and EN species), sites (including 12 protected areas) and in eight of the nine (now 10) conservation corridors across the hotspot.

In 2022, CEPF carried out an extensive stakeholder consultation exercise which led to the development of a Long-term Vision for the hotspot (CEPF 2022b). The process included a review of lessons from CEPF's two phases of funding, and from related conservation programs. Key lessons identified as part of this process were related to site-level conservation, scaling impact through stakeholder collaboration, science and data, CSO capacity, and long-term funding and sustainability (Table 12.1).

Also in 2022, CEPF commissioned an independent evaluation of lessons learned by the RIT (Cynosure, 2022). The evaluation offered the following lessons and recommendations:

- CEPF should consider narrowing its geographic focus, for example by focusing on a sub-set of countries in the hotspot with a higher proportion of geographic overlap, KBAs and corridors; or managing the hotspot by two RITs covering the upper and lower regions of the hotspot, respectively. Conversely, it was recognized that broad geographic focus allows flexibility to respond to changing circumstances.
- A longer list of priority KBAs allows for flexibility when priority KBAs cannot be accessed, no proposals are received or other donors fund work at them. It also reduces the risk of excluding high-capacity CSOs that already have established programs of work on the ground.
- Making clusters of grants to CSOs with complementary skills to address the conservation of the same site proved to be an effective approach to leveraging the skills and experience of different CSOs
- Continuity of funding over several years proved to be very important. This was achieved, in some cases, by extending the timeline of grants, allowing grantees more time to utilize grant funds, or approving cost extensions to grants, where additional funds were needed to consolidate or build on success. In other cases, it was achieved by awarding consecutive grants
- Also connected to continuity, there was broad consensus among civil society, donor and government stakeholders that CEPF should continue to focus attention on sites that had already received support from the fund, in order to build on past successes.
- Exchange of experience proved to be important for building the capacities of individual CSOs, as well as for developing a stronger "conservation community", able to influence policy making and private sector business practices. stakeholders' surveys underlined the importance of face-to-face exchanges.

Table 12.1. Summary of Strategic Lessons and Recommendations from the Long-term Vision for the Hotspot

Lesson	Responses relevant to CEPF
Site-level conservation strategies	
Conservation interventions cannot be successful and/or sustainable without community ownership. Without attention to these issues, communities are more likely to trade land for handouts from extractive industry	Empowering communities to work for their own development must be at the core of all investments. It is expected that livelihoods will be a core component of field-based projects. These interventions should be based on a clear theory of change which articulates the link between livelihoods and biodiversity conservation.
Community empowerment includes secure, legal access to natural resources. In many hotspot countries there are legal frameworks for community-based management	Encourage the use and expansion of existing legal frameworks permitting community-based resource management
Conservation requires behavior change at local and regional (e.g. consumer) level. Creative media is an efficient, high-impact approach	Strengthen collaboration with the media, improve CSO capacity to work on communications
Stakeholder engagement for scaling impact	
Some parts of the private sector are interested in mitigating negative environmental impacts from their business process, funding mitigation interventions, promoting sustainable supply chains	Engage with private sector (e.g. through multi-stakeholder discussion platforms) to promote adoption of sustainable practices, to increase financial contributions to conservation, and to promote investment in innovative financial mechanisms (e.g. offset, carbon trade, ecosystem services)
Government support is crucial to the success, maintenance and upscaling of all conservation interventions, from identifying KBAs to planning, licensing decisions, designation of PAs, site-based interventions and the policy framework.	Build strong relationships with relevant authorities at the onset of all investments; media campaigns and public awareness can contribute, facilitated through training for journalists, and training for CSOs on effective communications
Conservation impact will be enhanced by cross-border transboundary conservation, sharing of information and standardization of approaches. Existing cooperation mechanisms (e.g. MRU, COMIFAC, ECOWAS) offer an opportunity to do this but do not address the whole hotspot.	Encourage regional collaboration and harmonization between governments, e.g. through an informal coordination platform specifically for the hotspot countries (a model is the platform created for the Great Green Wall programme)
Science and data	
There are gaps in knowledge of biodiversity and conservation good-practice; information is fragmented	Encourage original field work and research to address key knowledge gaps. Establish a rigorous long-term monitoring systems and a mechanism to facilitate sharing information
CSO capacity development	
Grassroots organizations require tailor-made, medium- to long-term support	synchronize different funding sources to achieve the financial security needed for long-term organizational development;
The mentoring approach was highly successful, but participant commitment is critical to success	Continue promoting mentorship, ensure that participation is voluntary and supported by the CSO
Peer-to-peer learning is a powerful capacity development approach that should be maximized	Create opportunities for CSOs to meet, exchange and network at different levels

Lesson	Responses relevant to CEPF
CSOs must be encouraged to collaborate rather than compete for funding, but this cannot be forced	Encourage and support trust building through peer learning, exchanges, funding collaborative projects
Support to CSO capacity must be based on an adequate shared understanding of need and context	Hold in-person meetings and allow adequate time to establish a relationship between CSO, donor and capacity provider
Capacity development should be coupled with receiving a small grant	Put in place measures to ensure that capacity development leads to improved performance
Long-term funding and sustainability	
Mechanisms to deliver funding to small CSOs and grassroots organizations are inadequate. These organizations lack the capacity and profile required to access donor funds.	Target CEPF small grants to local and smaller organizations, and tailor the project approval and support process to the needs of this group
Insufficient funding for science-based evidence-generation projects to inform the prioritization and design of conservation investments	Ensure that funding for data collection and field work builds capacity and leaves grantees in a stronger position to seek additional funds
Insufficient knowledge sharing and collaboration between stakeholders in the hotspot limits complementarity	Engage conservation funders (especially CSO small grants providers) to share information and, as appropriate, coordinate grant-making

12.2 The context for the next phase of CEPF funding: conclusions from Chapters 1 - 11

Understanding of the biodiversity importance of the hotspot has increased as more fieldwork and taxonomic revisions result in the identification of new species and more sites of critical importance for their conservation (Chapters 4 and 5). With 222 Critically Endangered species, 21 believed to be restricted to a single KBA (See Annex 1), the need for conservation action at priority sites remains high. Many taxonomic groups are poorly known, and it is likely that further species will be discovered in future. There is a backlog of data available for updating and expanding the KBA analysis which needs to be addressed. This process has the support of stakeholders through KBA National Coordinating Groups in five countries.

The countries of the hotspot lost 6% of their forest cover between 2010 and 2020. The level of threat to the biodiversity and ecosystems of the hotspot is increasing (Chapter 6). While the country-level Red List Index detects only a slight increase in threat level, this may reflect paucity of data and delays in updating the Red List assessment. Data on deforestation and other threats from KBAs as well as at country level tell a story of continuing loss of habitats. Economic and demographic data (Chapter 7) support the prediction that pressure on the natural environment will increase in future.

The causes of ecosystem loss and degradation (Chapter 5) are unchanged from those identified in the 2015 ecosystem profile: small-scale but expansive subsistence and smallholder agriculture, direct exploitation of animals and plants for consumption and trade, and large-scale clearance for plantations and other commercial investments. Key drivers include poverty (including the dimensions of lack of secure access to productive resources, lack of access to education, healthcare, migration), and policies that prioritize economic growth through the expansion of primary resource industries (mining, agroindustry, etc.). The analysis reinforces the importance of work to enhance livelihoods as an integral part of site-based conservation action.

A significant proportion of the KBAs in the hotspot are within protected areas, and so the quality of management of protected areas is a key factor in conservation of biodiversity. Government funding for protected area management is inadequate, however, leaving these areas vulnerable to incompatible activities. Outside protected areas, land tenure arrangements (e.g., different ownership of tree and land) discourage sustainable practices in some cases, while, in others, customary and community initiatives have been recognized by law and provide a strong community-led basis for resource management. CSOs are in a strategic position to contribute by bringing together communities, governments and other stakeholders.

Donors, especially bilateral and multilateral institutions, make significant investments in the environment sector, including biodiversity conservation (Chapter 11). Not all these funds are available to CSOs, however, and those that are tend to be accessed by international (and a few national) NGOs that have the profile and capacity to meet donor requirements. These larger NGOs may play an important role in partnering with local organizations, providing funding and capacity support. Direct funding for smaller, local CSOs is largely restricted to CEPF, the GEF SGP, and FFEM-PPI.

The importance of the private sector has grown, because of new investments, and because of an increased interest from the private sector in mitigating the environmental and social damage caused by its operations. There are opportunities to encourage better practices by companies, to encourage companies to contribute more to the communities and ecosystems within which they operate, and to link community initiatives with new markets. At the same time, investors are showing increasing interest in emerging opportunities for financing environment and climate related activities, including through carbon trade and biodiversity credits.

CSOs in the hotspot face a range of challenges (Chapter 9). The political environment in which they operate is constrained to some degree in most countries, with political and legal pressure restricting the freedom of the press and the right of people to assemble and assert their rights. Only São Tomé and Principe is considered an open country in this respect. Internally, CSOs, suffer from a lack of secure long-term financing, high staff turnover and the organizational challenges of adapting to a dynamic political and social environment. CSO networking and collaboration is generally weak, meaning the opportunities to achieve collective impact on policies are missed. There are numerous capacity development initiatives and opportunities. Many of them address project-management skills which, while vital, are insufficient to ensure the long-term resilience of civil society in the hotspot. Experience of delivering long-term organizational change is accumulating, however, and there are several specialist sources of support available.

12.3 Strategic focus for CEPF in the Guinean Forests of West Africa, 2025-2029

This section describes the key strategic components of CEPFs program in the hotspot. These components form the basis for the strategic directions and investment priorities identified in Chapter 13.

12.3.1 Data as a basis for policy-advocacy and priority setting

Data are the basis of good policy- and decision-making. There is an important opportunity to use existing data on species, sites and conservation practice in the hotspot to improve the analysis of priorities and to inform policies and programs. However, existing data are patchy, and in some cases out of date, with many gaps in knowledge of specific sites and taxonomic groups. Although, historically, science was driven by institutions outside the region, an increasing number of collaborative initiatives are starting to build a cadre of experts and institutions within the hotspot who can carry out the work of identifying species and sites. In addition, private companies are becoming an important contributor to biodiversity data collection, as they attempt to quantify their impact and plan for mitigation. CEPF's support for data gathering and analysis will contribute to filling priority gaps in knowledge, strengthening collaborative work and local capacity.

12.3.2 Sustainable conservation action for sites and landscapes

At the heart of the delivery of CEPF's mission is the sustainable conservation management of sites, protecting threatened species and contributing to more secure livelihoods for local communities. CEPF will continue to focus on the conservation of priority terrestrial and freshwater ecosystems, including coastal areas.

CSOs are the focus of CEPF support because they advance site conservation through their role as an intermediary between communities, government and other stakeholders. CSOs are most effective when they have relevant capacity (see below). They are also likely to be more effective when they collaborate with other CSOs, and when they engage strategically with government and private sector decision makers. Grassroots and community groups which exist to serve the interests of their members and their community are found in or around most sites where CEPF might fund work. These groups are key partners for action on conservation and livelihoods. Many such groups will have informal or traditional structures of decision making and governance which may not be adequate to apply for and manage a CEPF grant. In such cases, there are a range of options, including capacity building, if the group wishes to formalize its structures and processes; working through a more experienced CSO as a financial intermediary which provides administrative and technical support; or making a grant to a CSO which works in partnership with one or more grassroots groups. The decision on the most appropriate modality will be assessed by the RIT in discussion with potential partners and grantees.

Landscape approaches to conservation (i.e., addressing wider land-use and other issues beyond the boundaries of a site or KBA) were addressed by several of the projects funded under the previous phase of CEPF investment. The Long-term Vision advocates wider adoption of landscape approaches, to tackle pressures which originate outside the boundaries of a site, and to ensure that KBAs remain connected to each other through sympathetically managed corridors of habitat. Landscape approaches are challenging, however, because they increase the number of stakeholders who must be engaged (including multiple communities and government agencies with different mandates and responsibilities) and with them, the number of issues that need to be addressed. The time and effort needed to convene the stakeholders in a complex landscape can overwhelm the resources of a small project. In addition, some of the KBAs and protected areas in the hotspot are already large and complex sites, even before the surrounding landscapes are considered. Funding landscape approaches could involve a cluster of grants to different grantees working in a coordinated way, and might include making a grant to facilitate this coordination.

CEPF will fund landscape approaches where there is a clear need and strategic link between the conservation of a site (e.g., addressing pressures or maintaining connectivity) and land use in the surrounding area. CEPF will work with grantees to address challenges, for example by leveraging additional funding, and facilitating collaboration with other grantees and organizations working in the same locality.

Where organizations undertake livelihood actions, there will be a need to ensure that these efforts are relevant to, or re-enforce conservation goals. This could include conservation stewardship agreements, memoranda of understanding, and other *quid pro quo* arrangements between communities and grantees with promises of certain actions in exchange for support.

12.3.3 Scaling site-level experience to engage with government and the private sector

A lesson from previous phases (and other hotspots; see the Mediterranean Basin Hotspot Ecosystem Profile, for example) is that policy-advocacy and modelling of good practice to influence the private sector is most effective when it is based on a site-based intervention. Building up from local to national and regional levels ensures that narratives and models have legitimacy and relevance in a specific context.

12.3.4 A tiered approach to capacity development and organizational development

Strengthening local CSO capacity is a priority for CEPF in all hotspots and is an essential element of supporting effective project delivery. In the Guinean Forests Hotspot, masterclasses, peer-to-peer learning and mentoring relationships between CSOs have proved particularly effective in building the capacity of smaller CSOs to develop and run conservation projects. These skills can be efficiently delivered through standardized training courses that bring together several CSOs, supported by appropriate preparation and follow-up. Participation in this kind of capacity development will normally be linked to a project grant, and will be available to all grantees, based on a capacity development plan developed with the RIT at the proposal development stage.

In addition, however, CEPF is committed to building the resilience and sustainability of CSOs in the hotspot, with a view to being able to eventually withdraw, leaving a strong civil society that can secure funding and act independently. This requires a long-term OD approach that is tailored to the specific needs of each CSO and delivered in a way and at a pace that is dictated primarily by the CSO itself. CSOs that want to embark on an OD journey require secure, dedicated funding and specialist support. Not all CSOs will be ready or interested, and CEPF's ability to support these initiatives will be limited by the available of funds (and perhaps also specialist support). To address this, CEPF will ensure that OD support prioritizes CSOs with a proven potential to contribute to

conservation in the hotspot that have demonstrated a desire to undertake an OD process. The level of funding required for these interventions is not clear at the outset. It may be that CEPF funds the initial stages of an OD process and assists the CSO to secure funding to continue the process. Ensuring the OD process is owned by the CSO through planning and implementation will be key.

13. CEPF INVESTMENT STRATEGY AND PROGRAMMATIC FOCUS, 2025-2030

13.1 Priorities for CEPF investment

13.1.1 Priority species

Threats to most species are connected with habitat loss and over-exploitation, and, in many cases, these will be effectively addressed if the KBAs they depend on are conserved. However, some species cannot be conserved through site-based measures alone, because they occur at very low densities, or engage in long-distance movements seasonally or at different stages in their life history. Others may exist within protected KBAs but be under intense threat because they are targets for illegal exploitation or persecution. Finally, for some species, the small size of their population makes them vulnerable to disease or chance events, such as fires, and they therefore require specific conservation attention.

Based on these considerations, the full list of species outcomes (Section 5.2) were assigned priority rankings, using the following criteria:

A. Species that are Critically Endangered.
B. Species that are Endangered.
C. Species that have a restricted range and are likely to be endemic to the hotspot (i.e., 100% of the known global population or known global range is within the hotspot).

Species that met both criteria A and C were assigned to priority rank 1. Species that met either criterion A only, or both criteria B and C were assigned to priority rank 2. A total of 386 species were assigned to one of these two priority ranks (Annex 1). Table 13.1 shows the most urgent outcomes as red, equivalent to Critically Endangered with a restricted range, with the second-most urgent outcomes as yellow, equivalent to Endangered with a restricted range, or Critically Endangered without a restricted range.

Table 13.1. Prioritization of Species Outcomes

	Restricted range	Non-restricted range	Total
Critically Endangered	83	138	**221**
Endangered	164	322	**486**
Vulnerable	79	379	**458**
Data Deficient	85	198	**283**

The 83 species that are both Critically Endangered and restricted range are priorities for CEPF investment. These comprise 25 amphibians, 24 bony fishes, nine mammals, seven mollusks, six birds, four plants, three reptiles, three freshwater crabs and shrimp, one ray, and one insect (Table 13.2).

In applying these criteria and using them for the selection of conservation projects, it is important to recognize the large number of species that have not been assessed for the Red List, or which are assessed as data deficient. There will be many species among them which are also priorities for conservation action.

Of the 83 priority species for CEPF investment, 35 have been recorded from at least one KBA: 18 amphibians; eight mammals; five birds; three plants; and one freshwater crab. These 35 species occur at 50 KBAs in total. Annex 1 lists the priority 1 species and KBAs.

Table 13.2. Priority Species for CEPF Investment

No.	Scientific Name	Common Name	No.	Scientific Name	Common Name
Amphibians			**Bony Fishes**		
1	*Alexteroon jynx*	Smooth Egg-guarding Frog	32	*Callopanchax monroviae*	*na*
2	*Arthroleptis krokosua*	Krokosua Squeaking Frog	33	*Clarias maclareni*	*na*
3	*Astylosternus nganhanus*	Nganha Night Frog	34	*Coptodon coffea*	*na*
4	*Cardioglossa manengouba*	Manengouba long-fingered frog	35	*Enteromius bagbwensis*	*na*
5	*Cardioglossa trifasciata*	Nsoung Long-fingered Frog	36	*Enteromius clauseni*	*na*
6	*Conraua derooi*	Togo Slippery Frog	37	*Enteromius melanotaenia*	*na*
7	*Conraua sagyimase*	Atewa Slippery Frog	38	*Epiplatys coccinatus*	*na*
8	*Crotaphatrema lamottei*	Mount Oku caecilian	39	*Fundulopanchax scheeli*	Scheeli Killifish
9	*Leptodactylodon axillaris*	*na*	40	*Konia dikume*	*na*
10	*Leptodactylodon erythrogaster*	Redbelly Egg Frog	41	*Konia eisentrauti*	*na*
11	*Leptodactylodon wildi*	Wild's Egg Frog	42	*Labeo curriei*	*na*
12	*Nimbaphrynoides occidentalis*	Mount Nimba Viviparous Toad	43	*Ladigesia roloffi*	*na*
13	*Petropedetes perreti*	Perret's Water Frog	44	*Myaka myaka*	*na*
14	*Phrynobatrachus afiabirago*	Afia Birago's Puddle Frog	45	*Parauchenoglanis buettikoferi*	*na*
15	*Phrynobatrachus chukuchuku*	Spiny Puddle Frog	46	*Pungu maclareni*	*na*
16	*Phrynobatrachus intermedius*	Intermediate Puddle Frog	47	*Sarotherodon caroli*	*na*
17	*Phrynobatrachus jimzimkusi*	Jim Zimkus' Puddle Frog	48	*Sarotherodon linnellii*	*na*
18	*Phrynobatrachus njiomock*	Lake Oku Puddle Frog	49	*Sarotherodon steinbachi*	*na*
19	*Sclerophrys perreti*	Perret's Toad	50	*Scriptaphyosemion etzeli*	*na*
20	*Werneria bambutensis*	Bamboutos Smalltongue Toad	51	*Scriptaphyosemion schmitti*	*na*
21	*Werneria mertensiana*	Mertens' Smalltongue Toad	52	*Stomatepia mariae*	*na*
22	*Werneria tandyi*	Tandy's Smalltongue Toad	53	*Stomatepia mongo*	*na*
23	*Wolterstorffina chirioi*	Mount Oku Wolterstorff Toad	54	*Stomatepia pindu*	*na*
24	*Wolterstorffina parvipalmata*	Cameroon Wolterstorff Toad	55	*Synodontis macrophthalmus*	Squeaker Catfish
25	*Xenopus longipes*	Lake Oku Clawed Frog	**Freshwater crabs and shrimp**		
Birds			56	*Afrithelphusa leonensis*	*na*
26	*Bostrychia bocagei*	Dwarf Ibis	57	*Liberonautes grandbassa*	*na*
27	*Crithagra concolor*	São Tomé Grosbeak	58	*Liberonautes lugbe*	*na*
28	*Lanius newtoni*	Newton's Fiscal	**Insects**		
29	*Otus feae*	Annobón Scops Owl	59	*Elattoneura pluotae*	*na*
30	*Otus bikegila*	Principe Scops Owl			
31	*Turdus xanthorhynchus*	Principe Thrush			

Ct.	Scientific Name	Common Name
Mammals		
60	*Cercopithecus roloway*	Roloway Monkey
61	*Crocidura wimmeri*	Wimmer's Shrew
62	*Hipposideros lamottei*	Lamotte's Roundleaf Bat
63	*Lophuromys eisentrauti*	Mount Lefo Brush-furred Rat
64	*Myosorex eisentrauti*	Eisentraut's Mouse Shrew
65	*Piliocolobus epieni*	Niger Delta Red Colobus
66	*Piliocolobus pennantii*	Pennant's Red Colobus
67	*Piliocolobus preussi*	Preuss's Red Colobus
68	*Piliocolobus waldroni*	Miss Waldron’s Red Colobus
Mollusks		
69	*Bellamya liberiana*	*na*
70	*Coelatura essoensis*	*na*
71	*Melanoides voltae*	*na*
72	*Pleiodon ovatus*	*na*
73	*Potadoma angulata*	*na*
74	*Potadoma togoensis*	*na*
75	*Pseudocleopatra togoensis*	*na*
Plants		
76	*Acridocarpus staudtii*	*na*
77	*Aubregrinia taiensis*	Great Tiger-nut Tree
78	*Ledermanniella keayi*	*na*
79	*Tarenna hutchinsonii*	*na*
Reptiles		
80	*Cynisca gansi*	*na*
81	*Lacertaspis lepesmei*	Angel's Five-toed Skink
82	*Trachylepis nganghae*	*na*
Sharks, Rays		
83	*Fontitrygon garouaensis*	Niger Stingray

13.1.2 Priority sites

While all KBAs are important, their contribution to the conservation of biodiversity in the hotspot is ranked to prioritize CEPF support. Two complementary approaches to ranking are used: the irreplaceability-vulnerability approach, which was used in the 2015 ecosystem profile; and an approach that uses the Species Threat Abatement and Restoration (STAR) metric that measures the contribution that investments can make to reducing species' extinction risk.

KBA prioritization using irreplaceability-vulnerability

This standard approach to ranking KBAs follows the methodology described in Langhammer *et al.* (2007), in which each KBA is assigned to a category based on (1) species-based irreplaceability, which is an indication of how unique the KBA is, and (2) species-based vulnerability, which an indication of the risk that the species at the KBA will go extinct. The final score for biological importance is assigned to the KBA based on these two factors.

Species-based irreplaceability: For each species recorded from the KBA, an estimate is made of the total number of sites where that species can be found. For simplicity, the estimated number of sites can be one, two to 10, 11 to 100 or greater than 100 (Table 13.3). The KBA is assigned the irreplaceability value of the most irreplaceable species found there. Thus, if a KBA supports a species that is not found at any other site, the KBA irreplaceability value will be 1 or 'extreme'.

Table 13.3 Species-based Irreplaceability Classification for KBAs

Adjusted number of KBAs in the hotspot where the species is thought to occur	Species irreplaceability classification for the site
1	Extreme
2-10	High
11-100	Medium
>100	Low

The number of sites where a species occurs is initially calculated from lists of the species known from each KBA in the hotspot. However, this may not give an accurate estimate of the number of sites where the species is found, especially for (1) species that are only recorded from one or a few KBAs, when they are known to be more widespread in the hotspot; or (2) species that are known to occur widely outside the hotspot but are only recorded at one or a few KBAs in the hotspot. For the GFWA, the latter group includes savanna/Sahel species whose range only marginally overlaps with the hotspot.

To eliminate these sources of error, records of species that were recorded from less than 10 KBAs in the hotspot (i.e., categories 'Extreme' and 'High') were reviewed and adjusted to more accurately represent the number of sites where the species occurs. Annex 1 shows the number of KBAs in the GFWA where each threatened species is recorded, as well as the estimated number sites where the species occurs globally.

Species-based vulnerability: Each species recorded at a KBA is assigned to a species vulnerability category based on its Red List status. The KBA is assigned the species-based vulnerability score of the most threatened species found there. Thus, if a KBA has one or more Critically Endangered species, the KBA vulnerability value will be 'extreme' (Table 13.4).

The final irreplaceability-vulnerability score of the KBA depends on the pair of species-irreplaceability and species-vulnerability categories that apply to the KBA (Table 13.5). The score can be between 1 (for KBAs that have a unique species that is Critically Endangered) and 5, with 1 being the highest biological importance.

Table 13.4. Species-based Vulnerability Classification for KBAs

Red List category of the most threatened species at the site	Species-based vulnerability classification for the site
Critically Endangered	Extreme
Endangered	High
Vulnerable	Medium
Near Threatened, Least Concern	Low

Table 13.5 Allocating Biological Importance Scores for KBAs Based on Species Irreplaceability and Vulnerability

		Species vulnerability category (category assigned is the highest category for any species at the KBA)			
		Extreme	**High**	**Medium**	**Low**
Species-irreplaceability category (category assigned is the highest category for any species at the KBA)	**Extreme**	1	2	3	4
	High	2	3	4	5
	Medium	3	4	5	5
	Low	4	5	5	5

KBA prioritization using STAR

The global Species Threat Abatement and Restoration (STAR) approach gives a score for each species of birds, mammal and amphibian that occurs at a KBA based on: (1) the Red List category of that species; and (2) the proportion of the species' range that is within the KBA. The highest score will be for a Critically Endangered species whose range is entirely within the site and that does not occur anywhere else. The scores for all the species that occur at site are added to calculate the STAR score for the site itself.

The STAR metric is different from the irreplaceability-vulnerability approach described above, in that it:

- Assumes a species is present at a site if the species' mapped range overlaps with the site, even if it has not been recorded there[80]. This is likely to result in more species being counted at each site but also means that if there is no range map associated with the species on the Red List, it will not be included.
- Allocates scores to every species and sums them to generate a score for the site, as opposed to taking the highest irreplaceability/vulnerability score. This means that sites with large numbers of less threatened species can score higher than those with a few highly threatened species.

A limitation of the STAR methodology is that the score is currently calculated using only those taxonomic groups for which relatively complete data is available: birds; mammals; and amphibians. This means that a site that is especially important for species in other taxonomic groups, such as plants, freshwater fishes, dragonflies or crustacea, will receive a lower score than a site that has a comparable community of birds or mammals.

[80] This information refers to the *estimated* STAR *threat abatement layer*. Where data is available, the STAR approach also allows calculation of *calibrated STAR layer* (which would confirm species and threats presence within the sites) and the *STAR restoration* layer (which would identify restoration opportunities).

Results of the biological prioritization of KBAs
Twenty KBAs received a biological importance score of 1 using the irreplaceability-vulnerability approach described above. This means they are the only known site for at least one Critically Endangered species. The STAR approach yielded site scores of between 0 and 2,721. A group of seven sites had very high scores (between 550 and 2,721), with the vast majority (112 sites) scoring less than 200.

Of the seven sites with the highest STAR scores, six were also top-ranked in the irreplaceability-vulnerability approach, while one (Taï forest in Côte d'Ivoire) received a score of 2. This is because Taï has a large number of threatened species (63), so scores highly following the STAR approach, but the three Critically Endangered species found at the site are all relatively widespread, which lowers the irreplaceability–vulnerability score.

The final list of priority site outcomes (KBAs) was generated using:

- All the KBAs that were ranked 1 following the irreplaceability-vulnerability approach. This ensures that all sites that support a unique, Critically Endangered species are included.
- The top 20% of KBAs based on the STAR ranking.

This produced a list of 33 KBAs (24% of all confirmed KBAs in the hotspot). Twenty-five of them are ranked 1 or 2 by both approaches described above. The priority KBAs are in eight of the 11 countries in the hotspot: 13 in Cameroon; seven in Liberia; three in Equatorial Guinea; and two each in Côte d'Ivoire, Ghana, Guinea, Nigeria, and São Tomé and Príncipe. Sierra Leone, Benin and Togo do not have any KBAs on the priority list. Table 13.6 lists the priority KBAs. The biological importance category for each KBA can be seen in Annex 2.

Table 13.6. Priority Sites for CEPF Investment

Map code	KBA Code	Country	KBA name	Single site CR species	High STAR score
CMR1	6125	Cameroon	Bakossi mountains	x	x
CMR10	26329	Cameroon	Mont Nganha*	x	
CMR11	6126	Cameroon	Mont Nlonako		x
CMR12	6130	Cameroon	Mount Cameroon and Mokoko-Onge*	x	x
CMR13	29690	Cameroon	Mount Lefo*	x	
CMR15	6115	Cameroon	Mount Oku	x	x
CMR16	6127	Cameroon	Mount Rata and Rumpi Hills Forest Reserve*	x	x
CMR18	6112	Cameroon	Tchabal-Mbabo*		x
CMR19	6129	Cameroon	Yabassi		x
CMR20	47084	Cameroon	Eastern Bamenda highlands and associated hydrobasin*		x
CMR3	29689	Cameroon	Bamboutos Mountains*	x	
CMR5	6122	Cameroon	Korup National Park		x
CMR9	6124	Cameroon	Mont Manengouba*	x	x
CIV11	6100	Côte d'Ivoire	Taï National Park and Nzo Faunal Reserve		x
CIV8	6092	Côte d'Ivoire	Mount Nimba Strict Nature Reserve*	x	x

Map code	KBA Code	Country	KBA name	Single site CR species	High STAR score
GNQ1	6378	Equatorial Guinea	Annobón	x	
GNQ2	6380	Equatorial Guinea	Luba Caldera Scientific Reserve*	x	
GNQ3	6379	Equatorial Guinea	Basilé Peak National Park*	x	x
GHA2	6311	Ghana	Ankasa Resource Reserve - Nini-Sushien National Park*	x	x
GHA3	6312	Ghana	Atewa Range Forest Reserve*	x	
GIN8	6375	Guinea	Massif du Ziama		x
GIN9	6376	Guinea	Monts Nimba (part of Mount Nimba transboundary AZE)*	x	x
fw12	47038	Liberia	Weeni creek and associated hydrobasin*	x	
LBR1	6461	Liberia	Cestos - Senkwen		x
LBR11	6457	Liberia	Lofa-Gola-Mano Complex		x
LBR12	6458	Liberia	Nimba mountains*	x	x
LBR14	6462	Liberia	Sapo		x
LBR2	22308	Liberia	Cestos Gbi		x
LBR7	6463	Liberia	Grebo		x
NGA14	100504	Nigeria	Idanre Hills*	x	x
NGA4	6740	Nigeria	Cross River National Park (Oban Division)		x
STP1	45720	São Tomé-Príncipe	Parque Natural Obô de São Tomé e Zona Tampão*	x	x
STP2	6884	São Tomé-Príncipe	Príncipe forests*	x	x

Note: * = sites also identified as priorities by the Alliance for Zero Extinction (see below).

Twenty-two KBAs are both priority 1 KBAs based on the irreplaceability-vulnerability approach or STAR approach *and* support priority species. A further 28 KBAs support priority species but do not qualify as priority sites under the biological prioritization. Finally, 11 KBAs qualify as priority sites but do not support priority species. Annex 2 gives details of the status of each KBA.

13.2 Strategic directions and investment priorities

Table 13.7 summarizes the strategic directions and subordinate investment priorities that constitute the thematic priorities for CEPF investment in the hotspot. Full descriptions are given in the following sections.

Table 13.7. GFWA Strategic Directions and Investment Priorities, 2025-2030

Strategic Direction	Investment Priority
1. Support local partnerships for conservation of globally important biodiversity in priority sites and ecological corridors	1.1. Advance the protection and conservation management of priority sites and the ecological corridors that connect them
	1.2. Strengthen the long-term financial sustainability of conservation efforts for priority sites
2. Safeguard priority globally threatened species and ecosystems by identifying and addressing major threats and information gaps	2.1. Consolidate and improve critical data on threatened species and ecosystems
	2.2. Promote action for the conservation of threatened species and ecosystems

Strategic Direction	Investment Priority
3. Mainstream biodiversity conservation into public policy and private sector practice	3.1. Update the Key Biodiversity (KBA) analysis for the hotspot and strengthen national mechanisms for KBA recognition and promotion, including National Coordination Groups
	3.2. Compile data and communicate the need and opportunities for conservation of KBAs and threatened species to the public, policy-makers and private sector
4. Facilitate the development of a robust and resilient community of conservation civil society organizations	4.1. Ensure that CEPF grantees have the technical capacity to plan, implement and sustain effective conservation projects
	4.2. Provide support to targeted conservation organizations engaged in a process of organizational development
	4.3. Enhance the collective strength and ability of conservation CSOs at national and regional levels
5. Provide strategic leadership and effective coordination of conservation investment through a Regional Implementation Team	5.1 Support a broad constituency of civil society groups working across institutional and political boundaries towards achieving the shared conservation goals described in the ecosystem profile

Strategic Direction 1. Support local partnerships for conservation of globally important biodiversity in priority KBAs and ecological corridors

CEPF's Long-term Vision for the hotspot emphasizes the importance of adopting an *integrated landscape-level approach*, which conserves priority KBAs and groups of KBAs through action within the KBA as well as in the landscape surrounding it and connecting it to other KBAs or other areas of habitat. A project may aim to do one or more of the following:

- Reduce pressure on a KBA by encouraging different, more productive or sustainable forms of resource use, alternative and enhanced livelihoods linked to biodiversity protection, or by addressing other factors which are driving pressure on the site.
- Maximize opportunities to retain or improve connectivity between ecosystems in the landscape, encouraging gene-flow and more resilient populations of wild species, and allowing species to move and adapt in response to climate change.
- Maintain or restore a connection between the conservation of KBAs and the ecological services they provide to surrounding communities, including water, local climate regulation, household products and recreational opportunities.
- Ensure that there is a focus on sustainable and biodiversity-friendly land use and management in areas surrounding the KBA, as well as on the conservation of the KBA itself.

Section 13.1.2 ranked KBAs based on their importance for biodiversity conservation, and identified 33 priorities sites for CEPF investment. These are the geographic priorities for funding under Strategic Direction 1. Evaluation of proposals will take in account the threats to the site, any existing conservation investment, and the history of CEPF support to the site.

Strategic Direction 1 is delivered through two investment priorities (IP), focused on the implementation of conservation action at site level (IP1.1) and the creation of sustainable financing mechanisms that will contribute to ensuring the resilience of the conservation efforts in the long term (IP1.2).

Investment Priority 1.1. Advance the protection and conservation management of priority KBAs and the ecological corridors that connect them

At the core of CEPF's mission is funding of local CSOs to work with partners (including government, private sector, community/grassroots groups and other CSOs) to conserve sites of global importance for biodiversity (i.e., KBAs). As noted above, the conservation of KBAs will be planned and addressed in the context of wider landscapes and of connectivity between sites.

The design of each project will depend on an analysis of the biodiversity, threats, stakeholders and current conservation interventions at each site. Projects may address the legal status of the site, planning and management policies, or direct action with resource users and other stakeholders on the ground. Project activities may be within a KBA, or they may be outside a KBA but necessary to achieve landscape and site conservation goals. These might include action to maintain or restore ecological connectivity between sites, and to ensure the maintenance of landscape level ecosystem services. Projects should take into account lessons from past work, including from past CEPF-funded projects. CEPF may fund cluster of grants to enable multiple grantees to implement complementary work which addresses the conservation of a single site or group or sites.

Half of the priority KBAs (16/33) have very little or no formal legal protection as a protected area. A further 29 are partially within a protected area. For some of these sites, a legal change giving them protected area status (as a new site or as part of an existing protected area) may be an option. In Liberia, for example, five KBAs totaling nearly 750,000 hectares are in the process of being incorporated into Kwa National Park. In such cases, the role of a CSO may be to ensure that biodiversity data is available and effectively used in demarcating the boundary of the site, and for planning conservation management. CSOs may also be involved in ensuring that local stakeholders are adequately informed and involved, and that protected area expansion and creation fully respects local and indigenous rights.

For many KBAs, however, protected area status is not a realistic goal (e.g., because of the economic importance of the site and concerns about limiting the rights of stakeholders). In such cases, CSOs may have a critical role to play in identifying why the important biodiversity values of the site have survived to the present, and how they can be sustained and perhaps expanded in future. This will require working with stakeholders who have the *de jure* and *de facto* control over the site, which may be government agencies, private sector, local communities, or some combination of these. Where appropriate, the designation of an OECM may be a useful path towards recognizing the conservation importance of the site without restricting the activities of resource users. In many cases, a local designation, possibly including recognition of indigenous and local community rights, will also be an effective way to increase the conservation of the site.

The 17 priority KBAs (52%) that are 90% or more within formal protected areas also face significant threats, despite their legal protection. Data from stakeholder consultation showed that, for the KBAs discussed, only one-third of the KBAs within protected areas have any management plan in place, and less than half have substantive conservation action in place. In many cases this is because the resources allocated for protection and management of the site are inadequate to deal with the challenges or not used effectively. The role of CEPF-supported CSOs in these cases is not to replace inadequate government funding but it may be to assist to build capacity, resolve conflicts, work with surrounding communities to find alternatives to hunting and expansion of agriculture, or engage with new stakeholders to bring in resources.

CSOs can also play a critical role when existing protected areas are threatened by powerful economic interests, such as for infrastructure or mining projects. In these

situations, a CSO may lead on data collection and use the results to initiate public campaigns and direct policy work with the aim of mobilizing supporters and communicating the importance of the site. The work of A Rocha at Atewa in Ghana exemplifies this kind of approach.

Activities eligible for funding under this investment priority include:

- Data collection, survey and assessment need to gather data on threats and management.
- Establishing coalitions and partnerships which bring together the capacities and skills needed, including establishing partnerships with community groups and facilitating coordination between clusters of grantees to address conservation in the same landscape/site.
- Meetings and consultations with stakeholders.
- Planning conservation action and associated livelihoods interventions, and mechanisms which link them, such as conservation agreements.
- Conservation management actions at the site, or action in the wider landscape to maintain or restore connectivity.
- Action to address drivers of threats, for example alternative livelihoods, awareness raising, addressing land use planning.
- Advocacy and collaboration with the relevant authorities to address issues such as land use planning, resource use licensing, regulations and budgets.
- Monitoring to establish the impact of conservation action and livelihoods work.
- Communication of results to stakeholders.
- Learning and exchange visits to other sites and projects.

Investment Priority 1.2. Strengthen the long-term financial sustainability of conservation efforts for priority sites

Difficulty in securing sustained financial support for their work is one of the greatest challenges faced by CSOs in the region. Donor funding continues to play a vital role for both government and CSO action on the environment, but the restrictions attached to such funding can limit the ability of recipients to respond to changing circumstances, and limited project time-scales prevent effective long-term planning. To mitigate these challenges, CSOs need a more diverse range of funding sources. The analysis of existing conservation funding (Chapter 11) showed that alternatives are increasingly available, globally and in West Africa, but local CSOs may not know about these opportunities, or may lack the capacity to access them.

Under this investment priority, the priority will be to enable CSOs to access the funding that exists, including traditional donor funds as well as new forms of finance, such as impact investing, ecosystem services payment schemes or support from individual donors. Work will focus on enabling CSOs to understand the needs of a specific funding stream, to prepare an appropriate proposal and to approach the funder/investor. In tandem, CEPF will work to encourage companies, investors and donors to recognize and support the work of CSOs for the conservation of KBAs and species in the hotspot.

Where feasible and necessary, CEPF may also work with partners to support the creation of new sustainable funding mechanisms. While CEPF cannot capitalize trust funds or other financing mechanisms, it can support the design, start-up, and operational costs of such mechanisms. The priority will be site level funds, but national or sub-national mechanisms may also be supported where there is an opportunity. Sources of financing for a funding mechanism might include corporate sponsorship, public-private partnership arrangements, impact investment seeking biodiversity returns, ecosystem services payments including carbon, trust funds and private philanthropy.

Activities eligible for funding under this investment priority include:

- Research to identify potential donors/investors and options for financing conservation work at KBAs.
- Activities to strengthen the capacity of CSOs to access new forms of funding.
- Meetings to build stakeholder commitment and plan.
- Development of proposals and communication material related to the financing mechanisms.
- Preparing the ground for new funding mechanisms, including legal and due diligence work.
- Establish or strengthen a financing mechanism, including providing funding for operational support.

Strategic Direction 2. Safeguard priority globally threatened species and ecosystems by identifying and addressing major threats and information gaps

The conservation of many species and ecosystems will be addressed through landscape-level site conservation projects under Strategic Direction 1. However, some highly threatened species require dedicated action because:

- They depend on a one or a handful of sites or very specific ecological requirements, meaning they require specific attention to ensure their conservation needs are met.
- They are thought to be vulnerable, but not enough is known about their distribution or ecology to effectively plan for conservation.
- They depend on one of more of the KBAs that are not prioritized for investment under Strategic Direction 1.
- They are highly mobile, or widely dispersed, such that the protection of a site does not contribute significantly to the conservation of the population.
- They are targeted for unsustainable use and trade, and threatened even within protected areas.

Action for the conservation of these species requires addressing gaps in information (IP2.1) and taking targeted action for conservation (IP 2.2).

Priorities for Strategic Direction 2 are the priority species identified in Section 13.1. There are 83 such species. Thirty-five of them have been recorded at 50 KBAs. There is a high probability that many of the others also occur at existing KBAs.

Investment Priority 2.1. Consolidate and improve critical data on threatened species and ecosystems

Setting priorities, planning action and monitoring the impacts of conservation efforts all require improved data on species and sites. In some cases, this information may be available but unpublished. In others, field surveys and other primary data collection is needed. Under this investment priority, grantees will be supported to address key data gaps, gathering information which is critical for conservation, and communicating it in a form that is accessible for site managers and policy makers.

Activities eligible for funding under this investment priority include:

- Primary field survey work design to improve knowledge of the status and conservation needs of priority threatened species.
- Survey work relevant to planning conservation action and understanding its implications for livelihoods and households, for example market, consumer and hunter surveys.

- Consolidation of data to support effective conservation planning and action, especially unpublished data or data which is scattered in different databases and publications.
- Analyzing, interpreting and publishing data in format which makes it useful to groups managing sites, decision makers and other stakeholders.

Investment Priority 2.2. Promote action for the conservation of threatened species and ecosystems

Using the analysis of the conservation need of species and sites (IP2.1), this investment priority focuses on targeted conservation action for priority species. If the site where they occur is a protected area, the action might include working with the protected area agency to ensure that the conservation needs of the species are considered in planning the management of the site. Outside protected areas, action might include working with the site's owners and managers to raise awareness and put in place sympathetic management practices. Beyond site-based work, conservation action for species might include efforts to change consumer behavior, to behavior enhance legal protection. In all cases, there is likely to be a component of targeted monitoring, to ensure that the target species is benefitted from conservation action. In many cases, it may be useful to document data, analysis and planned conservation action in the form of a species action plan, which might be for a species at a specific site, in a landscape or at a wider level.

Activities eligible for funding under this investment priority include:

- Assessment of threats and potential solutions.
- Meetings with stakeholders and planning for conservation action.
- Work with local communities and local authorities to ensure the protection of a site
- Implementation of conservation actions.
- Monitoring and communicating results to stakeholders.
- Exchange and learning visits to relevant projects and sites.

Strategic Direction 3. Mainstream biodiversity conservation into public policy and private sector practice

While many threats to KBAs need to be dealt with by engaging with local stakeholders, the outcome of site-based conservation work is also impacted by national and sub-national policies, programs, and financial decisions. These include decisions on licensing large-scale land use projects (especially for agriculture, mining, and infrastructure); policies on land use planning, protected areas, and the economic and social development of rural communities; and financing for conservation and for other sectors such as infrastructure and energy. They also include decisions and policies of private sector companies, such as the adoption of best-practices and certification, or commitment to address conflicts over land and resources. Agencies with a mandate for biodiversity conservation are likely to be important partners. Contributing to National Biodiversity Strategies and Action Plans, which are expected to be revised to align with the Kunming-Montreal agreement and the Global Biodiversity Framework, may be an important opportunity to ensure that the KBA analysis and the work and experience of civil society are represented within official policies and plans of each hotspot country.

Effective advocacy for the conservation of sites may not be based on the biological value of the site, but on economic and social values, including ecosystem services, disaster mitigation, recreational, spiritual and cultural values. To advocate for conservation of a site, CSOs will often need to build coalitions with other organizations and government departments.

For IP3.1 on KBA data, CEPF will priorities support to CSOs (including for example universities and research institutions) that have relevant expertise, mandate and

capacity to carry out surveys. Grantees will be expected to work with other stakeholders to ensure that the results of surveys are understood and acted upon. Grants for capacity development – for example on planning KBA monitoring, or using the KBA database, will also be a priority.

Under IP3.2 on advocacy, CEPF will prioritize funding for collaborative action by coalitions of CSOs working towards clearly defined and achievable policy advocacy targets, which have a direct link to the achievement of conservation targets in a hotspot country (at national or sub-national level). This might include, for example, work to ensure that KBAs, IP and LC and civil society voices are represented in the revision of NBSAPs. Successful proposals should demonstrate:

- A clear call for change to a specific plan, policy, or institution, with a justification of why the change proposed will benefit the conservation of sites and species in the country (and the hotspot).
- An analysis of stakeholders who need to be influenced to achieve the change, along with the messages and media believed most effective to communicate with them.
- Information on the CSOs collaborating on the initiative, with a description of how they will coordinate and divide roles.

Strategic Direction 3 is closely linked to IP4.3, which addresses *enhancing the collective strength and ability of conservation CSOs at national and regional levels*. CSO networks which have consolidated their planning and capacity with the support of a grant under IP4.3 might graduate to receive support under SD3 to implement their plans.

Strategic Direction 3 is delivered through two investment priorities, which focus on the roles which are most likely to be the strengths of CSOs in policy advocacy: collection of data and evidence to support their arguments (IP3.1); and strategically targeted communications (IP3.2). It is expected that effective collaborative policy advocacy projects will combine elements of both IPs.

Investment Priority 3.1. Update the Key Biodiversity (KBA) analysis for the hotspot and strengthen national mechanisms for KBA recognition and promotion, including National Coordination Groups

Making the case for KBA conservation to policy makers, private sector decision makers, or local community leaders requires information that shows the importance of the site, the threats it faces, and the opportunities for more effective conservation management. Researching these values is a key part of action to protect a KBA. This kind of work may focus on a single KBA, for local audiences, or may combine information from multiple KBAs to support proposals for policy change at regional and national level. It is likely to combine information on biological values with economic and social values, including ecosystem services, disaster mitigation, recreational, spiritual and cultural values.

CEPF expects to support local CSOs, including local Universities and other non-state institutions, to conduct this work. Research should:

- Collect data which has a direct value to efforts to mitigate a threat or improve the management of the site.
- Take an approach which simultaneously builds capacity in-country and awareness amongst relevant local stakeholders, including by engaging them in the work and communicating results to them.
- Uses replicable and scalable methods, and thus establishes a baseline for future monitoring at the same site (for example using the state-pressure-response model adopted widely across Africa for monitoring KBAs), and also a model for work at similar sites.

Activities eligible for funding under this investment priority include:

- Research and evidence collection needed to understand the value and threats at a site (or a set of sites).
- Consultation with communities and other stakeholders.
- Workshops and meetings to bring together groups and plan advocacy work.
- Preparing data and materials to contribute to key opportunities, such as NBSAP revision
- Learning and exchange visits with other sites/projects.
- Legal or other analysis needed to support proposals for change.
- Expert advice on technical issues, such as methods, analysis and communication of results.

Investment Priority 3.2. Compile data and communicate the need and opportunities for conservation of KBAs and threatened species to the public, policy-makers and private sector

Efforts to influence policies and programs may be through direct engagement with the relevant decision makers, or indirectly, for example by building a public narrative on an issue, or working with a university or consulting company which provides expert advice to government. Communications may be via forums where Government and CSOs have a platform, for example the meetings of the parties of the international environmental conventions. In some cases, potentially destructive plans for expansion of private sector investment may be effectively challenged through international campaigns which target investors and consumers, or via the safeguards mechanisms and standards established by financial institutions, certification bodies and sectoral round tables.

While some CSOs have in-house communications and advocacy expertise, CEPF will support partners to access technical assistance they need to make their communications more impactful, for example professional communications companies, designers, or writers. Where communications have an international dimension, CEPF will assist CSOs to make connections with relevant partners and allies internationally.

Activities eligible for funding under this investment priority include:

- Planning a strategic communications effort, including with external expert advice.
- Preparation and communication of key messages, including printed and online communication.
- Learning/exchange visits to relevant organizations or projects.
- Field visits for journalists, politicians, or other key stakeholder to inform them and discuss the issue.
- Meetings with stakeholders and decision makers, e.g. in government or private sector companies.

Strategic Direction 4. Facilitate the development of a robust and resilient community of conservation civil society organizations

This SD reflects a commitment by CEPF to engage more deeply with the issue of long-term sustainability of civil society organizations in the region. IP4.1 addresses the need to ensure that all CEPF grantees have access to support for the design, management and evaluation and reporting of the projects they implement with CEPF support. Joint and peer-to-peer learning will be important in delivering this. IP4.2 delivers on CEPFs commitment to invest in the strengthening of a smaller group of high-potential strategic partners in the region. IP4.3 focuses on the strengthening of networks and collaborative action. The details of calls for proposals, and the selection of projects, under this strategic direction will be informed by the global strategy for CEPF's support to organizational development, which is under development.

Funding for all types of capacity and organizational development may be directly to a specialist provider, to the target CSO as part of a larger conservation project grant, or to the targeted CSO as a dedicated capacity development grant. The choice will be influenced by the capacity development approach being supported. Table 13.8 summarizes the main options. The RIT will have a key role in planning and coordinating the efficient and effective delivery of capacity strengthening and organizational development, using the range of capacity development approaches and funding modalities available. The RIT is expected to involve dedicated CSO capacity development organizations to assist them in this role, as well as in the delivery of relevant CB/OD support.

Table 13.8. Capacity Development Approaches and Examples of Grantmaking Modalities to Support Them

Type of capacity development approach	Possible grantmaking modality
Capacity development on shared priority topics and for peer-to-peer learning (IP4.1)	Grant to a specialist OD provider to organize events for multiple grantees
Training and mentoring for individual CSOs on specific skills (IP4.1)	Support to capacity development included as part of a conservation grant
Assessment, planning, and delivery of a program of organizational development for a strategic CSO partner (IP4.2)	Grant to a CSO partner specifically for organizational development; grant to a service provider; other modalities depending on the beneficiary CSO
Support to a group of CSOs to form or strengthen a network or coalition (IP4.3)	Grant to one (or possibly several) CSO partners combining capacity development with advancing the aims of the network/coalition

SD4 will be delivered through three investment priorities which address support to basic conservation project management competency (IP4.1), deeper organizational development approaches (IP4.2), and collective action by CSOs (IP4.3).

Investment Priority 4.1. Ensure that CEPF grantees have the technical capacity to plan, implement and sustain effective conservation projects

CEPF will consider provision of core project planning and management capacity development to any local/national organization which receives funding to implement a conservation project. This may include capacity building on participatory development, livelihoods interventions, and linking livelihoods and conservation outcomes. Needs will be identified jointly by the RIT and each grantee, either at the start of the project or during its implementation. Delivery of skills training will be primarily through standardized modules, online or through shared training courses such as the 'master class' approach developed in the Afro-montane hotspot and already used successfully in the Guinean Forests of West Africa. Where a partner CSO needs specific one-to-one support in particular capacity areas, this may be addressed by the RIT directly, by a specialist training provider, or by arranging for the CSO to partner with a more experienced mentor (often an international NGO), an approach that was used successfully during the previous investment period.

Activities eligible for funding under this investment priority include:

- Developing and running a training course (in-person or online) to address priority training needs identified by grantees, or participation in a course.
- Participation in a skills training course being organized by a specialist provider.
- Mentoring or coaching individual staff.
- Providing advice to management on capacity development.
- Learning visits and exchanges to other organizations and projects.
- Mentoring and support for writing up and publishing the results and lessons from projects.

- Procuring equipment and materials which will allow new skills to be implemented.

Investment Priority 4.2. Provide support to targeted conservation organizations engaged in a process of organizational development

CEPF intends to invest in longer-term and deeper support for the OD of a small number of strategically important CSOs in the region (indicatively, this might be 10 – 20 organizations). This support will go beyond project-related capacity (IP4.1) to issues such as strategic communications, financial sustainability, governance, management of staff turnover and regeneration.

Long-term support for OD will be prioritized for partners with:

- A track record of successful implementation of conservation projects (regardless of size of project or donor).
- Basic systems for the development and management of the organization's activities (e.g. staffing structure, finance and accountability mechanisms, governance) in place.
- Clear evidence of a commitment to organizational change, including a willingness and ability to allocate staff time and resources.
- A plan for sustainability of the impact of OD, including institutionalization of changes to working culture and jobs, continuing financial support, and access to ongoing contact and support for OD when needed.

Illustratively, activities eligible for funding under this investment priority include:

- Preparatory discussions between key people in the organization and an expert OD facilitator, to help the organization understand and plan an OD process.
- A workshop or retreat to plan an organizational development process, including, for example, to complete a diagnostic tool.
- An external facilitator to facilitate the workshop and support the planning process.
- Facilitation and organization of an initial high-priority OD activity (e.g., a strategic planning workshop) for the organization.
- The delivery of an organizational development plan over 2-3 years, including retreats, workshops, mentoring visits.
- Learning visits to other CSOs.
- Participation in peer learning events and exchanges.
- Proposal development to raise funds for continuing OD and follow-up activities.

Investment Priority 4.3. Enhance the collective strength and ability of conservation CSOs at national and regional levels

CEPF recognizes that CSOs have tended to work alone or in sectoral siloes, and that this limits the potential for creating change, especially at the level of policy or wider society. It also recognizes, however, that inducing CSOs to work together only to access funding does not create impactful collaborative partnerships and networks – indeed, funding can create inequalities of power which harm the collaborative nature of a network.

CEPF will, therefore, prioritize funding for new or existing collaborative efforts and networks where:

- There is a clear purpose and clear constituency (target audience). Examples might include collaboration for the conservation of a specific site, to address a particular problem, to influence a specific policy, or to change the public narrative on an issue.
- There is a clear mechanism for managing support received from CEPF or other sources, including mechanisms for receiving and handling funds, planning, and reporting and accountability within the network.

- There is evidence of the willingness and commitment of CSOs to work together beyond the desire to collaborate to secure funding (e.g., self-funded collaboration which can be scaled-up or sustained with CEPF support).

Actual or perceived competition between CSOs has been identified as a barrier to collaboration (though it may also drive innovation and improvement). CEPF support to networking and collaboration should contribute to demonstrating the value of open collaboration and sharing of ideas and resources. CEPF support will therefore focus on networks and collaborative efforts which are open and actively encourage the engagement of wider civil society, including providing opportunities for less experienced individuals or organizations to learn and grow through their participation.

Activities eligible for funding under this investment priority include:

- Workshop and meetings to initiate or strengthen collaboration between CSOs on a priority issue.
- Networking meetings, communications and joint action.

Note that communications and advocacy activities, which are likely to be relevant to support the activities of a network once it is formed, are covered under Strategic Direction 3.

Strategic Direction 5. Provide strategic leadership and effective coordination of conservation investment through a Regional Implementation Team

In every hotspot approved for investment, CEPF works with a regional implementation team or RIT to convert the plans in the ecosystem profile into a cohesive portfolio of grants that exceeds in impact the sum of its parts. The RIT will consist of one or more CSOs active in conservation in the hotspot. The RIT will be selected by the CEPF Donor Council based on approved terms of reference. The team will operate in a transparent and open manner, consistent with CEPF's mission and all provisions of the CEPF Operational Manual. Organizations that are members of the RIT will not be eligible to apply for other CEPF grants within the same hotspot. Applications for grants from formal affiliates of those organizations that have an independent board of directors will be accepted, subject to additional external review.

The role of the RIT will remain central to the operation of the grants programme and will continue to seek to collate and integrate experiences from site-level work in order to promote replication and scaling up and achieve policy impacts (see Chapter 12) and sustainability (see Chapter 15).

Investment Priority 5.1. Support a broad constituency of civil society groups working across institutional and political boundaries towards achieving the shared conservation goals described in the ecosystem profile

The RIT will provide strategic leadership and local knowledge to build a broad constituency of civil society groups working across institutional and political boundaries toward achieving the conservation goals described in the ecosystem profile. It will implement several functions, as set out in the terms of reference, including.

- Act as an extension service to assist civil society groups in designing, implementing, and replicating successful conservation activities.
- Review all grant applications and manage external reviews with technical experts and advisory committees.
- Award small grants up to US$50,000 and decide jointly with the CEPF Secretariat on all other applications.

- Lead the monitoring and evaluation of individual projects using standard tools, site visits, and meetings with grantees, and assist the CEPF Secretariat in portfolio-level monitoring and evaluation.
- Build the institutional capacity of grantees to ensure efficient and effective project implementation.
- Widely communicate CEPF objectives, opportunities to apply for grants, lessons learned, and results.

The RIT will directly support strategic development of the grant portfolio and contribute, in its own right, to the achievement of critical conservation results that yield portfolio-wide benefits. Such activities may include facilitating learning exchanges among grantees and other stakeholders, identifying leveraging opportunities at the grant or portfolio level, or collaborating with other donors to align support to CSOs and their conservation projects.

In line with the overall CEPF investment niche, capacity building and organizational development will be at the core of the RIT's role, as per Strategic Direction 4. The RIT, together with CEPF, will be responsible for ensuring that grantees have the institutional and individual capacity needed to design and implement conservation projects that contribute to the overall investment strategy. The RIT will also have a role in communicating about CEPF's focus on organizational development, publicizing the opportunity, and supporting CEPF to identify organizations to receive organizational development grants. Experience has shown that capacity building efforts are essential to ensuring good projects that are integrated into a wider hotspot strategy and a common conservation vision. The added emphasis on organizational development aims to increase the resilience and sustainability of CEPF's investment on all levels.

The RIT and CEPF Secretariat will also work together to update information on threats, policy changes, and current conservation investments to inform proposed changes to priorities or the overall strategy on an annual basis, and most crucially during an assessment of the program at the approximate mid-point of the investment period.

14. RESULTS FRAMEWORK

The result framework primarily uses CEPF Global Indicators (GI) to set targets for the investment in the hotspot. Additional Portfolio Indicators (PI) are introduced to set target and monitor impacts specific impacts that are not covered by the global indicators.

The objective for the portfolio is to support 80 projects (40 Large Grants, 40 Small Grants) over a 5-year investment period, for at least 60 unique civil society organizations, 70 percent of which are local organizations.

This is based on an assumed five-year investment period with US $10 million, with 15 percent allocated to the RIT/Strategic Direction 5 ($1,500,000) and the remaining funds split evenly among the other four strategic directions (21.25 percent, or $2,125,000), understanding further that these allocations would quickly diverge as opportunities present themselves.

Using these expected resources, the anticipated results shown below are further based on CEPF experience in in the GFWA in Phase II, plus CEPF experience elsewhere around the world. Targets are purposefully conservative, recognizing that (1) the constituency of organizations that implement projects may have low capacity, and (2) CEPF wishes to maintain a high standard for determining the achievement of results. Various scorecards, objective monitoring and evaluation methods, and other options will be considered appropriate to the circumstances of the grantee and location.

Pillar 1: Biodiversity

Goal: Improve the status of globally significant biodiversity in critical ecosystems within hotspots.

No.	Indicator	Target	Relevant SDs	Means of verification
GI-B1	Number of globally threatened species benefiting from conservation action	40	1,2	Grantee reports
GI-B2	Number of hectares of Key Biodiversity Areas with improved management	500,000	1,2,3	Grantee reports
GI-B3	Number of hectares of protected areas created and/or expanded	350,000	1,2,3	Grantee reports, Official documents
GI-B4	Number of hectares of production landscapes with strengthened management of biodiversity	350,000		Grantee reports
GI-B5	Number of protected areas with improved management	10	1,2,3	METTs (or similar tool)
GI-B6	Number of hectares of terrestrial forest, terrestrial non-forest, freshwater and coastal marine areas brought under restoration	60,000	1,2	Grantee reports
PI-B1	Number of protected areas created and/or expanded	10	1,2,3	Grantee reports
PI-B2	Number of KBAs in production landscapes with strengthened management of biodiversity	10	1,2,3	Grantee reports
PI-B3	Number of Key Biodiversity Areas with improved management	10	1,2,3	Grantee reports

Pillar 2: Civil Society

Goal: Strengthen the capacity of civil society to be effective as environmental stewards and advocates for the conservation of globally significant biodiversity.

No.	Indicator	Target	Relevant SDs	Means of verification
GI-CS1	Number of CEPF grantees with improved institutional capacity	40	4 (IP4.1)	CSTT (or similar tool)
GI-CS2	Number of CEPF grantees with improved understanding of and commitment to gender issues	24	4	GTT (or similar tool)
GI-CS3	Number of networks and partnerships that have been created and/or strengthened	15	4	Grantee reports
PI-CS1	Number of grantees which participate in capacity training related to project development and implementation	48	4 (IP4.1)	
PI-CS2	Number of organizations engaged in an organizational development process	20	4 (IP4.2)	CEPF report

PI-CS3	Number of CEPF grantees that have made significant progress towards their own organizational development goals at the end of the investment phase	10	4 (IP4.2)	Specific survey at mid-term and at the end of investment phase
PI-CS4	Number of countries with enhanced collective CSO capacities	5	4 (IP4.3)	Collective civil society assessment

Pillar 3: Human Well-Being

Goal: Improve the well-being of people living in and dependent on critical ecosystems within hotspots.

No.	Indicator	Target	Relevant SDs	Means of verification
GI-HW1	Number of people (male/female) receiving structured training	4,500	1, 2	*Grantee reports*
GI-HW2	Number of people (male/female) receiving non-cash benefits* other than structured training	150,000	1, 2	*Grantee reports*
GI-HW3	Number of people (male/female) receiving cash benefits**	4,500	1, 2	*Grantee reports*
GI-HW4	Number of projects promoting nature-based solutions to combat climate change	20	1, 2	*CEPF Secretariat analysis of portfolio*

Notes: * = non-cash benefits include increased access to clean water, increased food security, increased access to energy, increased access to public services, increased resilience to climate change, improved land tenure, improved recognition of traditional knowledge, improved representation and decision-making in governance forums, and improved delivery of ecosystem services; ** = cash benefits include increased income from employment, increased income from livelihood activities.

Pillar 4: Enabling conditions for conservation

Goal: Establish the conditions needed for the conservation of globally significant biodiversity.

No.	Indicator	Target	Relevant SDs	Means of verification
GI-EC1	Number of laws, regulations, and policies with conservation provisions that have been enacted or amended	5	3	*Grantee reports, official documents*
GI-EC2	Number of sustainable financing mechanisms that are delivering funds for conservation	1	1, 3	*Grantee reports*
GI-EC3	Number of companies that adopt biodiversity-friendly practices	5	1, 3	Grantee reports

15. SUSTAINABILITY

CEPF will support action at site level, to influence policies and decisions, and to strengthen the capacity of CSOs. Sustainability of the impact of these activities should be considered at the development stage of any project.

Site-level sustainability is a significant challenge in any conservation activity. Site-level conservation activities (Strategic Directions 1 and 2) are often complex, unpredictable, and long-term. A CEPF small grant may make a critical contribution to initiating or advancing conservation at a site, but it is very likely that further action will be needed after the grant has been completed. At this level, sustaining funding for site action, local institutions, and local capacity will be key.

- **Sustainability of funding for site action** will be addressed directly through investment in strengthening the capacity of grantees to identify and access new and more diverse sources of funding for their work (IP2.2). By encouraging donor coordination, and seeking to work with potential funders (government, private sector or philanthropic), CEPF will be able to facilitate connections between funding institutions and grantees.
- Where local groups, platforms and networks have been formed to advance conservation action, **institutional sustainability** is important. This can be encouraged through the design of the project, emphasizing self-funding (e.g., a revolving fund) rather than dependence on external support, but also connecting the local institution to additional sources of support. This may include small-scale enterprise to raise funds for the institution. Adequate and appropriate institutional structures, legal status and capacity (e.g., for record keeping, planning) for the institution is also key, and CEPF will work with grantees to ensure that local institutions are supported to develop the capacity they need.
- **Local capacity**, both for the grantee CSO and for partners in local communities, government, and other stakeholder, is critical to enable them to play their role in conservation. This includes building awareness and support among local decision makers, as well as ensuring that stakeholders have the technical knowledge and skills they need.
- Having **secure and sustainable livelihoods** for local communities will be an essential part of a conservation program for most sites. Where livelihood improvements are linked to conservation impacts, sustaining these improvements is integral to a sustainable conservation outcome. This requires building effective local institutions and the capacity of civil society to support these grassroots organizations.

Work at **policy level** (Strategic Direction 3) aims to influence decision makers in government or private sector to accommodate the needs of species and site conservation in their policies and decisions. Where decisions are formalized, for example as a policy or regulation, there may be no need for further action to sustain the impact of the work. However, more often, CEPF grantees will be contributing to a larger effort to bring about a change, which may be long-term and involve many actors. Sustaining the impact of a grant will mean ensuring that networks and coalitions have the capacity to plan, fundraise and act effectively.

Sustainability is a critical consideration in the **CSO capacity development** work to be supported under Strategic Direction 4. Training in project design, management and reporting skills, anticipated for most grantees, will deliver skills that can be immediately implemented. Participants will be encouraged to share their learning with colleagues, to contribute to bringing about sustainable change within the organization. For those CSOs which embark on a long-term organization development journey, the key question will be how they will sustain funding for ongoing work after initial support from CEPF has

finished. This will be addressed from the start, and may involve, for example, co-funding OD with other donors committing to continue funding once CEPF has supported the initial stages.

Coordination with other donors and actors in conservation is a key part of the effort to ensure that the impact of CEPF-supported work is sustained. CEPF support will give visibility to small, local organizations, and allow them to approach other funders based on a successful CEPF project. Facilitating sharing of information between donors, coordination of support to specific organizations or at particular sites, and engaging with potential funder, will all contribute to increasing the volume of funding available for conservation in the hotspot, and to ensuring that it is aligned and coordinated for maximum impact and efficiency.

Ultimately, CEPF's theory of change is that conservation results are better – more impactful, longer lasting – with the engagement of civil society. Promoting a robust and resilient civil society does not come at the expense of conservation action; rather, strong partners are the basis for achieving the conservation outcomes highlighted here.

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APPENDICES

Annex 1: Species Outcomes

Species outcomes are all the globally threatened species recorded from the hotspot. The hotspot includes 608 species of plants. For brevity, only the two priority plant species are included below. An electronic version of this appendix is available in MS Excel with the full list of species, including plants.

Priority rank 1 species (critically endangered + restricted range) are shown in **bold**.

Ct.	Scientific name	Red List Status	No. KBAs with confirmed presence	Restricted Range	Ct.	Scientific name	Red List Status	No. KBAs with confirmed presence	Restricted Range
Amphibians					**Amphibians**				
1	*Acanthixalus sonjae*	VU	0	Yes	29	***Crotaphatrema lamottei***	CR	0	Yes
2	*Afrixalus lacteus*	EN	0	Yes	30	*Didynamipus sjostedti*	VU	0	Yes
3	***Alexteroon jynx***	CR	1	Yes	31	*Hyperolius ademetzi*	EN	0	Yes
4	*Amnirana asperrima*	VU	0	No	32	*Hyperolius bobirensis*	VU	3	Yes
5	*Arlequinus krebsi*	EN	0	Yes	33	*Hyperolius bopeleti*	VU	0	Yes
6	*Arthroleptis bioko*	EN	1	Yes	34	*Hyperolius dintelmanni*	EN	1	Yes
7	***Arthroleptis krokosua***	CR	1	Yes	35	*Hyperolius nienokouensis*	EN	1	Yes
8	*Arthroleptis langeri*	EN	0	Yes	36	*Hyperolius nimbae*	EN	2	Yes
9	*Arthroleptis nlonakoensis*	EN	0	Yes	37	*Hyperolius thomensis*	EN	1	Yes
10	*Arthroleptis perreti*	EN	1	Yes	38	*Hyperolius torrentis*	VU	1	Yes
11	*Astylosternus fallax*	VU	0	Yes	39	*Kassina arboricola*	VU	8	No
12	*Astylosternus laurenti*	EN	0	Yes	40	*Kassina decorata*	VU	0	Yes
13	***Astylosternus nganhanus***	CR	1	Yes	41	***Leptodactylodon axillaris***	CR	1	Yes
14	*Astylosternus perreti*	EN	1	Yes	42	*Leptodactylodon bueanus*	EN	0	Yes
15	*Astylosternus ranoides*	EN	0	Yes	43	***Leptodactylodon erythrogaster***	CR	1	Yes
16	*Astylosternus schioetzi*	EN	0	Yes	44	*Leptodactylodon mertensi*	EN	0	Yes
17	*Cardioglossa alsco*	EN	1	Yes	45	*Leptodactylodon ornatus*	EN	0	Yes
18	***Cardioglossa manengouba***	CR	1	Yes	46	*Leptodactylodon perreti*	EN	0	Yes
19	*Cardioglossa melanogaster*	VU	0	Yes	47	*Leptodactylodon polyacanthus*	VU	0	Yes
20	*Cardioglossa oreas*	EN	0	Yes	48	***Leptodactylodon wildi***	CR	1	Yes
21	*Cardioglossa pulchra*	EN	0	Yes	49	*Leptopelis palmatus*	EN	1	Yes
22	*Cardioglossa schioetzi*	VU	0	Yes	50	*Morerella cyanophthalma*	VU	0	Yes
23	***Cardioglossa trifasciata***	CR	1	Yes	51	***Nimbaphrynoides occidentalis***	CR	3	Yes
24	*Cardioglossa venusta*	EN	1	Yes	52	*Odontobatrachus fouta*	EN	0	Yes
25	***Conraua derooi***	CR	1	Yes	53	*Odontobatrachus smithi*	VU	0	No
26	*Conraua goliath*	EN	1	No	54	*Odontobatrachus ziama*	VU	0	Yes
27	*Conraua robusta*	VU	0	No	55	*Petropedetes euskircheni*	EN	0	Yes
28	***Conraua sagyimase***	CR	1	Yes	56	*Petropedetes juliawurstnerae*	EN	0	Yes

Ct.	Scientific name	Red List Status	No. KBAs with confirmed presence	Restricted Range	Ct.	Scientific name	Red List Status	No. KBAs with confirmed presence	Restricted Range
Amphibians					**Birds**				
58	***Petropedetes perreti***	CR	1	Yes	86	***Bostrychia bocagei***	CR	1	Yes
59	***Phrynobatrachus afiabirago***	CR	1	Yes	87	*Bubo shelleyi*	VU	6	No
60	***Phrynobatrachus chukuchuku***	CR	1	Yes	88	*Bucorvus abyssinicus*	VU	0	No
61	*Phrynobatrachus danko*	EN	1	Yes	89	*Bycanistes cylindricus*	VU	31	No
62	***Phrynobatrachus intermedius***	CR	1	Yes	90	*Ceratogymna elata*	VU	47	No
63	***Phrynobatrachus jimzimkusi***	CR	0	Yes	91	*Chelictinia riocourii*	VU	0	No
64	*Phrynobatrachus manengoubensis*	CR	0	No	92	*Chlorophoneus kupeensis*	EN	2	Yes
65	***Phrynobatrachus njiomock***	CR	0	Yes	93	*Circaetus beaudouini*	VU	0	No
66	*Phrynobatrachus schioetzi*	EN	0	Yes	94	*Columba thomensis*	EN	1	Yes
67	*Phrynobatrachus steindachneri*	CR	0	No	95	*Criniger olivaceus*	VU	39	No
68	*Ptychadena newtoni*	EN	0	Yes	96	***Crithagra concolor***	CR	1	Yes
69	***Sclerophrys perreti***	CR	1	Yes	97	*Dreptes thomensis*	VU	1	Yes
70	*Sclerophrys taiensis*	EN	1	Yes	98	*Falco vespertinus*	VU	0	No
71	*Sclerophrys villiersi*	VU	0	Yes	99	*Gyps africanus*	CR	1	No
72	***Werneria bambutensis***	CR	0	Yes	100	*Gyps rueppelli*	CR	0	No
73	***Werneria mertensiana***	CR	0	Yes	101	*Hydrobates leucorhous*	VU	0	No
74	*Werneria preussi*	EN	2	Yes	102	*Kupeornis gilberti*	VU	7	Yes
75	*Werneria submontana*	EN	0	Yes	103	***Lanius newtoni***	CR	1	Yes
76	***Werneria tandyi***	CR	0	Yes	104	*Lobotos lobatus*	VU	4	No
77	***Wolterstorffina chirioi***	CR	1	Yes	105	*Malaconotus gladiator*	VU	9	Yes
78	*Wolterstorffina mirei*	EN	0	Yes	106	*Malimbus ibadanensis*	EN	2	Yes
79	***Wolterstorffina parvipalmata***	CR	0	Yes	107	*Melaenornis annamarulae*	VU	9	No
80	*Xenopus amieti*	VU	0	Yes	108	*Morus capensis*	EN	0	Yes
81	***Xenopus longipes***	CR	1	Yes	109	*Necrosyrtes monachus*	CR	0	No
Birds					110	*Neophron percnopterus*	EN	0	No
82	*Agelastes meleagrides*	VU	17	No	111	*Oriolus crassirostris*	VU	2	Yes
83	*Amaurocichla bocagii*	VU	1	Yes	112	***Otus bikegila***	CR	1	Yes
84	*Aquila rapax*	VU	0	No	113	***Otus feae***	CR	0	Yes

Ct.	Scientific name	Red List Status	No. KBAs with confirmed presence	Restricted Range	Ct.	Scientific name	Red List Status	No. KBAs with confirmed presence	Restricted Range
Birds					**Bony Fish**				
114	*Otus hartlaubi*	VU	1	Yes	142	*Amphilius sp. nov.'Loffa River'*	EN	0	Yes
115	*Phyllanthus atripennis*	VU	14	No	143	*Amphilius sp. nov.'Moa River'*	EN	0	Yes
116	*Picathartes gymnocephalus*	VU	22	No	144	*Amphilius sp. nov.'Niger River'*	EN	0	Yes
117	*Platysteira laticincta*	EN	4	Yes	145	*Amphilius sp. nov. 'Senegal River'*	VU	0	Yes
118	*Ploceus bannermani*	VU	9	Yes	146	*Amphilius sp. nov. 'St John River'*	EN	0	Yes
119	*Ploceus batesi*	EN	2	No	147	*Amphilius sp. nov. 'St Paul River'*	EN	0	Yes
120	*Polemaetus bellicosus*	EN	0	No	142	*Amphilius sp. nov. 'Loffa River'*	EN	0	Yes
121	*Psittacus erithacus*	EN	41	No	143	*Amphilius sp. nov. 'Moa River'*	EN	0	Yes
122	*Psittacus timneh*	EN	43	No	144	*Amphilius sp. nov. 'Niger River'*	EN	0	Yes
123	*Pternistis camerunensis*	EN	1	Yes	145	*Amphilius sp. nov. 'Senegal River'*	VU	0	Yes
124	*Rissa tridactyla*	VU	0	No	146	*Amphilius sp. nov. 'St John River'*	EN	0	Yes
125	*Sagittarius serpentarius*	EN	0	No	147	*Amphilius sp. nov. 'St. Paul River*	EN	0	Yes
126	*Schistolais leontica*	EN	3	Yes	148	*Aphyosemion amoenum*	EN	0	Yes
127	*Scotopelia ussheri*	VU	14	No	149	*Aphyosemion bamilekorum*	EN	0	Yes
128	*Tauraco bannermani*	EN	4	Yes	150	*Aphyosemion dargei*	VU	0	Yes
129	*Terathopius ecaudatus*	EN	0	No	151	*Aphyosemion edeanum*	VU	0	Yes
130	*Torgos tracheliotos*	EN	0	No	152	*Aphyosemion franzwerneri*	EN	0	No
131	*Treron sanctithomae*	EN	1	Yes	153	*Aphyosemion poliaki*	EN	0	Yes
132	*Trigonoceps occipitalis*	CR	0	No	154	*Aphyosemion volcanum*	EN	0	Yes
133	***Turdus xanthorhynchus***	CR	1	Yes	155	*Arnoldichthys spilopterus*	EN	0	Yes
134	*Zosterops brunneus*	VU	1	Yes	156	*Balistes capriscus*	VU	0	No
135	*Zosterops ficedulinus*	EN	1	Yes	157	*Balistes punctatus*	VU	0	No
136	*Zosterops melanocephalus*	VU	1	Yes	158	*Barboides gracilis*	VU	0	No
Bony Fish					159	*Bathygobius burtoni*	EN	0	No
137	*Amphilius kakrimensis*	VU	0	Yes	160	*Benitochromis batesii*	VU	0	No
138	*Amphilius korupi*	EN	0	Yes	161	*Benitochromis conjunctus*	EN	0	Yes
139	*Amphilius sp. nov. 'Kokoulo River'*	EN	0	Yes	162	*Benitochromis finleyi*	EN	0	Yes
140	*Amphilius sp. nov. 'Konkouré River'*	VU	0	Yes	163	*Benitochromis nigrodorsalis*	EN	0	Yes
141	*Amphilius sp. nov. 'Little Scarcies'*	EN	0	Yes	164	*Benitochromis ufermanni*	EN	0	Yes

Ct.	Scientific name	Red List Status	No. KBAs with confirmed presence	Restricted Range	Ct.	Scientific name	Red List Status	No. KBAs with confirmed presence	Restricted Range
Bony Fish					**Bony Fish**				
165	*Brycinus brevis*	EN	0	Yes	193	*Coptodon bemini*	CR	0	No
166	*Bryconaethiops quinquesquamae*	EN	0	Yes	194	*Coptodon bythobates*	CR	0	No
167	*Bryconalestes derhami*	EN	0	Yes	195	***Coptodon coffea***	CR	0	Yes
168	***Callopanchax monroviae***	CR	0	Yes	196	*Coptodon flavus*	CR	0	No
169	*Chiloglanis camarabounyi*	VU	0	Yes	197	*Coptodon gutturosus*	CR	0	No
170	*Chiloglanis dialloi*	EN	0	Yes	198	*Coptodon imbrifernus*	CR	0	No
171	*Chiloglanis kabaensis*	EN	0	Yes	199	*Coptodon kottae*	EN	0	Yes
172	*Chiloglanis kolente*	EN	0	Yes	200	*Coptodon snyderae*	CR	0	No
173	*Chiloglanis lamottei*	VU	0	Yes	201	*Coptodon spongotroktis*	CR	0	No
174	*Chiloglanis loffabrevum*	EN	0	Yes	202	*Coptodon thysi*	CR	0	No
175	*Chiloglanis longibarbis*	EN	0	Yes	203	*Coptodon walteri*	EN	0	Yes
176	*Chiloglanis niger*	EN	0	Yes	204	*Corcyrogobius lubbocki*	VU	0	No
177	*Chiloglanis normani*	EN	0	Yes	205	*Ctenopoma nebulosum*	EN	0	Yes
178	*Chiloglanis nzerekore*	EN	0	Yes	206	*Denticeps clupeoides*	VU	0	Yes
179	*Chiloglanis pezoldi*	EN	0	Yes	207	*Didogobius amicuscaridis*	VU	0	No
180	*Chiloglanis polyodon*	EN	0	Yes	208	*Distichodus nefasch*	VU	0	No
181	*Chiloglanis tweddlei*	EN	0	Yes	209	*Enteromius aliciae*	VU	0	Yes
182	*Chromidotilapia cavalliensis*	EN	0	Yes	210	*Enteromius anniae*	EN	0	Yes
183	*Chromidotilapia linkei*	EN	0	Yes	211	***Enteromius bagbwensis***	CR	0	Yes
184	*Chrysichthys aluuensis*	EN	0	Yes	212	*Enteromius boboi*	CR	0	No
185	*Chrysichthys levequei*	EN	0	Yes	213	*Enteromius bourdariei*	EN	0	Yes
186	*Chrysichthys longidorsalis*	VU	0	No	214	*Enteromius cadenati*	VU	0	Yes
187	*Chrysichthys walkeri*	VU	0	No	215	***Enteromius clauseni***	CR	0	Yes
188	*Clarias laeviceps*	VU	0	No	216	*Enteromius foutensis*	EN	0	Yes
189	*Clarias lamottei*	VU	0	Yes	217	*Enteromius guineensis*	VU	0	Yes
190	***Clarias maclareni***	CR	0	Yes	218	*Enteromius huguenyi*	VU	0	Yes
191	*Coelotilapia joka*	EN	0	Yes	219	*Enteromius lauzannei*	VU	0	No
192	*Coptodon bakossiorum*	CR	0	No	220	*Enteromius liberiensis*	EN	0	Yes

Ct.	Scientific name	Red List Status	No. KBAs with confirmed presence	Restricted Range	Ct.	Scientific name	Red List Status	No. KBAs with confirmed presence	Restricted Range
Bony Fish					**Bony Fish**				
221	***Enteromius melanotaenia***	CR	0	221	249	*Gobiocichla ethelwynnae*	EN	0	Yes
222	*Enteromius raimbaulti*	VU	0	222	250	*Gorogobius stevcici*	VU	0	No
223	*Enteromius sp. Senegal/Gambie*	VU	0	223	251	*Heterotilapia cessiana*	EN	0	Yes
224	*Enteromius subinensis*	EN	0	224	252	*Hippocampus algiricus*	VU	0	No
225	*Enteromius sylvaticus*	VU	0	225	253	*Ichthyborus quadrilineatus*	VU	0	Yes
226	*Enteromius teugelsi*	VU	0	226	254	*Irvineia voltae*	EN	0	Yes
227	*Enteromius thysi*	EN	0	227	255	*Istiophorus platypterus*	VU	0	No
228	*Enteromius traorei*	VU	0	228	256	***Konia dikume***	CR	0	Yes
229	*Epinephelus itajara*	VU	0	229	257	***Konia eisentrauti***	CR	0	Yes
230	*Epiplatys biafranus*	EN	0	230	258	***Labeo curriei***	CR	0	Yes
231	***Epiplatys coccinatus***	CR	0	231	259	*Labeo rouaneti*	VU	0	No
232	*Epiplatys etzeli*	EN	0	232	260	*Labeobarbus gruveli*	VU	0	Yes
233	*Epiplatys guineensis*	VU	0	233	261	*Labeobarbus mbami*	EN	0	No
234	*Epiplatys lokoensis*	EN	0	234	262	*Labeobarbus mungoensis*	EN	0	No
235	*Epiplatys longiventralis*	EN	0	235	263	***Ladigesia roloffi***	CR	0	Yes
236	*Epiplatys roloffi*	EN	0	236	264	*Lepidarchus adonis*	VU	0	No
237	*Epiplatys ruhkopfi*	EN	0	237	265	*Leptocypris konkoureensis*	VU	0	No
238	*Fundulopanchax amieti*	EN	0	238	266	*Leptocypris taiaensis*	EN	0	Yes
239	*Fundulopanchax arnoldi*	EN	0	239	267	*Limbochromis robertsi*	EN	0	Yes
240	*Fundulopanchax cinnamomeus*	EN	0	240	268	*Makaira nigricans*	VU	0	No
241	*Fundulopanchax fallax*	EN	0	241	269	*Malapterurus punctatus*	VU	0	Yes
242	*Fundulopanchax gularis*	EN	0	242	270	*Marcusenius meronai*	EN	0	Yes
243	*Fundulopanchax marmoratus*	EN	0	243	271	*Marcusenius sanagaensis*	VU	0	No
244	*Fundulopanchax powelli*	CR	0	244	272	*Micralestes eburneensis*	EN	0	Yes
245	*Fundulopanchax rubrolabialis*	EN	0	245	273	*Mola mola*	VU	0	No
246	***Fundulopanchax scheeli***	CR	0	246	274	*Mormyrops oudoti*	EN	0	Yes
247	*Fundulopanchax sjostedti*	EN	0	Yes	275	*Mormyrus subundulatus*	VU	0	Yes
248	*Garra allostoma*	VU	0	Yes	276	***Myaka myaka***	CR	0	Yes

Ct.	Scientific name	Red List Status	No. KBAs with confirmed presence	Restricted Range	Ct.	Scientific name	Red List Status	No. KBAs with confirmed presence	Restricted Range
Bony Fish					**Bony Fish**				
277	*Mycteroperca marginatus*	VU	0	No	305	*Scriptaphyosemion bertholdi*	VU	0	Yes
278	*Nannocharax rubrolabiatus*	VU	0	No	306	*Scriptaphyosemion brueningi*	VU	0	Yes
279	*Neolebias axelrodi*	EN	0	Yes	307	*Scriptaphyosemion cauveti*	VU	0	Yes
280	*Neolebias powelli*	EN	0	Yes	308	*Scriptaphyosemion chaytori*	VU	0	Yes
281	*Nimbapanchax jeanpoli*	VU	0	Yes	309	***Scriptaphyosemion etzeli***	CR	0	Yes
282	*Nimbapanchax petersi*	EN	0	Yes	310	*Scriptaphyosemion nigrifluvi*	VU	0	Yes
283	*Notoglanidium akiri*	EN	0	Yes	311	***Scriptaphyosemion schmitti***	CR	0	Yes
284	*Notoglanidium maculatum*	VU	0	Yes	312	***Stomatepia mariae***	CR	0	Yes
285	*Notoglanidium thomasi*	VU	0	No	313	***Stomatepia mongo***	CR	0	Yes
286	*Ophisternon afrum*	EN	0	Yes	314	***Stomatepia pindu***	CR	0	Yes
287	*Paramphilius firestonei*	EN	0	Yes	315	*Synodontis levequei*	VU	0	Yes
288	***Parauchenoglanis buettikoferi***	CR	0	Yes	316	***Synodontis macrophthalmus***	CR	0	Yes
289	*Pentanemus quinquarius*	VU	0	No	317	*Synodontis xiphias*	CR	0	No
290	*Phractura ansorgii*	EN	0	Yes	318	*Tetraodon pustulatus*	EN	0	Yes
291	*Pronothobranchius seymouri*	EN	0	Yes	319	*Thunnus obesus*	VU	0	No
292	*Pseudotolithus senegalensis*	EN	0	No	320	*Trachurus trachurus*	VU	0	No
293	*Pseudotolithus senegallus*	VU	0	No	**Corals**				
294	*Pseudupeneus prayensis*	VU	0	No	321	*Madracis decactis*	CR	0	No
295	***Pungu maclareni***	CR	0	Yes	**Freshwater Crabs**				
296	*Raiamas levequei*	VU	0	Yes	322	*Afrithelphusa afzelii*	CR	0	No
297	*Rhexipanchax kabae*	VU	0	Yes	323	***Afrithelphusa leonensis***	CR	0	Yes
298	*Rhexipanchax nimbaensis*	VU	0	Yes	324	*Atya intermedia*	EN	0	Yes
299	*Sardinella maderensis*	VU	0	No	325	*Caridina sodenensis*	VU	0	Yes
300	***Sarotherodon caroli***	CR	0	Yes	326	*Desmocaris bislineata*	EN	0	Yes
301	***Sarotherodon linnellii***	CR	0	Yes	327	*Euryrhynchina edingtonae*	EN	0	No
302	*Sarotherodon lohbergeri*	CR	0	No	328	*Globonautes macropus*	EN	0	Yes
303	***Sarotherodon steinbachi***	CR	0	Yes	329	***Liberonautes grandbassa***	CR	1	Yes
304	*Sarotherodon tournieri*	VU	0	Yes	330	***Liberonautes lugbe***	CR	0	Yes

Ct.	Scientific name	Red List Status	No. KBAs with confirmed presence	Restricted Range	Ct.	Scientific name	Red List Status	No. KBAs with confirmed presence	Restricted Range
Freshwater Crabs					**Insects**				
331	*Liberonautes nanoides*	EN	0	Yes	358	*Pterygota macrocarpa*	VU	4	No
332	*Liberonautes nimba*	VU	0	Yes	359	*Sapho puella*	EN	0	No
333	*Liberonautes rubigimanus*	VU	0	Yes	360	*Umma mesumbei*	EN	0	No
334	*Louisea balssi*	EN	1	No	361	*Umma purpurea*	EN	0	No
335	*Louisea edeaensis*	EN	0	No	**Mammals**				
336	*Potamalpheops haugi*	EN	0	No	362	*Allochrocebus preussi*	EN	7	Yes
337	*Potamonautes reidi*	VU	0	No	363	*Caracal aurata*	VU	0	No
338	*Potamonautes triangulus*	VU	0	Yes	364	*Cephalophus jentinki*	EN	20	No
339	*Potamonemus sachsi*	EN	0	Yes	365	*Cephalophus zebra*	VU	22	No
Insects					366	*Cercocebus atys*	VU	9	No
340	*Africocypha centripunctata*	EN	0	No	367	*Cercocebus lunulatus*	EN	3	No
341	*Allocnemis vicki*	EN	0	No	368	*Cercocebus torquatus*	EN	1	No
342	*Ceriagrion citrinum*	EN	0	No	369	*Cercopithecus diana*	EN	28	No
343	*Chlorocypha jejuna*	CR	0	No	370	*Cercopithecus erythrogaster*	EN	5	No
344	*Chlorocypha neptunus*	VU	0	No	371	*Cercopithecus erythrotis*	VU	3	No
345	*Elattoneura dorsalis*	VU	0	No	372	*Cercopithecus lowei*	VU	1	No
346	***Elattoneura pluotae***	CR	0	Yes					
347	*Liptena tiassale*	VU	0	No	373	***Cercopithecus roloway***	CR	18	Yes
348	*Mesocnemis tisi*	EN	0	No					
349	*Mylothris atewa*	VU	1	Yes	374	*Cercopithecus sclateri*	EN	3	No
350	*Neurolestes nigeriensis*	CR	0	No	375	*Choeropsis liberiensis*	EN	23	No
351	*Pantecphylus kamerunus*	VU	0	No	376	*Colobus polykomos*	EN	13	No
352	*Pentaphlebia gamblesi*	CR	0	No	377	*Colobus satanas*	VU	2	No
353	*Pentaphlebia stahli*	VU	0	No	378	*Colobus vellerosus*	CR	15	No
354	*Phymeurus lomaensis*	EN	0	Yes	379	*Crocidura eisentrauti*	VU	1	Yes
355	*Phymeurus nimbaensis*	VU	0	Yes	380	*Crocidura manengubae*	VU	1	Yes
356	*Pseudagrion mascagnii*	CR	0	No	381	*Crocidura picea*	EN	1	Yes
357	*Pterygota bequaertii*	VU	4	No	382	*Crocidura thomensis*	EN	1	Yes

Ct.	Scientific name	Red List Status	No. KBAs with confirmed presence	Restricted Range	Ct.	Scientific name	Red List Status	No. KBAs with confirmed presence	Restricted Range
Mammals					**Mammals**				
383	***Crocidura wimmeri***	CR	2	Yes	411	*Myosorex okuensis*	VU	2	Yes
384	*Genetta bourloni*	VU	0	No	412	*Myosorex rumpii*	EN	1	Yes
385	*Genetta cristata*	VU	0	No	413	*Myotis nimbaensis*	CR	0	No
386	*Giraffa camelopardalis*	VU	0	No	414	*Neoromicia roseveari*	EN	0	Yes
387	*Gorilla gorilla*	CR	4	No	415	*Otomys burtoni*	EN	1	Yes
388	*Hippopotamus amphibius*	VU	4	No	416	*Otomys occidentalis*	VU	0	Yes
389	*Hipposideros curtus*	EN	0	No	417	*Pan troglodytes*	EN	64	No
390	***Hipposideros lamottei***	CR	3	Yes	418	*Phataginus tetradactyla*	VU	0	No
391	*Hipposideros marisae*	VU	2	No	419	*Phataginus tricuspis*	EN	0	No
392	*Hybomys badius*	EN	1	Yes	420	*Physeter macrocephalus*	VU	0	No
393	*Hybomys basilii*	EN	0	Yes	421	*Piliocolobus badius*	EN	26	No
394	*Hybomys eisentrauti*	EN	2	Yes	422	***Piliocolobus epieni***	CR	0	Yes
395	*Hylomyscus baeri*	EN	1	No	423	***Piliocolobus pennantii***	CR	2	Yes
396	*Hylomyscus grandis*	EN	1	Yes	424	***Piliocolobus preussi***	CR	4	Yes
397	*Lamottemys okuensis*	EN	1	Yes	425	***Piliocolobus waldroni***	CR	10	Yes
398	*Liberiictis kuhni*	VU	6	No	426	*Poiana leightoni*	VU	0	No
399	*Lophocebus albigena*	VU	0	No	427	*Praomys hartwigi*	VU	0	Yes
400	*Lophuromys dieterleni*	EN	1	Yes	428	*Praomys morio*	EN	1	Yes
401	***Lophuromys eisentrauti***	CR	1	Yes	429	*Praomys obscurus*	EN	1	Yes
402	*Loxodonta africana*	EN	1	No	430	*Procolobus verus*	VU	0	No
403	*Loxodonta cyclotis*	CR	40	No	431	*Redunca fulvorufula*	EN	0	No
404	*Lycaon pictus*	EN	2	No	432	*Rhinolophus guineensis*	EN	3	No
405	*Mandrillus leucophaeus*	EN	13	Yes	433	*Rhinolophus hillorum*	VU	0	No
406	*Mandrillus sphinx*	VU	0	No	434	*Rhinolophus maclaudi*	EN	1	Yes
407	*Micropotamogale lamottei*	VU	4	Yes	435	*Rhinolophus ziama*	EN	2	Yes
408	*Mops tomensis*	EN	0	No	436	*Smutsia gigantea*	EN	0	No
409	*Myonycteris brachycephala*	EN	1	Yes	437	*Sousa teuszii*	CR	0	No
410	***Myosorex eisentrauti***	CR	1	Yes	438	*Sylvisorex camerunensis*	VU	0	Yes

Ct.	Scientific name	Red List Status	No. KBAs with confirmed presence	Restricted Range	Ct.	Scientific name	Red List Status	No. KBAs with confirmed presence	Restricted Range
Mammals					**Plants**				
439	*Sylvisorex isabellae*	VU	1	Yes	790	***Aubregrinia taiensis***	CR	1	Yes
440	*Sylvisorex morio*	EN	1	Yes	791	***Ledermanniella keayi***	CR	1	Yes
441	*Tragelaphus derbianus*	VU	0	No	792	***Tarenna hutchinsonii***	CR	0	Yes
442	*Trichechus senegalensis*	VU	10	No	793-1070 Plant species				
Mollusks					**Reptiles**				
443	*Afropomus balanoidea*	EN	0	No	1071	*Bitis gabonica*	VU	0	No
444	*Archachatina bicarinata*	EN	0	No	1073	*Caretta caretta*	VU	0	No
445	*Aspatharia droueti*	VU	0	No	1074	*Chelonia mydas*	EN	6	No
446	*Aspatharia pangallensis*	VU	0	No	1075	*Cnemaspis alantika*	EN	0	Yes
447	***Bellamya liberiana***	CR	0	Yes	1076	*Cnemaspis occidentalis*	EN	0	Yes
448	***Coelatura essoensis***	CR	0	Yes	1077	*Cyclanorbis elegans*	CR	0	No
449	*Gabbiella depressa*	CR	0	No	1078	*Cyclanorbis senegalensis*	VU	0	No
450	*Haliotis geigeri*	VU	0	No	1079	***Cynisca gansi***	CR	0	Yes
451	***Melanoides voltae***	CR	0	Yes	1080	*Cynisca leonina*	VU	0	Yes
452	*Mutela franci*	EN	0	No	1081	*Dermochelys coriacea*	VU	3	No
453	***Pleiodon ovatus***	CR	0	Yes	1082	*Eretmochelys imbricata*	CR	5	No
454	***Potadoma angulata***	CR	0	Yes	1083	*Kinixys homeana*	CR	1	No
455	*Potadoma bicarinata*	CR	0	No	1084	*Lacertaspis gemmiventris*	EN	0	Yes
456	***Potadoma togoensis***	CR	0	Yes	1085	***Lacertaspis lepesmei***	CR	0	Yes
457	*Potadoma vogeli*	EN	0	Yes	1086	*Lepidochelys olivacea*	VU	2	No
458	*Pseudavakubia atewaensis*	EN	0	Yes	1087	*Leptosiaphos amieti*	VU	0	Yes
459	*Pseudavakubia majus*	EN	0	Yes	1088	*Leptosiaphos ianthinoxantha*	VU	0	Yes
460	***Pseudocleopatra togoensis***	CR	0	Yes	1089	*Leptosiaphos pauliani*	EN	1	Yes
461	*Pseudocleopatra voltana*	EN	0	Yes	1090	*Mecistops cataphractus*	CR	0	No
462	*Saulea vitrea*	VU	0	No	1091	*Naja peroescobari*	EN	0	Yes
Plants					1092	*Osteolaemus tetraspis*	VU	10	No
463-788 Plant species					1093	*Trachylepis mekuana*	EN	0	Yes
789	***Acridocarpus staudtii***	CR	1	Yes	1094	***Trachylepis nganghae***	CR	0	Yes

Ct.	Scientific name	Red List Status	No. KBAs with confirmed presence	Restricted Range	Ct.	Scientific name	Red List Status	No. KBAs with confirmed presence	Restricted Range
Reptiles					**Sharks, Rays**				
1095	*Trioceros perreti*	EN	0	Yes	1122	*Echinorhinus brucus*	EN	0	No
1096	*Trioceros pfefferi*	EN	0	Yes	1123	*Etmopterus spinax*	VU	0	No
1097	*Trioceros quadricornis*	VU	0	Yes	1124	***Fontitrygon garouaensis***	CR	0	Yes
1098	*Trioceros serratus*	VU	0	Yes	1125	*Fontitrygon margarita*	VU	0	No
1099	*Trionyx triunguis*	VU	0	No	1126	*Fontitrygon ukpam*	CR	0	No
1100	*Urocotyledon weileri*	EN	0	Yes	1127	*Galeus polli*	VU	0	No
Sharks, Rays					1128	*Ginglymostoma cirratum*	VU	0	No
1101	*Aetobatus narinari*	EN	0	No	1129	*Glaucostegus cemiculus*	CR	0	No
1102	*Aetomylaeus bovinus*	CR	0	No	1130	*Gymnura altavela*	EN	0	No
1103	*Alopias superciliosus*	VU	0	No	1131	*Gymnura sereti*	EN	0	No
1104	*Alopias vulpinus*	VU	0	No	1132	*Hypanus rudis*	CR	0	No
1105	*Bathytoshia lata*	VU	0	No	1133	*Isurus oxyrinchus*	EN	0	No
1106	*Carcharhinus amboinensis*	VU	0	No	1134	*Isurus paucus*	EN	0	No
1107	*Carcharhinus brachyurus*	VU	0	No	1135	*Leptocharias smithii*	VU	0	No
1108	*Carcharhinus brevipinna*	VU	0	No	1136	*Mobula birostris*	EN	0	No
1109	*Carcharhinus falciformis*	VU	0	No	1137	*Mobula hypostoma*	EN	0	No
1110	*Carcharhinus leucas*	VU	0	No	1138	*Mobula mobular*	EN	0	No
1111	*Carcharhinus limbatus*	VU	0	No	1139	*Mobula tarapacana*	EN	0	No
1112	*Carcharhinus longimanus*	CR	0	No	1140	*Mobula thurstoni*	EN	0	No
1113	*Carcharhinus obscurus*	EN	0	No	1141	*Mustelus mustelus*	EN	0	No
1114	*Carcharhinus plumbeus*	EN	0	No	1142	*Myliobatis aquila*	CR	0	No
1115	*Carcharhinus signatus*	EN	0	No	1143	*Negaprion brevirostris*	VU	0	No
1116	*Carcharias taurus*	CR	1	No	1144	*Oxynotus centrina*	EN	0	No
1117	*Carcharodon carcharias*	VU	1	No	1145	*Paragaleus pectoralis*	EN	0	No
1118	*Centrophorus uyato*	EN	0	No	1146	*Pristis pectinata*	CR	3	No
1119	*Cetorhinus maximus*	EN	0	No	1147	*Pristis pristis*	CR	3	No
1120	*Dalatias licha*	VU	0	No	1148	*Rhincodon typus*	EN	0	No
1121	*Dasyatis pastinaca*	VU	0	No	1149	*Rhinobatos albomaculatus*	CR	0	No

Ct.	Scientific name	Red List Status	No. KBAs with confirmed presence	Restricted Range
Sharks, Rays				
1150	*Rhinobatos irvinei*	CR	0	No
1151	*Rhinobatos rhinobatos*	CR	0	No
1152	*Rhinoptera marginata*	CR	0	No
1153	*Rhizoprionodon acutus*	VU	0	No
1154	*Rhynchobatus luebberti*	CR	1	No
1155	*Rostroraja alba*	EN	0	No
1156	*Sphyrna lewini*	CR	0	No
1157	*Sphyrna mokarran*	CR	0	No
1158	*Sphyrna zygaena*	VU	0	No
1159	*Squatina aculeata*	CR	0	No
1160	*Squatina oculata*	CR	0	No
1161	*Torpedo bauchotae*	EN	0	No
1162	*Torpedo mackayana*	EN	0	No
1163	*Torpedo marmorata*	VU	0	No
1164	*Torpedo torpedo*	VU	0	No
1165	*Zanobatus schoenleinii*	VU	0	No

Annex 2: Site Outcomes

Sites are listed below by country and corridor. See the electronic version of this appendix for a full table listing each KBA by:

1. Map Code corresponding to this document and the associated Conservation Outcomes wall map
2. International KBA code
3. Corridor
4. KBA Name
5. Size of KBA in hectares
6. KBA status (global, regional, proposed)
7. Percent of KBA formally protected
8. Categorization for irreplaceability
9. Site-pecies vulnerability categorization
10. STAR-T score
11. STAR rank
12. STAR score categorization
13. Combined biological importance score
14. Percent of forest loss from 2013 to 2023

	Map Code	KBA Code	KBA Name	Area (Hectares)	Priority KBA	KBA supports priority 1 species
Benin – No Corridor						
1	BEN1	6041	Lake Nokoué	98,403		
Cameroon - Korupmba-Obachap Corridor						
2	CMR1	6125	Bakossi mountains	75,581	yes	yes
3	CMR2	6119	Bali-Ngemba Forest Reserve	899		
4	CMR3	29689	Bamboutos Mountains	7,396	yes	yes
5	CMR4	6120	Banyang Mbo Wildlife Sanctuary	69,145		
6	CMR5	6122	Korup National Park	129,115	yes	
7	CMR6	6116	Mbi Crater Faunal Reserve – Mbingo forest	3,233		
8	CMR7	6123	Mont Bana	159		
9	CMR8	6128	Mount Kupe	428		
10	CMR9	6124	Mont Manengouba	8740	yes	yes
11	CMR10	26329	Mont Nganha	16,930	yes	yes
12	CMR12	6130	Mount Cameroon and Mokoko-Onge	107,143	yes	
13	CMR13	29690	Mount Lefo	1,649	yes	yes
14	CMR14	6117	Mount Mbam	13,221		
15	CMR15	6115	Mount Oku	16,353	yes	yes
16	CMR16	6127	Mount Rata and Rumpi Hills Forest Reserve	45,200	yes	yes
17	CMR17	6121	Santchou Faunal Reserve	9,506		
18	CMR18	6112	Tchabal-Mbabo	312,347	yes	
19	CMR19	6129	Yabassi	264,867	yes	yes
20	CMR20	47084	Eastern Bamenda highlands and associated hydrobasin	34,667	yes	
21	CMR21	100521	Eastern Slopes of Rumpi Hills	9,073		yes
22	CMR22	6114	Njinsing – Tabenken	390		
23	fw1	500001	Lake Barombi Mbo and surrounding catchments	176,536		yes

	Map Code	KBA Code	KBA Name	Area (Hectares)	Priority KBA	KBA supports priority 1 species
24	fw2	500002	Lake Bermin and surrounding catchments	152,302		
Cameroon - No Corridor						
25	CMR11	6126	Mont Nlonako	64,124	yes	yes
Côte d'Ivoire - Forest Reserves SE Côte d'Ivoire and SW Ghana Corridor						
26	CIV1	24855	Adiopodoume	1,939		yes
27	CIV2	6096	Forêt Classée de Bossematié	21,976		
28	CIV4	6099	Forêt Classée de Mabi	62,095		yes
29	CIV6	6102	Forêt Classée de Yapo et Mambo	30,598		
30	CIV16	24853	Tanoe Forest Swamp Forest	12,159		yes
31	CIV17	24863	Banco National Park	3,230		yes
Côte d'Ivoire - Cestos-Sapo-Greobo-Tai-Cavally Corridor						
32	CIV3	6097	Forêt Classée de Cavally et Goin – Débé	197,925		
33	CIV11	6100	Parc National de Taï et Réserve de faune du N'Zo	539,376	yes	yes
Côte d'Ivoire – Bandama River Catchment Corridor						
34	CIV5	6101	Forêt Classée de Mopri	32,459		
35	CIV9	6103	Parc National d'Azagny	18,865		yes
36	CIV15	6098	Station de recherche écologique de Lamto	2,721		
37	fw3	500003	Lower Bandama River	315,998		
Côte d'Ivoire – Mount Nimba Complex Corridor						
38	CIV7	6093	Forêt Classée des Mont Guéoulé et Mont Glo Réserves	49,019		
39	CIV8	6092	Mount Nimba Strict Nature Reserve	27,035	yes	yes
Côte d'Ivoire – No Corridor						
40	CIV10	6095	Parc National de Marahoué	87,526		yes
41	CIV12	6094	Parc National du Mont Péko	29,330		
42	CIV13	6091	Parc National du Mont Sangbé	75,029		
Equatorial Guinea – Gulf of Guinea Islands Corridor						
43	GNQ1	6378	Annobón	2,871	yes	
44	GNQ2	6380	Réserva Cientifica de la Caldera de Lubâ	51,075	yes	yes

	Map Code	KBA Code	KBA Name	Area (Hectares)	Priority KBA	KBA supports priority 1 species
45	GNQ3	6379	Parque Nacional del Pico de Basilé	32,256	yes	yes
Ghana - Forest Reserves SE Côte d'Ivoire and SW Ghana Corridor						
46	GHA1	6341	Amansuri wetland	26,751		
47	GHA2	6311	Ankasa Resource Reserve – Nini-Sushien National Park	47,444	yes	yes
48	GHA3	6312	Atewa Range Forest Reserve	21,111	yes	yes
49	GHA4	6313	Bia National Park and Resource Reserve	34,115		yes
50	GHA5	6315	Boin River Forest Reserve	30,530		
51	GHA6	6314	Boin Tano Forest Reserve	12,181		yes
52	GHA7	6316	Bosomtwe Range Forest Reserve	7,546		
53	GHA8	6317	Bura River Forest Reserve	9,996		
54	GHA9	6318	Cape Three Points Forest Reserve	4,545		yes
55	GHA10	6319	Dadieso Forest Reserve	15,031		yes
56	GHA11	6320	Draw River Forest Reserve	19,391		yes
57	GHA12	6321	Ebi River Shelterbelt Forest Reserve	1,756		yes
58	GHA13	6322	Fure River Forest Reserve	14,046		yes
59	GHA14	6323	Jema-Asemkrom Forest Reserve	6,756		yes
60	GHA15	6324	Kakum National Park – Assin Attandaso Resource Reserve	31,783		yes
61	GHA17	6325	Mamiri Forest Reserve	4,815		
62	GHA19	22288	Neung South	11,974		yes
63	GHA20	6327	Nsuensa-Ayiola-Bediako Forest Reserves	6,330		
64	GHA21	6328	Pra-Sushien Forest Reserve	18,721		
65	GHA24	22287	Southern Scarp	24,882		yes
66	GHA25	6329	Subri River Forest Reserve	55,930		yes
67	GHA26	6330	Tano-Anwia Forest Reserve	14,105		
68	GHA27	6331	Tano-Ehuro Forest Reserve	20,787		yes

	Map Code	KBA Code	KBA Name	Area (Hectares)	Priority KBA	KBA supports priority 1 species
69	GHA28	6332	Tano-Nimiri Forest Reserve	19,026		yes
70	GHA29	6333	Tano-Offin Forest Reserve	43,061		yes
71	GHA30	6334	Yoyo River Forest Reserve	21,139		yes
72	GHA31	22293	Bandai Hills	17,906		yes
73	GHA32	22292	Bobiri Forest Reserve	5,576		Yes
74	GHA34	100282	Sui River Forest Reserve	33,209		yes
Ghana – Togo Highlands Corridor						
75	GHA16	24265	Kyabobo National Park	21,882		
Ghana – No Corridor						
76	GHA18	6326	Mount Afadjato – Agumatsa Range forest	2,185		
77	GHA22	22289	Sapawsu Forest Reserve	922		yes
78	GHA23	6339	Shai Hills Resource Reserve	343		
79	fw5	500004	Lower Volta eastern catchment	91,184		
Guinea – Mount Nimba Complex Corridor						
80	GIN2	6377	Diécké	59,232		
81	GIN9	6376	Monts Nimba	14,562	yes	yes
Guinea – Lofa-Gola-Mano Complex Corridor						
82	GIN4	22298	Forêt Classée de Mont Bero	27,483		
83	GIN8	6375	Massif du Ziama	91,481	yes	
84	GIN10	22304	Pic de Fon	32,117		
Guinea – No Corridor						
85	GIN1	6362	Chutes de la Sala	1,440		
86	GIN3	22302	Foret Classe de Balayan Souroumba	22,479		
87	GIN5	6370	Kabitaï	4,970		
88	GIN6	6372	Konkouré	45,744		
89	GIN7	6373	Kounounkan	10,644		

	Map Code	KBA Code	KBA Name	Area (Hectares)	Priority KBA	KBA supports priority 1 species
90	GIN11	22297	Sincery Oursa	1,586		
Liberia Cestos-Sapo-Greobo-Tai-Cavally Corridor						
91	LBR1	6461	Cestos – Senkwen	350,405	Yes	
92	LBR2	22308	Cestos Gbi	316,490	Yes	
93	LBR3	22309	Cestos-Sapo North Corridor forest blocks	81,401		
94	LBR4	22313	Gio National Forest	48,826		
95	LBR5	22316	Grand Kru SouthEast Forest blocks	90,191		
96	LBR6	22317	Grand Kru SouthWest blocks	55,111		
97	LBR7	6463	Grebo	282,195	Yes	
98	LBR9	22318	Krahn Bassa South	203,020		
99	LBR13	22320	Sapo – Grebo Corridor	197,421		
100	LBR14	6462	Sapo	155,084	yes	
101	LBR18	6460	Zwedru	64,458		
102	LBR19	22310	Cestos-Sapo South Corridor forest block	32,492		
103	fw12	47038	Weeni creek and associated hydrobasin	48,826	yes	yes
Liberia – Lofa-Gola-Mano Complex Corridor						
104	LBR8	22511	Kpelle Forest	216,898		
105	LBR11	6457	Lofa-Gola-Mano Complex	437,854	Yes	
106	LBR16	6455	Wologizi mountains	167,985		
107	LBR17	6456	Wonegizi mountains	28,868		
108	fw4	500000	Lower reaches of St Paul River	350,405		
109	fw7	500006	Middle reaches of St Paul River	316,490		
110	fw11	500007	Upper reaches of St Paul River	81,401		
Liberia – Mount Nimba Complex Corridor						
111	LBR12	6458	Nimba mountains	13,254	yes	yes
112	LBR15	22321	West Nimba	11,625		

	Map Code	KBA Code	KBA Name	Area (Hectares)	Priority KBA	KBA supports priority 1 species
Liberia – No Corridor						
113	LBR10	6459	Lake Piso (Cape Mount)	24,859		
Nigeria - Korupmba-Obachap Corridor						
114	NGA1	6738	Afi River Forest Reserve	51,975		
115	NGA4	6740	Cross River National Park (Oban Division)	268,952	yes	yes
116	NGA5	6735	Gashaka-Gumti National Park	586,803		
117	NGA7	6743	Cross River National Park (Okwangwo Division) and Mbe Mountains	95,288		
118	NGA8	6736	Ngel-Nyaki Forest Reserve	3,004		
119	NGA9	6734	Obudu Plateau	70,743		
120	fw10	500009	South East Niger Delta – near Calabar	269,451		
Nigeria – Lower Niger Delta						
121	NGA2	6750	Akassa forests	8,333		
122	NGA3	6749	Biseni forests	21,619		
123	NGA10	6739	Okomu National Park	111,626		
124	NGA12	6748	Upper Orashi forests	9,883		
125	fw13	500008	West Niger Delta	493,149		
Nigeria – No Corridor						
126	NGA6	6744	IITA Forest Reserve, Ibadan	327		
127	NGA11	6741	Omo Forest Reserve	131,908		
128	NGA13	100506	Emerald Forest Reserve	120		
129	NGA14	100504	Idanre Hills	2,250	yes	yes
São Tomé and Principe – Gulf of Guinea Islands Corridor						
130	STP1	45720	Parque Natural Obô de São Tomé e Zona Tampão	44,830	yes	yes
131	STP2	6884	Príncipe forests	5,670	yes	yes
132	STP3	45721	Zona Ecológica dos Mangais do Rio Malanza	229		
133	STP4	6883	São Tomé northern savannas	522		
134	STP5	6885	Tinhosas Islands	18		

	Map Code	KBA Code	KBA Name	Area (Hectares)	Priority KBA	KBA supports priority 1 species
135	fw9	500012	São Tomé (freshwater)	90,467		
Sierra Leone Lofa-Gola-Mano Complex Corridor						
136	SLE1	6839	Gola Forests	74,612		
137	SLE2	6838	Kambui Hills Forest Reserve	14,012		
Sierra Leone Coastal Corridor						
138	SLE5	6834	Sierra Leone River Estuary	55,823		
139	SLE8	6836	Western Area Peninsula Forest National Park	16,414		
140	SLE9	6837	Yawri Bay	54,674		
141	fw6	500011	Gbangbaia River Basin	266,478		
142	fw8	500010	Rhombe Swamp and Mouth of Little and Great Scarcies Rivers	88,460		
Sierra Leone – No Corridor						
143	SLE3	6835	Kangari Hills Non-hunting Forest Reserve	11,743		
144	SLE4	6832	Loma Mountains Non-hunting Forest Reserve	26,782		
145	SLE6	6833	Tingi Hills Non-hunting Forest Reserve	14,293		
Togo – Togo Highlands Corridor						
146	TGO1	6916	Fazao-Malfakassa National Park	215,337		
Togo – No Corridor						
147	TGO2	6917	Misahöhe Forest Reserve	1,225		

Annex 3: Relevant National Legislation

Country: Benin
Law n° 98-030: Environmental law. *Purpose:* Creates the main institutions responsible for implementing environmental policies: soil, subsoil, continental and marine waters, flora and fauna; pollution, hazardous and non-hazardous EIAs, environmental audits and applicable penalties. Creates the Benin Environmental Agency and the National Commission for Sustainable Development. *Institutions*: Ministry of the Environment and Protection of Nature (created by Decree No. 2006-460)
Law n° 93-009: Forestry sector governance *Purpose:* Regulates public and private forests and sets out provisions for community management. Mandates management plans drawn up with the participation of local communities and defines access to timber and non-timber products used for commercial or medicinal purposes. Regulates licenses for commercial exploitation and grants some tax exemptions to promote reforestation. *Institutions*: Benin Environment Agency
Law n° 2002-016: Wild Species *Purpose*: Includes management of protected areas, allows local participation in the management of protected areas *Institutions*: National Center for the Management of Wildlife Reserves (CENAGREF), Ministry of Agriculture, Livestock and Fisheries
Law no. 2022 of 14 July 2022: Agriculture, food and nutritional security *Purpose*: Establishes guidelines and principles for agricultural development and food and nutritional security *Institutions*: Agencies responsible for Agriculture and rural development; Livestock; Food and nutrition; Fisheries; Forestry
Law no. 2018-18 of 06 August 2018: Climate change and other threats *Purpose*: combat climate change and its negative effects. increase the resilience of communities. *Institutions*: Agencies responsible for Agriculture and rural development; Livestock; Air and atmosphere; General environment; Forestry; Land and soil; Sea; Water; Wildlife and ecosystems; Waste and hazardous substances
Law N° 2021-04 of 08 July 2021: International wildlife trade *Purpose:* Protection and rules relating to international trade in endangered species of wild fauna and flora in Benin. *Institutions:* Protection and control of international trade is entrusted to the Administration in charge of Water, Forests and Hunting.
Decree no. 128-2017; Decree no. 191-2021: National Environment and Climate Fund *Purpose:* To finance programs and projects aimed at the protection and rational management of the environment, natural resources and forests, combating the harmful effects of climate change and promoting sustainable development in Benin. *Institutions:* Creation of the National Environment and Climate Fund (FNEC); Ministry of Forests, Environment and Nature Conservation
Benin's National Climate Change Adaptation Plan-2022: *Purpose:* Reducing vulnerability to the impacts of climate change and facilitating the integration of adaptation to climate change *Institutions:* Energy; General environment; Food and nutrition; Forestry; Wildlife and ecosystems
National Climate Change Management Policy (PNGCC 2021-2030) *Purpose:* Strengthening institutional, individual and material capacities to deal effectively with climate change; climate change action research; promoting low-carbon and climate-resilient development in all development sectors; strengthening adaptation measures in the agriculture, forestry, water resources, health, energy, tourism, coastal and infrastructure sectors; adapting to climate change; contributing to the reduction of greenhouse gas emissions in the agriculture, forestry, energy, industrial processes and waste sectors; mitigating climate change; optimising climate change management.

Country: Cameroon
Law no. 96/12 *Purpose*: Main legislation governing environmental management, includes: preventive measures, prevention and corrective action; specific mandates relating to air, water, soil and subsoil pollution and to chemical and toxic waste; creates the National Fund for the Environment and Sustainable Development; mandates development of national environmental management plans and regulates EIAs. *Institutions*: Ministry of Forests and Fauna
Law no. 94/01 (currently being revised) *Purpose*: Protecting and managing forests. Proposes provisions governing protected areas, wildlife protection and hunting rights *Institutions*: Ministry of Forests and Fauna
Updated Nationally determined contribution (NDC) 2021 *Purpose*: Transforming climate constraints into development opportunities, sets an overall mitigation objective of 35% in the target sectors by 2030 compared with the reference scenario (BAU 2030). *Institutions*: Ministry of Forests and Fauna
National Strategy for the Sustainable Management of Mangroves and Other Coastal Ecosystems in Cameroon of 01 June 2018 *Purpose*: Sustainable management of mangroves and other coastal ecosystems: overall objective to preserve and protect mangrove ecosystems and all coastal ecosystems in a participatory manner by 2025. *Institutions*: Ministry of Forests and Fauna
Law no. 2016-008 of 12 July 2016 Ratification of the Paris Climate Agreement *Purpose*: Ratification of the Paris Agreement , strengthen the global response to the threat of climate change, in a context of sustainable development and the fight against poverty *Institutions*: MINEPDED
Law no. 2023-014 of 19 December 2023 on the Mining Code *Purpose*: to encourage and promote investment in the mining sector and contribute to the country's economic and social development; regulate the recognition, exploration, exploitation, possession, transport, processing and marketing of mineral substances *Institutions*: Ministry of Mines, Industry and Technological Development (MINMIDT)
Decree n°2019/026 of 18 January 2019 reorganising the National Observatory on Climate Change *Purpose*: Reorganization of the National Observatory on Climate Change (ONACC); establish climate indicators; analyses to enable a vision of climate change in the short, medium and long term; monitor climate change; draw up Cameroon's annual climate report. *Institutions:* MINFOF ; MINEPDED
Law N° 2024/008 of 24 July 2024 *Purpose*: Determines the forestry and wildlife regime with a view to achieving the objectives of forestry and wildlife policy *Institutions*: MINFOF
Law N°2021/014 of 09 July 2021 *Purpose*: regulate and establish access to genetic resources, their derivatives and associated traditional knowledge, and the fair and equitable sharing of the benefits arising from their use; guarantee the involvement of indigenous peoples and local communities in the sharing of benefits arising from the use of genetic resources or associated traditional knowledge; *Institutions*: MINFOF

Country: Côte d'Ivoire
Environmental Code (Law no. 96-766) and Water Code (Law no. 98-755) *Purpose*: Main environmental legislation, further regulated through Ministerial decrees on land use, forest management and organization *Institutions*: Ministry for the Environment and Sustainable Development, National Environment Agency (ANDE)
Mining Code (Law no. 96-553), regulated by Decree no. 634-1996 *Purpose*: Defines the national strategies and action plans for this sector *Institutions*: National Sustainable Development Commission
Law no. 96-478 *Purpose*: Governs fishing activities *Institutions*: Ministry of Water and Forests (created by Decree no. 2002-359)
Law no. 225-1965 (amended by Law no. 442-1994) *Purpose*: Governs wildlife protection and hunting activities *Institutions*: National Forestry Development Agency
Decree no. 96-894 *Purpose*: Governs the procedures applicable to EIA *Institutions*: National Parks and Nature Reserves Office
Law no. 102-2002 *Purpose*: Finances and manages parks and nature reserves *Institutions*: National Parks and Nature Reserves Office
Forestry code Law no. 2019-675 of 23 July 2019 *Purpose*: Regulates sustainable forest management, including players and obligations; forest classification; use rights; protection, restoration and development; exploitation, development, promotion and marketing of forest products; policing and law enforcement *Institutions*: Ministry of Water and Forests (MINEF)
Nationally Determined Contributions (CDN-COTE D'IVOIRE), 01 March 2022 *Purpose:* integrating actions to combat climate change into sectoral plans and policies , Support the implementation of the twenty-seven (27) unconditional mitigation measures *Institutions:* Ministry of Agriculture and Rural Development; Ministry of Animal and Fisheries Resources; Ministry of the Environment and Sustainable Development; Ministry of Mines, Oil and Energy
Law no. 2024-364 of 11 June 2024 *Purpose:* Protection of wild animal species and their habitats; development and enhancement of wildlife resources with a view to their sustainable exploitation for hunting, tourism, educational, cultural and scientific purposes; and improved governance of wildlife resources. *Institutions:* Ministry of Water and Forests (MINEF)
Country: Equatorial Guinea
Law no. 7-2004 *Purpose*: Main law on environment, governs air, water and soil quality, pollution and conservation issues *Institutions*: Ministry of Environment
Law No. 4 – 2000 *Purpose*: Governs protected areas *Institutions*: Ministry of Environment

Decree no. 172-2005 *Purpose:* Regulates trade in endangered species *Institutions*: Ministry of Agriculture, Forestry and the Environment
Law no. 1-1997 (amended by Law no. 7 of 2003) *Purpose:* Governs the exploitation, management and conservation of forests, classification of forest products, preservation of the environment and biodiversity and ecosystems, the economic and fiscal regime, monitoring and penalties *Institutions*: Ministry of Environment
Law no. 2-1987, Decree no. 86-1981 *Purpose:* Fishing Act, regulation of small-scale fishing *Institutions*: Ministry of Environment
Nationally Determined Contributions (NDC) 2021 *Purpose:* Establishes objective of reducing emissions by 35% by 2030, and 50% by 2050, with reference to 2019. *Institutions*: Ministry of Agriculture, Forestry and the Environment
Equatorial Guinea's national REDD+ strategy. 2019 *Purpose:* Reduce greenhouse gas (GHG) emissions from agriculture, forestry and other land uses by 20% by 2030, and by 50% by 2050; *Institutions*: Ministry of Agriculture, Forestry and the Environment
Decree no. 7/2017 of 31 January 2017 *Purpose:* Bans the felling of trees for commercial purposes by chainsaw operators and certain forestry companies throughout the country *Institutions*: Ministry of Agriculture, Forestry and the Environment
Decree no. 182/2018 of 27 November 2018 *Purpose:* Ban on roundwood exports from Equatorial Guinea *Institutions*: Ministry of Agriculture, Forestry and the Environment
Country: Ghana
Wildlife Reserves Regulations 1971 and Wildlife Animals Preservation Act 1961 *Purpose*: Main law on environment *Institutions*: Ministry of Lands and Natural Resources; Environmental Protection Agency
Environment Protection Authority (EPA) Act 490-1994 *Purpose:* Governs EIAs *Institutions:* Environmental Protection Agency
Timber Resource Management Act 1997 (amended by Laws 617 and 624 of 2002) *Purpose:* Governs forestry regulations *Institutions:* Forestry Commission, Ministry of Environment, Science and Technology
Law No. 925 of 2016. *Purpose*: Regulating land use and development; revise and consolidate land use and planning laws; ensure sustainable development through a decentralised planning system; wise use of land to improve quality of life, to promote health and safety in human settlements, *Institutions:* Department of Lands and Natural Resources
Law of 2023 on the management of wildlife resources (Law 1115). *Purpose:* Consolidates wildlife and protected area law; promotes sustainable wildlife management, conservation and community involvement. *Institutions:* Ministry of Lands and Natural Resources

Country: Guinea
Law no. 045-1987 and law no. 022-1989 *Purpose*: Environmental protection *Institutions*: National Directorate of Waters and Forests
Law n° 038-1999 *Purpose*: Main forestry code and law on wildlife protection and hunting *Institutions*: National Directorate of Waters and Forests
1995 Mining Code *Purpose*: Regulates mining *Institutions*: Ministry of the Environment, Water and Forestry
1995 Code for Sea Fishing; Ordinance no. 676/MPA/SGG/2006 and Decree D/97/017/PRG/SGG *Purpose*: Fisheres, including artisanal fishing; provides sanctions and penalties for fisheries *Institutions*: National Centre for the Management of Protected Areas (CENAGAP)
Nationally Determined Contribution (NDC) of the Republic of Guinea 2021 *Purpose*: Revising the 2015 NDC in line with the provisions of the Paris Agreement and incorporating cross-cutting gender/ODD issues *Institutions*: Ministry for the Environment and Sustainable Development
Law L/2016/039/AN/SGG of 09 August 2016 *Purpose*: Ratification of the Paris Agreement relating to the United Nations Framework Convention on Climate Change *Institutions*: Ministry for the Environment and Sustainable Development
Law L/2019/0034/AN of 04 July 2019, on the Environmental Code of the Republic of Guinea. *Purpose*: To establish fundamental principles to promote sustainable development, manage and protect the environment and natural capital against all forms of degradation *Institutions*: Ministry for the Environment and Sustainable Development
Law nº L2017/060/AN of 12 December 2017 adopting and promulgating the law on the Forestry Code *Purpose*: Establish rules for the sustainable management of national forest resources *Institutions*: Ministry for the Environment and Sustainable Development
Country: Liberia
Environmental Protection and Management Act 2003 *Purpose*: National environmental policy, aims to manage Liberia's environment and natural resources; includes environmental principles; EIA; environmental quality standards; pollution control and licensing; biodiversity protection and environmental restoration *Institutions*: Environmental Protection Agency
Wildlife and National Parks Act 1988 *Purpose*: preservation and wildlife development by controlling hunting and preserving habitats in protected areas *Institutions:* Environmental Protection Agency
National Forestry Reform Act 2006 and Forestry Regulations 2007 *Purpose*: preservation and management of all commercial, conservation and community forests *Institutions:* Environmental Protection Agency

2009 National Environmental Policy and Regulation on the commercial and sustainable extraction of NTFPs *Purpose*: Regulates NTFP extraction *Institutions:* Forestry Development Authority
2007 integrated water resources policy *Purpose*: Regulates water resource management *Institutions:* Forest Development Authority
Liberia's revised nationally determined contribution (NDC). 2021 *Purpose*: 10-year national sectoral document aimed at reducing greenhouse gas emissions across the economy by 64% from the projected business-as-usual level by 2030. *Institutions:* Forestry Development Authority; Environmental Protection Agency
National Wildlife Act 2012. October 2016 *Purpose*: Law adopting the law on the conservation of national wildlife and the management of protected areas. *Institutions:* Forestry Development Authority
Country: Nigeria
Environmental Impact Assessment Act and 2009 Law on environmental authorisations and licences (S.I. no. 29) *Purpose*: regulates EIA and licensing *Institutions*: Federal Ministry for the Environment;
Law no. 46 of 1999 *Purpose*: management of national parks and their head offices *Institutions*: Federal Ministry for the Environment; Nigeria National Park Service
1956 Forestry Act and 1956 Forest regulations, 2006 National Forestry Policy *Purpose*: Main legislation governing the forest management sector Ensures the preservation and management of wildlife through the creation of national parks, game reserves and tourist facilities, etc. *Institutions*: Federal Ministry for the Environment
1985 Endangered Species (Control of International Trade and Traffic) Act; 2011 Regulation on Protection of Endangered Species in International Trade *Purpose:* Regulate international trade in wild species *Institutions:* National Council on Environment
2009 Regulation on Access to Genetic Resources and Benefit Sharing (S. I. nº 30) *Purpose:* Regulate exploitation and benefits from wild genetic resources *Institutions:* Nigeria National Park Service
2016 National Wetland Policy (2016) *Purpose*: Preserving water quality by protection of aquatic environment and associated ecosystems. *Institutions*: Federal Ministry for the Environment
National Development Plan (NDP) 2021-2025 *Purpose*: Preserve and improve quality and scope of the ecosystems to create opportunities for conservation and sustainable use. *Institutions*: Federal Ministry of Finance, Budget and National Planning

National Biodiversity Strategy Action Plan, 2016-2020 (reviews for a new plan are underway) *Purpose*: Coordination of government action for the conservation of biodiversity. *Institutions*: Federal Ministry for the Environment
Programme to reduce emissions from deforestation and forest degradation, 2021 *Purpose*: Increasing investment in the forestry sector in forest ecosystems *Institutions*: Federal Ministry for the Environment
Country: São Tomé and Principe
Law no. 10/99 *Purpose*: Defines the basic principles of the country's environmental policy *Institutions*: Ministry for the Environment
Law no. 11/99 *Purpose*: Provides a framework for the preservation of fauna, flora and protected areas *Institutions*: Forestry Department
Decree no. 37/99 *Purpose*: Regulates the EIA process, ensuring that habitats are protected
Forestry law no. 5/2001 *Purpose*: Regulates the EIA process, ensuring that habitats are protected
Laws no. 6/2006 and no. 7/2006 *Purpose*: Creation of the Obô Natural Parks of São Tomé and Príncipe, respectively
Decree-Law no. 08/2023 creating special reserves on the island of São Tomé *Purpose*: Creates special reserves to ensure the sustainable management of natural resources and biological diversity *Institutions:* Ministry of Agriculture, Fisheries and Rural Development
Country: Sierra Leone
1972 Law on the preservation of wildlife; Law No. 10 of 2022 on the conservation of wild fauna and flora *Purpose*: Governs the system of protected areas *Institutions*: Environmental Protection Agency ; Ministry of Agriculture and Forestry
Forestry Act 1988 *Purpose*: Governs the use and conservation of forest resources *Institutions*: Ministry of Lands, Spatial Planning and the Environment
Law no. 10 of 2007 on fishing *Purpose*: Governs fisheries *Institutions*: Forestry and food safety (MAFFS)
Mines and Minerals Act 2009 *Purpose:* Governs mining operations in the country
2021 Update of the Nationally Determined Contribution (NDC) *Purpose*: mitigation and adaptation measures in energy, agriculture, food security, forestry & land use, blue economy, other sectors. *Institutions*: Ministry of Agriculture and Forestry; Ministry of the Environment; Ministry of Energy

National climate change policy 2021 *Purpose*: Define actions to reduce greenhouse gas emissions and adapt to the adverse effects of climate variability. *Institutions*: Ministry of Agriculture and Forestry; Ministry of the Environment; Ministry of Energy
Environmental Protection Agency Act, No. 15 of 2022. *Purpose*: Retains the Sierra Leone Environmental Protection Agency, provides for protection and management of the environment *Institutions*: Environmental Protection Agency
Country: Togo
Environmental Law n° 005/2008 ; 2008 Forestry Code *Purpose*: main framework for environmental management, protected areas, conservation of biodiversity, sustainable development, EIA *Institutions*: Ministry of the Environment and Natural Resources; National Environmental Committee (CNE)
Decree No. 2016-007 on management bodies for REDD+ in Togo. *Purpose:* Create management bodies for REDD+ *Institutions:* Ministry of the Environment and Forest Resources
Law n° 003/2017 on Ratification of the Paris Agreement on climate change *Purpose*: authorises the ratification of the Paris Agreement on climate change in the Togolese Republic. *Institutions:* Ministry of the Environment and Natural Resources
Order No. 60/MERF/SG/DRF, 13 June 2016, defining the procedure for creating or allocating and managing community forests in Togo *Purpose:* Sets out the procedure for the creation, allocation and management of community forests in Togo Institutions: Ministry of the Environment and Natural Resources *Institutions:* Ministry of the Environment and Forest Resources

Sources: Correspondence with national level informants; FAOLEX country profile database, 2024.

Annex 4: Conservation funding by KBA corridor

Section 5.4 defines corridors outcomes for the hotspot. KBA corridors are large areas, defined because they are important to ensure ecological connectivity and ecosystem functions and values beyond the boundaries of individual KBAs. The ten corridors include 112 of 135 confirmed KBAs and 10 or 11 proposed freshwater KBAs. Annex 2 shows which corridor each KBA belongs to.
Conservation funding is often directly to entire countries or broad regions, not to specific sites. Corridors provide a useful basis to summarise the link between funding available for conservation, and conservation priorities. Table A4.1 summarises funding availability in each corridor. Further details are in Chapter 11.

Table A4.1. Funding availability in each corridor

Corridor	Conservation funding linked to KBAs in the corridor	KBAs
Bandama River Catchment	No dedicated conservation-related funding identified	4
Cestos-Sapo-Grebo-Taï-Cavally	*Liberia*: EU Country allocation (1 KBA); USAID Conservation-health program (5 KBAs); IUCN-SOS Freshwater conservation (1 KBA) *Côte d'Ivoire*: AFR100 Mangrove/community forestry; World Bank emissions reduction; *Both countries*: GEF FOLUR; EU NaturAfrica (11 KBAs); GIZ Forest Connectivity	15
Forest Reserves of SE Côte d'Ivoire & SW Ghana	*Ghana*: AFR100 mending mangroves (2 KBAs); private sector sustainable value-chain network (Atewa) *Côte d'Ivoire*: EU Cocoa initiative (3 sites); *Both countries*: Rainforest trust grants (3 sites)	35
Gulf of Guinea Islands	*São Tomé and Principe:* GEF Congo basin child project; Socfin private sector support (both for Parque Natural Obô NP); HBD private sector support for Príncipe; Cartier for Nature Foundation small grant *Equatorial Guinea islands:* No funding identified	9
Korupmba-Obachap (Cameroon)	*Cameroon only:* AFR100 'conservation in conflict zone' (2 sites)	23
Korupmba-Obachap (Nigeria)	*Nigeria only:* GEF (Cross River NP); GEF/FAO FOLUR; AFR100 sustainable land management and Agroforestry; EU NaturAfrica *Both countries*: Rainforest foundation (6 sites)	7
Lofa-Gola-Mano complex	*Whole corridor:* GEF FOLUR; EU NaturAfrica (2 focal landscapes/6 KBAs: Gola-Foya-Kpo and Wologizi-Wonegizi-Ziama); GEF-GBIF child projects (5 KBAs); ?Rio Tinto small grant program *Guinea*: World Bank Mining and NR project; AFR100 mining restoration (Ziama); GCF Climate (Ziama); AFD site-based conservation (Ziama); UK Darwin community management (M Bero); Fondation Occitane (M Bero); Rio Tinto Park Management support (Pic du Fon); *Liberia*: USAID Wabiled; AFD (2 sites); Rainforest trust (3 sites); *Sierra Leone:* USAID Wabiled; REDD+ scheme (Gola)	12
Lower Niger Delta	GEF FOLUR	5

Corridor	Conservation funding linked to KBAs in the corridor	KBAs
Mount Nimba Complex	*Whole area*: EU NaturAfrica; Rainforest Trust grants; FAO; Rio Tinto small grant program; *Liberia and Guinea*: GEF FOLUR; *Guinea only*: GEF-GBIF child project; GCF; World Bank (Mining/NR project); AFR100 degraded land; *Liberia only*: USAID Conservation-health program	6
Sierra Leone Coastal Corridor	No dedicated conservation-related funding identified	5
Togo Highlands	AFR100 Agroforestry/community forestry; EU NaturAfrica focal site	2
KBAs outside corridors	Guinea only: World Bank: Guinea Natural Resources, Mining and Environmental Management Project (4 KBAs)	24

Annex 5: List of Priority 1 species (critically endangered + restricted range) and the KBAs where they are recorded

Group	Scientific name	English name	Country	KBA site code	KBA name
Amphibians	*Alexteroon jynx*	Smooth Egg-guarding Frog	Cameroon	6127	Mount Rata and Rumpi Hills Forest Reserve
Amphibians	*Alexteroon jynx*	Smooth Egg-guarding Frog	Cameroon	100521	Eastern Slopes of Rumpi Hills
Amphibians	*Arthroleptis krokosua*	Krokosua Squeaking Frog	Ghana	100282	Sui River Forest Reserve
Amphibians	*Astylosternus nganhanus*	Nganha Night Frog	Cameroon	26329	Mont Nganha
Amphibians	*Cardioglossa manengouba*	none	Cameroon	6124	Mont Manengouba
Amphibians	*Cardioglossa trifasciata*	none	Cameroon	6124	Mont Manengouba
Amphibians	*Conraua derooi*	Togo Slippery Frog	Ghana	6312	Atewa Range Forest Reserve
Amphibians	*Conraua sagyimase*	Atewa Slippery Frog	Ghana	6312	Atewa Range Forest Reserve
Amphibians	*Leptodactylodon axillaris*	none	Cameroon	29689	Bamboutos Mountains
Amphibians	*Leptodactylodon erythrogaster*	Redbelly Egg Frog	Cameroon	6124	Mont Manengouba
Amphibians	*Leptodactylodon wildi*	none	Cameroon	6125	Bakossi mountains
Amphibians	*Nimbaphrynoides occidentalis*	Mount Nimba Viviparous Toad	Côte d'Ivoire	6092	Mount Nimba Strict Nature Reserve
Amphibians	*Nimbaphrynoides occidentalis*	Mount Nimba Viviparous Toad	Guinea	6376	Monts Nimba (part of Mount Nimba transboundary AZE)
Amphibians	*Nimbaphrynoides occidentalis*	Mount Nimba Viviparous Toad	Liberia	6458	Nimba mountains
Amphibians	*Petropedetes perreti*	Perret's Water Frog	Cameroon	6126	Mont Nlonako
Amphibians	*Phrynobatrachus afiabirago*	Afia Birago's Puddle Frog	Ghana	6312	Atewa Range Forest Reserve
Amphibians	*Phrynobatrachus chukuchuku*	Spiny Puddle Frog	Cameroon	6115	Mount Oku
Amphibians	*Phrynobatrachus intermedius*	Intermediate Puddle Frog	Ghana	6311	Ankasa Resource Reserve - Nini-Sushien National Park
Amphibians	*Sclerophrys perreti*	Perret's Toad	Nigeria	100504	Idanre Hills

Group	Scientific name	English name	Country	KBA site code	KBA name
Amphibians	*Wolterstorffina chirioi*	[toad]	Cameroon	6115	Mount Oku
Amphibians	*Xenopus longipes*	Lake Oku Clawed Frog	Cameroon	6115	Mount Oku
Birds	*Bostrychia bocagei*	Dwarf Ibis	São Tomé & Príncipe	45720	Parque Natural Obô de São Tomé e Zona Tampão
Birds	*Crithagra concolor*	São Tomé Grosbeak	São Tomé & Príncipe	45720	Parque Natural Obô de São Tomé e Zona Tampão
Birds	*Lanius newtoni*	Newton's Fiscal	São Tomé & Príncipe	45720	Parque Natural Obô de São Tomé e Zona Tampão
Birds	*Otus bikegila*	Principe Scops-owl	São Tomé & Príncipe	6884	Príncipe forests
Birds	*Turdus xanthorhynchus*	Principe Thrush	São Tomé & Príncipe	6884	Príncipe forests
Freshwater crabs and shrimps	*Liberonautes grandbassa*	none	Liberia	47038	Weeni creek and associated hydrobasin
Mammals	*Cercopithecus roloway*	Roloway Monkey	Côte d'Ivoire	6095	Marahoue National Park
Mammals	*Cercopithecus roloway*	Roloway Monkey	Côte d'Ivoire	6099	Mabi Forest reserve
Mammals	*Cercopithecus roloway*	Roloway Monkey	Côte d'Ivoire	6103	Azagny National Park
Mammals	*Cercopithecus roloway*	Roloway Monkey	Ghana	6311	Ankasa Resource Reserve - Nini-Sushien National Park
Mammals	*Cercopithecus roloway*	Roloway Monkey	Ghana	6312	Atewa Range Forest Reserve
Mammals	*Cercopithecus roloway*	Roloway Monkey	Ghana	6313	Bia National Park and Resource Reserve
Mammals	*Cercopithecus roloway*	Roloway Monkey	Ghana	6318	Cape Three Points Forest Reserve
Mammals	*Cercopithecus roloway*	Roloway Monkey	Ghana	6319	Dadieso Forest Reserve
Mammals	*Cercopithecus roloway*	Roloway Monkey	Ghana	6320	Draw River Forest Reserve
Mammals	*Cercopithecus roloway*	Roloway Monkey	Ghana	6321	Ebi River Shelterbelt Forest Reserve
Mammals	*Cercopithecus roloway*	Roloway Monkey	Ghana	6322	Fure River Forest Reserve
Mammals	*Cercopithecus roloway*	Roloway Monkey	Ghana	6323	Jema-Asemkrom Forest Reserve
Mammals	*Cercopithecus roloway*	Roloway Monkey	Ghana	6324	Kakum National Park - Assin Attandaso Resource Reserve
Mammals	*Cercopithecus roloway*	Roloway Monkey	Ghana	6329	Subri River Forest Reserve
Mammals	*Cercopithecus roloway*	Roloway Monkey	Ghana	6333	Tano-Offin Forest Reserve

Group	Scientific name	English name	Country	KBA site code	KBA name
Mammals	*Cercopithecus roloway*	Roloway Monkey	Ghana	6334	Yoyo River Forest Reserve
Mammals	*Cercopithecus roloway*	Roloway Monkey	Ghana	22288	Neung South
Mammals	*Cercopithecus roloway*	Roloway Monkey	Ghana	22292	Bobiri Forest Reserve
Mammals	*Crocidura wimmeri*	Wimmer's Shrew	Côte d'Ivoire	24855	Adiopodoume
Mammals	*Crocidura wimmeri*	Wimmer's Shrew	Côte d'Ivoire	24863	Banco National Park
Mammals	*Hipposideros lamottei*	Lamotte's Roundleaf Bat	Côte d'Ivoire	6092	Mount Nimba Strict Nature Reserve
Mammals	*Hipposideros lamottei*	Lamotte's Roundleaf Bat	Guinea	6376	Monts Nimba (part of Mount Nimba transboundary AZE)
Mammals	*Hipposideros lamottei*	Lamotte's Roundleaf Bat	Liberia	6458	Nimba mountains
Mammals	*Lophuromys eisentrauti*	Mount Lefo Brush-furred Rat	Cameroon	29690	Mount Lefo
Mammals	*Myosorex eisentrauti*	Eisentraut's Mouse Shrew	Equatorial Guinea	6379	Basilé Peak National Park
Mammals	*Piliocolobus pennantii*	Pennant's Red Colobus	Equatorial Guinea	6379	Basilé Peak National Park
Mammals	*Piliocolobus pennantii*	Pennant's Red Colobus	Equatorial Guinea	6380	Luba Caldera Scientific Reserve
Mammals	*Piliocolobus preussi*	Preuss’s Red Colobus	Cameroon	6126	Mont Nlonako
Mammals	*Piliocolobus preussi*	Preuss’s Red Colobus	Cameroon	6127	Mount Rata and Rumpi Hills Forest Reserve
Mammals	*Piliocolobus preussi*	Preuss’s Red Colobus	Cameroon	6129	Yabassi
Mammals	*Piliocolobus preussi*	Preuss’s Red Colobus	Nigeria	6740	Cross River National Park (Oban Division)
Mammals	*Piliocolobus waldroni*	Miss Waldron’s Red Colobus	Côte d'Ivoire	6103	Azagny National Park
Mammals	*Piliocolobus waldroni*	Miss Waldron’s Red Colobus	Ghana	6311	Ankasa Resource Reserve - Nini-Sushien National Park
Mammals	*Piliocolobus waldroni*	Miss Waldron’s Red Colobus	Ghana	6314	Boin Tano Forest Reserve
Mammals	*Piliocolobus waldroni*	Miss Waldron’s Red Colobus	Ghana	6323	Jema-Asemkrom Forest Reserve
Mammals	*Piliocolobus waldroni*	Miss Waldron’s Red Colobus	Ghana	6324	Kakum National Park - Assin Attandaso Resource Reserve

Group	Scientific name	English name	Country	KBA site code	KBA name
Mammals	*Piliocolobus waldroni*	Miss Waldron's Red Colobus	Ghana	6329	Subri River Forest Reserve
Mammals	*Piliocolobus waldroni*	Miss Waldron's Red Colobus	Ghana	6331	Tano-Ehuro Forest Reserve
Mammals	*Piliocolobus waldroni*	Miss Waldron's Red Colobus	Ghana	6332	Tano-Nimiri Forest Reserve
Mammals	*Piliocolobus waldroni*	Miss Waldron's Red Colobus	Ghana	22288	Neung South
Mammals	*Piliocolobus waldroni*	Miss Waldron's Red Colobus	Côte d'Ivoire	24853	Tanoe Forest Swamp Forest
Plants	*Acridocarpus staudtii*	none	Cameroon	500001	Lake Barombi Mbo and surrounding catchments
Plants	*Aubregrinia taiensis*	Great Tiger-nut Tree	Côte d'Ivoire	6100	Taï National Park and Nzo Faunal Reserve
Plants	*Aubregrinia taiensis*	Great Tiger-nut Tree	Ghana	6312	Atewa Range Forest Reserve
Plants	*Aubregrinia taiensis*	Great Tiger-nut Tree	Ghana	6333	Tano-Offin Forest Reserve
Plants	*Aubregrinia taiensis*	Great Tiger-nut Tree	Ghana	22287	Southern Scarp
Plants	*Talbotiella gentii*	[tree]	Ghana	22289	Sapawsu Forest Reserve
Plants	*Talbotiella gentii*	[tree]	Ghana	22293	Bandai Hills

Annex 6: Summary of criteria for identification of KBAs

A. Threatened biodiversity		
A1 Threatened species		Assessment parameters
A1a	≥0.5% of global population size and ≥5 reproductive units (RU) of a CR/EN species	(i) no. of mature individuals (ii) area of occupancy (iii) extent of suitable habitat (iv) range (v) no. of localities (vi) distinct genetic diversity
A1b	≥1.0% of global population size and ≥10 RU of a VU species	
A1c	≥0.1% of global population size and ≥5 RU of a species listed as CR/EN due only to past/current decline [= Red List A1, A2, A4 only]	
A1d	≥0.2% of global population size and ≥10 RU of a species listed as VU due only to past/current decline [= Red List A1, A2, A4 only]	
A1e	Effectively the entire population size of a CR/EN species	
A2 Threatened ecosystem types		
A2a	≥5% of global extent of a CR or EN ecosystem type	
A2b	≥10% of global extent of a VU ecosystem type	
B. Geographically restricted biodiversity		
B1. Individual geographically restricted species	≥10% of global population size and ≥10 RU of any species	(i) no. of mature individuals (ii) area of occupancy (iii) extent of suitable habitat (iv) range (v) no. of localities (vi) distinct genetic diversity
B2. Co-occurring geographically restricted species	≥1% of global population size of each of a number of restricted range species in a taxonomic group: ≥2 species or 0.02% of the total number of species in the taxonomic group, whichever is larger	
B3. Geographically restricted assemblages		
B3a	≥0.5% of global population size of each of a number of ecoregion-restricted species in a taxonomic group: ≥5 species or 10% of the species restricted to ecoregion, whichever is larger	(i) no. of mature individuals (ii) area of occupancy (iii) extent of suitable habitat (iv) range (v) no. of localities
B3b	≥5 RU of ≥5 bioregion-restricted species or ≥5 RU of 30% of the bioregion-restricted species known from the country, whichever is larger	
B3c	Site is part of the globally most important 5% of occupied habitat for ≥5 species in the taxonomic group	(i) relative density of mature individuals (ii) relative abundance of mature individuals
B4. Geographically restricted ecosystem types		
	≥20% of the global extent of an ecosystem type	
C. Ecological integrity		
	Site is one of ≤2 per ecoregion with wholly intact ecological communities	composition and abundance of species and interactions
D. Biological processes		
D1. Demographic aggregations		
D1a	≥1% of global population size of a species, over a season, and during ≥1 key stage in life cycle	no. of mature individuals
D1b	Site is among largest 10 aggregations of the species	no. of mature individuals
D2. Ecological refugia	≥10% of global population during periods of environmental stress	no. of mature individuals
D3. Recruitment sources	Produces propagules, larvae or juveniles maintaining ≥10% of global population size	no. of mature individuals
E. Irreplaceability through quantitative analysis		

Source: KBA partnership, https://www.keybiodiversityareas.org/working-with-kbas/proposing-updating/criteria