Aichi Biodiversity Target 11 Country Dossier: ZAMBIA

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GLOSSARY

AZEs	Alliance for Zero Extinction sites
CEPF	Critical Ecosystem Partnership Fund
EEZ	Exclusive Economic Zone
GCF	Green Climate Fund
GD-PAME	Global Database on Protected Area Management Effectiveness
GEF	Global Environment Facility
IBA	Important Bird and Biodiversity Area
ICCAs	Indigenous and Community Conserved Area Area (may also be referred to as territories and areas conserved by Indigenous peoples and local communities or "territories of life")
IPLC	Indigenous Peoples and Local Communities
KBA	Key Biodiversity Area
NBSAP	National Biodiversity Strategy and Action Plan
OECM	Other Effective Area-Based Conservation Measures
PA	Protected Area
PAME	Protected Area Management Effectiveness
PPA	Privately Protected Area
ProtConn	Protected Connected land indicator
SOC	Soil Organic Carbon
TEOW	Terrestrial Ecosystems of the World
WDPA	World Database on Protected Areas
WD-OECM	World Database on Other Effective Area-Based Conservation Measures

Disclaimer

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This country dossier is compiled by the UNDP and SCBD from publicly available information. It is prepared, within the overall work of the Global Partnership on Aichi Biodiversity Target 11, for the purpose of attracting the attention of the Party concerned and other national stakeholders to facilitate the verification, correcting, and updating of country data. The statistics might differ from those reported officially by the country due to differences in methodologies and datasets used to assess protected area coverage and differences in the base maps used to measure terrestrial and marine area of a country or territory. Furthermore, the suggestions from the UNDP and SCBD are based on analyses of global datasets, which may not necessarily be representative of national policy or criteria used at the national level. The analyses are also subject to the limits inherent in global indicators (precision, reliability, underlying assumptions, etc.). Therefore, they provide useful information but cannot replace analyses at a national level nor constitute a future benchmark for national policy or decision-making.

The preparation of this dossier was generously supported by: the Government of the Federal Republic of Germany, *Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GMbH*; the European Commission; the Government of the United Kingdom of Great Britain and Northern Ireland; and the Government of Japan (Japan Biodiversity Fund). The dossier does not necessarily reflect their views.

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EXECUTIVE SUMMARY

This document provides information on the coverage of protected areas (PAs) and other effective area-based conservation measures (OECMs), as currently reported in global databases (the World Database on Protected Areas (WDPA) and World Database on Other Effective Area-Based Conservation Measures (WD-OECM)). It also includes details on the status of the other qualifying elements of Aichi Biodiversity Target 11 based on this data. These statistics might differ from those reported officially by countries due to difference in methodologies and datasets used to assess protected area coverage, differences in the base maps used to measure terrestrial and marine area of a country or territory, or if global datasets differ from the criteria and indicators used at the national level. This dossier also provides a summary of commitments made under Aichi Biodiversity Target 11, and a summary of potential opportunities regarding elements of the target for future planning.

The dossier has been developed in consultation with the UN Environment Programme World Conservation Monitoring Centre (UNEP-WCMC), which manages the WDPA, WD-OECM and Global Database on Protected Area Management Effectiveness (GD-PAME). Parties to the CBD are requested to contact protectedareas@unep-wcmc.org with any updates to the information in these databases.

Aichi Biodiversity Target 11 Elements: Current status and opportunities for action

Coverage

- **Status:** as of May 2021, terrestrial coverage in Zambia is 311,772.7 km² (41.3%).
- **Opportunities for action:** opportunities for the near-term include updating the WDPA with any unreported PAs, and the recognizing and reporting OECMs to the WD-OECM. In the future, focus on relatively intact areas, while addressing the elements in the following sections, could be considered if new PAs or OECMs are being planned.

Ecological Representativeness

- **Status:** Zambia contains 9 terrestrial ecoregions: the mean protected coverage by reported PAs and OECMs is 50.4%; all ecoregions have at least 17% coverage from PAs and OECMs.
- **Opportunities for action:** there is opportunity for Zambia to focus on effective management for those that already have higher coverage by PAs or OECMs.

Areas Important for Biodiversity

- **Status:** Zambia has 42 Key Biodiversity Areas (KBAs): the mean protected coverage of KBAs by reported PAs and OECMs is 49.3%, while 12 KBAs have no coverage by reported PAs and OECMs.

- **Opportunities for action:** there is opportunity for Zambia to increase protection of KBAs that have lower levels of coverage by PAs and OECMs; priority could be given to those with no current coverage.

Areas Important for Ecosystem Services

- **Status:** coverage of areas important for ecosystem services: In Zambia, 43.8% of aboveground biomass carbon, 45.8% of belowground biomass carbon and 40.8% of soil organic carbon is covered by PAs and OECMs.

- **Opportunities for action:** for carbon, there is opportunity for Zambia to increase focus on effective management of PAs and OECMs with high carbon stocks. Protecting areas with high carbon stocks secures the benefits of carbon sequestration in the area.

- For water, there is opportunity to increase the area of the water catchment under protection by PAs and OECMs, or in cases where there is high levels of protection, focus on effective management for these areas. Protecting the current area of forested land and potentially reforesting would have benefits for improving water security.

Connectivity and Integration

- **Status:** coverage of protected-connected lands is 19.4%.

- **Opportunities for action:** there is opportunity to focus on PA and OECM management for enhancing and maintaining connectivity. Improving connectivity increases the effectiveness of PAs and OECMs and reduces the impacts of fragmentation.

- As well, a range of suggested steps for enhancing and supporting integration are included in the voluntary guidance on the integration of PAs and OECMs into the wider land- and seascapes and mainstreaming across sectors to contribute, inter alia, to the SDGs (Annex I of COP Decision 14/8).

Governance Diversity

- **Status:** the most common governance type for reported PAs in Zambia is: 5.6% under Shared governance (Collaborative).

- **Opportunities for action:** explore opportunities for governance types that have lower representation. Increase efforts to identify the governance types for the 91.6% of sites that do not have their governance type reported.

- There is also opportunity for Zambia to complete governance and equity assessments, to establish baselines and identify relevant actions for improvement. As well, a range of suggested actions are included in the voluntary guidance on effective governance models for management of protected areas, including equity (Annex II of COP Decision 14/8).

Protected Area Management Effectiveness

- **Status:** 37.7% of terrestrial PAs have completed Protected Area Management Effectiveness (PAME) assessments reported.
- **Opportunities for action:** the 60% target for completed management effectiveness assessments (per COP Decision X/31) **has not** been met for terrestrial PAs, therefore, there is opportunity to increase protected area management effectiveness (PAME) evaluations for terrestrial PAs to achieve the target.
- There is also opportunity to implement the results of completed PAME evaluations, to improve the quality of management for existing PAs and OECMs (e.g. through adaptive management and information sharing, increasing the number of sites reporting 'sound management') and to increase reporting of biodiversity outcomes in PAs and OECMs.

INTRODUCTION

The Strategic Plan for Biodiversity 2011-2020 was adopted at the tenth meeting of the Conference of the Parties (COP) to the Convention on Biological Diversity (CBD) held in Nagoya, Aichi Prefecture, Japan from 18-29 October 2010. The vision of the Strategic Plan is one of "Living in harmony with nature" where *"By 2050, biodiversity is valued, conserved, restored and wisely used, maintaining ecosystem services, sustaining a healthy planet and delivering benefits essential for all people*" (CBD, 2010). In addition to this vision, the Strategic Plan is composed of 20 targets, under five strategic goals. Aichi Biodiversity Target 11 states that *"By 2020, at least 17 per cent of terrestrial and inland water, and 10 per cent of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes."*

With the conclusion of the Aichi Biodiversity Targets in 2020, Target 11 on area-based conservation has seen success in the expansion of the global network of protected areas (PA) and other effective area-based conservation measures (OECMs). The negotiation of the post-2020 Global Biodiversity Framework (GBF) and its future targets provide an essential opportunity to further improve the coverage of PAs and OECMs, to improve other aspects of area-based conservation, to accelerate progress on biodiversity conservation more broadly, while also addressing climate change, and the Sustainable Development Goals. This next set of global biodiversity targets are to be adopted at the fifteenth meeting of the Conference of the Parties to the Convention on Biological Diversity. These new targets must aim to build upon lessons learned from the last decade of progress to deliver transformative change for the benefit of nature and people, to realize the 2050 Vision for biodiversity.

The United Nations Development Programme (UNDP) and the Secretariat of the Convention on Biological Diversity have developed the Aichi Biodiversity Target 11 Country Dossiers, which provide countries with an overview of the status of Target 11 elements, opportunities for action, and a summary of commitments made by Parties over the last decade. Each dossier can support countries in assessing their progress on key elements of Aichi Biodiversity Target 11 and identifying opportunities to prioritize new protected areas and OECMs.

This dossier provides an overview of area-based conservation in Zambia. Section I of the dossier presents data on the current status of Zambia's PAs and OECMs. The data presented in Section I relates to each element of Target 11. Section I also presents the PA and OECM coverage for two critical ecosystem services: water security and carbon stocks. In addition, the dossier presents potential opportunities for action for Zambia, in relation to each Target 11 element. The analyses present options for improving Zambia's area-based conservation network to achieve enhanced protection and benefits for livelihoods and climate change. Section II presents details on Zambia's existing PA and OECM commitments as a summary of existing efforts towards achieving Target 11. This gives focus not only to national policy and actions but also voluntary commitments to the UN. Furthermore, where

data is available, this dossier provides information on potential OECMs, Indigenous and Community Conserved Areas (ICCAs; also often referred to as territories and areas conserved by Indigenous peoples and local communities or "territories of life") and Privately Protected Areas (PPAs) and the potential contribution they will have in achieving the post-2020 targets.

The information on PAs and OECMs presented here is derived from the World Database on Protected Areas (WDPA) and World Database on Other Effective Area-Based Conservation Measures (WD-OECM). These databases are joint products of UNEP and IUCN, managed by UNEP-WCMC, and can be viewed and downloaded at www.protectedplanet.net. Parties are encouraged to provide data on their PAs and OECMs to UNEP-WCMC for incorporation into the databases (see e.g. Decisions 10/31 and 14/8). The significant efforts of Parties in updating their data in the build up to the publication of the Protected Planet Report 2020 (UNEP-WCMC and IUCN, 2021) were greatly appreciated. UNEP-WCMC welcomes further updates, following the data standards described here, and these should be directed to protectedareas@unep-wcmc.org. The statistics presented in this dossier are derived from the May 2021 WDPA and WD-OECM releases, unless explicitly stated otherwise. Readers should consult www.protectedplanet.net for the latest coverage statistics (updated monthly).

Some data from the WDPA and WD-OECM are not made publicly available at the request of the data-provider. This affects some statistics, maps, and figures presented in this dossier. Statistics provided by UNEP-WCMC (terrestrial and marine coverage) are based upon the full dataset, including restricted data. All other statistics, maps, and figures are based upon the subset of the data that is publicly available.

Where data is less readily available, such as for potential OECMs, ICCAs and PPAs, data has also been compiled from published reports and scientific literature to provide greater awareness of these less commonly recorded aspects. These data are provided to highlight the need for comprehensive reporting on these areas to the WDPA and/or WD-OECM. Parties are invited to work with indigenous peoples, local communities and private actors to submit data under the governance of these actors, with their consent, to the WDPA and/or WD-OECM.

Overall, PAs and OECMs are essential instruments for biodiversity conservation and to sustain essential ecosystem services that support human well-being and sustainable development, including food, medicine, and water security, as well as climate change mitigation and adaptation and disaster risk reduction. The data in this dossier, therefore, aims to celebrate the current contributions of PAs and OECMs, whilst the gaps presented hope to encourage greater progress, not just for the benefit of biodiversity and the post-2020 GBF, but also to recognize the essential role of PAs and OECMs to the Sustainable Development Goals and for addressing the climate crisis.

SECTION I: CURRENT STATUS

Aichi Biodiversity Target 11 refers to both protected areas (PAs) and other effective area-based conservation measures (OECMs). This section provides the current status for all elements of Aichi Biodiversity Target 11 where indicators with global data are available. Statistics for all elements are presented using data on both PAs and OECMs (where this data is available and reported in global databases like the WDPA and WD-OECM). It is recognized that statistics reported in the WPDA and WD-OECM might differ from those reported officially by countries due to differences in methodologies and datasets used to assess protected area coverage and differences in the base maps used to measure terrestrial and marine area of a country or territory. Details on UNEP-WCMC's methods for calculating PA and OECM coverage area available here. The global indicators adopted here for presenting the status of other elements of Target 11 may also differ from those in use nationally.

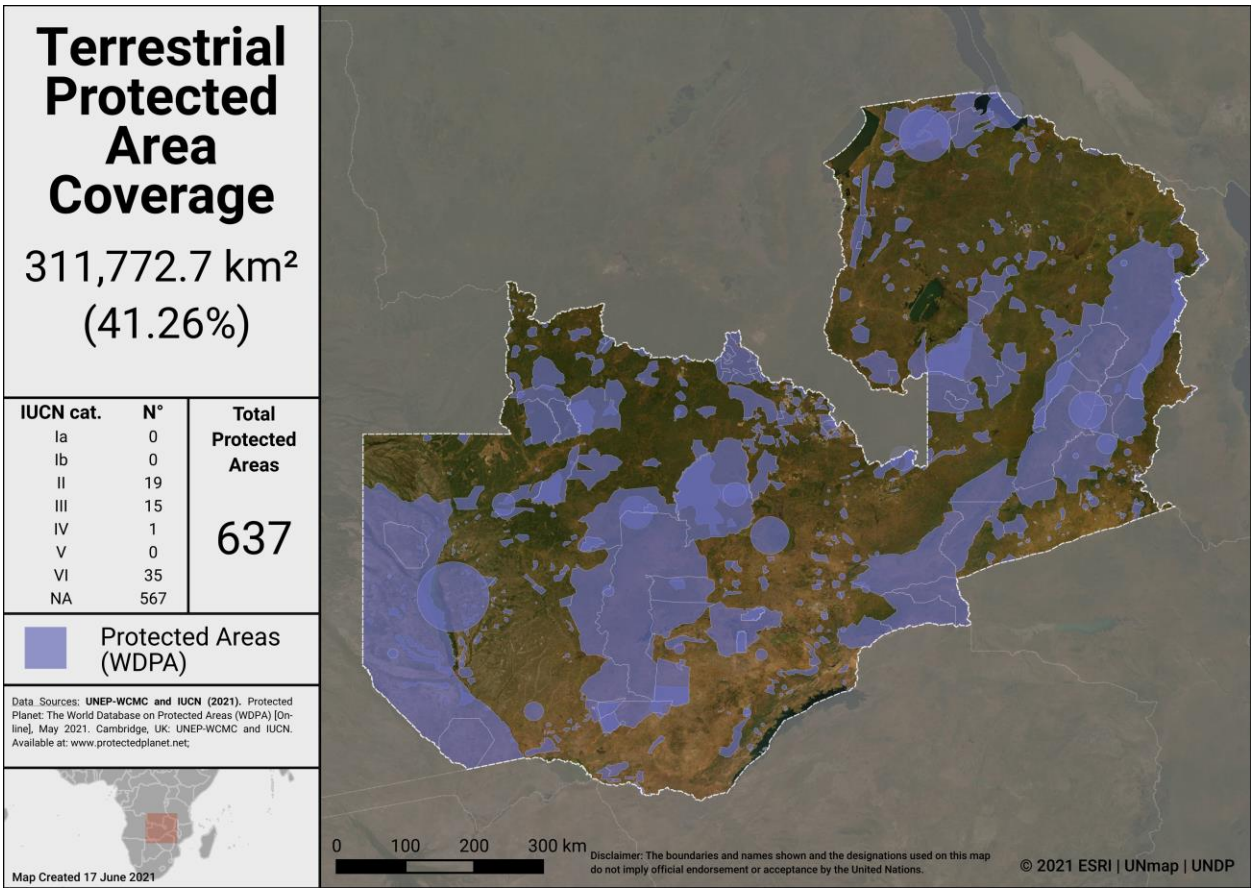
COVERAGE

As of May 2021, Zambia has **640** protected areas reported in the World Database on Protected Areas (WDPA). 1 PA that is proposed, and 2 other PAs have no spatial boundary and no area listed in the WDPA, are not included in the following statisticssee details on UNWP-WCMCs methods for calculating PA and OECM coverage **here**).

As of May 2021, Zambia has **0** OECMs reported in the world database on OECMs (WD-OECM).

Current coverage for Zambia:

- 41.3% terrestrial (637 protected areas, 311,772.7 km^2)



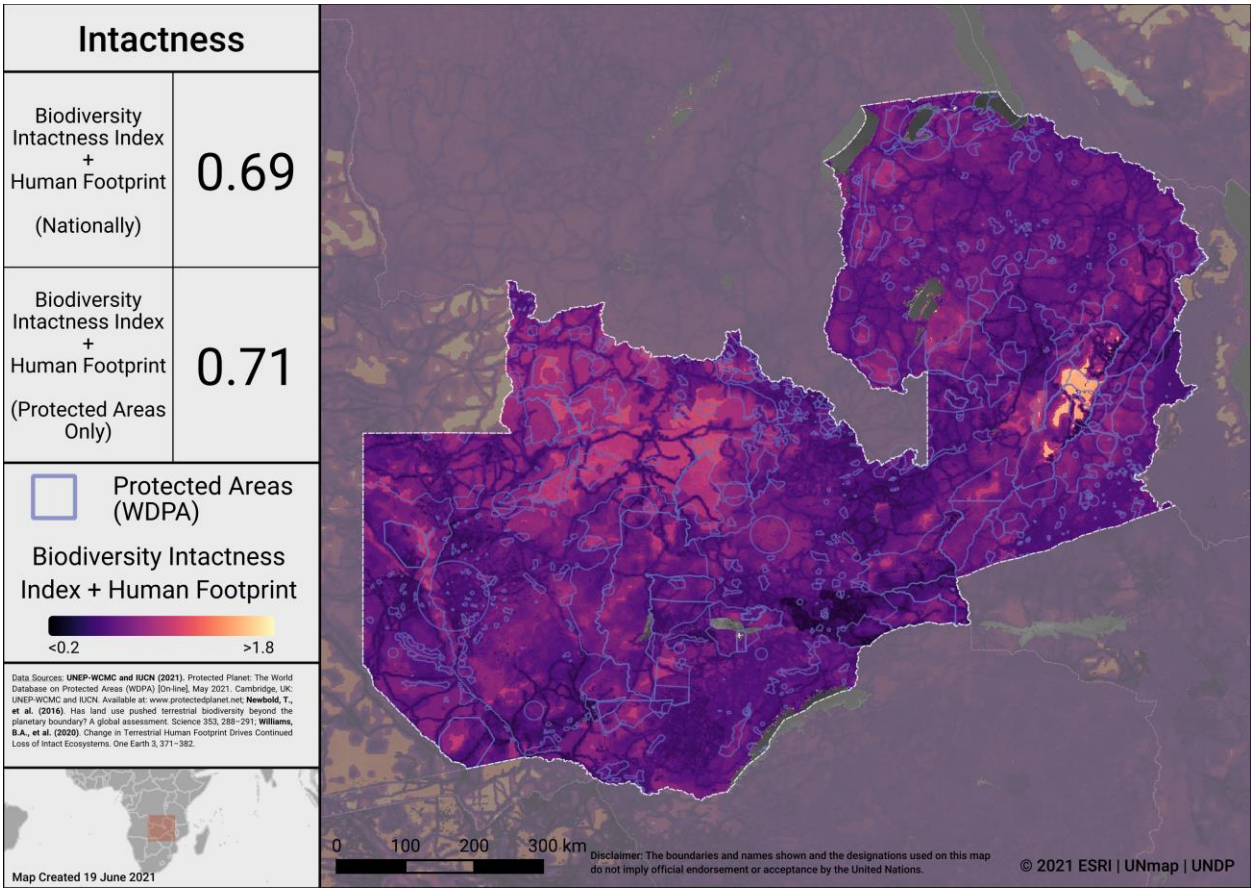
Terrestrial Protected Areas in Zambia

Potential OECMs

There are currently no potential OECM examples for Zambia.

Opportunities for action

Opportunities for the near-term include updating the WDPA with any unreported PAs, and the recognizing and reporting OECMs to the WD-OECM. In the future, as Zambia considers where to add new PAs and OECMs, the map below identifies areas in Zambia where intact areas are not currently protected. Focus on relatively intact areas, while addressing the elements in the following sections, could be considered when planning new PAs or OECMs.



Intactness in Zambia

To explore more on intactness visit the UN Biodiversity Lab: map.unbiodiversitylab.org.

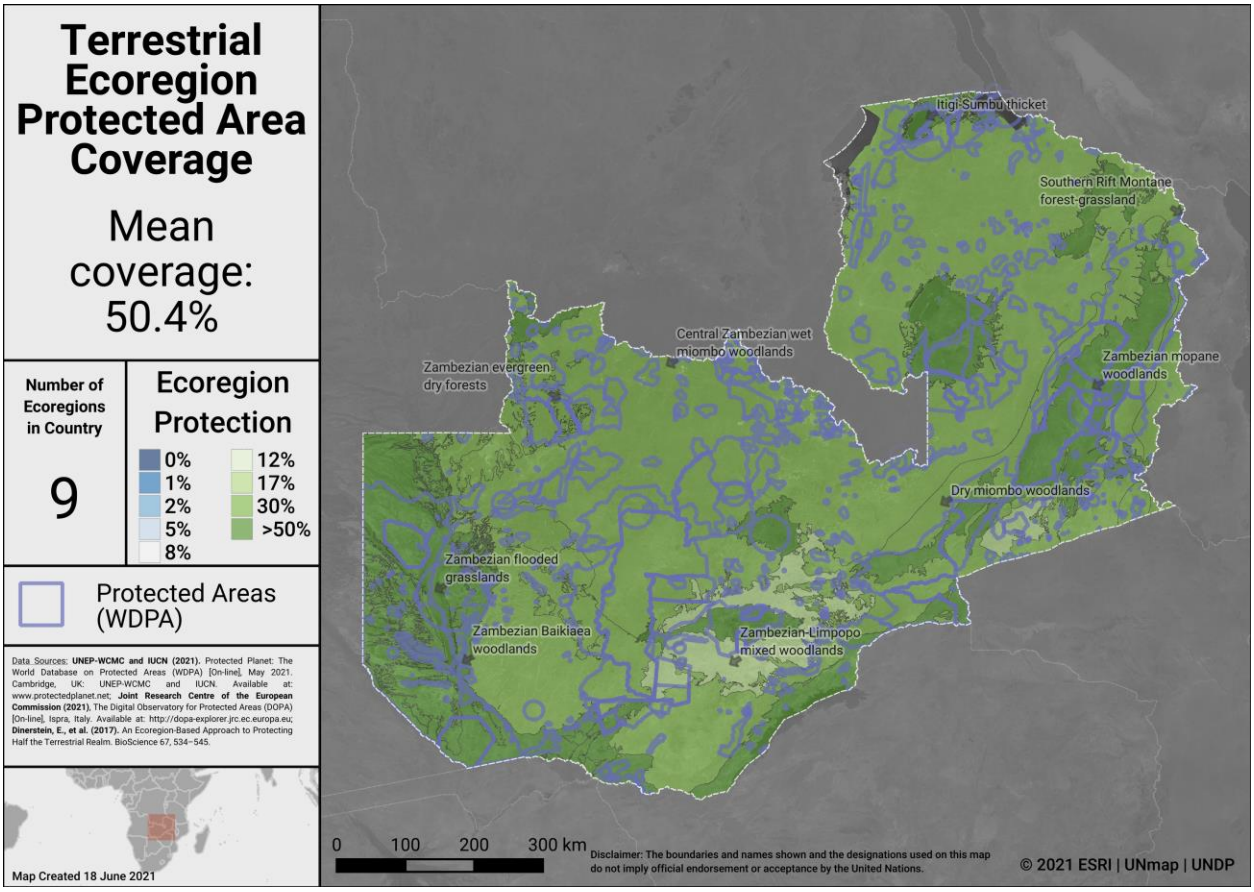
ECOLOGICAL REPRESENTATIVENESS

Ecological representativeness is assessed based on the PAs and OECMs coverage of broad-scale biogeographic units. Globally, ecoregions have been described for terrestrial areas (Dinerstein et al, 2017), marine coastal and shelf ecosystems (to a depth of 200m; Spalding et al 2007) and surface pelagic waters (Spalding et al 2012).

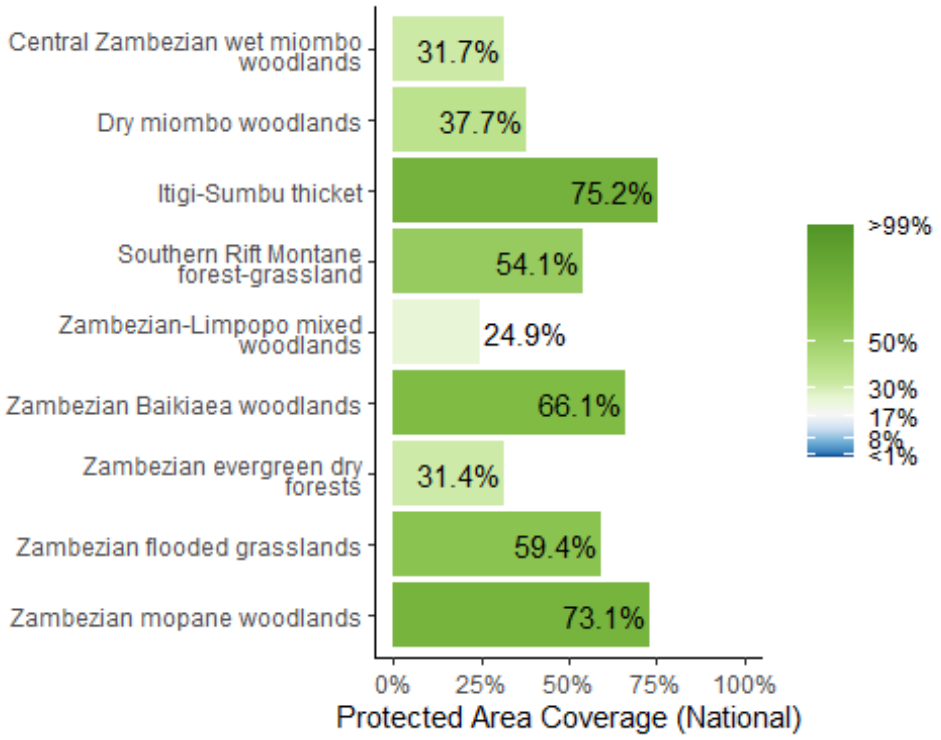
Zambia has 9 **terrestrial** ecoregions. Out of these:

- All 9 ecoregions have at least 17% coverage from PAs and OECMs.
- The average terrestrial coverage of ecoregions is 50.4%.

A full list of ecoregions in Zambia is available in Annex I.



Terrestrial ecoregions in Zambia



Terrestrial ecoregions of the World (TEOW) in Zambia

Opportunities for action

There is opportunity for Zambia to focus on effective management for those ecoregions that already have higher coverage by PAs or OECMs.

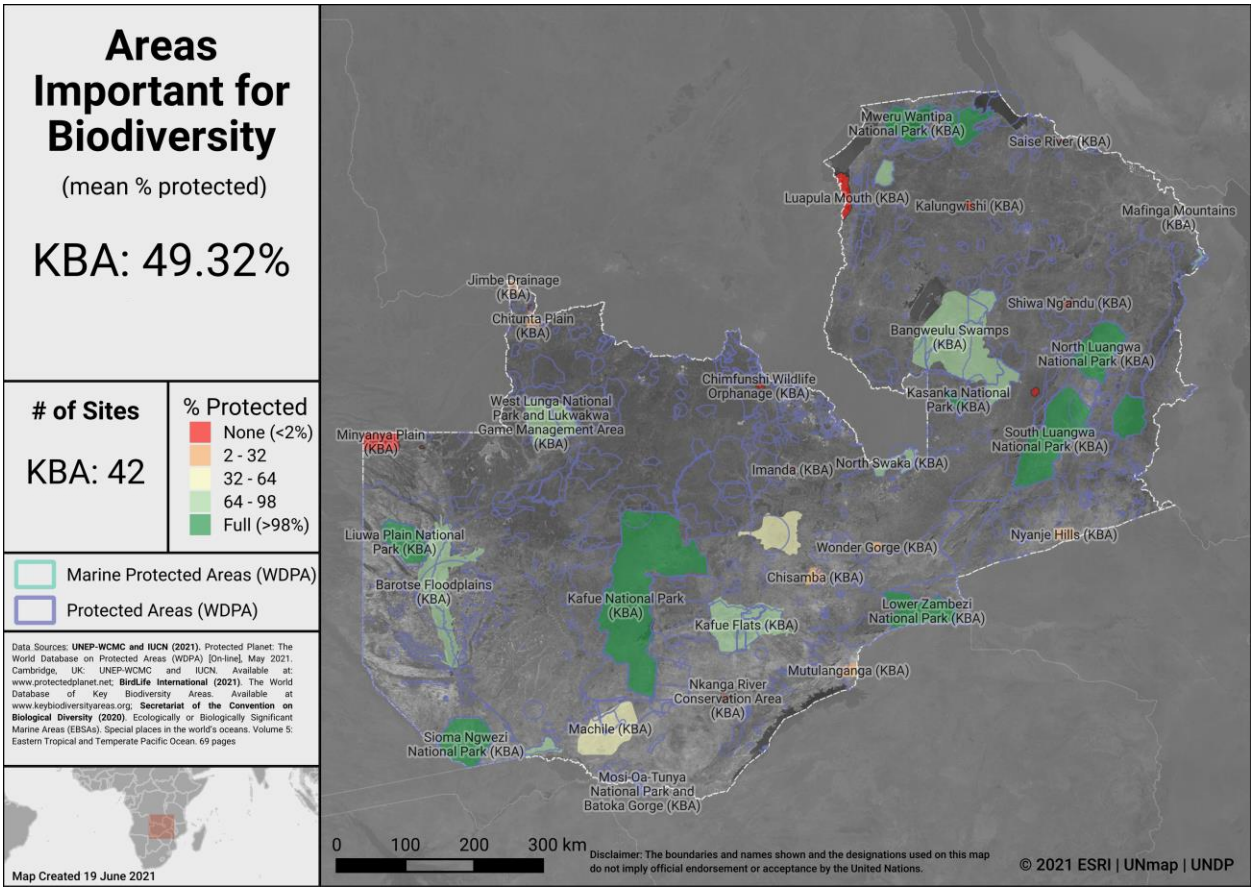
AREAS IMPORTANT FOR BIODIVERSITY

Key Biodiversity Areas (KBAs)

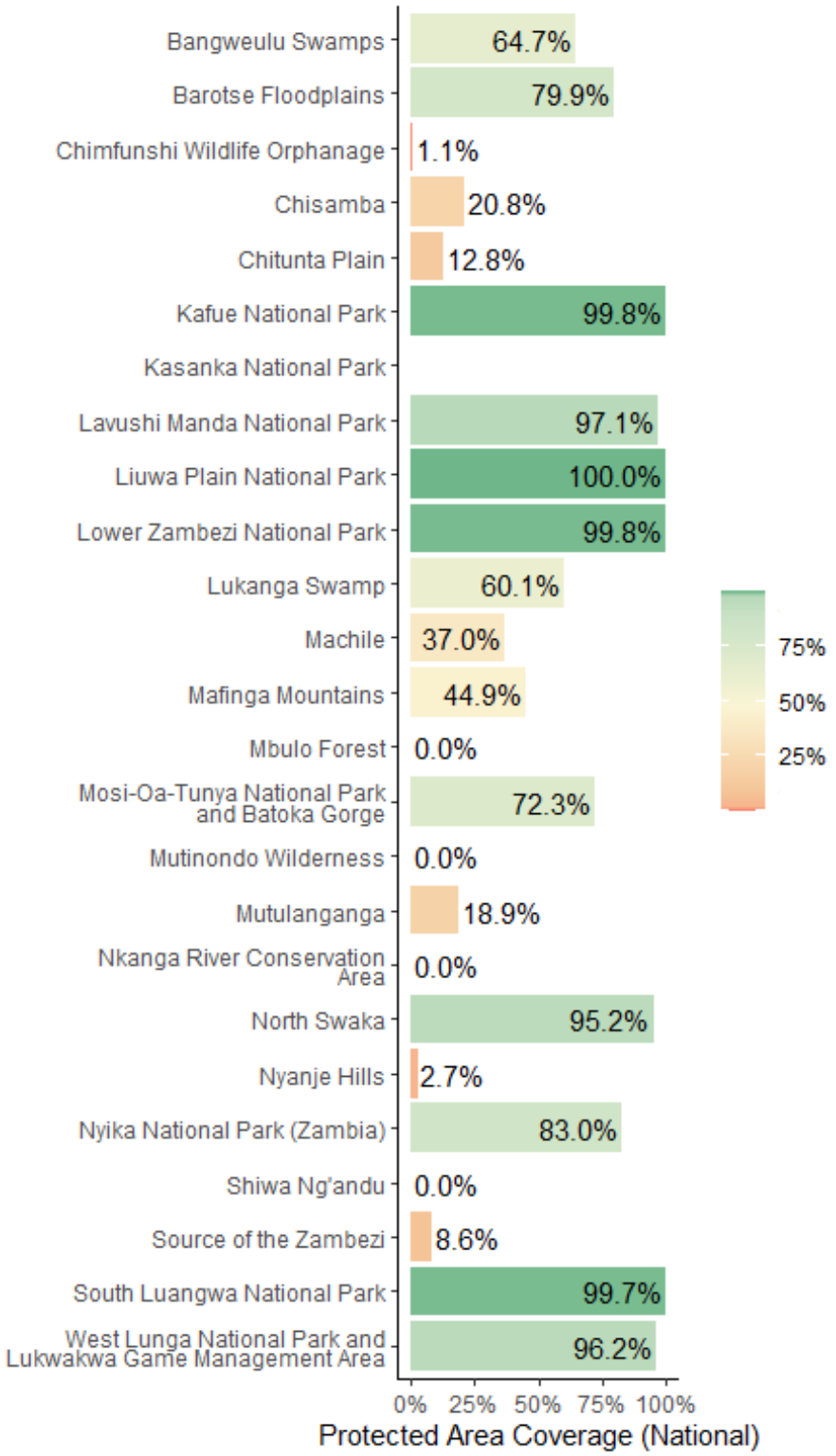
Protected area and OECM coverage of Key Biodiversity Areas (KBAs) provide one proxy for assessing the conservation of areas important for biodiversity at national, regional and global scales. KBAs are sites that make significant contributions to the global persistence of biodiversity (IUCN, 2016). The KBA concept builds on four decades of efforts to identify important sites for biodiversity, including Important Bird and Biodiversity Areas, Alliance for Zero Extinction sites, and KBAs identified through Hotspot ecosystem profiles supported by the Critical Ecosystem Partnership Fund. Incorporating these sites, the dataset of internationally significant KBAs includes Global KBAs (sites shown to meet one or more of 11 criteria in the Global Standard for the Identification of KBAs, clustered into five categories: threatened biodiversity; geographically restricted biodiversity; ecological integrity; biological processes; and irreplaceability), Regional KBAs (sites identified using pre-existing criteria and thresholds, that do not meet the Global KBA criteria based on existing information), and KBAs whose Global/Regional status is Not yet determined, but which will be assessed against the global KBA criteria within 8-12 years. Regional KBAs are often of critical international policy relevance (e.g., in EU legislation and under the Ramsar Convention on Wetlands), and many are likely to qualify as Global KBAs in future once assessed for their biodiversity importance for other taxonomic groups and ecosystems. To date, nearly 16,000 KBAs have identified globally, and information on each of these is presented in the World Database of Key Biodiversity Areas: www.keybiodiversityareas.org.

Zambia has **42** Key Biodiversity Areas (KBAs).

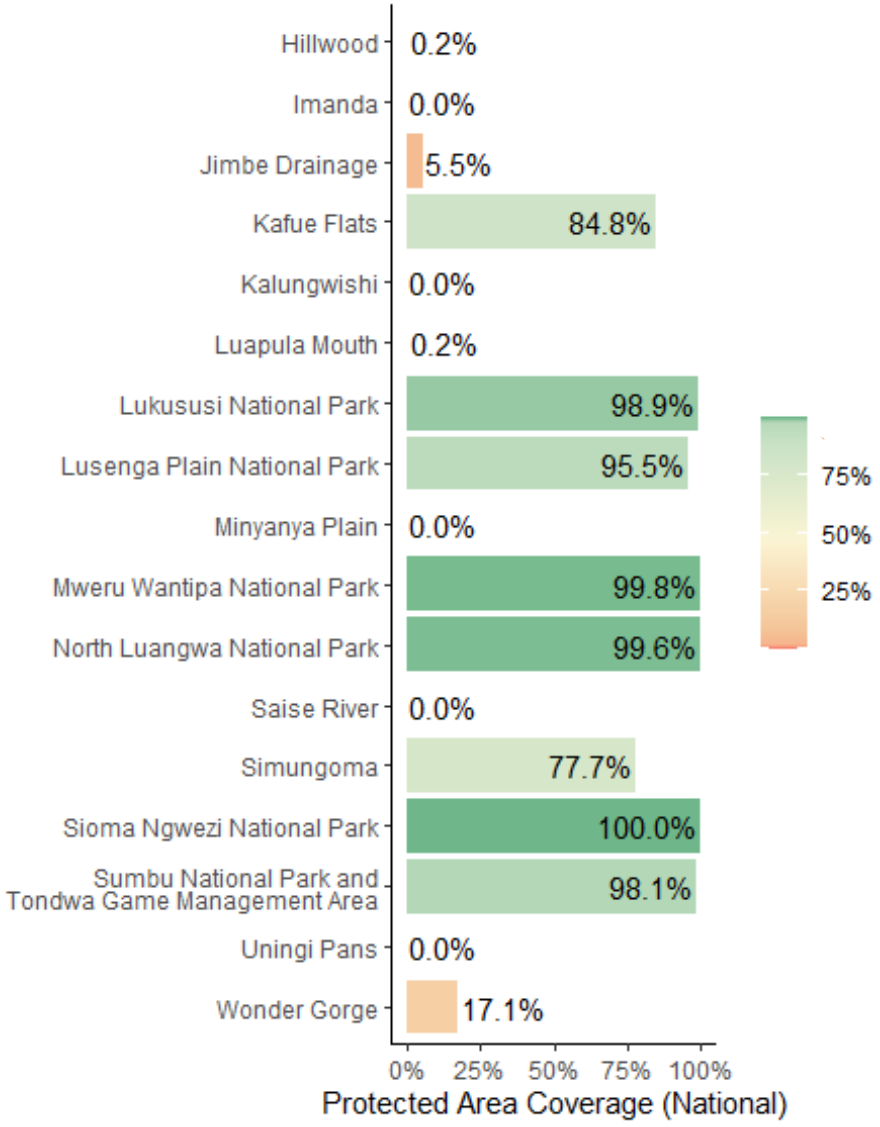
- Mean percent coverage of all KBAs by PAs and OECMs in Zambia is **49.3%**.
- **10** KBAs have full (>98%) coverage by PAs and OECMs.
- **20** KBAs have partial coverage by PAs and OECMs.
- **12** KBAs have no (<2%) coverage by PAs and OECMs.



Areas Important for Biodiversity in Zambia



Key Biodiversity Area Coverage (KBA) in Zambia



Key Biodiversity Area Coverage (KBA) in Zambia

Opportunities for action

There is opportunity for Zambia to increase protection of KBAs that have lower levels of coverage by PAs and OECMs; priority could be given to those with no current coverage.

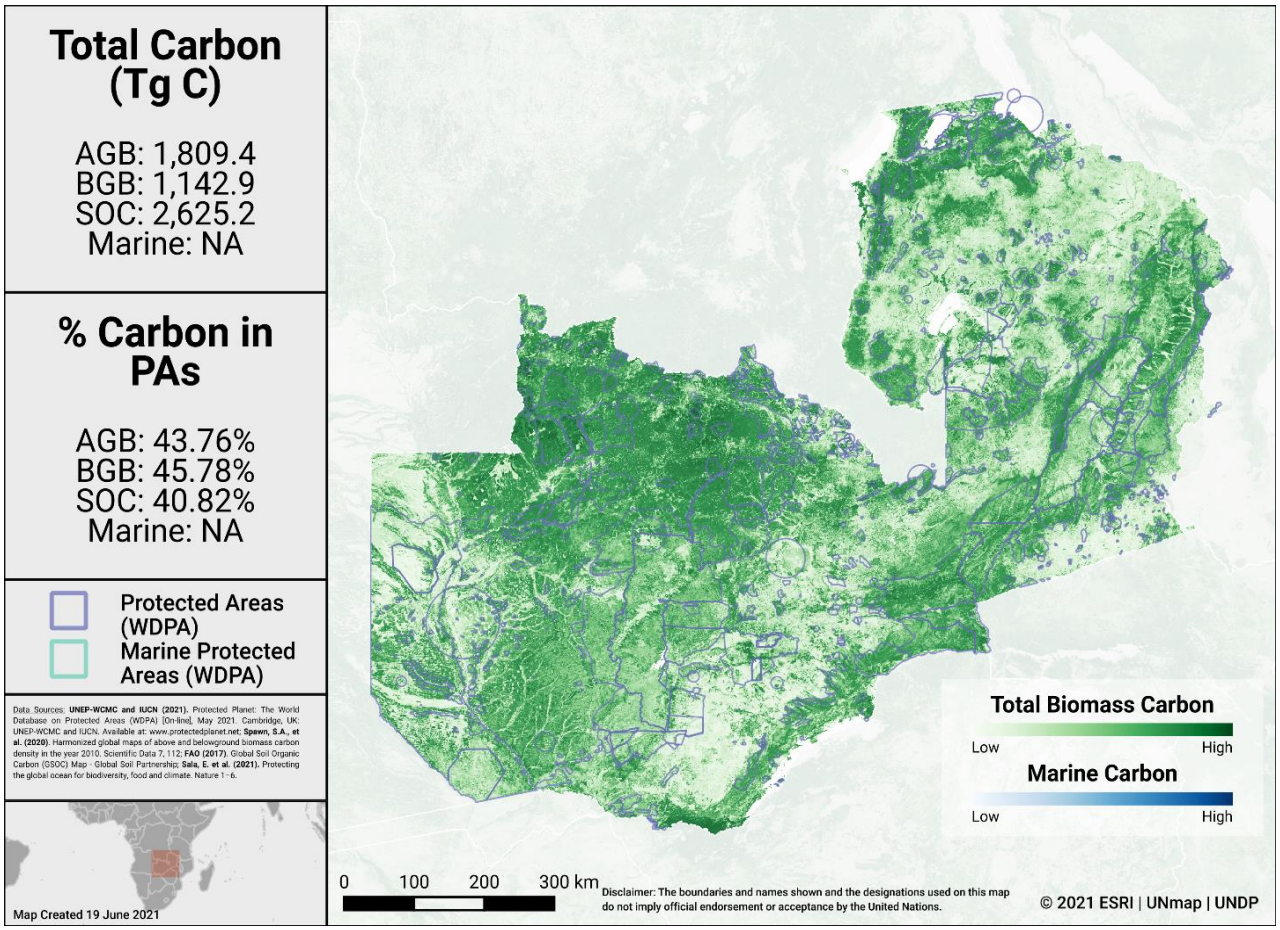
AREAS IMPORTANT FOR ECOSYSTEM SERVICES

There is no single indicator identified for assessing the conservation of areas important for ecosystem services. For simplicity, two services with available global datasets are assessed here (carbon and water). In future, other critical ecosystem services could be explored.

Carbon

Data for biomass carbon comes from temporally consistent and harmonized global maps of aboveground biomass and belowground biomass carbon density (at a 300-m spatial resolution); the maps integrate land-cover specific, remotely sensed data, and land-cover specific empirical models (see Spawn et al., 2020 for details on methodology). The Global Soil Organic Carbon Map present an estimation of SOC stock from 0 to 30 cm (see FAO, 2017 for further details on methodology).

The map below presents the total carbon stocks in Zambia and the percent of carbon in protected areas. The total carbon stocks is 1,809.4 Tg C from aboveground biomass (AGB), with 43.8% in PAs; 1,142.9 Tg C from below ground biomass (BGB), with 45.8% in PAs and 2,625.2 Tg C from soil organic carbon (SOC), with 40.8% in PAs.



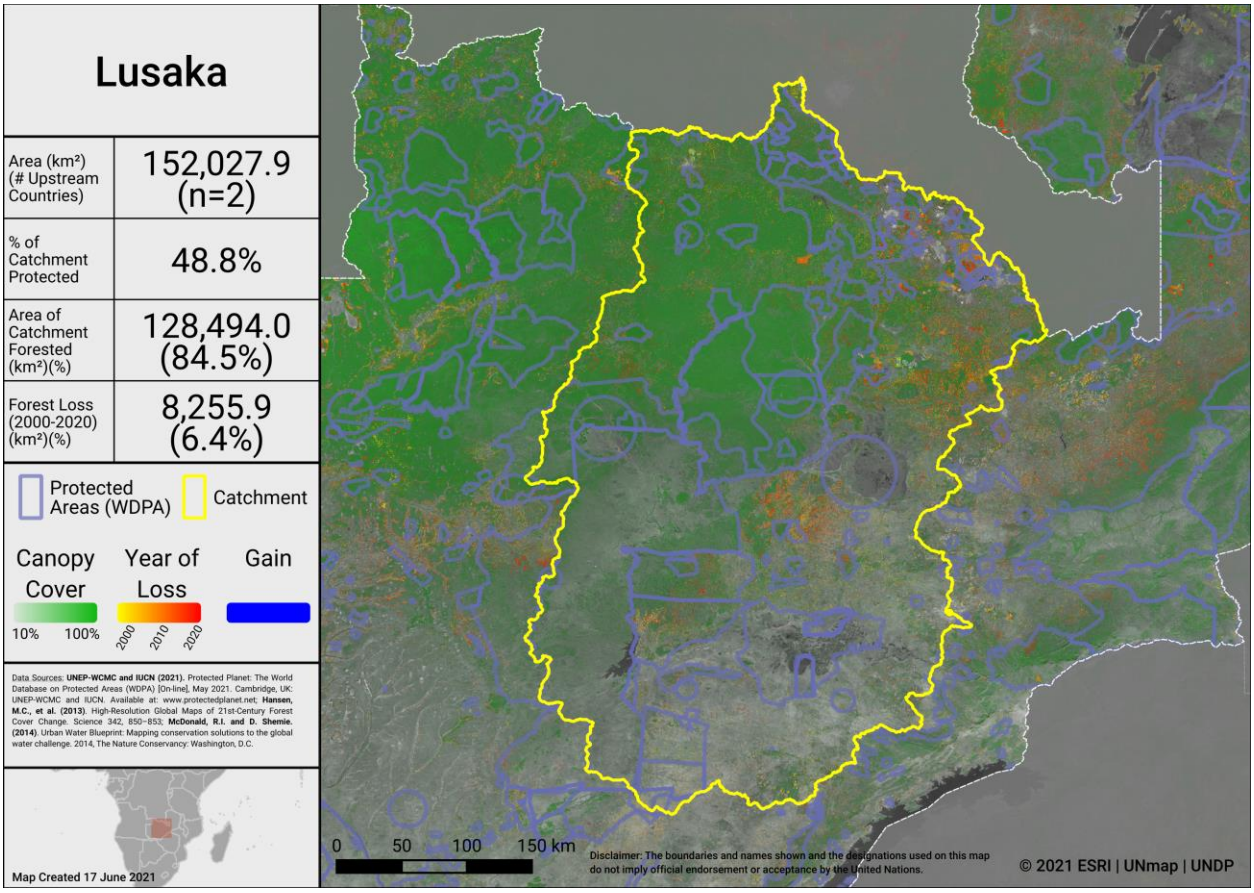
Carbon Stocks in Zambia

Water

Information on the water sources for 534 cities is available via the City Water Map (CWM) and provides details on the catchment area of the watershed that supplies these cities (see McDonald et al., 2014 for details on methodology).

Forests support stormwater management and clean water availability, especially for large urban populations. Research that has examined the role of forests for city drinking water supplies shows that of the world's 105 largest cities, more than 30% (33 cities) rely heavily on the local protected forests, which provide ecosystem services that underpin local drinking water availability and quality (Dudley & Stolton, 2003).

Drinking water supplies for cities in Zambia may similarly depend on protected forest areas within and around water catchments. The map below shows the percentage forest cover and the forest loss from 2000-2020 in the most heavily populated water catchment of Zambia. Intact catchments can support more consistent water supply and improved water quality.



Water supply area for the city of Lusaka

Opportunities for action

For carbon, there is opportunity for Zambia to increase PA and OECM coverage in terrestrial areas with high carbon stocks, as identified in the map above, and/or to focus on effective management of PAs and OECMs with high carbon stocks. Protecting areas with high carbon stocks secures the benefits of carbon sequestration in the area.

For water, there is opportunity to increase the area of the water catchment under protection by PAs and OECMs, or in cases where there is high levels of protection, focus on effective management for these areas. Protecting the current area of forested land and potentially reforesting would have benefits for improving water security.

CONNECTIVITY & INTEGRATION

Two global indicators, the Protected Connected land indicator (ProtConn; EC-JRC, 2021; Saura et al., 2018) and the PARC-Connectedness indicator (CSIRO, 2019), have been proposed for assessing the terrestrial connectivity of PA and OECM networks (to date there is no global indicator for assessing marine connectivity).

Protected Connected Land Indicator (Prot-Conn)

As of January 2021, as reported in the Joint Research Centre of the European Commission's Digital Observatory for Protected Areas (DOPA) (JRC, 2021), the coverage of protected-connected lands (a measure of the connectivity of terrestrial protected area networks, assessed using the ProtConn indicator) in Zambia was 19.4%.

PARC-Connectedness Index

In 2019, as assessed using the PARC-Connectedness Index (values ranging from 0-1, indicating low to high connectivity), connectivity in Zambia is 0.55. This represents no significant change since 2010.

Corridor case studies

Below is a list of case studies on corridors and connectivity in Zambia:

Case study title	Type of study region	Greatest threat to connectivity	Approaches to conserving ecological corridors
Connectivity conservation in the Kavango Zambezi Transfrontier Conservation Area: The Zambezi-Chobe Floodplain Wildlife Dispersal Area	terrestrial, rural	deforestation, uncontrolled settlements, overgrazing, over-exploitation of fish, uncontrolled fires	• establishment of a five-country transfrontier conservation area • development of integrated development plans • creating awareness and engaging local stakeholders • establishment of community conservancies • promotion of conservation agriculture • establishment of wildlife sanctuaries
Conserving six landscapes of the Albertine Rift to ensure connectivity	terrestrial, rural	habitat loss and fragmentation	• facilitating cooperation • developing sustainable-use community areas

Further details are available in Hilty et al 2020.

Opportunities for action

There is opportunity to focus on PA and OECM management for enhancing and maintaining connectivity. Improving connectivity increases the effectiveness of PAs and OECMs and reduces the impacts of fragmentation.

As well, a range of suggested steps for enhancing and supporting integration are included in the voluntary guidance on the integration of PAs and OECMs into the wider land- and seascapes and mainstreaming across sectors to contribute, inter alia, to the SDGs (Annex I of COP Decision 14/8).

GOVERNANCE DIVERSITY

There is a lack of comprehensive global data on governance quality and equity in PAs and OECMs. Here, we provide data on the diversity of governance types for reported PAs and OECMs.

As of May 2021, PAs in Zambia reported in the WPDA have the following governance types:

- 2.8% are governed by **governments** (by federal or national ministry or agency)
- 5.6% are under **shared** governance (by collaborative governance)
- 0.0% are under **private** governance
- 0.0% are under **IPLC** governance
  - 0.0% by Indigenous Peoples
  - 0.0% by local communities
- 91.6% **do not** report a governance type

OECMs

As of May 2021, there are **0** OECMs in Zambia reported in the WD-OECM, therefore there is no data available on OECM governance types.

Privately Protected Areas (PPAs)

There is currently no data available on PPAs for Zambia (see Gloss et al., 2019, and Stolton et al., 2014 for details).

Information on territories and areas conserved by Indigenous Peoples and local communities (ICCAs) reported from CBD technical series case studies:

There is currently no data available on ICCAs for Zambia (see Kothari et al., 2012 and the ICCA Registry for further details).

Other Indigenous lands

There is currently no data available on lands managed and/or controlled by Indigenous Peoples in Zambia (see Garnett et al 2018 for details).

Opportunities for action

Increase efforts to identify the governance types for the 91.6% of sites that do not have their governance type reported. If applicable, explore opportunities for governance types that have lower representation. There is also opportunity for Zambia to complete governance and equity assessments, to establish baselines and identify relevant actions for improvement. Examples of existing tools and methodologies include: Governance Assessment for Protected and Conserved Areas (Franks & Brooker, 2018), Social Assessment of Protected Areas (Franks et al 2018), and Site-level assessment of governance and equity (IIED, 2020). As well, a range of suggested actions are included in the voluntary guidance on effective governance models for management of protected areas, including equity (Annex II of COP Decision 14/8).

PROTECTED AREA MANAGEMENT EFFECTIVENESS

This section provides information on the coverage of PAs and OECMs with completed protected area management effectiveness (PAME) assessments as reported in the global database (GD-PAME). The proportion of terrestrial and marine PAs with completed PAME assessments is also calculated and compared with the 60% target agreed to in COP-10 Decision X/31. Information is also included regarding changes in forest cover nationally within PAs and OECMs.

Protected area management effectiveness (PAME) assessments

As of May 2021, Zambia has 641 PAs reported in the WDPA; of these PAs, 22 (3.4%) have management effectiveness evaluations reported in the global database on protected area management effectiveness (GD-PAME).

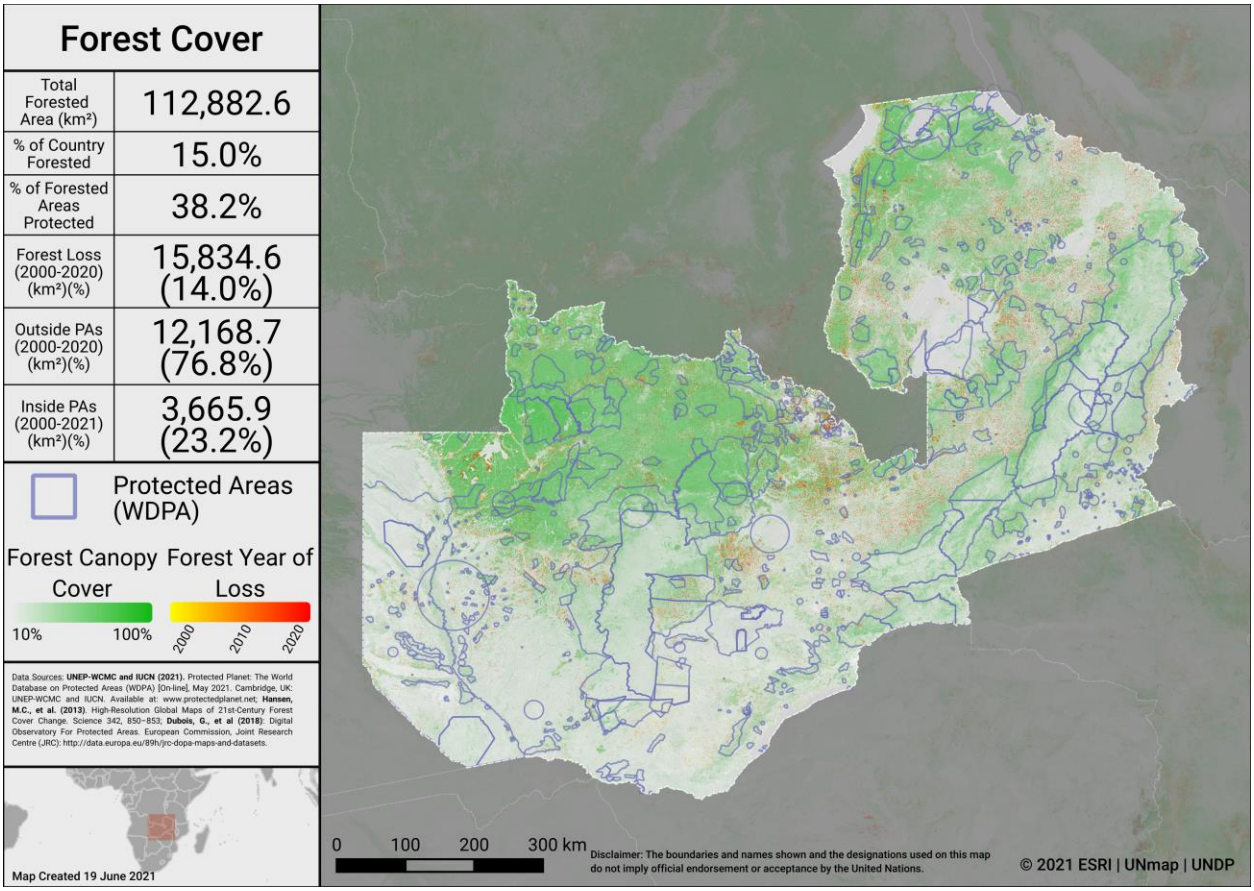
- 15.6% (117,488 km^2) of the terrestrial area of the country is covered by PAs with completed management effectiveness evaluations.
  - 37.7% of the area of terrestrial PAs have completed evaluations.

The 60% target for completed management effectiveness assessments (per COP Decision X/31) **has not** been met for terrestrial PAs.

As of May 2021, there are 0 OECMs in Zambia reported in the WD-OECM and no information available on the management effectiveness of potential OECMs.

Changes in forest cover in protected areas and OECMs

Forested areas in Zambia cover approximately 15.0% of the country, an area of 112,882.6 km^2. Approximately 38.2% (43,103.2 km^2) of this is within the protected area estate of Zambia. Over the period 2000-2020 net loss of forest cover amounted to over 15,834.6 km^2, or 2.1% of the country (14.0% of forested area), of which 3,665.9 km^2 (23.2% of forest loss) occurred within protected areas. The map below shows how forest cover has changed in Zambia from 2000-2020 both inside and outside of PAs. This can indicate how effective PAs are in reducing forest cover loss.



Forest Cover and Forest Loss in Zambia

Opportunities for action

The 60% target for completed management effectiveness assessments (per COP Decision X/31) **has not** been met for terrestrial PAs, therefore, there is opportunity to increase protected area management effectiveness (PAME) evaluations for terrestrial PAs to achieve the target.

There is also opportunity to implement the results of completed PAME evaluations, to improve the quality of management for existing PAs and OECMs (e.g. through adaptive management and information sharing, increasing the number of sites reporting 'sound management') and to increase reporting of biodiversity outcomes in PAs and OECMs.

SECTION II: EXISTING PROTECTED AREA AND OECM COMMITMENTS

PRIORITY ACTIONS FROM 2015-2016 REGIONAL WORKSHOPS

National priority actions for Aichi Biodiversity Target 11 were provided by Parties following a series of regional workshops in 2015 and 2016. The Capacity-building workshop for Africa on achieving Aichi Biodiversity Targets 11 and 12 took place 21 - 24 March 2016 in Entebbe, Uganda. Progress towards the quantitative targets for marine and terrestrial coverage has been assessed based on data reported in the WDPA and WD-OECM as of 2021. For more information, see the workshop report at: https://www.cbd.int/meetings/

The following actions were identified during the workshops:

Terrestrial coverage:

1) GIS Mapping and Update of all Protected Areas and Other Important Areas of Biodiversity in Zambia currently reported in the NBSAP2 to the CBD, and ensure that they are clearly identified spatially and accurately reported in the Country Data Dossier

2) 1.5% of the ecological regions can be placed under protection to contribute to achieving target 11 [**completed**].

Ecological representation: Establish the current status, area extent (ha), growing stock (m3) for 2 ecological systems (mopane and teak forest) by conducting detailed forest inventories and formulate forest management plans that will promote programmes for their assisted natural regeneration.

Areas Important for biodiversity and ecosystem services:

1) Upgrade the protection status of 4 IBAs [Important Bird and Biodiversity Areas] falling under some conservation areas with no protection and 7 IBAs with partial protection falling under National Parks to complete protection status.

2) Undertake a vulnerability assessment and develop relevant adaptation measures to enhance climate change resilience for 4 priority ecosystems (critical headwaters) which are important for ecosystem services to the country.

Connectivity:

1) Identify all Protected Area corridors (buffer zones) with significant and important biodiversity resources and conduct field assessments to fully appreciate their current status in terms of conservation interventions / activities

2) Conduct land-use mapping / planning for 10 major PAs to identify KCAs (Key Corridor Areas).

Management effectiveness: Conduct management effectiveness assessments for all protected forest areas and heritage sites designated for exclusive protection by law.

Governance and Equity: Implement 2 pilot PA governance and management interventions in 2 different ecological regions.

Integration: Identify one (1) block of nested Protected Areas (PAs) with significant biodiversity corridors that should be placed under a wider landscape management approach and formulate a management plan.

OECMs: Implement an effective area-based conservation measure for 2 Protected Areas experiencing high threats of human encroachment levels based on success stories from similar interventions in the country and elsewhere.

NATIONAL BIODIVERSITY STRATEGY AND ACTION PLANS (NBSAPs)

Zambia has submitted an NBSAP during the Strategic Plan for Biodiversity 2011-2020 (most recent NBSAP is available at: https://www.cbd.int/nbsap/search/).

Target 10. By 2020, Zambia's Protected Area (PA) network is rationalised to achieve representativeness and ecological connectivity at landscape level

Actions from the NBSAP will also address elements of Aichi Biodiversity Target 11:

NBSAP Action number	Action (original language from NBSAP)
7.6.1	Promote Public- Private- Community Partnerships (PPCPs) in the management of protected areas
10.1.1	Conduct/update the identification of all major ecosystems/habitats in each defined bio-geographical region of the country based on the vegetation classes of Edmonds (1976)
10.1.2	Conduct an assessment of representativeness of the identified ecosystems/ habitats in the existing protected areas (emphasis on National Parks and Forest Reserves)
10.1.3	Identify major ecosystems either not represented or poorly represented in the existing protected areas
10.1.4	Map the distribution of unrepresented and poorly represented ecosystems/habitats to guide the reclassification of the protected areas

APPROVED GEF-5 & GEF-6 PROTECTED AREA PROJECTS

Approved GEF-5 and GEF-6 PA-related biodiversity projects

This includes biodiversity projects from the fifth and sixth replenishment of the Global Environment Facility (GEF-5 and GEF-6) with a clear impact of the quantity or quality of PAs; also including some projects occurring within the wider landscapes/seascapes around PAs. Only those with a status of 'project approved' or 'concept approved' as of June 2019 were considered. The qualifying elements likely benefiting from each GEF project is assessed based on a keyword search of Project Identification Forms (PIF). Where spatial data for the proposed PAs was available, further details (based on an analysis by UNDP) regarding their impacts for ecological representation, coverage of KBAs, and coverage of areas important for carbon storage is included.

GEF ID	PA increase?	Area to be added (km^2)	Type of new protected area	Qualitative elements potentially benefitting (based on keyword search of PIFs)
4639	No	already in WDPA	Terrestrial	All except Areas important for biodiversity; and Equitably managed
8021	No	N/A	N/A	Effectively managed; Equitably managed; Connectivity; Integration
9213	No	N/A	N/A	Ecosystem services; Effectively managed; Equitably managed; Integration

OTHER ACTIONS/COMMITMENTS

Commitments for PAs and OECMs from Other National Policies

Policy document	Ecosystem	Policy text
Nationally Determined Contribution	Forest ecosystems	Avoided forest conversion: 25.44 Mt CO2e/yr
Nationally Determined Contribution	Forest ecosystems	Avoided peat impacts: 1.69 Mt CO2e/yr
Nationally Determined Contribution	Forest ecosystems	Improved cooking devices to include improved biomass stoves, use of ethanol and LPG stoves, and switch to electric stoves
Nationally Determined Contribution	Forest ecosystems	Sustainable charcoal production to include improved kilns
Nationally Determined Contribution	Wetland ecosystems	Water use efficiency management
Nationally Determined Contribution	Wetland ecosystems	Promote the protection of catchment forests in the Zambezi, Kafue and Luangwa watersheds
Nationally Determined Contribution	Wetland ecosystems	Promote rainwater harvesting in the three focal landscapes
Nationally Determined Contribution	Wetland ecosystems	Promote sustainable aquaculture practices through improved water management, improved feeding regimes and use of appropriate stocks
Nationally Determined Contribution	Grasslands & Agricultural systems	Promote CSA practices through conservation agriculture
Integrated Water Resources Management and Water Efficiency plan	Wetland ecosystems	Promote sustainable land use systems on water catchment areas
Integrated Water Resources Management and Water Efficiency plan	Wetland ecosystems	Promote the control of deforestation and land degradation especially at headwaters
Reducing emissions from deforestation and forest degradation	Forest ecosystems	Promotion of energy efficient wood fuel utilization technologies
Reducing emissions from deforestation and forest degradation	Forest ecosystems	Promotion of alternative renewable energy sources

Policy document	Ecosystem	Policy text
National Biodiversity Strategy Action Plan	Forest ecosystems	Promote alternative renewable energy technologies
National Adaptation Program of Action	Forest ecosystems	Improving energy access and security, especially in rural areas (e.g., through the Rural Electrification Agency, promotion of energy-efficient stoves
National Biodiversity Strategy Action Plan	Wetland ecosystems	Promote natural restocking in fishery management areas and other fish depleted water bodies by protecting fish breeding areas.
National Adaptation Program of Action	Wetland ecosystems	Promotion of irrigation and efficient use of water resources
Reducing emissions from deforestation and forest degradation	Grasslands & Agricultural systems	Promotion of good agricultural practices related to reduced emissions from agro processing dependent on use of wood fuel from Indigenous forests
National Adaptation Program of Action	Grasslands & Agricultural systems	Use of technologies for fertility improvement and moisture storage (including soil conservation measures

ANNEX I

FULL LIST OF ECOREGIONS

Ecoregion Name	Area (km^2)	% of Global Ecoregion in Country	% of Country in Ecoregion	Area Protected (km^2)	% Protected in Country
Central Zambezian wet miombo woodlands	353,856.7	34.8	47.1	112,125.3	31.7
Dry miombo woodlands	145,762.4	12.3	19.4	54,974.9	37.7
Itigi-Sumbu thicket	4,286.6	39.0	0.6	3,225.4	75.2
Southern Rift Montane forest-grassland	117.4	0.5	0.0	63.4	54.1
Zambezian Baikiaea woodlands	43,160.5	12.0	5.7	28,535.4	66.1
Zambezian evergreen dry forests	22,892.5	72.5	3.0	7,184.8	31.4
Zambezian flooded grasslands	79,630.9	39.4	10.6	47,314.7	59.4
Zambezian-Limpopo mixed woodlands	34,180.3	18.7	4.6	8,524.5	24.9
Zambezian mopane woodlands	61,330.9	15.8	8.2	44,830.7	73.1

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