

ATLAS OF AFRICAN PROTECTED AREAS

ATLAS OF AFRICAN PROTECTED AREAS

Mapping the complexity of
conservation on the continent

Publication details

The information and views set out in this book are those of the authors and do not necessarily reflect the official opinion of the European Union. Neither the European Union institutions and bodies nor any person acting on their behalf may be held responsible for the use, which may be made of the information contained therein.

Atlas of African Protected Areas

JRC137018

Printed version

ISBN 978-92-68-20694-2
doi:10.2760/9185944
Catalogue number KJ-01-24-035-EN-C

Online version

ISBN 978-92-68-20693-5
doi:10.2760/2141992
Catalogue number KJ-01-24-035-EN-N

2025 – 144 pp. – 30.1 × 42.4 cm

Published by the Publications Office of the European Union, L-2995 Luxembourg, Luxembourg.

© European Union, 2025.



The reuse policy of the European Commission documents is implemented by Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39). Unless otherwise noted, the reuse of this document is authorised under the Creative Commons Attribution 4.0 International (CC BY 4.0) licence (<https://creativecommons.org/licenses/by/4.0/>). This means that reuse is allowed provided appropriate credit is given and any changes are indicated.

Reuse of photos/figures/diagrams/data with the source: European Union, 2025 is authorised.

For reuse of photos/figures/diagrams/data of a third-party source (i.e. any other than European Union, 2025) permissions must be sought directly from the source/copyright holders in accordance with the license conditions accompanying each source.

How to cite the Atlas of African Protected and Conserved Areas:

Buschke, F., Capitani, C., Lippi, S., Lazaro, C., Roggeri, P., Estreguil, C., Conti, M., Battistella, L. & Peedell, S., Atlas of African Protected Areas: Mapping the complexity of conservation on the continent, Publications Office of the European Union, Luxembourg, 2025, [Print] doi: 10.2760/9185944, [Online] doi: 10.2760/2141992, JRC137018.

The full version of this Atlas is available online at:

<https://africa-knowledge-platform.ec.europa.eu/atlas>

This URL links to the full online version of the Atlas, where the most updated content and data may be freely accessed.

Cover image:
Dzanga Sangha Special Reserve, Central African Republic.
Source Grégoire Dubois, with permission. All rights reserved.

Cartographic Representations

Underlying cartographic features depicted on the maps in this Atlas are derived from the Digital Chart of the World and Lovell Johns Cartographic Base. These data do not have any explicit legal status; hence, no legal aspects should be derived from the information depicted on any of the maps in this publication.

http://en.wikipedia.org/wiki/Digital_Chart_of_the_World
www.lovelljohns.com

Natural Earth Data

Country boundaries (June 2024):

<https://ec.europa.eu/eurostat/web/gisco/geodata/reference-data/administrative-units-statistical-units>
The designations employed and the presentation of material throughout this Atlas do not imply the expression of any opinion whatsoever on the part of the EU concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries
Due to the resolution of the underlying data, which is often still too large to represent small islands, the maps in this Atlas might not or not always represent a number of small islands. This includes the sub-Antarctic Marion Islands, which is a territory of South Africa.

All Africa maps created for the Atlas of African Protected Areas are Africa Albers Equal Area Conic projection.

Disclaimer of Liability

The European Commission has taken considerable care in preparing the information presented in this Atlas. The political boundaries shown on the maps are only indicative. The views expressed in this Atlas are purely those of the authors/ contributors and may not in any circumstances be regarded as stating an official position of the European Commission.

Design and graphic support

Final design and graphic support by Lovell Johns Limited, 10 Hanborough Business Park, Long Hanborough, Witney, Oxfordshire, OX29 8RU, United Kingdom.

<http://www.lovelljohns.com>



Getting in touch with the EU

In person

All over the European Union there are hundreds of Europe Direct centres. You can find the address of the centre nearest you online (european-union.europa.eu/contact-eu/meet-us_en).

On the phone or in writing

Europe Direct is a service that answers your questions about the European Union. You can contact this service:

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: +32 22999696,
- via the following form: european-union.europa.eu/contact-eu/write-us_en.

Finding information about the EU

Online

Information about the European Union in all the official languages of the EU is available on the Europa website (european-union.europa.eu).

EU publications

You can view or order EU publications at op.europa.eu/en/publications. Multiple copies of free publications can be obtained by contacting Europe Direct or your local documentation centre (european-union.europa.eu/contact-eu/meet-us_en).

EU law and related documents

For access to legal information from the EU, including all EU law since 1951 in all the official language versions, go to EUR-Lex (eur-lex.europa.eu).

EU open data

The portal data.europa.eu provides access to open datasets from the EU institutions, bodies and agencies. These can be downloaded and reused for free, for both commercial and non-commercial purposes. The portal also provides access to a wealth of datasets from European countries.

Authors and Contributors

European Commission Joint Research Centre

- Falko Buschke
- Claudia Capitani
- Simona Lippi
- Cristina Lazaro
- Paolo Roggeri
- Christine Estreguil
- Michele Conti
- Luca Battistella
- Stephen Peedell

BIOPAMA Team at the European Commission Joint Research Centre

The content presented in this Atlas builds on the long-term efforts of the broader BIOPAMA team.

- Lucy Bastin
- Bastian Bertzky
- Andrea Capata
- Andrew Cottam
- James Davy
- Giacomo Delli
- Christine Estreguil
- Mariagrazia Graziano
- Andrea Mandrici
- Andrea Marelli
- Panagiotis Politopoulos
- Philipp Schaeegner
- Melanie Weynants

BIOPAMA Partner institutions

Although this Atlas was produced by the European Commission Joint Research Centre, it was inspired by interactions with partner organisations in the context of the BIOPAMA programme. Their valuable contributions are acknowledged, while recognising that the content of this Atlas do not reflect the official opinions or policy positions of these organisations:

- International Union for Conservation of Nature (IUCN)
- The Central African Forest Commission (COMIFAC)
 - Florence Palla
 - Donald Jomha Djossi
 - Loic Kenmou
 - Michel Ngoy
 - Arnaud Choumelé
 - Quentin Jungers

- Centre de Suivi Écologique (CSE) consortium: Centre de Suivi Écologique (CSE, Dakar, Senegal), the Regional Network of Protected Areas in West Africa (RAMPAO), University of Ghana, and AGRHYMET Regional Center

- Regional Centre for Mapping of Resources for Development (RCMRD)
 - Erick Juma Wabwile
 - Martin Ndogoni Nyoro
 - Isaac Wilfred Fadamullah
 - Job Mwangi
 - Michael Ngugi Kimani

Conventions and acronyms for individual copyright notices

Specific third-party content (e.g. artistic work) may be subject to different copyright and licensing. Throughout the Atlas, information on these aspects is provided in the caption of each artistic work (e.g. photos, graphs, drawings, ...) which is subject to conditions specified in individual copyright notices.

The information on specific third-party content is structured by providing the name of the author or copyright holder and licensing conditions and – where available – a URL pointing to further online information:

Author name, *acronym of the licensing conditions*, URL where the following acronyms and abbreviations are used:

- **AP**: Atlas Permission
- **PD**: Public Domain
- **CC**: Creative Commons Attribution license

The following sections describe these terms.

Atlas Permission (acronym: AP)

The copyright holders of the individual document (which may be e.g. an individual image, diagram, ...) for which this permission is granted give the European Union specific permission to modify and combine the aforementioned document with the Soil Atlas of Asia, published by the Publications Office of the European Commission.

Public Domain (acronym: PD)

Works in the public domain are not covered by a licenseⁱ. The specific material in the public domain is not copyrighted and no license is associated with it. Licenses exist which formally dedicate a work to the public domain, also providing a fallback license for cases where that is not legally possibleⁱⁱ. Works released under these licenses are indicated with the acronym associated with the specific licenses (e.g. CC).

Creative Commons licenses

Works covered by a Creative Commons license are provided, along with the legal code, also with a Commons Deed which is “the ‘human readable’ version of the license [...] a handy reference for licensors and licensees, summarising and expressing some of the most important terms and conditions”. In the following, a summary is provided from the Commons Deed associated with the Creative Commons Public Domain Dedication and the Creative Commons Attribution license. For completeness, the full legal code is also provided.

- Regional Centre of Excellence for Western Africa (OBAPAO)
 - Dr Taïbou BA, CSE
 - Adja Aïssatou SY, CSE
 - Marie Suzanne Traoré, Secrétaire Exécutive RAMPAO
 - Ignathius Kweku Williams, RMC-UG
 - Dr Issa Garba, CRA
 - Dr Jacques André Ndione, CSE
 - Abdoulaye Pouye DIOP, CSE
 - Hassan BA, CSE
 - Bélat BA, CSE
 - Ibrahima Almamy Wade, Expert SIG
 - Dr El Hadji SOW, Expert Biodiversité
 - Thioro C. Niang, CSE expert en communication
 - Marième Soda Kassé, CSE
- Mame Demba Diagne, Assistant Biodiversité

Reviewers

- Alan Belward, European Commission Joint Research Centre (Retired)
- Bastian Bertzky, European Commission Directorate-General for Research and Innovation
- Baudouin Desclée, European Commission Joint Research Centre
- Irene Guerrero, European Commission Joint Research Centre
- Joana Melo, European Commission Joint Research Centre

Creative Commons Attribution (acronym: CC)

A variety of versions exist for the Creative Commons Attribution license^[i-viii]. Common elements characterise their Commons Deed and provide users of the licensed work with the freedom to:

- Share – copy and redistribute the material in any medium or format^[i,viii,x],
- Adapt – remix, transform, and build upon the material for any purpose, even commercially^[ii,viii,x].

The licensor cannot revoke these freedoms as long as users follow the license terms, under the following terms:

- Attribution – users must give appropriate credit, provide a link to the license, and indicate if changes were made. Users may do so in any reasonable manner, but not in any way that suggests the licensor endorses them or their use^[ii,x,xii].

The aforementioned summary “highlights only some of the key features and terms of the actual license. It is not a license and has no legal value”. Users “should carefully review all of the terms and conditions of the actual license before using the licensed material”^[iii,viii,x].

Credit is given. No changes have been made to any of the images provided. Relevant licenses are listed in the table below:

References

- [i] Publications Office of the European Union, Licences named authority lists (2015). <http://europa.eu/FP34nJ>.
- [ii] Free Software Foundation, Free Software Directory (Free Software Foundation, Boston, USA, 2012), pp. 6958+. <http://directory.fsf.org/wiki?curid=6958>.
- [iii] Creative Commons, CCO 1.0 Universal (CCO 1.0) Public Domain Dedication, Creative Commons, Mountain View, ACalifornia, USA (2015).
- [iv] Free Software Foundation, Free Software Directory (Free Software Foundation, Boston, USA, 2015), pp. 8722+. <http://directory.fsf.org/wiki?curid=8722>.
- [v] Creative Commons, About The Licenses, Creative Commons, Mountain View, California, USA (2015). <https://creativecommons.org/licenses/>
- [vi] Creative Commons, Creative Commons Attribution 2.0 Generic (CC BY 2.0), Creative Commons, Mountain View, California, USA (2015).
- [vii] Free Software Foundation, Free Software Directory (Free Software Foundation, Boston, USA, 2015), pp. 7031+. <http://directory.fsf.org/wiki?curid=7031>.
- [viii] Creative Commons, Creative Commons Attribution 3.0 Unported (CC BY 3.0), Creative Commons, Mountain View, California, USA (2015).
- [ix] Free Software Foundation, Free Software Directory (Free Software Foundation, Boston, USA, 2012), pp. 7034+. <http://directory.fsf.org/wiki?curid=7034>.
- [x] Creative Commons, Creative Commons Attribution 4.0 International (CC BY 4.0), Creative Commons, Mountain View, California, USA (2015).
- [xii] Free Software Foundation, Free Software Directory (Free Software Foundation, Boston, USA, 2015), pp. 12289+. <http://directory.fsf.org/wiki?curid=12289>.

Preamble	
Foreword	6
Summary of main findings	8
Part I – Research support to African protected areas	10
1.1 The changing roles of African protected areas for people and nature	12
1.1.1 Why Africa is critical to achieving global conservation goals	12
1.1.2 The historical evolution of African protected areas	14
1.1.3 International policy instruments for protected and conserved areas	16
1.1.4 Target 3 of the Global Biodiversity Framework	18
1.1.5 European Union Support to African protected areas	20
1.1.6 The BIOPAMA Programme	22
1.2 Methodological approaches to understanding protected area dynamics	24
1.2.1 The World Database on Protected Areas: the backbone of this Atlas	24
1.2.2 How to measure protected area dynamics	26
1.3 Navigating continent-wide geospatial data	30
1.3.1 Using imperfect global data for local decisions	30
1.3.2 Source of uncertainty: the spatial scale of biodiversity assessment	32
1.3.3 Geographic biases in biodiversity data	34
1.3.4 Taxonomic bias issues	36
1.3.5 Methodological updates to underlying data	38
Part 2 – The “when”, “where”, “what”, “why”, and “who” of African protected areas	40
2.1 “When” and “where” – the expansion of protected areas	42
2.1.1 The expansion of protected areas through time	42
2.1.2 The growth of data available through the World Database for Protected Areas	44
2.1.3 Protected Area Downgrading, Downsizing, and Degazettement	46
2.1.4 Protected area connectivity	48
2.2 “What” – the ecological representation of protected areas	50
2.2.1 Coverage of Key Biodiversity Areas	50
2.2.2 Protected area coverage of ecoregions	52
2.2.3 Coverage of mountain ecosystems	54
2.2.4 Coverage of seagrass by protected areas	56
2.2.5 Coverage of mangroves by protected areas	58
2.2.6 Protected area coverage of warm-water coral reefs	60
2.3 “Why” – the underlying reasons of different protected areas	62
2.3.1 Protected areas by IUCN category	62
2.3.2 Protected areas and World Heritage Sites	64
2.3.3 Protected areas and RAMSAR wetlands	66
2.4 “Who” – the variable governance of protected areas	68
2.4.1 Protected areas by governance type	68
2.4.2 Protected areas and Indigenous Peoples and Local Communities (IPLC)	70
2.4.3 UNESCO Man and Biosphere Reserves	72

Part 3 – Protected areas as life-support systems	74
3.1 Protected areas and climate change	76
3.1.1 Protected area coverage of Tropical Moist Forests	76
3.1.2 Climate services from peatlands	78
3.1.3 Protected areas and carbon stocks and fluxes	80
3.2 Protected areas and freshwater	82
3.2.1 Protected areas and rivers and lakes	82
3.2.2 Protected areas and wetlands	84
3.3 Protected areas and the biodiversity economy	86
3.3.1 Carbon revenues to finance protected areas	86
3.3.2 Tourist visitation to protected areas	88
3.3.3 Wildlife-watching species richness in Africa	90
3.3.4 Wildlife economy	92
3.3.5 Investing in the wildlife economy	94
Part 4 – Protected areas under pressure	96
4.1 Pressure from people, crops and livestock	98
4.1.1 Human population growth and urbanisation	98
4.1.2 Livestock and protected areas	100
4.1.3 Cultivated croplands and protected areas	102
4.2 Development pressure from extraction or infrastructure	104
4.2.1 Protected areas and development corridors	104
4.2.2 Mining and resource extraction	106
4.2.3 Protected areas and timber concessions	108
4.3 Pressures from global environmental change	110
4.3.1 Protected areas exposure to climate change	110
4.3.2 The impact of invasive alien species	112
4.3.3 Protected areas and land degradation and desertification	114
Part 5 – Opportunities for African protected areas	116
5.1 Improving protected area effectiveness	118
5.1.1 Protected areas with management effectiveness assessments	118
5.1.2 The Integrated Management Effectiveness Tool (IMET)	120
5.1.3 Protected Area Governance and Equity (PAGE) assessments	122
5.1.4 IUCN Green List sites	124
5.2 Bending the curve of biodiversity loss: the need for restoration	126
5.2.1 Priority areas for terrestrial ecological restoration	126
5.2.2 Progress on marine and coastal ecosystem restoration	128
5.3 People and nature beyond the boundaries of protected areas	130
5.3.1 Participatory management of natural resources	130
5.3.2 Other effective area-based conservation measures (OECMs)	132
5.3.3 Transfrontier Conservation Areas	134
5.3.4 NaturAfrica	136
5.4 An African information network for protected and conserved areas	138
5.4.1 West Africa Regional Observatory	138
5.4.2 Central Africa Regional Observatory	140
5.4.3 Eastern and Southern Africa Regional Observatory	142

DG International Partnerships (INTPA) supports African Regional Centres of Excellence

Building on key initiatives such as the Biodiversity and Protected Areas Management Programme (BIOPAMA), the EU funded the Action on Scientific and Technological Support to Regional Centres of Excellence related to Green Transition known as the African Regional Centres of Excellence (ArcX) programme. The ArcX aims to strengthen Science, Technology and Innovation (STI) capacities of Regional Centres of Excellence (RCoEs) across key sectors such as biodiversity and forest, water, agroecology, ocean and climate resilience. It enhances the RCoEs' contributions to policy and decision-making, innovation ecosystems and business development, and supports relevant stakeholders through tailored services.

The Biodiversity and Forest component of ArcX specifically supports three regional institutions that played a central role in BIOPAMA and are now designated as Technical Support Centres for the implementation of the Kunming-Montreal Global Biodiversity Framework: the Observatoire des Forêts d'Afrique Centrale (OFAC), hosted by COMIFAC; the Centre de Suivi Écologique (CSE), coordinating the West African Observatory OBAPAO; and the Regional Centre for Mapping of Resources for Development (RCMRD), active in Eastern and Southern Africa.

Their growing leadership illustrates Africa's capacity to generate and apply scientific knowledge for conservation.

Rooted in a long-standing Africa–EU partnership, ArcX strengthens collaboration on STI, fosters knowledge generation and sharing, and provides targeted support to practitioners, researchers and decision-makers, with active participation from the private sector. This Atlas compiles the best available geospatial information to inform the planning, management and governance of protected and conserved areas.

Through ArcX and as part of its Global Gateway strategy, the European Commission reaffirms its commitment to work hand in hand with African partners to strengthen the foundations of inclusive, resilient and sustainable development countries in key areas of partnerships notably to strengthen cooperation on research and innovation.

https://international-partnerships.ec.europa.eu/policies/global-gateway_en

This QR code points to the full online version of the Global Gateway providing information on the roll out of the Global Gateway strategy, partnerships, projects and funding opportunities.



The Joint Research Centre of the European Commission

The European Commission is the executive body of the European Union, and is responsible for proposing legislation, verifying its implementation, and upholding the Union's treaties. The day-to-day running of Commission business is performed by staff (specialists in domains such as law, finance, economics, science, communications and administration) working in departments known as Directorates-General (DGs). The Joint Research Centre (JRC) is one of the Commission's DGs. It is the Commission's science and knowledge service, carrying out research in order to provide independent scientific advice and support to EU policy.

The JRC draws on over 60 years of scientific experience, and continually builds expertise in knowledge production and knowledge management. The JRC's long legacy of work on Africa is showcased in the Africa Knowledge Platform (<https://africa-knowledge-platform.ec.europa.eu/>), the gateway to the European Commission's scientific data and information on Africa.

<https://africa-knowledge-platform.ec.europa.eu>

This QR code points to the the home page of the Africa Knowledge Platform.



Foreword

Joint Research Centre

Biodiversity is the foundation of a healthy environment, on which we depend for our lives and livelihoods. It is currently being lost faster than at any moment in human history. This loss is driven by multiple, interconnected factors, arising from both local needs and global dynamics.

Protected and conserved areas are the cornerstone of global biodiversity conservation action, dedicated to the long-term preservation of nature, ecosystem services and cultural values. The agreement to conserve 30 % of land and sea area by 2030, reached as part of the Kunming-Montreal Global Biodiversity Framework at the UN Convention on Biological Diversity's CoP 15 in 2022, was a major achievement for biodiversity. In particular, the recognition of 'Other Area-based Conservation Measures' and 'Indigenous territories' as being vital components of conservation strategies underscores a shift towards inclusive, equitable, and locally rooted conservation approaches.

However, efforts to slow or reverse biodiversity loss are hampered by limited access to the data which is needed to measure and assess the impact of policies and actions on the ground. Scientific guidance on where to expand and better manage protected and conserved areas is more urgent than ever.

This Atlas helps to address this challenge. Showcasing the geospatial information available for Africa's protected and conserved areas, it supports the Kunming-Montreal Global Biodiversity Framework by providing countries and stakeholders with data to inform National Biodiversity Strategies and Action Plans, spatial planning, and effective area-based conservation measures.

While no single report can capture the full richness of Africa's conservation landscape, the Atlas demonstrates how geospatial data and information can support positive change through better informed management strategies and more effective protected and conserved areas.

This work draws on more than a decade of research and experience in informing policy and supporting the management of protected areas in Africa. It compiles the best available geospatial information on a continental scale gathered by collective work with African partners through the EU's Biodiversity and Protected Areas Management (BIOPAMA) programme. The BIOPAMA programme also developed freely available online thematic tools to browse, query and display data on protected areas. This Atlas is not a guide to using those tools, but rather an open invitation to explore them and be part of a global effort to improve the conservation of our most vital resource: life on Earth.

This research is aligned with the principles of data equity and transparency, supporting African institutions in asserting greater sovereignty over biodiversity data, while fostering regional and international collaboration. It acknowledges the leadership of African governments, conservation agencies, indigenous peoples and local communities, and regional institutions in driving conservation outcomes on the ground.

I am confident that this Atlas can serve as a foundation for future collaborative efforts with our African partners and help ensure that Africa's protected and conserved areas are resilient, well-managed and contribute to biodiversity conservation and human well-being.



Bernard Magenmann

Bernard Magenmann
Director-General
European Commission's Joint Research Centre

International Union for Conservation of Nature (IUCN)

Africa stands at a crossroads. By 2100, its population could swell to as many as 5.4 billion people. The Congo Basin's ancient forests—our planet's lungs—face relentless pressure. Yet within these sobering statistics lies an extraordinary story of hope, collaboration, and transformation. The pages of this Atlas tell a story that is both urgent and inspiring. It reminds us that Africa's extraordinary biodiversity faces genuine pressures, but it also demonstrates that when we work together with purpose and precision, we can rise to address them.

This publication embodies the BIOPAMA promise made real, a vision that IUCN, the Joint Research Centre of the European Commission and our partners worked towards: that better data doesn't just inform better decisions—it ignites better action and decision-making for biodiversity conservation.

This Atlas is an illustration of what becomes possible, when efforts converge successfully towards supporting protected and conserved areas data collection, analysis, monitoring and reporting, towards developing the capacities of staff and organisations to manage this information and towards providing policy guidance for better decision-making.

In 2012, an ambitious collaboration began when the European Union, the Organisation of African, Caribbean and Pacific States, IUCN, and the Joint Research Centre of the European Commission imagined a global partnership that meets this vision.

More than a decade later, that vision is operational and is delivering many success stories across Africa, Caribbean and Pacific countries, through the BIOPAMA-established Regional Observatories for Protected Areas and Biodiversity. Working hand-in-hand with UNEP-WCMC (UN Environment Programme World Conservation Monitoring Centre)—our global partner—these observatories have had a significant impact on how we track progress against global targets, from the Aichi Target 11 to Target 3 of the Kunming-Montreal Global Biodiversity Framework.

Today, as the world reaches the midpoint of this decade's global biodiversity commitments, the BIOPAMA legacy stands visible and vibrant. BIOPAMA's regional observatories have earned recognition as leading or supporting CBD Technical and Scientific Cooperation Support Centres; they continue to flourish as African Regional Centres of Excellence for Biodiversity and Forest under sustained EU support.

IUCN remains unwaveringly committed to delivering excellence in protected and conserved areas. We do this through our cutting-edge knowledge tools and rigorous standards. We do this through our hands-on action across the globe. We do this through our unique power to convene diverse voices and influence critical decisions.

Most importantly, we do this together—with our Members, our Commissions, and our partners—because the biodiversity crisis demands nothing less than our collective best.



Trevor Sandwith

Trevor Sandwith
Director IUCN Centre for Conservation Action
International Union for Conservation of Nature (IUCN)

Regional Centres of Excellence

The Kunming-Montreal Global Biodiversity Framework adopted in December 2022, marks a historic milestone in the global effort to halt and reverse biodiversity loss by 2030. For Africa, the cradle of humanity and guardian of an extraordinary share of the world's natural wealth, this Framework is far more than a set of global targets. It is a strategic roadmap to a sustainable, resilient, and prosperous future for our people and our ecosystems.

Africa's diverse ecosystems, from the rainforests of the Congo Basin and the savannas of the Serengeti to the fynbos of the Cape and the coral reefs of the Indian Ocean, provide vital services that support our economies, cultures, and livelihoods. Yet, this natural wealth faces unprecedented pressures from climate change, land-use change, invasive alien species, and unsustainable resource use. Now more than ever, the effective conservation and equitable governance of our protected and conserved areas are therefore more critical.

It is against this backdrop of urgency and opportunity that we proudly present the Atlas of African Protected Areas. This comprehensive volume, meticulously compiled by the Joint Research Centre of the European Commission as a key output of the Biodiversity and Protected Areas Management (BIOPAMA) programme, is much more than a collection of maps. It is a powerful tool for knowledge, a compass for decision-making, and a testament to the impact of strong partnerships. It offers high-quality, standardised data essential for tracking progress, identifying conservation gaps, and informing the decisions of scientists, policymakers, and communities alike.

The production of this Atlas represents a major achievement of the BIOPAMA initiative. Funded by the European Union and the Organisation of African, Caribbean and Pacific States, BIOPAMA has played a transformative role in enhancing the management and governance of protected and conserved areas across Africa. Through the synergy between the scientific expertise of the Joint Research Centre and the conservation leadership of IUCN, UNEP World Conservation Monitoring Centre and many partners, BIOPAMA has provided practical tools and strategic support to a wide range of stakeholders working on the ground.

A cornerstone legacy of the programme is the empowerment of regional data observatory and decision-support institutions, now to be further strengthened by the EU-funded Regional Centres of Excellence. Emerging from collaborative partnerships, these Centres now stand as Africa-led hubs of technical expertise and knowledge for biodiversity conservation and protected areas. Our shared mission is to close the gap between global ambition and national implementation, to translate data into insight, and insight into action.

We are honoured that the Secretariat of the Convention on Biological Diversity has designated our Centres as Technical Support Centres for the implementation of the Kunming-Montreal Global Biodiversity Framework. This appointment entrusts us with an essential role: to assist our member countries in tracking their progress, particularly on Target 2 (ecosystem restoration) and Target 3 (conserving 30 % of land and sea areas). The Atlas will be a key tool in this mission, helping to identify priority areas for action and to guide the design of effective, evidence-based interventions.

As Directors of the Regional Centres of Excellence, our vision transcends the borders of protected areas. We are committed to advancing a new paradigm, one in which protected and conserved areas are not isolated sanctuaries, but integral components of inclusive and sustainable landscapes and seascapes. This is a vision of coexistence, where conservation strengthens local livelihoods, and where community rights and leadership are central to governance.

We call upon all our partners—governments, international organisations, civil society, and the private sector—to engage with this Atlas not only as a source of knowledge, but as a catalyst for deeper collaboration. Let us draw on this shared understanding to refine policies, guide investments, and empower the local custodians of Africa's biodiversity.

Together, through credible, Africa-led science and enduring partnerships, we can rise to the challenge of the Kunming-Montreal Global Biodiversity Framework—and secure the legacy of Africa's natural heritage for generations to come.



Cheikh Mbow

Cheikh Mbow,
Directeur Général CSE
OBAPAO, Regional Centre of Excellence for Western Africa



Chouaibou Nchoutpouen

Chouaibou Nchoutpouen,
Secrétaire Exécutif Adjoint COMIFAC
OFAC, Regional Centre of Excellence for Central Africa



Emmanuel Nkurunziza

Emmanuel Nkurunziza,
Director General RCMRD
RCMRD, Regional Centre of Excellence for Eastern and Southern Africa

Summary of main findings

This Atlas embodies years of work by the European Commission Joint Research Centre in collaboration with its partners in Africa and further afield to share the knowledge acquired over the many years of work around protected areas in Africa. It aims at providing technical and scientific input of relevance to donors, decision-makers and any other interested stakeholders as well as to the European Commission. The Atlas is not a policy document, it does not aim at providing policy guidance nor does provide an official opinion of the Commission.

Its pages present the latest geospatial information that is enriched with descriptions, case studies, and analyses that position the scientific details within the broader policy landscape. Recognising the wide range of area-based conservation approaches in Africa, this Atlas adopts a specific focus on Protected Areas (PAs), reflecting the thematic and methodological framework of the BIOPAMA programme.

Outcomes of this Atlas reflect scientific evidence. They constitute one valuable source among others, to inspire governments, institutions and organisations worldwide on possible pathways and (transformative) actions to address environmental and social challenges of our time that are particularly associated with protected and conserved areas.

This Atlas is structured into five main parts, each of which is summarised herewith (numbers in parentheses refer to the specific Topics as presented in the Atlas):



A |

The European Commission has long legacy supporting protected areas in Africa, making it a key partner in meeting global biodiversity commitments.

■ **A1 | The contribution of Africa is crucial to achieve the ambitious goals of the Kunming-Montreal Global Biodiversity Framework (KM GBF).** African biodiversity is unique, so the loss of plants and animals on the continent will generally mean loss for the whole world (1.1.1). states bear national responsibility to deliver on the many multilateral environmental agreements to which they are parties (1.1.3), and in many instances coordinated efforts that go beyond national boundaries are important in supporting progress towards shared objectives.

■ **A2 | The European Commission's engagement in African conservation efforts is based on a long, shared history.** The European Commission and the European Union Member States are a supporter of conservation on the African continent (1.1.5). This is based on a collective understanding that international biodiversity commitments (1.1.3) are untenable without Africa's conservation success.

■ **A3 | Scientific advances have made the understanding of African biodiversity more accessible and evidence-driven, but significant knowledge and data gaps remain.** Even though our collective scientific understanding of African protected areas is greater than it has ever been (1.2.1; 2.1.2), large parts of Africa's biosphere remain poorly understood and underrepresented in international scientific databases (1.3.3; 1.3.4). The availability of fundamental data – such as the boundaries of protected areas or species occurrence records – is still piecemeal across large parts of the continent. Data gaps are major obstacles to evidence-based policy and planning, and their absence undermines efforts to assess the impact of interventions (1.2.2).

■ **A4 | Knowledge gaps require specialist expertise and local knowledge to effectively collect, mobilise, and curate data that supports informed and constructive policy decisions.** Present day scientific information is most often inadequate for the highest standards of impact evaluation of protected areas (1.2.2). In the absence of complete information (1.3.1), there is a risk to base policy decisions on fragmented understanding. While this may be inconsequential in certain instances, the absence of evidence may contribute to ineffective and potentially unwelcomed policy outcomes. Collecting, mobilising, and curating data requires strategic investment and partnerships (1.1.6). In the meantime, the integration of expert knowledge and local insights plays a critical role in evaluating how existing information applies to different contexts.



B |

The 'typical' African protected area does not exist, so considering local contexts and priorities is of foremost importance.

■ **B1 | The present-day system of African protected areas has grown significantly in recent decades and continues to evolve.** As the coverage of protected areas across African land- and seascapes has expanded (2.1.1), so too has the global understanding of their role and performance (2.1.2). However, this trajectory is not unidirectional: in several cases, protected areas have lost legal status, undergone boundary reductions, or been degazetted altogether (2.1.3). At the same time, many new protected and conserved areas have also been established, contributing to broader conservation goals and reflecting more inclusive governance models. As the network continues to grow and adapt, its overall configuration and functional attributes are being reshaped (2.1.4).

■ **B2 | Although there has been significant progress in the representation of species and ecosystems in the current network of African protected areas, gaps remain. The use of the best available geospatial biodiversity information could help prioritising protection shortfalls.** The KM-GBF Target 3 recommends that protected areas and other effective area-based conservation measures (OECMs) together encompass the rich variety of species and ecosystems, particularly sites of global significance (2.2.1). In recent decades, African protected areas increasingly represent unique ecological features on land (2.2.2; 2.2.3) and in the ocean (2.2.4; 2.2.5; 2.2.6), but large portions of globally significant biodiversity only exist outside the present protected area network. Closing these gaps in ecological representation is becoming increasingly difficult and will depend on spatially explicit systematic conservation planning.

■ **B3 | Protected areas in Africa serve a wide range of purposes, reflecting diverse ecological, social, and economic contexts. Policy and investment decisions are more effective when they consider these varying management objectives.** Not every protected area on the continent has an identical focus on protecting species and ecosystems. Instead, sites vary in terms of their management objectives: from strict nature reserves that exclude all but the least invasive human activities, to areas that allow the sustainable use of natural resources (2.3.1). Often, protected areas have multiple purposes alongside biodiversity conservation, such as preserving sites representing our shared World Heritage (2.3.2) and wetlands of international importance (2.3.3). Aligning interventions and investments to the specific management priorities of individual protected areas has frequently been associated with more effective outcomes.

■ **B4 | In Africa, the responsibility for establishing and maintaining protected areas is diverse and decentralised. Effective conservation hinges on understanding the needs and rights of a broad array of stakeholders.** The breadth of participants contributing to African conservation has expanded since the mid-20th century. Today, governments, the private sector, indigenous people, and local communities all bear some responsibility for Africa's protected areas (2.4.1; 2.4.2). Even government-run protected areas are embedded in human dominated landscapes, so they are not separated from the livelihood needs of local communities (2.4.3). Significant progress has been made in ensuring that the responsibilities, benefits, and costs of protected areas are shared in an equal and just manner. Continuing and building upon this progress could play a key role in supporting conservation efforts in the upcoming decades.



C |

Protected areas provide substantive opportunities for African and global societies.

■ **C1 | African protected areas provide a disproportionately large opportunity to mitigate the global effects of climate change and tackle the biodiversity crisis. Combinations of protection, land management, and restoration can enhance these benefits.** Ecosystems in Africa not only store large quantities of carbon, they also have the potential to remove excess carbon dioxide (3.1.1; 3.1.2; 3.1.3). Although Africa's equatorial forests hold significant potential for mitigating climate change (3.1.1), focusing exclusively on tree-covered ecosystems would be short sighted. For instance, the loss of peatland ecosystems would emit large quantities of carbon to the atmosphere. For now, African peatlands are more protected and less disturbed than global average (3.1.2), emphasising the need for their continued protection. Even though secondary forests and open ecosystems store less carbon than primary forests, their potential to remove carbon from the atmosphere should not be underestimated (3.1.3).

■ **C2 | Millions of Africans rely on the contributions from Africa's freshwater ecosystems, which can be preserved and enhanced by protected areas.** The continent's economy depends on water for domestic use, agriculture, and energy production (3.2.1). Despite covering just 3% of Africa, wetlands support livelihoods and provide habitat to globally significant migratory species (3.2.2). However, wetlands have declined by 35% in the last 50 years (3.2.2) and one-sixth of all African freshwater fish are threatened by extinction (3.2.1). The decline of freshwater ecosystems erodes their ability to feed into African economies and may affect the relations between states in shared water catchments. Therefore, protected areas could be leveraged to preserve rivers, wetlands, and catchment areas to ensure the continued supply of freshwater ecosystem services.

■ **C3 | Protected areas can become engines for sustainable economic growth and diversification, especially when supported with strategic investment.** Opportunities in the nature-based economy are growing rapidly, and protected areas can contribute to and benefit from these new opportunities. If sustainably managed, revenue from carbon market can close financing gaps across African protected areas (3.3.1) and tourist income can transform protected areas from net consumers to net contributors to public finance (3.3.2). However, not all parts of the continent have equal potential, so geospatial information is instrumental to identify areas with greater prospects to grow the nature-based economy (3.3.3; 3.3.4). These prospects could be unlocked through policies and strategic investments (3.3.5).



D |

Left unchecked, human-induced pressures threaten the value of protected areas for people and nature.

■ **D1 | The growing need for food and shelter is putting pressure on African protected areas. This fact supports strengthening further the link between protected area policies and development policies.** Human population growth and urbanisation can have negative impacts on biodiversity in protected areas and worsen human wildlife conflict (4.1.1). Livestock production (4.1.2) and cultivation (4.1.3) can also be detrimental to species and ecosystems in protected areas in some circumstances. Although those negative outcomes are not inevitable, there is evidence that social policies – like those focusing on education, gender equity and sustainable urban planning – can mitigate the impacts of population growth on biodiversity (4.1.1). Similarly, improving animal husbandry through agricultural knowledge, science, and technology could reduce the extent of grazing lands by mid-century (4.1.2), and agroecological landscapes could promote mutual positive outcomes for conservation and food security (4.1.3).

■ **D2 | Raw materials are inputs to the global economy and their extraction is adding pressure to PA although positive impacts are shown by the sustainable industrial practices.** The infrastructure needed to extract and transport raw materials is harmful to nature (4.2.1; 4.2.2; 4.2.3). However, economies of some African countries depend fundamentally on the income gained from exporting the commodities from mining (4.2.2) and forestry (4.2.3). Strategic investment and planning positively impact the retention of economic benefits while minimising negative ecological impacts (4.2.1), and sustainable extractive practices can lead to better biodiversity outcomes (4.2.3).

■ **D3 | The local ecological integrity of African protected areas is exposed to the negative impacts of global environmental change. Enhancing ecological resilience can dampen these adverse effects.** African protected areas are threatened by interacting global pressures, like climate change (4.3.1), invasive alien species (4.3.2), and land degradation and desertification (4.3.3). The global nature of these pressures is such that they cannot always be prevented through local protected area policies. In the face of novel and changing environmental conditions, encouraging management practices that enhance ecological adaptability and resilience could contribute to prevention.



E |

Conservation in Africa has learnt many lessons from the past and will continue to evolve in response to changing conditions and priorities.

■ **E1 | Although expanding Africa's network of protected and conserved areas is a global policy priority, at the same time it is important ensuring that existing protected areas contribute to the long-term persistence of biodiversity.** Ineffective protected areas that exist on maps, but do not differ from their surroundings in any meaningful way, are globally common enough to have their own term: paper parks. Management effectiveness depends on whether sufficient human, material, and financial resources exist and are being used for tangible conservation impact (5.1.1; 5.1.2). In line with KM-GBF Target 3, achieving positive impacts in conservation efforts involves attention to equity and justice (5.1.3). International standards – like the IUCN Green List (5.1.3) – recognise protected areas with effective management and governance, contributing to a broader policy focus on successful outcomes and positive shared learning.

■ **E2 | In the upcoming century, African protected areas will transition from preserving, to enhancing the state of species and ecosystems.** As the state of biodiversity continues declining, as per KM-GBF Target 2 the focus on conservation is shifting away from reducing the rates of biodiversity loss through conservation, to actively promoting ecological recovery through restoration (5.2.1; 5.2.2). However, ecological restoration can be costly, so geospatial information could be mobilised to prioritise areas where the benefits from restoration outweigh the expense. Although the benefits of restoration can generate large returns on investment (5.2.1), unlocking these returns will require the right blend of public and private investment.

■ **E3 | Conserving African biodiversity seems contingent to protected areas being integrated into wider, multi-use land- and seascapes.** Even if Africa meets ambitious protected area expansion targets, evidence suggests the long-term persistence of African biodiversity will depend on the sustainable management of unprotected territories. These unprotected territories are home to local communities with their own development needs and whose engagement in managing these land- and seascapes has proven successful in many circumstances and is strongly encouraged by the KM-GBF (5.3.1). Moreover, other effective area-based conservation measures (OECM: 5.3.2) provide opportunities for recognition of communities' contributions to tangible biodiversity outcomes. Strategic investment in African biodiversity is increasingly planned beyond national borders or the protected area boundaries, which suggest future conservation could have a wider regional focus (5.3.3; 5.3.4).

■ **E4 | The growth and development of African scientific institutions will further enable evidence-based protected area policies on the continent.** The value of scientific information for effective protected area policies is clear. The long-term sustainability of African protected areas, therefore, necessitates investing in supporting scientific institutions housed in the continent. While no single institution can deliver scientific insights to the whole continent, a network of regional and national organisations in North Africa, West Africa (5.4.1), Central Africa (5.4.2), and Eastern and Southern Africa (5.4.3), duly integrated with African academia, can serve biodiversity information and build local capacities for evidence-based protected area policies. Strengthening collaboration is key to improving the chance of success for these institutions.