NATURE FINANCE

Investing in Africa

Investing in Nature

Channelling Finance into Conservation and Restoration at Scale and the Emerging African Biodiversity Credit Landscape

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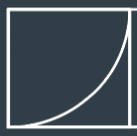
About NATURE FINANCE

NatureFinance is committed to aligning global finance with equitable, nature positive outcomes.

Our work is shaping the many dimensions, actors and change pathways at the nature-finance nexus to thrive and contribute to sustainable development.

How we make change:



Nature Markets: shaping principles-based nature markets by increasing awareness, innovations and better governance of nature-linked markets including nature credits and soft commodity markets.

Nature Risk and Alignment: Increasing the quality and quantity of nature data, risk assessment and transparency across financial markets to enable integrated assessments of nature-climate risks and impacts.

Sovereign Debt: Engaging market actors, and governing institutions in efforts to embed nature in the world's sovereign debt markets, including scaling the issuance of sustainability performance-linked sovereign bonds.

Nature Investment: Creating new nature focused investment opportunities that address climate, food security, equity and broader sustainable development goals.

Nature Crime: Extending the liabilities of financial institutions for nature outcomes, including the application of anti-money laundering rules to break the links between investment and nature crimes.

The research and opinions expressed in this report represent the views of NatureFinance.

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NatureFinance is a Swiss-based, international not-for-profit organisation dedicated to aligning global finance with more equitable, nature positive outcomes. We work to make nature count in global finance and the global economy. NatureFinance is active in advancing the use of data to disclose and manage nature related risks, developing impactful and equitable nature markets, and advancing financial innovation in the areas of sovereign debt and nature positive investment. We develop tools to help financial actors better assess and align their investments with nature positive outcomes and push for stronger costs and consequences where finance is failing to address nature liabilities.

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Acknowledgements

Investing in Africa: Investing in Nature maps and analyses the emerging landscape for biodiversity credits across the continent, and contextualises this emerging instrument to invest in nature within the larger emerging landscape of nature finance more broadly. It draws from interviews with just under 100 stakeholders, with special thanks to these stakeholders, and takes into account international market developments. The landscaping and stakeholder engagement was undertaken with the support of *Advancing Green* and made possible with support from *FSD Africa* and the *African Natural Capital Alliance* (ANCA), who continues to play such a catalytic role in developing the nature finance ecosystem across the continent.

The African Natural Capital Alliance (ANCA) by FSD Africa, is a leading pan-African platform of 70+ members who are committed to mobilising private sector finance to protect and restore Africa's natural capital. By fostering collaboration between investors, policymakers, and nature-based solution developers, ANCA aims to facilitate innovative financial mechanisms that unlock the value of Africa's biodiversity. As a catalyst for sustainable investments, ANCA promotes nature-based solutions, that not only contribute to environmental preservation but also generate long-term socio-economic benefits. Through thought leadership, capacity-building initiatives, and strategic partnerships, ANCA is committed to advancing Africa's transition towards a nature-positive economy.

NatureFinance wishes to thank the experts who inputted and guided this process in their role as Advisory Group members throughout the study, namely Malik Dasoo, Holly Dublin, Dorothy Maseke, Fanuel Massawe, Esther Netshivhongweni, Sue Synman, Devang Vussonji.

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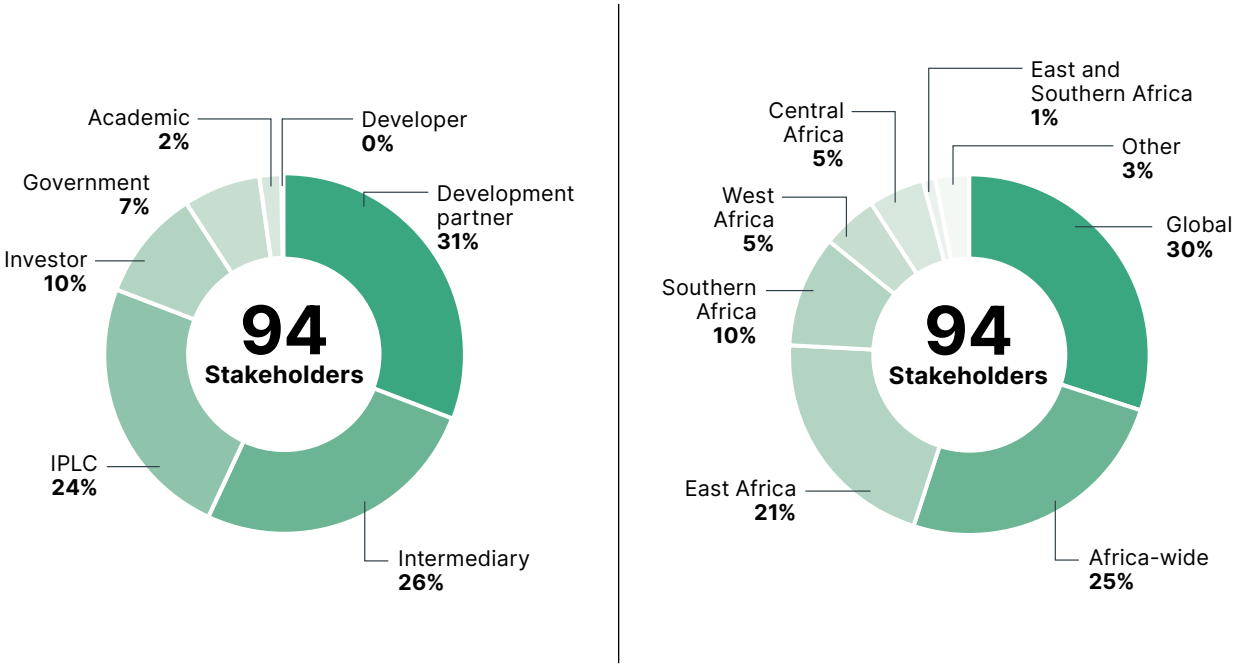
Executive Summary

Investing in Africa: Investing in Nature

Channelling finance into conservation and restoration at scale and the emerging biodiversity credit landscape

Investing in Africa: Investing in Nature explores the potential for biodiversity credits and related instruments to support investment in Africa's sustainable development at scale. It has been undertaken by *NatureFinance* in collaboration with *Advancing Green*, and with the support of *FSD Africa.* This landscaping analyses the emerging landscape for biodiversity credits (using a wide scope for this term) in Africa. It is informed by an exploratory mapping exercise covering numerous African countries and markets, including interviews with just under 100 stakeholders and taking into account international developments.

Exhibit 1:
Landscaping stakeholder interviewees



The 6-month interview period and the socialization period which followed, were marked by constant growth and evolution across this landscape, both in terms of emerging biodiversity credits and the nature finance ecosystem more broadly. ***Investing in Africa: Investing in Nature*** applies a broader definition of biodiversity credit for the purposes of this study given the lack of consensus on definition and methodologies worldwide, rather opting to showcase the innovative and impactful projects and pilots which see themselves as part of this market. Mapped here are over 30 biodiversity credit projects, mostly focused on territorial area, ecosystem robustness, and individual keystone or iconic species. In this way, and in contrast to carbon credits, the biodiversity credits mapped herein offer a unique range of investment opportunities across diverse African landscapes, ecosystems, and species.

The study reveals that the African experience with biodiversity credits is still in its early stages, much like in other parts of the world. It is largely characterised by experimentation with different forms of measurement,

engagement models, and the build-out of monetary transactions. Similar to the international context, there is to date no active market on the continent or even regionally, even while a number of voluntary sales have been made during this landscaping study.

The development of biodiversity credits across the continent are being driven by the growing necessity and desire to access private finance, in order to ensure more sustainable, long-term management of conservation and restoration efforts (whether private, community- or government-led). African biodiversity credits have also largely built on the experience of carbon markets to date, and currently show a co-dependency in price discovery, and possibly demand. The mapping illustrates that the hubs of activity in biodiversity credit markets, particularly dominated by Southern and East Africa, overlap with that of carbon markets on the continent.

Given the natural endowment of the continent, African developers are also playing an active market shaping role through building finance and revenue models, participating in international standards and methodology pilots, and actively shaping parameters and market guidelines in biodiversity credit fora, such as the Biodiversity Credit Alliance and the International Advisory Panel on Biodiversity Credits. Likewise through project development in collaboration and exchange with international conservation, philanthropic and academic bodies, they are shaping and growing scientific knowledge as well as shaping best practice. In tandem with the emergence of these products is an emerging nature-focused technology for project management, impact quantification, pipeline/data aggregation, transparency, accessibility, and market facilitation.

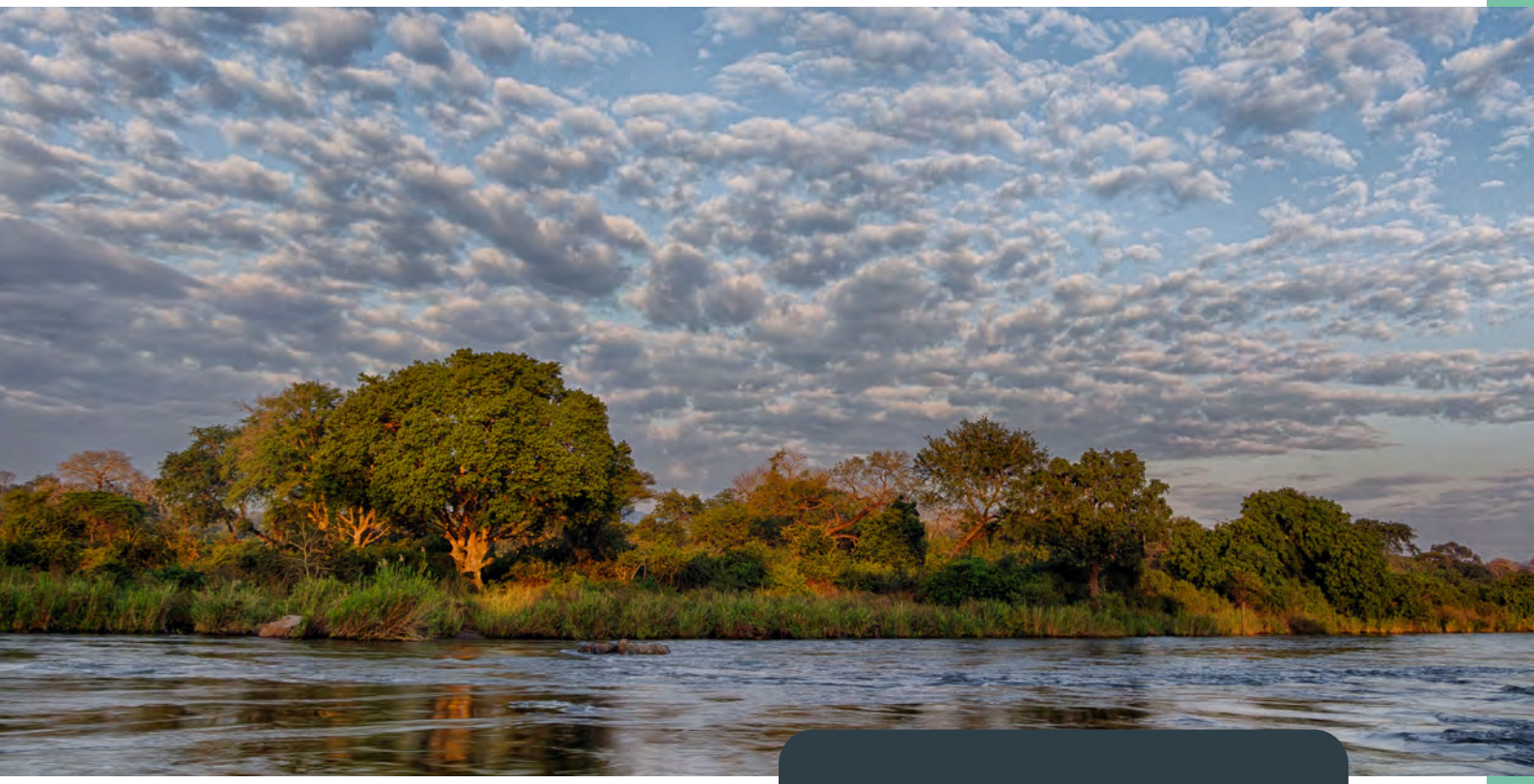
Investing in Africa: Investing in Nature therefore outlines ten key findings from this landscaping work, as well as presenting three market scenarios for the development of African biodiversity credit markets and the implications across the African and international nature finance ecosystem. The three possible scenarios for how these markets are likely to unfold include:

1	**A localised, community-led market development scenario**
2	**A globalised, market-based scenario**
3	**An orchestrated, policy enabled scenario**

While there is no policy, legislation, and/or regulation specifically covering biodiversity credits at the national or regional level across the continent, this study outlines both the relevant African and international policy landscape, noting enabling policies but also the capacity gaps across all market stakeholders. Finally, it makes six recommendations and recommended areas of interventions:

1	Quality of Biodiversity Credits in biodiversity improvement measures and social benefits
2	Market incentives and disincentives
3	Equitable Market Access
4	Fair Price for both nature-rich countries and nature's stewards, local communities and developers
5	Establishing regulations for transparency and efficient biodiversity credit trading
6	Building stakeholder voices into the core market design

Introduction



Biodiversity credits—which are often referred to as biocredits, and sometimes as biodiversity units or nature certificates—represent a measured or verified improvement in biodiversity outcomes and a quantifiable stewardship effort.

There is a surge in the practice of valuing nature, including biodiversity, in the global economy, through the development of what might be termed 'nature markets'. The *Taskforce on Nature Markets*[1] report defines a nature market, as *a market which explicitly values and trades nature*. The 'newest' of these are nature credit markets, which include but are not limited to carbon, biodiversity, soil and water credits.

As the final recommendations of Taskforce on Nature Markets cites, this development needs to be approached carefully; it can help in reducing the unsustainable use and depletion of nature and securing a fair deal for sovereign states and local stewards of nature, or it can fall prey to weaknesses of bad governance, exploitation and a lack of integrity. Avoiding the substantial inertia towards the worst case scenario and achieving high integrity and equitable nature credit markets that benefit people and the planet will take dedicated and intentional interventions from stakeholders across the African continent, as well as internationally.

Financing Africa's Biodiversity at Scale

Conserving and restoring nature's land and seascapes in ways that can be sustained over time requires a three-fold strategy of:

- Channelling adequate funding into conservation and restoration.
- Ensuring that nature's stewards, Indigenous Peoples, farmers, and local communities, are secure, incentivised, and well-resourced to carry out and maintain nature positive practices.
- Transitioning to a nature positive as well as a decarbonised, climate resilient global economy.

It is now well documented that nature based solutions can provide 37%, or a one third of climate mitigation efforts needed through to 2030 for a reasonable chance of holding warming below 2 °C.[2] This agenda has been institutionalised in the global target to protect 30% of the planet for nature by 2030 (known as '30×30') in the Kunming-Montreal Global Biodiversity Framework agreed at the Convention on Biological Diversity (CBD) at COP15. There are many levers that need to be pulled in advancing this ambitious agenda, which is also a pre-requisite to addressing critical mitigation and adaptation climate imperatives in Africa and beyond.

Progress is being made in redirecting global finance towards equitable, nature positive investments. Nature credit markets, for example, are increasingly moving beyond carbon to include biodiversity credits on the African continent, and globally. If governed and structured well, biodiversity credits can achieve the three linked aims of channelling investments into land and seascapes, incentivising behavioural shifts in market actors, and supporting the roles and rights of Indigenous Peoples and local communities (IPLCs). Achieving the potential of nature credit markets to drive a more sustainable and equitable future requires actively realigning our economic and financial systems to recognise and protect the value of nature and its stewards.

The African continent, a mega-biodiverse superpower, is well positioned to do this. It is home to more than a quarter of the world's intact ecosystems and iconic species, with the second largest carbon sink in the world. Africa's forests remove on balance 1.1 gigatonnes of carbon dioxide from the atmosphere annually—by 2019 estimates, this is equivalent to 20% of the EU's carbon emissions or 75% of African carbon emissions.[3] Africa also houses 65% of the world's arable land, 25% of the world's global biodiversity and 20% of global tropical rainforest area.[4] More than this an emerging shift from compensation to contributions means that continental actors are well placed to be leaders in nature-based methodologies and measurements for assurances, but also in regenerative finance and enabling equitable technology.

The interest in biodiversity and other credits, as with nature-related debt instruments, stems from the opportunities that they present to translate improvement and restoration investments in nature on the balance sheet. These instruments are an emerging means to enable and incentivise private financing to scale and flow more consistently toward nature positive and equitable outcomes. Biodiversity credits emerge from a longer history of attempts to do this and in the context of a shifting and urgent geopolitical climate to realise this at scale.

Natural capital frameworks and practices are already underway in South Africa, Botswana and elsewhere, with the Africa Natural Capital Accounting Community of Practice providing a regional learning and knowledge platform bringing together professionals from governments institutions, nongovernmental organisations and academia that are interested in or working on Natural Capital Accounting (NCA) across the continent.[5] The opportunity to leverage this natural capital to underpin a nature positive development model is well within deployment.

One near term opportunity will be through the Brazilian G20's Bioeconomy Initiative[6] which has the objective of deepening cooperation in exploring the bioeconomy as an enabler for sustainable development.[7] The Brazilian Presidency's emerging vision of a bioeconomy is one where natural resources are coupled with emerging technologies to create sustainable, high value-added products and services, thereby underpinning a nature positive and sustainable economy, where nature's fundamental value is recognised.

Given that the 2024/2025 G20 Chair will be South Africa, there is a unique opportunity for nature-rich countries, especially with the African Union Commission (AUC) taking its permanent seat for the first time, to chart a new nature positive development model and reset international economic rules governance frameworks.

The Role of Nature Credits

Financial instruments can form the basis for entirely new markets as well as new asset classes, and this is already the case for various forms of nature credit markets.[8] It is crucial to understand how nature credit markets and finance mechanisms are developing in nature rich countries, and critically across Africa, a nature rich continent. If these markets are to produce equitable outcomes, they need to be shaped by nature rich states and nature's stewards.

Included within the broad basket of nature credits are both carbon credits and biodiversity credits. Carbon credits are inherently linked to nature by virtue of nature's capacity to store carbon. Voluntary carbon markets are large, and, until recent scandals, growing with about US$2 billion traded globally in 2022.[9]

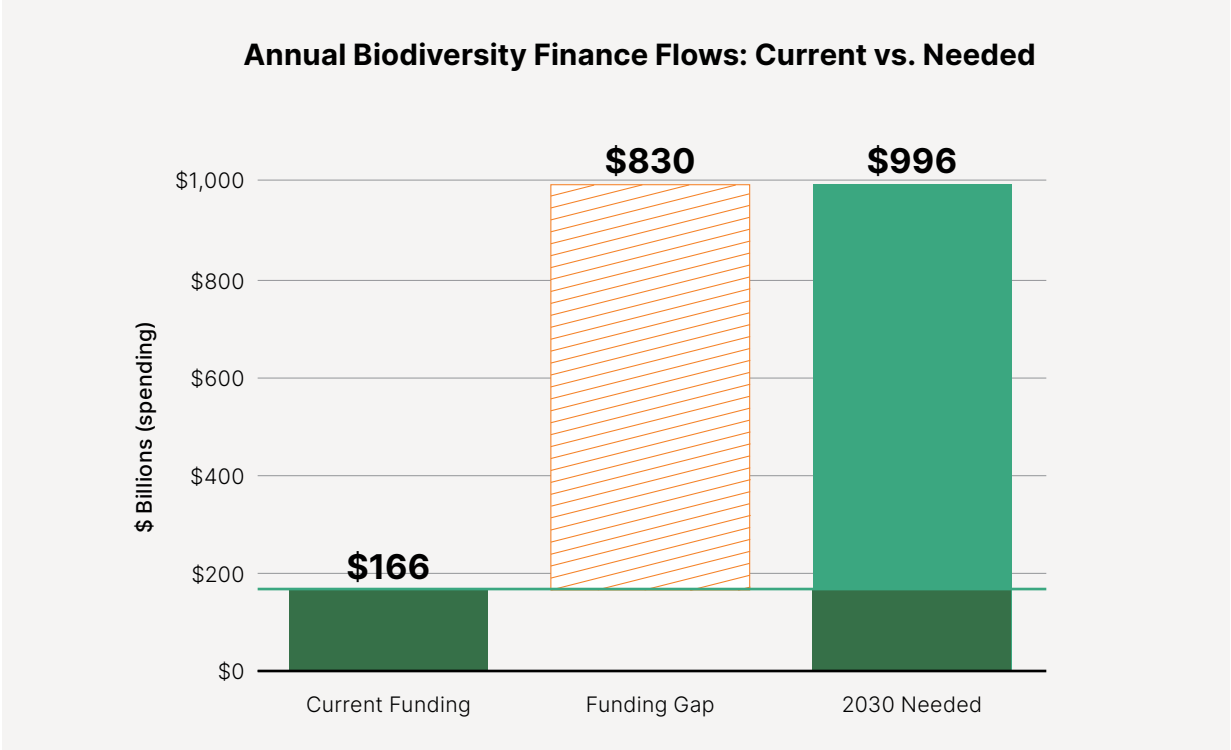
On the other hand, while there is still only a negligible level of trading around the world at present, emerging biodiversity credit markets are of growing international interest and attention. Unlike carbon, there may be many types of biodiversity credits and distinct types of markets, including offsetting and insetting, with and without secondary trading, and linked to policy drivers or entirely voluntary. In short, while carbon credits represent carbon sequestered, and therefore climate outcomes, biodiversity credits represent biodiversity gains, and therefore nature outcomes.

They present a financial opportunity to invest in long-term, results-based payments for conservation or restoration initiatives, and hold the potential as a non-traditional revenue stream, and current levels are estimated at only US$2–8 million.[10]

Investing in nature has existed in many forms in Africa in the past, such as through REDD+, ecotourism or nature-positive farming. Nature credits should therefore be seen as one part of this long history of nature-based investments rather than an entirely new concept. Presently, voluntary carbon markets, although rightly controversial, are rapidly growing across the continent, with projects covering 10% of Zambia and Liberia, among others.[11] Evidence and trends point to better (and improving) prices and stronger demand in African countries that have a clear and enabling carbon frameworks, policy and regulations, as well as for those projects which demonstrate community and biodiversity outcomes.[12] The trend toward Climate, Community and Biodiversity Standards (CCB) carbon credits, where demonstrated community and biodiversity outcomes fetch higher prices, could be a driver for both markets.

Target 19 of the Kunming-Montreal Global Biodiversity Framework cites US$200 billion per year in funding for nature, spanning public, private, and international sources with a specific allocation for flows from developed to developing countries: US$20 billion per year by 2025 and at least 30 billion per year by 2030.[13] To meet the 30X30 goal, Africa alone needs approximately US$20 billion to US$25 billion annually. Managing the 1,812 national parks in Africa, which span 3.1 million square km, requiring about US$10.2 billion each year.[14] Failing to bridge this gap could have severe implications for biodiversity conservation, with concomitant failure to meet other targets.[15]

Exhibit 2:
The scale of the challenge and the role of the private sector for biodiversity-positive investment[16]



Currently only 17% of total funding for biodiversity comes from private finance[17]—if the biodiversity loss and climate crises are to be met with the necessary urgency to mitigate and adapt to the worst of their effects, private financing needs to be urgently scaled and deployed to conservation and restoration efforts on the ground. Even this takes a narrow view, with the Kunming-Montreal GBF calling for the alignment of all global financial flows with nature-positive outcomes if we have any hope of addressing the climate and biodiversity loss crises.

Many respondents in the Africa landscaping study noted that the economic shocks and abrupt revenue interruptions of the recent pandemic and post-pandemic years have driven many to investigate private financial flows to sustain conservation and restoration efforts. It is also increasingly recognised at international and local levels that private financial flows need to scale rapidly to meet the scale of the twin climate collapse and biodiversity loss crises.

Biodiversity credits and the similar but differently named instruments mapped in this study—within a larger ecosystem of evolving nature finance and nature-based solutions—represent an opportunity to make direct investments in nature as an asset, across landscapes, species and ecosystems as well as in the efforts and livelihoods ensuring those outcomes. As a financial instrument, they offer an opportunity to guide behavioural change in the private sector, allowing businesses to make investment into biodiversity and equitable nature positive projects, facilitating a path towards a just and positive, and not just a negative, nature impact.

Exhibit 3:
What are biodiversity credits?

What are biodiversity credits?

Biodiversity credits are financial instruments that are traded, represent, and price a measured and evidenced based unit of biodiversity outcome that is durable, often alongside other things such as benefits to nature's stewards and carbon and biodiversity's productive value. These units signify verified biodiversity outcomes and quantifiable stewardship effort, integrating transaction costs and collateralisation potential, thus transcending traditional market mechanisms to create new opportunities. We have decided to keep this definition broad for the purposes of this study given the lack of consensus on definition and methodologies worldwide, rather opting to showcase the innovative and impactful projects and pilots which see themselves as part of this market.

These credits can compensate for any of the following:

- **Conservation**—Conserving biodiversity at current levels or avoiding further loss of in areas currently under threat of degradation;
- **Restoration**—Increasing levels of biodiversity in previously degraded areas;
- **Supporting existing efforts**—Continuing to maintain high levels of biodiversity in areas that do not face near-term threats to degradation and where existing programs are already in place to maintain biodiversity levels.

Biodiversity credits represent payments for nature and biodiversity-positive outcomes, and they typically integrate transaction and operational costs into their pricing. Given the diversity of biodiversity across landscapes and habitats, biodiversity credits can represent a uniquely wide variety of nature-positive outcomes, unlike carbon markets to date.

Whereas carbon credits represent climate outcomes, biodiversity credits represent biodiversity outcomes. While for carbon credits, there is a single, fungible unit of measurement (i.e., tons of carbon dioxide), with biodiversity credits there is no single unit of measurement, given the diversity of biodiversity across ecosystems.

Biodiversity credits can serve different purposes:

Investment: biodiversity credits can generate financial flows that are invested in nature conservation and restoration.

Business behaviour: biodiversity credits can make biodiversity destruction expensive, and shift business behaviour towards nature positive products, services and processes.

Local ownership and benefit sharing: biodiversity credits can reward nature's stewards, Indigenous Peoples and local communities (including farmers) for their conservation work, both economically and through reinforcing their rights.

In general, a number of factors are driving and will continue to shape the demand for biodiversity credits, notably:

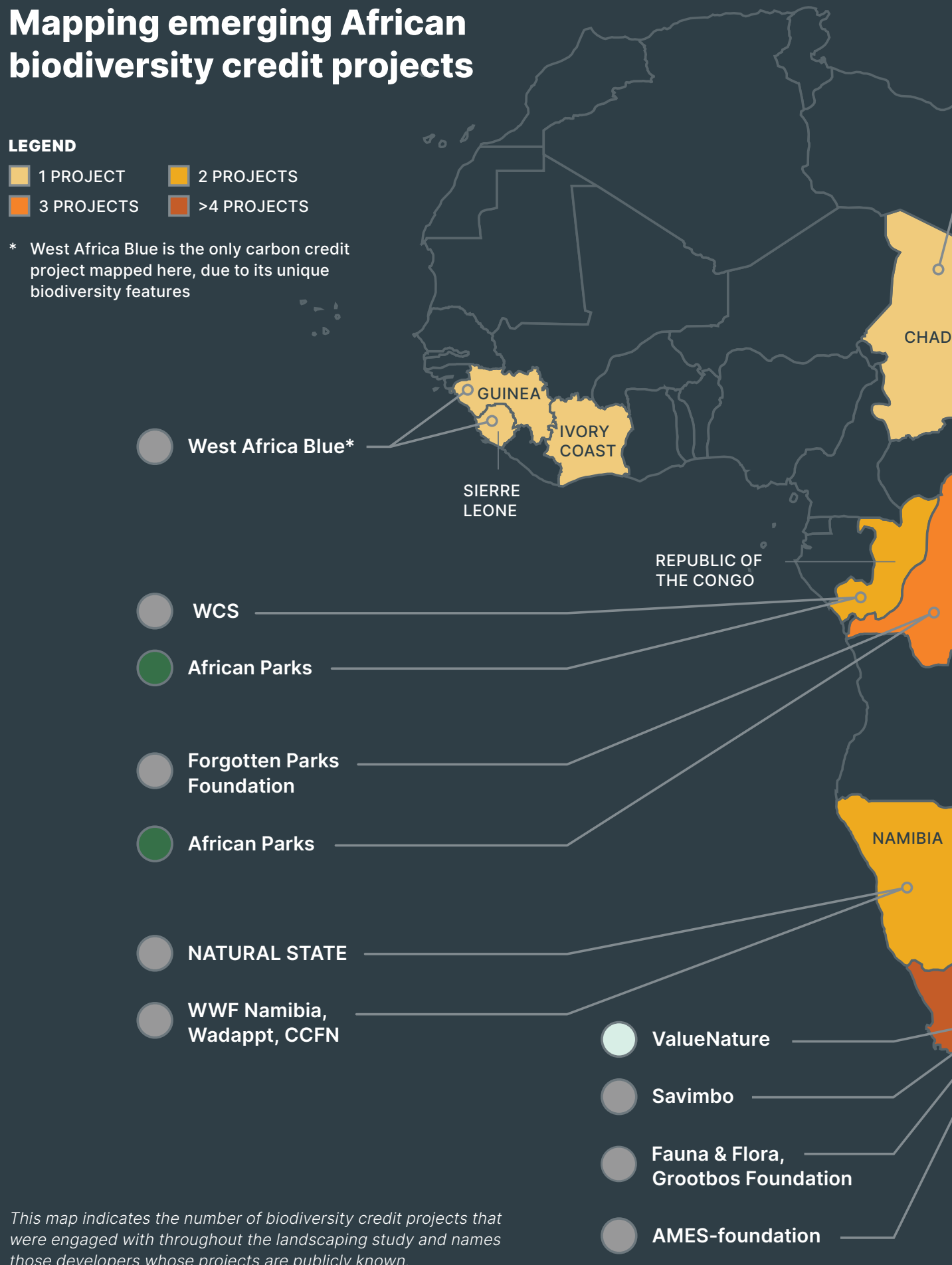
Exhibit 4:
Drivers of demand for biodiversity credits

- **Policy incentives, regulations and frameworks:** tax regulations, trade regulations (such as CBAM), credits linked to requirements to invest in nature conservation and restoration as a compensation for damage done.
- **Productivity-enhancing and asset-based investment:** credits linked to investments in nature that enhance a company's productivity and usually increases associated economic benefits.
- **International instruments:** credits linked to operationalising the Kunming-Montreal Global Biodiversity Framework, Article 6.2, as well as disclosure frameworks including SBTI, TCFD and TNFD.
- **Bio-enhanced carbon credits:** increased demand for nature-based carbon credits with specific, verifiable biodiversity and social outcomes, often assuring 'no damage' and sometimes with designated 'net gains'. This is partially driven by an acceleration of nature-based solutions trading volume and higher prices for these and other projects with non-carbon environmental and social benefits, such as clean cookstoves and water purification devices.
- **Voluntary contributions:** credits linked to voluntary action by private or public actors in investing in nature conservation and restoration.

At present, biocredit markets in Africa and elsewhere are at a nascent stage of development. The landscaping analysis demonstrates an emerging, product-driven landscape of diverse biodiversity credit pilots and early-stage projects under development across Africa, particularly in Southern, East and Central Africa. There are not yet major national or regional supply side efforts to align governance, MRV and benefit-sharing mechanisms around these biocredit products at scale. Likewise, there are not yet substantial policy-induced demand incentives and frameworks at the national, regional or international level to generate scaled and predictable financing for biocredit products. On both the supply and demand side, there are significant opportunities to develop biocredit markets to channel private finance into conservation and restoration efforts, equitably reward nature's stewards, and build out the broader enabling nature finance ecosystem.

Exhibit 5:

Mapping emerging African biodiversity credit projects



This map indicates the number of biodiversity credit projects that were engaged with throughout the landscaping study and names those developers whose projects are publicly known.

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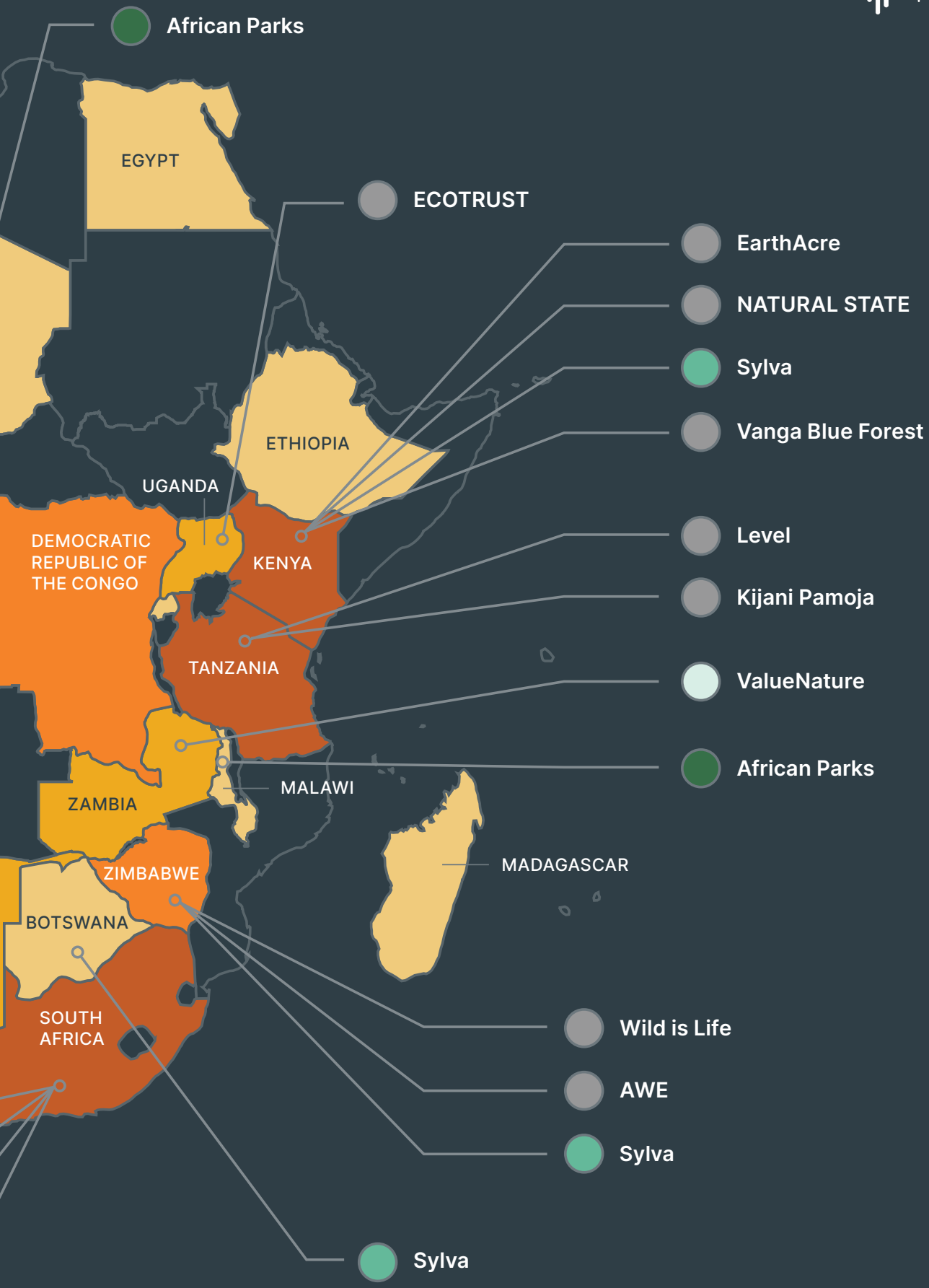
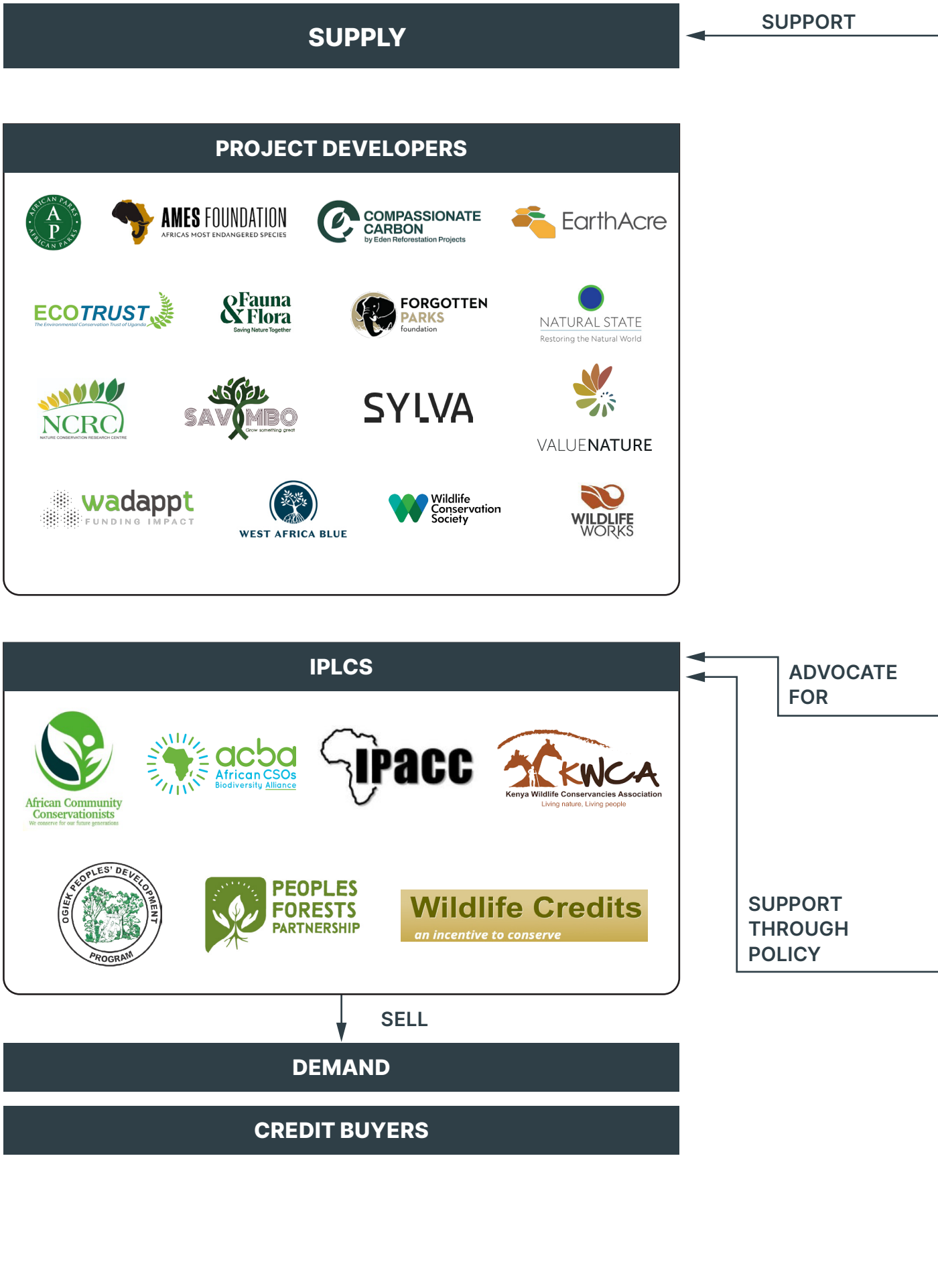


Exhibit 6:
Emerging African landscape of biodiversity credit actors



CATALYSTS

DEVELOPMENT PARTNERS

African Natural Capital Alliance
AMES Foundation — Africa's most endangered species
Conservation International
IUCN
The PEW Charitable Trusts
The Nature Conservancy
UNU INRA — Institute for Natural Resources in Africa
World Resources Institute
WWF

INTERMEDIARIES

airimpact
The African Climate Foundation
African Community & Conservation Foundation
The art of forests
AXUM
cafe — Consortium of African Funds for the Environment
Conservation Alpha
conserve
EARTHLY
Eastern Africa Alliance On Carbon Markets And Climate Finance
JSE
The Landbanking Group
LEGADO
Sovereign Nature Initiative
Sustainable Finance Coalition
VCMI — Voluntary Carbon Markets Integrity Initiative

SUPPORT THROUGH POLICY

COLLABORATE AND ADVICE

ACADEMICS

CORDIO East Africa
ALU School of Wildlife Conservation

INVESTMENT ENABLERS

Banque Africaine de Développement / African Development Bank
African Development Fund / Fonds Africain de Développement
Afreximbank
BIRA
creditnature
Climate Asset Management
FMDQ
GFANZ Glasgow Financial Alliance for Net Zero
gef global environment facility — Investing in our planet
wadappt Funding Impact
Wildlife Conservation Society

SUPPORT THROUGH POLICY

GOVERNMENTS

CoEB
Forestry Commission
Government of The United Republic of Tanzania
I.P.G.

SUPPORT THROUGH POLICY

For a fuller picture of how the landscape is developing, these selected case studies from the over 30 projects mapped, illustrate the range of products, methodologies, and platforms under development across a range of ecosystems and species, including highlighting where first sales have taken place, namely of WWF Namibia, Wadappt and CCFN's nature certificates, EarthAcre and African Parks and the Landbanking Group's VNU, announced to date.

VALUENATURE

ValueNature

BIODIVERSITY CREDIT FACILITATOR AND AN AFRICAN METHODOLOGY

The first African biodiversity credit framework ValueNature is playing a regional market shaping role, developing key partnerships across the continent and internationally, actively helping develop the Biodiversity Credit Alliance, sitting on the International Advisory Panel on Biodiversity Credits and being a partner on BIRA (see insert below). ValueNature has partnered with Biometrio.earth to leverage digital MRV technology tools like bioaccoustics to ascertain which species are present in their project locations.

ValueNature has now partnered with CreditNature and they have aligned their investment frameworks, which involves the upfront investment into nature based projects, with a return on investment being the ecological gains presented as nature credits, via Nature Investment Certificates (NICs). The gains are calculated using an Ecosystem Condition Index, which CreditNature have recently had accredited by Accounting for Nature, the first of its kind. The returns can also include carbon offsets or even potential water certificates, which are tracked and reported through a dashboard. The framework budgets over a minimum 10-year period to establish the baseline cost of its projects, determining the benefits for custodians, whether governmental or IPLCs, and forming the basis for generating ecological gains. As such, owning a Nature Investment Certificate (NIC) signifies a 10-year commitment to land conservation or restoration with each NIC representing the conservation or restoration of one hectare of land.

To scale the market for nature credits, while ensuring benefits for IPLCs, ValueNature emphasizes the need to develop claims mechanism for buyers and establishing digital frameworks and standards to enhance transparency and reduce costs, for example using Web3 technologies. Moreover, ValueNature promotes the use of Gender Action Learning Systems (GALS) as best practice to empower communities to shape project development according to their community visions and goals. And though the company has team members in Africa, and supports Africa-based projects, ValueNature is also working with CreditNature and Biometrio.earth on projects in other geographies, demonstrating the broad potential reach of their aligned methodologies and technologies.

ECOTRUST
The Environmental Conservation Trust of Uganda

ECOTRUST

CREATING GREEN CORRIDORS WITH SMALL-HOLDER FARMERS AND THE POWER OF ALTERNATE LIVELIHOOD CREATION THROUGH CREDITS

In Uganda, ECOTRUST is conducting a pilot in the Albertine Rift region of Uganda, under Plan Vivo's proposed framework for biodiversity credits.[18] The project builds on ECOTRUST's seventeen years of working in carbon markets under the Plan Vivo standard designed for smallholder farmers. The project—which is supported largely by US-based philanthropy—connects green corridors with smallholder farmers and local communities, and uses the international standards for identifying Key Biodiversity Areas (KBA). One key objective is to support protection of the Eastern Chimpanzee which is under threat due to habitat fragmentation caused by deforestation.

WWF Namibia, Wadappt, and CCFN

MARRYING IPLC EXPERTISE AND NATURE-TECH

Wadappt tackles conservation finance by creating a "nature market" platform. This online platform connects buyers and sellers of 'nature digital assets' representing verified conservation efforts/ outcomes achievd in the field. Wadappt prioritizes the role of Indigenous Peoples and local communities (IPLCs). They leverage data collected through various tools (handheld devices, camera traps, etc.) to create verifiable conservation outcomes/certificates using sophisticated blockchain technology.

This innovative approach reduces verification costs and empowers IPLCs by generating revenue streams through the sale of tradable Nature Certificates. The platform is live and successfully conducted its first certificate sale in late 2023, with further sales being recorded into 2024, notably from financial instutions and other large corporates.

Partnering with established conservation organisations like CCFN, and WWF Namibia, Wadappt is developing a new Stewardship Certificate with a view of deploying it across 16 million hectares of community conservation land in Namibia. Their vision extends beyond, as they engage with stakeholders across Africa, aiming to empower communities and foster the growth of biodiversity credit markets.

African Parks and The Landbanking Group

VERIFIABLE NATURE UNITS, A NEW CURRENCY FOR NATURE

African Parks, in collaboration with The Landbanking Group, is piloting the *Verifiable Nature Unit (VNU)*, an outcomes-based financing mechanism for nature, developed by African Parks and based on the experience of managing a portfolio of protected areas in Africa almost the size of the UK. The primary objective is to incentivise nature conservation and restoration as a viable and competitive form of land use and is specifically designed to be applicable across all ecosystem types. Each VNU represents 1 km^2 of nature that is maintained in its current state or transitioned in an improved state, from one year to the next, defined by:

- **Descriptors:** A new indicator compounds both ecosystem integrity (the management of pressures) and the presence of key indicator species groups chosen to reflect functional biodiversity into one unit. Water holdings capacity and carbon stocks are incorporated as co-benefits.
- **Technology:** A new scalable and increasingly automated MRV approach is employed that standardises the way in which in-situ data is generated, uploaded, analysed and employed tapped to train predictive machine learning models, doing justice to Africa's large expanse and high costs of creating normalised in-situ data.
- **Outcomes:** Nature funding is shifted to an outcome-based model in order to crowd in a new cohort of outcome-based funders (OBFs) that requires higher quality safeguards. Payments are made for a Verifiable Nature Unit (VNU).
- **Assets:** VNUs are priced at the annual audited cost to maintain a square kilometer in its current state or transition it to an improved state. The VNUs represent a legal transferable right indexed to biophysical quantum of natural capital that is constantly monitored on a plot of land.
- **Registry:** The VNUs are held in custody in a tamper-proof registry and accessible through a digital platform that continuously provides information on the plot (e.g., recent species sightings) and the wider landscape.

The first VNUs worth 150,000 Euros have been sold, with a commitment for purchase of another US$600,000. African Parks plans to expand their offering to three parks around the Congo Basin and Lake Chad between 2024 and 2025.

Grootbos Foundation and Fauna & Flora

PRESERVING AND PROACTIVELY PROTECTING AREAS OF HIGH ECOLOGICAL IMPORTANCE.

In South Africa, the Grootbos Foundation in collaboration with Fauna & Flora joined the piloting scheme for the Plan Vivo Nature Standard, leveraging their decades of experience in biodiversity conservation, their strong connections with government entities, their history of community partnership and development, as well as their expertise developing and managing carbon projects. Grootbos Foundation is a founding member of the Walker Bay Fynbos Conservancy (WBFC), and has driven the expansion of land under conservation to over 22 200 hectares.

The Grootbos Foundation has also recently initiated a project to connect WBFC to Agulhas National Park, an area of over 110 000 hectares. The biodiversity credit pilot project, while active on a relatively small Foundation-owned property, is exploring biocredits as a potential avenue to sustainably fund conservation across this landscape, as well as to create a demonstrable model that can assist projects across the greater Cape Floristic Region.

The region is internationally recognised as a biodiversity hotspot. It represents less than 0.5% of the area of Africa but is home to nearly 20% of the continent's flora. The outstanding diversity, density and endemism of the flora are among the highest worldwide. Some 69% of the estimated 9,000 plant species in the region are endemic, with 1,736 plant species identified as threatened and with 3,087 species of conservation concern. This biome relies on carefully controlled fire regimes for seed germination to maintain biodiversity, but the area is under threat by climate change and invasive species which are displacing local flora.[19]

Wildlife Conservation Society (WCS)

HIGH INTEGRITY FOREST INVESTMENT INITIATIVE

WCS spearheaded the development of this initiative, to complement existing credit schemes such as REDD+ which does not target well-conserved forest systems. Each HIFOR unit represents one hectare of well maintained, high integrity tropical forest, and signifies ongoing carbon dioxide removals, maintenance of high levels of biodiversity, and positive impact on IPLCs. Their initial pilot is under development in Brazil, and a second pilot is being developed in the Republic of Congo, which WCS signed an MOU for with the Government of the Republic of Congo at COP28.[20] The units may provide flexibility in the clients they can serve, given both the climate and biodiversity impacts generated by the projects.

AMES-foundation

LAUNCHES A HABITAT FUND TO DRIVE FINANCIAL INVESTMENT

AMES-foundation are launching the AMES-habitat fund, which gives private investors real financial returns while contributing to habitat expansion, biodiversity preservation and community empowerment. The habitat fund will initially layer biodiversity credits alongside ecotourism and carbon credits to generate investor returns alongside measureable biodiversty outcomes. However, as the biodiversity credit market matures the goal is for these nature units to evolve into a standalone investment product used to expand protected habitat in Africa. A framework is being developed in collaboration with The Landbanking Group to create verifiable nature units, utilizing a methodology consistent with the one employed by African Parks' VNU. These measure the integrity of an ecosystem through indicator species and ecosystem threats. A strong focus is placed on creating scaleable measurement techniques with technology.

BIRA

INVESTING IN THE PIPELINE OF BIODIVERSITY PROJECTS AND CONNECTING MARKET STAKEHOLDERS

FSD Africa, Axum, and the African Leadership University founded the Biodiversity Investments Researcher & Accelerator (BIRA). It is Africa's first accelerator for biodiversity credit projects which now represents a Coalition of members working to provide expertise on biodiversity and ecosystem measurement, biodiversity project assessment, and data collection. One of the primary goals of the accelerator is to increase transactions for biodiversity impact, including the identification of a potential pipeline of companies, working closely with individual companies or projects to improve the investment proposition of the project, and engaging with potential buyers so as to facilitate pioneering investments in nature-positive solutions. The Biodiversity Investments Researcher & Accelerator (BIRA) Coalition, comprising ALU School of Wildlife Conservation, Axum, FSD Africa, CreditNature, ValueNature, Baotree and XILVA, unites diverse expertise and has come together to develop a Buyers' Club for the nature sector in Africa. The Buyers' Club will launch for an initial period of one year aimed at kickstarting investable nature restoration and nature-based carbon projects, and will focus on generating Nature Investment Certificates (NICs) that are issued by CreditNature to unlock payments for positive ecosystem impacts, in collaboration with local communities to maximise benefits. These certificates finance project activities and are a commitment to ecosystem restoration and conservation, offering a structured way for corporations and investors to engage meaningfully with nature and its custodians.

AirImpact

THE POWER OF AGGREGATING DATA AND C REATING TRUST MECHANISM AT THE NEXUS OF FIN-TECH MEETS NATURE-TECH

AirImpacta technology company and carbon project developer based in Tanzania, aims to connect different end-to-end monitoring tools into one seamless technology platform with the hope of creating a platform and tool to allow the market to scale, while also providing more transparency for buyers and investors, thereby increasing confidence.

The platform includes a suite of technology to support other, small-scale reforestation and conservation project developers across the continent. One aspect includes Myplanet, a software solution for peer-to-peer donations to conservation projects. Also under development is an advanced carbon calculator and AI-based reporting tools, integrated in an end-to-end platform to use in project development.

The company is also working to incorporate biodiversity measurement and monitoring in its platform, acknowledging the trend of projects to focus on high biodiversity and community outcomes. For this, they are partnering with the University of Verona, and testing approaches, which they hope can be scaled to numerous small-scale reforestation projects across Africa.

The organisation also has a major focus on knowledge sharing and replication of best practices across other projects. At COP28 they announced the Great Green Action initiative which aims to support with standards, aggregation, and capacity building. The objective is for the software to make it easier, more accessible and less capital intensive for communities to manage the active phase of projects, levering largely existing technology such as mobile phones within an easy-to-access platform.

West Africa Blue

DRIVING PRIVATE FINANCE INTO MANGROVES AND MARINE ECOSYSTEMS

West Africa Blue is developing blue carbon projects focused on coastal mangroves, under Verra's Verified Carbon Standard (VCS) VM0033 Methodology for Tidal Wetland and Seagrass Restoration, and also aiming for CCB registration.[21] Their initial project is based in Sierra Leone, with a second project under development in Guinea, as the company aims to improve livelihoods in the region while also addressing climate change.[22]

The Sierra Leone project in the Sherbro River Estuary builds on a relationship of over 10 years, with a focus on mangroves. To ensure sustainability of impacts, community development is a key feature of the project along with the restoration activities. As part of the FPIC process, workshops are held in over 120 villages on topics such as climate change and the various ecosystem services provided by carbon credit projects.

Within projects, West Africa Blue underscores the importance of developing and implementing Sustainable Resource Management Plans with communities, carving out roles for members of all the key stakeholder groups in the project. They facilitate training and capacity sharing to reduce pressure on mangrove firewood by co-developing fuel-efficient cookstoves with the communities, as well as developing wood lots as an alternative for timber, and identifying additional sources of income, such as oyster harvesting. West Africa Blue also hire extensively from the local communities across chiefdoms for their projects, to support both outreach as well as monitoring and evaluation of the project.

For biodiversity measurement West Africa Blue is using eDNA, to identify species that may otherwise have been difficult to find. Their initial reporting identified three vulnerable IUCN Red List species: Sooty Mangabey, West African Manatee, and Madeiran Sardinella. They are also doing classic biodiversity surveys with transects and camera traps and are also leveraging the local community's knowledge of species. This project builds on earlier blue carbon examples such as the Mikoko Pamoja project and the Vanga Bay projects on the southern coast of Kenya which conserve and restore hundreds of hectares of land under the Plan Vivo standard.[23]

On a larger scale, Blue Forest is a project developer with mangrove projects in 10 countries, the biggest of which is called MozBlue, a project that aims to offset 15 million tons of carbon emissions in 20 years, with plantings across 140,000 hectares.[24]

Baotree

MRV AND DATA TRACKING USING MOBILE TECHNOLOGY

Recognising the need to engage with local communities and the challenges of data collection in the field, Baotree developed a tool that project stakeholders can use to gather and analyse data on social, environmental, and climate aspects of projects. Their platform includes a mobile app that can be used to record text, photographic, and geolocation data (both online and offline), as well as a dashboard that shows summary insights across projects and enables users to customers data entry requirements for the app.

These types of platforms have the potential to bridge on-the-ground data collection with project monitoring and evaluation needed for scaling of efforts across portfolios of projects. The company, which was officially launched in 2020, partners with conservancies, private companies, and NGOs. These include the Borana, Ol Kinyei, Selenkay and Loisaba conservancies in Kenya, in addition to further programs in South Africa, Zambia, Brazil and India.

Drawing Market Insights from the Landscaping

The study reveals that the African experience with biodiversity credits is still in its early stages, much like in other parts of the world. It is largely characterised by experimentation with different forms of measurement, engagement models, and the build-out of monetary transactions. Similar to the international context, there is no commonly accepted unit, standardisation in the market, clarity on the source(s) of demand, or significant sales and secondary trading, apart from nature-linked carbon credits and offsets.

African pilot projects are facing challenges comparable to those experienced internationally, although some countries have made more progress. The hubs of activity in biodiversity credit markets overlap with those of carbon markets on the continent, with trends pointing to better prices and stronger demand in African countries that have clear and enabling carbon frameworks, policies, and regulations.

Ten Key Landscaping Study Findings

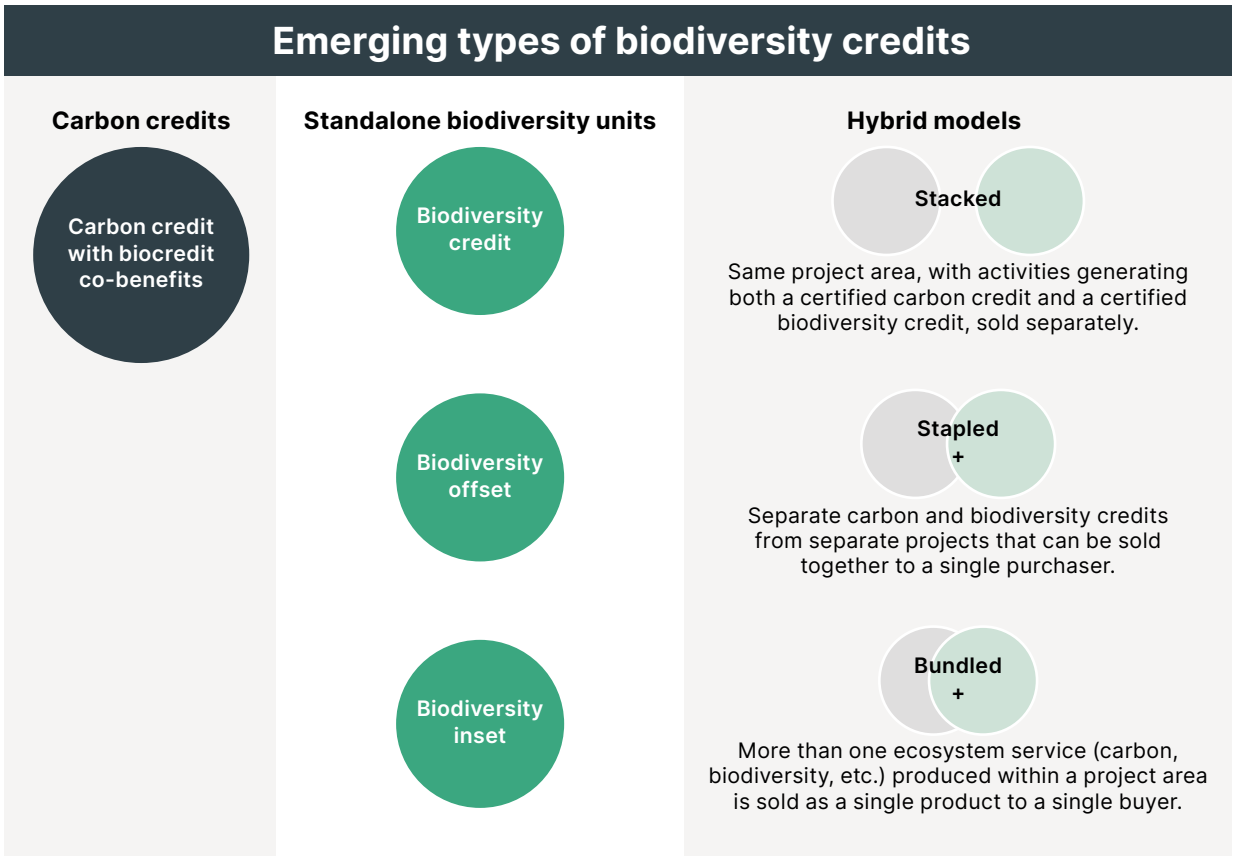
1 The development of biodiversity credits across the continent are being **driven by the growing necessity and desire to access private finance, in order to ensure more sustainable, long-term management of conservation and restoration efforts** (whether private, community- or government-led).

2 The biodiversity credit developers interviewed for this study tend to be developing **products based on measures covering three domains: territorial area, ecosystem robustness and individual keystone or iconic species**.

3 Unlike carbon credits, **biodiversity credits offer unique opportunities to invest in a diverse range of African landscapes, ecosystems and species**, outside of those traditionally used to demonstrate carbon capture (as seen in the projects mapped here).

4 That being said, **African biodiversity credits have largely built on the experience of carbon markets to date, and currently show a co-dependency in price discovery, and possibly demand**. Most developers are building finance models based on stacking, stapling and bundling biodiversity credits with carbon credits until demand for the former has grown. The mapping illustrates that the hubs of activity in biodiversity credit markets, particularly dominated by Southern and East Africa, overlap with that of carbon markets on the continent.

Exhibit 7:
Emerging biodiversity credit types and market product presentation[25]



5 **Debates around offsetting and environmental compensation and its role in stimulating demand in these and related markets has by no means reached consensus**, either locally or internationally. Many are of the view that allowing biodiversity credits to be eligible for offsetting (such as the no net loss/ net gain legislation, as well as compliance regulation in Colombia for example) is the only way to stimulate and drive private investment, at scale, into these markets. However, with offset incentives, come concerns of equivalence[26] as well as integrity[27]. Which is to say, that if policymakers and financial sector regulators decide to undertake offsetting regulations to stimulate demand, this must be accompanied by clear regulation and oversight, embedded within current financial reporting and not removed from it. While this remains an understandly contested issue, it has been acknowledged by many stakeholders that at this emergent period, we will need both compliance and voluntary approaches and that offsetting remains the dominant compliance market mechanism, as can be seen in the local and international policy examples provided above. *See Exhibit 15: Comparison of existing and pipeline methodologies on biodiversity credits being piloted in Africa* for the position each mapped methodology has taken on this.

6 Many product proponents are often working in partnership with international conservation, philanthropic and academic bodies, and **are playing an active market shaping role in international methodology pilots and Biocredit fora**.

7 To support biodiversity credit project developments, **new nature-focused technology is rapidly emerging to manage projects and quantify their impacts**. Platforms (including those with AI and fintech) under development are seeking to offer pipeline and data aggregation, transparency, and accessibility including to smallholder/CSO projects and thus market facilitation functions.

8 There is **currently no active market for biodiversity credits in Africa at the national or regional levels**. There is increasing evidence of innovative and robust project development and supply side collaborations sometimes accompanied by interested parties, but little evidence of committed buyers. This is likely because most projects are at pilot levels and require a lot of upfront capital (and thus hybrid funding models, with a strong reliance on grant funding) as well as a number of years to demonstrate the impact of their approach. Likewise, at a governance level there are currently few policy incentives driving buyers to purchase these products (for example a no net loss/net gain, comply or compensate requirement).

9 There are **emerging shifts toward biodiversity specific standards**, including the Society for Ecological Restoration and Botanic Gardens Conservation International (BGCI) Global Biodiversity Standard.[28] In addition, there are many methodologies under development across projects in Africa, including uniquely African methodologies such as that of ValueNature and international methodologies piloting with African projects, namely those of Plan Vivo and Verra.

10 At the time of publication, **there is no policy, legislation, and/or regulation specifically covering biodiversity credits at the national or regional level across the continent**. This situation may allow for innovation, but creates risks for developers, especially with regard to demand and securing purchases and investments. It also creates serious governance risks in terms of measurable nature impacts, community benefits and overall quality control, as we have witnessed with carbon credit markets. For the most part, policymakers engaged for this study revealed that they are largely unaware of biocredit market developments, and uncertain on how to approach legislation around them. Regulators, policymakers and key stakeholders seem to be taking a 'wait-and-see' approach. Policymakers show a greater knowledge of carbon credits than biodiversity products and are eager to become more informed about this potential new market.

Exhibit 8:

Comparison of existing and pipeline methodologies on biodiversity credits being piloted in Africa

Framework	Savimbo/ Cercarbono[29]	Plan Vivo[30]	Verra[31]	Gold Standard[32]	ValueNature[33]
Methodology	Indicator Species Biodiversity Methodology (ISBM)	PV Nature Methodology & Data Protocol	SD Vista Nature Crediting Framework	Not specified	ValueNature Nature Investment Framework
Name of credits	Voluntary biodiversity credits (VBC)	Plan Vivo Biodiversity Certificates (PVBC)	Nature credit, Nature stewardship credit	Biodiversity certificates	Biodiversity credits
Methodology status	Certified and released	Open for applications	In development	In development	In development
Biodiversity accounting approach	Based on the indicator species Function of time, value and integrity of the ecosystem	Multimetric habitat and species factors	Ecosystem and species data based on condition, extent and significance	Carrying capacity	Ecosystem Integrity
Unit of accounting (credit unit)	ha	%change/ha/yr	Quality ha	Not available	Biodiversity Outcome/Ha/yr
Scope of project activities	Conservation, restoration, habitat management, and climate-related activities under the CBD	Restoration and conservation	Reducing biodiversity declines, sustainable management, restoration, and maintenance	Restoration and conservation	Conservation and restoration
Suitability for IPLC groups and IPLC inclusion	Allows for simplified, immediate and autonomous quantification	Rigorous stakeholder engagement, FPIC, grievance mechanisms, etc.	SD VISta safeguards	In development	Provides digital certification of biodiversity credits and royalties for biodiversity custodians
Benefit share requirements	50% of revenue goes to the originating landowner	At least 60% of revenue must go directly to IPLCs	Principles and requirements outlined	Not provided	majority share for IPLCs
Can be used as offsets?	No	No	No	Not provided	Potentially, but not yet finalized

CreditNature[34]	Verifiable Nature Unit (African Parks)[35]	AMES Nature Unit	High Integrity Forest Investment Initiative (HIFOR)[36]	EarthAcre
Natural Asset Recovery Analytics (NARIA)	Verifiable Nature Unit (VNU) MRV conservation framework co-developed with the Landbanking Group	The Landbanking Group Conservation MRV framework (aligned with VNU methodology)	HIFOR Methodology	EarthAcre Biodiversity Methodology and the Verra SD Vista Nature Crediting Framework Pilot Program
Biodiversity credits	Verifiable Nature Unit (VNU)	(Ames) Nature Unit	HIFOR unit	Biodiversity assets
In development	Succesfully piloted, under further development and piloting	In development and being piloted	Pilot in 2023–24	In development
Ecosystem integrity index Management rating	Ecosystem integrity, using habitat intactness and indicator species as proxies	Ecosystem integrity, using habitat intactness and indicator species as proxies	Ecosystem integrity, using habitat intactness and indicator species as proxies	Ecosystem integrity and biodiversity contribution to people
%uplift per ha	conservation/ restoration of 1 km^2 per year	conservation/ restoration of 1 km^2 per year	ha	Biodiversity outcome/ acre/10 years
Conservation and restoration	Conservation and restoration	Conservation and restoration	Conservation	Restoration and conservation
Not mentioned	Yes, applicable to all land stewards (Phase 2 of pilots to include IPLCs)	Yes, applicable to all land stewards	Ensures that payments for the ecosystem services benefit IPLCs	Ensures that payments for the ecosystem services benefit IPLCs IPLC managed stewardship or restoration projects, rigorous stakeholder engagement, FPIC, grievance mechanism, auditable transactions of payments down to individual landowners
Not provided	Foreseen (Project dependent)	Foreseen (Project dependent)	Will vary depending on the area	60% direct benefit to IPLC landowners; 10% to intervention coordinators (typically community based organizations)
Yes	Not foreseen	Possible, currently not foreseen	No	No

Exhibit 9:
Priorities for capacity building and bridging stakeholder gaps

STAKEHOLDER	OPPORTUNITIES FOR CAPACITY BUILDING
Developers and IPLCs 	• Legal and financial capacity building. • Improving access to capital for nature-based solutions and ensuring project bankability. • Identify and prioritise suitable projects at the outset of project development, as well as diversified revenue streams. • Implement effective governance as well as gender and social inclusion frameworks in projects. • Understanding of latest market developments. • Understanding of pipeline for investment and buyers, and who to approach at what stage of development.
Governments 	• Obtain skills to integrate biodiversity across development planning. • Ensure coherence across biodiversity, conservation and nature market related policy, taxation and regulation. • Acquire robust understanding of biodiversity projects and potential for credits, with an understanding of where they fit into the nature finance ecosystem and how they interact with other markets. • Develop ability to effectively value ecosystems and nature assets, leveraging NCA, and understand best practice for negotiations. • Gain understanding of potential benefit sharing arrangements and effective policy and regulatory measures, and record and make accessible best practise in the development of an enabling environment. • Coordinate with other governments, development partners and project developers. • Support data aggregation and market access efforts to grow the market. • Understanding of latest market developments.
Buyers & Investors 	• Derisking—either through insurance, guaranteee type, first loss etc., to cover both buyers and sellers. • Understanding the pipeline of project development and the kind of investments and purchases that can be paid throughout. • Develop an awareness and understanding of nature risks and benefits of biodiversity credits. • Engage directly with potential project developers. • Access quality pipeline of investments.

Possible Future Scenarios for African Biodiversity Credit Market Development

Realising the best-case scenario for the evolution of biodiversity credit markets requires not only a vision of what kind of outcomes they should deliver, but the critical design parameters that need to be advanced, and a robust process for their development over time.

This is very much a case where policy and regulation must lead, rather than follow market developments, to ensure that nature and people are protected along the way. Below are three possible scenarios for how these markets are likely to unfold, namely:

1	**A localised, community-led market development scenario**
2	**A globalised, market-based scenario**
3	**An orchestrated, policy enabled scenario**

See **Detailed Scenarios** on the following pages.

Scenario One

A localised, community-led market development scenario that is local enterprise-based, impact driven and rooted in and responsive to local perspectives and needs. This scenario comes with the risk of achieving limited scale and associated financial flows and economic benefits, along with limited learning and adaptation capabilities within the market. In this scenario, a lack of policy direction and clarity means that sovereigns and regulators play little active role in shaping market development.

In this scenario, a localised, product-driven market continues to develop across Southern and East Africa, as the demand for financing conservation projects and protected areas is increasingly met through mixed resources from regional development banks. For multinational companies and big corporates the aim is to offset nature-related risks by making investments in conservation that can demonstrate high integrity and credible outcomes through rigorous measurements in nature credit markets. Most of these investments will be 'insettters', namely those companies willing to invest in nature where it has a direct impact on their supply chain (such as large clothing or food companies). Given the limited demand, mainly from local corporations there will be scattering of biodiversity credit projects that will continue to rely on hybrid and varied sources of funding, with some technology and knowledge sharing.

These new financial flows support the protection and restoration of some of the continent's natural assets, resulting in improved nature-based mitigation and adaptation, improved climate conditions, water security, and other environmental benefits. The market is characterised by the success of local businesses in tapping into nature sustainably, with a well-distributed network of projects contributing to positive environmental impacts across various regions.

However, success in this area is not consistent. It is likely that actors with strong international relationships will have better, improved market access, higher market visibility and be able to secure substantial investment for an experimental foray. This could potentially help protect larger iconic landscapes, such as in the Congo Forest Basin, and possibly rangelands and miombo forests in Southern and Eastern Africa.

Projects in remote areas with limited market and financial acumen with struggle with market access and not yield enough returns to justify investments.

While still delivering on important and well measured biodiversity outcomes, with nature-tech and nature finance innovation developments on a few large-scale landscapes, without the read across to and accompanying market signals from national or regional levels, *the risk is that there will be negligible impact on the nature finance ecosystem across the continent.* This could result in a small group of large actors being quite influential but in their own region.

We might see increased demand for "gourmet" carbon credits which can demonstrate biodiversity and social outcomes, as regulatory and compliance frameworks slowly continue to gain weight and pressure[37]. As the price and market access for carbon credits improve in Africa, many projects may choose to continue stacking and bundling credits or revert to traditional conservation funding like grants and donations. Even in countries with experience in and strong policy guidance on biodiversity offsets, such as South Africa, without big market players (potential buyers or state entities) making a strong market play in the next year or so, it is hard to see the market growing beyond small networks and domestic demand.

This scenario ultimately leaves the continent as a continued price and market taker, leading to market uncertainty. This fragmented pathway will not deliver the billions of consistent financing needed to protect nature and its stewards' livelihoods at scale, with the urgency required. These market developments will continue to be well distributed across the continent, but will little real economy impact and scale, limited international or commercial investment and a low-tech bioeconomy.

Scenario Two

A globalised, market-based scenario that attracts significant financial flows including international investment, but with the risk of predatory trading, harm to local communities, and the consolidation of nature assets by large, often overseas or non-domiciled players. This is driven by increasing international shifts toward environmental disclosures, regulation, fiercier accountability on international commitments and trends toward more nature positive investments.

In the 'globally financialised' scenario, the rapid scaling of international demand drives the growth of biodiversity and carbon credit markets across Africa, leading to a significant influx of foreign investment, technology, and capacity.

The increased global interest in African biodiversity and carbon credits leads to a tendency towards nature asset and land consolidation, as large international corporations and investors seek to secure vast tracts of land for conservation and carbon sequestration projects. These actors, driven by the potential for substantial financial returns and the desire to offset their environmental impact, focus on developing large-scale, export-oriented projects that prioritise international market demands over local needs.

The influx of foreign capital and technology leads to the rapid development of sophisticated monitoring, reporting, and verification (MRV) systems, as well as advanced remote sensing and data analytics tools. These technological advancements enable more accurate and efficient measurement of biodiversity and carbon outcomes, increasing the credibility and value of African credits in international markets. That said, a divergent policy landscape means that adopting high integrity impact tools will in many cases remain voluntary and subject to potential abuse.

This scenario also presents significant risks and challenges for local communities and small-scale actors. As large international players dominate the market, small businesses and community-based initiatives struggle to compete and are often squeezed out. The consolidation of nature assets and land under the control of foreign corporations and investors leads to a loss of local power and decision-making authority over natural resources.

The tendency towards monopolisation of economic gains by large international actors results in a skewed distribution of benefits, with limited trickle-down effects to local communities. Governments, attracted by the potential for significant revenue streams from the sale of biodiversity and carbon credits, may prioritise short-term financial gains over long-term sustainable development objectives. In some cases, states may even resort to land grabbing and the displacement of local communities to make way for large-scale conservation and carbon sequestration projects.

The 'globally financialised' scenario for Africa's nature economy offers significant opportunities for growth and technological advancement, positioning the continent as a key player in the global nature economy. However, this potential comes with the risk of exacerbating power imbalances and social inequalities, as control over natural assets and benefits may become concentrated and unevenly distributed.

Scenario Three

An orchestrated, policy-enabling scenario in which a large and growing African nature finance ecosystem emerges to drive high integrity supply and policy-induced demand for biodiversity credits.

The scaling nature finance ecosystem is fuelled by well-priced carbon and biodiversity credit sales, attracting significant international and local investments, and fostering a strong bio-tech nexus for the continent. Africa, or at least large parts of it, become 'nature economy superpowers' with African stakeholders becoming experts in financing the nature positive bioeconomy.

An enabling policy environment is facilitated by balanced stakeholder participation with policies across public, financial and sector bodies creating demand for nature positive investments. These policies and regulations, such as no net loss (NNL) and net gain (NG) policies, accelerate the development of biodiversity credit markets and other projects that demonstrate biodiversity outcomes.

National entities, academic and scientific institutions undertake biodiversity and nature-related stocktakes to identify projects and programs that can be scaled or introduced into the market to generate more investment. These projects are factored into NDCs and 30X30 targets. Stakeholders agree on core market principles, emphasising the necessary actions to be undertaken for nature stewards to be active market participants and shapers, with direct financial flows and management being embedded in project design and reinforced by a formal governance architecture.

The investment pipeline is clear and well developed, with trust mechanisms and capacity building embedded at all levels. Biodiversity credits are widely understood by all as a financial instrument with broader application for international commitments and sovereign debt instruments. International commitments are grounded in local projects, including biodiversity credit projects, whose nature-tech and innovations have developed the ecosystem.

Rapidly evolving nature-tech and scientific measurments, critical to the development of biodiversity credit markets, is in itself seen as an important market worth developing and investing in with public and private financial support, having impacts across health, agriculture and other sectors. Improved understanding of these cross-cutting impacts helps the African Central Bank and state entities to invest in natural capital accounting, making the case for international investments in biodiversity and nature.

A coalition of stakeholders work on these issues at regional and multilateral levels to drive finance into some of the remaining in-tact and at-risk ecosystems across the continent. This policy-enabled and integrated environment could drive rapid growth if other countries emulate early policy movers.

The development of this African nature finance ecosystem creates market and policy disincentives for financing that negatively impact biodiversity and bio-tech development and fosters localised ownership and development. A spectrum of projects using indigenous and nature-tech approaches for measurement exist and are accessible across the market. Scientific and indigenous knowledge systems are seen as equally relevant and valid means of justifying project outcomes, aiding in developing a diverse and rich market, with balanced local ownership and economic gains flowing directly towards nature's stewards.

On the Balance Sheet and Rewarding Those Who Invest in it

Emerging nature credit market opportunities

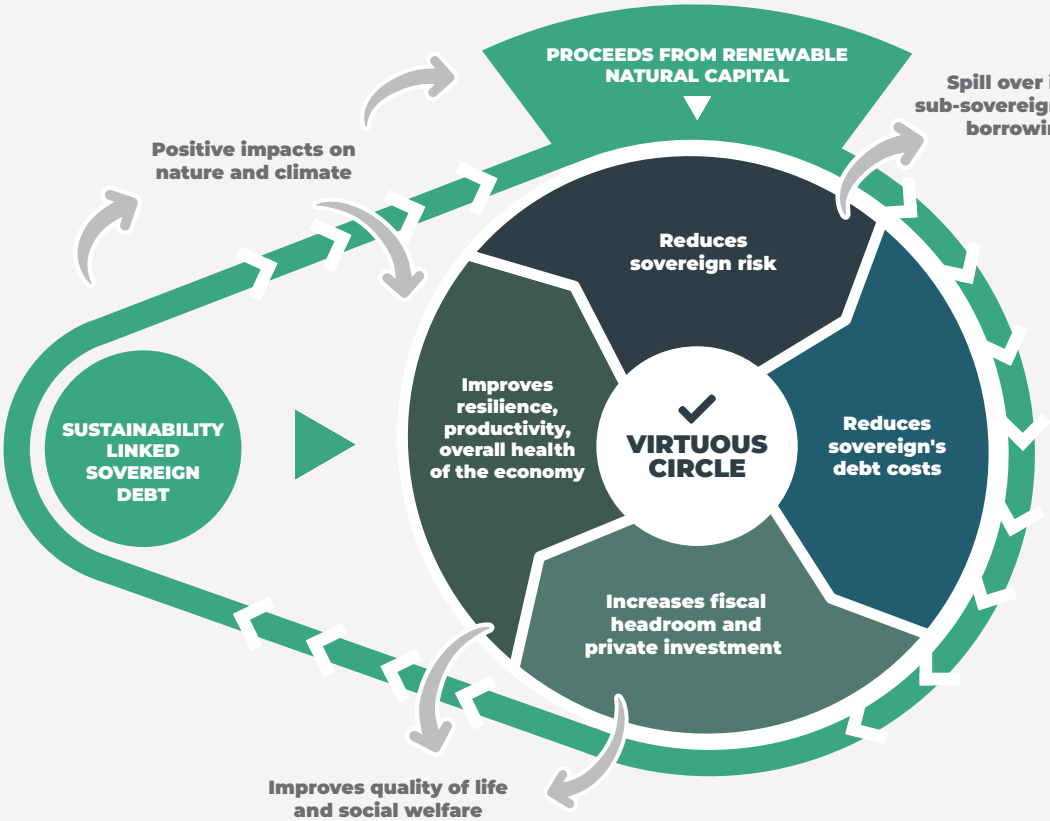
We are seeing new nature market opportunities emerge through the push towards integration of natural capital with sovereign balance sheets as nature credit markets develop. Mainstreaming natural capital and its true value across the economy could have substantive consequences across traditional sectors (such as agriculture, transport, energy etc. with cross-cutting implications for health, water and food security). Nature credit markets could catalyse this by providing an instrument which allows natural capital to appear on balance sheets as investments and assets, whether in the form of Sustainability KPI-linked sovereign financing solutions or through generating dividends as a distinct asset class.[38]

Biodiversity Credits and Sovereign Financing

In order to bridge the gaps between conservation and finance, nature credit markets, including carbon and biodiversity credits, are being driven by nature-tech measurement innovations in order to fulfill proof of impact requirements to satisfy investors. This offers a broader opportunity for the nature finance ecosystem, providing a nascent market infrastructure to leverage nature credits as a broader source of sovereign finance. For example, these new nature positive revenue streams can be directly or indirectly embedded in the debt instruments to increase credit ratings, reduce debt servicing costs, substitute coupon interest payments, and/or be used as part of an outstanding debt refinancing and restructuring operation.[39]

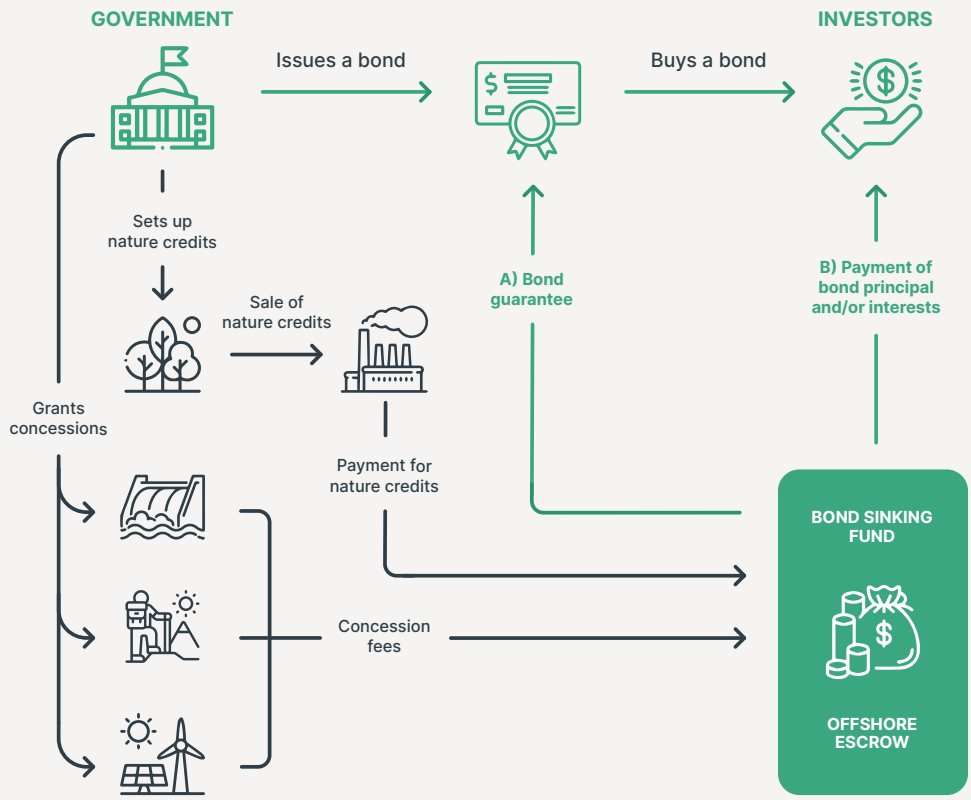
Deploying biodiversity credits in this way has the potential to create extra fiscal space and investment opportunities for sustainable growth and provide new opportunities to unlock renewable natural capital potential, all while improving creditworthiness and fiscal space.

Exhibit 10:
Virtuous cycle of sustainability KPI-linked sovereign debt



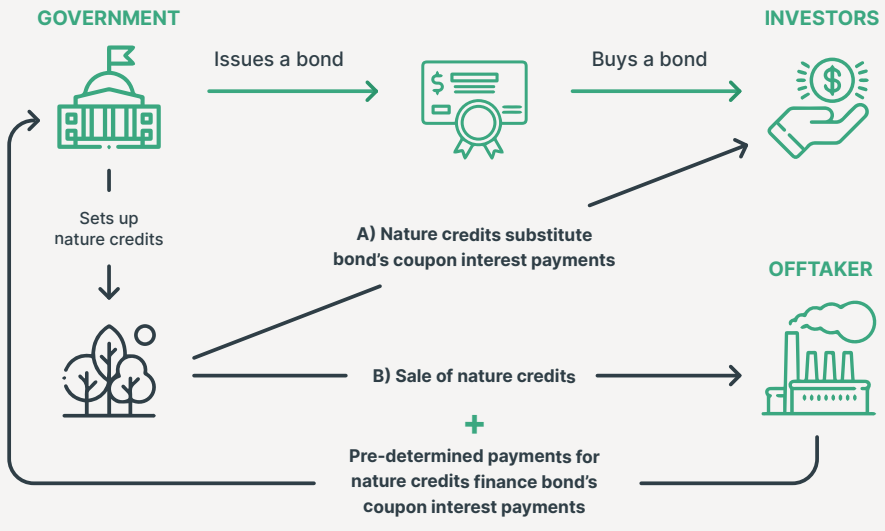
Source: NatureFinance
Investing in Africa: Investing in Nature, October 2024

Exhibit 11:
Possible mechanism of a sinking fund



Source: NatureFinance
Investing in Africa: Investing in Nature, October 2024

Exhibit 12:
Possible mechanism to substitute interest payments with nature credits



Source: NatureFinance
Investing in Africa: Investing in Nature, October 2024

Biodiversity Credits as an Asset Class

Actors within nature credit markets are not only targeting sovereign capital, but also working on ways to crowd in private capital. Although nacent, there are a host of attempts to provide not only the rewards but also the assurances and instruments required by institutional investors. Public corporations, banks, funds and asset managers will only deploy capital to nature if they can count that it will derisk their supply chain or their brands and if these payments are recognised as an asset investment, critical in size and easy to transact. Currently, three models are emerging to turn nature credits into an asset class. They all have in common that the nature credit turns into a legal, transferable right that is dynamically linked to the underlying (measured nature) asset:

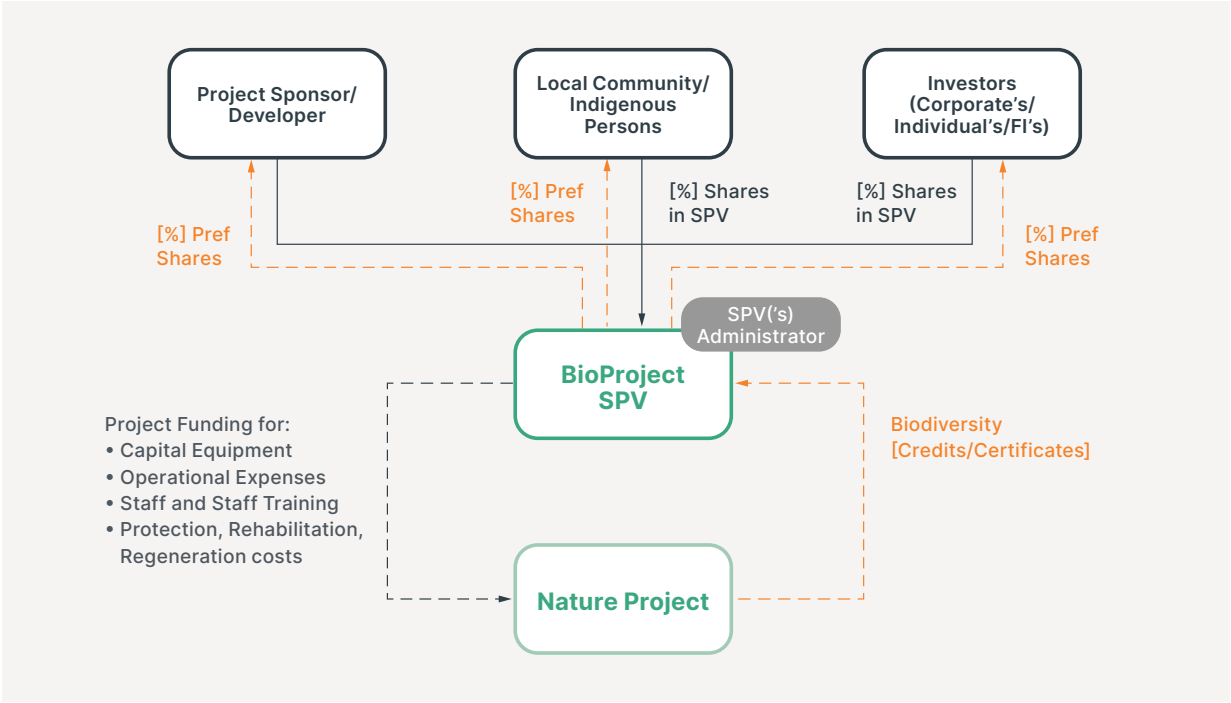
- **Rights that are securitised:** These can be any number of nature credits aggregated into a financial instrument and accepted by a financial regulator (currently, carbon credits are the main example here).
- **Rights acquired under civil code:** An emerging example is that of 'Nature Equity' issued by the Landbanking Group. These are contracts that are immutably and dynamically linked to a measured unit of nature (such as the VNU), thus meeting the requirements of a balance sheet capital asset.
- **Rights that are incorporated**, either in an SPV (see below) or in a company (Nature Asset Company).

Likewise, these projects have the potential to be developed as an 'asset class' with biodiversity credits being seen as dividend flows to investors, embedding them more fully in the financial system, and potentially creating a market for demand specultation and trading.

One illustrative proposal currently being explored by Rowan Le Roux, Co-Founder of Designed for Earth, and other partners, would allow investors to invest in a legal entity that can be assigned to their balance sheets, which is traded on an exchange and which generates biodiversity credits as a tradable dividend. In other words, putting natural assets on balance sheets to incentivise their reinvestment and improvement and conservation.

It involves placing the project into a Special Purpose Vehicle (SPV), where the value of the SPV could be (1) a function of anticipated project costs over a defined period, (2) the present value of future biodiversity credits generated by the project, (3) a market clearing value that has a floor of the required project costs or (4) a combination of all of these (amongst other methodologies). Local communities, Indigenous Peoples and/or the Project Developers would be allocated shares in the SPV at zero cost on Initial Public Offering (IPO) as recognition for their appropriate contributions (Project Management, Land Rights, or similar). Listing the SPV on an exchange would require it to manage the money invested into it along the same lines as other businesses on the exchange providing annual accounts, annual reports and audits by way of example. In this way, risk is more evenly distributed and this model protects the project developers and local nature stewards against the vagaries of the markets as the investment is paid in the form of equity upfront in the SPV and is not subject to changes in the SPV valuation. The incentive for investors to invest in the SPV is the access to Biodiversity Credits emanating from the project in the form of 'dividends'. A similar model has been proposed by the European Investment Bank for biodiversity offsets.[40]

Exhibit 13:
Using an SPV model to turn biodiversity credit projects into an asset class



The African Policy Landscape

Several countries including Ghana, Kenya, Rwanda, Tanzania, Zimbabwe, Zambia and Malawi have proposed or enacted national frameworks and regulations to govern carbon project development and issuance within their borders. Some initial versions of regulations had disruptive market effects[41], slowing project development and pointing to the negative impacts of unpredictability.

A few biodiversity-specific fiscal incentives have also been enacted recently, albeit not focused on biodiversity credits. South Africa recently implemented a tax incentive aimed at benefiting threatened species such as rhinos and lions, allowing taxpayers involved in conservation to deduct expenses related to their conservation efforts from their taxable income, at a value of US$80,000 per annum.[42] This incentive builds upon the government's existing policy and legislative framework, encompassing the Biodiversity Act and the National Environmental Management: Biodiversity Act, as well as the National Biodiversity Framework which presents a unified and coordinated strategy for managing biodiversity.[43] Policy and regulation is supported by the South African National Biodiversity Institute (SANBI), which has developed a National Vegetation Map and a DNA bank, among other datasets.[44] The government has made many attempts to bring together the private and public sector for biodiversity initiatives, for example through the government's National Biodiversity and Business Indaba as well as the Biodiversity Sector Investment Portal.[45]

The region is also pursuing biodiversity offset initiatives. Biodiversity offsets, compared to credits more generally, are measurable outcomes that compensate for clear negative impacts on biodiversity, based on the idea that losses of biodiversity in one area can be compensated for by improvements of biodiversity in another area.[46] In 2023, the government of South Africa released its first National Biodiversity Offset Guideline under the National Environmental Management Act to establish principles to improve implementation of offsetting projects in the country. With biodiversity offsetting expected to increase in the country, organisations like South African National Parks (SANParks) have conducted feasibility studies for offsets projects and financing as well as habitat and biodiversity offset banking mechanisms.[47]

The African Development Bank (AfDB) is piloting non-market approaches to mobilize climate finance, including for mitigation, adaptation and biodiversity. As designed by AfDB, the Adaptation Benefits Mechanism (ABM) creates "Certified Adaptation Benefits" (CABs) rather than credits. The project cycle could also generate Certified Biodiversity Benefits or CBBs. The concept is described as "non-market" because the benefits (CABs or CBBs) are issued into a registry for cancellation only, not for transfer. This removes the scope for secondary trading and speculation which, in the carbon markets, has led to uneven distribution of investment and profit-making amongst secondary traders, at the expense of project developers. One significant difference between a non-market and market approach is the determination of the duration of the crediting or benefitting period—i.e., the period of time over which credits or benefits are issued. In the carbon markets the crediting period is quite arbitrary—historically 7 years renewable or 10 years; today the crediting period is potentially linked to the NDC cycle. This approach creates opportunities for investors to generate free rent from the continued sale of assets after investments have paid back. Under a non-market approach, the benefitting period is determined such that the price of the benefits multiplied by the number of benefits issued plugs the financial gap—which can be calculated including project, transaction and financing costs and a fair return for the project developer. In effect, the non-market approach seeks to deliver the minimum amount of finance required to make the project viable and thereby offers a better use of scarce resources. CABs and CBBs are designed to be bought by private sector actors in developed and wealthy countries, cancelled and then reported to the Parties via the Enhanced Transparency Framework. Support given can be financial (through the purchase of the benefits) or through capacity building or technology support. Project developers with a registered project and a signed purchase agreement should be able to access capital markets, overcoming one of the major obstacles to investment in biodiversity and adaptation.

For many countries, a critical challenge for developing effective legislation, policy, and regulation is a lack of baseline data on biodiversity. The current state of biodiversity is difficult to gauge, given limited baseline studies compared to other regions of the world. Not all countries have data sharing protocols in place to facilitate goals and track progress.[48] One country that is proactively addressing this issue is Rwanda, which is working through the University of Rwanda-hosted Centre of Excellence in Biodiversity and Natural Resource Management (CoEB) on the Rwandan Biodiversity Information System (RBIS) to collect and make available information on biodiversity.[49] The use of these systems can help to identify high-priority biodiversity projects, track progress against goals, and encourage investment.

The International Policy Landscape

The global biocredit experience is still in its early stages, with experimentation over measures, standards, credit forms, engagement models, and monetary transactions. The governance landscape is nascent with self-appointed groups and standard setters seeking to shape the market.

Initiatives such as the International Advisory Panel on Biodiversity Credits (IAPB) which was initiated by the governments of France and UK, and organisations like the World Economic Forum, and the Taskforce on Nature Markets, are working to foster the development of high-integrity nature markets. The IAPB brings together a diverse range of expertise across key working groups (Demand, Supply, Governance, Stewardship and Measurement) to tackle key design challenges and integrate the knowledge to shape effective biodiversity credit markets.

Other approaches such as the Taskforce on Nature-related Financial Disclosures (TNFD) framework have important implications on biocredit markets. The TNFD aims to provide a standardised approach for financial institutions to assess, manage, and report on their dependencies and impacts on nature. As this disclosure framework gains traction, it could drive greater demand and investment in biodiversity credits, enabling companies to demonstrate their nature-positive commitments.

There's also an opportunity to leverage the digital technologies and fintech platforms already emerging across the continent and globe, including digital ledger technologies, as well as leveraging mobile money, which enables market access and price discovery, and direct flows of finance. Leveraging digital technologies for transparent tracking and verification of project activities and biodiversity impacts could help build trust and attract private investment. The development of such a digital approach was the focus of a partnership between the Scottish Government and CreditNature in 2024, while Savimbo and Terrasos have both tokenized their credits for sale on block-chain based platforms.

Likewise, international biodiversity credit market developments continue to both provide learning opportunities for African stakeholders, as well have the potential to influence market development.

Exhibit 14:
International biodiversity credit policy landscape

There are multiple initiatives and schemes seeking to develop biodiversity credits that can make a positive difference to both people and the planet. Many forms of credits are currently being designed and piloted, including biodiversity certificates, bio-enhanced carbon credits, biodiversity 'insets' to finance natural resource productivity in supply chains, biodiversity credits linked to statutory offset spending, and full-blown biodiversity credit markets involving offsetting and secondary trading. This exhibit presents the different approaches being taken in different parts of the world:

Colombia leading Latin American biodiversity offsetting space, with voluntary action in pursuit. Colombia has had biodiversity offset regulation in place since 2013, targeted at planned development projects such as mining, oil and gas infrastructure, to offset residual biodiversity impacts by restoring or protecting an equivalent habitat elsewhere. The equivalence ratios range from 1:4 to 1:10. Colombia has since established the approach of habitat banks which are public or private areas managed for their significant environmental values. Habitat banks offer credits to those entities under regulatory compliance, yet credits can also be bought by individuals or companies on a voluntary basis.

Mandatory and voluntary biodiversity schemes in Australia. The Australian Government is developing a new legislative framework to support a national voluntary biodiversity market called the 'Nature Repair Market' scheme. The market aims to provide financial incentives for environmental projects and deliver benefits for landholders, investors and the environment. The Australian Government acknowledges that maintaining integrity is paramount to ensuring that the national voluntary biodiversity market operates effectively. To this end, the legislation would establish an expert advisory committee to provide advice and recommendations on compliance with biodiversity integrity standards. Additionally, an independent regulator would administer a compliance and assurance system (as published by the Taskforce on Nature Markets and Pollination in 2023).

Mandatory obligations and 'Nature Markets Framework' in the United Kingdom. The UK has established mandatory obligations in England, with potential to expand mandatory regulations across the UK for project developers with high negative impacts on biodiversity (Nationally Significant Infrastructure Projects (NSIPs)). The biodiversity net gain (BNG) regulations foresee a minimum of 10% BNG for most future developments. The UK, through its 'Nature Markets Framework' released in March 2023, has embraced tradeable credits as a means to stimulate private investments in nature markets.

New Zealand's Proposed Biodiversity Credit System establishes a voluntary national framework to attract investment in projects that protect, maintain, and enhance indigenous biodiversity. Eligible landholders (including Māori, conservation groups, and farmers) can generate tradeable biodiversity credits through activities like restoring native vegetation, protecting rare habitats, and expanding indigenous biodiversity.

The French "Green Industry" law (Loi "Industrie verte") n° 2023-973 introduces measures to facilitate new industrial sites and rehabilitate brownfields. It notably overhauls the French mitigation banking system by introducing "natural compensation, restoration and rewilding" units to replace the "natural compensation" units that developers could buy from State-approved operators to compensate residual impacts on biodiversity. The new units can be used for both mandatory and voluntary compensation, with mandatory compensation requiring "functional proximity" with the impacted site. The new units can also qualify for carbon credits emission under the French "low carbon label" (an official certification scheme for emissions reductions and carbon removal).

India's Green Credit Program (GCP) aims to incentivize pro-environmental actions across the country. Enacted in October 2023, the GCP allows industries, companies, and other entities to offset their environmental obligations by generating or purchasing green credits. These credits can be earned through activities like tree planting, water management, sustainable agriculture, and pollution reduction. The Indian Council of Forestry Research and Education (ICFRE) administers the program, with guidance from a Steering Committee and Technical Committee. Participation is voluntary, as the government seeks to cultivate a thriving domestic market for green credits to support India's global environmental commitments.

Furthermore, policies such as the EU's Carbon Border Furthermore, policies such as the EU's Carbon Border Adjustment Mechanism (CBAM) will impose a carbon price on imports from countries without adequate carbon pricing.[50] This could incentivise the development of biodiversity and environmental credit markets as a means of maintaining market access and compliance with CBAM requirements.

The exploration of biodiversity credits in Africa reveals a complex interplay of opportunities and challenges, reflecting the continent's rich natural endowment and diverse socio-economic landscape. By examining the African experience and incorporating global perspectives, we can understand the key development factors shaping the biocredit markets in the region. Given learnings from the fraught history of VCMs[51], there are also serious doubts about the ability to scale biocredit initiatives to a level where they deliver substantial benefits, at the scale needed. This scepticism is shared by experts in other regions, who highlight the need for more robust and transparent frameworks to ensure the integrity and impact of biocredit markets.[52]

As with all policy, whether at national, sectoral or at an entity level, if policies are not well designed, lack coherence and don't speak to the larger policy ecosystem, are not well implemented or governed, they could have the opposite or detrimental, rather than positive and enabling effects.

Recommendations

Drawing on the African landscaping findings, emerging international developments, as well as the recently launched Taskforce on Nature Markets' final recommendations, these recommended interventions aim to establish market trust, promote equitable development, and ensure fair compensation in Africa's biodiversity credit markets. The six principles with corresponding interventions to achieve them are: 1. Quality of biodiversity credits; 2. Market incentives and disincentives; 3. Equitable market access; 4. Fair price for both nature-rich countries and nature's stewards, local communities and developers; 5. Establishing regulations for transparency and efficient biocredit trading; and 6. Building stakeholder voices into the core market design.

1 **QUALITY OF BIODIVERSITY CREDITS:** should include both biodiversity improvement measures as well as a measure of the social benefit that this leads to, allowing a range of biodiversity credits to develop that have both nature and equity impacts as their goal supported by rigorous assurance processes, with verifiable positive outcomes for ecosystems and local communities.

Recommended Interventions:

- Support a regional **biocredit producers' association and ultimately a more formalized "sellers club"** for biodiversity credits, where price floors can be set and product offerings aggregated. Ideally this effort needs to be supported by a market-savvy partner, who can support and catalyse market development.
- Support an **independent body or standard to determine the scientific and community outcomes and integrity of biodiversity credits** potentially including or even developed and led by nature stewards. As demonstrated by the Savimbo Biodiversity Methodology, which integrates Indigenous knowledge into credit definition and verification through simplified quantification methods.

2 **MARKET INCENTIVES AND DISINCENTIVES:** Offsetting and insetting principles remains an area of serious debate, especially given the uncertainty around quality control, as well as demand and pricing. Each country will need to reckon with which biodiversity credits can be traded, to whom and on what basis. Market governance needs to remove the potential damage and risks that bad claims can bring, with the burden of market and financial risks being more evenly distributed away from communities and developers and onto buyers and investors, overseen and enforced by government regulators.

Recommended Interventions:

- **Mandated Contributions to Drive Demand: biocredit purchasing** can and must be scaled by moving beyond pure voluntarism into mandatory contributions. This could include, for example, establishing no-net-loss or net-gain 'comply or compensate' frameworks across supply chains and procurement, as well as key sectors or indeed, nation-wide. Examples of this are the UK's Biodiversity Net Gain Policy[53] or Colombia's biodiversity offset policies,[54] both of which represent policy-induced demand that can rapidly scale demand for biodiversity credits.
- **Regulated Incentives: the key regulatory incentives** is arguably taxation, for example South Africa's newly introduced tax incentive for threatened species. The Threatened Species and Other Effective Area-based Conservation Measures (OECMs), allows any South African taxpayer (private landowners, as well as individual trusts or companies) who are safeguarding threatened ecosystems or species, to deduct all expenses related to their conservation efforts from their taxable income.[55]
- **Incorporating biodiversity goals into voluntary carbon markets (VCMs) aligning with carbon trading and monetisation.** This approach leverages the existing mechanisms and liquidity of carbon trading to simultaneously address biodiversity conservation. Methodologies like Verra's Climate Community and Biodiversity Program embed biodiversity outcomes within carbon credits, accounting for both carbon sequestration and biodiversity conservation. This integration will scale demand for biodiversity credits by tapping into the growing interest for co-benefits in nature-based solutions in the carbon markets.

3 **EQUITABLE MARKET ACCESS:** for early stage, small biocredit developers—this will likely be provided by tech, although the experience of voluntary carbon markets shows that governments can get this wrong by implementing regulations which prove prohibitive or inhibiting for early-stage developers in the country. Enabling market governance and coherence across biodiversity related policy, can go a long way to ensuring equitable access and diversified market development.

Recommended Interventions:

- **Finance-based Models:** Development finance institutions (DFIs), such as the AfDB and commercial banks should:
  - **Introduce biodiversity-linked financial products** such as loans, debt arrangements and bonds that dedicate a portion of the amount to supporting conservation projects and/or credit-driven performance outcomes. Biodiversity credit projects offer a unique plug-in to performance based mechanisms given their project design and nature-tech around measuring positive biodiversity outcomes.
  - **Introduce nature positive requirements into general lending criteria** for the AfDB and other regional lenders. For example, the IDB has nature-positive requirements integrated into their general lending criteria, ensuring that financed projects contribute positively to conservation efforts; as well as offering preferential terms and incentives to those projects which demonstrate a commitment to conservation and the use of biodiversity credits.[56]
- **Operationalising Article 6**[57]**:** The first operationalisation of Article 6 in Africa has been seen in carbon market transactions between Japan and Ghana. Article 6 enables a host country that is on track to exceed its NDC target to trade units to obtain investments, support for capacity building and access to technologies not available through domestic resources. Article 6 can likewise be operationalised as a driver of international demand for biodiversity credits.

4 **FAIR PRICE:** ensuring fair and equitable economic benefits for both nature-rich countries and on the ground stewards, local communities and developers by establishing market-wide price floors and revenue-sharing mechanisms.

Recommended Interventions:

- **Setting Minimum Price Floors:** Establish price floors for biodiversity credits to prevent undervaluation of biodiversity contributions and ensure financially viable conservation efforts. Following Terrasos' standardized cost-based pricing model, account for conservation costs, opportunity costs, and fair compensation for local communities. A transparent and consistent pricing framework helps establish a minimum compensation level for nature's stewards.
- **Leverage Digital Technologies and Facilitate Fintech Platforms:** including new digital technologies, like blockchain, and leveraging mobile money, which enable market access and price discovery, and direct flows of finance. Leveraging digital technologies for transparent tracking and verification of biodiversity impacts could help build trust and attract private investment. This has been successfully done by Savimbo and Terrasos on the Regen platform in Colombia.[58]
- **Benefit Sharing Mechanism:** Implement transparent and equitable benefit-sharing mechanisms that ensure a significant portion of biodiversity credit revenues are directly allocated to local nature stewards. These mechanisms should be co-designed with local nature steward input, clearly documented in project agreements, and subject to regular audits to ensure compliance and fairness in distribution. Such mechanisms have been implemented as pre-conditions by certification bodies like Plan Vivo and adopted by project developers such as rePLANET ensuring significant portions of revenue directly flow to local stakeholders.

5 **TRANSPARENCY:** establishing regulations for transparent and efficient biocredit trading, focusing on trader certification, clear trading practices, transparency requirements, and monitoring and enforcement mechanisms.

Recommended Interventions:

- **Derisking measures:** for both buyers and sellers would encourage investment into nature credit markets, from insurance, guarantee type, first loss, etc.
- African countries could regulate biocredit trading similar to the Commodity Futures Trading Commission (CFTC), **the USA's** Commodity Exchange Authority. This regulatory framework should focus on providing guidance for trading credits to ensure integrity, transparency, liquidity, and efficient price discovery in the financial markets. It should cover both over the counter (OTC) trades and trades conducted through exchanges.

  Key aspects of these regulations should include:
  - **Trader Certification**: Initiate a certification for biocredit traders, verifying their knowledge, skills, and ethics for market engagement.
  - **Trading Practices:** Set clear guidelines for practices, including contract specifics and regulatory compliance for biocredit contracts.
  - **Transparency Requirements:** Mandate disclosure of transaction details, pricing, and market insights to regulators and stakeholders.
  - **Monitoring and Enforcement:** Establish mechanisms to oversee market compliance and counteract fraud or manipulation.

6 **STAKEHOLDER VOICE: BUILDING STAKEHOLDER VOICES INTO THE CORE OF THE MARKET**, with a focus on equitable access to information, technical capacity, and financial resources among participants. It aims to rectify information imbalances and skill gaps that may result in embedded inequalities in market opportunities and outcomes, particularly among nature/local stewards. This approach uses digital technology to ensure that non-technical features of any biodiversity credit project, including local stakeholder concerns, are irrevocably attached to the tradeable credit until resolved or withdrawn.

Recommended Intervention:

- **Ensuring Effective Representation** of the views of Indigenous Peoples and local communities in emerging national and international governance platforms, notably concerning rights including over data ownership, price setting, voice and validation.
- **Best Practice and Capacity Building and Support:** Adopt best practice in which project initiation can only take place once proof of negotiation and consultation on agreed benefits has taken place, with local and Indigenous communities having access to financial and legal support in decision and agreement making. Include indexation clauses in sales contracts to ensure profits from credit resales or world price increases are paid back as bonus payments to local communities once biodiversity improvement is achieved.
- **Financial and legal capacity building**, with best practice and financial and legal advisory council sponsored for indigenous and local communities when entering into and engaging with commercial agreements, paid for by increased fees for certification by the developer.

Concluding Thoughts

Accelerating impactful and equitable biodiversity credit markets in Africa

While African actors can advance autonomously on the above principles and interventions, there is much to be gained through regional and international collaboration with other nature-rich, Global South actors, as well as development financial institutions. All can play key regional and international roles in market scaling and in catalysing demand. In particular, there are near term opportunities to work with and through regional platforms such as the African Union Commission (AUC), the Regional Economic Commissions (RECs), as well as international platforms such as the Convention on Biological Diversity (CBD) COP16, the G20, and specialist international groups such as the International Advisory Panel on Biodiversity credits (IAPB) to advance thinking and interventions on biocredit market development.

This early landscaping points to the potential to drive a nature finance ecosystem across the continent, which scales private finance into high integrity and equitable local conservation and restoration efforts under government oversight. If key principles and interventions are undertaken at all levels, and supported by an enabling policy landscape, well-priced demand could form a useful adjunct to traditional conservation models, leveraging increasingly innovative and accessible nature-tech. More than this, African stakeholders could become leaders in this innovative nature finance landscape, with much to offer in the way of biodiversity improvement measurements and nature-tech developments.

Much of this potential depends on how the market develops. The development scenarios outlined in this report, namely:

1	**A localised, community-led market development scenario**
2	**A globalised, market-based scenario**
3	**An orchestrated, policy enabled scenario**

The first scenario, a localised, product-driven market developing across Southern and East Africa as the demand for financing conservation projects and protected areas is increasingly met through mixed financing, would largely be a continuation of the current emerging landscape as mapped in this study. However, ultimately this scenario leaves the continent as a continued price and market taker, leading to market uncertainty, and a fundamentally unchanged status quo. It will not deliver the billions of consistent financing needed to protect nature and its stewards' livelihoods at scale, with the urgency required. These market developments will continue to be well distributed across the continent, but will little real economy impact and scale, limited international or commercial investment and a low-tech bioeconomy.

In the second scenario, the 'globally financialised' scenario, the rapid scaling of international demand drives the growth of biodiversity and carbon credit markets across Africa, leading to a significant influx of foreign investment, technology, and capacity. The 'globally financialised' scenario for Africa's nature economy offers significant opportunities for growth and technological advancement, positioning the continent as a

key player in the global nature economy. However, this potential comes with the risk of exacerbating power imbalances and social inequalities, as control over natural assets and benefits may become concentrated and unevenly distributed.

The final scenario on the other hand, in which the nature finance ecosystem is scaled by well-priced carbon and biodiversity credit sales, attracting significant international and local investments, and fostering a strong bio-tech nexus for the continent, wherein Africa, or at least large parts of it, become 'nature economy superpowers', with African stakeholders becoming experts in financing a nature-positive bioeconomy. Which is to say that an enabling policy environment, facilitated by balanced stakeholder participation with policies across public, financial and sector bodies creating demand for nature positive investments, can scale the kinds of investments that would change the continent's economic trajectory. These policies and regulations, such as no net loss (NNL) and net gain (NG) policies, accelerate the development of biodiversity credit markets and other projects that demonstrate biodiversity outcomes, with frameworks that can be applied across more mainstreamed economic development.

In this scenario, a coalition of stakeholders actively work on these issues at national, regional and multilateral levels to drive finance into some of the remaining in-tact and at-risk ecosystems across the continent, recognising the value of these global commons. This policy-enabled and integrated environment could drive rapid growth if other countries emulate early policy movers. The development of this African nature finance ecosystem creates market and policy disincentives for financing that negatively impact biodiversity and bio-tech development and fosters localised ownership and development. A spectrum of projects using indigenous and nature-tech approaches for measurement exist and are accessible across the market as scientific and indigenous knowledge systems are seen as equally relevant and valid means of justifying project outcomes, aiding in developing a diverse and rich market, with balanced local ownership and economic gains flowing directly towards nature's stewards.

This timely opportunity is therefore one that can be accelerated at local and international levels. Given biodiversity is emerging as a major source of economic opportunity, as witnessed by the inclusion of the **G20 Bioeconomy Initiative** in the finance track for the first time, there is much to do for Africa—as a mega-diverse, nature-rich continent—to take considerable advantage of this development on the global stage, especially while the African Union takes its first permanent seat in the G20 in 2024. The development of the right kind of biodiversity credit market is a significant piece of this development puzzle and in scaling private finance into nature positive activities.

Given the findings of the emerging landscape and possible future scenarios presented here, alongside the recommendations summarised again below, it is clear that biodiversity credits, while still a nascent instrument, have the potential to create a bridging tool to drive nature positive investment. The significant implications of this include nature increasingly being recognised as an investment class as well as more sustainable investment into our global commons, our natural assets, many of them at risk in Africa and beyond.

Exhibit 15:
Summary of recommendations

1 Quality of Biodiversity Credits in biodiversity improvement measures and social benefits

RECOMMENDED INTERVENTIONS:

Support a regional biocredit producers' association and ultimately a more formalised 'sellers club', where price floors can be set and product offerings aggregated.

Support an independent body or standard to determine the scientific and community outcomes and integrity of biodiversity credits.

2 Market incentives and disincentives

RECOMMENDED INTERVENTIONS:

Offsetting and insetting: remain an area of ongoing debate locally and internationally which improved market governance needs to address by creating the right incentives and removing the potential damage and risks that bad claims can bring, with the burden of market and financial risks being more evenly distributed away from communities and developers and onto buyers and investors, overseen and enforced by regulators.

Mandated contributions to drive demand: this could include, for example, establishing no-net-loss or net-gain 'comply or compensate' frameworks across supply chains and procurement, key sectors or even at a national level, such as the UK's Biodiversity Net Gain Policy or Colombia's biodiversity offset policies, both of which represent policy-induced demand that have scaled demand for biocredits.

Regulated Incentives: such as taxation, for example South Africa's newly introduced tax incentive for threatened species. The Threatened Species and Other Effective Area-based Conservation Measures, allowing South African taxpayers safeguarding threatened ecosystems or species, to deduct all expenses related to their conservation efforts from their taxable income.

Incorporating biodiversity goals into voluntary carbon markets (VCMs) aligning with carbon trading and monetisation. This approach leverages the existing mechanisms and liquidity of carbon trading to simultaneously address biodiversity conservation by embedding biodiversity outcomes within carbon credits, accounting for both carbon sequestration and biodiversity improvements.

3 Equitable Market Access

RECOMMENDED INTERVENTIONS:

Finance-based Models: Development finance institutions (DFIs), such as the AfDB and commercial banks should:

- **Introduce biodiversity-linked financial products.**
- **Introduce nature positive requirements into general lending criteria.**

International instruments: credits linked to operationalising the Kunming-Montreal Global Biodiversity Framework, Article 6.2, as well as disclosure frameworks including SBTI, TCFD and TNFD.

4 Fair Price for both nature-rich countries and nature's stewards, local communities and developers

RECOMMENDED INTERVENTIONS:

Setting Minimum Price Floors: to prevent the undervaluation of biodiversity contributions and ensure financially viable conservation efforts. Following Terrasos' standardised cost-based pricing model, account for conservation costs, opportunity costs, and fair compensation for local communities. A transparent and consistent pricing framework helps establish a minimum compensation level for nature's stewards.

Leverage Digital Technologies and Facilitate Fintech Platforms: including new digital technologies, like blockchain, and leveraging mobile money, which enable market access and price discovery, and direct flows of finance. Leveraging digital technologies for transparent tracking and verification of biodiversity impacts could help build trust and attract private investment.

Benefit Sharing Mechanism: Implement transparent and equitable benefit-sharing mechanisms that ensure a significant portion of biodiversity credit revenues are directly allocated to local stewards. These mechanisms should be co-designed with local/nature steward input, clearly documented in project agreements, and subject to regular audits to ensure compliance and fairness in distribution.

5 Establishing regulations for transparency and efficient biocredit trading

RECOMMENDED INTERVENTIONS:

Derisking measures: for both buyers and sellers would encourage investment into nature credit markets, from insurance, guarantee type, first loss, etc.

African Biocredit markets could regulate biocredit trading similar to the Commodity Futures Trading Commission (CFTC), the USA's Commodity Exchange Authority, with a focus on providing guidance for trading credits to ensure integrity, transparency, liquidity, and efficient price discovery in the financial markets. Covering both over the counter (OTC) trades and trades conducted through exchanges.

Key aspects of these regulations should include:

- **Trader Certification**
- **Transparency Requirements**
- **Trading Practices**
- **Monitoring and Enforcement**

6 Building stakeholder voices into the core market design

RECOMMENDED INTERVENTIONS:

Ensuring Effective Representation of the views of Indigenous Peoples and local communities in emerging national and international governance platforms, notably concerning rights including over data ownership, price setting, voice and validation.

Best Practice and Capacity Building and Support: Adopt best practice in which project initiation can only take place once proof of negotiation and consultation on agreed benefits has taken place, with local and Indigenous communities having access to financial and legal support in decision and agreement making.

Include indexation clauses in sales contracts to ensure profits from credit resales or world price increases are paid back as bonus payments to local communities once biodiversity improvement is achieved.

Financial and Legal Capacity Building: Ensuring best practice and financial and legal advisory council is paid for Indigenous and local communities when entering into and engaging with commercial agreements.

Glossary of Terms

AUC	African Union Commission
AfDB	African Development Bank
BGCI	Botanic Gardens Conservation International
CBAM	Carbon Border Adjustment Mechanism
CBD	Convention on Biological Diversity
CCB	Climate, Community and Biodiversity Standards
CFTC	Commodity Futures Trading Commission
DFI	Development finance institutions
FPIC	Free, Prior and Informed Consent
GALS	Gender Action Learning Systems
IAPB	International Advisory Panel on Biodiversity credits
IDB	InterAmerican Development Bank
IPLC	Indigenous Peoples and local communities
KBA	Key Biodiversity Areas
MRV	Monitoring, reporting, and verification
NCA	Natural Capital Accounting
NDC	Nationally Determined Contribution
NIC	Nature Investment Certificate
NG	Net Gain
NNL	No Net Loss
OECMs	Threatened Species and Other Effective Area-based Conservation Measures
OTC	Over the counter
PALS	Participatory Action Learning Systems
RBIS	Rwandan Biodiversity Information System
REC	Regional Economic Commission
TCFD	Taskforce on Climate-related Financial Disclosures
TNFD	Taskforce on Nature-related Financial Disclosures
SBTI	Science Based Targets initiative
VCS	Verra's Verified Carbon Standard
VCM	Voluntary carbon markets
VNU	Verfiable Nature Unit
WBFC	Walker Bay Fynbos Conservancy

Endnotes

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Biodiversity offset: No net loss of biodiversity, biodiversity net gain or net positive impact (linked specifically to biodiversity loss)
Stacked: Separate units generated by same project/ land
Stapled: Combined unit generated by different project/ lands
Bundled: Combined unit generated by the same project/ land

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