

# UNDERSTANDING CLIMATE, NATURE AND OCEAN FINANCE



## Nature Finance: Planning Guidance

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## **1. Compilation of Select Articles Related to Biodiversity Finance (General Information)**

### **Introduction**

The world faces three planetary crises of climate change, biodiversity loss, and pollution. There is an urgent imperative to solve these crises to halt biodiversity loss and restore and protect the environment. According to the Kunming Montreal Biodiversity Framework, there is an existing biodiversity financing gap of \$700 billion which is critical for solving the crises. However, due to the nascent nature of biodiversity financing, there is a need to monetize the previously unpriced ecosystem services and implement relevant governance mechanisms and policies, capacity development, and involvement of all relevant stakeholders, including the IPLCs, to ensure the maturity of these markets and prevent perverse outcomes. For efficiency in biodiversity financing, proper coordination and implementation, a clear and better understanding of what financing entails, identification of existing barriers, and available opportunities are fundamental for successful implementation at a global, country, and sectoral level.

Nature financing is categorized into climate, biodiversity, and ocean financing. It is critical to the planet, global economy, and our livelihoods and has the potential to contribute towards the restoration and protection of nature. Nature financing is vital for the successful shift towards sustainability since existing financing is directed mainly towards unsustainable financing activities. Therefore, there is a need for a critical and better understanding of the different components and interactions of the nature-linked sectors to facilitate informed coordination and managing mechanisms to manage and direct sustainable human relationships with nature.

Below are articles classified into climate, biodiversity, and ocean finance to offer deeper insights and a better understanding of the current state of nature financing per the provided category.

## Article 1

### Global Nature Markets Landscaping

*December 2022*

According to the Kunming Montreal Biodiversity Framework (GBF), there is a USD 700 billion financial gap that requires immediate action to help efforts to halt biodiversity loss. Apart from government and support from relevant institutions, there is a growing emphasis on investing in nature through the nature markets, which are promising tools for finance mobilization in different jurisdictions and help achieve nature-positive outcomes. However, nature is still underpriced in the economy and over-exploitation of natural resources in the market causes market inequalities and negative externalities. There are growing nature markets with a price and trade nature, and to strengthen and facilitate their exponential growth, relevant market governance and infrastructure mechanisms should be enacted. Additionally, understanding the size and distribution of the current nature markets will foster effective nature markets.

#### **The current state of nature markets**

Nature markets constitute a significant part of the global economy contributing approximately 11% of the global GDP (almost \$10 trillion). Below is an overview of the size and key features of the current state of nature markets.

Product markets- are the largest in nature markets, with a turnover of \$9 trillion annually, and the extractive and agricultural commodities mainly drive this market.

Access markets- traded on wildlife and nature-based tourism and has an annual turnover of \$260 billion, mainly in Asia Pacific and Africa. This market has significant economic benefits for conservation fundraising and the local communities.

Conservation markets- generate nearly \$10 billion yearly from the payment of ecosystem services from the private and public sectors.

Credit markets are valued at over \$10 billion yearly, and the markets use crediting mechanisms on restoration projects to achieve nature and net-zero objectives.

Asset markets- with 1.2 billion hectares of private and market-accessible ecosystem assets, ownership structures vary between countries and ecosystem asset types.

Derivative Markets- are nature financial instruments whose value is derived from underlying assets like stocks, bonds, commodities, and currencies.

### **Trends and opportunities in current nature markets**

As the nature markets continue to grow exponentially and find traction in the financial market, there is a need to increase the credibility of the markets and confidence in investors. Mainstreaming nature markets and enacting functional policies, regulations, laws, and relevant technologies increase the efficiency of the markets. Risk assessment and consumer preferences in the market are essential to provide the right nature markets products to the relevant market and contribute to positive nature outcomes and biodiversity conservation.

**Source: *Taskforce on Nature Markets***

## Article 2

### Increasing the Alignment of Global Finance with Nature

*September 2022*

To halt biodiversity loss and tackle climate change, the global financial economy for the public and private financial flows requires alignment to bring forth nature-positive outcomes. To address and solve financial misalignment, understanding the disconnects, identifying the right solutions, and designing the right tools for national and international levels and the public and private sectors will achieve positive changes/objectives.

#### **Existing challenges**

Aligning finance with nature is an urgent imperative; therefore, there is a need for a clear understating of what alignment entails, an agreed definition of what nature-positive is, and the development of a measuring methodology for the progress attained in nature-positive alignment.

#### **Presented opportunities.**

Regarding the existing challenge, designing tools to measure, report and respond to the finance flow misalignment is an urgent requirement. With the relevant tools in place, debated upon and enacted policies will address the challenge at different levels, including international, national, corporate, and global levels.

**Source: *Nature Markets***



## Article 3

### Societal Dimensions of Nature-Related Risk Management and Disclosure: Considerations for the TNFD Framework

*November 2022*

The Taskforce on Nature-Related Financial Disclosures (TNFD) recognizes societal dimensions in nature-related dependencies, impacts, risks and opportunities inclusion in risks assessment and disclosure in the TNFD framework, which aims at shifting global financial flows to nature-positive outcomes from negative-nature outcomes. For businesses and financial institutions to invest in nature, a science-based framework factoring in nature into business and financial decision-making will scale financial investments.

There are four vital societal dimensions critical to the design and development of the TNFD nature-related risks management and disclosure framework:

- Consideration of human rights / environmental rights, including the right to access a clean and sustainable environment and the interplay between other human rights related to nature/environmental rights;
- The stewardship role, rights and traditional knowledge of Indigenous Peoples and Local Communities (IPLCs);
- Access and benefit sharing from the use of genetic resources and other environmental assets, and related traditional knowledge; and
- Issues of social justice and equity and the need for a just transition to a nature-positive and net-zero economy

#### **Human and environmental rights**

Nature loss and degradation can violate internationally recognised human rights and environmental rights for communities like IPLCs living in and near degraded ecosystems. Governments and companies are now responsible for safeguarding and protecting these rights. Policies and processes that identify, prevent and mitigate negative impacts on human rights are essential to guide businesses and corporates responsibility. Communication of the set policies and process is vital to enhance implementation. Legally binding obligations strengthen the respect of these rights across national levels and in different sectors.

### **The stewardship role, rights and traditional knowledge of IPLCs and access to benefits**

The IPLCs are significantly impacted by nature loss and degradation, and they have proven they protect the ecosystems through their community practices, institutions and knowledge. Corporates and businesses need to include the IPLCs in decision-making processes affecting the environment and especially in ecosystems; they interact in a free, prior, informed and consent way. The local communities must also enjoy fair and equitable benefit sharing from ecosystem services. Policies designed need to protect the IPLCs and their contribution to environmental protection.

### **Social justice, equity, and a just transition**

Financial institutions and companies are in recognition of social justice and equity consideration benefits driven by societal and governmental concerns. These factors are crucial for an organization's social license and should be integrated into risk assessment and management processes. Equity is required in accessing environmental assets, ecosystem services benefits and distribution of any other costs arising from using nature among different demographic groups. Transitioning to a net zero economy requires implementation in a just manner for all stakeholders to enjoy associated benefits, and to achieve this development of necessary and applicable guidelines is essential.

In conclusion, the involvement of businesses/companies and financial institutions is vital for society to achieve a net zero economy. Implementing policies, legally binding obligations and participation of the right stakeholders will accelerate innovation and invention of the right tools for risk assessment and decision making. The language used should be simple and easily understood by the implementing partners and stakeholders. In addition, the protection of the right to a healthy environment will be achieved when efforts are harnessed from different sectors with the recognition of the nature-positive impacts contributed by the IPLCs. Integrating the four societal dimensions of nature-related dependencies, impacts, risks, and opportunities will facilitate companies' and financial investments in nature.

**Source: *Taskforce on Nature-Related Financial Disclosures***

## Article 4

### Nature as an Asset Class or Public Good? The Economic Case for Increased Public Investment to Achieve Biodiversity Targets.

*December 2022*

International efforts to halt biodiversity loss have often failed to meet global targets. The existing biodiversity financing is often referred to as a barrier to stopping biodiversity loss. Globally, private financing to fund the global biodiversity goals has become hegemonic; however, the world needs to shift towards public investment in nature. Increasing direct government investments to achieve biodiversity targets is a broader green industrial strategy more suitable for incentivizing nature and ecosystem services. Well-targeted public nature investment can be a viable macroeconomic mechanism to ensure the provision of ecological public goods critical to economic productivity and resilience. However, there are still barriers that require addressing to implement public investment in nature successfully.

#### **Private conservation financing barriers**

Financial instruments attract large-scale private financing into conservation but incur high transaction costs to ensure ecological effectiveness. Market-led environmental governance mechanisms must prioritize effective market functioning and, at worst, preserve incentives to avoid adverse regulatory/repricing mechanisms and regulate nature markets.

#### **The hidden costs of de-risking**

Using public funding to 'de-risk' nature asset classes to attract mainstream investors may represent an overly expensive use of government investment capacity. If large-scale private financing mechanisms struggle to deliver high-quality ecological outcomes cost-effectively, the deprioritization of public funding sources in favor of private finance has perhaps been premature. Therefore, increasing direct government funding could be explored to achieve biodiversity targets.

#### **Public conservation funding**

The ongoing global challenges pressure public budgets; however, direct government investment in nature does not have to be deficit-financed. The reorientation of public subsidies harmful to biodiversity is an important source of public funds, estimated to be USD 500 billion yearly. Public financial institutions are also well placed to scale up nature-based projects given these

investments are in many countries considered off government balance sheets; indeed, state investment banks are playing a major role in supporting climate investment in both emerging and high-income economies.

In conclusion,

- Reversing biodiversity loss requires financial mobilization from the private and public sectors.
- Conservationists should push for a robust economic case for increased direct public funding of nature conservation.
- Well-managed private sector financial innovations and corporate social responsibility funding can make a positive environmental difference worldwide
- To deliver positive ecological outcomes, robust governance and oversight are required.
- A critical question at the current juncture is to identify what kinds of ecological conservation and restoration projects would likely be more cost-effective and ecologically successful to fund through public versus private financing instruments.

Global North-South financing inequities also need attention, and a viable financial mechanism is blended financing.

**Source: Katie Kedward; Sophus zu Ermgassen; Josh Ryan-Collins; Sven Wunder**

## Article 5

### Integrating Climate and Nature the Rationale for Financial Institutions

*September 2022*

Climate change and nature are interconnected, and historically, they have been addressed in a segregated manner. Climatic changes like temperature rise and changes in precipitation have impacts on nature. Despite the deep interconnections of climate change and nature, the risks, and financial implications of the two are handled independently. Financial institutions have first focused on transitioning to a net-zero economy, addressing challenges of managing climate-related risks and supporting their clients in meeting their emissions reduction plans. Financial institutions' engagements should now address nature loss and degradation. Failure to address nature loss some several risks and opportunities will be missed.

#### **Financial institution's considerations in integrating climate change and nature**

- The materiality of nature-related risks, over and above climate-related financial risks
- Unintended consequences for nature when actions focus exclusively on climate mitigation and adaptation
- Compounding effects from interactions between climate change and nature loss
- Potential synergies and cost efficiencies when addressing climate change and nature loss
- Potential risks to the stability of the financial sector

#### **Solutions (next steps)**

- Have an informed corporate engagement guide designed for financial institutions to enable them, their clients and their investees to attain net zero emissions while restoring and protecting nature.
- Integrate nature-related financial risks into existing climate agendas.
- Build on pioneering research.
- Enhance collaboration between different partners, including the Taskforce on Nature-related Financial Disclosures (TFND) and academia.

In conclusion,

- Policymakers, regulators, clients and investee companies must make considerable changes to incorporate nature in their decision-making.
- Adequately address the financial risks from nature loss.
- Address climate change and nature loss in an interconnected manner.
- Measure and manage nature-related risks to help investment and lending decisions.

***Source: University of Cambridge Institute for Sustainability Leadership***

## 2. Compilation of Select Articles Related to Climate Finance.

### Article 1

#### 101 Sustainable Finance Policies for 1.5° C

*April 2023*

Climate change and environmental degradation have huge impacts on our economy, and to mitigate climate-related risks transmitted through macro and microeconomic risks, the world needs to transition to a net zero emission economy and limit global warming to 1.5°C. Society must undergo a transition to reach 1.5°C. The societal transition offers technological, industrial, economic and political opportunities. The political opportunity steers the real and financial economy towards a green future. The green transition provides economic development, energy sovereignty and job creation. Investors are supporting the transition; therefore, policymakers need green development plans and investments to harness the momentum and leverage the capital flows and fund infrastructure and development at the national and global levels.

A rapid transition offers economic benefits from cheaper renewable energy technologies compared to fossil fuels. The current climate policies and government commitments must be revised to achieve the ambitious climate goals. For policymakers to drive the world to zero net emissions and meet the 1.5°C in a smooth, rapid transition and safeguarded development priority, various instruments/mechanisms exist to explore to scale policy ambition, strengthen climate policies, and increase government commitments. The focus policy areas of action are;

1. Rapid action by all decision makers (speed)
2. Tilt the whole economy to transition (steer)
3. Clarification and streamlined sustainable investment (simply)

#### **Rapid action by all decision-makers**

There are different policy actions for implementation for a rapid and smooth transition that will enable climate change mitigation and resilience alongside economic development through investments and increased stability. Policymakers need to design policies that;

- Align development strategies with climate targets and capture sustainable finance to fund economic development. These policies need to be robust and applicable at sectoral and national levels.

- Have a roadmap to coordinate sustainable finance by aligning regulators, the central bank and government departments.
- Promotes global collaboration and coordinated action that is crucial to facilitate cross-border investment flows.

### **Tilt the whole of economy to transition.**

Investors make their investment decisions by evaluating the risk to return and, therefore, to increase investment returns in climate; there is a need to address climate-related risks and opportunities to help deliver climate goals. Implemented and enacted policies need to shift from high-risk carbon-intensive towards sustainable investments to increase green development opportunities and halt or drastically reduce climate-related risks. In addition, clarity of climate-related risks will increase green investments as investors will know where and what to invest in.

The whole economic transition requires reduced dependence on fossil fuels and increased utilization of renewable energy technologies. Subsidies supporting fossil fuels must be stopped and shifted to renewable energy. Immediate action is necessary, including investors and corporates publishing their transition plans to guide the introduction of relevant tools to assess impact exposure.

### **Clarification and streamlined sustainable investment.**

Policymakers can simplify the decision-making process in sustainable investment and streamline investment procedures to promote investment in sustainable initiatives. Sustainable investment can be facilitated by establishing science-based green standards or taxonomies, clarifying the criteria for sustainable investments and identifying green opportunities. Policymakers can attract international private financing by aligning with international standards.

To minimize investment bottlenecks and promote easier investment in sustainable instruments, accelerate permits for green bonds, and organise regular and creating dedicated segments for green bonds will be helpful. Nonetheless, carbon credits should be applied cautiously to avoid offsetting avoidable emissions and instead focus on preserving high-carbon stocks and supporting legit carbon credits for conservation actions. A green bond program can catalyze change, showcasing green bond benefits, attracting international investors and funding critical government expenditures.



In conclusion, to achieve the 1.5°C limit in global warming, policymakers must integrate investment strategies in climate mitigation and adaptation into development strategies and harness the growth opportunities availed by the shift to net zero. Some benefits of the economic transition to net zero include job creation, avoiding stranded assets and significant savings in climate change. The challenge lies in directing investments towards climate priorities and reducing investment risks in climate change.

Policymakers are tasked with reorienting finance flows and coordinating efforts from stakeholders: the government, central bank and regulators operating in sustainable finance. Implementation of critical policies like climate targets and carbon budgets, identifying climate risks as stability risks, providing incentives in sustainable finance, and establishing science-based green standards, governments will access significant financial funding to decarbonize and scale sustainable finance flows.

**Source: *Initiative Climate Bonds***

## Article 2

### Postface: Fragmentation, Failing Trust and Enduring Tensions Over What Counts Us Climate Finance

2017

The Paris Agreement in Article 2(1) commits nations to ‘making finance flows consistent with a pathway towards low greenhouse gas emission and climate-resilient development’. Nonetheless, there is a lack of internationally agreed accounting rules that would allow overall assessments of the progress of these goals and permit meaningful performance comparisons between countries. Nations need to have a functional accounting system in place, and it should apply to all nations globally and nationally.

#### **Climate finance governance**

Non-binding approaches to climate finance will give countries greater discretion to determine their levels of effort and accounting standards. Precision is needed to help reflect a consensus of climate finance barriers faced by developing and developed countries to facilitate implementing their climate finance commitments.

#### **Accounting for climate finance**

A transparent and comprehensive climate financing mechanism is a requirement for accurate reporting and data collection to scale up climate finance. Decisions under the UNFCCC fall short of a robust accounting framework for climate finance. The shortfalls need to define what counts as climate finance and who is responsible for counting it, making it hard to fulfil set climate finance commitments. Even with existing reporting mechanisms, most nations still need to ensure transparency and completeness in their reporting. A common reporting mechanism or methodology is vital in comparing climate finance performance. In addition, climate finance reporting mechanism (s) should have adequate systems for defining, categorizing, tracking, and evaluating climate finance.

In conclusion, there is a need for clear definitions and guidelines established in climate finance and channels of flows that should be accounted for. There is a need for a comprehensive reporting mechanism and accounting systems to help in data collection and performance comparison between countries. Two accounting systems are essential for

- Keeping track of set pledges are being met
- If the global economy is shifting away from fossil fuels towards renewable energy
- To identify if climate finance commitments are being met, an internationally agreed mechanism needs to be agreed upon by negotiators, while the global shift can be left for data aggregators.

**Source: J. Timmons Roberts & Romain Weikmans - UNFCCC**

### 3. Compilation of Select Articles Related to Biodiversity Credits

#### Introduction

According to the Kunming Montreal Global Biodiversity Framework, biodiversity credit markets are now recognized mechanisms to drive financing towards protecting and restoring biodiversity and bridge the existing financing gap of \$700 billion. However, due to the nascent nature of these markets, there is a need to monetize the previously unpriced ecosystem services and implement relevant governance mechanisms and policies, capacity development and involvement of all relevant stakeholders, including the IPLCs, to ensure the maturity of these markets and prevent perverse outcomes.

#### Article 1

##### **Biodiversity Credit Markets: The Role of Law, Regulation and Policy**

*April 2023*

Biodiversity credit markets are now recognized mechanisms that drive financing to protect, regenerate and steward biodiversity and close the existing biodiversity financing gap. The Kunming-Montreal Global Biodiversity Framework in Target 19 has recognized the biodiversity credits as a potential mechanism for financial resource mobilization. Therefore, with the continued developments in the biodiversity credit markets spectrum, there is a need to establish a legal, policy and regulatory framework to address the associated complexities and uncertainties that may arise in this voluntary market and scale up private and public investors in the biodiversity credits. Below are the requirements to establish and govern high-integrity biodiversity credit markets and drive the markets towards nature-positive and equitable outcomes.

##### **The role of law, regulation, and policy**

Any market requires laws, regulations, and policies for proper functioning. Detailed laws, regulations and policies lay a foundation for establishing obligations and guidelines for operations of this market-based approach in governing and operating high-integrity biodiversity credit markets. In this context, with strong governance and integrity measures, an enabling environment of unlocking private investment in the biodiversity credit markets through increasing

confidence of the supply and demand side actors in scaling up their biodiversity investments will, in turn, reduce the existing biodiversity financing gap.

## **Legal, regulatory and policy biodiversity credit markets governance considerations international framework**

Target 19 recognizes biodiversity credits as a potential financial resource mobilization mechanism in the Global Biodiversity Framework, attracting private sector investments. However, it does not establish an international framework for biodiversity credit markets. Having in place international rules and mechanisms like a global biodiversity credit regulator in the biodiversity credit markets needs prioritization in the CBD negotiations and protocols to mainstream the use of capital to achieve positive biodiversity outcomes and set global expectations around the scheme design and safeguards of IPLCs and meaningful benefit sharing. In addition, there should be national accountability for questions arising from how climate change mitigation and biodiversity outcomes are financed. Clear guidelines are necessary to address the potential "double claiming" issue and determine responsibility for conservation outcomes in international funding arrangements.

### **Scheme design and administration**

Scheme design and registration is critical to scale biodiversity market investors' confidence and equitable outcomes for all stakeholders at the national and international level. The government has two roles in scaling biodiversity credit markets:

1. Market administration
2. Market enablement

The scheme administrator will be responsible for

1. Registry
2. Setting out standards on the eligibility criteria and requirements
3. Approve scientific methodologies to generate biodiversity credits
4. Registration
5. Verification
6. Issuance of the biodiversity credits

## 7. Cancellation

National or subnational governments that opt to take on the role of market administration in biodiversity credit schemes will be accountable for establishing and managing the necessary components of the scheme to facilitate transactions, which can be achieved through legislation or policy, with a legislative approach offering greater market certainty and attracting increased investment.

### **Legal right to biodiversity and land/sea**

Laws and a common understanding of who owns the rights to land/sea biodiversity credit are key requirements for buyers and sellers to understand their legal mandate and activities in the biodiversity credit scheme. The legislation clearly attributing the legal rights to biodiversity and land/seas needs to be enacted to support the development of biodiversity credits and address concerns on ownership that may arise.

### **Safeguards for IPLC's**

Safeguards for IPLCs developed through the VCM should be adopted and enhanced, in the development of biodiversity credit markets through international frameworks and in accordance with existing guidance from civil society, including the IUCN Global Standard for Nature-based Solutions<sup>5</sup> and 'High-level Governance and Integrity Principles for Emerging Voluntary Biodiversity Credit Markets'. IPLC safeguards and outcomes should be essential elements of the verification process for biodiversity credit schemes.

### **Integrity of claims**

The government and consumer protection agencies need to develop clear guidance when developing the biodiversity credit markets for eligibility claims linked to voluntary biodiversity claims to reduce enforcement action and litigation cases. Some areas that require clear guidance with claims include: international transferability, double claiming of outcomes, offset claims by the private sector and sale of carbon and biodiversity outcomes.

## **The integrity of financial markets**

The biodiversity credit markets are quite new and are financial assets that can be traded and scrutinized, like the carbon markets. Enacting financial regulation mechanisms in the biodiversity credit markets will be beneficial in providing a robust oversight level to prevent market abuse even with market growth.

Potential legal enablers for scaling biodiversity credit markets

1. Mandatory preparation and disclosure of natural capital accounts.
2. Mandatory disclosure of nature / biodiversity-related financial risks.
3. Imposition of a nature/biodiversity tax and trading system.

In conclusion, robust governance frameworks are critical in biodiversity credit markets as they mature and prevent perverse outcomes. All stakeholders, including the government, private sector, IPLCs, non-government regulators and civil society, play a significant role in achieving this outcome. Legal, regulatory and policy actions will ensure high-integrity outcomes in the integrity of claims, the integrity of financial markets, safeguards for IPLCs, and society.

**Source: *Taskforce on Nature Credits***

## Article 2

### Embedding Equity in Nascent Nature Credit Markets

*December 2022*

The world is facing a twin crisis: biodiversity loss and climate change due to massive nature destruction and disregard for nature. There is a need to value ecosystem services to rebalance biodiversity, and including IPLCs, scientists, and conservation groups is critical. Valuing ecosystem service can be explored through nature markets, including carbon credits, addressing climate risk and biodiversity loss to ensure sustainable and equitable human development. Due to the nascent nature of the nature credit markets, potential risks implicating equity may arise. Positive governance is necessary to embed equity and safeguard the design and integrity of the market.

#### **Equity in nature markets**

In nature, credit markets equity ensures historical injustices are not revisited. Equity, according to CBD COP 14, comprises three dimensions, recognition, procedures and distribution. The recognition acknowledges and respects values, information systems, and stakeholders; procedures include inclusiveness in decision-making, and distribution refers to the equitable sharing of benefits to all actors.

#### **Risks in the nature of credit markets**

Some of the risks that arise in the nature of credit markets include.

- Expropriation of land and land access rights of IPLCs and other communities
- Unequitable sharing of benefits from projects and credit sales
- Exclusion of key project communities from project design and approval
- Rent-seeking behaviour by intermediaries.
- Undervaluation of ecosystem services
- Abuse of market power by those in power, for example, through corruption



### **Structural nature of credit market risks**

- Weak governance frameworks, including poor legal framing of nature and rights (land ownership)
- Weak policy implementation and enforcement
- Nature in the global legal system is still treated as property; therefore, nature ends up being exploited
- Product integrity, data integrity, and counterpart integrity are essential to address these risks.

### **Governance for equitable and natural positive outcomes**

Governance in the credit markets will increase credibility and increase investors in the markets. There are several mechanisms applicable to govern the markets, including:

- Over-the-counter – can be used to regulate and restrict excessive profits gained by buyers resulting in access to private/undisclosed information about the future value of natural resources.
- Regulated capital markets- allows for the development of natural markets and lead to the discovery of better prices and increased liquidity.
- For fair prices of the assets, the ownership of assets needs to be retained, and trade should be on the ecosystem services.
- Clear information should be provided to all stakeholders and the protection of the IPLC's rights to the natural assets safeguarded.
- Technology like blockchain is critical to address the concerns of the investors, especially when verifying and transparency of the nature contracts. Technology is vital to enforcing governance in the credit markets.
- Capacity development to help develop relevant mechanisms, including technology, literacy, verification, reporting, and monitoring of outcomes.
- Enacting relevant governance mechanisms to help coordinate and harmonization of efforts to protect nature

In conclusion, nature credit markets are a potential resource mobilization from the nature markets to address the three planetary crises. If efficient, it will monetize the previously unpriced ecosystem services like carbon sequestration, biodiversity enhancement, and storm protection. Relevant governance mechanisms and policies, capacity development and involvement of all stakeholders, including the IPLCs, are vital in regulating the carbon credit markets.

**Source: *Taskforce on Nature Markets***

## Article 3

### Exploring Design Principles for High Integrity and Scalable Voluntary Biodiversity Credits

*December 2022*

Biodiversity credits are standardized units of positive biodiversity outcomes acquired by those who want to drive positive biodiversity outcomes. They are generated by one or several actors through the conservation or restoration of biodiversity, monitored over time and verified. Biodiversity credits can contribute to reducing the existing biodiversity financing gap and drive halting biodiversity loss and climate change. Voluntary biodiversity credits are faced many barriers causing inefficiencies in the markets. Addressing the barriers is vital to scaling private funding and reducing the complexities of delivering and verifying tangible biodiversity gains.

#### **Enabling Factors for biodiversity credits**

- Ensuring robust monitoring of biodiversity credits
- Ensure biodiversity credits are not used as offsets
- Reduce transaction costs (cost-effectiveness)
- Enhance strong social safeguards
- Integrate local indicators into a flexible global monitoring framework
- Put in place measuring mechanisms of the positive outcomes/changes
- Prioritize prevention through a mitigation hierarchy
- Encourage landscape / jurisdictional approaches
- Transparency in reporting

#### **Businesses interest in biodiversity credits.**

Interest in biodiversity credits results from businesses, stakeholders, conservation practitioners and intermediaries play a critical role in achieving societal expectations of nature. When businesses/ companies avoid or reduce impact aligned with societal goals and science-informed targets, the results are biodiversity-positive outcomes. However, there is a need for a monitoring framework to help businesses and society gain a larger knowledge of the created impacts.

## **Risks associated with the voluntary biodiversity credits**

There is a need to put in place mechanisms to ensure the purchase of the credit mechanisms is not used as a right to pollute. Utilizing the good practice frameworks for businesses to prioritize the implementation of mitigation hierarchy based on science will focus on border value chain impacts. The credibility of biodiversity credits is a crucial requirement to increase investments from the private sector.

### **Risk management mechanisms**

- Monitoring mechanisms must be cost-effective, increase confidence among investors, deliver tangible gains and deliver conservation actions on the ground.
- Design to measure/assess conservation outcomes
- Ensure full, free, prior, and informed consent (FPIC) of project-affected people.
- Equitable and efficient sharing of social and ecological benefits
- Biodiversity crediting assessment framework to help simplify biodiversity information as per an identified location embedded in the global framework.
- Contribute to recognized global conservation priorities and align with regional and local conservation plans where relevant, to promote effective targeting of conservation finance.

In conclusion, the biodiversity credits markets are still nascent; however, has the potential to grow. There are different credits availed to purchasers to increase their investment options. The biodiversity credit markets have significant risks that require to be addressed. Exploring high integrity will address the risks, increase confidence in the markets and scale biodiversity to positive outcomes for people and nature. Expertise in ecological, social and finance pillars drives positive outcomes. Technological advancements for measuring biodiversity help scale down costs and scale up investments. In addition, co-designing emerging biodiversity schemes with all actors, including the IPLCs, will address implementation issues.

**Source: *The biodiversity Consultancy***

## Article 4

### Innovative Finance for Nature and People: Opportunities and Challenges for Biodiversity-Positive Carbon Credits and Nature Certificates

*February 2023*

There is a pressing need to halt biodiversity loss and climate change, and resource mobilization is vital to avail resources to initiate and deliver nature-positive outcomes globally. Different mechanisms are available to scale up financial flows into nature conservation and bridge the biodiversity financing gap of \$700 billion yearly, according to the KM GBF. The State of Nature for Finance (UNEP 2022) stresses the importance of investing in cross-over areas like nature-based solutions to address the three planetary crises. One of the nature-based solutions getting traction today is carbon credit markets and nature certificates.

#### **Overview of carbon credit markets**

Carbon markets have grown in the past three decades and are divided into voluntary and regulated markets. Carbon credits serve as avoided emissions and carbon sinks like investing in renewable energy and power. These markets aim at achieving net zero emissions and commitments. To enhance the credibility and functioning of these markets, operating standards, governance, information and empowerment are required to reduce inequalities and irregularities that may lead to market failure.

#### **Nature certificates**

Nature certificates are a unit of biodiversity financing conservation and restoration of nature and provide funds for the local communities that live and interact with nature. When designed meaningfully and collaboratively, nature certificates can be purchased and provide social, political and economic benefits to the IPLCs. In addition, nature certificates help restore, preserve and support efforts for degraded land restoration.

#### **Challenges in biodiversity-positive carbon markets**

1. Aligning timeline of biodiversity and carbon outcomes- most methodologies accounting for biodiversity outcomes are done yearly; however, biodiversity variations require more time to assess the effects of carbon on biodiversity.
2. Additionality- biodiversity affects the carbon capture and storage capabilities of any ecosystem. This makes it hard for set methodologies to offer the right sale costs.
3. Growing complexity and demand for increased capacity for all market actors- all the challenges faced in this market lead to the increased complexities coupled with the lack of highly qualified auditors making the complexities more heightened for biodiversity-positive credit markets.
4. Matching demand and supply- mainstreaming biodiversity-positive carbon markets is needed to increase the will for buyers to make purchases.

### **Challenges in nature certificates**

Due to the nascency of the market, there are several challenges the market still faces including:

1. Lack of a commonly agreed, internationally recognized certification process
2. Lack of a market architecture
3. Lack of market demand for certificates

### **Common challenges between nature certificates and biodiversity-positive carbon credits**

1. Equitable sharing of revenues reaching IPLCs for both carbon markets and nature certificates remains a challenge.
2. Challenges in biodiversity outcomes, measurements, reporting and verification
3. Challenges in increasing traction due to the packaging of biodiversity, carbon and the related benefits
4. The uncertainty and variability in the outlook for carbon markets, including biodiversity-positive carbon markets and nature certificate markets, along with questioning of existing market standards
5. Additionality poses challenges: complexity, cost, assumptions, and biased funding

towards threatened ecosystems.

In conclusion, biodiversity-positive biodiversity credits and nature certificates are gaining traction today as resource mobilization mechanisms to help bridge the existing biodiversity financing gap. As the mechanisms are still nascent and growing, they are facing several challenges that require addressing, including addressing the integrity and concerns arising, creating an enabling environment through international frameworks and policies, full engagement of stakeholders and benefit sharing for the IPLCs, measuring mechanisms for outcomes, reporting and verification process, scaling up demand and achieving positive nature outcomes from the biodiversity positive carbon markets and nature certificates.

***Source: Global Environment Facility***

## 4. Compilation of Select Articles Related to Ocean Finance.

### Introduction

The ocean ecosystem is critical to the planet, global economy and our livelihoods. However, the ocean ecosystem is under threat from the three planetary crises of climate change, biodiversity loss and pollution, leading to the destruction of the habitats and the decline of the ocean species. There is an urgent imperative to catalyze the transition towards a sustainable blue economy to protect and restore the ocean ecosystem. Ocean financing is vital for a successful shift towards a sustainable blue economy since existing finance is largely directed towards unsustainable financing activities. Therefore, there is a need for a critical and better understanding of the different components and interactions of the ocean-linked sectors to facilitate informed coordination and managing mechanisms to manage and direct sustainable human relationships with the ocean ecosystem.

### Article 1

#### Rising Tide: Mapping Ocean Finance for a New Decade

*March 2023*

The blue expanse covers the biggest per cent of the planet and remits ecosystem services to people and nature. The blue economy faces three planetary crises, i.e., climate change, pollution, and biodiversity loss. Environmental stewardship is required to facilitate sustainability in this sector. The financial sector, including banks, insurers and investors, is critical in transitioning towards a sustainable blue economy. To support this transition, the sustainable blue economy finance principles were launched in 2018 to work as a guide for the market and decision-making from the finance sector to align its activities with SDG 14.

#### **The Sustainable Blue Economy Finance Initiative (SBEFI)**

Hosted by UNEP, FI is a new platform in the market that brings together financial institutions to work with civil society, corporates, and scientists to facilitate the adoption and implementation of sustainable blue economy finance principles, ensuring they become operational and useful for financial institutions globally. The SBEFI aims to.

- Positively influence mainstream ocean-related investment, insurance, and lending to drive development that underpins a sustainable blue economy.



- Catalyze the finance sector engagement and practical action to deliver a sustainable blue economy and support the ambitions of SDG 14
- Develop concrete actions and outputs for insurers, lenders, and investors to align lending, insurance, and investment decisions with ocean health.

There is a need for clarity around the financing for the sustainable blue economy state, the definition of sustainable blue finance concepts and an overview of its current status. Five key sectors form the basis for SBEFI that form the basis for transition.

### **1. Seafood (including fisheries and aquaculture)**

The world fisheries remain overexploited, and financing institutions can scale sustainable fishing activities by pivoting away from the provision of insurance and capital to companies involved in over-exploitation of fisheries and, in turn, finance continued sustainable growth. One of the mechanisms financing institutions can explore include seeking sustainability certification for fisheries and introducing new solutions for monitoring, control, and surveillance (MCS) of fishing effort and fisheries traceability.

### **2. Maritime transportation**

Maritime transport is a great driver of global trade and the economy. Maritime transport impacts the environment notably via water, air and noise pollution and increases the risk of introducing invasive species and coalitions with wildlife. Decarbonizing maritime transport and identifying new cargo transport methods is necessary. A guiding framework will be helpful to move this sector towards sustainability in line with global policy efforts on sustainability and climate.

### **3. Port development**

Ports significantly impact marine and terrestrial ecosystems and are vulnerable to physical risks from climate change. Modernizing the port sector globally is critical to align with the Paris Agreement and SDGs targets. Financing institutions can explore financing resilient and green infrastructure in ports.

### **4. Coastal and marine tourism**

The tourism industry needs to understand sustainability better to help facilitate the adoption of sustainability standards in tourism operations. The Global Sustainable Tourism Council (GSTC) is leading in developing common standards for sustainable tourism in the industry. However, the GSTC has a notable absence of standards, regulations and benchmarks for sustainability where

jurisdiction varies. Financial institutions can facilitate greater awareness and use of sustainability benchmarks in the tourism industry by requiring sustainability certification in their financed transactions.

#### **5. Marine renewable energy**

Favourable regulations to support marine renewable energy will boost investments and overcome the high costs of capital associated with developing marine renewable energy. There is also a need for greater clarity around the impact of marine renewable energy on society and the environment.

### **Recommendations**

From the presented needs and opportunities, there are areas for intervention to scale up the development of the sustainable blue economy.

- Wherever possible, leverage existing guidance, standards and best practice for sustainability at the sectoral level
- Complement and expand, rather than duplicate, existing and planned guidance directed towards financial institutions
- Guidance should apply across financial instruments as well as to a wide range of financial institutions
- Guidance should be applicable across a broad range of regional circumstances
- Include financial institutions and other stakeholders in the development and refinement of the guidance
- Guidance for risks assessment and management
- Identification of metrics and targets used to assess and identify climate risk in financial institutions

**Source: UNEP Finance Initiative: Sustainable Blue Economy**

## Article 2

### Reviving the Ocean Economy, the Case for Action

*April 2015*

Ocean health is declining rapidly, resulting from local stresses such as habitat destruction, overfishing, pollution, and rapid and unprecedented changes in ocean temperature and acidity. There is an urgent imperative to act towards responding to these crises to save the ocean economy by making bold and decisive actions as an international community. Rapid action on several critical issues will help deliver real change and benefits for the ocean ecosystems, businesses and people depending on them. Below are the logical and achievable actions that are mutually reinforcing to help deliver real change and restore the ocean ecosystems while supporting sustainable businesses.

1. Governments must embrace the Sustainable Development Goals, with their strong targets and indicators for the ocean, and commit to coherent policy, financing, trade and technology frameworks to restore and protect ocean ecosystems as part of the UN Post-2015 Agenda process.
2. Leaders must address the serious problems of ocean warming and acidification. We must listen to science and make deep cuts in emissions that will prevent further increases in dangerous climate change. It is vital that the world signs on to an ambitious international agreement in Paris in December 2015 (COP21) that will allow the rapid decarbonization of our economies and societies.
3. Coastal countries must deliver against the agreed target for at least 10 per cent of coastal and marine areas to be conserved and effectively managed by 2020, with an increase to 30 per cent by 2030. This is not just about the extent of the area protected; it is about establishing ecologically coherent, representative networks of marine protected areas that help ensure the strongest outcomes for biodiversity, food security and livelihoods.
4. Habitat protection and fisheries management must go hand in hand. Institutional arrangements for managing the ocean should reflect that an integrated approach for ecologically managed fisheries must focus on ecosystem resilience, function, and economic and social well-being.

5. Global crises require global solutions. Given the transboundary nature of the ocean, we need appropriate international mechanisms for negotiation and collaboration to ensure its sustainable management. The formation of a "Blue Alliance" of concerned maritime states will provide leadership and build the case for a rapid and comprehensive set of actions on behalf of the ocean. Such a coalition could cultivate international will and foster the shared global responsibility and informed decision-making crucial for ocean resources. It will also be important to establish a global fund to support countries with fewer resources and more vulnerable to ocean degradation's impacts.
6. Appropriately structured public-private partnerships that consider the well-being of communities, ecosystems and businesses can revolutionize how sectors work together sustainably. Enabling a network of such cross-sectoral partnerships (public, private and community) to share ideas, solutions and blueprints for sustainable practices will ensure that even the least developed countries can access the necessary resources.
7. Communities and countries must develop complete, transparent and public accounting of the benefits, goods and services that the ocean provides. Valuing the ocean's assets is vitally important to helping inform effective decision-making.
8. There is a need for an international platform to support and share ocean knowledge through which problems can be understood and solutions and methodologies evaluated and applied. Such a platform must be interdisciplinary and informed by biological, social and economic data. This platform will build capacity and improve access to critical information and expertise.

**Source: *World Wide Fund for Nature***

## Article 3

### Building a Sustainable Blue Future

2020

The ocean ecosystem can be a powerful economic engine, but only when managed sustainably. Relevant stakeholders need to rethink the business-as-usual approach by redirecting mainstream finance into sustainable and restorative development pathways. To achieve this, harmful practices need to be rejected and advance nature-based solutions that benefit people and the planet. Investing in a sustainable blue economy can reduce biodiversity loss, build resilient communities and mitigate climate change effects.

The public and private financing sectors, including multilateral development banks, investors, insurers, and private banks, are vital in influencing finance and development decisions that aim to build social, environmental and economic resilience.

#### **A sustainable blue economy**

The sustainable blue economy finance principles provide a global framework to guide investment decisions that can build social, environmental and economic resilience. Apart from future-proofing banks, these investment guidelines also benefit coastal communities and advance sustainable development where needed the most.

Target: by 2030, the sustainable blue economy principles are mainstreamed into ocean finance decisions leading to at least \$ 25 billion of finance being channelled into the sustainable blue economy.

The blue future initiatives are aimed towards;

- Reducing environmental, social and economic risks
- Build resilience by restoring natural capital

To achieve there is a need for;

- Broad adoption of the sustainable blue finance principles
- An enabling environment that reduces risk and builds investor confidence.

Policymakers are encouraged to redirect finance and investment away from harmful, short-sighted practices to sustainable fisheries and aquaculture, offshore wind and other ocean-based renewable energy, green shipping, coastal and marine waste management, sustainable tourism, marine conservation, and coastal blue and green infrastructure.

**Source: *World Wide Fund for Nature***

## Article 4

### Sustainable Blue Economy Finance Initiative

#### A Leadership Community Accelerating the Transition Towards the Sustainable Use of the World's Ocean, Seas and Marine Resources

2018

The coastal ecosystem is vital to our planet, the global economy, and our lives. However, the existence of the ocean ecosystem is under threat from the three planetary crises. Therefore, there is a need for immediate action to preserve this ecosystem. The financing sector, including banks, insurance providers and investors, plays a critical role in supporting the conservation and sustainable development of the ocean ecosystem. Through its products, services and relationships, the financial sector can help preserve and safeguard oceans, financing the transition to a sustainable blue economy.

#### **The sustainable blue economy finance principles**

14 sustainable blue economy finance principles translate ambition into action. The Sustainable Blue Economy Finance Initiative is a new platform that aims to bring together financial institutions to work with scientists, corporates and civil society.

#### **The initiative seeks to:**

- Positively influence mainstream ocean-related investment, insurance and lending to drive development that underpins a sustainable blue economy
- Catalyze finance sector engagement and practical action to deliver a sustainable blue economy and support the ambitions of SDG14 (Life Below Water)
- Develop concrete actions and outputs for insurers, lenders and investors to align lending, insurance and investment decisions with ocean health

#### **Joining the community to catalyze ambition to action creates a pathway to:**

- Raising awareness
- Sharing knowledge
- Facilitating peer-to-peer learning

- Fostering cross-sectoral exchanges of experience and practices
- Developing guidance and resources
- Highlighting opportunities

#### **Benefits of joining the community:**

- Join the global community and help shape the future of the industry
- Gain access to an international network of professionals
- Leverage our dissemination power at a global level
- Discover best practices across the financial landscape
- Catalyse change, contributing to major industry reports
- Peer exchange for practical advice, technical assistance and capacity building
- Align on common approaches and methodologies
- Access the latest science and policy developments
- Get involved at an early stage in drafting industry guidance
- Capitalize on our pool of resources
- Use our platform to amplify your successes
- Use of the logo in your marketing materials (Signatories only)

#### **How organizations can join the community**

Eligibility: Financial institutions and organizations with expertise relevant to a sustainable blue economy are eligible to apply. There are two options for joining, with different expectations and benefits for each.

##### **Option 1**

##### **Signatory member**

Commitment- Agree to adopt the 14 Sustainable Blue Economy Finance Principles.

Membership -Agree to membership of the Sustainable Blue Economy Finance Initiative.



Reporting- Publicly report (annually) on how the institution is working to implement the Principles.

Communications-Allow use of the logo on marketing material.

Participation- Join the community of practice meetings and calls. Give input to discussions and work programmes.

Decision-making Participate in decision-making on a work programme to support the implementation of the Principles and opportunities to contribute to outputs of the initiative (e.g. briefings/guidance)

## **Option 2**

### **Member**

Commitment- Expectation of working towards the adoption and implementation of the Principles. Financial Institutions who join as members are expected to become signatories to the Principles in time.

Membership- Agree to membership of the Sustainable Blue Economy Finance Initiative.

Reporting- Report to the Secretariat (annually) how the organization plans to support blue economy finance.

Participation -Join the community of practice meetings and calls. Give input to discussions and work programmes.

### **Application process**

#### **Option 1 Signatory and Member**

Step 1 - Submit an application form for membership in the Sustainable Blue Economy Finance Initiative signed by a senior representative.

Step 2 - Vice-President or Board-level representative sign the Sustainable Blue Economy Finance Principles.

Step 3 - Provide logo and include Sustainable Blue Economy Finance Initiative and signatory status in communications materials.

Step 4 - Participate in a community of practice and decision-making.

Step 5- Publicly report (annually) on how the institution is working to implement the Principles.

### **Option 2 Member**

Step 1 - Submit an application form for membership in the Sustainable Blue Economy Finance Initiative signed by a senior representative.

Step 2 - Include Sustainable Blue Economy Finance Initiative membership in communications materials.

Step 3 - Participate in a community of practice.

Step 4 - Report to the Secretariat (annually) how the organization plans to support blue economy finance

### **Governance overview**

The UNEP Finance Initiative hosts the Sustainable Blue Economy Finance Initiative, and its governance is structured into the secretariate, founders advisory group and members group.

### **Secretariat**

Responsible for overall project management, community management and communications. It coordinates with UNEP FI's Insurance, Investment and Banking work streams and reports on activities to the Founders Advisory Group.

### **Founders Advisory Group**

Delegates from UN Environment Programme, European Commission, WWF, World Resources Institute and the European Investment Bank will set direction, provide guidance and validate progress. They will meet at least two times per year.

### **Members Group**

All Signatories and Members are part of this group. Meeting at least four times per year (in person or virtually), they share knowledge, expertise, and experiences relative to achieving a sustainable blue economy. Primarily consisting of financial institutions, this group may include other interested parties such as NGOs, IGOs, think tanks, central banks, finance industry associations, foundations, civil society organizations and other organizations with a dedicated sustainable blue economy agenda.

**Source: United Nations Environment Programme Finance Initiative**

## Article 5

### Principles for a Sustainable Blue Economy

2018

According to WWF, the term 'blue economy' or 'blue growth' must respect ecosystem integrity, and the only secure pathway to long-term prosperity is through the development of a circular economy.

The ocean ecosystem is under pressure from human economic activities and is further threatened by development approaches that are fragmented and uncoordinated. Guidance on governance, active leadership and a set of necessary actions are key in driving towards a sustainable blue economy. Principles for a sustainable blue economy are a roadmap for necessary actions and policies required from all stakeholders, governments, the financial sector, civil society groups, international agencies and regions.

#### **Characteristics of a sustainable blue economy**

A sustainable blue economy is a marine-based economy that;

- Provides social, economic benefits for current and future generations
- restores, protects, and maintains the diversity, productivity, resilience, core functions, and intrinsic value of marine ecosystems
- It is based on clean technologies, renewable energy, and circular material flows

A sustainable blue economy is governed by public and private processes that are

- Inclusive
- Well-informed, precautionary and adaptive
- Accountable and transparent
- Holistic, cross-sectional and long-term
- Innovative and proactive

To achieve a sustainable blue economy, the public and private sector actors must;

- Set clear, measurable, and internally consistent goals and targets for a sustainable blue economy.
- Assess and communicate their performance on these goals and targets
- Create a level of economic and legislative playing field that provides the blue economy with adequate incentives and rules
- Plan, managed and effectively governed the use of marine space and resources, applying inclusive methods and the ecosystem approach
- Develop and apply standards, guidelines, and best practices that support a sustainable blue economy.
- Recognize that the maritime and land-based economies are interlinked and that many marine environment threats originate on land.

**Source: *World Wide Fund for Nature***

## Article 6

### National Accounting for the Ocean and Ocean Economy

May 2023

Catalyzing the transition towards a sustainable blue economy depends on coordinating and managing the human relationship with the ocean ecosystem. However, to achieve this organized information that is currently often disorganized and spread across multiple government agencies and is sometimes unavailable is critical. National ocean accounts contain and organize information that describes countries' economies and aids decision-makers and the public understand near-term policy outcomes and long-term sustainability.

#### **National ocean accounts**

They provide a system to organize and process information to guide sustainable development. Therefore, national accounts aim to provide a comprehensive conceptual and accounting framework that can be used to create a macroeconomic database suitable for analyzing and evaluating the performance of an economy. The existence of such a database is a prerequisite for the creation of informed, rational policy and decision-making. The ocean requires to be fully accounted for in the system to enable decision-makers to understand the current state of the ocean and strengthen measures aimed at conserving and restoring ocean biodiversity while strengthening its productivity, creating livelihoods, reinforcing food security and enhancing regional stability. Several indicators are a requirement to manage the complex ocean economy, including;

#### **Ocean product**

Measures the 'outputs' of human efforts regarding the ocean to provide 'means' or 'inputs' into achieving other social and economic goals; monetary components of the ocean product account aggregate to ocean GDP or net domestic product (NDP).

#### **Changes in the ocean balance sheet**

Provides a sustainability indicator. A stable or increasing balance sheet is necessary for sustainability. This is because the balance sheet reports the current and future potential for the

ocean to provide products and benefits as it contains natural capital like minerals and fish population, and any changes in the balance sheet integrate physical and monetary changes.

### **Ocean income**

Measures benefits to nationals from the ocean, the 'ends' or 'outcomes' of policy; income accounts aggregate to net national income (NNI), though in practice, national statistics offices usually produce gross national income (GNI). Income measures can be disaggregated to show the importance of the ocean for different segments of the population. Furthermore, income can include non-monetary types of income, though these are often expressed in monetary equivalents.

World leaders need to request reports on all three indicators and discuss information on national income, changes to national balance sheets, and changes in GDP in public addresses and policy meetings.

### **Accounting principles for a sustainable ocean economy**

Application of the below principles can unlock the information from national accounts required to pursue and measure progress towards a sustainable ocean economy.

1. Focus on policy questions and decision-making on
  - How will the decision change the wealth on an ocean balance sheet, including all relevant produced assets (e.g. ports) and non-produced (e.g. coral reefs)?
  - How will the decision change net national income or welfare, and how are the changes distributed between different groups of people?
  - How will this decision change ocean-based economic production and create new means to achieve social and economic goals?
2. Use and build on the existing internationally agreed framework for national accounting.
  - Regularly computing net national income focusing on income from the ocean and its distribution.
  - Creating and maintaining national balance sheets complete with produced and non-produced assets.

- Maintain these statistics through time. Statistics are most useful when there is a long time series of regularly produced statistics.
3. Avoid overreliance on GDP by
- Funding the production of net national income and balance sheets.
  - Reducing barriers to collaborative efforts between government statistical offices and other institutions, using data in a format compatible with existing national accounting systems.
  - Using net national income, and its distribution, balance sheets and GDP to balance present benefits and maintain wealth for future generations
4. Lead or contribute to collaborative efforts to improve national accounting systems.
- Develop accounting practices considering market and non-market ocean contributions to net national income.
  - Develop cross-cutting digital platforms and tools that enable the management of algorithms and large volumes of economic, biological and physical data to support accounting summaries and analytics.
  - Develop digital reporting tools that enable leaders to familiarize themselves with information about the ocean quickly.
  - Commit to global partnerships to share best practices and build capacity for ocean accounting.

In conclusion, developing national accounts to guide sustainable ocean economic development is critical, although it can be a hard task. Most of the data exists in national accounts, government agencies or scientific databases, and the knowledge to build the connections exists; however, it is dispersed throughout government, academia, businesses and non-governmental organizations.

**Source: High-Level Panel for a Sustainable Ocean Economy**



## Article 7

### The Ocean Finance Handbook: Increasing Finance for a Healthy Ocean

*April 2020*

The ocean ecosystem supports livelihoods, climate change mitigation, and businesses; however, the ocean ecosystems and marine species have been pushed to the brink with the continued unsustainable human activities. Therefore, exploring applicable and sustainable investment models is vital to achieve a sustainable blue economy and restore ocean biodiversity. However, the available financing and the scale of investment continue to lag due to missing prerequisites, including political willingness, financial literacy, the nascent nature of the sustainable blue economy and generalized challenges related to financing in the developing world where most of the emerging blue economy sector opportunities lie. To overcome these challenges, clearer governance frameworks and technological innovations for investing in emerging markets, financial literacy and business planning capacity builds are key to addressing the existing hurdles.

#### **Opportunities in the sustainable blue economy**

Investment in the sustainable blue economy is divided into three broad categories, including natural capital, commodities and marine and coastal development. To steer sustainability from the existing opportunities, identification of the existing sectors in the ocean economy that require financing redirection, development of new sectors for sustainable investment and designing innovative conservation financing are key towards establishing a sustainable ocean economy.

#### **Investment models**

Existing financing models in the sustainable blue economy can potentially drive both public and private financing, including bonds, loans, debts, grants, and crowd investment, among others. However, to increase financial investment in the sustainable blue economy, several barriers require to be addressed, including;

1. The need to speak the same blue economy language through building common understanding and investor engagement for the successful development of investment for the blue economy and develop financial literacy in the sustainable ocean economy
2. Political willingness as a bedrock to progress in ocean finance
3. The financial system is yet to realize the full extent of sustainable blue economy opportunities.
4. Significant opportunities exist for private investment in emerging sectors of the blue economy: Redirecting existing capital flows towards sustainable practice and incorporating sustainability considerations into mainstream finance is particularly relevant for the established sectors of the blue economy.
5. More transparency in existing capital investment is needed to gain a clear picture of the blue economy as it stands.

**Source: *Friends of Ocean Action***

## Article 8

### Turning the Tide: How to Finance a Sustainable Ocean Recovery: A Practical Guide for Financial Institutions

*March 2021*

Oceans hold 97% of the planet's water and 80% of all life forms and support major sectors in the global economy, including tourism, fishing, shipping, aquaculture and marine renewable energy, which constitute the blue economy. The blue economy global value is estimated at \$ 1.5 Trillion and is projected to increase to \$ 3 Trillion by 2030. The three planetary crises threaten ocean health and require urgent action to protect the ocean ecosystem, livelihoods, businesses and industries. To drive towards a sustainable blue economy (SBE), the financing sector is critical in ensuring financing is directed away from unsustainable lending and investment activities towards a sustainable blue economy. By so doing, ocean biodiversity will be protected and restored.

#### **Role of financing institutions in SBE**

The biggest percentage of available finance is currently directed to support unsustainable blue economy activities. Banks, insurers and investors play a critical role in diverting the existing financing towards sustainable pathways. Financial institutions can accelerate and mainstream the sustainable transformation of ocean-linked industries through their lending, underwriting and investment activities and client relationships.

#### **Role of a voluntary framework SBE**

With the efforts in place to move towards a sustainable blue economy, a voluntary framework aims to guide the financing sector applicable across the five key sectors to refine and develop sustainable financing for different stakeholders, policymakers, and practitioners. Additionally, the framework is applicable in the different ocean-linked sectors and guides on best practices for sustainability, including governing the financial sector engagement through regulations which is a key requirement in harmonizing and coordinating sustainability globally. Set policies and regulatory frameworks need to consider different countries and regions like the least developed countries and small island developing states to ensure financial development in the sustainable blue economy in these countries and regions that are beneficial to all stakeholders.

#### **Sectoral overview**

There are five ocean-linked sectors that require regulation to achieve a sustainable blue economy.

- Seafood, including both fisheries and aquaculture, as well as their supply chains;
- Ports;
- Maritime transportation;
- Marine renewable energy, notably offshore wind; and
- Coastal and marine tourism, including cruising

A practical toolkit designed per each sector's needs is pivotal for financial institutions to align their activities towards financing a sustainable blue economy. The toolkit should outline mitigation and avoidance mechanisms relevant to environmental and social risks and impacts and highlight opportunities that can be leveraged by financing institutions in different projects.

***Source: United Nations Environment Programme***

## Article 9

### Diving Deep: Finance, Ocean Pollution and Coastal Resilience

March 2022

The ocean ecosystem is a vital driver of the planetary systems, a source of economic activity, livelihoods and food security. However, the three planetary crises negatively impact the sector leaving the ocean-linked industries, businesses, and livelihoods exposed to the impacts of biodiversity loss. The value of the blue economy is currently estimated at \$1.5 Trillion in 2010 and is expected to double to \$ 3 Trillion by 2030.

#### **Financing state**

The existing financing is largely directed towards unsustainable financing activities. In an effort to address this challenge, there are established Sustainable Blue Economy Principles, which are a guiding framework for banks, insurers and investors to finance a sustainable blue economy. Bringing together financial institutions, scientists, corporates, and civil society is key to translating ambition into action. This will be possible through:

- Positively influence mainstream ocean-related investment, insurance and lending to drive development that underpins a sustainable blue economy;
- Catalyse finance sector engagement and practical action to adopt and implement the Principles to deliver a sustainable blue economy and support the ambitions of SDG 14;
- Develop concrete actions and outputs for insurers, lenders and investors to align lending, insurance and investment decisions with ocean health.

#### **Sectoral involvement in the sustainable blue economy**

Different sectors are linked to ocean activities, including coastal and infrastructural resilience and waste prevention and management, which play a huge role in economic development and environmental and societal impacts. Guidance providing sector-specific decision-useful information to banks, insurers and investors is critical in identifying and maximizing existing opportunities, associated risks and impacts when financing companies and projects within a sustainable blue economy.

#### **Coastal and infrastructural resilience**

Coastal infrastructure is prone to disasters resulting from climate change and ocean biodiversity loss. There is a need for financial investment to increase coastal adaptation, estimated at \$40-170 billion annually by the end of the century. Financial institutions require capacity building and stakeholder engagement to understand better nature-based solutions on coastal infrastructure, associated risks and criteria to maximize existing opportunities.

### **Waste prevention and management**

There is potential in addressing waste prevention and management relating to the blue economy and scaling up environmental protection and public health: producer responsibility and consumer responsibility through recycling, reuse and reduction. Financing the waste management sector is critical to promote existing initiatives in delivering their set mandates and objectives in waste prevention and management. Different fiscal instruments can be explored to finance waste prevention and invest in technologies relevant to this sector.

**Source: *United Nations Environment Programme***

## Article 10

### Harmful Marine Extractives: Understanding the Risks & Impacts of Financing Non-Renewable Extractive Industries

#### Dredging & Marine Aggregate Extraction

*May 2022*

The ocean ecosystem is a great driver towards climate change mitigation and adaptation. However, the ocean ecosystem is threatened by the three planetary crises mainly resulting from human activities. There is an urgent need to reduce human activities that drive ocean ecosystem degradation and biodiversity loss. The ocean-linked sectors can support and grow a sustainable ocean ecosystem; however, this is not the case for all sectors, mainly the extraction of non-renewable marine resources, particularly:

- Offshore oil and gas
- Dredging and marine sand and gravel (aggregates)
- The potential future development of deep-seabed mining

These sectors pose a huge challenge to the environment, ocean ecosystem and society. The financing sector plays a critical role in scaling up actions towards a sustainable ocean ecosystem. However, for financial institutions to align their financing activities in these sectors towards sustainability, the provision of science-based and decision-useful information to support financial institutions' transition away from or avoid any involvement in non-renewable energy, marine extractives is critical. Below are recommendations that be used by the financing sectors to achieve more responsible dredging practices that result in an overall reduction in the damaging impacts associated with dredging and aggregate extraction.

#### **Focus on green infrastructure.**

Dredging and aggregate extraction activities are mainly dependent on capital construction and infrastructural projects. Therefore, investment in these sectors should recognize the additional impacts and risks resulting from dredging and marine extraction. Financing institutions should shift their financing activities and investments towards nature-based solutions. In addition, an assessment methodology for identifying nature-based solutions by financial institutions is

necessary to facilitate the transition to more responsible practices and the deployment of dredging capacity towards low-carbon and green infrastructure.

### **Financing sector support towards sustainable ocean-linked sectors**

Financiers and insurers should seek opportunities to partner with relevant organizations to help reduce the negative social and environmental impacts of dredging through investment in alternatives to aggregate material for concrete. Promote changes to design and construction methods that reduce the need for marine dredging and sand and gravel. Financing is critical in ensuring responsible sourcing in the aggregate supply chain.

In conclusion, there is an urgent need to reduce the environmental footprint from the extraction of non-renewable marine energy resulting from dredging activities and apply best practice management to aid the reduction of the overall environmental footprint of dredging and aggregate extraction activities.

Financiers must better understand how and where dredging and aggregate extraction sits within broader project supply chains. With this, financiers gain the opportunity to positively influence positive change and move away from harmful practices, reducing risks and increasing returns by supporting important infrastructures towards sustainability.

***Source: United Nations Environment Programme***



## Article 11

### Harmful Marine Extractives: Understanding the risks & impacts of financing non-renewable extractive industries.

#### Offshore Oil & Gas

*May 2022*

Ocean health is under increasing stress, faced with the three planetary crises leaving economic activities and livelihoods dependent on the ocean ecosystem exposed to serious risk. Most ocean-linked sectors have the potential to contribute positively to a blue economy; however, this does not apply to all sectors. The extraction of non-renewable marine resources, such as oil & gas and seabed mineral deposits, poses a significant risk to the ocean and cannot be considered sustainable. The extraction of non-renewable marine resources, such as oil & gas and seabed mineral deposits in particular, poses a significant risk to the ocean and cannot be considered sustainable. The financing sector plays a critical role in transitioning this sector to more sustainable alternatives by directing its financing activities to sustainable activities.

#### **Transitioning to a net zero future**

##### **The role of financial institutions**

Financial institutions continue to invest in the oil and gas sector, which is inconsistent with a cost-optimized Paris-aligned climate-change scenario. On this basis, many financial institutions have sought to divest their portfolios entirely of hydrocarbon companies and now support a thoughtful and rapid equitable transition towards a low-carbon economy. It is, however, acknowledged that many financial institutions remain invested in this sector.

##### **How financing institutions can contribute towards net zero emissions**

Financial institutions that remain invested should refrain from providing financial services for the development of new oil and gas fields and other activities that are incompatible with the International Energy Authority (IEA's) Net-zero Emissions by 2050 Scenario (NZE) and require existing oil and gas clients to produce credible transition strategies toward NZE. Financing institutions need to be aware of and consider the broad range of additional, non-climate-related impacts that create material risks to financial institutions, specifically in the area of reputational and regulatory risks and operational and physical risks.

Financing institutions should seek out and incentivize opportunities to drive the oil and gas industry to adopt new technology rapidly and operational approaches that will allow them to reduce their environmental footprint significantly:

- Deploying industry capital and resources to support a smooth transition to the sustainable renewable offshore energy
- Reducing the emissions associated with oil and gas production and its supply chain;
- Supporting integrated sustainability of companies, including encouraging the reduction of oil and gas dependency in other companies and holdings.

**Source: *United Nations Environment Programme***

## Article 12

### Harmful Marine Extractives: Understanding the Risks & Impacts of Financing Non-Renewable Extractive Industries

#### Deep-Sea Mining

*November 2022*

The ocean ecosystem is critical to our planet, livelihoods, and economic activities. However, the ocean ecosystem is under increasing stress resulting from the three planetary crises leaving industries, businesses, and livelihoods relying on the ocean exposed to serious risks. Most ocean-linked sectors have the capacity to contribute towards a sustainable blue economy; however, this does not apply to all sectors. The extraction of non-renewable marine resources such as oil & gas and seabed mineral deposits, in particular, poses a significant risk to the ocean and cannot be considered sustainable.

#### **Role of financing institutions in non-renewable extractive Industries**

A significant amount of financing continues to be directed towards exploiting non-renewable marine mineral resources, which have social and environmental impacts. Financing institutions need to refrain from financing unsustainable extractive activities to manage and transition to more sustainable alternatives.

#### **The current state of deep-sea mining**

The deep sea contains many of the most pristine, biodiverse, poorly studied, and evolutionarily remarkable ecosystems on our planet, which provide a broad range of critical ecosystem services. Commercial deep-sea mining has not yet commenced; however, current scientific consensus suggests that deep-sea mining will be highly damaging to ocean ecosystems. Furthermore, the combined potential impacts from mining and other stressors on the marine environment (such as climate change, unsustainable fishing, and pollution) increase the level of uncertainty and may exacerbate disturbance from mining. Due to the nascency of this sector, there are no existing robust, precautionary approaches to safeguard the ocean against the potential ecological impacts of deep-sea mining.

#### **Existing barriers**

Due to the high levels of scientific uncertainty, the prospect of deep-sea mining continues to attract significant opposition, with scientists, environmentalists, the European Parliament, and some national governments calling for a moratorium until its ecological consequences can be better understood. Increasingly, these concerns are also being supported by a broad range of private-sector organizations.

Significant challenges must be overcome before the sector can be recognized as economically viable or a responsible industry that can contribute positively. These challenges present potential investors with significant risks.

### **Opportunities for financing institutions available in the sector**

According to ongoing work undertaken by UNEP FI, there is no foreseeable way in which the financing of deep-sea mining activities can be viewed as consistent with the Sustainable Blue Economy Finance Principles or compatible with the spirit and intent of the Sustainable Blue Economy.

Instead of supporting the nascent deep-sea mining sector, financial institutions wishing to finance the extraction of necessary rare earth and metals and support the transition to a sustainable blue economy could focus efforts on alternative strategies that would:

1. Reduce the environmental footprint of terrestrial mining;
2. Support the transition toward a circular economy that promotes the reuse of raw materials in the economy, making current minerals demand obsolete and setting us on a path to a circular resource economy.

**Source: *United Nations Environment Programme***

## **Article 13**

### **The Blue Economy and Small States**

#### **Commonwealth Blue Economy Series, No. 1**

*September 2016*

The ocean ecosystem is intrinsic to the global economy as it supports the planet and economic and social value to the people. Many small island developing states (SIDS) have jurisdiction over globally significant ocean areas, which typically far exceed their terrestrial footprint and are, therefore, dependent to a large extent on ocean resources and the sectors they support. The three planetary crises now negatively impact the small island developing states threatening their existence. Moving to a blue economy is critical to facilitate the restoration, protection and sustainable growth of the small island and developing states.

#### **The blue economy**

The blue economy offers a mechanism to realize sustainable growth in the ocean economy. Blue economy presents a promising avenue for economic diversification and growth embedded in fundamental principles of environmental sustainability. Sustainable utilization of ocean resources has a high potential to mitigate some of the inherent structural challenges of SIDS.

#### **Challenges in the development of blue economy and small states**

Most of the challenges faced result from the small populations, small domestic markets and limited conventional natural resources, including;

- Undiversified economies
- Climate change
- Limited fiscal space
- High unit costs of providing public services
- Some of the SIDS are highly vulnerable to extreme patterns and climate change.
- Unsustainable fishing practices
- Pollution from land-based and marine activities

- Marine invasive species
- Habitat destruction from coastal development and extractive industries
- Poor governance practices

### **Opportunities in the development of blue economy and small states**

There is an urgent need for a paradigm shift on how ocean resources are used and managed to reverse current approaches that lead to over-exploitation, marine ecosystem degradation and incompatible uses. The new paradigm should encompass the need for a healthy, productive and biologically diverse ocean, well-established and newly emerging economic activities, sustainable livelihoods and secure human settlements. Ocean-related sectors that offer opportunities for sustainable exploration and support the blue economy include:

- Fishing
- Maritime transport
- Coastal tourism
- Aquaculture
- Ocean-based renewable energy
- Biotechnology
- Blue economy opportunities, climate change mitigation and resilience

### **How to create an enabling environment in support of the blue economy**

Creating a healthy, resilient and productive marine environment is inextricably linked to the sustainability of economic livelihoods for coastal communities and the economy. Effective management of the marine environment and maintaining and restoring ecosystem health and integrity is fundamental to ecologically sustainable development. Priority areas of management to facilitate the growth of the blue economy include:

- Effective ocean governance at an international and national level
- Support investment in and development of existing sectors
- Promote investment and innovation to support the development of new sectors

- Develop the backward and forward linkages in the value chains of existing sectors
- Implement effective policies and strategic ocean development plans
- Invest in sustainable coastal and marine infrastructure
- Technology, research and development to generate the knowledge needed in decision-making and supporting economic development
- Education and capacity building
- Maritime surveillance, monitoring and enforcement system for effective management of the ocean space and future economic development

**Source: *The Commonwealth Secretariat***

## Article 14

### Aquaculture

#### Commonwealth Blue Economy Series, No. 2

*September 2016*

The marine environment provides valuable economic, social and cultural resources, which can contribute to the sustainable economic development of small island developing states (SIDS) and larger coastal states. However, with the three planetary crises of climate change, pollution and biodiversity loss, there is a need to protect the planet's oceans. The sustainable blue economy offers a mechanism for economic diversification and sustainable growth in SIDS. Aquaculture in the blue economy, specifically the mariculture industry supported by specific enabling conditions, offers sustainable economic opportunities that have the potential to support the green economic growth of the SIDS. For the mariculture industry to ensure sustainability, some options and opportunities require exploration.

#### **Initial sectoral prioritization**

Aquaculture products are globally traded, and it is unlikely that a SIDS will be able to compete in the global market based on price. Therefore, the SIDS should look to develop aquaculture products for the domestic market or niche products that attract a higher price, such as eco-labelled products or products that can obtain added value by trading on the image of the SIDS.

#### **Integrating planning of sectors within the blue economy**

Considering the possibilities of multi-sector development in integrated scenarios will identify overlap in actions (e.g. in relation to research or local infrastructure), address possible conflicts and develop dialogue on the comparative costs and benefits within the context of sustainable development.

#### **Developing indigenous skilled capacity**

Local capacity should be addressed as a strategic issue requiring coordination across the blue economy and the economy as a whole rather than within individual sectors.

#### **Developing in step with local capacity**



There are options for basing the aquaculture development of SIDS on expertise, technology and investment from outside the SIDS. While this is entirely possible, it poses significant risks in terms of the economic, social and environmental sustainability of the industry. Allowing the industry to grow slower using indigenous capacity enables greater social acceptance of the enterprise. It ensures that markets, infrastructure and technical expertise can all be developed within the SIDS, reducing the overall risk.

### **Using existing frameworks for sustainable mariculture development**

Any aquaculture development should use the ecosystem approach to develop an aquaculture framework.

### **Creating a management and regulation framework based on the EAA**

A comprehensive aquaculture policy based on the EAA will allow the industry to develop within a framework that provides economic and environmental sustainability. Management, regulation and policy should be based on sound scientific principles and evidence.

### **Investing in creating institutional capacity and links between industry, academia and regulators**

It is likely that, unless there is an existing aquaculture industry, the SIDS will have a small or non-existent research capacity in aquaculture. This capacity should be built with specific regard to making the outputs relevant to both industry and regulators, and resources should be used to ensure that there is direct access for regulators and industry to the research community.

### **Coherent cross-policy activity**

The blue economy framework should be used to assist in developing clear action plans, and activities should be rationalized under different policy initiatives.

### **Developing scientific research capacity**

A national study into the capacity for research and current international collaboration is supported, ensuring that, in addition to technical skills, it also considers social science and entrepreneurial aspects relevant to the development and local ownership of blue economy activity.

### **Developing a stepwise approach to capacity development**

Especially for those SIDS without an existing aquaculture industry, it would be beneficial to start at the low-complexity end of the spectrum of development and to allow the aquaculture industry to grow organically (supported by government investment) and to move up the complexity spectrum as local capacity and infrastructure develop.

**Source: *The Commonwealth Secretariat***

## Article 15

### Recommended Exclusions for Sustainable Blue Economy Financing

*June 2021*

In order to achieve a sustainable ocean economy, financing institutions play a critical part by shifting their financing activities from an unsustainable ocean economy towards a sustainable ocean economy. In the different ocean sectors, including; seafood, ports, maritime transportation, marine renewable energy, coastal and marine tourism, coastal resilience, infrastructure, and nature-based solutions and waste prevention and management, financial institutions require to have capacity, verification and indicators to identify unsustainable financial flows in the blue economy to stop/or avoid financing such activities.

#### **Exclusions for sustainability blue economy financing**

There are recommended exclusions for financing institutions to avoid in support of a sustainable blue economy.

#### **Seafood**

1. Businesses operating illegally in the ocean economy
2. Businesses not compliant with national and international regulatory standards
3. Businesses not compliant with local regulations on farming non-native species
4. Species being fished, processed or sold are on the IUCN Red List of Threatened Species
5. Evidence of use of destructive fishing practices
6. Evidence of catching or sourcing from vessels that do not have robust and transparent by-catch measures in place for non-target species (by-catch) that are on the IUCN Red List of Threatened Species
7. Evidence of racial or gender-based discrimination in farms, fisheries, or the supply chain workforce.

#### **Ports**

1. Ports that do not enforce IMO/MARPOL limits

2. Ports with air pollution fines. Require enforcement of air quality regulations and emission practices.
3. Ports with MARPOL waste management violations
4. Organizations not MARPOL compliant and implementing the best practice on safety and clean-up.
5. Port construction and implementation that conflicts and harms IUCN red-listed species and habitats. (Require EIA and SEA transparency and verification)

### **Maritime transportation**

1. Companies with SO<sub>x</sub> and NO<sub>x</sub> emissions above IMO/ MARPOL limits
2. Companies with violations of the IMO Ballast Water Treaty or lacking hull treatments against biofouling
3. Companies not in compliance with IMO and MARPOL regulations relating to waste disposal at sea or disposing of toxic and quantifiably high levels of waste into the sea.
4. Companies that use exhaust gas cleaning systems ("scrubbers") instead of compliant distillate fuels. If fuel scrubbers are used as an interim solution, they require closed-loop, not open-loop, technology with safe waste disposal on land.
5. Companies with poor labour conditions for workers or violating the Maritime Labour Convention (2006).
6. Companies using or carrying HFO in Arctic waters.
7. Entities with MARPOL violations.

### **Marine renewable energy**

1. Projects developed in the absence of marine spatial planning until a stakeholder engagement process is in place and/or the development has been contextualized with a wider marine spatial planning process (in developed economies)
2. Projects developed in the absence of a stakeholder engagement process encourage developers to work with the government to explore the establishment of a marine spatial planning process if none exists (in developing economies)

3. Wind farms are designated for development in areas of high ecological value, high biodiversity and critical habitat for ETP species.
4. Developers who have not taken steps to minimize noise pollution from wind farm development.
5. Wind farm developments that exceed minimum legal standards for environmental criteria, including water quality, noise and GHG emissions;
6. Developments that do not seek to mitigate any impacts from collisions on birds or bats. In some jurisdictions, these mitigating steps may be a legal requirement.
7. Development sites that do not take the environmental impacts of seabed disturbance and the potential for conflict that this creates into consideration in sensitive habitats, areas of high biodiversity or ecological value.

#### **Coastal and marine tourism**

1. Any development within IUCN Type I protected areas, critical habitats, or areas providing vital ecosystem services.
2. Cruise ship companies without risk mitigation plans in place for operations within critical habitats or protected areas, including appropriate adaptation measures, speed reduction and avoidance of migratory species
3. Tourism projects that have not been developed in consultation with local communities and environmental groups
4. Cruise ship companies that are not working actively to limit the number of organisms in their ballast water or appropriate disposal techniques in compliance with IMO ballast water management convention.
5. Cruise ship companies without an implemented transition plan away from heavy fuel oil.
6. Developers who are not utilizing best practices for emissions reduction during construction.
7. Companies with destructive wildlife interaction practices (e.g. use of wildlife for commercial entertainment)

8. Cruise ships with emissions profiles are not in compliance with IMO regulations.
9. Any development engaged in land grabbing.
10. Any development engaged in involuntary or coerced displacement of local communities.
11. Developers involved in any way with forced or coerced labor.
12. Developers who are not paying employees and contractors a locally appropriate living wage in line with GSTC Industry criteria B7.

**Coastal resilience: infrastructure and nature-based solutions**

1. Grey infrastructure in protected areas or areas of high conservation value due to associated biodiversity losses
2. Developers without practices in place to reduce greenhouse gas emissions
3. Infrastructure developers without policies or approaches in place to prevent the leeching of chemical pollutants into the environment.
4. Developments where the harmful impacts of noise, light, vibration and heat pollution have not been mitigated or minimized in some way.
5. Any development where the upfront assessment of potential impacts on local communities has not taken place
6. Any development where stakeholder engagement has not taken place on potential impacts and consequences.
7. Developments taking place in areas that would result in degradation or destruction of areas of significant cultural importance, including cultural heritage sites and UNESCO World Heritage Sites
8. Developers who have not established compensation schemes, in consultation with affected communities, for displacement and loss of access due to infrastructure development.
9. Developers who engage in discriminatory hiring practices on any basis, including gender, religion, ethnicity or minority status.

10. Developers who are not paying employees and contractors a locally appropriate living wage.

### **Waste prevention and management**

1. Evidence that product proposition is conceived with built-in obsolescence, directly resulting in reduced product lifespan.
2. Evidence that the full product life cycle proposition has not considered end-of-life options for waste arising from process stages nor options for product end-of-life
3. Evidence of lack of compliance with the use of toxic substances that are potentially harmful to human health and/or the environment.
4. Evidence of material sourcing policies that do not align with Paris Agreement transition plans.
5. Lack of processes for sound management of waste arising from manufacturing activities.
6. Absence of roadmap to transition away from the use of virgin fossil-fuel-derived materials.
7. Lack of evidence demonstrating due consideration of how hazardous materials and chemicals will be safely managed post-consumption.
8. Intention to place products on local markets that do not comply with local regulatory requirements in relation to materials, chemicals and additives.
9. Evidence of intention to place products onto markets that lack effective and responsible waste management infrastructure that may result in negative impacts on local, vulnerable communities and the environment.
10. Evidence of intention to place products onto markets where the lack of an effective regulatory regime results in frequent waste crime activities
11. Evidence of intention to place products onto markets where less restrictive regulations permit the use of materials, chemicals and additives that are more commonly regulated due to their harmful impacts on communities and the environment.
12. Evidence of unsafe practices, inadequate compensation and hazardous working conditions in the formal waste sector.

13. Lack of evidence of feasibility study or demonstrated feasibility of an Alternative Recovery Technology (ART) such as pyrolysis, gasification or chemical recycling for a given market.
14. Lack of due consideration for locating disposal sites where there is a high risk of negative environmental or social impacts arising from leaked waste
15. Evidence of unsafe, unsanitary and inequitable working conditions for employees.

Verification can be carried out in basic or an extended mechanism per the provided provisions.

**Sources: *United Nations Environment Programme Finance Initiative***



## 5. Compilation of Select Articles Related to Risk Assessment and Management.

### Introduction

The three planetary crises pose huge threats and risks to the socio-economic and financial sectors. Biodiversity-Related Financial Risks (BRFRs) pose considerable threats to financial stability, which has caused traction to the financial community. For financial institutions to contribute to bridging the existing global biodiversity financing gap of \$700 billion according to the Kunming Montreal Global Biodiversity Framework and deal with the climate risks and financial instabilities, conducting risk assessments and implementing proper management, adjusting their operation and having in place regulatory tools to current conditions is a fundamental requirement.

### Article 1

#### Aligning Development Finance with Nature's Needs Estimating the Nature Related Risks of Development Banks Investments

*October 2021*

Public financial banks (PDBs) main role is to facilitate sustainable development. Therefore, PDBs that finance activities that damage nature and increase nature-related risks work against their role in sustainable development. Due to continued nature loss and degradation, there is an increase in biodiversity risks, and therefore PDBs should increase their commitment to climate and nature. Biodiversity risks are the leading indicators of financial risks, and PDBs have the potential to reduce their dependence on and mitigate any risks to vulnerable nature and increase their investments in nature-based solutions. In addition, PDBs can impact risk governance, including public reporting to transform the relationship between nature and the finance sector. Also, PDBs can support the Taskforce on Nature-Related Financial Disclosures in developing and building consensus around a cohesive framework for reporting on nature-related risks.

PBS is divided into:

- Multilaterals
- Bilaterals
- Nationals

### Risks

PDBs are responsible for driving change in the financial markets and climate action; they have to directly influence positive nature action in their financial instruments, portfolio and different sectors cutting across their work. PDBs are linked to nature through dependency risk and nature risk.

Dependency risk- the global PDBs asset base is highly dependent on nature in vulnerable countries, and the highest percentage of businesses depend on nature and ecosystem services at a certain percentage. With nature loss and degradation, then, these businesses will suffer.

Nature risk represents the expected cost to society from the potential damage to nature resulting from activities the global PDBs asset base finances could cause.

Assessment, monitoring and reporting on nature risks in PDBs to facilitate positive nature outcomes from all their investment activities and drive nature conservation and restoration.

### **Role of policy and stakeholder involvement**

PDBs should lead the private sector towards systematic change, which can be achieved through the TFND example on safeguards and strategies. PDBs can also support the TNFD in developing and building consensus around a cohesive framework for reporting nature-related risks.

Stakeholder involvement in nature-related fora will facilitate efficient updates of strategies, objectives, investment policies and funding objectives to account for nature and strengthen environmental safeguards.

In conclusion, the role of PDBs is to facilitate sustainable development; therefore, their financial activities should protect and preserve nature. To achieve sustainable development, PDBs should disclose the nature and dependency risks for implementing the right policies and strategies to support their activities. PDBs should also engage with peers and industry groups, commit to undertaking initial nature-related stress tests of their balance sheets, engage in progressive discussions at the board level and with shareholder governments and strengthen environmental safeguards to scale up positive outcomes in nature.

**Source: *Finance for Biodiversity Initiative***

## Article 2

### Banking on Nature: What the Kunming Montreal Global Biodiversity Framework Means for Responsible Banks

May 2023

The Kunming Montreal Global Biodiversity Framework (KM GBF) was adopted in December 2022 and aims to guide global action towards biodiversity and nature. The GBF is relevant to financial institutions working towards aligning their activities with the GBF objectives to help financial institutions manage nature-related risks and benefit from the new opportunities in nature-related sectors and markets. The financial sector requires support to manage associated risks, capture relevant opportunities and prepare for anticipated policy developments that result in new compliance and disclosure requirements.

#### The GBF

The GBF contains four overarching goals to be achieved by 2050 and 23 targets to be achieved by 2030. The whole-of-society approach is required to achieve ambitious goals and targets, including the private sector and financial institutions. The targets translated into national-level policy through NBSAP updates. In the KM GBF, there are decisions on resource mobilization and monitoring focusing on global financial architecture, targeting multilateral development banks, public financing and reporting financial flows relating to biodiversity.

Goal A: this goal aims to reduce harmful financial flows and will significantly contribute to achieving the GBF's objectives. Financial institutions should seek to align their portfolios to promote conservation and reduce financing activities that harm biodiversity. Impact measurement and engagement with clients and investees are critical to achieving this goal.

Goal B: this goal emphasizes the global shift towards a net zero economy to scale biodiversity. To achieve this, financial institutions must align their decision-making to support financing and investment activities supporting the sustainable use of nature and its resources.

Goal C: this goal seeks to ensure equitably and benefit sharing, including the IPLCs. Therefore, financial institutions should ensure stakeholder engagement, including knowledge of the IPLCs

throughout all their financial activities and across the supply chain in free, prior, and informed consent principles.

Goal D: this goal calls for all financial flows to support the implementation of the GBF.

#### **Key Biodiversity targets for key economic sectors**

- Targets 1 to 4 focus on stopping the loss of areas of high biodiversity importance and protecting and restoring 30% of Earth's lands, oceans, coastal areas and inland waters.
- Targets 5 to 8 focus on reducing other pressures on biodiversity from human activities, including plastic pollution, fertilizers, pesticides and other hazardous chemicals (as detailed in Target 7) and climate change (target 8).
- Targets 9 to 13 focus on meeting people's needs in relation to nature, including through the sustainable management of agriculture, aquaculture, fisheries and forestry (as detailed in target 10).

#### **Important biodiversity targets for implementation by Banks**

- Target 14 calls for policies, regulations and an enabling environment for the alignment of private and public financial flows to ensure that financial institutions and businesses start aligning their activities across all sectors with the goals and targets of the GBF
- Target 15 calls for large businesses and financial institutions to regularly monitor, assess and fully and transparently disclose risks, dependencies and impacts on biodiversity along their operations, value chains and portfolios to reduce negative impacts on biodiversity and increase positive impacts
- Target 19 requires an increase in the level of financial resources from all sources, including by leveraging private finance; promoting blended finance; implementing strategies for raising new and additional resources; and encouraging the private sector to invest in biodiversity, including through impact funds and other instruments.

In conclusion, responsible banks must take immediate action to align their portfolios and activities to the GBF and support policies and regulatory developments in their operation market to support biodiversity conservation and restoration. Some of the key action areas are:

- Build critical capacity internally on nature and biodiversity, and establish ownership at the executive/board level to shape governance.
- Map and assess the bank's exposure to risks, dependencies and impacts, including for priority sectors, including food and agriculture
- Engage in target-setting on nature and exchange with peers in the principles of the responsible banking community.
- Develop policies and strategies related to biodiversity and drivers of biodiversity loss (e.g., deforestation), including sector-specific policies or exclusions where appropriate.
- Mobilize internal and external stakeholders, especially clients in high impact, high dependency sectors, on nature transition planning and ensure that nature is reflected within related net-zero transitions.
- Share lessons learned and contribute to continuous improvement of efforts to combat nature loss.

**Source: UN Environment Programme Finance Initiative**

## Article 3

### Global Biodiversity Scenarios: What Do They Tell Us for Biodiversity- Related Financial Risks

*December 2022*

Biodiversity loss and climate change have great impacts and risks to socio-economic and financial sectors. Biodiversity-Related Financial Risks (BRFRs) pose threats to financial stability which has caused traction to the financial community. For central banks and financial institutions to deal with the climate risks and financial instabilities there is a need for conducting biodiversity risks stress tests, adjust their daily operations and regulatory tools to the current conditions.

#### **Biodiversity scenarios**

These are qualitative or quantitative representation of possible futures and are distinguished as: exploratory, intervention and retrospective policy evaluation scenarios. The degradation of ecosystem services which companies depend on for their production has gained traction to researchers and the financial community. Generated physical risks from biodiversity loss have great impacts on the environment, economic activities and human capital which indirectly impact financial valuation. Transitioning to a net zero economy has transition risks referred to as nature-related financial risks (NRFRs) which include changes in policy, consumer preferences or behavior and technological changes aiming at mitigating biodiversity loss resulting from human activities. Therefore, organizations need to assess how their activities impact nature and financial performance impacts.

#### **Biodiversity related stress test methodology**

When strategically analyzing and valuing industrial and sectoral positive and negative impacts on biodiversity and dependencies on ecosystem services the biodiversity related financial risks is an applicable approach. This helps regulators and financial actors anticipate and plan for observed emergence of risks from climate change and associated economic costs.

#### **Existing quantitative biodiversity scenarios**

For financial institutions and central banks to develop stress tests there is a need for quantitative intervention scenarios to facilitate assessment of biodiversity transition risks and exploratory scenarios to analyze physical shocks relating to biodiversity loss. However, this has deemed difficult since there are almost no global physical scenarios of physical shocks that can be linked

to these shifts. In addition, there are comprehensive scenarios designed to assess financial systems resilience to specified transition and physical hazards or shocks relating to biodiversity loss.

### **Sectoral involvement (biodiversity models)**

Models are designed at global levels therefore, leading to absence of accuracy at many levels. Adapted models need to integrate different sectors that capture economic and biophysical dynamics. There is a gap in biodiversity models since guiding policies assume all countries implement payments in a coordinated manner which different since countries have different degrees of payment coordination.

### **Way forward**

- There is a need for research to address the absence of physical risk scenarios to scale efforts to better understand the timing and geographical criteria of regime shifts and ecosystem tipping points. Most narratives are still missing the invasive species aspect.
- Identification of appropriate biodiversity scenarios to build forward looking assessments of physical and transition shocks consequences on industries and sectors for meaningful inclusion of nature related financial risks
- Socio-economic pathways to assess biophysical consequences of their economic growth hypothesis
- Central banks and supervisors should take into account the uncertainties inherent in both integrated models and biodiversity indicators

**Source: Editions AFD Agence Francaise De Developpment**

## Article 4

### Nature and Biodiversity: The Pensions Imperative

*March 2023*

Nature degradation, biodiversity loss and climate change are the greatest threats to the planet, society and economy. Pension providers can make a huge contribution to the conservation and preservation of nature through their investments and portfolios to strive towards nature's positive outcomes and positive impacts on society and the economy. Risks and opportunities are linked to halting biodiversity loss and reflecting on how they interact with nature.

#### **Steps to support policymakers.**

Different risks may face society, the financial sector and the economy, including physical risk, litigation risk and transition risk, potentially damaging business profitability, value chains and nature. Indirect/direct effects of businesses on the value of businesses through changing customer perceptions and behaviour that favours policies and strategies that preserve and conserve nature will mitigate against nature loss and degradation while growing relevant regulatory and legal processes. In addition, robust and acceptable measurements are required to help achieve the set biodiversity goals and targets in the Global Biodiversity Framework.

#### **Measuring nature related risk**

Nature-related risk management in pensions and businesses will be required to support better strategic development, risk management and decision-making. Therefore, it is vital to more accurately assess complex exposures to nature-related risks and identify opportunities that will support resilience and returns in the long run. There is a need for standardization of methodologies to support the assessment of risks and opportunities to support data collection and stakeholder engagements resulting in the development of tools for nature-related risks. It is also critical to understand how reporting mechanisms will evolve over time.

#### **Recommendations**

The GBF calls for large companies and financial institutions to monitor, assess and disclose their risks, dependencies and impacts on biodiversity through their operations, supply and value chains and portfolios. Therefore, pension providers and businesses will integrate nature-related risks management and opportunities in their operations, supply chains and portfolios. For the



government and the pension sector to turn their ambition into real action, below are several recommendations to guide their operations.

### **Government**

- Demonstrate leadership in protecting nature
- Establish incentivizing policy
- Incentivize capital flows into nature protection and restoration via regulation of the voluntary carbon market
- Integrate nature-related risks and targets into all policy and regulatory matters
- Deliver and implement clear governance and accountability
- Optimize coordination, planning and engagement

### **Pension**

- Increase awareness, build capacity – be 'nature smart.'
- Assess portfolio exposure
- Support corporate engagement and transformative action
- Carry out policy and regulatory advocacy

**Source: *Scottish Windows***

## Article 5

### The TFND Nature-Related Risks and Opportunity Management and Disclosure Framework Final Draft- Beta v0.4

*March 2023*

Society and businesses depend on service provided by nature however, with nature loss and degradation there are increased risks to businesses and financial institutions. There is an urgent need for businesses and financial institutions to manage the potential and current risks, sustainable use of nature, and achieve nature positive outcomes to benefit the society and businesses at large. Governments across the globe have set ambitious climate goals to halt biodiversity loss.

#### **TNFD**

The TNFD is a global market led initiative aiming to develop and deliver risk management and disclosure framework for businesses to report and act on evolving nature-related risks and opportunities and ultimately support the global shift of financial flows from nature-negative outcomes to nature positive outcomes.

#### **Partners**

The key partners involved in the TFND works are corporates, financial institutions and market intermediaries across the globe.

To develop the framework an open innovative approach was utilized to gather feedback from market participants and other stakeholders and the IPLCs and the civil society. There will be continued engagements through the formal consultation process and the general feedback process.

#### **Key recommendations in when developing disclosures**

- Use of simple and clear language to accelerate consistency and support to be integrated in sustainability disclosures
- Identify disclosures from the Taskforce on Climate-Related Financial Disclosures that are still relevant for adoption in the nature context

- Identify other additional disclosures that could be warranted and considered by the TNFD, considering nature related dependencies, impacts, risks and opportunities.

### **The Leap Approach**

Dependencies and impacts on nature are location specific and can present risks and opportunities to organizations. Businesses and financial institutions need to identify and assess their nature related issues, regardless of whether they are required to disclose those to capital providers, regulators and other stakeholders. The LEAP approach is structured to deliver the above. Even so, not everything identified, assessed and evaluated using the LEAP approach is recommended by the TNFD to be disclosed.

In conclusion,

- A clear and concise language will aid in implementation, governance, risk and impact assessment
- Involvement of stakeholders in for a to update the guidance on identifying priority locations
- Developed new guidance on engagement with affected stakeholders
- Appropriate measurements and assessments mechanisms developed to support set objectives
- Implement effective reporting
- Reporting to reflect both negative and positive impacts
- Align with global policy goals
- Offer nature-based solutions along the value chains in activities financed by financial institutions
- Include experts in the framework development to aid development of relevant guidance tools
- Identify priority areas for the framework

**Source: Taskforce on Nature Related Disclosures (TNFD)**

## 6. Compilation of Select Articles Related to Biodiversity Finance Governance

### Article 1

#### The Rights of Nature Developments and Implications for the Governance of Nature Markets

*December 2022*

In developmental history, nature was seen as an extraction rather than a regenerative resource requiring protection. With unsustainable environmental degradation and ecocide, the world today is facing three planetary crises that have created novel and potential problems that require urgent action, and to solve these crises, innovation is essential in the technological and legal space. Human beings must protect nature's rights as people have the legal rights and responsibility of implementation to achieve a sustainable and healthy environment. Human rights to a healthy environment continue to spread globally, and there is a need to protect and safeguard the rights of the local communities and ensure their inclusion in project design and equitable sharing of secured benefits from nature.

Nature markets are fast growing and require equity measures to prevent inequalities that may arise, leading to market failure at the local and global levels. Legal frameworks, precedents and measures play a significant role in the governance of the nature markets. Below are legal precedents, policies and gaps relating to nature and how the legal measures can reshape nature markets.

#### **The right to a healthy environment**

Global declarations have indicated natural rights and human rights to a healthy environment. For example, Principle 1 of the Stockholm Declaration recognizes that a polluted environment can violate human rights like the right to health, life or privacy. In 1992, the Rio Declaration on Environment and Development (Rio Declaration) reiterated the above. The declarations and inclusion of environmental protection in decision-making processes have been the building blocks towards recognizing a healthy environment. Implementing the right policies to protect the environment, including recognizing ecocide as a crime, will ensure responsibility from individuals and organizations when handling nature and its resources.

## **Rights of nature**

Rights on nature encompass legal mechanisms aimed at protecting nature and have been implemented across different jurisdictions. The Rights of Nature is a term encompassing two related things: (1) a legal philosophy and (2) legal provisions that codify this philosophy by recognizing ecosystems as subjects with rights. The legal provisions need to be in clear and concise language for more straightforward interpretation by different stakeholders and within their jurisdictions. The response to the rights of nature needs to be up to speed to help create reliable solutions to current challenges.

## **Environmental laws**

All governing mechanisms of nature should recognize and embrace indigenous communities and pull in ideas from the relevant stakeholders to shape a fluid and versatile body of laws capable of handling the arising issues. The set up of governing laws and policies in different jurisdictions should protect nature's right to exist, to continue existing and being restored.

## **Recognition of nature in international law**

There needs to be an understanding of human relationships with nature. Natural entities are not only confined to national borders, as impact across a border can affect nature's health in another location. Benefits from ecosystem services are transboundary in nature and recognition of international laws with increased state responsibility for nature. Legal frameworks are essential for governing the nature markets. The legal framework may include restrictions and boundaries, rights of nature and steward in the market design and legal implications to nature market transgressions.

In conclusion, the right to a healthy environment continues to develop globally. Nature markets are still nascent and require governance to ensure nature's positive outcomes and inclusion of the local communities in a timely, democratic, and respectful manner. Proper governance of the nature markets, including a global framework flexible in different jurisdictions and technological innovations, will be instrumental in the growth of the nature markets and address market failures that may arise.

**Source: *Taskforce on Nature Markets***