

Background paper

Prepared by UNEP to support the intergovernmental consultations on nature-based solutions

1. Introduction

This paper contains background information to inform the intergovernmental consultations on nature-based solutions. UNEP was requested to convene these consultations in United Nations Environment Assembly Resolution 5/5 *Nature based-solutions for supporting sustainable development*. All elements in this resolution are relevant to the consultations. This introduction addresses the definition of nature-based solutions contained in the resolution, and the three specific tasks that the consultations are intended to tackle. The subsequent three sections of the paper focus on providing information relevant to the three tasks.

1.1 Definition of nature-based solutions

The UNEA resolution contains a definition of nature-based solutions. This characterises these solutions in the following way:

nature-based solutions are actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services, resilience and biodiversity benefits. (Operative paragraph 1)

The definition identifies three different dimensions to nature-based solutions. First, nature-based solutions work with nature in different ways – they are actions “to protect, conserve, restore, sustainably use and manage” ecosystems. While these actions are different, a single solution may involve a combination of different types of action. For example, a solution that includes the restoration of a degraded ecosystem may also involve the conservation of elements of that system that are still healthy.

The second dimension is that nature-based solutions involve working sustainably (i.e. within the parameters of the ecosystem’s ability to be sustained) with different types of ecosystem. The resolution lists “natural or modified terrestrial, freshwater, coastal and marine ecosystems”. These are broad categories and can be further divided. For example, terrestrial ecosystems include forests, grasslands, urban and other ecosystem types.

Third, nature-based solutions are solution-oriented. They “address social, economic and environmental challenges”. Again, these are broad categories and the challenges can be specified more precisely. For example, some nature-based solutions address the challenge of climate change adaptation, others address the challenge of water security and other address the challenge of land degradation.

Nature-based solutions can vary along each of these three dimensions. For example, a particular solution may involve the sustainable management of an agricultural system in order to address the challenge of climate adaptation. Another solution may involve the conservation of a forest system in order to address the challenge of water security.

Awareness of these three different dimensions is helpful in considering the three specific tasks that UNEA Resolution 5/5 sets for the intergovernmental consultations.

1.2 Intergovernmental consultations on nature-based solutions

The first part of Operative Paragraph 5 (OP5) of UNEA Resolution 5/5:

Requests the Executive Director of the United Nations Environment Programme, subject to the availability of resources and to further support the implementation of nature-based solutions, as defined in the present resolution, to convene intergovernmental consultations...

This part of OP 5 indicates that the overall objective of the consultations is ‘to further support the implementation of nature-based solutions’. It then immediately goes on to specify that these solutions are to be understood ‘as defined in the present resolution’. After specifying the way in which the consultations are to be conducted, OP 5 goes on to list three specific tasks for the consultations:

- (a) Compile examples of best practice in nature-based solutions, based on the best available science;
- (b) Assess existing and discuss potential new proposals, criteria, standards and guidelines to address divergences, with a view to achieving a common understanding among Member States for the implementation of nature-based solutions, including to support Member States in designing, implementing and evaluating nature-based solutions, building on existing work, initiatives and platforms, as appropriate, and without prejudice to existing efforts and initiatives of and new proposals from individual Member States;
- (c) Identify options for supporting sustainable investment in nature-based solutions and share information on bilateral and multilateral sources of finance to enable developing countries to develop and deploy nature-based solutions;

The three sections that follow provide background information on each of these three tasks. That is, they specify what is *already known* about best practice, proposals, criteria, standards and guidelines and financing of nature-based solutions. They also provide some options for how the consultations might address the tasks.

2. Examples of best practice in nature-based solutions

There are already a number of compilations of examples of nature-based solutions. These provide a valuable resource for those seeking a better understanding of what nature-based solutions mean in practice. They also give an indication of the diversity of nature-based solutions.

There are some significant differences between these compilations. Some are explicitly described as compilations of best practice, others contain reference to good practice and others make no reference to the quality of the examples. They also differ in their scope. Some of them, at least in principle, cover all types of nature-based solutions. Others have a narrower focus. Of those with this narrower focus, some are focused on solutions in particular ecosystem types, and others focus on nature-based solutions that address particular social, economic or environmental challenges. These latter two types of compilation thus reflect two of the three dimensions of nature-based solutions identified in the Introduction to this paper. Finally, some of the compilations have a geographic focus on particular regions or sub-regions.

This section provides an annotated survey of the main compilations currently in existence, starting with compilations that cover all types of nature-based solutions. It then briefly considers how the consultation process could build on existing compilations.

2.1 Compilations that include all types of nature-based solutions

- The Nature-based Solutions Initiative (NbSI) Case Study Platform, undated.¹
This database collates 134 examples which are explicitly labelled as “best practice”, and of which 10 are highlighted as “model cases”.
- *Panorama Solutions*. IUCN, undated.²
A database including over 1,000 “full” and “snapshot” examples of nature-based solutions. The studies highlight “building blocks” outlining their success factors. However, the solutions featured on Panorama are a mix of nature-based solutions and others such as business engagement and One Health, and the filtering function could be made clearer to facilitate access only to examples of nature-based solutions. The examples are not explicitly deemed “best practice” and examples are self-submitted by the implementers, although they are reviewed by IUCN before publishing.

¹ [The Nature-based Solutions Initiative \(NbSI\) Global Map of Best Practice Examples](#)

² [IUCN Panorama platform](#)

- [Oppla Case Study Finder, 2023.](#)³
A platform for city case studies providing examples of the multiple benefits delivered by NBS. It constitutes a tool for the dissemination of knowledge on NBS effectiveness (e.g. multiple benefits, returns on investment and development opportunities).
- [Network Nature Case Study Map, 2023.](#)⁴
A database containing 520 case studies mostly, but not exclusively, from Europe. The studies are brief but detailed, characterizing the implementation area and outlining the intervention's objectives, potential impacts/benefits, transferability of the result, and lessons learned.
- [UN Decade on Ecosystem Restoration Flagship Initiatives, 2022.](#)⁵
An interactive map of the 10 global flagship initiatives of the Decade on Ecosystem Restoration by UNEP. The platform gives an overview of each project, along with key project targets and statistics, and links to more detailed explorations of each.

2.2 Compilations focused on specific ecosystems

2.2.1 Coastal Ecosystems:

- [Coastal protection and SUDS* – Nature-based Solutions.](#) ReCreate, 2015.⁶
A policy brief exploring the economic and environmental potential of nature-based solutions, together with barriers to implementation, and policy support needs of nature-based solutions. It gives three good practice examples from across Europe. The examples are brief summaries of the interventions and do not go into detail. However, they do implicitly highlight some success factors.

2.2.2 Montane Ecosystems:

- [Adaptation at Altitude Solutions Portal, undated.](#)⁷
A collection of 81 examples of nature-based solutions within mountain ecosystems from around the world. They give a detailed overview of the intervention, how it was financed, consider its long-term sustainability, any barriers and adverse effects, and its scalability. The detailed analysis of the examples implicitly identifies success factors.

³ [Oppla Case Study Finder](#)

⁴ [Network Nature case study map](#)

⁵ [UNEP \(2022\) UN Decade on Ecosystem Restoration Flagship Initiatives](#)

⁶ [ReCreate \(2015\). Coastal protection and SUDS – Nature-based Solutions](#) (*SUDS = Sustainable Urban Drainage Systems)

⁷ [Adaptation at Altitude Solutions Portal \(undated\)](#)

2.2.3 Urban Ecosystems:

- [Urban Nature Atlas case study map, 2023.](#)⁸
Collates over 1,000 examples of nature-based solutions interventions in cities around the world, with a focus on Europe. The case studies are broken down to a granular level of detail, e.g. key challenges addressed; amount, source and type of financing; and environmental, economic and socio-cultural impacts. An advanced filtering system also allows searching by these and other criteria.
- *Climate Justice for People and Nature through Urban Ecosystem-Based Adaptation (EbA): A Focus on the Global South.* Vidal Merino et al., 2021.⁹
Showcases six examples of urban ecosystem-based adaptation (EbA) interventions in the Global South and explores their links with seven proposed EbA Social Principles: participation and inclusiveness, capacity building, fairness and equitability, integration of traditional/local knowledge, livelihood improvement, gender consideration and appropriateness of scale. These proposed "social principles" overlap with many of the success factors highlighted in other compendia.
- *Nature-based Solutions for urban climate resilience in South Asia: Cases from Bangladesh, India and Nepal.* CDKN, ICLEI, 2022.¹⁰
A collection of 15 examples of how cities in Bangladesh, India and Nepal are implementing nature-based solutions, highlighting how each initiative was implemented, success factors, and essential elements for replicating and scaling the initiative.
- *The EU – Brazil Sector Dialogue on nature-based solutions: Contribution to a Brazilian roadmap on nature-based solutions for resilient cities.* European Commission, 2019.¹¹
A report on the dialogue between the European Commission and Brazil, analysing the occurrence and potential of nature-based solutions in Brazil, highlighting good practices in the EU for possible adaptation to the Brazilian context, and contributing to the elaboration of a nature-based solutions strategy in Brazil. It includes 10 examples from Europe and 12 from Brazil, each of which outline the intervention, the stakeholders engaged, the outcomes, limiting factors and risks, and lessons learned.

⁸ [Urban Nature Atlas case study map \(2023\)](#)

⁹ [Vidal Merino et al. \(2021\). Climate Justice for People and Nature through Urban Ecosystem-Based Adaptation \(EbA\): A Focus on the Global South](#)

¹⁰ [CDKN, ICLEI \(2022\). Nature-based Solutions for urban climate resilience in South Asia: Cases from Bangladesh, India and Nepal](#)

¹¹ [European Commission \(2019\). The EU – Brazil Sector Dialogue on nature-based solutions: Contribution to a Brazilian roadmap on nature-based solutions for resilient cities](#)

2.3 Compilations focused on specific social, economic and environmental challenges

2.3.1 Nature-based solutions for Ecosystem-based Adaptation (EbA) and Disaster Risk Reduction (DRR)

- *Adaption Knowledge Portal*. UNFCCC, undated.¹²

This is a large global database of adaptation knowledge, including adaptation through nature-based solutions (EbA). As such, its case studies are limited to EbA, rather than nature-based solutions in general. It does not classify its case studies as best practice, but it does give useful summaries of the “good practices and lessons learned” from each case study.

- *Scoping paper on knowledge gaps in integrating forest and grassland biodiversity and ecosystems into adaptation strategies*. UNFCCC, 2021.¹³

Compiles 16 examples from across Africa, South America and Asia, and analyses lessons learned and best practices per case study, as well as a synthesis of best practices drawn from across the whole collection.

- *Where people and their land are safer: A Compendium of Good Practices in Disaster Risk Reduction*. Harari, N., Gavilano, A. and Liniger, HP, 2017¹⁴

A compendium of 45 examples of interventions for DRR from across Africa, Asia and Latin America and the Caribbean. These include nature-based solutions interventions as well as others, e.g. legal protections, social enterprises, and early warning systems. The examples are technical in nature and analyse project impacts, resulting in some lessons learned, but these lessons are not highlighted.

- *Nature-based Solutions in Europe: Policy, knowledge and practice for climate change adaptation and disaster risk reduction*. European Environment Agency, 2021.¹⁵

Selects 97 examples from across Europe. The examples highlight lessons learned and consider the transferability of results.

¹² [UNFCCC \(undated\). *Adaptation Knowledge Portal \(AKP\)*](#)

¹³ [UNFCCC \(2021\). *Scoping paper on knowledge gaps in integrating forest and grassland biodiversity and ecosystems into adaptation strategies*](#)

¹⁴ [Harari, N. et al. \(2017\). *Where people and their land are safer: A Compendium of Good Practices in Disaster Risk Reduction*](#)

¹⁵ [European Environment Agency \(2021\). *Nature-based Solutions in Europe: Policy, knowledge and practice for climate change adaptation and disaster risk reduction*](#)

2.3.2 Nature-based solutions for water security

- *CTCN Knowledge Brief. Nature-based Solutions to Emerging Water Management Challenges in the Asia-Pacific Region*. United Nations Environment Programme, 2022.¹⁶
Collates 12 examples from across the Asia Pacific region focusing on three ecosystem types: urban, rural and coastal. The examples give a brief overview of the interventions and propose considerations for scaling up.
- *Nature-Based Solutions for agricultural water management and food security*. FAO, 2018.¹⁷
Compiles 21 examples from across the world and considers both successful and unsuccessful examples to extract lessons learned. The paper also identifies a set of possible success factors, against which it ranks each study. The studies themselves are brief summaries of the intervention with no analysis beyond the ranking. However, it synthesises the learnings from the entire collection of examples into lessons learned on each of the success factors.
- *Nature-based solutions for water security*. Cooper, R. 2020.¹⁸
A literature review which gathers a wide range of references on nature-based solutions for water security and identifies knowledge gaps. It does not describe the examples, it simply refers to them as examples of nature-based solutions to address water security.
- WWAP (United Nations World Water Assessment Programme)/UN-Water, 2018. *The United Nations World Water Development Report 2018: Nature-Based Solutions for Water*.¹⁹
The 2018 UN Water report explores how nature-based solutions contribute to SDG 6: “ensure the availability and sustainable management of water and sanitation for all.” It uses seven short case study summaries to illustrate its sectoral and issue-based suggestions on how nature-based solutions can help manage water availability.

2.3.3 Nature-based solutions for agriculture and food security

- ‘NBS Framework for Agricultural Landscapes’. *Frontiers in Environmental Science*. Simelton, Elisabeth, et al., 2021.²⁰
An academic paper which mentions relevant examples but does not describe the examples in any detail.

¹⁶ [UNEP \(2022\). *CTCN Knowledge Brief. Nature-based Solutions to Emerging Water Management Challenges in the Asia-Pacific Region*](#)

¹⁷ [FAO \(2018\). *Nature-Based Solutions for agricultural water management and food security*](#)

¹⁸ [Cooper, R. \(2020\). *Nature-based solutions for water security*](#)

¹⁹ [WWAP \(United Nations World Water Assessment Programme\)/UN-Water \(2018\). *The United Nations World Water Development Report 2018: Nature-Based Solutions for Water*](#)

²⁰ [Simelton, Elisabeth, et al. \(2021\). *NBS Framework for Agricultural Landscapes*](#)

2.4 How might the consultations address this assessment task?

There are many insightful examples and case studies from a broad range of contexts. However, gaps remain in terms of geography, specific types of nature-based solutions, and the issues addressed. Such knowledge gaps could present a barrier to the aims of UNEA Res. 5/5, and filling them would help address this task. Participants could be invited to submit examples that fill these gaps. They could also be asked to identify best practice compilations that would be useful for supporting implementation.

3 Assessing proposals, criteria, standards and guidelines for the implementation of nature-based solutions

The second specific task that the UNEA resolution sets for the intergovernmental consultations is to “assess existing and discuss potential new proposals, criteria, standards and guidelines” (UNEA resolution 5/5 Operative paragraph 5(c)). This section provides background information for this task. There is a brief consideration of the meaning of the four key terms (‘proposal’, ‘criterion’, ‘standard’ and ‘guideline’). This is followed by a survey of how these terms have been applied to nature-based solutions. The section ends with a consideration of how the consultation process might address this second task.

3.1 The key terms

For the purposes of this paper we understand the four terms in the following way.²¹

<i>Proposal:</i>	A suggested or intended plan, scheme, or course of action. It should also be noted that in the case of United Nations intergovernmental meetings with rules of procedure a proposal refers to a draft decision or draft resolution that is for consideration and possible adoption by the meeting.
<i>Criterion:</i>	A test, principle, rule, canon, or standard, by which anything is judged or estimated.
<i>Standard:</i>	A rule, principle, criterion or measure by which something can be judged or evaluated.
<i>Guideline:</i>	A principle, or general statement which may be regarded as a guide to procedure, policy, interpretation, as well as actions or decisions that need to be taken etc.

In normal usage the term ‘standard’ is often used as a higher-level term than ‘criterion’; and a guideline typically has a specific focus on providing advice or guidance for how some decision is to be taken or action implemented. Recognizing that the three terms are closely related, the term ‘rule’ (which appears in the definition of all three terms) usually refers to a criterion or standard or guideline that is binding upon actors at either the national or international level and that has followed a specific process of adoption, for

²¹ These are definitions of the English terms. It is an open question whether other languages have terms with exactly the same meaning as these English terms.

example through adoption by a national or intergovernmental body. In contrast, the term ‘proposal’ has a distinct meaning, especially when used within the context of rules of procedure for United Nations inter-governmental meetings.

3.2 Proposals, criteria, standards and guidelines as applied to nature-based solutions

This section considers how these terms have been applied to nature-based solutions. Proposals are considered first. The examples of criteria, standards and guidelines are grouped together for simplicity, because of their overlapping meanings. The examples provided are illustrative and the list is far from complete. However, it is clear that there is a considerable body of work providing criteria, standards and guidelines for nature-based solutions and these are a potentially valuable resource for policymakers, decision-makers and practitioners.

3.2.1 Proposals on nature-based solutions

Examples of proposals on nature-based solutions include:

- *Nature-based Solutions for Climate Manifesto*. 2019.²²

This was launched at the 2019 UN Climate Action Summit by the NBS Coalition co-led by China and New Zealand. It had the support of more than 70 governments, private sector, civil society and international organizations. It proposed four priorities for action. These are: increasing and mainstreaming nature-based solutions within national governance and climate action and policy; enhancing regional and international cooperation; generating shifts in domestic and international governance and finance to realize the potential of nature-based solutions; and scaling up nature-based solutions for mitigation, resilience and adaptation.

- Proposals from the G20 and G7

Recent Presidencies for the G20 and G7 have made proposals for action on nature-based solutions. For example, in 2022 the Indonesian Presidency of the G20 culminated in the Bali Leaders’ Declaration that pledged to “step up efforts to halt and reverse biodiversity loss, including through Nature-based Solutions and Ecosystem-based Approaches”.²³ In the same year, under the German Presidency of the G7, the Climate, Energy and Environment Ministers committed to “substantially increase our national and international funding for nature by 2025, including increased funding for nature-based solutions.”²⁴

- Nationally Determined Contributions (NDCs). A total of 122 new NDCs were submitted in 2021. Forty one per cent of these new NDCs included the term ‘nature-based solutions’ in their proposals, representing fifty countries. According to this analysis, the world’s poorest nations

²² [Nature-based Solutions for Climate Manifesto](#)

²³ [G20 Bali Leaders’ Declaration](#)

²⁴ [G7 Climate, Energy and Environment Ministers’ Communiqué](#)

include nature-based solutions the most in the adaptation components of their NDCs. Nature-based solutions are referred to in all of the 17 nations classified as 'low income' by the World Bank, and all but four of the 40 nations classified as 'lower-middle income'.²⁵

3.2.2 Examples of criteria, standards and guidelines as applied to nature-based solutions

Below, examples are provided of criteria, standards and guidelines applied to nature-based solutions. These examples are categorised in order of decreasing scope.

As applied to all types of nature-based solutions

- *IUCN Global Standard for Nature-based Solutions*. IUCN, 2020.²⁶

The Standard states that it aims to equip users with a robust framework for designing and verifying nature-based solutions that yields the outcomes desired, in solving one or several societal challenge(s). It has been developed as a facilitative Standard, purposefully avoiding a rigid normative framing. The Global Standard is itself made up of 8 criteria, and IUCN has also developed detailed 'Guidance' for using the Standard²⁷. This illustrates the close connections between criteria, standards and guidelines.

- *Evaluating the Impact of Nature-Based Solutions: A Handbook for Practitioners*. EC, 2021.²⁸

This European Commission publication provides guidance on how to evaluate the impact of nature-based solutions, addressing issues such as guiding principles, monitoring and evaluation, and the selection of indicators.

As applied to specific types of nature-based solutions

There have been many publications that address specific types of nature-based solutions. Five examples are:

- *Making Ecosystem-based Adaptation Effective: Framework for Defining Qualification Criteria and Quality Standards*. FEBA, 2017.²⁹

This publication from the Friends of EbA aims to increase understanding amongst policymakers and practitioners about what qualifies as EbA and to provide guidance on the quality of EbA measures. The framework includes 5 qualification criteria and 20 quality standards.

- *Implementing nature-based flood protection: Principles and implementation guidance*. World Bank, 2017.³⁰

²⁵ [Nature-based Solutions Initiative \(2022\) Revised climate pledges show enhanced ambition for nature based solutions](#)

²⁶ [IUCN \(2020\). Global Standard for Nature-based Solutions](#)

²⁷ [IUCN \(2020\). Guidance for using the IUCN Global Standard for Nature-based Solutions](#)

²⁸ [EC \(2021\). Evaluating the impact of nature-based solutions](#)

²⁹ [FEBA \(2017\). Making Ecosystem-based Adaptation Effective](#)

³⁰ [World Bank \(2017\). Implementing nature-based flood protection](#)

This World Bank publication comprises two parts. The first part lists five principles that describe issues to be considered when planning nature-based solutions. The second part contains implementation guidance describing the timeline and activities needed to implement nature-based solutions. It is noteworthy that the publication addresses both pure nature-based approaches and hybrid interventions that combine nature-based elements and hard engineering approaches.

- *Handbook for the Implementation of Nature-based Solutions for Water Security: Guidelines for designing an implementation and financing arrangement.* Altamirano et al., 2021.³¹

This publication is an output of the European Commission-funded NAIAD project. Its main aim is to provide guidance on the development of bankable nature-based solutions projects that are attractive to both public and private investors.

- *The Blue Guide to Coastal Resilience: Protecting coastal communities through nature-based solutions.* TNC, 2021.³²

This Conservation International publication provides an eight-stage guide to implementing nature-based solutions to build coastal protection against climate-related hazards.

- *Nature-based Solutions for Disaster Reduction.* UNDRR, undated.³³

This publication from the UN Office of Disaster Risk Reduction (UNDRR) aims to provide practical information on designing and implementing nature-based solutions for disaster risk reduction and climate change adaptation.

As applied to particular aspects of specific types of nature-based solution

- *Guidelines for Integrating Ecosystem-based Adaptation into National Adaptation Plans.* UNEP, 2021.³⁴

These guidelines, developed by UNEP, are focused on a particular aspect of nature-based solutions for adaptation – namely, how they can be integrated into National Adaptation Plans.

- *The REDD+ Environmental Excellence Standard Version 2.0.* ArtREDD, 2021.³⁵

This publication is produced by the Architecture for REDD+ Transactions Program. The Program aims to promote the environmental and social integrity and ambition of greenhouse gas emission reductions and removals from the forest and land use sector. Thus this Standard applies to a particular aspect of nature-based solutions for climate mitigation – namely, the requirements for the quantification, monitoring, and reporting of GHG emissions and removals; demonstration of implementation of the Cancún Safeguards; and verification, registration, and issuance of credits.

³¹ [Altamirano et al. \(2021\). Handbook for the implementation of nature-based solutions for water security](#)

³² [TNC \(2021\). The Blue Guide to Coastal Resilience](#)

³³ [UNDRR \(undated\). Nature-based solutions for disaster risk reduction](#)

³⁴ [UNEP \(2021\). Guidelines for integrating ecosystem-based adaptation into national adaptation plans](#)

³⁵ [ArtREDD \(2021\). The REDD+ Environmental Excellence Standard](#)

In addition to the criteria, standards and guidelines that have been developed for nature-based solutions in general, or specific types and aspects of nature-based solutions, it should also be noted that there are other criteria, standards and guidelines which do not have a focus on nature-based solutions but which are or may be relevant to the implementation of nature based solutions. Two examples can be mentioned here. The principle of free, prior and informed consent (FPIC) is designed to protect the rights and interests of Indigenous Peoples.³⁶ The principle is incorporated into many UN conventions, treaties and other instruments, including the United Nations Declaration on the Rights of Indigenous People. FPIC is applicable to many actions and measures that affect Indigenous Peoples. This includes nature-based solutions, but also many other actions and measures. A second, different example, is provided by the Standards of Practice to Guide Ecosystem Restoration³⁷ developed by the UN Decade on Ecosystem Restoration. These standards comprise ten principles that are designed to guide the entire restoration process. While not all instances of ecosystem restoration will necessarily qualify as nature-based solutions, many of them will do so, especially where there is an explicit social, economic or environmental challenge that the restoration is designed to achieve.

3.3 How might the consultations address this assessment task?

In considering how to address this task, participants may wish to consider expanding the list of examples of proposals, criteria, standards and guidelines that have been referenced in this paper. Another approach would be to identify gaps in the current set of resources. Such gaps may relate to the geographic scope of the existing publications, or the challenges that they address or to other features of these resources, such as their accessibility and ease of use.

4 Sustainable Financing for nature-based solutions

The third specific task that the UNEA resolution sets for the intergovernmental consultations is to “identify options for supporting sustainable investment in nature-based solutions and share information on the bilateral and multilateral sources of finance to enable developing countries develop and deploy nature-based solutions”. The phrase “options for sustainable investment in nature-based solutions” is understood here to cover a range of different types of finance, including from both private and public sources. The phrase “bilateral and multilateral sources of finance” puts a specific focus on public sources of international finance that are accessible by developing countries. This section provides a brief survey of the full range of financing options but pays particular attention to bilateral and multilateral sources. It considers barriers to and opportunities for financing and ends with brief consideration of how the consultations might address the third task.

³⁶ See, for example, [FAO guidance on Free, Prior and Informed Consent](#)

³⁷ [FAO, SER & IUCN CEM. \(2023\). Standards of Practice to Guide Ecosystem Restoration](#)

4.1 Current Status

Finance flows to nature-based solutions currently amount to USD 154 billion per year, most of which comes from public funding sources³⁸. Opportunities to increase this private financing exist, as shown in the Guiding Principles for Corporate Climate Leadership on the role of Nature-based Solutions³⁹. The G20 countries together invest USD 120 billion each year in nature-based solutions and related assets and activities. This accounts for [92 per cent of global investments in nature-based solutions](#), but is mostly spent on domestic initiatives. There is a large gap in funding for nature-based solutions in developing countries⁴⁰. While only USD 2 billion of the USD 154 billion annual finance to nature-based solutions is via official development assistance (ODA), developing countries rely heavily on international development finance, and such external assistance is likely to remain critical for implementing nature-based solutions in developing countries, especially LDCs and SIDS⁴¹. In terms of private sector investment in nature-based solutions, this s currently amounts to USD 26 billion per year, which represents only 17 per cent of total nature-based solutions investment⁴².

4.2 Types and sources of financing available

It is important to recognise that there is no single type of funding or funding mechanism for the implementation of all nature-based solutions interventions, and a diversity of sources and mechanisms should be sought to match the context, scale and timescale of the nature-based solutions intervention. Additional funding is needed from existing as well as new funding sources, especially the private sector where great opportunities for increasing funding exists. However it is very likely that, at least in the short term, public finance will remain essential for nature-based solutions, as market-based mechanisms alone are not likely to provide the funding needed for nature-based solutions⁴³.

The primary types of finance are as follows^{44 45 46}:

- International Public finance flows through bilateral funding or multilateral sources, including banks.

³⁸ However, this figure, from the State of Finance for Nature Report 2022, covers only certain types of nature-based solutions. For public financial flows it covers only those types of NbS that fall under: protection of biodiversity and landscape; sustainable agriculture, forestry & fishing; wastewater management; pollution abatement; and environmental policy. It is unlikely that NbS in urban systems, or NbS for coastal protection are fully included. Thus, the estimate of current financial flows to NbS may be an underestimate.

³⁹ [We Mean Business Coalition \(2022\). Guiding Principles for Corporate Climate Leadership on the role of Nature-based Solutions](#)

⁴⁰ [UNEP \(2022\). State of Finance for Nature in the G20](#)

⁴¹ [Stockholm Environment Institute \(2022\). Assessing Finance for Nature-based Solutions to Climate Change](#)

⁴² [UNEP \(2021\). State of Finance for Nature 2021](#)

⁴³ Brears, R.C. (2022). *Financing Nature-Based Solutions*

⁴⁴ [Stockholm Environment Institute \(2022\). Assessing Finance for Nature-based Solutions to Climate Change](#)

⁴⁵ Brears, R.C. (2022). *Financing Nature-Based Solutions*

⁴⁶ [Ludwig, K. \(undated\). Financing NbS: Overview of relevant finance options](#)

- Domestic Public finance.
- Domestic Private finance (including philanthropic finance).
- International Private finance (including philanthropic finance).
- Blended finance combines public and private sector finance. It includes creating finance mechanisms with the strategic use of public or philanthropic finance to leverage private finance⁴⁷.

4.2.1 International public sources

- Multilateral Donors include: the European Union, the [Climate Investment Funds “Nature, People and Climate Investment Program”](#), the [Green Climate Fund](#), the [Global Environmental Facility](#), the [Adaptation Fund](#), the International Fund for Agricultural Development and others⁴⁸.
- Multilateral Development Banks (MDBs), such as World Bank, Asian Development Bank, African Development Bank, Islamic Development Bank, Development Bank of Latin America and the Inter-American Development Bank, provide funding in the form of grants or loans ^{49 50}. MDBs can and do provide project funding, in the form of short or long term loans, or at times grants, to developing countries for investments in nature-based solutions ^{51 52}. In their [‘joint nature statement at COP26’](#), MDBs committed to ‘look[ing] for opportunities to step up nature financing and efforts to mobilise or leverage private finance for investments in nature, including nature-based solutions for climate change mitigation and adaptation with co-benefits for nature and people’⁵³.
- Bilateral technical and financial cooperation. These include government-to-government support and Official Development Assistance (ODA), “government aid that promotes and specifically targets the economic development and welfare of developing countries”. In 2021, ODA totalled USD 185.9 billion (OECD⁵⁴). This is in the form of bilateral aid between developed countries and developing countries, e.g. through DEFRA, USAID, Norad, CIDA, SIDA, etc. ODA primarily takes the form of grants and is provided in direct government-to-government support, or via civil society organisations. Bilateral cooperation also includes specialised development banks or subsidiaries that can finance nature-based solutions investments and leverage funding from the private sector for nature-based solutions. Examples of such specialised banks include the German KfW and the French AFD. They also often provide technical assistance to accompany their finance ⁵⁵.

⁴⁷ Brears, R.C. (2022). *Financing Nature-Based Solutions*

⁴⁸ [WRI \(2021\). Public International Funding of nature-based Solutions for adaptation: a landscape assessment](#)

⁴⁹ [WRI \(2021\). Public International Funding of nature-based Solutions for adaptation: a landscape assessment](#)

⁵⁰ Brears, R.C. (2022). *Financing Nature-Based Solutions*

⁵¹ [WRI \(2021\). Public International Funding of nature-based Solutions for adaptation: a landscape assessment](#)

⁵² Brears, R.C. (2022). *Financing Nature-Based Solutions*

⁵³ [Paragraph 1.18 of the MDB joint nature statement.](#)

⁵⁴ [OECD. Official development assistance \(ODA\)](#)

⁵⁵ Brears, R.C. (2022). *Financing Nature-Based Solutions*

- Debt-for-nature swaps, whereby a donor pays off a component of a country’s debt, and with the savings made in reduced debt repayments, the country invests in conservation interventions. More than 30 countries have participated in debt-for-nature swaps since the first one in 1987, generating around \$1.2 billion for conservation which may include nature-based solutions initiatives.⁵⁶

An example of international public sources is commitment in 2021 from the Government of the United Kingdom committed “at least GBP 3 billion to climate change solutions that protect and restore nature and biodiversity over five years” via international climate finance. This will support a range of nature-based interventions overseas such as the protection, restoration and management of land and sea habitats.⁵⁷

4.2.2 Domestic public^{58 59}:

- National budgets and development banks.
- National funds.

4.2.3 Private finance:

- Philanthropy.
- Domestic and international private sources.
- Corporate Social Responsibility.
- Investors seeking investment opportunities arising from the conservation, restoration and sustainable use of nature. Many NGOs have created their own impact investment specialist groups to encourage investments by private sector groups. See for example, [WWF Impact](#), [TNC NatureVest](#) and the [Landscape Finance Lab](#).
- Investors who provide green bonds, loans or impact investment⁶⁰ opportunities. Private finance includes commercial banks, investors, private equity companies which are looking for investment opportunities. An example of innovative funding is the [Nature+ Accelerator Fund \(Nature+\)](#), a private sector-focused nature conservation fund providing measurable conservation and social benefits while delivering financial returns for investors. It is a collaboration between public and private institutions and platforms aimed at attracting private finance to conservation including nature-based solutions⁶¹.

⁵⁶ [King, N. \(2021\). Conservation Finance Options to Support African Post-2020 Biodiversity Priorities](#)

⁵⁷ [UNEP \(2022\). Nature-based Solutions: Opportunities and Challenges for Scaling Up](#)

⁵⁸ [Ludwig, K. \(undated\). Financing NbS: Overview of relevant finance options](#)

⁵⁹ [Brears, R.C. \(2022\). Financing Nature-Based Solutions](#)

⁶⁰ [Impact investing](#) is an investment strategy aimed at generating positive social or environmental results in addition to financial gains.

⁶¹ [UN DESA \(2022\). Nature+ Accelerator](#)

- Private sector businesses which wish to offset their negative impacts by providing funds for projects that conserve nature and address climate change and other societal challenges.⁶²
- Institutional investors, such as pension funds and sovereign wealth funds, are also looking for ways in which to maximise their investments, but often these have lower appetite for risk than commercial investors⁶³. While having a lower risk appetite, sovereign wealth funds have a long-term and large-scale horizon so could be good investors for nature-based solutions⁶⁴. See for example the [Norwegian Sovereign Wealth Fund](#), which invests in more than 9,000 companies in over 70 countries and has principles of [sustainable and ethical investment](#).
- Market-based mechanisms such as [payment for ecosystem services](#)⁶⁵ (water provision, carbon credits, offsetting of development impacts), where governments or other groups pay for an ecosystem service provided and local communities receive funds to maintain the ecosystem and its provision of that service.

4.3 Opportunities for and barriers to financing

This subsection highlights some of the opportunities and barriers to implementing nature-based solutions.

Opportunities include that reinsurance companies are increasingly investing in nature-based solutions, considering that healthy ecosystems increase resilience and contribute to disaster risk reduction⁶⁶. The joint report ‘Decent Jobs in Nature-based Solutions’ by the International Labour Organisation and United Nations Environment Programme⁶⁷ demonstrates the job and business potential which can be achieved through investment in nature-based solutions, as their implementation requires many people and different skills. Bearing this in mind, investment in nature-based solutions should not be considered a cost, but rather be seen as an investment in people and livelihoods.

Hindrances to accessing public finance for developing countries include the complex application processes for donors such as the GCF or GEF. A lack of data and information required to apply for funds, and lack of funds in order to undertake the required baseline of feasibility assessments, can also be challenging, as

⁶² Brears, R.C. (2022). *Financing Nature-Based Solutions*

⁶³ Brears, R.C. (2022). *Financing Nature-Based Solutions*

⁶⁴ Brears, R.C. (2022). *Financing Nature-Based Solutions*

⁶⁵ [CIFOR \(2014\). *Payments for Ecosystem Services \(PES\): A practical guide to assessing the feasibility of PES projects*](#)

⁶⁶ [Swiss Re on Nature-based Solutions](#)

⁶⁷ [ILO/UNEP/IUCN \(2022\). *Decent Jobs in Nature-Based Solutions*](#)

can a lack of capacity to implement certain aspects of nature-based solutions interventions, such as social safeguards.^{68 69 70 71}

For private sector financing of nature-based solutions, there are also challenges that need to be addressed to facilitate access to funding. These concern:^{72 73 74}

- The difficulty in formulating a business case for nature-based solutions and the valuation of goods and services in financial terms. These require capacity and often funding to obtain and assess the required data and information.
- Nature-based solutions have a longer timeframe than many other investments, such as hard infrastructure, and it may take a longer time to generate the benefits.
- There may be institutional barriers to investment and operation for private sector in some countries.

4.4 Overcoming such barriers^{75 76 77 78 79}:

4.4.1 At the National level Government and Implementing Agencies as relevant can:

- Create clear policies on nature-based solutions by integrating nature-based solutions into development strategies as well as into sectoral policies such as agriculture, infrastructure, development, climate, and others to provide an enabling environment for nature-based solutions.
- Integrate of nature-based solutions into foreign policy and development assistance.
- Provide incentives for private sector investment in nature-based solutions.
- Formulate the business case for investment in nature-based solutions through research on opportunities, cost-benefit analysis, risks, and communication of that research.
- Engage with the private sector to better understand the opportunities and their needs for investment.

⁶⁸ [UNFCCC \(2022\). Report of the Standing Committee on Finance Addendum High-level summary of the second part of the Standing Committee on Finance Forum on finance for nature-based solutions](#)

⁶⁹ [UNFCCC \(2021\). Report of the Standing Committee on Finance Addendum High-level summary of the first part of the Standing Committee on Finance Forum on finance for nature-based solutions](#)

⁷⁰ [Stockholm Environment Institute \(2022\). Assessing Finance for Nature-based Solutions to Climate Change](#)

⁷¹ Brears, R.C. (2022). *Financing Nature-Based Solutions*

⁷² [UNFCCC \(2022\). Report of the Standing Committee on Finance Addendum High-level summary of the second part of the Standing Committee on Finance Forum on finance for nature-based solutions.](#)

⁷³ [UNFCCC \(2021\). Report of the Standing Committee on Finance Addendum High-level summary of the first part of the Standing Committee on Finance Forum on finance for nature-based solutions](#)

⁷⁴ [Stockholm Environment Institute \(2022\). Assessing Finance for Nature-based Solutions to Climate Change.](#)

⁷⁵ [UNFCCC \(2022\). Report of the Standing Committee on Finance Addendum High-level summary of the second part of the Standing Committee on Finance Forum on finance for nature-based solutions](#)

⁷⁶ [UNFCCC \(2021\). Report of the Standing Committee on Finance Addendum High-level summary of the first part of the Standing Committee on Finance Forum on finance for nature-based solutions](#)

⁷⁷ Brears, R.C. (2022). *Financing Nature-Based Solutions*

⁷⁸ [Stockholm Environment Institute \(2022\). Assessing Finance for Nature-based Solutions to Climate Change](#)

⁷⁹ [NBSI \(2022\) Session 6B: Financing NbS: delivering money when and to where it matters](#)

- Ensure participation of IPLCs in project identification and development from the very beginning and respect rights and knowledge in all aspects of the intervention.
- Ensure access to information, capacity building and technical support as needed for indigenous peoples and local communities when applying for funding and developing proposals.
- Strengthen South–South cooperation to facilitate sharing of good practices and lessons learned.
- Develop a pipeline of investable nature-based solutions initiatives in readiness for funding.
- Ensure equity in how funds flow at the global, national and local level.

4.4.2 At the International Level Governments, Regional Bodies, Implementing Agencies and Donors can:⁸⁰

⁸¹

- Increase exchanges at the international level, between developed and developing countries, as well as south-south exchanges, noting that nature-based solutions are very context- and site-specific.
- Align bilateral support to the development, environmental and climate priorities of recipient countries.
- Allocate finance to blended finance initiatives and reduce risk for private investors (e.g. Multilateral Banks and international agencies).
- Reduce the often onerous application and accreditation processes, as well as approval and disbursement processes to expedite funding (e.g. Bilateral and multilateral support agencies and international funders such as GCF, GEF).
- Facilitate a better understanding of what financing is available and how it can be integrated (blended) with other forms of financing.
- Ensure equity in how funds flow at the global, national and local level.

4.5 How might consultations address this assessment task?

In considering how to address this task, participants may wish to consider submitting financing options, sources and mechanisms of which they are aware, and information on how to access these. They may wish to identify their information needs for accessing funds, which may include an identification of available funds for nature-based solutions or an overview of how to access certain funds.

⁸⁰ [UNFCCC \(2022\). Report of the Standing Committee on Finance Addendum High-level summary of the second part of the Standing Committee on Finance Forum on finance for nature-based solutions](#)

⁸¹ [UNFCCC \(2021\). Report of the Standing Committee on Finance Addendum High-level summary of the first part of the Standing Committee on Finance Forum on finance for nature-based solutions](#)

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