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**Conference of the Parties to the Convention on Biological Diversity**
**Seventeenth meeting**
Yerevan, 19–30 October 2026
Agenda item 18 (a)
**Other scientific and technical issues related to the implementation of the Kunming-Montreal Global Biodiversity Framework: biodiversity and climate change**

# Biodiversity and climate change

**Draft decision submitted by the Chair of Working Group II**

*The Conference of the Parties*,

*Recalling* decision 16/22 of 1 November 2024,

*Reaffirming* paragraph 8 of decision X/33 of 29 October 2010 and paragraphs 3 and 6 of decision 16/22,

*Recognizing* that biodiversity loss, climate change, pollution, water scarcity, sea level rise, ocean acidification, desertification, land degradation and invasive alien species, among others, are directly or indirectly interconnected and interdependent and need to be addressed urgently and in a coherent, sustained and balanced manner to achieve the objectives of the Convention on Biological Diversity[1] and the goals and targets of the Kunming-Montreal Global Biodiversity Framework,[2]

*Recognizing also* that coherent action must ensure gender-responsive and human rights-based approaches and intergenerational equity, in line with its relevant decisions, and that the right to a clean, healthy and sustainable environment is acknowledged in section C of the Framework,

1. *Welcomes* the summary for policymakers of *The Thematic Assessment Report on Interlinkages among Biodiversity, Water, Food and Health* ("nexus assessment"), and notes with appreciation the summary for policymakers of [*The Thematic Assessment Report on the Underlying Causes of Biodiversity Loss and the Determinants of Transformative Change and Options for Achieving the 2050 Vision for Biodiversity* ("transformative change assessment")][other relevant assessments] of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and their relevance to the work undertaken under the Convention on Biological Diversity and to the implementation of the Kunming-Montreal Global Biodiversity Framework;

2. *Encourages* Parties, other governments at all levels, indigenous peoples and local communities, women, youth, relevant organizations and stakeholders to take steps to promote and implement integrated and synergistic approaches for biodiversity and the other nexus elements, including climate change, as appropriate, in accordance with national priorities and circumstances;

[1] United Nations, *Treaty Series*, vol. 1760, No. 30619.
[2] Decision 15/4, annex.

[3. [*Takes note of*][*Welcomes*] Advisory Opinion No. 31 of 21 May 2024 of the International Tribunal for the Law of the Sea on climate change and international law and the advisory opinion of 23 July 2025 of the International Court of Justice concerning the obligations of States in respect of climate change;]

4. *Stresses* that the achievement of the mission, goals and targets of the Framework and urgent and effective action on climate change are highly correlated, as both are pivotal to avoiding further biodiversity loss and ecosystem degradation;

5. *Notes* the progress in the development of the draft supplement to the Voluntary Guidelines for the Design and Effective Implementation of Ecosystem-based Approaches to Climate Change Adaptation and Disaster Risk Reduction,[3] hereinafter referred to as the "Voluntary Guidelines", entitled "Voluntary guidelines for the design, effective implementation and scaling up of nature-based solutions and/or ecosystem-based approaches that provide climate change co-benefits" and contained in the annex to the present decision for further consideration, and also notes that further work is needed to develop the draft supplement mandated by decision 16/22;

6. *Acknowledges* that the draft supplement to the Voluntary Guidelines under development is voluntary, non-prescriptive and complementary to the Voluntary Guidelines and does not create new obligations on Parties to the Convention or any other international agreement;

7. *Encourages* Parties and other governments at all levels, when undertaking actions to achieve Targets 8 and 11 of the Framework, as well as Target 2 and other related targets, with the full and effective participation of indigenous peoples and local communities, women and youth, persons with disabilities, people in vulnerable situations and those most dependent on biodiversity:

(a) To consider interlinkages and potential co-benefits and synergies related to biodiversity and climate change in their relevant national strategies and action plans and other national planning instruments, including through the conservation and restoration of ecological integrity and ecosystem functions and services, including the interactions with wild fauna and flora, in accordance with national circumstances and legislation, as appropriate;

(b) To consider the importance of and enhancements to the protection, conservation, restoration and sustainable management of ecosystems and species important for climate change adaptation and natural carbon storage and sequestration as a co-benefit;

[(c) To consider, as appropriate and in accordance with national circumstances, the use of the response options assessed in *The Thematic Assessment Report on Interlinkages among Biodiversity, Water, Food and Health* of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services;]

8. *Encourages* Parties, other governments at all levels and relevant organizations, in accordance with national priorities, circumstances and capabilities, to make use of the Voluntary Guidelines, including through effective social and environmental safeguards, to avoid or minimize social and environmental risks, when designing and implementing nature-based solutions[4] and/or ecosystem-based approaches for climate change mitigation, adaptation and disaster risk reduction, recognizing the co-benefits for biodiversity and livelihoods;

9. *Encourages* Parties, and invites other Governments and relevant stakeholders, financial institutions, multilateral development banks and the private sector, when undertaking actions towards the achievement of Targets 8 and 11 of the Framework, as well as other related targets, in line with national circumstances, priorities and capabilities, to act in accordance with Article 20 of the Convention and consistent with Target 19 to collectively scale up investments for the conservation, restoration and sustainable use of biodiversity through climate change mitigation, adaptation and

[3] Decision 14/5, annex; see also *CBD Technical Series No. 93* for complementary information.
[4] In accordance with resolution 5/5 of the United Nations Environment Assembly.

disaster risk reduction, leveraging the potential of nature-based solutions and/or ecosystem-based approaches and their multiple benefits with environmental and social safeguards;

10. *Invites* the Coalition of Finance Ministers for Climate Action and its institutional partners to further integrate biodiversity and climate change interlinkages into its work programme, including through the development of tools and guidance to support the implementation of the Framework;

11. *Notes* the adoption by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement[5] of the Belém Adaptation Indicators,[6] and, in the light of paragraphs 11 and 12 of decision 2/CMA.5 of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement, their voluntary and non-prescriptive nature and their potential relevance to the implementation of the Framework, in accordance with national circumstances, priorities and legislation, as appropriate;

12. *Invites* the United Nations Environment Programme to consider the use of, as appropriate, the indicators used under the monitoring framework for the Kunming-Montreal Global Biodiversity Framework as a basis for monitoring the contribution of biodiversity and ecosystem functions and services to climate change adaptation;

13. *Invites* the respective bodies of the United Nations Framework Convention on Climate Change[7] and its Parties to consider using the Voluntary Guidelines for Parties to integrate biodiversity, nature-based solutions and/or ecosystem-based approaches and social and environmental safeguards in mitigation and adaptation measures;

14. *Encourages* the regional and subregional technical and scientific cooperation support centres to make use of the Voluntary Guidelines in supporting Parties in the implementation of Targets 8 and 11 of the Framework;

15. *Requests* the Executive Secretary to invite Parties, other Governments, relevant organizations, indigenous peoples and local communities, women and youth, civil society and other observers to submit their views and reflections on the primer for policymakers to the draft supplement to the Voluntary Guidelines included in the annex to the present decision;

16. *Also requests* the Executive Secretary to compile those views and reflections and make the compilation and a revised primer for policymakers to the draft supplement to the Voluntary Guidelines available to participants in a workshop to be held in a hybrid format well before the twenty-ninth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, well in advance of their workshop, for their consideration and further discussion and exchange of views, subject to the availability of resources;

17. *Further requests* the Executive Secretary to make a report on that workshop and the further revised primer for policymakers to the draft supplement to the Voluntary Guidelines available to the Subsidiary Body on Scientific, Technical and Technological Advice for consideration at its twenty-ninth meeting and the Conference of the Parties to the Convention for consideration at its eighteenth meeting;

18. *Notes* the fulfilment of the request to the Executive Secretary referred to in paragraph 6 of recommendation 27/3 of 24 October 2025 of the Subsidiary Body on Scientific, Technical and Technological Advice;

[5] United Nations, *Treaty Series*, vol. 3156, No. 54113.
[6] See FCCC/PA/CMA/2025/19/Add.2, decision 12/CMA.7, annex.
[7] United Nations, *Treaty Series*, vol. 1771, No. 30822.

19. *Requests* the Executive Secretary, subject to the availability of resources:

(a) To submit section II of document CBD/COP/17/11 for peer review by Parties, other Governments and other actors, including indigenous peoples and local communities, women and youth;

(b) To make an updated version of that section available to the Subsidiary Body on Scientific, Technical and Technological Advice well in advance of its twenty-ninth meeting for consideration at that meeting, with a view to the Subsidiary Body identifying a feasible list of specific, practical and realistic actions within the mandate of the Convention that accelerate the implementation of the Convention and the Framework without creating additional reporting obligations for Parties or conditions for them to gain access to financial resources;

20. *Recognizes* the need to take action in the short term to support Targets 8 and 11 of the Framework, and encourages Parties to consider, where relevant and in accordance with national circumstances, legislation and respective mandates, initiatives that begin to address the interlinkages between biodiversity and climate change;

21. *Requests* the Executive Secretary, subject to the availability of resources and avoiding the duplication of efforts, in collaboration with the Joint Liaison Group of the Rio Conventions and the partners in the Rio Conventions Joint Capacity-building Programme, rights holders and stakeholders, including indigenous peoples and local communities, women, youth, other relevant multilateral environmental agreements, organizations, partnerships, initiatives and coalitions[8] and their respective members, to further strengthen capacities of Parties, especially developing country Parties, in particular the least developed countries and the small island developing States among them, and Parties with economies in transition, to enhance cooperation and policy coherence in order to implement the Rio conventions, as appropriate;

22. *Also requests* the Executive Secretary to collaborate with the Executive Secretaries of the United Nations Framework Convention on Climate Change and the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa,[9] on assessing and strengthening the mandate of the Joint Liaison Group of the Rio Conventions, and increase transparency and engagement between the Group and Parties by inviting representatives of the bureaux of the scientific and technical bodies of the Rio conventions to participate in meetings of the Group.

## Annex

## Draft supplement to the Voluntary Guidelines for the Design and Effective Implementation of Ecosystem-based Approaches to Climate Change Adaptation and Disaster Risk Reduction: primer for policymakers

### Voluntary guidelines for the design, effective implementation and scaling up of nature-based solutions and/or ecosystem-based approaches that provide climate change co-benefits

## I. Introduction

1. Nature-based solutions and/or ecosystem-based approaches form part of effective and coherent responses to interdependent crises, including biodiversity loss, climate change and disaster risk, as well as desertification, land degradation and drought.[10] They are actions that can be taken to tackle

[8] Organizations, partnerships, initiatives and coalitions include the National Biodiversity Strategy and Action Plan Accelerator Partnership, the Nationally Determined Contributions Partnership, the National Adaptation Plan Global Network, the Enhancing Nature-based Solutions for an Accelerated Climate Transformation Partnership, the Friends of Ecosystem-based Adaptation network and the Partnership for Environment and Disaster Risk Reduction.

[9] United Nations, *Treaty Series*, vol. 1954, No. 33480.

[10] Decision X/33 on biodiversity and climate change contains guidance for Parties on the implementation of ecosystem-based approaches for climate change mitigation and adaptation.

societal, economic and environmental challenges under, inter alia, the Convention on Biological Diversity, [11] the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa,[12] the United Nations Framework Convention on Climate Change,[13] the United Nations Environment Assembly and the United Nations Office for Disaster Risk Reduction. When well designed and implemented, they can support resilience and restore ecological integrity while advancing efforts towards sustainable development.

2. The Voluntary Guidelines for the Design and Effective Implementation of Ecosystem-based Approaches to Climate Change Adaptation and Disaster Risk Reduction were adopted at the fourteenth meeting of the Conference of the Parties, in 2018.[14] A more detailed version was published in 2019 as *CBD Technical Series No. 93*. They provide clear guidance on how to integrate ecosystem-based approaches into climate change adaptation and disaster risk reduction effectively. Much of the guidance, including the principles and safeguards, may also be applicable to climate change mitigation and other social, economic and environmental challenges. Since 2019, there have been substantial developments in international policy and scientific understanding, notably the adoption of the Kunming-Montreal Global Biodiversity Framework[15] in 2022. The present draft supplement is aimed at complementing the Voluntary Guidelines and relevant decisions,[16] responding to the new developments and paying particular attention to conservation and restoration in a changing climate and to implementing safeguards for climate change mitigation co-benefits in line with Target 8 of the Framework, which is not covered in the Voluntary Guidelines.

3. In its resolution 5/5 of 2 March 2022, the United Nations Environment Assembly defined nature-based solutions as actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems that address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services, resilience and biodiversity benefits.

4. Nature-based solutions and/or ecosystem-based approaches with climate change mitigation co-benefits can be understood as actions that protect, conserve, restore or sustainably use and manage ecosystems that subsequently aid climate change mitigation by reducing greenhouse gas emissions and enhancing carbon removals from the atmosphere in addition to delivering benefits for biodiversity, recognizing that a large share of anthropogenic greenhouse gas emissions come from other sectors. In decision X/33 of 29 October 2010, Parties and other actors were invited to follow specific guidance for various ecosystems.

## II. Key messages

5. Nature-based solutions and/or ecosystem-based approaches provide many tangible benefits that directly support the achievement of global environmental, climate and development goals and targets, including Targets 8 (on minimizing the impacts of climate change and climate action on biodiversity and building resilience) and 11 (on restoring, maintaining and enhancing nature's contributions to people) of the Framework. The effective implementation of those approaches can enhance synergies across the Rio conventions, as well as other environmental and social priorities, including those of the biodiversity-related multilateral environmental agreements and the Sustainable Development Goals.

6. Embedding nature-based solutions and/or ecosystem-based approaches into climate action policies, strategies and budgets, where relevant, can enhance policy coherence. Strategies that are effective, rights-based, gender-responsive, locally-led and long-term in vision can help to ensure the

[11] United Nations, *Treaty Series*, vol. 1760, No. 30619.
[12] Ibid., vol. 1954, No. 33480.
[13] Ibid., vol. 1771, No. 30822.
[14] Decision 14/5, annex.
[15] Decision 15/4, annex.
[16] Decisions XII/20, 14/5, 15/4 and 16/22.

continued central contribution of ecosystem health and integrity to resilience, climate-resilient development and just transitions, in accordance with national circumstances and priorities, while promoting equity.

7. Fit-for-purpose social and environmental safeguards, including frameworks for implementing and monitoring them, would promote the multiple benefits for biodiversity, ecosystem services, resilience and human well-being offered by nature-based solutions and/or ecosystem-based approaches, while avoiding or minimizing social and environmental risks. Safeguards for nature-based solutions and/or ecosystem-based approaches with climate change mitigation co-benefits should be consistent with decisions taken under the United Nations Framework Convention on Climate Change and the Paris Agreement.[17]

8. Nature-based solutions and/or ecosystem-based approaches are most effective when they deliver across multiple objectives, and there is whole-of-government and whole-of-society participation, including broad, meaningful and sustained engagement and support from indigenous peoples and local communities, scientists and stakeholders. Such planning, design, implementation, governance and monitoring efforts will help to ensure success in delivering benefits for both biodiversity and climate. This is most effective when the multiple benefits and services across various timescales and for different actors or sectors are reasonably identified and quantified. It is also important to ensure that benefits for biodiversity take into account natural ecosystem integrity and functions. In addition, they need to be grounded in evidence-based decision-making, including traditional and scientific knowledge, and in respect for diverse world views and knowledge systems. Inclusive, rights-based design and governance are built on key principles, such as free, prior and informed consent,[18] gender equality and respect for traditional knowledge, cultures and practices.

9. The Voluntary Guidelines for the Design and Effective Implementation of Ecosystem-based Approaches to Climate Change Adaptation and Disaster Risk Reduction and the present draft supplement could be usefully complemented by regionally and culturally tailored toolkits, which may be ecosystem- or sector-specific. User-friendly, actionable toolkits could offer guidance on various topics, such as safeguards, design standards, co-benefit evaluation and institutional readiness.

## III. Principles and safeguards

10. The Voluntary Guidelines are underpinned by a set of 10 principles and nine safeguards. The principles serve as high-level standards to guide planning and implementation. They are framed as actions that promote: (a) resilience and adaptive capacity; (b) inclusivity and equity; (c) success on multiple scales; and (d) effectiveness and efficiency. The safeguards are aimed at preventing harm to people and to nature, facilitating transparency and promoting multiple benefits. The existing principles and safeguards, designed primarily for ecosystem-based adaptation and disaster risk reduction, are also broadly applicable to nature-based solutions and/or ecosystem-based approaches that can provide climate change mitigation co-benefits.

11. The present draft supplement updates the guidance on fit-for-purpose social and environmental safeguards by integrating some additional principles and safeguards for ensuring benefits for biodiversity from nature-based solutions and/or ecosystem-based approaches with climate change adaptation and mitigation co-benefits, in particular to deliver biodiversity benefits and to strengthen the safeguards for indigenous peoples and local communities, women and youth.

12. Together, the principles and safeguards are an essential part of the inclusive, participative approaches to design and implementation described throughout the present text. These existing biodiversity principles and safeguards[19] apply to all stages of project design. None of the principles

[17] United Nations, *Treaty Series*, vol. 3156, No. 54113.

[18] "Free, prior and informed consent" refers to the tripartite terminology of "prior and informed consent", "free, prior and informed consent" and "approval and involvement".

[19] I.e. applying environmental impact assessments at the earliest stages of project design and robust monitoring and evaluation systems; preventing the transfer of risks and impacts; avoiding degradation of natural habitats, loss of biodiversity, the introduction of invasive species and the creation or exacerbation of vulnerabilities to future disasters; promoting and enhancing

or safeguards should be understood as a precondition for the provision of financial, technological or capacity-building support to developing countries under Article 20 of the Convention on Biological Diversity, article 4 of the United Nations Framework Convention on Climate Change or article 9 of the Paris Agreement.

13. The principles and safeguards outlined in the present section provide a facilitative and flexible approach to the implementation of nature-based solutions and/or ecosystem-based approaches, while acknowledging that countries may wish to adapt those standards in accordance with national circumstances and priorities. Nothing in the present Guidelines should be understood as modifying the rights and obligations of Parties under the Convention or any other international agreement.

### 1. Additional principles and safeguards for ensuring benefits for biodiversity from climate change mitigation

14. When climate change mitigation is a preferred co-benefit, additional principles and safeguards are necessary to ensure that the actions to be undertaken meet both climate and nature goals and avoid contradictions. Where countries follow these voluntary principles and safeguards, they should ensure alignment with their commitments and the relevant rules, modalities, procedures and methodologies adopted under the United Nations Framework Convention on Climate Change and the Paris Agreement. The table below includes descriptions of each of those principles, as well as potential safeguards.

### 2. Strengthening safeguards for indigenous peoples and local communities, women and youth

15. Building on the principles and safeguards laid out in the Voluntary Guidelines, and consistent with section C of the Framework, the following areas deserve further attention:

(a) *Respect for different value systems.* Nature embodies different concepts for different people, including biodiversity, ecosystems, Mother Earth and systems of life. Nature's contributions to people also embody different concepts, such as ecosystem goods and services and nature's gifts, and the Framework recognizes and considers diverse value systems and concepts that nature embodies, including biodiversity, ecosystems, Mother Earth and systems of life. For example, in some countries, nature itself is assigned an intrinsic value and rights, including within legal frameworks, for example, in countries that recognize a Mother Earth-centric world view.[20,21] This understanding is rooted in a common indigenous perspective that sees humans as part of nature and does not privilege them above other parts of an ecosystem. While existing safeguards, frameworks and standards often address the rights and traditional knowledge of indigenous peoples and local communities, they do not directly address all value systems, such as Mother Earth-centric world views;

(b) *Respect for human rights.* Human rights-based approaches are essential to the legitimacy, integrity and effectiveness of nature-based solutions and/or ecosystem-based approaches. This is already embedded in the existing safeguards, but further strengthening in line with the Framework is recommended. Safeguarding the right of indigenous peoples and local communities to participate in governance structures and decision-making pertaining to nature-based solutions and/or ecosystem-based approaches that affect them is essential. Ensuring transparency, building trust and supporting flexible, inclusive implementation are also critical to successful scaling up. To address concerns around the recognition of the multiple values of nature and the distribution of benefits and burdens, the rights of indigenous peoples and local communities should be fully integrated into project design, implementation and governance, and rights holders should actively and safely participate in designing and navigating any required remedy process, in accordance with national

biodiversity and ecosystem functions and services; and aiming for sustainable resource use while not enhancing the drivers of climate change and disaster risks.

[20] Cristina Espinosa, "The advocacy of the previously inconceivable: a discourse analysis of the Universal Declaration of the Rights of Mother Earth at Rio+20", *The Journal of Environment and Development*, vol. 23, No. 4 (December 2014).

[21] Haydn Washington and others, "Why ecocentrism is the key pathway to sustainability", *The Ecological Citizen*, vol. 1, No. 1 (2017).

legislation and international obligations. This will involve giving attention to free, prior and informed consent, attention to customary rights, cultural protection, participatory decision-making, participatory implementation, transparent communication and equitable benefit-sharing. Wherever solutions that would affect existing rights holders are proposed, the guidance outlined in the present draft supplement is relevant.

## IV. Overarching considerations

16. Concerning the climate overshoot, as temperatures rise, adaptive management approaches for biodiversity conservation and ecosystem management are urgently needed, including conservation with climate change co-benefits that connects fragmented protected and conserved areas, maintains ecological corridors and promotes landscape connectivity, and spatial planning that mainstreams biodiversity. The considerations below are intended to complement those presented in the Voluntary Guidelines in relation to the stepwise approach to design and implementation.

### 1. Scaling up

17. Good practices for the scaling-up of nature-based solutions and/or ecosystem-based approaches to climate change adaptation, mitigation and disaster risk reduction include:[22,23]

(a) Identifying the costs and benefits (social, environmental and economic) of different approaches in different contexts, including over various timescales or for different actors;

(b) Addressing factors that enable success and the barriers to scaling, through systematic monitoring, evaluation and reporting on effectiveness and efficiency;

(c) Adopting integrated approaches for scaling up, aligning policies, incentives, finance and safeguard measures, and including regional planning;

(d) Applying fit-for-purpose safeguards, standards and guidelines;

(e) Enabling effective locally led actions, scaling up and coordinating existing local initiatives, with safeguards tailored to risks and settings, in the application of the precautionary approach;

(f) Applying evidence-based decision-making and recognizing science and other knowledge systems as drivers of nature-based solutions and/or ecosystem-based approaches;

(g) Integrating traditional knowledge and the efforts of indigenous peoples and local communities.

#### (a) Recognizing and respecting traditional knowledge and the efforts of indigenous peoples and local communities

18. Recognizing and respecting traditional knowledge, innovations and practices and valuing the efforts of indigenous peoples and local communities are crucial for the successful design, implementation and scaling up of nature-based solutions and/or ecosystem-based approaches. Key actions include:

(a) The full, equitable, inclusive, effective and gender-responsive representation and participation of indigenous peoples and local communities, women and youth at the design stage and throughout project implementation, ensuring cooperation on actions and enabling ownership at the local level. This may be facilitated by developing or amending policy and legislative frameworks that enable the full and effective participation of indigenous peoples and local communities, as well

[22] United Nations Environment Programme, *Nature-based Solutions: Opportunities and Challenges for Scaling Up* (Nairobi, 2022).
[23] European Environment Agency, *Scaling Nature-based Solutions for Climate Resilience and Nature Restoration* (Publications Office of the European Union, 2023).

as facilitating their efforts to address climate change and biodiversity loss. This consideration builds upon principle 4 of the Voluntary Guidelines;

(b) Addressing land tenure rights and access to natural resources, in accordance with national legislation, and recognizing the role of indigenous peoples and local communities in managing biodiversity and ecosystem services. Many indigenous peoples and local communities face unclear and unrecognized tenure despite having customary land- or sea-use rights, which undermines their ability to implement actions that address biodiversity and climate concerns and build resilience within their traditional territories. If the issue is left unaddressed, outside interventions can exacerbate land dispossession[24] or create uncertainty about land ownership. These considerations build upon safeguard 9 of the Voluntary Guidelines;

(c) Building bridges between different science and knowledge systems on the basis of best practices in existing forums, such as the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Much traditional knowledge is passed on orally and is context-specific. For this reason, care and attention to data sovereignty should be exercised when including such knowledge alongside scientific findings.[25] Data sovereignty policies can provide frameworks that Parties should use for the ethical use of data to advance collective indigenous well-being, and to prevent the unlawful use of traditional knowledge associated with genetic resources.[26]

**(b) Mainstreaming nature-based solutions and/or ecosystem-based approaches**

19. Nature-based solutions and/or ecosystem-based approaches can only deliver their full transformative potential when mainstreamed into appropriate governance and policy frameworks and underpinned by inclusive planning, monitoring and transparency systems. When operationalizing the Framework, governments at all levels can ensure that the approaches are embedded through coherent land- and sea-use planning, as appropriate, climate-biodiversity budget alignment and spatial strategies. Many Governments have implemented programmes and frameworks to deliver nature-based solutions and/or ecosystem-based approaches with climate change mitigation benefits, for example, by reducing emissions from deforestation and forest degradation, from which lessons can be learned. Governments can, and increasingly do, integrate these approaches into national biodiversity strategies and action plans, national adaptation plans, nationally determined contributions and other national plans and strategies, as appropriate, also with a view to fostering collaboration and integrated policy and planning approaches across related multilateral environmental agreements in a manner consistent with national circumstances and priorities. Enhanced collaboration among the responsible ministries will help to leverage synergies, ensure alignment across different programmes or frameworks and avoid the duplication of efforts.

**(c) Raising awareness and developing capacity**

20. Communicating the multiple benefits of nature-based solutions and/or ecosystem-based approaches to a wide audience is crucial to uptake and sustainability. It is also essential to opening or expanding avenues for funding. Understanding the information and communication needs of diverse stakeholder groups will help to ensure effective outreach, build a common knowledge base, raise awareness and strengthen capacities in accordance with the long-term strategic framework for capacity-building and development.[27] Many organizations, partnerships, initiatives and coalitions are working on awareness-raising and capacity-building or on offering platforms for knowledge exchange.[28]

[24] Laura Notess and others, *The Scramble for Land Rights: Reducing Inequity between Communities and Companies* (Washington, D.C, World Resources Institute, 2018).
[25] See www.gida-global.org/careprinciples.
[26] Stephanie Russo Caroll, Tahu Kukutai and Maggie Walter, "Indigenous data sovereignty" in *The Indigenous World 2021*, 35th edition, Dwayne Mamo and others, eds., (International Work Group for Indigenous Affairs, 2021).
[27] Decision 15/8, annex I.
[28] Initiatives such as the National Biodiversity Strategy and Action Plan Accelerator Partnership, the Nationally Determined Contributions Partnership, the National Adaptation Plan Global Network, the Enhancing Nature-based Solutions for an

## 2. Stepwise approach to design and implementation

21. The Voluntary Guidelines provide a stepwise approach designed for adaptation and disaster risk reduction objectives. Some additional considerations for each step, including for initiatives towards climate change mitigation, are highlighted below.

### Step A: understanding the social-ecological system

22. It is important to explore several issues when defining the challenge to be tackled and setting objectives for a new initiative, as outlined below:

(a) The history of the target social-ecological system, the drivers of ecosystem change and the rate of greenhouse gas emissions from ecosystem loss or degradation should be identified. Furthermore, the impact of future climate scenarios on the rate of ecosystem change should also be considered. Such an assessment will feed into possible activities that will be undertaken under step D;

(b) With regard to the social context, the dependence of local jobs, industries, livelihoods and cultures on natural and managed ecosystems, the destruction of ecosystems, barriers to ecosystem conservation, protection, restoration and sustainable management, and the aspirations of the local population should all be considered;

(c) It is necessary to identify how and with whom the benefits would need to be shared. In addition, the rights to development and land and sea tenure, where established under national legislation, should be recognized and respected, as appropriate, as well as local attitudes towards payments for ecosystem services.

### Step B: assessing vulnerabilities and risks

23. Step B is focused on the vulnerability of nature and people to climate change and risk to hazardous events. Engaging early with traditional knowledge holders and including their knowledge into climate vulnerability and risk assessments, with full respect for knowledge and data sovereignty, are essential.

24. Social and environmental safeguards are crucial tools to supporting the understanding and reduction of risks. Environmental safeguards include addressing the risk of negative impacts of climate change measures on biodiversity, including ecosystem integrity, as well as assessing the impact of future climate change on the carbon storage capacity of ecosystems and reducing the risk of reversals of emission reductions and removals that may result from extreme events or slower onset climate impacts.

### Step C: identifying options for nature-based solutions and/or ecosystem-based approaches

25. To reflect the Framework, step C will need to accommodate effective, equitable and scalable nature-based solutions and/or ecosystem-based approaches. The potential barriers to effectiveness and the multiple benefits derived from and the wider impacts of each envisaged option should be identified. Key actions for identifying climate change adaptation and mitigation options specifically could involve, as appropriate: (a) identifying broad options for action, based on step A; (b) exploring specific options selected in similar geographical areas (e.g. through case studies); and (c) working with the multi-stakeholder group concerned to identify favoured options.

### Step D: prioritizing, appraising and selecting options

26. Some additional criteria should be considered when prioritizing and appraising options for action that can result in climate change mitigation co-benefits (key action (a) of the Voluntary Guidelines). The criteria may include: adaptation and disaster risk reduction benefits, as the first

Accelerated Climate Transformation Partnership, the Friends of Ecosystem-based Adaptation network and the Partnership for Environment and Disaster Risk Reduction, as well as their respective members, facilitate capacity-building, in particular for developing countries, and help to increase awareness and understanding of the impacts of climate change on biodiversity, including by sharing lessons learned from the implementation of nature-based solutions and/or ecosystem-based approaches.

criterion; mitigation potential; resilience to climate change; and capacity to implement over the long term.[29,30] Relatively simple methods can be used to derive a first estimate of climate change mitigation potential for many options. Current understanding of ecosystem resilience to climate change (step B) is a factor in assessing the long-term viability of each option in delivering climate change mitigation co-benefits. The capacity to implement will depend on existing skills and knowledge, training opportunities and access to the financial and other resources needed to enable implementation through time.

**Step E: project design, implementation and scaling up**

27. Alongside the key actions specified in the Voluntary Guidelines, nature-based solutions and/or ecosystem-based approaches will also be more successful when diverse knowledge systems are acknowledged and incorporated. It may be especially helpful to integrate traditional knowledge into design and implementation.[31] When climate change mitigation co-benefits are intended, attention to the carbon-focused safeguards detailed in the table below is needed at the design and implementation stages.

28. One clear pathway to scaling up is the inclusion of nature-based solutions and/or ecosystem-based approaches in nationally determined contributions, national adaptation plans and other national plans. A first step is to quantify the potential for multiple benefits, including for biodiversity, ecosystem integrity and climate change adaptation, mitigation and disaster risk reduction, often through spatial analysis and planning. Scaling up requires sufficient means of implementation for all Parties, especially developing country Parties, in particular the least developed countries and the small island developing States among them, and Parties with economies in transition. It also represents a unique opportunity to promote private sector and multilateral investment for implementation, as well as an incentive for technology development related to adaptation, nature conservation, sustainable use and risk reduction.

**Step F: holistic and transparent monitoring and evaluation mechanisms**

29. Nature-based solutions and/or ecosystem-based approaches aim to result in multiple benefits that help to address several social, economic and environmental challenges. Monitoring and evaluation frameworks should therefore encompass the entire suite of interventions, including the multiple intended benefits, as well as track any negative impacts. Emission reductions and removals are measured and reported in accordance with the relevant decisions adopted under the United Nations Framework Convention on Climate Change and the Paris Agreement.

**Additional principles and safeguards focused on nature-based solutions and/or ecosystem-based approaches that provide climate change mitigation co-benefits**

| *Theme* | *Principle* | *Potential safeguard* |
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| Multiple benefits | Prioritize approaches that address multiple social, economic and environmental challenges, seeking benefits for biodiversity, water security, ecosystem services, resilience and human well-being, without undermining the environmental quality of the ecosystems where they are implemented (see also principle 10 of the Voluntary Guidelines for the Design and Effective Implementation of Ecosystem-based | **Planning for multiple benefits**<br>Appropriate conservation and restoration actions should be prioritized, and nature-based solutions and/or ecosystem-based approaches that provide climate change mitigation co-benefits and support Targets 8 and 11 of the Kunming-Montreal Global Biodiversity Framework should be designed taking their ability to deliver multiple benefits into account. This may involve: |

[29] Sara M. Leavitt and others, *Natural Climate Solutions Handbook: A Technical Guide for Assessing Nature-Based Mitigation Opportunities in Countries*, 2nd ed. (Arlington, The Nature Conservancy, 2021).
[30] United Nations Environment Programme, *Nature-based Solutions for Climate Change Mitigation* (Nairobi and Gland, 2021).
[31] Nathalie Seddon and others, "Understanding the value and limits of nature-based solutions to climate change and other global challenges", *Philosophical Transactions Royal Society B*, vol. 375, No. 1794 (March 2020).

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| | Approaches to Climate Change Adaptation and Disaster Risk Reduction).<br><br>Prioritize the protection, restoration and improved management of ecosystems, and their ecological integrity, and species, including wild fauna, important for the full carbon cycle, in particular vulnerable and climate-sensitive species and ecosystems.<br><br>Give priority to adaptation and disaster risk reduction benefits, with mitigation as a co-benefit, that arise from managing natural systems in a manner that enhances structural integrity and function.<br><br>Maximize synergies and ensure a balanced mix of approaches across communities and diverse ecosystems. | (a) Assessing the benefits, risks and trade-offs of selected actions across multiple social, economic and environmental challenges, considering the vulnerability of ecosystems;<br><br>(b) Undertaking spatial prioritization that incorporates an analysis of the social and environmental risks and benefits of the proposed actions, including ecological integrity and ecosystem connectivity;<br><br>(c) Over larger areas, aiming to achieve a balance among actions that prioritize several benefits, communities and ecosystems, so that all efforts are not solely directed to ecosystems and species important for the full carbon cycle;<br><br>(d) Consulting stakeholders, including indigenous peoples and local communities, on the various benefits, recognized risks and trade-offs when comparing proposed actions through a participatory and inclusive process in which the principles of free, prior and informed consent are respected, as part of participative decision-making processes. |
| Urgency and irreversibility of biodiversity loss | Consider the pressing urgency of the biodiversity and climate crises, together with the longevity of greenhouse gases in the atmosphere. Actions that prevent or reduce emissions or enhance removals, while protecting or restoring biodiversity, that have an immediate, ongoing and permanent effect may offer greater benefits than those with results that materialize temporarily or only over a longer time frame.<br><br>Avoid the trap of prioritizing speed over resilience (see “long-term ecological integrity and resilience” below).<br><br>Climate urgency never justifies shortening, rushing or circumventing consultation processes with indigenous peoples and local communities. | **Projecting carbon and biodiversity outcomes through time**<br><br>Nature-based solutions and/or ecosystem-based approaches that provide climate change co-benefits should be selected on the basis of an assessment of the expected results, where such information is available. Benefits to biodiversity should be considered and estimated. Cost per ton of carbon dioxide equivalent should be considered and, together with resilience and ecological integrity considerations, may, for example, help countries to identify the types of conservation, restoration or management intervention most suitable for a given area. Urgent post-disaster responses may also provide opportunities to enhance benefits for biodiversity. |
| Avoiding biodiversity loss first | Prioritize the prevention of further loss or degradation of natural ecosystem carbon stocks and, in a complementary and simultaneous manner where national circumstances permit, promote the restoration of degraded ecosystems and the recovery of their carbon stocks<br><br>This principle is closely connected with the urgency principle and multiple benefit principles above. Emissions from the destruction of a natural ecosystem are near-instantaneous, while the carbon removals resulting from the full restoration of an equivalent area of | **Avoiding biodiversity loss first, then restoring**<br><br>When considering the use of nature-based solutions and/or ecosystem-based approaches that provide climate change co-benefits, emissions preventions and reductions in all sectors are essential first steps to helping to prevent biodiversity loss and maximizing their effectiveness and long-term sustainability.<br><br>Where there is a choice between reducing both negative impacts on biodiversity and emissions by preventing the loss or degradation of natural ecosystems (e.g. deforestation) and emissions removals by restoring natural ecosystems, and each option has similar mitigation benefits, the conservation of existing carbon pools should be |

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| | the same ecosystem will typically take many years. | prioritized, so as to avoid further negative impacts, before the restoration of degraded ecosystems. Where comparable benefits can be achieved either by preventing loss or degradation or by restoring degraded ecosystems, avoidance of further biodiversity loss and ecosystem degradation is the preferred approach.<br>Only when prevention, reduction and restoration are insufficient or not technically feasible may compensation be considered as a last resort. |
| Additional biodiversity benefits | Account only for biodiversity and ecosystem integrity benefits or carbon emission reductions or removals that would not have otherwise occurred (i.e. new benefits resulting from the activity). Additionality is a crucial requirement where carbon credits are generated, traded or retired; nature-based solutions and/or ecosystem-based approaches that deliver mitigation co-benefits without being part of a carbon-crediting scheme need not treat additionality as a deliverable, provided that they entail other co-benefits. | **Ensuring biodiversity outcomes and recognition of stewardship**<br>Where carbon credits are generated, traded or retired, nature-based solutions and/or ecosystem-based approaches that provide climate change mitigation co-benefits should be designed on the basis of a stringent assessment of additionality, following accepted carbon and nature market standards, including those agreed under the Paris Agreement. The net reduction of carbon stocks in all organic carbon pools (above and below ground in the case of terrestrial ecosystems, and in near-shore, pelagic and deeper-ocean pools in the case of marine ecosystems) should be prevented, ensuring the avoidance of double counting in accordance with the Paris Agreement, including through corresponding adjustments, as applicable. |
| Long-term ecological integrity and resilience | Prioritize activities where the emission reductions or removals and the biodiversity benefits are likely to be long-lasting, taking social and ecological factors into account. | **Promoting permanence**<br>Nature-based solutions and/or ecosystem-based approaches that provide climate change mitigation co-benefits should have long-lasting results. They should protect, maintain and restore biodiversity and ecological integrity (ecosystem condition, composition, structure and function).<br>Actions should be designed to reduce the risk of reversals consistent with established environmental and social safeguard frameworks applicable to the relevant activity type (e.g. Cancun safeguard f),[32] which typically means tackling the underlying drivers of ecosystem degradation and barriers to ecosystem restoration or sustainable management.<br>Actions should be designed for climate and ecosystem resilience, prioritizing the use of local, climate-resilient native species in planting and restoration, and supporting the recovery of native flora and fauna and the ecological interactions that sustain long-term resilience.<br>Monitoring systems should be able to assess any reversals, and carbon and biodiversity accounting or |

[32] Decision 1/CP.16, appendix I, subpara. 2 (f), of the Conference of the Parties to the United Nations Framework Convention on Climate Change.

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| | | crediting systems should include buffers to cater for the remaining risk of reversals. |
| Displacement of emissions | Avoid displacement of emissions to, and negative impacts on biodiversity in, another location. Displacement of emissions can occur at local, national and international levels. | **Avoiding negative impacts of displacement of emissions on biodiversity**<br>Nature-based solutions and/or ecosystem-based approaches that provide climate change mitigation co-benefits should be designed to avoid displacement of emissions. Where international carbon markets are used, proponents should act in line with relevant decisions under the Paris Agreement, as appropriate. Solutions include:<br>(a) Strengthening landscape governance and locating mitigation activities as part of an integrated spatial plan (see Target 1 of the Kunming-Montreal Global Biodiversity Framework);<br>(b) Working in collaboration with actors who depend on land-use change, with respect for free, prior and informed consent and taking into account national and territorial contexts, to co-design alternative livelihoods and economic pathways that do not lead to displacement of emissions or to rebound effects, including by reducing the underlying drivers of ecosystem degradation;<br>(c) Undertaking biodiversity and carbon accounting at a national or otherwise appropriate scale (project, programme, jurisdictional or nested), taking into account host-country capacities and existing bilateral agreements to integrate local and domestic displacement of emissions into overall results;<br>(d) Estimating the remaining risk of displacement of emissions on the local, domestic and international scales;<br>(e) Deducting projected remaining displacement of emissions from the biodiversity and carbon results in accounting or crediting schemes, while recognizing that biodiversity loss displaced as a result cannot be directly offset elsewhere. |
| Equity, gender equality and human rights | Take a human rights-based approach, including by respecting and protecting the contributions and rights of indigenous peoples and local communities, women and youth, who are crucial actors in both protecting and restoring biodiversity and in implementing climate action. Their traditional knowledge, priorities and needs should be taken into account for biodiversity and climate actions to be equitable, inclusive, effective and rights-based. | **Promoting equitable outcomes**<br>Rights-based and gender-responsive considerations in the use of nature-based solutions and/or ecosystem-based approaches that provide climate change co-benefits should be designed and implemented with the full, effective, inclusive and gender-responsive participation and representation of indigenous peoples and local communities, women and youth, where applicable. Actions that present risks or imply potential risks of dispossession, undermine rights or fail to consider free, prior and informed consent or benefit-sharing, among others, should be identified, assessed and mitigated through robust grievance mechanisms, benefit-sharing arrangements and transparent monitoring, in line with host-country legal frameworks and applicable international |

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| | | standards. Actions with a direct or indirect impact on the rights of indigenous peoples and local communities should only be pursued with their free, prior and informed consent, subject to national legislation and consistent with international instruments.<br><br>When risks to indigenous peoples and local communities, women or youth cannot be fully avoided, an accessible, culturally appropriate grievance and redress mechanism should be established and maintained to enable affected rights holders to raise concerns and obtain remedy throughout the project cycle. |